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## Getting Started

### Purpose of Quality Insights

Quality Insights is a one-click solution that provides consolidated data to evaluate the validity, as well as quality, of a US patent. The summary of the data includes:

#### Overview and File Wrappers

- a) Summary of events in Prosecution History and image file wrappers therein, including rejections, amendments, and remarks, and notice of allowance.
- b) Summary of events in Post-Grant Proceedings and docket entries therein, including:
  - i. Request for reexamination, amendment, and remarks, notice to issue certificates, and certificate of reexamination in Ex Parte Reexamination and Inter Partes Reexamination.
  - ii. Petition, preliminary response, response, decision of institution, and final decision in Inter Partes Review (IPR), Covered Business Method Patent Review (CBM), and Post-Grant Review (PGR).
  - iii. Complaints, initial determinations, and commission orders by ITC case numbers
- c) Searchable text of rejections in Prosecution History and Post-Grant Proceedings.

#### Claim Construction

- a) Claim Analysis for intrinsic evidence, which can be found in paragraphs of specification relevant to specific claim terms generated by Patentcloud
- b) Claim Insights for Intrinsic evidence identified in file wrappers and dockets. Each claim is divided into meaningful elements with system-generated claim terms. Corresponding prior art references derived from the prosecution and post-grant proceedings are compared.
- c) Claim construction gains insights into why the patent was granted, and also enables users to strategize prior art searching with a focused search scope.

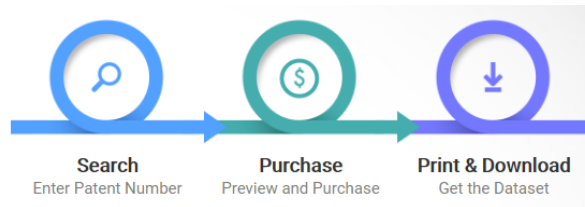
#### Prior Art Comparison

- a) Prior art previously considered under examination and in the post-grant proceedings of the patent at issue in the USPTO.
- b) Backward citations and rejections of US and foreign family counterparts of the patent at issue, especially those counterparts with abandonment.
- c) Up to the sixth degree art extension of both forward and backward rejections from Part a).
- d) Cross-linguistic potential prior art from IP5 and WIPO with semantic similarity using Patentcloud's proprietary algorithm of common concepts (groups of related keywords)
- e) One-click Prior Art Analytics to compare a patent at issue with selected prior art for claim charting

Quality Insights is helpful in offering timeliness and efficiency in both construing claim language for winning interpretations and finding prior art for effective defenses, which otherwise may take many more resources in terms of time and effort. Qi makes the validity of a patent and/ or preparing for patent quality contentions or opinions simpler and easier.

## How to Access Quality Insights

Get all the information you need in **three** steps.



### Search

Enter up to 100 patent numbers for the validity evaluation and click **Search**.

Patentcloud  
Quality Insights

Search History Purchased

Please enter patent, publication or application numbers with semicolons, spaces or new lines between numbers.  
(e.g., US7777777 US15/123,456  
WO2018/012345; PCT/US2017/012345).  
Note: If there is no country code before a number, Patentcloud will assume the number is for US patents. For example, 7777777 will be the same as US7777777.

Maximum of 100 patents per search.

Search

[Learn more about Quality Insights.](#)

Get a preview of the legal status and data availability of the patent(s) in the search results. Select the patent number(s) you wish to subscribe to, and add it/them to the cart for checkout:

Search Summary

Data Last Updated on 2020-06-08

You have entered 5 patent number(s). After performing searches and deduplication, 0 patent number(s) were not available. Maximum of 100 patents per search.

File Wrapper not released?

Quality Insights Price List

Search Result for U.S. Patent(s)

1

US6760590B2

(US20020151311A1)

\$3,000

US\$1,999

Appl. No.

: 10/089605

Title

: Communication terminal apparatus, base station apparatus, and radio communication method

View Sample

# of Rejections

: 0 Non-final

Pub./Issue Date

: 2004-07-06

Add to Cart

Related

: PTAB:

Original Assignee

: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Purchase

Proceedings

: IPR2018-01478

Current Patent Owner

: NVT SPE LLC

: IPR2018-01557

ITC:

: -337-TA-1138

2

US7339949B2

(US20040042492A1)

\$3,000

US\$999

Appl. No.

: 10/222989

Title

: ARQ transmission and reception methods and apparatus

View Sample

# of Rejections

: 1 Non-final

Pub./Issue Date

: 2008-03-04

Add to Cart

Related

: PTAB:

Original Assignee

: Matsushita Electric Industrial Co., Ltd.

Purchase

Proceedings

: IPR2019-01574

Current Patent Owner

: NVT SPE LLC

ITC:

: -337-TA-1138

3

US8947261B1

\$3,000

US\$199

Appl. No.

: 14/170785

Title

: Parking information aggregation platform

View Sample

# of Rejections

: 0 Non-final

Pub./Issue Date

: 2015-02-03

Add to Cart

Related

: N/A

Original Assignee

: Google Inc.

Purchase

Proceedings

: N/A

Current Patent Owner

: GOOGLE LLC

Search Result for Non-U.S. Patent(s)

## Purchase

After you have selected the patent that you wish to subscribe to, please follow the steps below to purchase a subscription to this patent. From the **Search Summary** page, press the **Purchase** button. This will take you to the Account page. Here, please confirm that the patent you wish to purchase a subscription to is correct. Then, press the **Continue** button.

1

2

3

ACCOUNT

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CONFIRMATION

Product Details		Price
Quality Insights ( 1 items )		
US7479949	Touch screen device, method, and graphical user interface for determining commands by applying heuristics	\$999 USD
		Amount \$999 USD
		Tax \$0 USD
		Total \$999 USD

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On the **Payment** page, please enter your credit card and your invoice information, including Name, Address and Country.

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competitive product or service; (g) access the service using “bots” or “spiders” or any automated system that calls to a service more frequently than may reasonably be performed by a human user using a standard web browser; or (h) not interfere with the Website or try to access it using a method other than the interface and the instructions that InQuartik provides. You must use commercially reasonable efforts to prevent any unauthorized access to or use of any service or Materials on the Website and promptly notify InQuartik of any such unauthorized access or use. InQuartik may suspend or stop providing the Website and its services to you if you do not comply with InQuartik’s terms or policies or if InQuartik is investigating suspected misconduct.

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Last Modified: August 1, 2017

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Order Number: 20171016009529				
Order Detail:	Products	Details	Price	
	QI	US8521730	Scoring documents in a linked database	\$999
Total Amount: \$999				

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## Refunds and Returns

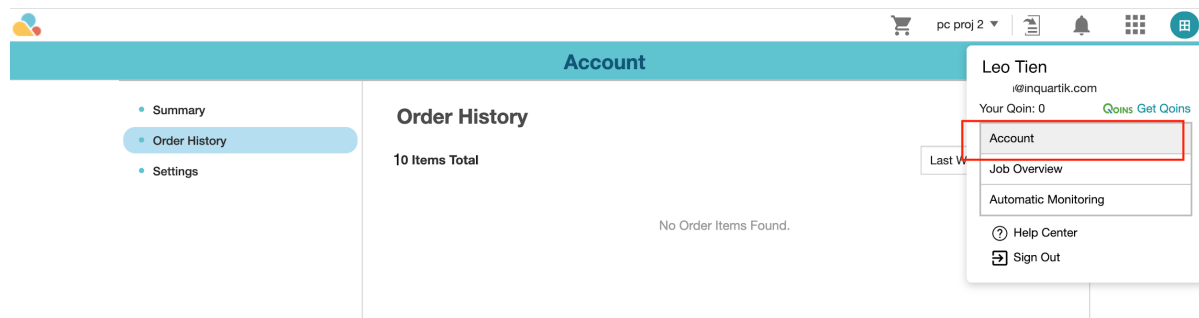
Please note that there’s **no refunds or returns** on a purchased report of Quality Insights.

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All your previous purchases can be viewed in either the **Account** or **Purchased** sections. Please follow the steps below to retrieve your purchases.

1. From the **Account** section

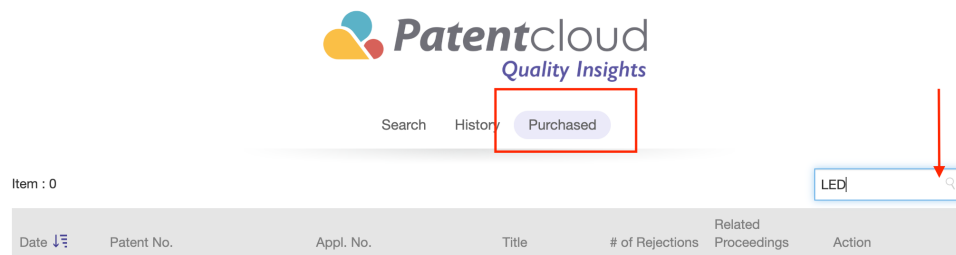
Click on the circle on the right hand side on the top, and then click **Account**.



After you enter the Account page, look on the left side of the page and press the **Order History** tab. On the page, you will see a list of all of the purchases you have previously made.

2. From the **Purchased** section

If the list of QI is long, you can also key in keywords to quickly locate the QI report(s) you are looking for.



## QI Report Tabs

### What's In QI

Whether purchased or not, entering a patent number or patent numbers on Quality Insights will lead you to **Search Summary**. On this page, information such as Application Number, Title, # of Rejections, Publication/ Issue Date, Original/ Current Assignee and its Related Proceedings is listed.

Whenever a “hammer” is seen next to the patent number, the patent has been involved in a US litigation case within 60 days. To see more of the US litigation cases, please visit Litigation Daily on the InQuartik website at <https://www.inquartik.com/litigation-daily/>.

Search Summary

Data Last Updated on 2020-07-14  
You have entered 1 patent number(s). After performing searches and deduplication, 0 patent number(s) were not available. Maximum of 100 patents per search.

[File Wrapper not released?](#) [Quality Insights Price List](#)

Search Result for U.S. Patent(s)

1 **US7681124B2** (US20050210020A1)

Appl. No. : 11/134810 Title : Data entry for personal computing devices

# of Rejections : 1 Non-final  
0 Final  
1 RCE  
Pub./Issue Date : 2010-03-16

Original Assignee : 602531 British Columbia Ltd.  
Current Patent Owner: 602531 BRITISH COLUMBIA LTD.

Related : **PTAB:**  
Proceedings : -IPR2017-01856  
-IPR2020-01277

Search Result for Non-U.S. Patent(s)

No Available Data

[Back](#)

Once the report is paid for, you'll see it is purchased and ready for **View**. It's valid for one calendar year from the date of your purchase. “Start using Quality Insights”.

Congratulations! You now can access the QI data below, which are highly relevant and important to the patent at issue for the purpose of invalidity or quality identification.

1. **Overview** includes three summaries: “Event History”, “Family Status”, and “Prior Art”.

The summary of Event History outlines a timeline with the patent’s prosecution and post grant events with double patenting, 102, 103 and pertinent patents as prior art references, and history summary of each event corresponding to **File Wrapper Search**.

The summary of Family Status uses a bar chart outlining the number of patent applications in each current category of legal status such as Abandoned, Active, Pending, and Others.

The summary of Prior Art applies a bar chart describing the number of patent applications in each type of art, such as **Rejection Prior Art** in Event History, **Family Prior Art**, **Prior Art Finder** and **Semantic Prior Art**.

2. **Claim Analysis**, for intrinsic evidence of claim construction, breaks down each claim where claim terms or keywords or phrases are identified with highlighters in comparison with spec.
3. **Claim Insights**, for file wrapper as intrinsic evidence of claim construction, breaks down each claim by elements, where keywords or phrases are identified with highlighters in comparison with those mentioned by examiners or petitioners in corresponding office actions of prior art.
4. **Family Prior Art** lists all the other family members and their backward citations and examiners' rejections as to patents and non-patent literature.
5. **Prior Art Finder** includes relevant prior art derived from the First Degree (Prior) Art, ie. (prior) art of the patent at issue, and the Second Degree Art, which is the prior art of the First Degree Art reference. It can go on up to the Sixth Degree Art. Three types of subsequent art: prior art's prior art (backward - backward,) prior art's subsequent art (backward - forward ), and subsequent art's prior art (forward -second).
6. **Semantic Prior Art** displays top 300 prior art references from the US, EP, JP, CN, KR and WO ranked by the relevance of the abstracts and claims of patents based on Patentcloud's proprietary AI algorithm.
7. **File Wrapper Search** provides text-searchable file wrappers in prosecution history and post-grant proceedings. They are only major file wrappers incorporated and updated, including non-final rejection (CTNF,) final rejection (CTFR,) original claims (CLM,) applicant arguments/remarks made in an amendment (REM/CLM,) notice of allowance (NOA,) terminal disclaimer filed (DIST,) and request for continued examination (RCE,) the requests (or petition,) determinations (or decision of institution,) patent owners' remarks (or response,) and certificates (or final decision) in reexamination (or IPR, CBM and PGR patent reviews,) as well as complaints, their attachments, orders, and final on violation as per ITC case numbers.

## Overview

The overview page includes the following summaries:

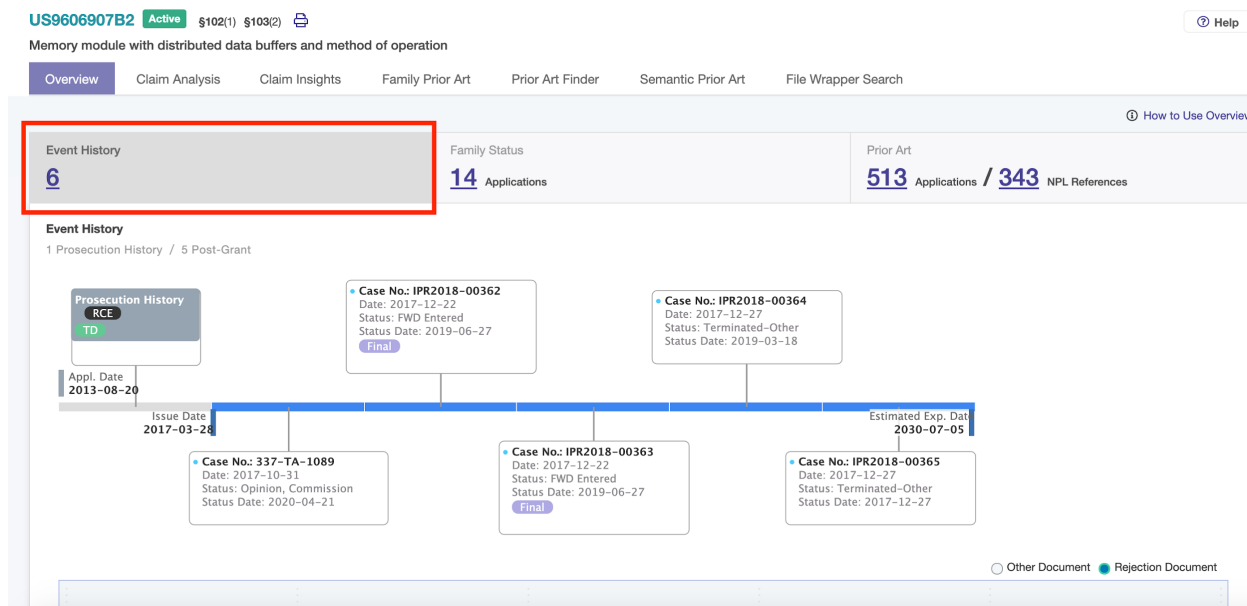
### Event History

The number underneath Event History shows how many events up to this day, including Prosecution and Post-Grant Proceedings.

The following illustrates the patent **US9606907B2** thus far has undergone four IPR cases in addition to prosecution and one ITC. It explains the number of events in history is six (6).

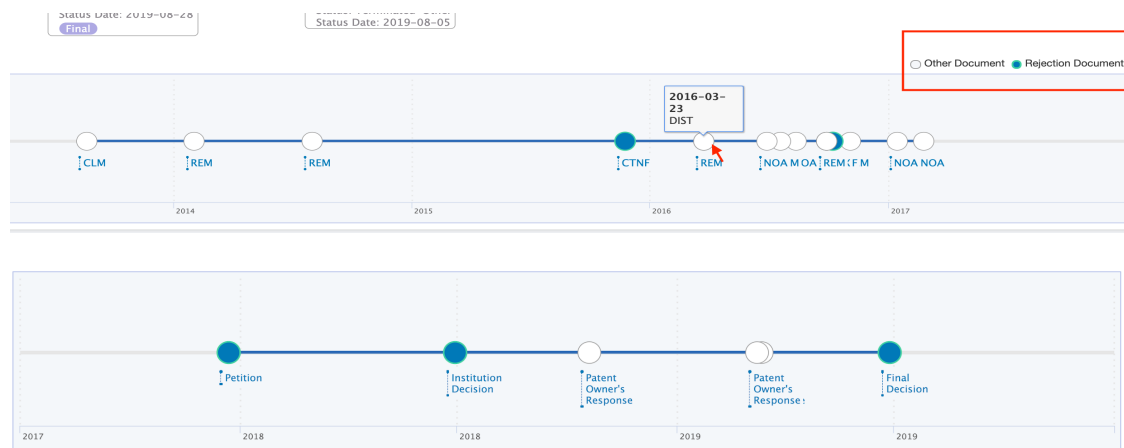
The timeline suggests the application date is August 20, 2013, and the patent was issued on March 28, 2017 with an estimated expiration date of July 05, 2030.

Each event may come with labels that highlighted key stages during the events. In the example of the 690 US patent, “RCE” (Request for Continued Examination) and “TD” (Terminal Disclaimer) were filed during prosecution. Furthermore, Cases IPR2018-00362 and IPR2018-00363 are in the “Final” stage.



The line of Prosecution History, similar to the Post-grant Proceeding cases, is dotted with office actions (OAs) the date of which can be revealed when the cursor is hovered over each event. Dark dots are referred to as “Rejection Documents” in Prosecution History. In the Post Grant cases, Dark dots represent “Petition” and “Decision”.

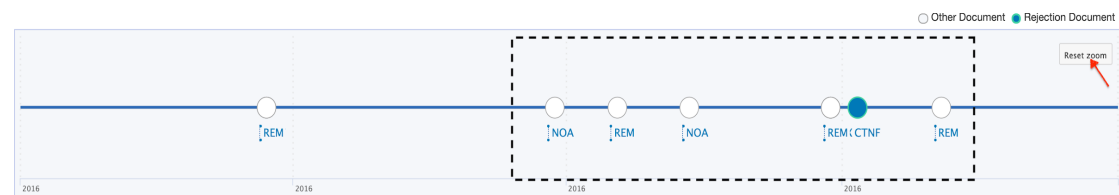




Should the dots are in a cluster, you can zoom in on the clustered area by moving the cursor over.



When you want to zoom out, simply click on “Reset Zoom”.



In Prosecution History, corresponding file wrappers to the OAs can also be found in History Summary, where prior art references cited by examiners or petitioners on the legal basis of double patenting, § 102, § 103 main (1st) and pertinent patents are highlighted.

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

13/970606 Prior Art Ref.

3 Ref.

[Double Patenting](#) other reference [US8516185](#) [§ 102](#) [US20090248969](#) [§ 103](#) [US20100125681](#) [US20090248969](#) [Pertinent Patents](#)

US20090248969 US8417870 Wu

US20100125681 Patel

US20090248969 Wu

**Summary of 13/970606 History**

16 Event(s) Data Last Updated on: 2020-02-14

Descriptions (Code)	Date	Prior Art Ref.
Notice of Allowance (NOA)	2017-02-23	
Notice of Allowance (NOA)	2017-01-13	
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2016-11-03	
<a href="#">Claims (CLM)</a>		
Non-Final Rejection (CTNF)	2016-10-06	Grounds <a href="#">5</a>
Request for Continued Examination (RCEX)	2016-09-27	
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2016-09-27	
<a href="#">Claims (CLM)</a>		
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2016-09-27	
Notice of Allowance (NOA)	2016-08-11	
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2016-07-18	
<a href="#">Claims (CLM)</a>		
Notice of Allowance (NOA)	2016-06-27	
Terminal Disclaimer Filed (DIST)	2016-03-23	
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2016-03-23	
<a href="#">Claims (CLM)</a>		
Non-Final Rejection (CTNF)	2015-11-23	Grounds <a href="#">7</a>
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2014-07-31	
<a href="#">Claims (CLM)</a>		
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	2014-01-31	
<a href="#">Claims (CLM)</a>		
<a href="#">Claims (CLM)</a>	2013-08-20	

To find out more about Non-Final Rejections (CTNF) and Final Rejections (CTFR), click on **Grounds** that comes with a number, which suggests how many grounds on a legal basis that qualify rejections by examiners or petitioners against which claims.

You can click on prior art patent numbers to study the patent information such as Current Assignee, Legal Status among others. (Please refer to [Patent Page](#) in **Tips**.)

[Claims \(CLM\)](#)

Non-Final Rejection (CTNF) 2016-10-06 Grounds [5](#)

Request for Continued Examination (RCEX) 2016-09-27

[Applicant Arguments/Remarks Made in an Amendment \(REM\)](#) 2016-09-27

[Claims \(CLM\)](#)

[Applicant Arguments/Remarks Made in an Amendment \(REM\)](#) 2016-09-27

Notice of Allowance (NOA) 2016-08-11

[Applicant Arguments/Remarks Made in an Amendment \(REM\)](#) 2016-07-18

[Claims \(CLM\)](#)

Notice of Allowance (NOA) 2016-06-27

Terminal Disclaimer Filed (DIST) 2016-03-23

[Applicant Arguments/Remarks Made in an Amendment \(REM\)](#) 2016-03-23

[Claims \(CLM\)](#)

Legal Basis	Claims	Prior Art Ref.
double patenting	Claims 4, 9-15, 18, 21, and 24-31	US8516185
35 U.S.C. § 102(e)	Claims 4-6, 9, 10, 12-16, 18, 21, 22, and 24-31	Wu US20090248969
double patenting	Claims 5, 6, 16 and 22	US8516185
		Wu US20090248969
double patenting	Claims 4, 9-15, 18, 21, and 24-31	US8417870
35 U.S.C. § 112	Claims 9 and 10	
35 U.S.C. § 103(a)	Claim 11	Patel US20100125681
		Wu US20090248969
double patenting	Claims 5, 6, 16, and 22	US8417870
		Wu US20090248969
double patenting		(other reference)

[Applicant Arguments/Remarks Made in an Amendment \(REM\)](#) 2014-07-31

[Claims \(CLM\)](#)

Each OA is clickable to its corresponding file wrapper, whether it is CTNF or REM or NOA, Quality Insights offers not only the .pdf file, but also text-searchable format. Both files are aligned side by side for ease of use. Similarly, docket entries of Post Grant Proceedings can do the same in terms of having the .pdf and text formats aligned side by side.

Using the **Highlighter** function, you can search keywords, terms or phrases to timely locate the paragraph(s) you look for.

The screenshot shows a PDF viewer interface. On the left, a sidebar titled 'Keywords (7)' contains a list of search terms: Mail (13), Time (0), Period (10), Suite (1), Attached (4), am (21), and United States (6). Below this list is a button 'Add new keyword' and a 'Press Enter' prompt. The main area displays a document from the 'UNITED STATES PATENT AND TRADEMARK OFFICE'. The document includes a header with the USPTO seal and address, followed by a table with application details. A red arrow points to the top of the document. On the right side of the document, a section is highlighted in green, containing text about the 'UNITED STATES DEF VTM ERY OF COM/TERFE' and 'Unleil SUI- Pale-II anal 'Irulemark Of'u e Addie' ( (VIMISSIOBPR FUR PA I h11 S'. Below this, there is a section for 'P O Box 1450' and 'Alumnzkm lutmm 22413-1450'. Further down, a section is highlighted in red, containing text about 'SUITE 2800 1, DALLAS, Tx 75201-2784 PAPER " ME" 2A1"?'. The bottom of the document shows a section for 'DATE DELIVERY MODE' and '03/03/2009 PAPER'. The right side of the document also shows a section for 'Please find below and/or attached an Office communication concerning this application or proceeding' and 'The time period for reply, if any, is set in the attached communication.'

If you prefer to view the original version, you can Hide the OCR (Optical Character Recognition) version and further zoom in and out or even turn the .pdf version around.

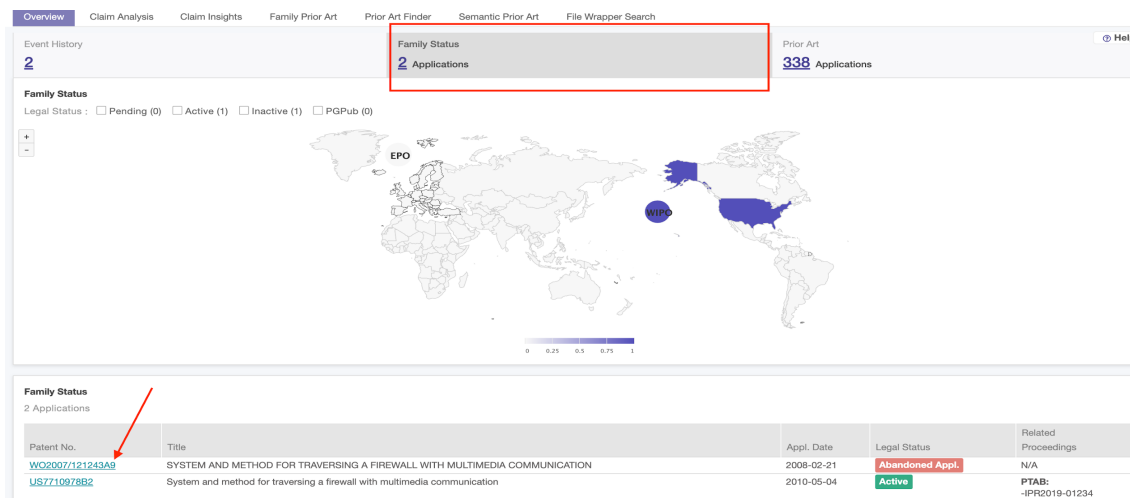
When a **Download** or **Printout** is needed, you can do so by clicking on the designated buttons on the right top corner. You can even **Bookmark** this file for later.

The screenshot shows a PDF viewer interface. The top bar displays the document title 'US7710978B2 - CTFR (2009-03-03)' and the page number '1 / 15'. On the right side, a toolbar contains icons for 'Refresh', 'Download', 'Print', and 'Bookmark'. The main area displays a document from the 'UNITED STATES PATENT AND TRADEMARK OFFICE'. The document includes a header with the USPTO seal and address, followed by a table with application details. Below this, there is a section for 'Please find below and/or attached an Office communication concerning this application or proceeding.' and 'The time period for reply, if any, is set in the attached communication.'

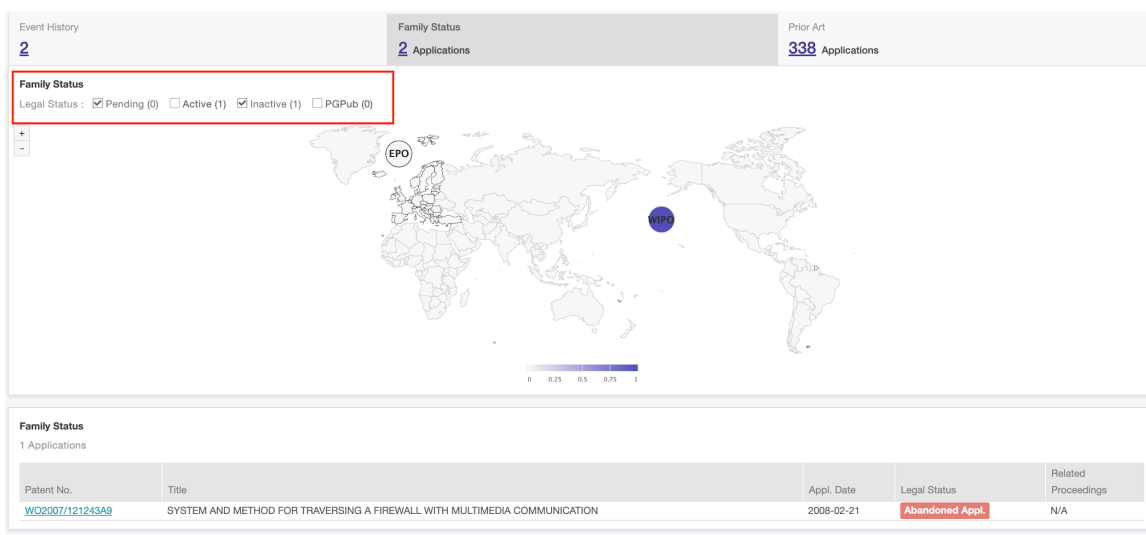
## Family Status

The Family Status map gives a summary of all the family members by legal status, including “Abandoned Appl”, “Active”, “Pending”, and “PGPub”.

The following chart illustrates that WO2007/121243A9, the family counterpart of US7710978B2, was abandoned during application. Click on the patent to learn about its abandonment date and reason.



For retrieval of family members in one or more certain legal statuses, check the Family Status box(es) .

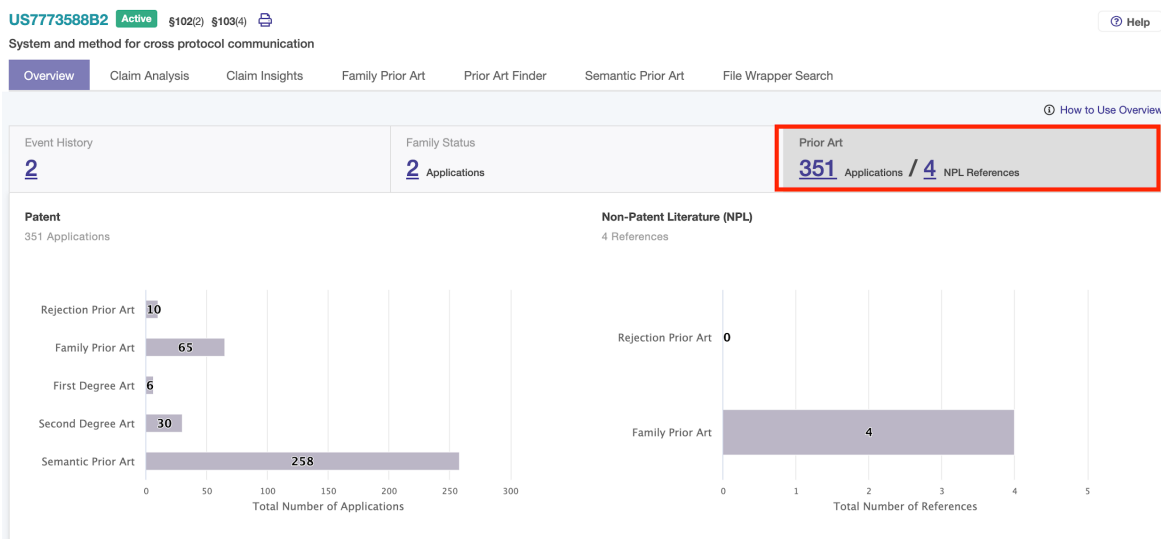


Similarly, you can go on to **Family Prior Art** for the overall family members in List View, Summary View or Gallery View.

## Prior Art

A summary of prior art is provided in a bar chart. Each bar represents the number of an art source identified by Quality Insights in relation to the patent at issue, including CTNF and CTFR in **Event History** and **Prior Art Finder**, European rejection prior art in **Family Prior Art** and, as well as cross-linguistic prior art references in **Semantic Prior Art**.

The following illustrates the summary of prior art references relevant to US7773588B2. As 10 rejection prior art references were cited by the US examiner, 65 backward citations are found in **Family Prior Art**, together with 6 **First Degree Art**, 30 **Second Degree Art**, and 258 relevant **Semantic Prior Art**. In addition, four **Non-Patent Literature** references were cited. Please note that each bar is UNCLICKABLE. For more details, go on to the corresponding tabs.



## Claim Analysis

This tab helps with claim construction work. It finds paragraphs in the specification which are relevant to specific claim terms.

The **Claim Analysis** tab provides the claims with terms automatically generated by Quality Insights. The claim terms that appear in the patent specification are highlighted in **red**, and the claim terms that are not found in the specification are highlighted in **blue**.

You can select the claim number on the left-hand side to change the claims in the **Claim Analysis** tab.

The screenshot shows the 'Claim Analysis' tab in a software interface. On the left, there is a 'Claims' dropdown menu with a list of claim numbers: #1, #16, #30, #43, #53, and #58. The main area displays 'Claim# 1' with a detailed analysis. The analysis text includes: 'The following claim terms are not literally supported by the specification, which may have different interpretations. "greater", "m sets", "set of control signal", "memory read", "module control circuit", "set of input", "write command", "n-bit wide data", "allowing communication", "buffer circuits", "module data", "respective buffer circuit", "respective n-bit", "respective set", "pcb", "disposed". A memory module having a width of N bits and configured to communicate with a memory controller via a set of control signal lines and M sets of n data lines, where M is greater than one and N=M n, comprising: a module control circuit configured to receive a set of input address and control signals corresponding to a memory read or write command from the memory controller via the set of control signal lines and to produce first module control signals and second module control signals in response to the set of input address and control signals; a plurality of memory devices coupled to the module control circuit, the plurality of memory devices including first memory devices and second memory devices, wherein, in response to the first module control signals, the first memory devices output or receive each N-bit wide data signal associated with the memory read or write command while the second memory devices do not output or receive any data associated with the memory read or write command; M buffer circuits each configured to receive the second module control signals from the module control circuit, each respective buffer circuit of the M buffer circuits being coupled to a respective set of the M sets of n data lines, to receive one or more of the first memory devices via a set of n module data lines, and to receive one or more of the second memory devices via the set of n module data lines, the each respective buffer circuit including logic that responds to the second module control signals by allowing communication of a respective n-bit section of the each N-bit wide data signal between the respective one or more of the first memory devices and the memory controller via the respective set of the M sets of n data lines and via the set of n module data lines, wherein the each respective buffer circuit is further configured to isolate memory device load associated with the respective one or more of the first memory devices as well as memory device load associated with the respective one or more of the second memory devices from the memory controller; and a printed circuit board (PCB) having an edge connector positioned on an edge of the PCB, the edge connector comprising a plurality of electrical contacts configured to be releasably coupled to corresponding contacts of a computer system socket to provide electrical conductivity between the module control circuit and the set of control signal lines, and between the M buffer circuits and the M sets of n data lines, wherein the M buffer circuits are mounted on the PCB between the plurality of memory devices and the edge connector and are distributed along the edge connector and

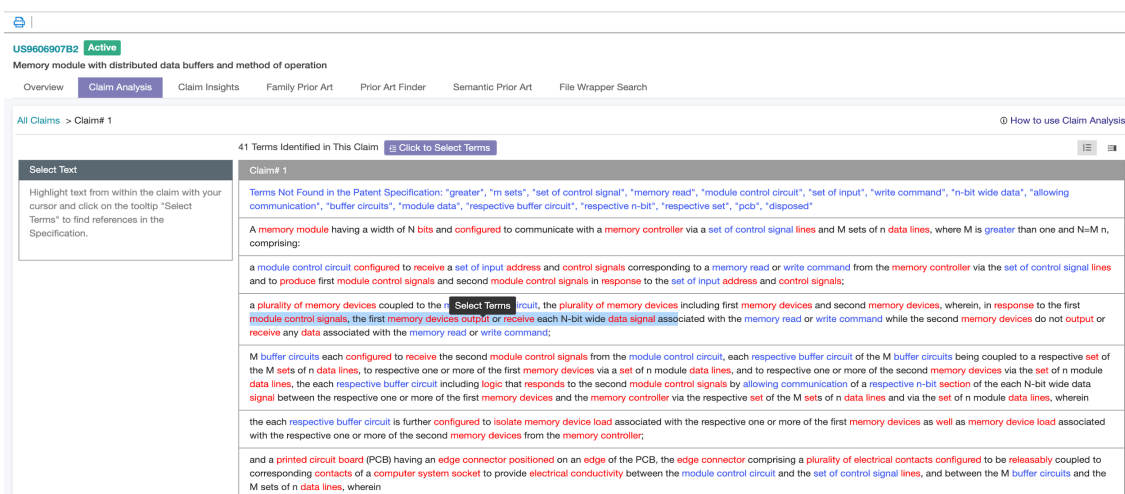
## Show or Hide Figures

In better understanding the specification, you can click on the **Show Figures** icon to assist. Each figure can be sized up when it is clicked on. To deactivate the function, click on the **Hide Figures** icon next to it.

This screenshot is similar to the previous one, showing the 'Claim Analysis' tab. However, a red arrow points to a 'Show Figures' icon located in the top right corner of the main content area. The icon consists of a document with a magnifying glass over it. The rest of the interface, including the claims list and the analysis of Claim #1, is identical to the previous screenshot.

## Select Terms

Select claim terms for related paragraphs to the specification. Clicking the **Click to Select Terms** button, you will enter the “select text” mode. After you can select a specific term or a clause of claim terms, there will be a black dialog pop-up **Select Terms** for your confirmation. Upon clicking the Select Terms box, the term (or the clause of several terms) will appear on the left side.



US9606907B2 Active

Memory module with distributed data buffers and method of operation

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

All Claims > Claim# 1

41 Terms Identified in This Claim [Click to Select Terms](#)

Select Text

Highlight text from within the claim with your cursor and click on the tooltip "Select Terms" to find references in the Specification.

Claims# 1

Terms Not Found in the Patent Specification: "greater", "m sets", "set of control signal", "memory read", "module control circuit", "set of input", "write command", "n-bit wide data", "allowing communication", "buffer circuits", "module data", "respective buffer circuit", "respective n-bit", "respective set", "pcb", "disposed"

A memory module having a width of N bits and configured to communicate with a memory controller via a set of control signal lines and M sets of n data lines, where M is greater than one and N=M n, comprising:

a module control circuit configured to receive a set of input address and control signals corresponding to a memory read or write command from the memory controller via the set of control signal lines and to produce first module control signals and second module control signals in response to the set of input address and control signals;

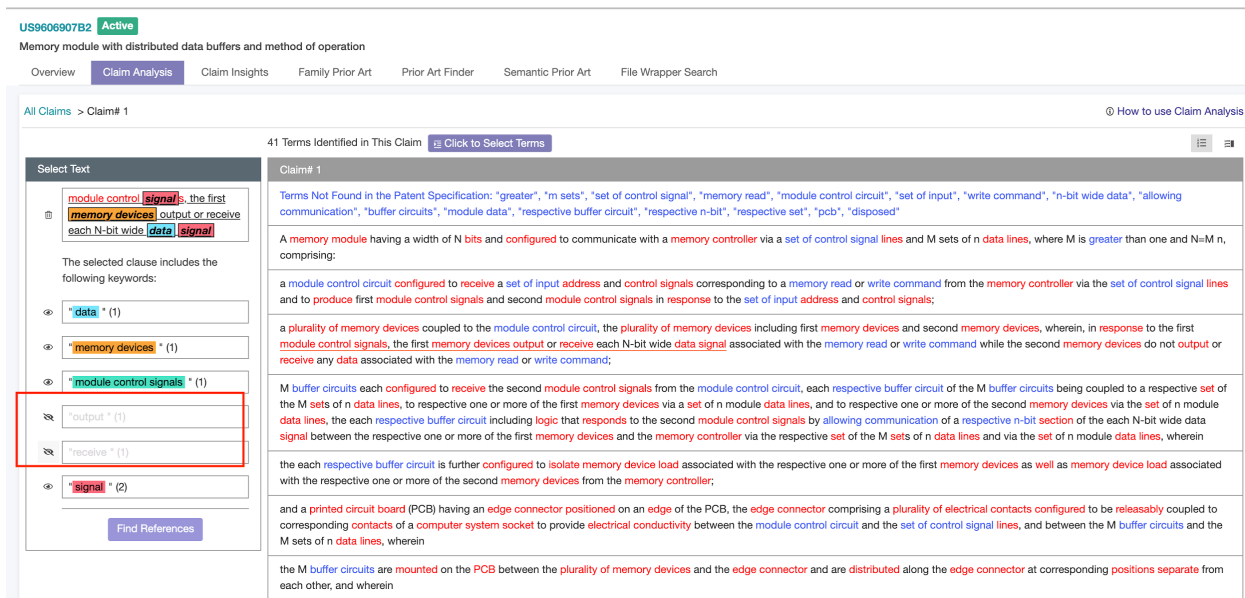
a plurality of memory devices coupled to the module control circuit, the plurality of memory devices including first memory devices and second memory devices, wherein, in response to the first module control signals, the first memory devices output or receive each N-bit wide data signal associated with the memory read or write command while the second memory devices do not output or receive any data associated with the memory read or write command;

M buffer circuits each configured to receive the second module control signals from the module control circuit, each respective buffer circuit of the M buffer circuits being coupled to a respective set of the M sets of n data lines, to respective one or more of the first memory devices via a set of n module data lines, and to respective one or more of the second memory devices via the set of n module data lines, the each respective buffer circuit including logic that responds to the second module control signals by allowing communication of a respective n-bit section of the each N-bit wide data signal between the respective one or more of the first memory devices and the memory controller via the respective set of the M sets of n data lines and via the set of n module data lines, wherein

the each respective buffer circuit is further configured to isolate memory device load associated with the respective one or more of the first memory devices as well as memory device load associated with the respective one or more of the second memory devices from the memory controller;

and a printed circuit board (PCB) having an edge connector positioned on an edge of the PCB, the edge connector comprising a plurality of electrical contacts configured to be releasably coupled to corresponding contacts of a computer system socket to provide electrical conductivity between the module control circuit and the set of control signal lines, and between the M buffer circuits and the M sets of n data lines, wherein

You can customize the selected claim terms with the eye icon to enable or disable the claim terms. For example of the US9606907B2 patent below, by clicking the icon beside the terms “output” and “receive”, you disable the selection from Select Text. Once the final claim terms are selected, to find relevant content in the specification, click on the **Find References** button.



US9606907B2 Active

Memory module with distributed data buffers and method of operation

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

All Claims > Claim# 1

41 Terms Identified in This Claim [Click to Select Terms](#)

Select Text

module control signals, the first memory devices output or receive each N-bit wide data signal

The selected clause includes the following keywords:

☐ "data" \* (1)

☐ "memory devices" \* (1)

☐ "module control signals" \* (1)

☒ "output" \* (1)

☒ "receive" \* (1)

☐ "signal" \* (2)

[Find References](#)

Claims# 1

Terms Not Found in the Patent Specification: "greater", "m sets", "set of control signal", "memory read", "module control circuit", "set of input", "write command", "n-bit wide data", "allowing communication", "buffer circuits", "module data", "respective buffer circuit", "respective n-bit", "respective set", "pcb", "disposed"

A memory module having a width of N bits and configured to communicate with a memory controller via a set of control signal lines and M sets of n data lines, where M is greater than one and N=M n, comprising:

a module control circuit configured to receive a set of input address and control signals corresponding to a memory read or write command from the memory controller via the set of control signal lines and to produce first module control signals and second module control signals in response to the set of input address and control signals;

a plurality of memory devices coupled to the module control circuit, the plurality of memory devices including first memory devices and second memory devices, wherein, in response to the first module control signals, the first memory devices output or receive each N-bit wide data signal associated with the memory read or write command while the second memory devices do not output or receive any data associated with the memory read or write command;

M buffer circuits each configured to receive the second module control signals from the module control circuit, each respective buffer circuit of the M buffer circuits being coupled to a respective set of the M sets of n data lines, to respective one or more of the first memory devices via a set of n module data lines, and to respective one or more of the second memory devices via the set of n module data lines, the each respective buffer circuit including logic that responds to the second module control signals by allowing communication of a respective n-bit section of the each N-bit wide data signal between the respective one or more of the first memory devices and the memory controller via the respective set of the M sets of n data lines and via the set of n module data lines, wherein

the each respective buffer circuit is further configured to isolate memory device load associated with the respective one or more of the first memory devices as well as memory device load associated with the respective one or more of the second memory devices from the memory controller;

and a printed circuit board (PCB) having an edge connector positioned on an edge of the PCB, the edge connector comprising a plurality of electrical contacts configured to be releasably coupled to corresponding contacts of a computer system socket to provide electrical conductivity between the module control circuit and the set of control signal lines, and between the M buffer circuits and the M sets of n data lines, wherein

the M buffer circuits are mounted on the PCB between the plurality of memory devices and the edge connector and are distributed along the edge connector at corresponding positions separate from each other, and wherein

All the relevant paragraphs in the specification are provided with the keywords highlighted as references.

US0606907B2 Active

Memory module with distributed data buffers and method of operation

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

All Claims > Claim# 1 > Result(s)

© How to use Claim Analysis

Select Text

**module control signal s**, the first **memory devices** output or receive each N-bit wide **data signal**

The selected clause includes the following keywords:

- data** (62)
- memory devices** (46)
- module control signals** (19)
- signal** (22)

Content

[0050] In certain embodiments, at least one **data** transmission circuit 416, 416' selectively switches between two or more **memory devices** 412, 412' so as to operatively couple at least one selected memory device 412, 412' to the system memory controller 420, 420' (e.g., the **data** transmission circuit 416, 416' is configurable to respond to **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller 420, 420' and at least one selected memory device 412, 412'). In certain such embodiments, the at least one **data** transmission circuit 416, 416' selectively operatively couples two selected **memory devices** to the system memory controller 420, 420'. For example, as schematically shown in FIG. 3A, the first **data** transmission circuit 4161 is configurable to respond to **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller 420 and either selected **memory devices** 412A1 and 412C1 or selected **memory devices** 412B1 and 412D1), and the second **data** transmission circuit 4162 is configurable to respond to **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller 420 and either selected **memory devices** 412A2 and 412C2 or selected **memory devices** 412B2 and 412D2). Conversely, in a conventional memory module without the **data** transmission circuits 416, the two or more **memory devices** 412 (e.g., **memory devices** 412A1, 412B1, 412C1, 412D1) are concurrently operatively coupled to the system memory controller 420. A **data** transmission circuit 416 of certain embodiments bidirectionally buffer **data signal s** between the memory controller 420 and the **memory devices** 412 corresponding to the **data** transmission circuit 416. For another example, as schematically shown in FIG. 3B, the first **data** transmission circuit 416'1 is configurable to respond to **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller 420' and either selected **memory devices** 412'B1 and 412'D1 or selected **memory devices** 412'B1 and 412'D1 and either selected **memory devices** 412'A2 and 412'C2 or selected **memory devices** 412'B2 and 412'D2), and the second **data** transmission circuit 416'2 is configurable to respond to **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller 420' and either selected **memory devices** 412'A3 and 412'C3 or selected **memory devices** 412'B3 and 412'D3 and either selected **memory devices** 412'A4 and 412'C4 or selected **memory devices** 412'B4 and 412'D4).

[0011] In certain embodiments, a memory module is provided. The memory module comprises at least one printed circuit board and a plurality of **memory devices** mechanically coupled to the at least one printed circuit board. The memory module further comprises a control circuit mechanically coupled to the at least one printed circuit board. The control circuit is configurable to receive control **signal s** from a system memory controller and to transmit **module control signal s** to the plurality of **memory devices**. The memory module further comprises a plurality of **data** transmission circuits mechanically coupled to the at least one printed circuit board and distributed at corresponding positions relative to the at least one printed circuit board. The plurality of **data** transmission circuits is configurable to be operatively coupled to the system memory controller and configurable to receive **module control signal s** from the control circuit. At least one first **data** transmission circuit of the plurality of **data** transmission circuits is operatively coupled to at least two **memory devices** of the plurality of **memory devices**. At least one second **data** transmission circuit of the plurality of **data** transmission circuits is operatively coupled to at least two **memory devices** of the plurality of **memory devices**. The at least one first **data** transmission circuit is configurable to respond to the **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller and at least one selected memory device of the at least two **memory devices** operatively coupled to the at least one first **data** transmission circuit. The at least one second **data** transmission circuit is configurable to respond to the **module control signal s** by selectively allowing or inhibiting **data** transmission between the system memory controller and at least one selected memory device of the at least two **memory devices** operatively coupled to the at least one second **data** transmission circuit.

Note that the paragraph numbers at the beginning of each paragraph correspond to those appearing on this patent's page view on Patentcloud.

## Highlighter

Wanna do your own keyword listing? You can choose a claim, and then click on the Highlighter icon to personalize keywords by **Saving to Keyword Set**. Or simply use it to quickly search a certain keyword or phrase in the full text.

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Keywords (3)

Select a Keyword Set

Clear All

module control (10)

control (20)

buffer (10)

+ Add new keyword

Press Enter

Save to Keyword Set

41 Terms Identified in This Claim Click to Select Terms

Claims

#1

#16

#30

#43

#53

#58

Claim# 1

The following claim terms are not literally supported by the specification, which may have rooms for different interpretations.

"greater", "m sets", "set of control signal", "memory read", "module control circuit", "set of input", "write command", "n-bit wide data", "allowing communication", "buffer circuits", "module data", "respective buffer circuit", "respective n-bit", "respective set", "pcb", "disposed"

A memory module having a width of N bits and configured to communicate with a memory controller via a set of control signal lines and M sets of n data lines, where M is greater than one and N=M n, comprising:

a module control circuit configured to receive a set of input address and control signals corresponding to a memory read or write command from the memory controller via the set of control signal lines and to produce first module control signals and second module control signals in response to the set of input address and control signals;

a plurality of memory devices coupled to the module control circuit, the plurality of memory devices including first memory devices and second memory devices, wherein, in response to the first module control signals, the first memory devices output or receive each N-bit wide data signal associated with the memory read or write command while the second memory devices do not output or receive any data associated with the memory read or write command;

M buffer circuits each configured to receive the second module control signals from the module control circuit, each respective buffer circuit of the M buffer circuits being coupled to a respective



## Claim Insights

This tab enables users to understand how an claim element is explained in the prior art references by examiners during the prosecution history and by petitioners/complainants during the post-grant proceedings. It compares each claim element with the paragraphs of the official documents that mention the claim element.

### Summary Table

At the first glance of **Claim Insights** tab, a table showing the summary of how each claim is disclosed in the file wrappers or dockets of a prior art reference. The disclosure by prior art references in relation to each claim is defined as % in Claim Insights **Summary**, suggesting how extensive the elements of a claim by terms are explained in relation to the prior art.

For example, the first claim has five elements and four of them are disclosed by a certain prior art reference or multiple references to any extent; the disclosure can be presented as 80% when the four claim elements are fully explained by one prior art reference. It may end up with 40%, 50% or 60% if some elements are not fully disclosed. In summary, the higher the percentage, the more likely the claim terms are disclosed in the prior art's file wrappers or docket entries. More is to be explained.

US7773588B2 Active

System and method for cross protocol communication

Overview Claim Analysis **Claim Insights** Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary

Please select the claim(s) to compare.

Claims	Disclosure by Single Reference		Disclosure by Multiple References	
	Prosecution History	Post-Grant	Prosecution History	Post-Grant
<input type="checkbox"/> #1	80%	80%	80%	80%
<input type="checkbox"/> #7	100%	100%	100%	100%
<input type="checkbox"/> #11	70%	80%	70%	80%
<input type="checkbox"/> #18	80%	90%	80%	90%

Claim# 1

1. A method for multimedia communication comprising:  
receiving a multimedia data stream at a communication controller in a first protocol from a communication device, wherein the first protocol comprises a signaling protocol;  
detecting a type of said first protocol;  
converting said first protocol into an intermediate protocol;  
translating said intermediate protocol into a second protocol, wherein the second protocol comprises a signaling protocol; and  
transmitting said multimedia data stream in said second protocol to a target communication device;  
wherein said first protocol comprises one of a text-based protocol and a binary protocol and wherein said second protocol comprises one of a binary protocol and a text-based protocol.

The disclosures are further categorized:

- **Disclosure by Single Reference:** it reveals the highest average percentage of the claim element disclosures among all the single references in the file wrappers (Prosecution History) or dockets (Post-Grant);
- **Disclosure by Multiple References:** it reveals the average percentage of the highest claim element disclosures across all the references in the file wrappers (Prosecution History) or dockets (Post-Grant);

How is the “average percentage” calculated? It is based on the actual percentage of each element of a given claim with respect to a prior art reference cited in file wrappers or dockets. When any of a claim

element's terms is found in the documents of the reference, its disclosure will account for a certain percent against the total of the claim terms identified by QI.

## Claim Table

To calculate the average percentage of the claim “Disclosure by Single Reference” seen in the Claim Insights Summary Table, we further translate the percentages into three groups: 0, 0.5 and 1, (ie, 0%=0, 1%~99%=0.5, and 100%=1), and then multiply them by weighting. For example, US7773588 below discloses 10 out of 11 elements with two of 0% and 8 of 100%, making the average percentage 80% ( $=0 \times 2/10 + 100\% \times 8/10$ ). On calculating the average percentages of all the other prior art references in Prosecution and then Post Grant, QI at last determines “80%” as the highest in both respectively.

US7773588B2 Active §102(2) §103(4) [Help](#)

System and method for cross protocol communication

Overview Claim Analysis **Claim Insights** Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 1 | Select A Claim 1

All Prosecution history Post-Grant Remarks

Claims	Prior Art Ref. (6)					
	US7346076	US6963583	US2005/0125696	US6885658	US2002/0133588	N/A
#1.01 (0%)	0%	0%	0%	0%	0%	0%
#1.02 (100%)	100%	100%	75%	100%	100%	50%
#1.03 (100%)	100%	100%	100%	100%	0%	0%
#1.04 (0%)	0%	0%	0%	0%	0%	0%
#1.05 (100%)	100%	100%	100%	100%	100%	0%
#1.06 (100%)	100%	100%	100%	100%	100%	0%
#1.07 (100%)	100%	100%	100%	100%	0%	0%
#1.08 (100%)	100%	100%	66%	100%	100%	0%
#1.09 (N/A)	N/A	N/A	N/A	N/A	N/A	N/A
#1.10 (100%)	100%	100%	100%	100%	100%	0%
#1.11 (100%)	100%	100%	100%	100%	100%	0%

Furthermore, we calculate “Disclosure by Multiple References” by assigning a claim percentage to one of the three assigned groups (0, 0.5 and 1), multiplied by weighting. Different from “Disclosure by Single Reference” using percentages from one single reference, this time QI chooses the biggest percentage of the same claim element across all the prior art references. Using Claim 1 of US7773588 against the **prosecution history** for example, the maximum % across all the 11 claim elements are 0% (#1.01 and #1.04) and 100% (the rest 8 elements) respectively, with one “N/A” (#1.09). As the percentage 0% is assigned as 0, and 100% as 1, we end up calculating the % in Claim Insights Summary for the Prosecution History’s Disclosure by Multiple References with 80% ( $=0 \times 2/10 + 1 \times 8/10$ ). Please note that “N/A” is not taken into calculation.

US7773588B2 **Active** \$102(2) \$103(4) [Help](#)

System and method for cross protocol communication

Overview Claim Analysis **Claim Insights** Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 1 | Select Claim 1

All Prosecution history Post-Grant Remarks

Claims	Prior Art Ref. (3)		
	US7346076	US6963583	US2005/0125696
#1.01 (0%) <b>Max=0%</b>	0%	0%	0%
#1.02 (100%) <b>Max=100%</b>	100%	100%	75%
#1.03 (100%) <b>Max=100%</b>	100%	100%	100%
#1.04 (0%) <b>Max=0%</b>	0%	0%	0%
#1.05 (100%) <b>Max=100%</b>	100%	100%	100%
#1.06 (100%) <b>Max=100%</b>	100%	100%	100%
#1.07 (100%) <b>Max=100%</b>	100%	100%	100%
#1.08 (100%) <b>Max=100%</b>	100%	100%	66%
#1.09 (N/A)	N/A	N/A	N/A
#1.10 (100%) <b>Max=100%</b>	100%	100%	100%
#1.11 (100%) <b>Max=100%</b>	100%	100%	100%

You can select a claim and click the **Confirm** button to have a further review of how each element of the selected claim is disclosed by the prior art references in the file wrappers and dockets respectively.

US7773588B2 **Active** \$102(2) \$103(4) [Help](#)

System and method for cross protocol communication

Overview Claim Analysis **Claim Insights** Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 1 | Select A Claim 1

All Prosecution history Post-Grant Remarks

Claims	Prior Art Ref. (3)		
	US7346076	US6963583	US2005/0125696
#1.01 (0%)	0%	0%	0%
#1.02 (100%)	100%	100%	75%
#1.03 (100%)	100%	100%	100%
#1.04 (0%)	0%	0%	0%
#1.05 (100%)	100%	100%	100%
#1.06 (100%)	100%	100%	100%
#1.07 (100%)	100%	100%	100%
#1.08 (100%)	100%	100%	66%
#1.09 (N/A)	N/A	N/A	N/A
#1.10 (100%)	100%	100%	100%
#1.11 (100%)	100%	100%	100%

and transmitting said multimedia data stream in said second protocol to a target communication device;

After selecting a claim, a table is provided on a per-claim-element basis with % of keywords, or claim terms, disclosed by each reference in the file wrappers and dockets. In the example of US7773588 in Prosecution History, the claim element #1.08 has claim terms that are disclosed by three prior art references in terms of **66%** (against US2005/0125696) and **100%** (against US7346076 and US6963583 respectively).

## Select A Claim

You can directly click on either the claim element number or the percentage of disclosure of each prior art reference to find the detailed mapping of the claim element with the prior art reference(s) and the corresponding paragraphs in the file wrappers such as the examiner's opinion. Continuing with the example of claim element #1.08 of US7773588B2, let's click on the disclosure percentage "66%" in correspondence to the prior art reference US2005/0125696.

On the left-hand side, the content of the claim element is provided with the auto-generated claim terms highlighted in either black texts (color boxes) or blue texts. The prior art US2005/0125696 found in the office action 20091209-CTNF, for example, discloses the claim terms "protocol" and "target communication", but not "multimedia data stream". This explains why it ends up with the percentage of 66% (= 2 out of 3) as suggested on the previous page.

US7773588B2 Active §102(2) §103(4) Help

System and method for cross protocol communication

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 1 > Claim# 1.08 > US2005/0125696 | Select A Claim 1

Find 2 Result(s) Filter Clear All

Prior Art Ref. Afshar [US2005/0125696] Foti George [US6963583]

Rejection 20091209-CTNF Prosecution History 35 U.S.C. § 103(a)

Claims L26 are rejected under 35 USC . 103(a) as being unpatentable over Afshar et al. ( U.S. 2005/0125696 ; hereinafter refer as ' Afshar ' ) in view of Foti , George ( U.S. 6,963,583 ; hereinafter refer...

~ Show All

Prior Art Ref. Afshar [US2005/0125696] Foti George [US6963583]

Rejection 20090901-CTNF Prosecution History 35 U.S.C. § 103(a)

Lu Claims E--26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Afshar et al. ( U.S. 2005/0125696 ' , hereinafter refer as ' Afshar ' ) in View of Foti , George ( U.S. 6,963,583 ; hereinafter...

~ Show All

Remarks 20090918-REM

16. 2009. Now, a third nonfinal Office Action dated September 1, 2009 ( Office Action ) is much ed The issues raised in the third non--final Office Action are as follows : 9 Claims 1 - 26 are rejected under 35 USC . § 103(1) as being unpatentable over U.S. Patent Application Publication No 20030125696 to Afshar ( hereinafter ' ( f/s/2(1) ' ) in View of U.S. Patent No. 6,963,583 to...

~ Show All

Claim Element

#1.08 and transmitting said multimedia data stream in said second protocol to a target communication device;

Terms not in the file wrapper multimedia data stream

Not Disclosed

To expand all the paragraphs featuring "protocol" and/ or "communication device", click on **Show All**.

US7773588B2 Active §102(2) §103(4) Help

System and method for cross protocol communication

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 1 > Claim# 1.08 > US2005/0125696 | Select A Claim 1

Find 2 Result(s) Filter Clear All

Prior Art Ref. Afshar [US2005/0125696] Foti George [US6963583]

Rejection 20091209-CTNF Prosecution History 35 U.S.C. § 103(a)

Claims L26 are rejected under 35 USC . 103(a) as being unpatentable over Afshar et al. ( U.S. 2005/0125696 ; hereinafter refer as ' Afshar ' ) in view of Foti , George ( U.S. 6,963,583 ; hereinafter refer as ' Foti ' ) . - In regard to claims 1 , 12 , 1 ' ) and 26 , Afshar discloses a method and process for multimedia services ( see fig . 1 ) between a plurality of endpoints 108 , 110 , 112 ( communication device and target communication device ) , which are using different protocols respectively , such as traditional PSTN , SIP and H.323 protocols ( first and second signaling protocols ) ; wherein a border element 104 receives and converts the media with protocol used by the endpoints to a protocol used by the IP network 101 ( intermediate protocol ) as disclosed in page 2 , para 17 , lines 6 - 15 ; pages 3 - 4 , paras [ 0020 ] , [ 0024 - 0027 ] ( wherein program code storing in the border element is obvious for perform such border element ' s functionalities ) ; but fails to explicitly disclose the step method to detecting the type of the signaling protocol .

In an analogous art , Foti discloses method for detecting protocol types through the use of protocol -- specific detection points and converting the received protocol signal into generic protocol signal common to all signaling protocols ( elements 47 - 49 and 51 - 53 in fig . 4 ; fig . 5 , col . 5 , line 23 through col . 6 , line 14 ) .

Thus it would have been obvious to the person of ordinary skill in the art at the time of invention was made to combine the method for detection type of the protocol as taught by Foti into Afshar ' s method for detection for media type , to simplify the matching protocol conversion for different call scenarios . - Regarding claims 2 , 13 and 20 , Afshar further lacks what Foti discloses method for communicating between session control planes 43 ( first / second communication controllers ; for example see fig . 3 ; col . 3 , lines 51 - 67 ) , prior to translating ( Foti : Trying state in fig . 5 ; col . 6 , lines 40 - 51 ) .

Thus it would have been obvious to the person of ordinary skill in the art at the time of invention was made to combine the method as taught by Foti into Afshar ' s method , for handshaking between session control planes before converting protocols for different call scenarios . - In regard to claims 3 - 4 , 14 - 15 and 21 - 22 , Afshar further lacks what Foti discloses method for accessing protocol table , selecting and assembling intermediate protocol messages ( Foti : col . 3 , lines 51 - 67 ; col . 5 , line 39 through col . 6 , line 14 ; col . 6 , lines 26 - 32 ) .

~ Show All

Claim Element

#1.08 and transmitting said multimedia data stream in said second protocol to a target communication device;

Terms not in the file wrapper multimedia data stream

You can also switch to another claim element by clicking its corresponding round icon with the claim element number or go back to the previous table by clicking corresponding links.

On the right-hand side, the OA in the file wrapper along with its corresponding case/ event type (prosecution or post grant) and legal basis (35 U.S.C. § 102 or 103) are provided with the terms highlighted in black texts with the same color boxes to review the examiner's comments by comparison. If you want to check on the full OA in either .pdf or text format, you can click on the file wrapper link (for example, it is "20190624-Petition" in the above illustration) for a thorough review.

If there are multiple relevant excerpts, you can use **Filter** to pick the one related to a specific case or legal basis.

### Claim Amended or Cancelled

What's more, QI highlights claim-related remarks with labels of Claims Amended (A) or Claims Cancelled (C) to facilitate claim construction with intrinsic evidence provided by the office actions or dockets.

US7773588B2 Active §102(2) §103(4) Help

System and method for cross protocol communication

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Summary > Claim# 7 | Select A Claim 7

All Prosecution history Post-Grant Remarks

Claims	Prior Art Ref. (3)
#7.01 (100%)	US6963583 100% US7346076 100% US2005/0125696 0%
#7.02 (100%)	100% 100% 0%
#7.03 (100%)	100% 100% 100%
#7.04 (100%)	100% 100% 100%
#7.05 (100%)	100% 100% 0%
#7.06 (100%)	100% 100% 100%
#7.07 (100%)	100% 100% 75%
#7.08 (100%)	100% 100% 100%
#7.09 (100%)	100% 100% 66%

Remarks in relation to this claim may lead to some kind of claim amendment.

In the case of #7.08, the prior art reference US7346076 (20080521-CTNF) and the remark (20080819-REM) to it reveal the reasoning and at least one part of the claims were amended. That being said, it is NOT necessarily the claim #7, or the element #7.08.

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Claim Element

#7.08 a [protocol] conversion utility to [convert] said first [protocol] into an [interim] [protocol] using said first [protocol] conversion table;

Prior Art Ref. A Foti George [US6963583] H-labibyHlabiby [US7346076]

Rejection 20080521-CTNF Prosecution History 35 U.S.C. § 103(a)

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foti, George (U.S. 6,963,583, hereinafter refer as "Foti") in view of H-labiby et al. (U.S. 7,346,076). - In regard to claim...

Remarks 20080819-REM

Application No. 11/403,552 Docket No. 69936 / P003U311 0601230 R E MA RKS Claims 1-25 were pending in this application. The issues raised in the Office Action of May 21, 2008 (Office Action) are as follows: 1 Claims 12-18 are objected to as being a substantial duplicate of claims 1-7. 5 Claims 19-25 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter; v Claims 2, 5, 11, 13, 16, 20, and 23 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite; \* Claims 1-7 and 12-25 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 7,346,076 to H-labiby et al. (hereinafter "Hub"). Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,963,583 to Foti (hereinafter "Foti") in view of H-labiby. In response Applicant respectfully tray erases all claim rejections and requests reconsideration and withdrawal in light of the amendments and remarks presented herein. Applicant respectfully asserts that the claims include non-obvious differences over the cited art. As discussed further below, the rejections should be overturned because when considering the scope and content of the applied Fm and H-labiby references there are significant differences between the applied combination and claims 8-11. as the applied combination fails to disclose all elements of these claims. Thus, considering the lack of disclosure in the applied combination of all elements of claims 8-11, one of ordinary skill in the art would not find these claims Obvious under 35 U.S.C. § 103, and therefore the rejections should be withdrawn. Independent Claim 8: as amended herein, recites: A communication controller in a multimedia communication system, said communication controller comprising: a message interface to transceive multimedia data from a communication endpoint in a first [protocol], Ellerginwthe first [protocol] a signaling [protocol]: a [protocol] signaler to determine a type of said first [protocol]: a first [protocol] conversion table that contains a plurality of first [protocol] messages and a plurality of interim [protocol] messages, wherein said plurality of interim [protocol] messages correspond to ones of said plurality of first [protocol] messages; a Rt/QI/QOI conversion utility to [convert] said first protocol into an interim [protocol] using said first [protocol] conversion table; and a network interface to transceive said multimedia data in said interim [protocol] to a target communication endpoint (Emphasis added) \* 1 bus. claim 8 recites that a first [protocol] comprises a signaling [protocol] and further recites a [protocol] conversion utility to [convert] said first [protocol] into an interim [protocol]. [he applied combination of Foti and H-labiby fails to teach or suggest these elements of claim]. The Office Action relies on [la / Jilly as disclosing such a conversion to an interim [protocol]. However, ' 15 discussed above, H-labiby does not propose any such conversion of its signaling [protocol] (but instead only uses the signaling [protocol] information for [converting] its bearer traffic). Thus, H-labiby does not teach or suggest conversion of a signaling [protocol] at all and 170/1 does not teach or suggest conversion of a signaling [protocol] to an interim [protocol]. Accordingly, the applied combination of Foti and H-labiby does not teach or suggest the above elements of claim 8, as neither reference teaches or suggests conversion of a [protocol] that comprises a signaling [protocol] into an interim [protocol]. Therefore, the rejection of Claim 8 should be withdrawn. Each of dependent claims 9-11 depends either directly or indirectly from claim 8, and thus inherits all limitations of claim 8. It is respectfully submitted that dependent claims 9-11 are allowable not only because of their dependency from independent claim 8 for the reasons discussed above, but also in view of their novel claim features (which both narrow the scope of the particular claims and compels a broader interpretation of claim 8).

Show Less

## Highlighter

Wanna do your own keyword listing? You can choose a prior art reference, and then click on the **Highlighter** icon to personalize keywords by **Saving to Keyword Set**. Or simply use it to quickly search a certain keyword or phrase in the full text.

Claim Insights Summary Table > Claim Table (Claim# 1) > Claim Element Page (Claim# 1.05) > US2005/0125696 | Select A Claim 1

Side-by-side comparison; Claim terms not found may imply the reasons for patentability.

**Keywords (3)**

Select a Keyword Set

Clear All

Protocol (114)

media (22)

communication c (4)

+ Add new keyword

Save to Keyword Set

Find 3 Result(s)

Filter Clear All

**Claim Element**

#1.05 converting said first protocol into an intermediate protocol.

**Prior Art Ref.**

Afshar [US2005/0125696] Foti George [US6963583]

Rejection 20091209-CTNF Prosecution History 35 U.S.C. § 103(a)

Claims 126 are rejected under 35 USC, 103(a) as being unpatentable over Afshar et al. (U.S. 2005/0125696; hereinafter refer as 'Afshar') in view of Foti, George (U.S. 6,963,583; hereinafter refer as 'Foti'). - In regard to claims 1, (2, 1') and 26, Afshar discloses a method and process for multi-media services (see fig. 1) between a plurality of endpoints 108, 110, 112 (communication device), which are using different protocols respectively, such as traditional PSTN, SIP and H.323 protocols (first and second signaling protocols); wherein a border element 104 receives and converts the media with protocol used by the endpoints to a protocol used by the IP network 101 (intermediate protocol) as disclosed in page 2, para 17, lines 6 - 15; pages 3 - 4, paras [0020], [0024 - 0027] (wherein program code storing in the border element is obvious for perform such border element's functionalities); but fails to explicitly disclose the step method for detecting the type of the signaling protocol.

In an analogous art, Foti discloses method for detecting protocol types through the use of protocol - specific detection points and converting the received protocol signal into generic protocol signal common to all signaling protocols (elements 47 - 49 and 51 - 53 in fig. 4; fig. 5, col. 5, line 23 through col. 6, line 14).

Collapse All

## Remarks Box

For viewing those prior references with remarks only, check the **Remarks Box** to screen out those which don't come with remarks. In the example of US7773588B2, Post-Grant does not come with remarks.

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search

Claim Insights Summary Table > Claim Table (Claim# 1) | Select A Claim 1

How is each claim element disclosed by cited prior art? Click numbers to find detailed comparison.

All Prosecution history Post-Grant The percentage "%" indicates how many keywords in an element being disclosed by a specific references. Click to find comprehensive explanation of calculation.

Help

Remarks

Claims	Prior Art Ref. (s)		
	US6885658	US2002/0133688	N/A
#1.01 (0%)	0%	0%	0%
#1.02 (100%)	100%	100%	50%
#1.03 (100%)	100%	0%	0%
#1.04 (0%)	0%	0%	0%
#1.05 (100%)	100%	100%	0%
#1.06 (100%)	100%	100%	0%
#1.07 (100%)	100%	0%	0%
#1.08 (100%)	100%	100%	0%
#1.09 (N/A)	N/A	N/A	N/A
#1.10 (100%)	100%	100%	0%
#1.11 (100%)	100%	100%	0%

It's screened out after the box is checked.

Claim Insights Summary Table > Claim Table (Claim# 1) | Select A Claim 1

How is each claim element disclosed by cited prior art? Click numbers to find detailed comparison.

All Prosecution history Post-Grant The percentage "%" indicates how many keywords in an element being disclosed by a specific references. Click to find comprehensive explanation of calculation.

Help

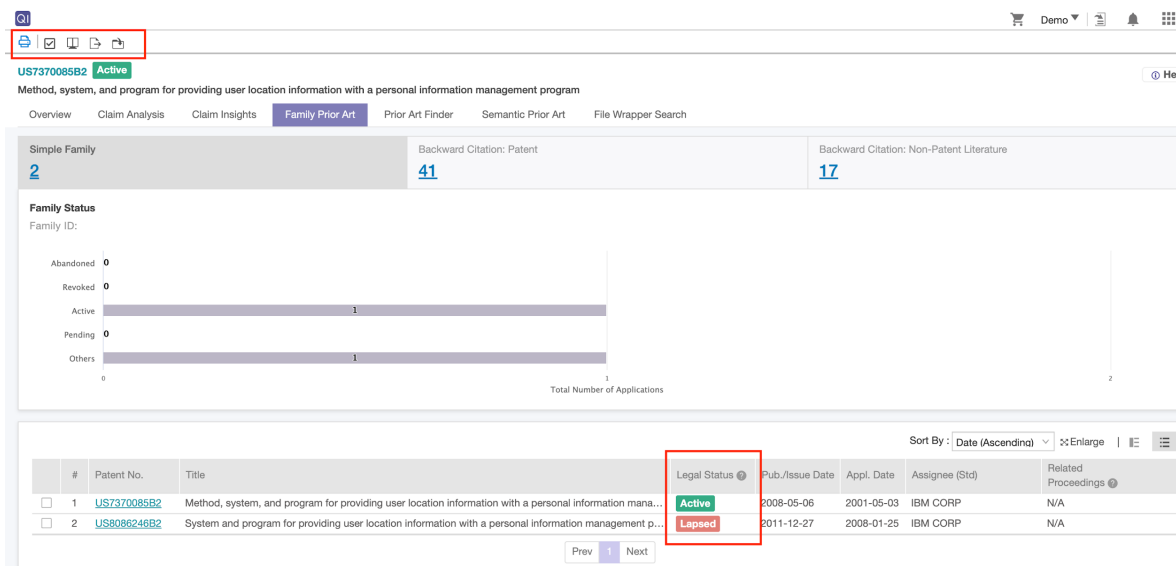
Remarks

No Prior Art References Cited

## Family Prior Art

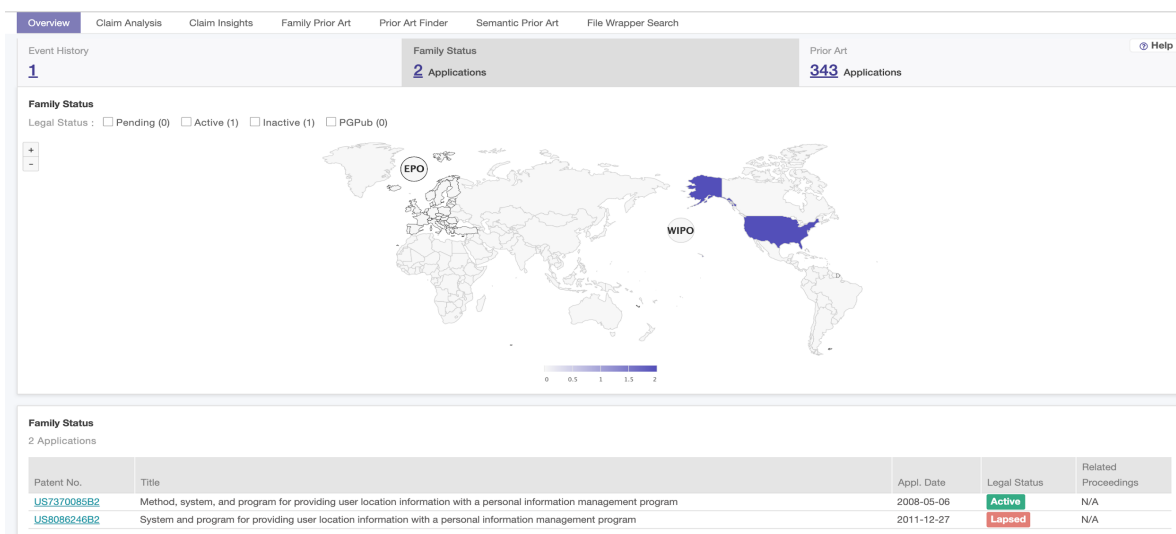
You can find patent family information (see also **Patent Family** in **Glossary**), including the family members' patent numbers, titles, legal status, publication/ issue dates, application date, and their related post-grant proceeding cases.

On the top left corner, there's a list of **Page View Features** where **Printer Version**, **Select All**, **Add to Project**, **Compare**, and **Export** are available to avail themselves of further data uses.



The Legal Status column reflects the most recent status of each patent. Based on their prosecution and maintenance fee payment status in the PTO databases or the INPADOC data, the Legal Status of the US, CN, EP, JP, KR, TW, WO among 30+ PTOs include Pending (pending application,) Active (granted and maintained,) and Inactive (abandoned or lapsed due to no payment, or expired). For the rest of the countries, the legal status may only reflect on either Issued or Published.

Note that a summary of the patent family is also available in the **Family Status** of the **Overview** tab.



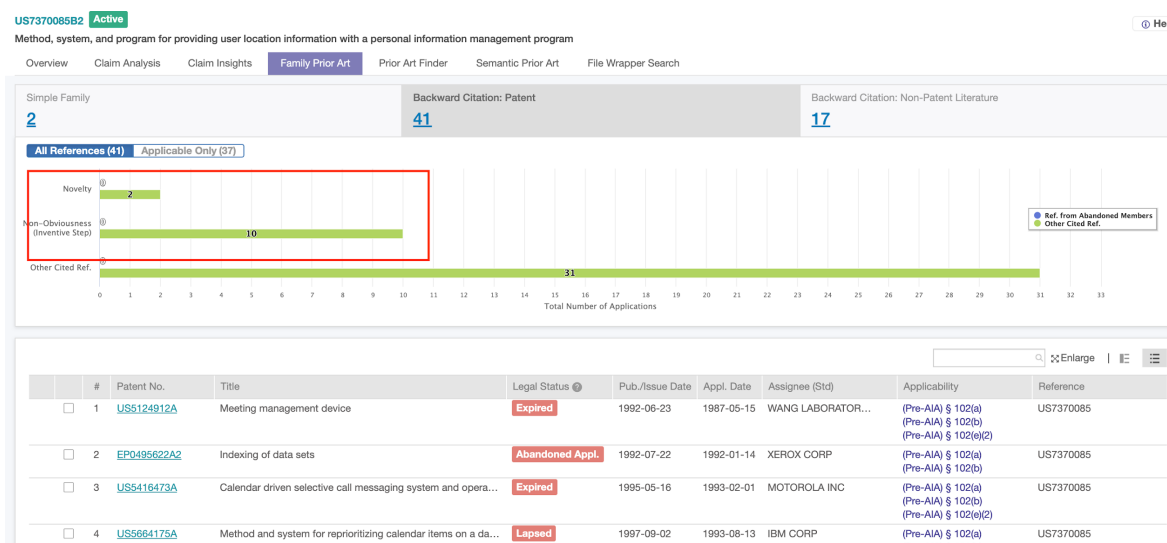


Back to the **Family Prior Art** tab. When clicking on the number in the box of “Backward Citation: Patent”, you can further go to the backward citation page.

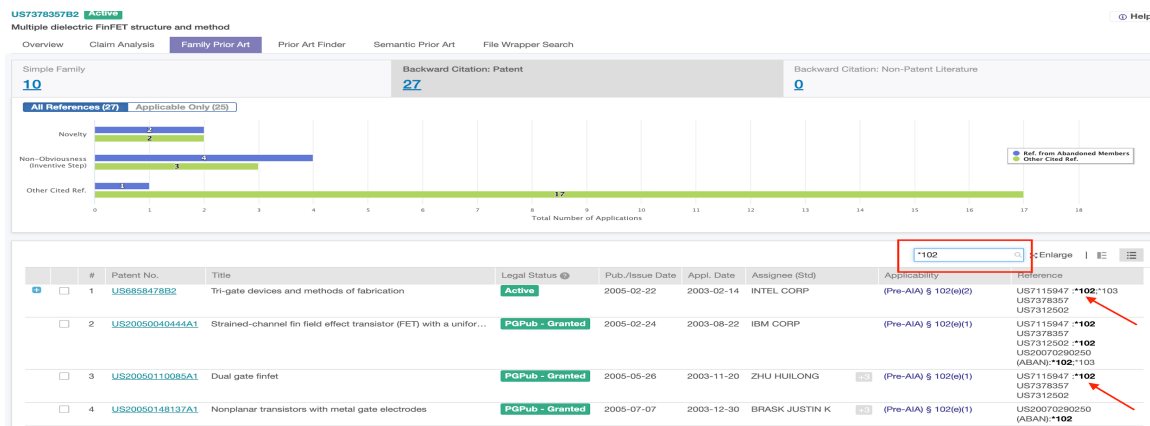
On the backward citation page, you can find prior art in the family citations of the patent at issue, especially citations of its family counterparts that are foreign patent applications. The "References" column lists the family members citing the prior art reference, and:

If the family member is abandoned during application, it will be marked with "ABAN";

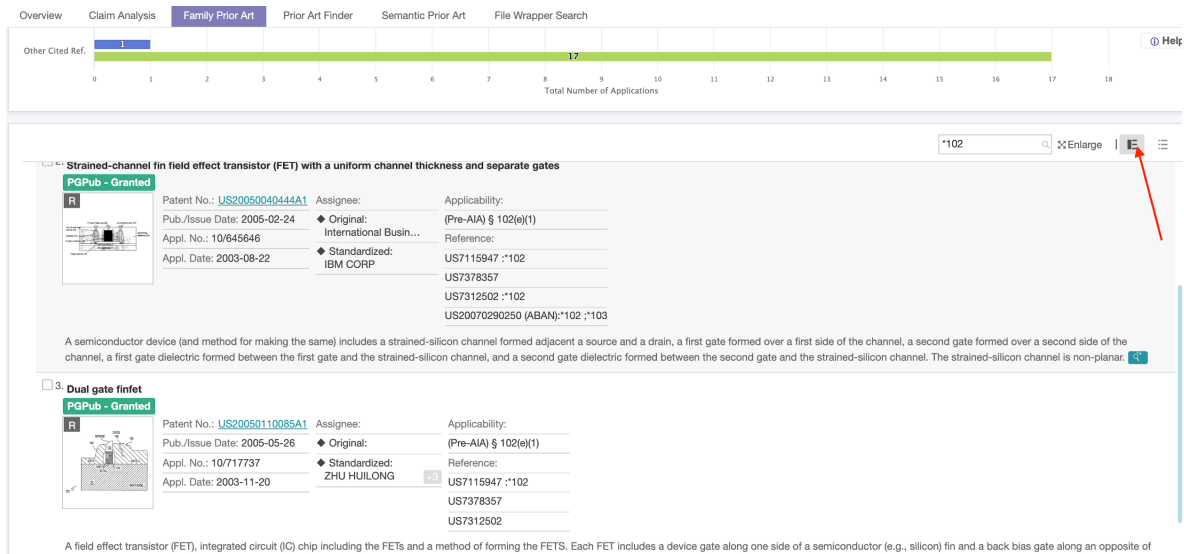
If the prior art reference was considered as 35 U.S.C § 102/103 prior art in the prosecution, re-Exam, IPR/CBM review or Post-grant review of the family member, it will be marked with "\*/E/I/P", "102/103". (For example, "\*102" for § 102 prior art in prosecution history.)



To quickly search for the prior art, enter “\*102” or “\*103” or even “ABAN” in the search box.



In addition to List View, Quality Insights offers Grid View with the first figure and abstract among other important patent information to facilitate a quick evaluation of relevant patents.



## Prior Art Finder

The **Prior Art Finder** tab provides additional prior art references based on Double Patenting, 102/ 103 US patent prior art references, and Pertinent Patents considered in the prosecution history and post-grant proceedings. The prior art references are drawn from **Event History** of the **Overview** tab.

10/252806 Prior Art Ref.  
18 Ref.

**Double Patenting**

**§ 102**  
US6202060 Tran  
US7162493 Weiss

**§ 103**  
US6202060 Tran  
US20050050163 (1st)  
US5852822 (1st) US6484199 (1st) US7222163 (1st)  
Srinivasan Eyal Grouard  
US7162493 (1st) US6282567 (1st) US6282567 (1st)  
Weiss Finch H, Finch II Finch II  
US5950201 (1st) US5832494 US20010003184  
Van Huben Egger  
app20020198962 US20040045040 US20020059589  
Hayward  
US6842761 US20040068750  
Diamond

**Pertinent Patents**

Please note these prior art references may mainly include prior art references of patent granted after 2003.

On the top left corner, there's a list of Page View features where **Printer Version**, **Select All**, **Add to Project**, **Compare**, and **Export** are available to avail themselves of further data uses.

On the page of "First Degree Art", you can see the total of prior art (backward rejections based on double patenting, § 102 or § 103) and subsequent art (forward rejections also based on double patenting, § 102 or § 103). Take the US7865498 patent for example, out of the 13 First Degree Art references, 8 patents are backward and the other 5 are forward ones.

US7865498B2 Lapsed

Broadcast network platform system

Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art 13 Second Degree Art 69 N Degree Art Select patents

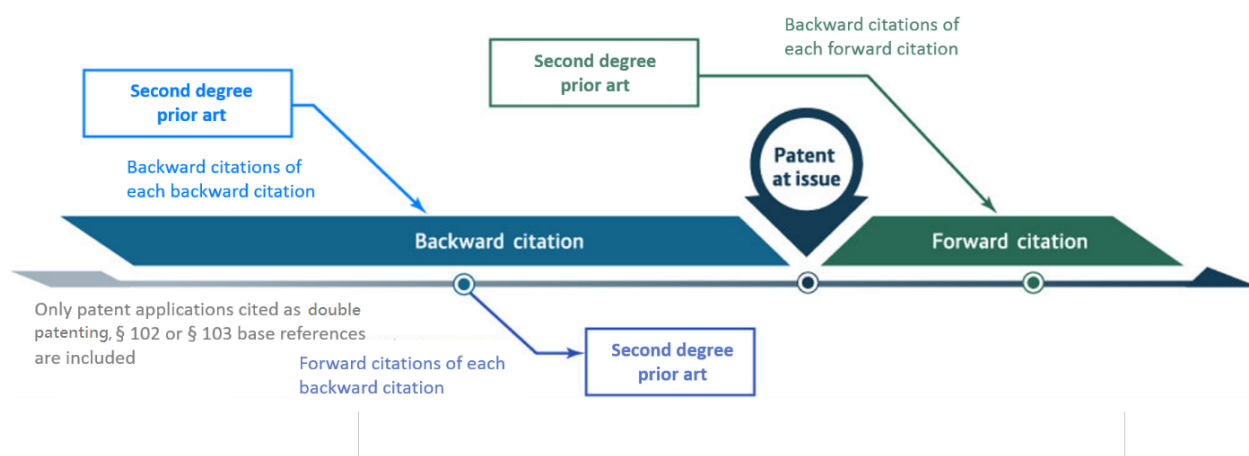
#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Legal Basis
1	US6202060B1	Data management system	Expired	2001-03-13	1996-10-29	TRAN BAO Q	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	Backward 102(b) (Prosecution) Backward 103(a) (Prosecution) Backward 103(a) (Prosecution)
2	US20030014415A1	Systems and methods for generating and providing previews of electronic files suc...	PQPub - Granted	2003-01-16	2002-08-22	WEISS YUVAL	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)	Backward 102(a) (Prosecution) Backward 103(a) (Prosecution) Backward 103(a) (Prosecution)
3	US20020116476A1	Streaming media search and playback system	PQPub - Granted	2002-08-22	2002-03-22	EYAL AVIV	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)	Backward 103(a) (Prosecution) Backward 103(a) (Prosecution) Backward 103(a) (Prosecution)
4	US6282567B1	Application software add-on for enhanced internet based marketing	Lapsed	2001-08-28	1999-06-24	JOURNYX INC	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	Backward 103(a) (Prosecution) Backward 103(a) (Prosecution) Backward 103(a) (Prosecution)
5	US20050050163A1	Continuously tunable, graphic internet navigation tool	Abandoned Appl.	2005-03-03	2004-09-28	COLE JAMES M	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)	Backward 103(a) (Prosecution)
6	US7222163B1	System and method for hosting of video content over a network	Active	2007-05-22	2001-04-06	VIRAGE INC	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	Backward 103(a) (Prosecution) Backward 103(a) (Prosecution)
7	US5950201A	Computerized design automation method using a single logical PPVL paradigm	Expired	1999-09-07	1996-12-06	IBM CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	Backward 103(a) (Prosecution)
8	US5852822A	Index-only tables with nested group keys	Expired	1998-12-22	1996-12-09	ORACLE CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	Backward 103(a) (Prosecution)
9	US7953631B1	Paid inclusion listing enhancement	Active	2011-05-31	2003-12-31	MICROSOFT ...	Not Applicable	Forward 102(e) (Prosecution) Forward 103(a) (Prosecution) Forward 103(a) (Prosecution)
10	US20070276855A1	METHODS, APPARATUSSES, SYSTEMS, AND COMPUTER PROGRAM PRODUCT...	Abandoned Appl.	2007-11-29	2006-05-09	MEDIATEK INC	Not Applicable	Forward 102(b) (Prosecution) Forward 103(a) (Prosecution) Forward 103(a) (Prosecution)
11	US7208209B1	System and method for viewing search results	Active	2007-04-03	2002-09-27	BELLSOUTH I...	Not Applicable	Forward 102(a) (Prosecution) Forward 102(a) (Prosecution) Forward 102(a) (Prosecution)
12	US20070088678A1	Finding and displaying galleries for users of search	PQPub - Granted	2007-04-19	2005-10-14	MICROSOFT ...	Not Applicable	Forward 102(b) (Prosecution) Forward 102(b) (Prosecution)
13	US20070174332A1	System and Method for Viewing Search Results	Abandoned Appl.	2007-07-26	2007-03-29	STEPHENS R...	Not Applicable	Forward 103(a) (Prosecution)

Prev 1 Next

On the page of "Second Degree Art", the patents identified include:

1. Backward citations' backward citations. They are the first degree art's double patenting citations, § 102 rejections, and § 103 rejections. (Note that § 102 and § 103 rejections, by definition, are limited to the US patent applications);
2. Backward citations' forward citations. They are the forward citations of the first degree art. The first degree art is either the double patenting, or the § 102 rejections, or the § 103 rejections of the forward citations.
3. Forward citations' backward citations. They are the backward citations of the first degree art. The backward citations include the double patenting, the § 102 rejections, or the § 103 rejections.

To further consider which one(s) as the second degree prior art, the application dates of the art are compared with the earliest priority date of the patent at issue. The following diagram exemplifies how it works in a simplistic way.



Using the 498 patent for example, the 69 second degree art references are identified by QI according to the above three definitions.

US7865498B2 Lapsed									
Broadcast network platform system									
Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder Semantic Prior Art File Wrapper Search									
First Degree Art			Second Degree Art				N Degree Art		
13			69				Select patents		
	#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Legal Basis
<input type="checkbox"/>	1	US20030220920A1	Matching database fields in an electronic d...	Abandoned Appl.	2003-11-27	2003-05-15	MENTOR GRAPHIC...	(Pre-AIA) § 102(e)(1)	US5950201 Forward 102 (Prosecution) US5950201 Forward 102(e) (Prosecution) US5950201 Forward 103(a) (Prosecution)
<input type="checkbox"/>	2	US6567980B1	Video cataloger system with hyperlinked ou...	Lapsed	2003-05-20	1998-08-14	VIRAGE INC	(Pre-AIA) § 102(e)(2)	US7222163 Backward 102(b) (Prosecution) US7222163 Backward 102(e) (Prosecution)
<input type="checkbox"/>	3	US20020038350A1	Method & system for enhanced web page ...	PGPub - Granted	2002-03-28	2001-04-30	INCEPTOR INC	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	US6282567 Forward 102(e) (Prosecution) US6282567 Forward 103(3) (Prosecution) US6282567 Forward 103(a) (Prosecution)
<input type="checkbox"/>	4	US20050263604A1	Mobile entertainment and communication d...	Abandoned Appl.	2005-12-01	2005-07-18	MINERVA INDUSTRI...	(Pre-AIA) § 102(e)(1)	US6202060 Forward 102(b) (Prosecution) US6202060 Forward 103(a) (Prosecution)
<input type="checkbox"/>	5	US20020129051A1	Previewing portions of the hypertext World ...	Abandoned Appl.	2002-09-12	2001-03-08	IBM CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	US20030014415 Forward 102(e) (Prosecution) US20030014415 Forward 103(a) (Prosecution)

To read the table with ease, we summarize each column with explanation:

1. **Applicability.** A preliminary evaluation on second degree art for eligibility as prior art of the patent at issue under 35 USC § 102.
2. **Patent Title of “List View”.** It is to facilitate an intuitive evaluation of relevance.
3. **Legal Basis.** This also helps evaluate the relevance of the prior art. Namely, the backward/forward citations of the patent at issue are ranked by their legal basis when they are considered as prior art of the patent at issue or they have the patent at issue considered as their prior art. For example, rejections of the patent at issue under 35 USC § 102 are ranked in advance of citations under § 103; Similarly, second degree prior art references are also ranked by their legal basis when they are considered as prior art of backward and forward citations of the patent at issue, or when they have the backward citations the patent at issue considered as prior art.

Using the US7865498B2 as an example, 69 second degree art references are identified; however, some are “not applicable” due to their application dates later than the earliest priority date of the 498 patent.

US7865498B2 **Lapsed**  
Broadcast network platform system



Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art	Second Degree Art	N Degree Art
13	69	<a href="#">Select patents</a>
<input type="checkbox"/> 19 <a href="#">US20040110545A1</a> Mobile entertainment and communication d...	<b>PGPub - Granted</b> 2004-06-10 2003-11-20 KIM KI IL (Pre-AIA) § 102(e)(1) US6202060 Forward 103 (Post-Grant)	
<input type="checkbox"/> 20 <a href="#">US20040017519A1</a> Wireless monitor cradle having a TV tuner	<b>PGPub - Granted</b> 2004-01-29 2002-07-23 SUNG CHIANG-TING (Pre-AIA) § 102(e)(1) US6202060 Forward 103(a) (Prosecution)	
<input type="checkbox"/> 21 <a href="#">US20040002962A1</a> Iconic representation of linked site characte...	<b>PGPub - Granted</b> 2004-01-01 2002-06-27 IBM CORP (Pre-AIA) § 102(e)(1) US20070174332 Backward 103(a) (Prosecution)	
<input type="checkbox"/> 22 <a href="#">US20020165873A1</a> Retrieving handwritten documents using m...	<b>PGPub - Granted</b> 2002-11-07 2002-02-19 IBM CORP (Pre-AIA) § 102(e)(1) US6202060 Forward 103(a) (Prosecution)	
<input type="checkbox"/> 23 <a href="#">US20020152222A1</a> Apparatus and method for organizing and-...	<b>PGPub - Granted</b> 2002-10-17 2001-11-15 HOLBROOK DAVID M (Pre-AIA) § 102(e)(1) US20070174332 Backward 103(a) (Prosecution)	
<input type="checkbox"/> 24 <a href="#">US20010047297A1</a> Advertisement brokering with remote ad ge...	<b>Abandoned Appl.</b> 2001-11-29 2001-02-14 WEN ALBERT (Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1) US7953631 Backward 103(a) (Prosecution)	
<input type="checkbox"/> 25 <a href="#">US7835896B1</a> Apparatus for evaluating and demonstratin...	<b>Lapsed</b> 2010-11-16 1999-04-06 RODE CONSULTIN... (Pre-AIA) § 102(e)(2) US5950201 Forward 103(a) (Prosecution)	
<input type="checkbox"/> 26 <a href="#">US7398312B1</a> Method and system for caching streaming ...	<b>Active</b> 2008-07-08 2000-03-29 LUCENT TECHNOL... (Pre-AIA) § 102(e)(2) US20020116476 Forward 103(a) (Prosecution)	
<input type="checkbox"/> 27 <a href="#">US6597377B1</a> Web links objects	<b>Lapsed</b> 2003-07-22 1997-02-25 IBM CORP (Pre-AIA) § 102(e)(2) US7200820 Backward 103(a) (Prosecution)	
<input type="checkbox"/> 28 <a href="#">US6072934A</a> Video previewing method and apparatus	<b>Expired</b> 2000-06-06 1997-10-20 ABECASSIS MAX (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2) US20030014415 Backward 103 (Prosecution)	
<input type="checkbox"/> 29 <a href="#">US5864863A</a> Method for parsing, indexing and searching...	<b>Expired</b> 1999-01-26 1996-08-09 DIGITAL EQUIPMEN... (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2) US20070088678 Backward 103(a) (Prosecution)	
<input type="checkbox"/> 30 <a href="#">US7200640B1</a> Continuously tunable, graphic internet navi...	<b>Lapsed</b> 2007-04-03 2000-05-24 COLE JAMES M (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2) US20050050163 Backward double patenting (Prosecution)	
<input type="checkbox"/> 31 <a href="#">US20040059720A1</a> Broadcast network platform system	<b>PGPub - Granted</b> 2004-03-25 2002-09-23 RODRIGUEZ ALEX ... (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2) US5852822 Forward 103(a) (Prosecution) US5950201 Forward 103(a) (Prosecution) US6202060 Forward 102(b) (Prosecution) US6202060 Forward 103(a) (Prosecution)	

In addition to “List View”, Quality Insights offers “Grid View” with the first figure and abstract among other important patent information to facilitate a quick evaluation of relevant patents.

US7865498B2 **Lapsed**  
Broadcast network platform system

Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art	Second Degree Art	N Degree Art
13	69	<a href="#">Select patents</a>
<input type="checkbox"/> 1. <b>Matching database fields in an electronic design automation environment</b> <b>Abandoned Appl.</b> 	Patent No.: <a href="#">US20030220920A1</a> Assignee: <b>Original: Mentor Graphics ...</b> Pub./Issue Date: 2003-11-27 Appl. No.: 10/440346 Appl. Date: 2003-05-15 <b>Standardized: MENTOR GRAPHI...</b>	Applicability: (Pre-AIA) § 102(e)(1) Legal Basis: US5950201 Forward 102 (Prosecution) US5950201 Forward 102(e) (Prosecution) US5950201 Forward 103(a) (Prosecution)
<input type="checkbox"/> 2. <b>Video catalog system with hyperlinked output</b> <b>Lapsed</b> 	Patent No.: <a href="#">US6597398B1</a> Assignee: <b>Original: Virage, Inc.</b> Pub./Issue Date: 2005-05-20 Appl. No.: 09/134499 Appl. Date: 1998-08-14 <b>Standardized: VIRAGE INC</b>	Applicability: (Pre-AIA) § 102(e)(2) Legal Basis: US7222163 Backward 102(b) (Prosecution) US7222163 Backward 102(e) (Prosecution)

On the page of “N Degree Art”, you can expand the citations based on double patenting, § 102 or § 103 rejections to find the next degree citations, namely the forward and backward citations, up to the sixth degree citations. In each degree of citations to be expanded, the maximum number is 20.

US7865498B2 **Lapsed**

Broadcast network platform system

Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art **13** Second Degree Art **69** N Degree Art **15**

Third Degree List | Selected 5/20 Patent(s) **Select top 20 patents in list** **Confirm**

#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Legal Basis
<input checked="" type="checkbox"/>	1 <a href="#">US20040103372A1</a>	Multimedia visualization and inte...	<b>PGPub - Granted</b>	2004-05-27	2003-11-04	RICOH CO LTD	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input type="checkbox"/>	2 <a href="#">US20030184598A1</a>	Television-based visualization a...	<b>PGPub - Granted</b>	2003-10-02	2002-06-17	RICOH CO LTD	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input checked="" type="checkbox"/>	3 <a href="#">US20050216443A1</a>	Method and system for indexing...	<b>PGPub - Granted</b>	2005-09-29	2003-02-12	STREAMSAGE INC	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input checked="" type="checkbox"/>	4 <a href="#">US20070044010A1</a>	System and method for indexin...	<b>PGPub - Granted</b>	2007-02-22	2006-08-14	SULL SANGHOON	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input type="checkbox"/>	5 <a href="#">US20080028047A1</a>	INTERACTIVE VIDEO APPLICAT...	<b>PGPub - Granted</b>	2008-01-31	2007-05-22	VIRAGE INC	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input type="checkbox"/>	6 <a href="#">US20050283741A1</a>	Method and apparatus for story...	<b>PGPub - Granted</b>	2005-12-22	2005-08-29	BALABANOVIC MA...	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input checked="" type="checkbox"/>	7 <a href="#">US20040095376A1</a>	Techniques for displaying inform...	<b>PGPub - Granted</b>	2004-05-20	2003-06-18	RICOH CO LTD	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input checked="" type="checkbox"/>	8 <a href="#">US20040090462A1</a>	Multimedia visualization and inte...	<b>PGPub - Granted</b>	2004-05-13	2002-02-21	RICOH CO LTD	(Pre-AIA) § 102(e)(1)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;
<input type="checkbox"/>	9 <a href="#">US7739601B1</a>	Media authoring and presentation	<b>Active</b>	2010-06-15	2002-01-23	MICROSOFT CORP	(Pre-AIA) § 102(e)(2)	US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10; US6567980 Forward 10;

Select up to 20 of the certain degree art references manually or click **Select Top 20 Patents In List**. Click the **Confirm** button to find the next degree of citations thereof on the right side of screen. They are also listed on the corresponding degree zone on the left-hand side.

Furthermore, you may click “any degree” shown on the left-hand side of screen to review the citation result of the given degree appearing on the right-hand side. You can **select** any citations again to re-define the new citations result to the next degree.

US7865498B2 **Lapsed**

Broadcast network platform system

Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art **13** Second Degree Art **69** N Degree Art **16**

Second Degree List | Selected 0/20 Patent(s) **Select top 20 patents in list** **Confirm**

#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Legal Basis
<input type="checkbox"/>	1 <a href="#">US20030220920A1</a>	Matching database fields in an e...	<b>Abandoned Appl.</b>	2003-11-27	2003-05-15	MENTOR GRAPHIC...	(Pre-AIA) § 102(e)(1)	US5950201 Forward 10; US5950201 Forward 10; US5950201 Forward 10;
<input type="checkbox"/>	2 <a href="#">US6567980B1</a>	Video cataloger system with hyp...	<b>Lapsed</b>	2003-05-20	1998-08-14	VIRAGE INC	(Pre-AIA) § 102(e)(2)	US7222163 Backward 1 US7222163 Backward 1
<input type="checkbox"/>	3 <a href="#">US20020038350A1</a>	Method & system for enhanced ...	<b>PGPub - Granted</b>	2002-03-28	2001-04-30	INCEPTOR INC	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	US6282567 Forward 10; US6282567 Forward 10; US6282567 Forward 10;
<input type="checkbox"/>	4 <a href="#">US20050263604A1</a>	Mobile entertainment and comm...	<b>Abandoned Appl.</b>	2005-12-01	2005-07-18	MINERVA INDUSTRI...	(Pre-AIA) § 102(e)(1)	US6202060 Forward 10; US6202060 Forward 10;
<input type="checkbox"/>	5 <a href="#">US20020129051A1</a>	Previewing portions of the hyper...	<b>Abandoned Appl.</b>	2002-09-12	2001-03-08	IBM CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	US20030014415 Forwar (Prosecution) US20030014415 Forwar (Prosecution)

Please note that the selected citations of a given degree will be cleared if you switch from the “N Degree Art” page to the “First Degree Art” page or the “Second Degree Art” page.

## Semantic Prior Art

This tab provides a combined 300 US, EP, JP, CN, KR and WO patents with the highest **semantic similarity** of the English titles, abstracts and all claims to the first claim and abstract of the patent at issue. To avoid redundancy, cross-reference to previously considered patents in the prosecution or PTAB, second-degree art, or family prior art will be highlighted as follows.

**CONS.** Previously considered in the prosecution or PTAB.

**2nd.** Also shown in “Second Degree Art”.

**FAMI.** Also shown in “Family Prior Art”.

Method, system, and program for providing user location information with a personal information management program

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder **Semantic Prior Art** File Wrapper Search

262 patent applications • 300 prior art references

#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Cross-Reference
1	JP2002-022464A	APPARATUS AND METHOD OF PROC...	Abandoned	2002-01-23	2000-07-05	MAZDA MOTOR CORP	Not Applicable	
2	US7475057B1	System and method for user navigation	Active	2009-01-06	2000-10-27	AMERICAN CALCAR INC	(Pre-AIA) § 102(e)(2)	CONS. FAMI
3	JP2002-297618A	PERSON INFORMATION RETRIEVING ...	Abandoned	2002-10-11	2001-02-19	TOSHIBA KK	Not Applicable	
4	JP2000-341208A	INFORMATION SERVICE SYSTEM AN...	Abandoned	2000-12-08	1999-05-31	TOSHIBA KK	(Pre-AIA) § 102(a)	
5	JP2002-290559A	SYSTEM FOR INFORMING RETRIEVE...	Abandoned	2002-10-04	2001-03-27	TOSHIBA KK	Not Applicable	
6	KR1020000001119A	LOCATION POSITIONING SYSTEM US...	Abandoned	2000-01-15	1998-06-09	KIM YOUNG-SUB	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b)	
7	JP2002-055153A	STANDARD AXIS FOR PORTABLE CO...	Abandoned	2002-02-20	2000-08-10	SATO JUN	Not Applicable	
8	KR100703298B1	METHOD FOR DISPLAYING TIME ACC...	Abandoned	2007-04-03	2001-04-25	SAMSUNG ELECTRONI...	Not Applicable	
9	JPH11-065434A	INFORMATION PROVISION SYSTEM, I...	PGPub - Granted	1999-03-05	1997-08-13	HITACHI LTD	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b)	
10	KR1020020029189A	Method of position service using guard...	PGPub - Granted	2002-04-18	2000-10-12	KOREA TELECOMMUNI...	Not Applicable	FAMI
11	JPH11-252003A	PERSONAL INFORMATION GUIDANC...	Abandoned	1999-09-17	1998-03-04	NIPPON TELEGRAPH & ...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b)	
12	EP1126376A1	METHOD AND APPARATUS FOR SUB...	PGPub - Granted	2001-08-22	2000-07-31	NTT DOCOMO INC	Not Applicable	

In addition to “List view”, Quality Insights offers “Grid View” for Semantic Prior Art with the first figures and abstracts among other important patent information to facilitate a quick evaluation of relevant patents.

US7370085B2 Active

Method, system, and program for providing user location information with a personal information management program

Overview Claim Analysis Claim Insights Family Prior Art Prior Art Finder **Semantic Prior Art** File Wrapper Search

262 patent applications • 300 prior art references

1. **APPARATUS AND METHOD OF PROCESSING INFORMATION FOR MOVING BODIES AND MEMORY MEDIUM HAVING STORED INFORMATION PROCESSING PROGRAMS FOR MOVING BODIES**

**Abandoned**

Patent No.: JP2002-022464A Assignee: Applicability:  
Pub./Issue Date: 2002-01-23 Original: Not Applicable  
Appl. No.: P2000-203742 Standardize: MAZDA MOTOR CORP  
Appl. Date: 2000-07-05

PROBLEM TO BE SOLVED: To improve the handling convenience of personal information management data(PIM) used for vehicles V to improve the convenient usefulness. SOLUTION: PIM data involving position data and time data and traffic data are inputted away from a vehicle V to induce a travel route of the user's vehicle V, related to position data of the PIM data based on the PIM data, thereby adequately inducing the travel route for the user's vehicle V according to the position data of the PIN data.

2. **System and method for user navigation**

**Active**

Patent No.: US7475057B1 Assignee: Applicability:  
Pub./Issue Date: 2009-01-06 Original: American Calcar Inc. (Pre-AIA) § 102(e)(2)  
Appl. No.: 09/699031 Standardize: AMERICAN CALCAR I...  
Appl. Date: 2000-10-27

## File Wrapper Search

This tab serves as a repository of major image file wrappers of the patent at issue, including:

1. All Versions of Patent Specifications and Claims Amendments. This helps you trace the documents of original claims (CLM) and the amendments of claims in remark (REM) under rejection in the prosecution history.
2. Rejections, Remarks, and Notice of Allowance in Prosecution History. You will find comparisons of considered prior art to the patent at issue in non-final rejection (CTNF) and final rejection (CTFR), which are also easily searchable via filtering by claim terms. In addition, you will also find intrinsic evidence for claim construction in notice of allowance (NOA), terminal disclaimer filed (DIST) and request for continued examination (RCE) in the prosecution history.
3. Petitions, Response/Reply, and Decision in Post-Grant Proceedings. You will find comparisons of prior art to the patent by a third party at issue in request (or petitions,) determination (or decision of institution,) patent owner's remarks (or response) and certificate (or final decision) in requests for reexamination (or IPR, CBM, and PGR patent reviews,) which are also easily searchable via filtering by claim terms. In addition, you will also find claim constructions in post-grant proceedings. PTAB dockets are updated on a daily basis, with reexamination files only updated when requests and certificates of reexamination occurs.

At the top left corner, there's a list of **Page View** features where **Printer Version**, **Select All**, and **Download** are available to avail themselves of further data uses.

The screenshot displays the 'File Wrapper Search' interface. At the top, there is a navigation bar with tabs: Overview, Claim Analysis, Claim Insights, Family Prior Art, Prior Art Finder, Semantic Prior Art, and File Wrapper Search (which is active). Below the navigation bar, there are three icons: a printer icon, a checkmark icon, and a download icon, all enclosed in a red box. The main content area is divided into two sections. The first section, 'Specification and Claims (7 Records)', contains a table with columns: Patent No., Document Description, and Date. The second section, 'Rejections, Remarks, and Notice of Allowance in Prosecution History (7 Records)', contains a table with columns: Descriptions (Code), Party, and Date. Both tables list various patent documents and their associated dates.

Patent No.	Document Description	Date
N/A	Claims (Origin)	2002-01-02
N/A	Claims (Amendment)	2002-01-02
<a href="#">US20030125846A1</a>	Systems and methods for distributing information to an operator of a vehicle	2003-07-03
N/A	Claims (Amendment)	2003-07-25
N/A	Claims (Amendment)	2004-01-20
N/A	Claims (Amendment)	2004-02-20
<a href="#">US680746B2</a>	Systems and methods for distributing information to an operator of a vehicle	2004-10-19

Data Last Updated on 2020-02-18

Descriptions (Code)	Party	Date
<a href="#">Notice of Allowance (NOA)</a>	USPTO	2004-06-07
<a href="#">Notice of Allowance (NOA)</a>	USPTO	2004-06-07
<a href="#">Request for Continued Examination (RCEX)</a>	Applicant	2004-02-20
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	Applicant	2004-02-20
<a href="#">Applicant Arguments/Remarks Made in an Amendment (REM)</a>	Applicant	2004-01-20
<a href="#">Final Rejection (CTFR)</a>	USPTO	2003-11-19

Quality Insights provides a variety of useful functions that enables users to link to a patent's page view, to print, to select all patents at once, to add to project, to compare, or to export.



## Tips

Quality Insights provides a variety of useful functions that enables users to link to a patent's page view, to print, to select all patents at once, to add to project, to compare, or to export.

## Prior Art Analytics

This function is intended for prior art claim charting.



The Prior Art Analytics icon is always located next to the US patents identified in **Family Prior Art**, **Prior Art Finder** and **Semantic Prior Art**. It compares the patent's claims with the US prior art references, using a percentage % to reflect the disclosure rate of claim terms.

In the example of **US7773588B2** as the patent at issue, we click the icon next to **US6219050B1**, one of the 2nd degree prior art references on the top.

US7773588B2 **Active** §102(2) §103(4)

System and method for cross protocol communication

Overview Claim Analysis Claim Insights Family Prior Art **Prior Art Finder** Semantic Prior Art File Wrapper Search

First Degree Art **6** Second Degree Art **30** N Degree Art [Select patents](#)

Forward/backward citations of the First Degree Art Ranked By: Legal Basis (§102 first) |

<input type="checkbox"/>	#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Applicability
<input type="checkbox"/>	1	<a href="#">US6219050B1</a>	Bounce diagram: a user interface for...	<b>Expired</b>	1997-07-16	2001-04-17	COMPUWARE CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)
<input type="checkbox"/>	2	<a href="#">US20030227908A1</a>	Method and apparatus for negotiatin...	<b>PGPub - Granted</b>	2002-11-04	2003-12-11	SCOGGINS SHWU-YA...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)

## Summary Table

After clicking on the Prior Art Analytics icon, a summary table will show upon an individual pop-up page, where a disclosure rate of claim terms corresponding to the file wrapper of the patent at issue. For example, Claim 1 comes with a percentage of **80%**, which indicates how much the key terms are explained by the examiners with their prior art references during the prosecution history and post-grant proceedings. For more details about how the % is calculated, please refer to [Claim Insights](#).

In correspondence to the selected prior art US6219050B1, "Select to Calculate" indicates that the disclosure rate of claim terms extracted in the US7773588B2 (patent at issue) is not yet reckoned by QI.

**US7773588B2** Active

**Summary Table**  
How is each claim disclosed by the prior art? Select claims for detailed comparison

① The percentage "%" indicates how many elements in a claim being fully or partially disclosed by the prior art. A claim being 100% disclosed has all keywords in all of its elements mapped to the specification of prior art.

Claims	Selected Prior Art Ref.	Claim# 1
<input checked="" type="checkbox"/> #1 (80%)	Select to Calculate	1. A method for multimedia communication comprising: receiving a multimedia data stream at a communication controller in a first protocol from a communication device, wherein the first protocol comprises a signaling protocol; detecting a type of said first protocol; converting said first protocol into an intermediate protocol; translating said intermediate protocol into a second protocol, wherein the second protocol comprises a signaling protocol; and transmitting said multimedia data stream in said second protocol to a target communication device; wherein said first protocol comprises one of a text-based protocol and a binary protocol and wherein said second protocol comprises one of a binary protocol and a text-based protocol.
<input type="checkbox"/> #7 (100%)	Select to Calculate	
<input type="checkbox"/> #11 (80%)	Select to Calculate	
<input type="checkbox"/> #18 (90%)	Select to Calculate	

**Confirm**

How to calculate it? Let's choose Claim 1 to proceed with. Click on **Confirm** and QI will calculate each and every claim element in terms of individual disclosure. Once it's done, and you flip back to the Summary Table, now you'll see that **50%** of the terms from Claim 1 of US7773588B2 can be found in the full text of US6219050B1. The closer to 100%, the higher potential this selected prior art.

**US7773588B2** Active

**Summary Table**  
How is each claim disclosed by the prior art? Select claims for detailed comparison

① The percentage "%" indicates how many elements in a claim being fully or partially disclosed by the prior art. A claim being 100% disclosed has all keywords in all of its elements mapped to the specification of prior art.

Claims	Selected Prior Art Ref.	Claim# 1
<input checked="" type="checkbox"/> #1 (80%)	50%	1. A method for multimedia communication comprising: receiving a multimedia data stream at a communication controller in a first protocol from a communication device, wherein the first protocol comprises a signaling protocol; detecting a type of said first protocol; converting said first protocol into an intermediate protocol; translating said intermediate protocol into a second protocol, wherein the second protocol comprises a signaling protocol; and transmitting said multimedia data stream in said second protocol to a target communication device; wherein said first protocol comprises one of a text-based protocol and a binary protocol and wherein said second protocol comprises one of a binary protocol and a text-based protocol.
<input type="checkbox"/> #7 (100%)	Select to Calculate	
<input type="checkbox"/> #11 (80%)	Select to Calculate	
<input type="checkbox"/> #18 (90%)	Select to Calculate	

## Select A Claim

After choosing a claim, you will see it is further broken down into claim elements. A cursor's hover-over can reveal the content of a claim element, where the % indicates the disclosure rate of its claim terms explained in the file wrappers and dockets.

How to choose another claim? Simply click **Summary Table** to go back .

In the example of comparing the first claim of the **US7773588B2** at issue with the potential prior art **US6219050B1**, each % under US6219050B1 indicates that, out of the total number of claim terms defined for each corresponding element of US7773588B2,, how many terms can also be discovered in the full text of US6219050B..

Summary Table > Claim# 1 | Select A Claim ①

How is each claim element disclosed by the prior art? Click numbers to find detailed comparison.

① The percentage "%" indicates how many keywords in an element being disclosed by the prior art

Claims ①	Prior Art Ref.
	US6219050B1
#1.01 (0%)	N/A
#1.02 (100%)	25%
#1.03 (100%)	50%
#1.04 (0%)	N/A
#1.05 (100%)	50%
#1.06 (100%)	66%
#1.07 (100%)	50%
#1.08 (100%)	33%
and transmitting said multimedia data stream in said second protocol to a target communication device;	N/A

To explore into a claim element, click on its corresponding %. Let's use **#1.06** for example. It has a disclosure rate of **66%** corresponding to it.

How is the 66% calculated? Two (*protocol* and *transmitting*) of the three claim terms (*protocol*, *transmitting*, and *intermediate*) are found in the content of US6219050B1. There are **19** results of these two claim terms, which can appear in different tenses (verbs) or singular/ plural forms (nouns).

On the Keyword List, **FW** stands for File Wrapper, suggesting his keyword had been disclosed during the prosecution history and post-grant proceedings. **PA**, Prior Art for short, means this keyword is found in this selected prior art.

US7773588B2 Active

Summary Table > Claim# 1 > Claim# 1.06 > Result(s) | Select A Claim ①

How is each claim element disclosed by the prior art?

Find 19 Result(s) | Disclosure Rate : 66%

Claim Element

#1.06 translating said intermediate protocol into a second protocol wherein

Keyword List

- protocol (29) [FW] [PA]
- translating (1) [FW] [PA]
- intermediate (0) [FW]

US6219050B1 Content

Abstract

A user interface for a protocol analyzer or similar network management software product provides a graphical representation of the behavior of packets in a packet trace with respect to time, graphically showing a transmission time, source node and destination node. In a preferred implementation, the user interface, called a "bounce diagram", contains a time axis, and a number of node lines parallel thereto, each node line associated with a node label for a node in the packet trace. Each packet in the packet trace is represented by a packet arrow which extends from a node line for the source node to a node line for the destination node of the packet. The packet arrow is preferably color coded to indicate the size of the packet. Preferably, there is a packet density graph which indicates in each time interval a number or percentage of packets of the packet trace transmitted during the time interval. The packet density graph may be color coded to indicate the average size of packets during each time interval. The bounce diagram is interactive and responds to a user selection of a packet arrow by displaying a pop-up window with the packet size, source and destination node addresses, transmission time, and protocol decodes for the packet. The user may also zoom in and out of the diagram by selecting an area thereof, with the diagram automatically rescaling the time axis to correspond to the time within the selected area.

Specification

[10] In conventional network analyzers, this information for a packet trace is displayed to the user in a packet trace table. FIG. 1 illustrates a conventional packet trace table. The table includes a sequential list of packets, one packet per row, with columns for time, source and destination addresses, length, and the protocol decodes. The table is quite understandable to a network professional who understands the protocols and is tasked with solving network protocol and network device problems.

[11] The maturation and standardization of networking protocols as well as the availability of cheaper, more powerful desktop, laptop and server computers has facilitated the migration from mainframe applications to distributed applications. As distributed applications are developed and deployed there is often the need to understand their network behavior.

[12] Cases where an application's network behavior must be understood include troubleshooting poor performance of the application, determining how the application can be "tuned" to improve response time or increase network efficiency, and profiling the application to determine its impact on the network. A protocol analyzer is used in these situations because of the ability to capture and display the packets that the application sends over the network. However, the packet trace table disclosed by

## Highlighter

Wanna do your own keyword listing? You can click on the Highlighter icon to personalize keywords by **Saving to Keyword Set**. Or simply use it to quickly search a certain keyword or phrase in the full text.

Summary Table > Claim# 1 > Claim# 1.06 > Result(s) | Select A Claim 1

How is each claim element disclosed by the prior art?

**Keywords (3)**

Select a Keyword Set

analyzer (15) X

packet arrow (5) X

protocol (33) X

+ Add new keyword

Save to Keyword Set

**Claim Element**

#1.06 translating said intermediate protocol into a second protocol, wherein

**Keyword List**

- protocol (29) FW PA
- translating (1) FW PA
- intermediate (0) FW

**US6219050B1 Content**

**Abstract**

A user interface for a protocol analyzer or similar network management software product provides a graphical representation of the behavior of packets in a packet trace with respect to time, graphically showing a transmission time, source node and destination node. In a preferred implementation, the user interface, called a "bounce diagram," contains a time axis, and a number of node lines parallel thereto, each node line associated with a node label for a node in the packet trace. Each packet in the packet trace is represented by a packet arrow which extends from a node line for the source node to a node line for the destination node of the packet. The packet arrow is preferably color coded to indicate the size of the packet. Preferably, there is a packet density graph which indicates in each time interval a number or percentage of packets of the packet trace transmitted during the time interval. The packet density graph may be color coded to indicate the average size of packets during each time interval. The bounce diagram is interactive and responds to a user selection of a packet arrow by displaying a pop-up window with the packet size, source and destination node addresses, transmission time, and protocol decodes for the packet. The user may also zoom in and out of the diagram by selecting an area thereof, with the diagram automatically rescaling the time axis to correspond to the time within the selected area.

**Specification**

[10] In conventional network analyzers, this information for a packet trace is displayed to the user in a packet trace table. FIG. 1 illustrates a conventional packet trace table. The table includes a sequential list of packets, one packet per row, with columns for time, source and destination addresses, length, and the protocol decodes. The table is quite understandable to a network professional who understands the protocols and is tasked with solving network protocol and network device problems.

[11] The maturation and standardization of networking protocols as well as the availability of cheaper, more powerful

## Show or Hide Figures

In both Summary Table and Select A Claim, you can always view the figures of a patent if they can help better understand the claims.

In Summary Table, click on the **Show Figures** icon to bring out all the figures. Click on one of them to enlarge the image. When they are done, choose **Hide Figures** to get the figures hidden.

US7773588B2 Active

Summary Table

How is each claim disclosed by the prior art? Select claims for detailed comparison

① The percentage "%" indicates how many elements in a claim being fully or partially disclosed by the prior art. A claim being 100% disclosed has all keywords in all of its elements mapped to the specification of prior art.

Claims	Selected Prior Art Ref.
<input type="checkbox"/> #1 (80%)	50%
<input type="checkbox"/> #7 (100%)	Select to Calculate
<input type="checkbox"/> #11 (80%)	Select to Calculate
<input type="checkbox"/> #18 (90%)	Select to Calculate

**Claim# 1**

1. A method for multimedia communication comprising: receiving a multimedia data stream at a communication controller in a first protocol from a communication device, wherein the first protocol comprises a signaling protocol; detecting a type of said first protocol; converting said first protocol into an intermediate protocol; translating said intermediate protocol into a second protocol, wherein the second protocol comprises a signaling protocol; and transmitting said multimedia data stream in said second protocol to a target communication device; wherein said first protocol comprises one of a text-based protocol and a binary protocol and wherein said second protocol comprises one of a binary protocol and a text-based protocol.

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Similarly, on the Select A Claim pages, you can click on the **Show Figures** icon to better understand the potential art for references. To deactivate the function, click on the **Hide Figures** icon next to it.

The screenshot displays a patent search interface. At the top, there are colored circles representing different claim elements and a search bar with the text "Find 19 Result(s) | Disclosure Rate : 66%". Below the search bar, the "Claim Element" section shows a list of claims, including #1.06, which is highlighted. The "Keyword List" section shows a list of keywords, including "protocol", "intermediate", "protocol", "translating", "translate", and "intermediate". The "US6219050B1 Content" section contains the "Abstract" and "Specification" for the patent. The "Abstract" describes a user interface for a protocol analyzer. The "Specification" includes a paragraph [10] describing a packet trace table. On the right side, there is a grid of figures labeled FIG. 1 through FIG. 7. A red box highlights the "Show Figures" icon in the top right corner of the figure grid.

## Patent Page

You can click on any patent number to view the patents in detail. For example, you click on the **US9606907B2** patent as follows.

**US9606907B2** Active \$102(1) \$103(2)

Memory module with distributed data buffers and method of operation

[Overview](#) [Claim Analysis](#) [Claim Insights](#) [Family Prior Art](#) [Prior Art Finder](#) [Semantic Prior Art](#) [File Wrapper Search](#)

Event History  
**6**

Family Status  
**14** Applications

Prior Art  
**513** Applications / **343** NPL References

**Event History**  
Validity challenges to a patent in its prosecution history and post-grant events  
1 Prosecution History / 5 Post-Grant

On the **Patent Page** view, you should be able to find Quality and Value Rankings, Legal Status, Bibliography, Images among others. When you click on the other tabs, you will get “Simple/ Extended Families, Backward/Forward Citations, History (of Application, Assignment, Fee and Patent Term Adjustment, Prosecution History as son on.

**US9606907B2** Active

Quality: AAA Value: AAA

Memory module with distributed data buffers and method of operation

[Full Text](#) [Simple Family](#) [Extended Family](#) [Citations](#) [History](#) [Original Document](#)

**Abstract**

A memory module is operable to communicate with a memory controller via a data bus and a control/address bus and comprises a module board; a plurality of memory devices mounted on the module board; and multiple sets of data pins along an edge of the module board. Each respective set of the multiple sets of data pins is operatively coupled to a respective set of multiple sets of data lines in the data bus. The memory module further comprises a control circuit configured to receive control/address information from the memory controller via the control/address bus and to produce module control signals. The memory module further comprises a plurality of buffer circuits each being disposed proximate to and electrically coupled to a respective set of the multiple sets of data pins. Each buffer circuit is configured to respond to the module control signals by enabling data communication between the memory controller and at least one first memory device among the plurality of memory devices and by isolating at least one second memory device among the plurality of memory devices from the memory controller.

**Bibliography**

Earliest Priority :	2009-07-16
Earliest Appl. :	2009-07-15
Legal Status :	Estimated Exp. Date:2030-07-05. 20 years from filing date 2009-07-16 of 12/504131 plus a term adjustment of 354 days Last Updated On 2019-12-09
Curr. Assignee :	<a href="#">NETLIST INC</a> 2019-09-23
Assignee (Std) :	<a href="#">NETLIST INC</a> (+Original Assignee)
Patent Family :	21 Members( <a href="#">Family ID : 42610062</a> ) US(5)/ CN(4)/ TW(4)/ DE(2)/ EP(2)/ CZ(1)/ JP(1)/ KR(1)/ WO(1)

**Figure (14)**

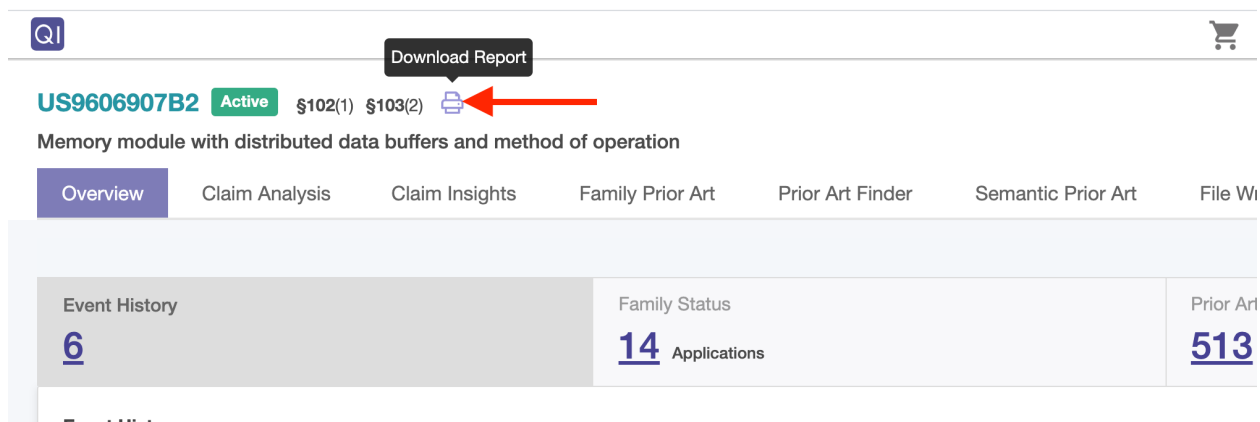
**Specification**

BACKGROUND

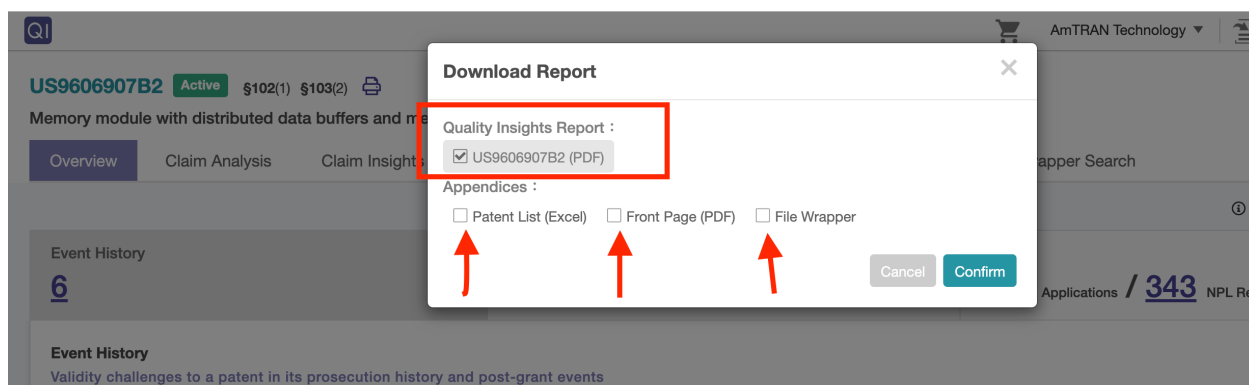
CROSS-REFERENCE TO RELATED APPLICATIONS

## Download Report

You can save a QI Report in .pdf and/or appendices onto a device by clicking the Download Report icon.

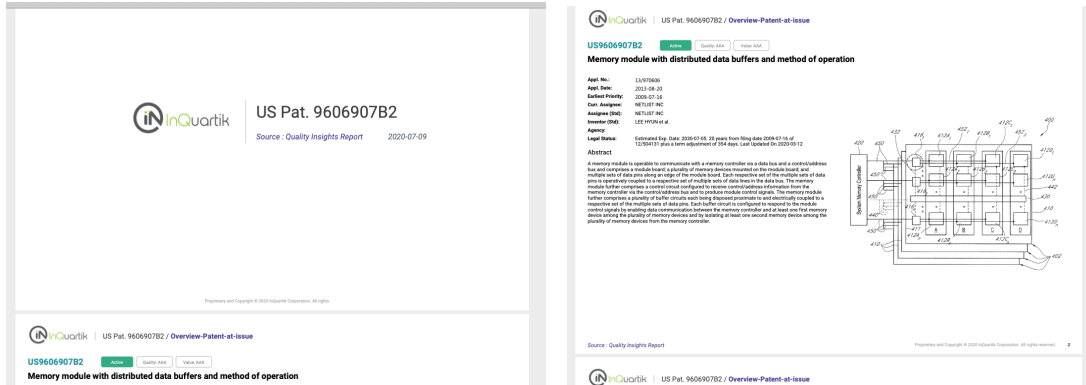


A pop-up window will ask if you want the QI Reports together with Patent List (Excel), Front Page (PDF) and/or File Wrapper.



## Quality Insights Report

When the Report box is checked, in the example of US9606907B2 patent, a filename “QI\_Report\_US Pat 9606907B2” will be saved into your designated folder. And the QI Report will include all the charts, graphics as well as the front pages of patents listed in prosecution, post-grant proceedings, Family Prior Art, Prior Art Finder (the first two degrees) and Semantic Prior Art.



## Appendices

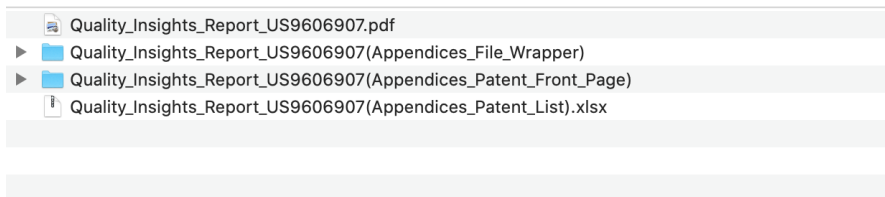
Wanna retrieve all the patent data of the report? It ranges from the **patent list** to the **front pages** even to all the **file wrapper** and docket entries; you name it. Put a “check mark” on the data you want, and the QI Data Export (in this case, QI Data Export: US9606907) will consolidate your picks in a zip file.

Job Overview			
Task	Execute Time	Status	Action
QI Data Export: US9606907	2020-07-09 20:23	<div><div></div></div>	

When the job is completed, you can download and unzip the file to view the data.

Job Overview			
Task	Execute Time	Status	Download
QI Data Export: US9606907	2020-07-09 20:23	Completed	

The following is what the unzipped file of QI data Export: US9606907 looks like.





## Select All

To select all the items on the current page for bulk operations such as **Add to Project**, **Compare**, or **Export**, you can put a check mark on the box located in the upper left-hand corner. In this example, 60 patents are selected because that is how many patents are appearing on each page.

If the total of patents across all the pages is looked for, click “Select all 300 patents in this query”.

Overview

Claim Analysis

Claim Insights

Family Prior Art

Prior Art Finder

Semantic Prior Art

File Wrapper Search

① How to Use the Semantic Prior Art

① How the Prior Art References Are Ranked in Quality Insights

Most Relevant IP5 & WO 300 prior art references based on Semantic Similarity among the first claims and abstracts.











Ranked By : Relevance |

Add the selected patents to your Select Project and Select Folder.

You can add to a new folder and name the folder name. When necessary, you can also put a memo to explain why the patents are added.

## Compare

Make comparison between this patent at issue and the selected patent(s).

How the Prior Art References Are Ranked								
Most Relevant IP5 & WO 300 prior art references based on <a href="#">Semantic Similarity</a> among the first claims and abstracts.					Ranked By : Relevance   <input type="text"/>     			
<input type="checkbox"/>	#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Applicability
3 patents are selected								
<input checked="" type="checkbox"/>	1	<a href="#">US20020001214A1</a>	 Two channel memory system having share...	<span>PGPub - Granted</span>	2001-02-06	2002-01-03	SAMSUNG ELECTRONICS...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
<input checked="" type="checkbox"/>	2	<a href="#">US6414904B2</a>	 Two channel memory system having share...	<span>Abandoned</span>	2001-02-06	2002-07-02	SAMSUNG ELECTRONICS...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)
<input checked="" type="checkbox"/>	3	<a href="#">US20060139983A1</a>	 Memory module routing	<span>Abandoned</span>	2004-12-23	2006-06-29	SPRIETSMA JOHN T	+1 (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
<input type="checkbox"/>	4	<a href="#">US20080266778A1</a>	 Memory module routing	<span>Abandoned</span>	2008-03-21	2008-10-30	INTEL CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)
<input type="checkbox"/>	5	<a href="#">US20020022405A1</a>	 Memory modules having conductors at ed...	<span>PGPub - Granted</span>	2001-04-30	2002-02-21	JUNG TAE-SUNG	+1 (Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)

There are three tool functions that are helpful in making a comparison between patents. They are **Patent List**, **Highlighter** and **Memo**.

## Patent List

It enables users to drag and drop one select patent onto the right box for a side-by-side comparison.





Patent list (4)

US20020001214A1  
Two channel memory system having shared control and address bus and memory modules used therefor


US6414904B2  
Two channel memory system having shared control and address bus and memory modules used therefor

US20060139983A1  
Memory module routing

US9606907B2  
Memory module with distributed data buffers and method of operation

US9606907B2 Active

Quality: AAA Value: AAA  Risk Rel...

Memory module with distributed data buffers and method of operation


Full Text

Simple FamilyExtended FamilyCitationsHi>


Abstract

A memory module is operable to communicate with a memory controller via a data bus and a control/address bus and comprises a module board; a plurality of memory devices mounted on the module board; and multiple sets of data pins along an edge of the module board. Each respective set of the multiple sets of data pins is operatively coupled to a respective set of multiple sets of data lines in the data bus. The memory module further comprises a control circuit configured to receive control/address information from the memory controller via the control/address bus and to produce module control signals. The memory module further comprises a plurality of buffer circuits each being disposed proximate to and electrically coupled to a respective set of the multiple sets of data pins. Each buffer circuit is configured to respond to the module control signals by enabling data communication between the memory controller and at least one first memory device among the plurality of memory devices and by isolating at least one second memory device among the plurality of memory devices from the memory controller.

Figure (14)



US20020001214A1 PGPub - Granted

Quality: B Value: D  Risk Rel...

Two channel memory system having shared control and address bus and memory modules used therefor

Full Text

Simple FamilyExtended FamilyCitationsHi>

Abstract

A memory system, which can improve the operation speed of a data bus and is suitable for widening bandwidth by extending the width of the data bus, and memory modules used for the memory system are provided. In the memory system, data buses of a first channel and data buses of a second channel are extended from a memory controller and are arranged on the left and right of a common control and address bus, respectively. Memory modules of a first group are loaded in the data buses of the first channel and memory modules of a second group are loaded in the data buses of the second channel. Also, in the memory system, the memory modules share the common control and address bus positioned in the center. Also, the memory modules are arranged so that some parts of the memory modules overlap each other and that the memory modules of the first group and the memory modules of the second group cross each other. Each of the memory modules includes a plurality of memory devices mounted on the memory module, a signal input and output portion positioned on a side of the memory module, the signal input and output portion for connecting the memory module to a connector on a system board, a buffer mounted on the memory module, and a control and address bus connected between the signal input and output portion and the buffer. The memory devices are sequentially connected to the output line of the buffer so that a signal that passed through the control and address bus is input to the respective memory devices at time intervals through the buffer.

Figure (14)

## Highlighter

It can be used to quickly search for keywords or phrases in both patent pages.

**Keywords (3)**

Select a Keyword Set

memory

Data

modules

Add new keyword

Press Enter

Save to Keyword Set

**US9606907B2** Active

Quality: AAA Value: AAA Risk Rel...

**Memory module with distributed data buffers and method of operation**

Full Text Simple Family Extended Family Citations Hi

**Abstract**

A memory module is operable to communicate with a memory controller via a data bus and a control/address bus and comprises a module board; a plurality of memory devices mounted on the module board; and multiple sets of data pins along an edge of the module board. Each respective set of the multiple sets of data pins is operatively coupled to a respective set of multiple sets of data lines in the data bus. The memory module further comprises a control circuit configured to receive control/address information from the memory controller via the control/address bus and to produce module control signals. The memory module further comprises a plurality of buffer circuits each being disposed proximate to and electrically coupled to a respective set of the multiple sets of data pins. Each buffer circuit is configured to respond to the module control signals by enabling data communication between the memory controller and at least one first memory device among the plurality of memory devices and by isolating at least one second memory device among the plurality of memory devices from the memory controller.

**Figure (14)**

**US20020001214A1** PGPub - Granted

Quality: B Value: D Risk Rel...

**Two channel memory system having shared control and address bus and memory modules used therefor**

Full Text Simple Family Extended Family Citations Hi

**Abstract**

A memory system, which can improve the operation speed of a data bus and is suitable for widening bandwidth by extending the width of the data bus, and memory modules used for the memory system are provided. In the memory system, data buses of a first channel and data buses of a second channel are extended from a memory controller and are arranged on the left and right of a common control and address bus, respectively. Memory modules of a first group are loaded in the data buses of the first channel and memory modules of a second group are loaded in the data buses of the second channel. Also, in the memory system, the memory modules share the common control and address bus positioned in the center. Also, the memory modules are arranged so that some parts of the memory modules overlap each other and that the memory modules of the first group and the memory modules of the second group cross each other. Each of the memory modules includes a plurality of memory devices mounted on the memory module, a signal input and output portion positioned on a side of the memory module, the signal input and output portion for connecting the memory module to a connector on a system board, a buffer mounted on the memory module, and a control and address bus connected between the signal input and output portion and the buffer. The memory devices are sequentially connected to the output line of the buffer so that a signal that passed through the control and address bus is input to the respective memory devices at time intervals through the buffer.

**Figure (4)**

## Memo

It readies users to make multiple notes for the comparing patents, part of sentences, or even a figure. The notes are viewable among users in collaboration.

**Memo**

US7865498B2

US7865498B2

Adding a Memo

- Select any word, sentence, or paragraph and click on the "Add Memo" tooltip
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- Zoom in and click on the (M) button located in the bottom right-hand corner to add a memo to one of the pictures

**US7865498B2** Lap

Quality: D Value: AA

**Broadcast network platform**

Full Text Simple Family

**Abstract**

A multimedia search system types, including text, icon, audio, and video associated with the search results screen, without linking directly to the information delivered by the numerical system in which the categorized and sub categorized in a station/channel/program structured environment. The user can directly access stations, channels, or programs using predefined numerical index numbers.

**Figure (7)**

**Memo**

US7865498B2

2019-09-08 23:08

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B I U G Normal A M

Add Memo

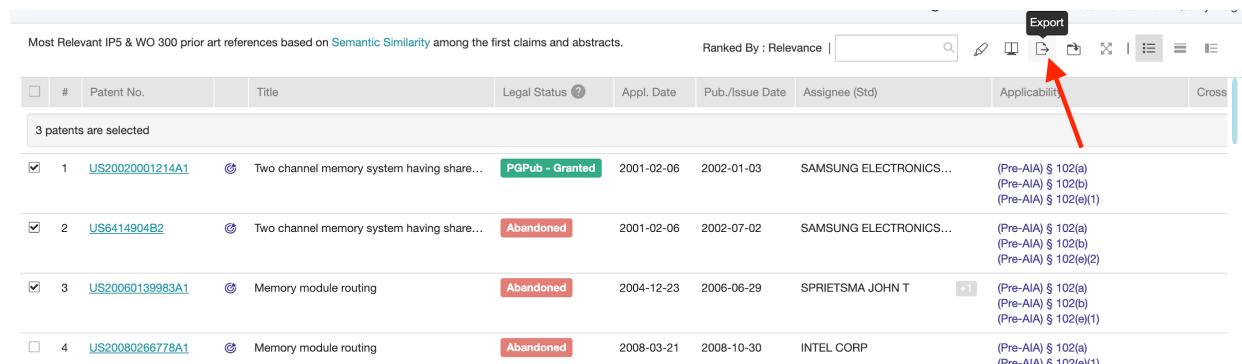
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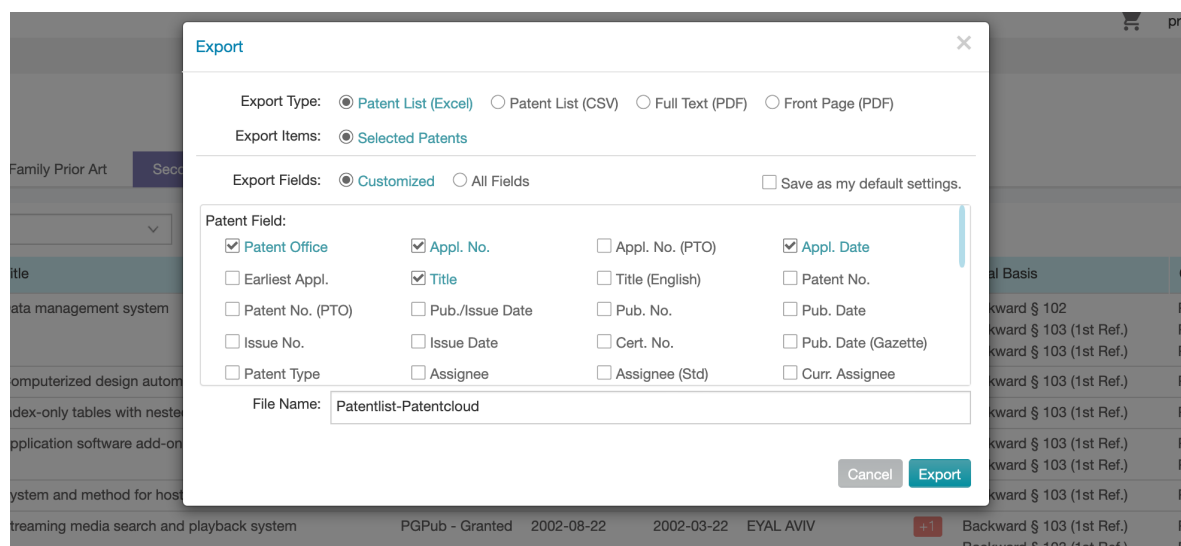
Click the **Export** icon, and a window will appear. Select the export type, which items and fields to export, and give the exported file a name.



Most Relevant IP5 & WO 300 prior art references based on [Semantic Similarity](#) among the first claims and abstracts. Ranked By : Relevance

<input type="checkbox"/>	#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Applicability	Cross
3 patents are selected									
<input checked="" type="checkbox"/>	1	<a href="#">US20020001214A1</a>	Two channel memory system having share...	PGPub - Granted	2001-02-06	2002-01-03	SAMSUNG ELECTRONICS...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)	
<input checked="" type="checkbox"/>	2	<a href="#">US6414904B2</a>	Two channel memory system having share...	Abandoned	2001-02-06	2002-07-02	SAMSUNG ELECTRONICS...	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)	
<input checked="" type="checkbox"/>	3	<a href="#">US20060139983A1</a>	Memory module routing	Abandoned	2004-12-23	2006-06-29	SPRIETSMAN JOHN T	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)	+1
<input type="checkbox"/>	4	<a href="#">US20080266778A1</a>	Memory module routing	Abandoned	2008-03-21	2008-10-30	INTEL CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	

Quality Insights allows users to export the selected patents into a variety of formats, including patent list (.xls format or .csv format), patent full-text image (.zip format), and patent front page (.pdf format). Then, press “Export.”



**Export**

Export Type: ☒ Patent List (Excel) ☐ Patent List (CSV) ☐ Full Text (PDF) ☐ Front Page (PDF)

Export Items: ☒ Selected Patents

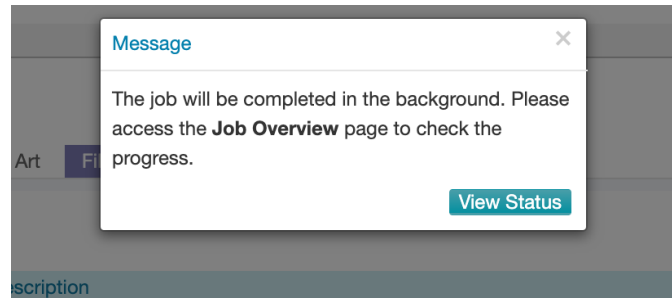
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Patent Field:

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<input type="checkbox"/> Earliest Appl.	<input checked="" type="checkbox"/> Title	<input type="checkbox"/> Title (English)	<input type="checkbox"/> Patent No.
<input type="checkbox"/> Patent No. (PTO)	<input type="checkbox"/> Pub./Issue Date	<input type="checkbox"/> Pub. No.	<input type="checkbox"/> Pub. Date
<input type="checkbox"/> Issue No.	<input type="checkbox"/> Issue Date	<input type="checkbox"/> Cert. No.	<input type="checkbox"/> Pub. Date (Gazette)
<input type="checkbox"/> Patent Type	<input type="checkbox"/> Assignee	<input type="checkbox"/> Assignee (Std)	<input type="checkbox"/> Curr. Assignee

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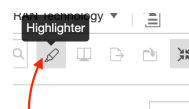


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Task	Execute Time	Status	Download
QI Data Export	2019-09-09 06:14	Completed	
QI Data Export	2019-09-09 05:41	Completed	
QI Data Export	2019-09-05 16:35	Completed	
Matrix	2019-09-05 10:02	Completed	

## Highlighter

Click on the **Highlighter** icon to see the Keywords panel.



Enter a specific word or phrase you want to highlight in the text box and click Enter. The keyword will then be highlighted in a specific color throughout the current folder. If you want to change the color, click on the color of the highlight and a color palette will appear from which you can select another color. The numbers in parentheses in the colored text box displays the total number of occurrences of that keyword on the current page.

**Keywords (1)** Toggles ALL the highlights on or off

Select a Keyword Set Clear All

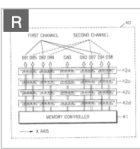
☒ channel (21) Changes the color

Toggles this highlight on or off

Most Relevant IP5 & WO 300 prior art references based on [Semantic Similarity](#) among the first claims and abstracts.

☐ 1. Two channel memory system having shared control and address bus and memory modules used therefor

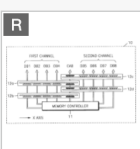
**PGPub - Granted**

 Patent No.: [US20020001214A1](#) Assignee: Applicability:  
Updated : 2002-01-03 ♦ Orig. Assignee: [\(Pre-AIA\) § 102\(a\)](#)  
Pub./Issue Date: 2002-01-03 Samsung Electroni... [\(Pre-AIA\) § 102\(b\)](#)  
Appl. No.: 09/777547 ♦ Orig. Assignee (STD): [\(Pre-AIA\) § 102\(e\)\(1\)](#)  
Appl. Date: 2001-02-06 SAMSUNG ELECT...

A memory system, which can improve the operation speed of a data bus and is suitable for widening bandwidth by extending the width of the data bus, and memory modules used for the memory system are provided. In the memory system, data buses of a first channel and data buses of a second channel are extended from a memory controller and are arranged on the left and right of a common control and address bus, respectively. Memory modules of a first group are loaded in the data buses of the first channel and memory modules of a second group are loaded in the data buses of the second channel. Also, in the memory system, the memory modules share the...

☐ 2. Two channel memory system having shared control and address bus and memory modules used therefor

**Abandoned**

 Patent No.: [US6414904B2](#) Assignee: Applicability:  
Updated : 2002-07-02 ♦ Orig. Assignee: [\(Pre-AIA\) § 102\(a\)](#)  
Pub./Issue Date: 2002-07-02 Samsung Electroni... [\(Pre-AIA\) § 102\(b\)](#)  
Appl. No.: 09/777547 ♦ Orig. Assignee (STD): [\(Pre-AIA\) § 102\(e\)\(2\)](#)  
Appl. Date: 2001-02-06 SAMSUNG ELECT...

A memory system, which can improve the operation speed of a data bus and is suitable for widening bandwidth by extending the width of the data bus, and memory modules used for the memory system are provided. In the memory system, data buses of a first channel and data buses of a second channel are extended from a memory controller and are arranged on the left and right of a common control and address bus, respectively. Memory modules of a first group are loaded in the data buses of the first channel and memory modules of a second group are loaded in the data buses of the second channel. Also, in the memory system, the memory modules share the...

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Prev **1** 2 3 4 5 Next

To store your frequently-highlighted keywords for recurring use, click on Save to Keyword Sets.

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Keywords (3)

Select a Keyword Set

channel (21)

system (57)

memory modul (192)

+ Add new keyword

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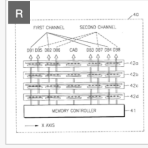
Most Relevant IP5 & WO 300 prior art references based on Semantic Similarity among the first claims and abstracts.

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1. Two channel memory system having shared control and address bus and memory modules used therefor

PGPub - Granted



Patent No.: US20020001214A1

Updated : 2002-01-03

Pub./Issue Date: 2002-01-03

Appl. No.: 09/777547

Appl. Date: 2001-02-06

Assignee:

◆Orig. Assignee: Samsung Electronics Co...

◆Orig. Assignee (STD): SAMSUNG ELECTRONI...

Applicability:

(Pre-AIA) § 102(a)

(Pre-AIA) § 102(b)

(Pre-AIA) § 102(e)(1)

A memory system, which can improve the operation speed of a data bus and is suitable for widening bandwidth by extending the width of the data bus, and memory modules used for the memory system are provided. In the memory system, data buses of a first channel and data buses of a second channel are extended from a memory controller and are arranged on the left and right of a common control and address bus, respectively. Memory modules of a first group are loaded in the data buses of the first channel and memory modules of a second group are loaded in the data buses of the second channel. Also, in the memory system, the memory modules share the...

2. Two channel memory system having shared control and address bus and memory modules used therefor

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There will be a prompt showing whether the keywords were successfully saved or not. The number next to the set name will also reflect the number of keywords.

Set 1 (3/40)

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Channel (21)

Control (82)

Memory Module (40)

+ Add new keyword

Most Relevant IP5 & WO 300 prior art references based on Semantic Similarity among the first claims and abstracts.

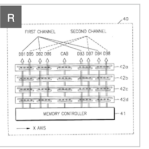
Ranked By : Relevance

1 patents are selected

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1. Two channel memory system having shared control and address bus and memory modules used therefor

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Patent No.: US20020001214A1

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Pub./Issue Date: 2002-01-03

Appl. No.: 09/777547

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Assignee:

◆Orig. Assignee: Samsung Electronics Co...

◆Orig. Assignee (STD): SAMSUNG ELECTRONI...

Applicability:

(Pre-AIA) § 102(a)

(Pre-AIA) § 102(b)

(Pre-AIA) § 102(e)(1)

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2. Two channel memory system having shared control and address bus and memory modules used therefor

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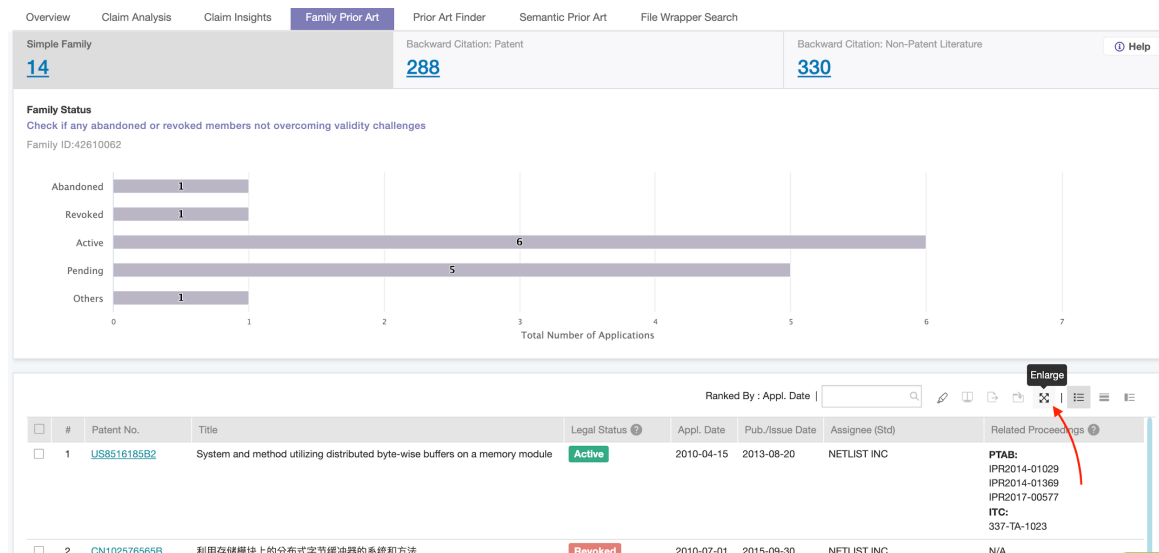
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52



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When the hidden dashboard needs revisiting, click the **Reduce** button to resume it.

Ranked By: Appl. Date	#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Related Proceedings
<input type="checkbox"/>	1	<a href="#">US8516185B2</a>	System and method utilizing distributed byte-wise buffers on a memory module	Active	2010-04-15	2013-08-20	NETLIST INC	<b>PTAB:</b> IPR2014-01029 IPR2014-01369 IPR2017-00577 <b>ITC:</b> 337-TA-1023
<input type="checkbox"/>	2	<a href="#">CN102576565B</a>	利用存储模块上的分布式字节缓冲器的系统和方法	Revoked	2010-07-01	2015-09-30	NETLIST INC	N/A
<input type="checkbox"/>	3	<a href="#">CN105161126B</a>	利用存储模块上的分布式字节缓冲器的系统和方法	Active	2010-07-01	2018-02-06	NETLIST INC	N/A
<input type="checkbox"/>	4	<a href="#">CZ31172U1</a>	A memory module for the use in a computer system, including a system memory controller	Expired	2010-07-01	2017-11-22	NETLIST INC	N/A
<input type="checkbox"/>	5	<a href="#">DE202010018501U1</a>	System, das verteilte bitweise Puffer auf einem Speichermodul verwendet	Active	2010-07-01	2017-02-06	NETLIST INC	N/A

## Search Box

Whether it is in either **List View**, or **Summary View** or **Gallery View**, the **Search Box** enables users to enter keywords or key phrases to screen out “unwanted” patents. The example shows the difference between before and after the keyword of “Module” is entered for search.

Ranked By : Appl. Date

#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Related Proceedings
1	<a href="#">US8516185B2</a>	System and method utilizing distributed byte-wise buffers on a memory module	Active	2010-04-15	2013-08-20	NETLIST INC	PTAB: IPR2014-01029 IPR2014-01369 IPR2017-00577 ITC: 337-TA-1023
2	<a href="#">CN102576565B</a>	利用存储模块上的分布式字节缓冲器的系统和方法	Revoked	2010-07-01	2015-09-30	NETLIST INC	N/A
3	<a href="#">CN105161126B</a>	利用存储模块上的分布式字节缓冲器的系统和方法	Active	2010-07-01	2018-02-06	NETLIST INC	N/A
4	<a href="#">CZ31172U1</a>	A memory module for the use in a computer system, including a system memory controller	Expired	2010-07-01	2017-11-22	NETLIST INC	N/A
5	<a href="#">DE202010018501U1</a>	System, das verteilte byteweise Puffer auf einem Speichermodul verwendet	Active	2010-07-01	2017-02-06	NETLIST INC	N/A
6	<a href="#">EP2454735A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD...	Exam.	2010-07-01	2012-05-23	NETLIST INC	N/A
7	<a href="#">EP3404660A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD...	Exam.	2010-07-01	2018-11-21	NETLIST INC	N/A
8	<a href="#">JP2012-533793A</a>	メモリモジュール上の分散バイト型バッファを利用するシステムおよび方法	Abandoned Appl.	2010-07-01	2012-12-27	NETLIST INC	N/A
9	<a href="#">KR1020120062714A</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD...	Exam.	2010-07-01	2012-06-14	NETLIST INC	N/A
10	<a href="#">WO2011/008580A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD...	Pending	2010-07-01	2011-01-20	NETLIST INC	N/A
11	<a href="#">TWI428740B</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD...	Active	2010-07-13	2014-03-01	NETLIST INC	N/A
12	<a href="#">TWI446167B</a>	MEMORY MODULE AND OPERATING METHOD THEREOF	Active	2010-07-13	2014-07-21	NETLIST INC	N/A
13	<a href="#">US9606907B2</a>	Memory module with distributed data buffers and method of operation	Active	2013-08-20	2017-03-28	NETLIST INC	PTAB: IPR2018-00362 IPR2018-00363 IPR2018-00364

Ranked By : Appl. Date

#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Related Proceedings
1	<a href="#">US8516185B2</a>	System and method utilizing distributed byte-wise buffers on a memory <b>module</b>	Active	2010-04-15	2013-08-20	NETLIST INC	PTAB: IPR2014-01029 IPR2014-01369 IPR2017-00577 ITC: 337-TA-1023
2	<a href="#">CZ31172U1</a>	A memory <b>module</b> for the use in a computer system, including a system memory controller	Expired	2010-07-01	2017-11-22	NETLIST INC	N/A
3	<a href="#">EP2454735A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY <b>MODULE</b>	Exam.	2010-07-01	2012-05-23	NETLIST INC	N/A
4	<a href="#">EP3404660A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY <b>MODULE</b>	Exam.	2010-07-01	2018-11-21	NETLIST INC	N/A
5	<a href="#">KR1020120062714A</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY <b>MODULE</b>	Exam.	2010-07-01	2012-06-14	NETLIST INC	N/A
6	<a href="#">WO2011/008580A1</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY <b>MODULE</b>	Pending	2010-07-01	2011-01-20	NETLIST INC	N/A
7	<a href="#">TWI428740B</a>	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY <b>MODULE</b>	Active	2010-07-13	2014-03-01	NETLIST INC	N/A
8	<a href="#">TWI446167B</a>	MEMORY <b>MODULE</b> AND OPERATING METHOD THEREOF	Active	2010-07-13	2014-07-21	NETLIST INC	N/A
9	<a href="#">US9606907B2</a>	Memory <b>module</b> with distributed data buffers and method of operation	Active	2013-08-20	2017-03-28	NETLIST INC	PTAB: IPR2018-00362 IPR2018-00363 IPR2018-00364 IPR2018-00365 ITC: 337-TA-1089
10	<a href="#">US20170337125A1</a>	MEMORY <b>MODULE</b> WITH CONTROLLED BYTE-WISE BUFFERS	Exam.	2017-03-27	2017-11-23	NETLIST INC	N/A

## Glossary Look-ups

### Asterisk (\*) and Double Asterisk (\*\*) After Prior Art Patent Number

An asterisk (\*) marked after a patent number indicates that this is considered a 102 prior art reference. A double asterisk (\*\*) is marked after a main reference (1<sup>st</sup> order) to 103 prior art. For example, the patent at issue was rendered obvious over reference A\*\* in view of reference B. Then, reference A is marked with \*\*, and reference B is not marked with \*\*. The discrimination of the first prior art reference, by rule of thumb, may have a correlation with the relevance to the patent at issue.

### Family Prior Art

Family Prior Art is provided as respective web links corresponding to each patent family, direct to a single page of reference, including **reference cited** data (backward citation of patents), **referenced by** data (forward citation of patents) and **other reference** data (backward citation of non-patent literature). The **reference cited** and other **reference data** are the same as the data printed on a published patent.

### Eligible Date of Prior Art

The eligible date of prior art falls under 35 USC § 102, including Pre-AIA 102 (a), (b), (d), and (e), and AIA 102 (a). A document or a patent application shall be published or patented before the eligible date under any of the aforementioned 35 USC § 102 to be eligible as prior art to a patent at issue.

Note that there are date of invention issues for the eligible date under Pre-AIA 35 USC § 102 (a) and (e): Prior art is eligible if it is patented or published before **THE DATE OF THE INVENTION**. The eligible date provided herein is **THE EARLIEST PRIORITY DATE** of the patent, which is often inferred as being the date of invention based on public data, because swearing to an earlier priority date is usually not considered to be proper or allowable. Please note that this inference **COULD BE OVERTURNED** by uncovered evidence, such as an affidavit of inventors.

### Eligibility as Prior Art

The eligibility as prior art is generated for the purpose of providing a reference to evaluate the eligibility of a patent/patent application as prior art to the patent at issue. The result is calculated by comparing the dates, the applicant, and the inventors under 35 USC § 102, including the pre-AIA or AIA versions.

There are also exceptions not considered which may also overturn the result of an evaluation:

- a. The date of invention issued under pre-AIA 35 USC § 102 (a) and (e);
- b. The PCT priority issued under pre-AIA 35 USC § 102 (e); and
- c. Exceptions under AIA 35 USC § 102 (a), such as AIA 35 USC § 102 (b) issues.

### Estimated Expiration Date

The estimated expiration date includes a presumption that all maintenance fees will be paid. This date is calculated on the basis of the **earliest effective filing date** plus the **patent term** (e.g., 20 years for utility patents filed after June 8, 1995) and is adjusted by the **patent term adjustment** recorded in the USPTO PAIR system.

Note that patent term extensions under 35 USC § 156 and terminal disclaimers are NOT considered in this estimated expiration date.

### Event Date

For each event in the reexamination or prosecution history, the event date is provided from the mailroom date of the corresponding image file wrapper in the USPTO PAIR System; and

For each event in the patent review in USPTO PTAB, the event date is provided from the filing date of corresponding documents in the USPTO PTAB system.

### Event Description (and Event Code)

For events in the reexamination or prosecution history, each event is defined by a document code and a document description that corresponds to image file wrappers in the USPTO PAIR system; and

For events in the patent review in USPTO PTAB, each event is defined by a normalized document type and a document title in the USPTO PTAB system, including the Petition, Preliminary Response, Decision of Institution, Patent Owner's Response, Oral Hearing, and Final Decision.

### Legal Basis

The legal basis may be any 35 USC code, CFR code, or reasons of rejection identified from:

- a. Rejection file wrappers of the prosecution history;
- b. Request, rejection, and decision file wrappers in reexamination; and
- c. Petition and decision file wrappers in patent review

The legal basis may include 35 USC 101, 35 USC 102, 35 USC 103, and 35 USC 112. Double patenting and pertinent prior art may also be provided in the legal basis, which is mostly cited in file wrappers without any codes.

### Legal Status

- a. The legal Status of a US patent/patent application

For any US patent or patent application, the legal status is calculated based on the status data recorded in the USPTO PAIR system and the maintenance fee payment status. The legal status of a US patent/patent application is selected from **Pending** (pending patent application), **Active** (granted patent), and **Inactive** (abandoned patent application, lapsed patent due to non-payment, or expired patent).

- b. The legal Status of a non-US patent/patent application

For any non-US patent or patent application, the legal status indicates whether the patent/patent application is **issued** or **published** (pending or abandoned cannot be indicated separately due to data availability).

### Number of Rejections

The number of non-final rejections and final rejections in the prosecution history of a patent.

### Original Assignee

For an issued patent, the original assignee means the assignee at the time the patent is issued. Similarly, for a published patent application, the original assignee means the assignee at the time the patent is published.

### Patent Family

A patent family is comprised of the patents and patent applications that have exactly the same priority or combination of priorities as the patent at issue. USPTO, EPO, and other major patent offices provide

patents/patent applications in a patent family by the aforementioned definition via a common identification (family ID). Patents and patent applications in different jurisdictions by the aforementioned definition may be more likely to claim for the same invention.

### Patent Prior Art

Patent prior art contains only patents/patent applications previously considered as prior art. Non-patent literature is currently not available in the summary table, but it can be found in the image file wrapper or text version of the image file wrapper document.

### Priority Claims of US Patents

Priority claims provide the following information about a US patent/patent application:

- a. **Patent at Issue:** For a patent/patent application itself that is the patent at issue of Quality Insights
- b. **Child of Continuation Application, Continuation-in-Part Application, or Divisional Application:** For a patent/patent application that claims priority of continuation application, continuation-in-part application, or divisional application to the patent at issue; or
- c. **Parent of Continuation Application, Continuation-in-Part Application, or Divisional Application:** For a patent/patent application that the patent at issue claims priority of a continuation application, continuation-in-part application, or divisional application.

### Reasons of Patentability/Allowable Subject Matter

The elements of claims cited by an examiner as not being disclosed (anticipated or rendered as obvious) by prior art. The reasons of patentability or allowable subject matter are provided in **Notice of Allowance (NOA)** in prosecution history and **Notice to Intent to Issue a Reexamination Certificate (RXNIRC)** in reexamination.

### Related Proceedings/Post-Grant Proceedings

Post-grant proceedings in USPTO related to a patent, including Ex Parte Reexamination (EPR), Inter Partes Reexamination, Supplemental Reexamination, Inter Partes Review (IPR), Covered Business Method (CBM) patent review, and Post-Grant Review (PGR).

Please note that in regards to Post-Grant Proceedings, for the re-examination data, only filing of request and certificate of issuance will be updated.

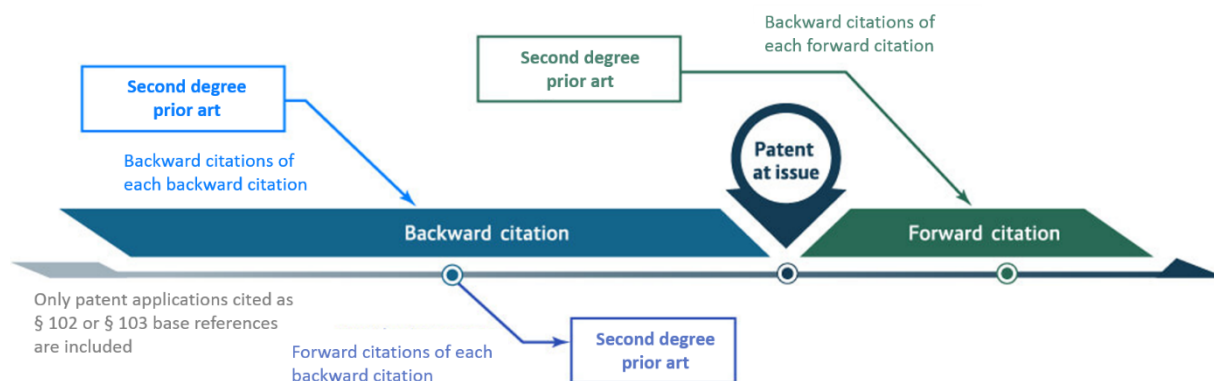
### Second Degree Prior Art

Second degree (prior) art references are additional prior art references suggested based on forward and backward 35 U.S.C. § 102 or 103 citations in prosecution history and post-grant IPR/CBM/PGR proceedings. Each of the second degree art references are provided along with a calculation of whether the citation meets the criteria of eligibility as prior art for the patent at issue. All the second degree (prior) art references provided in the “Second Degree Prior Art” page, could be summarized as the following:

- Backward § 102 or 103 citations of backward § 102 or 103 citations
- Forward § 102 or 103 citations of backward § 102 or 103 citations
- Backward § 102 or 103 citations of forward § 102 or 103 citations

Note: The prior art references may be limited to DATA AVAILABLE in the Quality Insights, which mainly includes prior art references of PATENTS GRANTED AFTER YEAR 2000.

As illustrated in the following diagram, the second degree prior art of a patent/patent application may include:



1. Patent application(s) that have been considered as US patent prior art of the patent at issue, which are also patent application(s) that have been considered as US [patent prior art listed on the Overview page](#).
2. US patent application(s) having US patent prior art in common with the patent at issue, which are also patent application(s) having the US [patent prior art listed on the Overview page](#) considered as its prior art.
3. Patent prior art of US patent application(s) having the patent at issue considered as its prior art.

### Semantic Similarity

This is a metric to evaluate how much relevance there is between two patent applications. Semantic similarity is calculated by comparing the titles, abstracts, and/ or claims of a patent with any of those of the patent at issue to determine how many common concepts (groups of related keywords in vectors) there are. This is done by a mature topological mechanism to evaluate semantic similarity in the area of natural language processing (NLP).

July 14, 2020