Patentcloud
Quality Insights

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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) Caim construction gains insights into why the patent was granted, and also enables users to strategize prior art searching with a focused search scope.

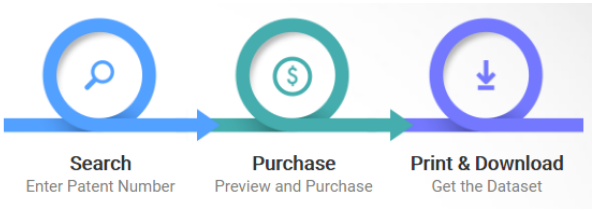
Prior Art Comparison

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.

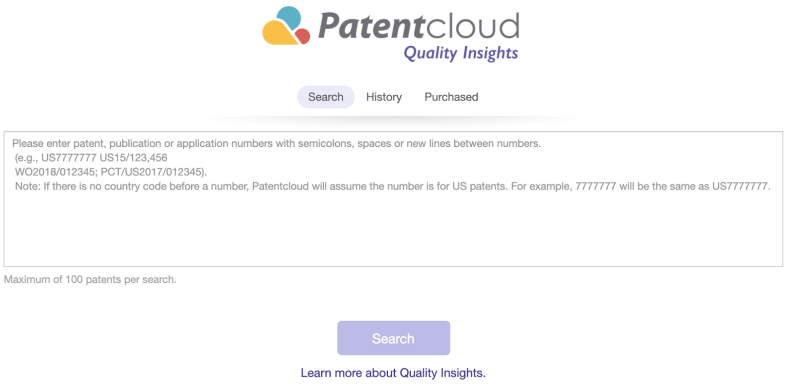
How to Access Quality Insights

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

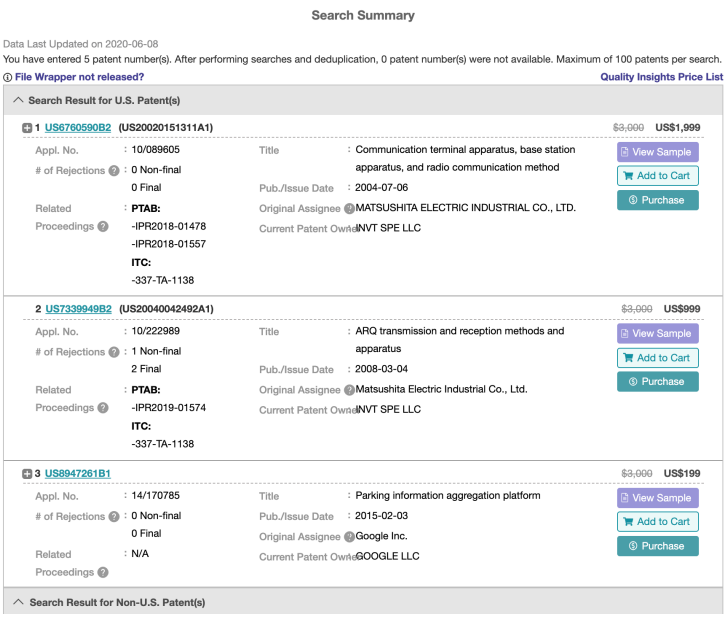


Search

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

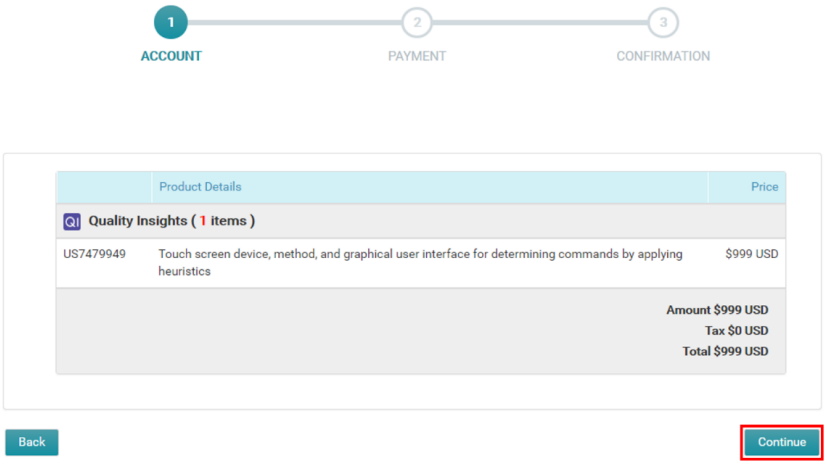


Get a preview of the legal status and data availability of the patent(s) in the search results. Select the patent number(s) you wish to subscribe to, and add it/them to the cart for checkout:

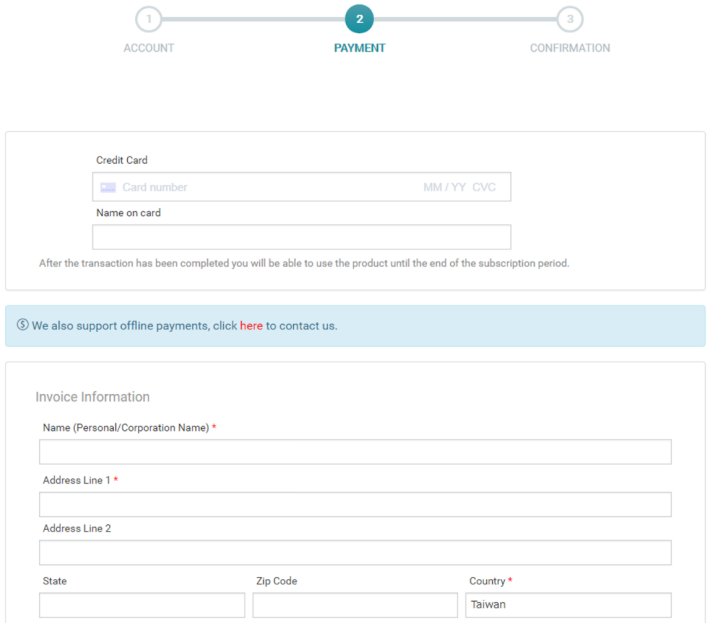


Purchase

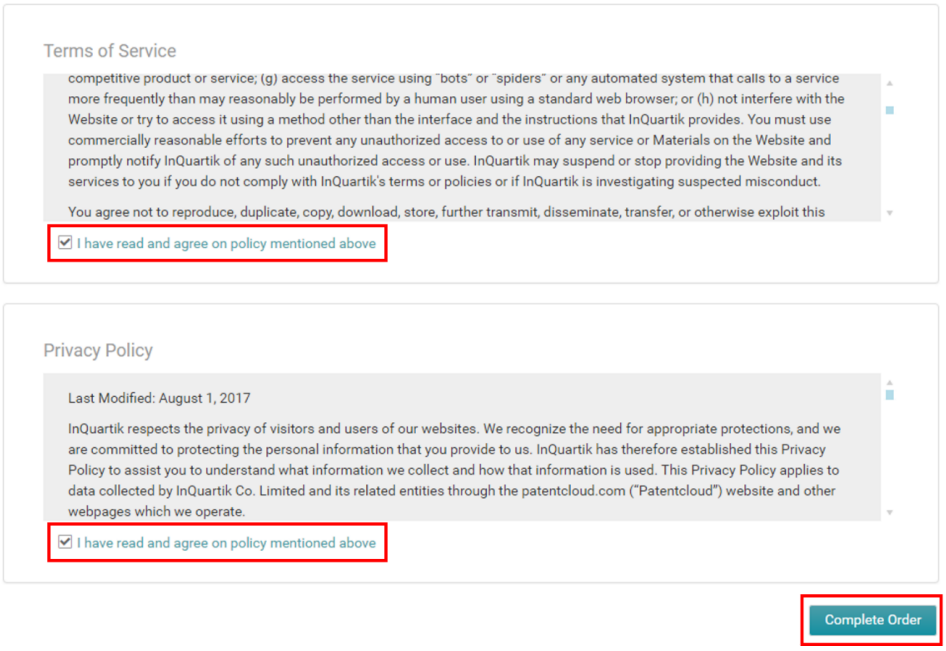
After you have selected the patent that you wish to subscribe to, please follow the steps below to purchase a subscription to this patent. From the **Search Summary** page, press the **Purchase** button. This will take you to the Account page. Here, please confirm that the patent you wish to purchase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



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



Scroll down to the bottom of the Payment page. Read and check the boxes of the “Terms of Service” and “Privacy Policy”.. Then, press the **Complete Order** button.



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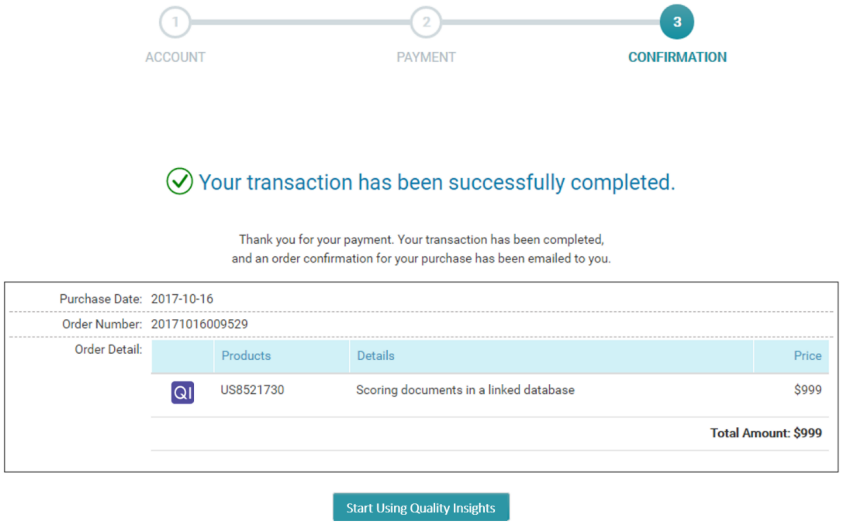


Refunds and Returns

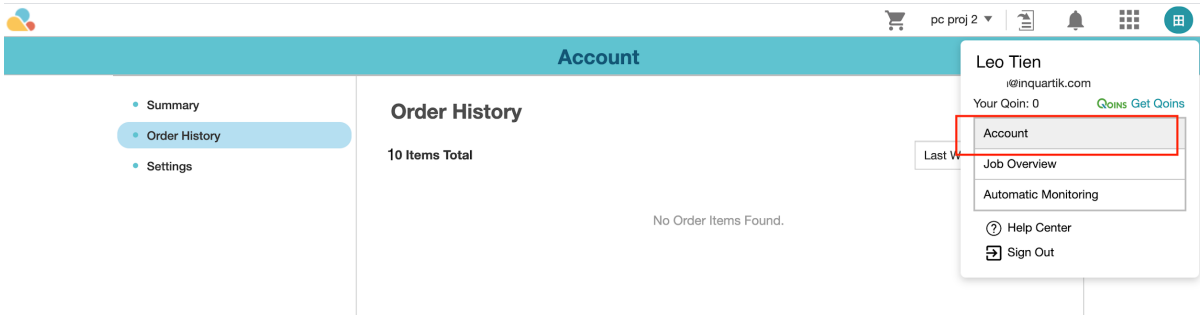
Please note that there’s **no refunds or returns** on a purchased report of Quality Insights.

Report Ownership

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

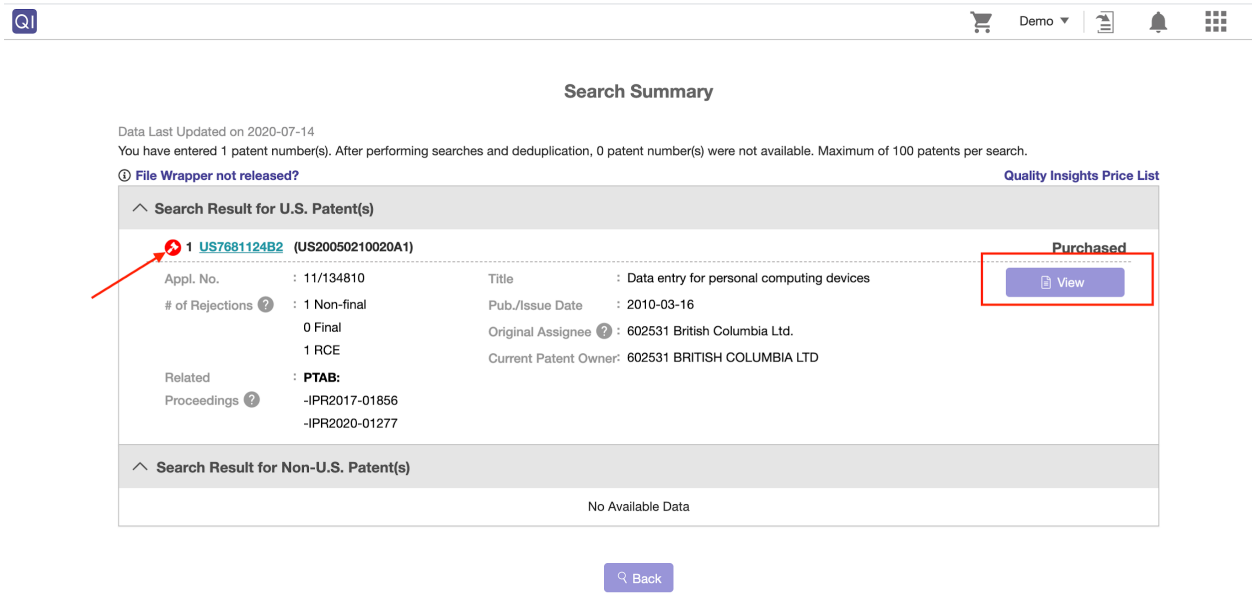
If the list of QI is long, you can also key in keywords to quickly locate the QI report(s) you are looking for.

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/.



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:

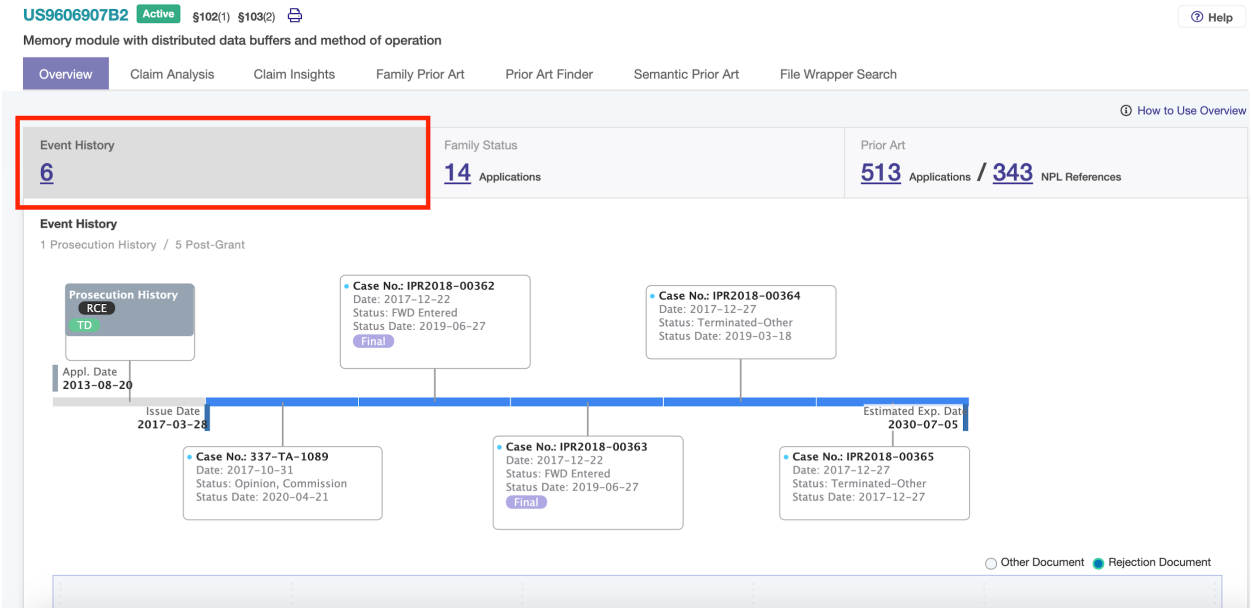
Event History

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

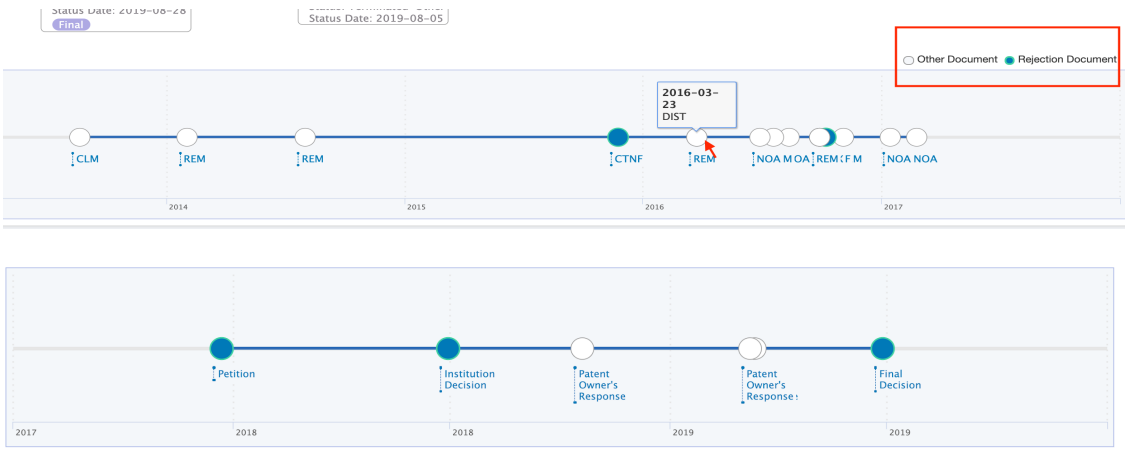
The following illustrates the patent **US9606907B2** thus far has undergone four IPR cases in addition to prosecution and one ITC. It explains the number of events in history is six (6).

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.

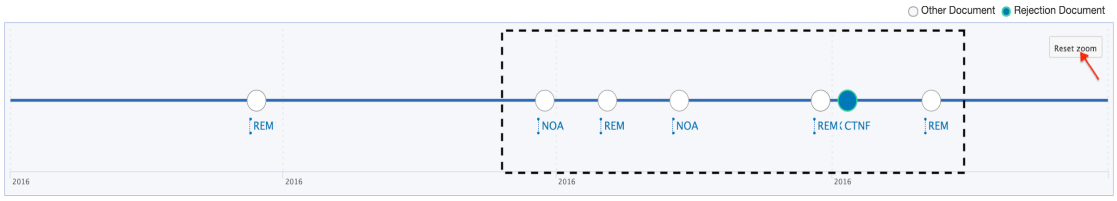


The line of Prosecution History, similar to the Post-grant Proceeding cases, is dotted with office actions (OAs) the date of which can be revealed when the cursor is hovered over each event. Dark dots are referred to as “Rejection Documents” in Prosecution History. In the Post Grant cases, Dark dots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

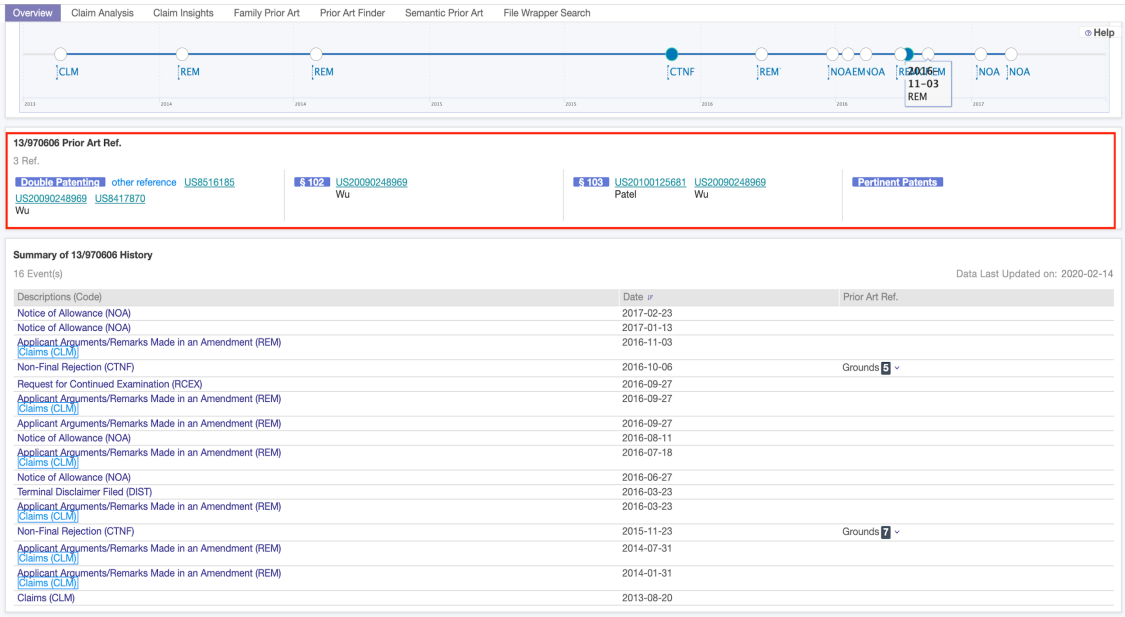


Should the dots are in a cluster, you can zoom in on the clustered area by moving the cursor over.

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

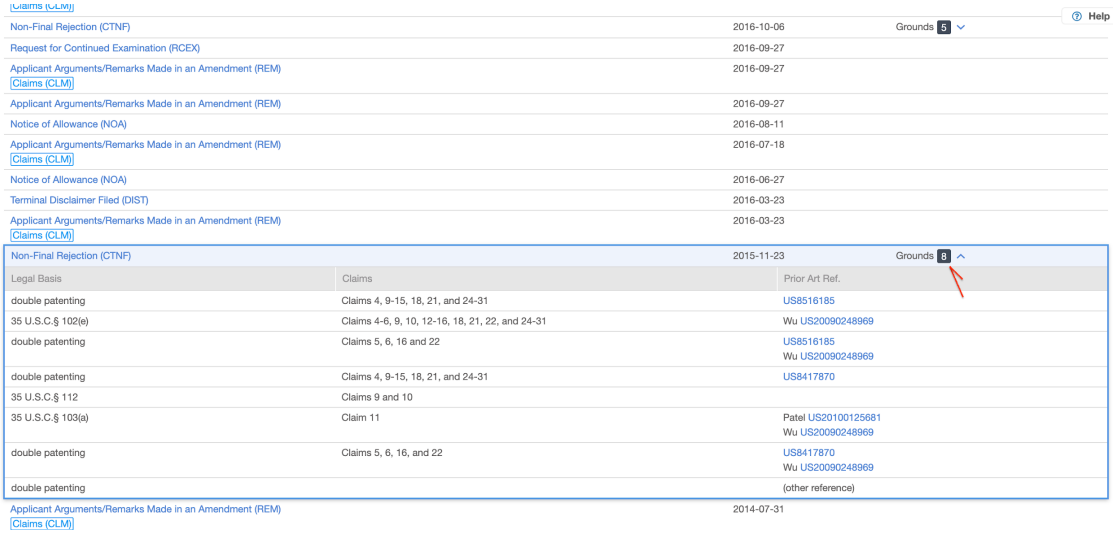


In Prosecution History, corresponding file wrappers to the OAs can also be found in History Summary, where prior art references cited by examiners or petitioners on the legal basis of double patenting, § 102, § 103 main (1st) and pertinent patents are highlighted.



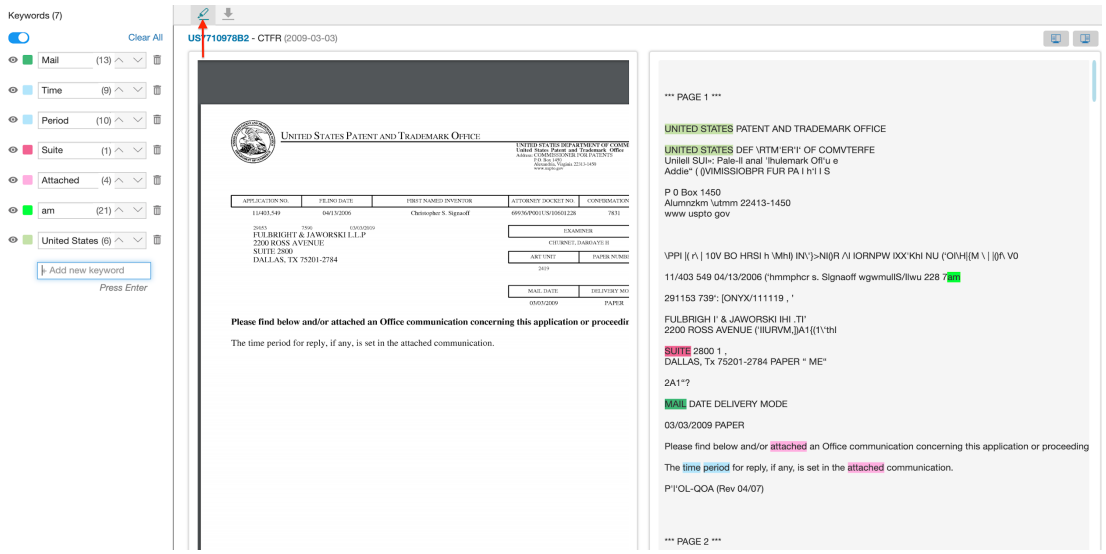
To find out more about Non-Final Rejections (CTNF) and Final Rejections (CTFR), click on **Grounds** that comes with a number, which suggests how many grounds on a legal basis that qualify rejections by examiners or petitioners against which claims.

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**.)



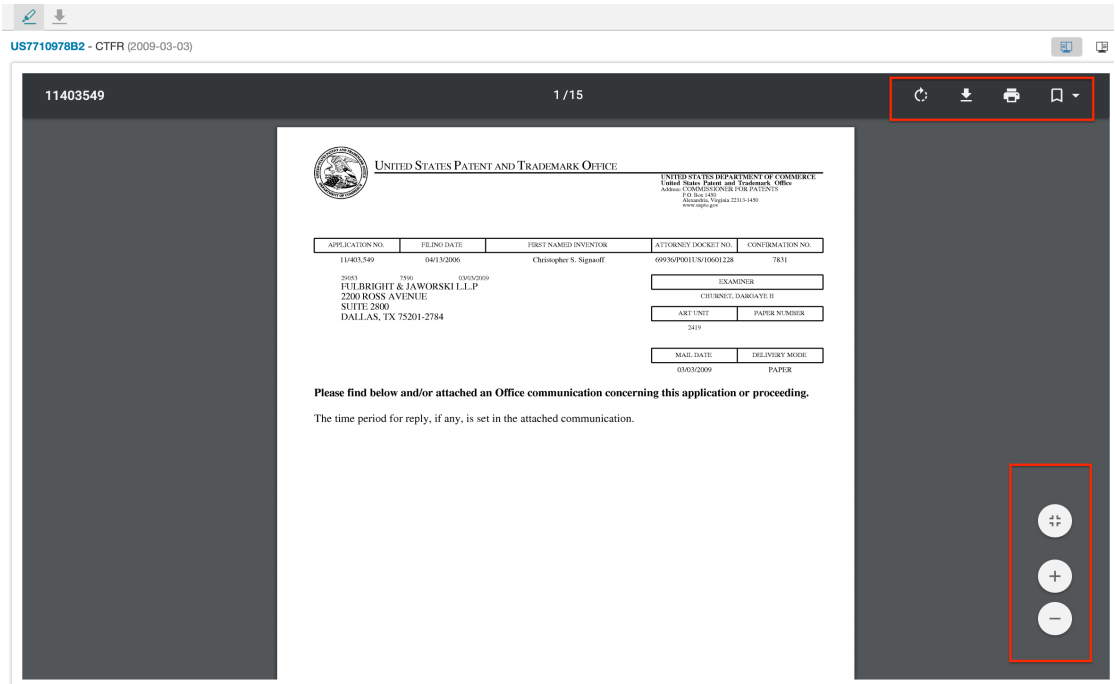
Each OA is clickable to its corresponding file wrapper, whether it is CTNF or REM or NOA, Quality Insights offers not only the .pdf file, but also text-searchable format. Both files are aligned side by side for ease of use. Similarly, docket entries of Post Grant Proceedings can do the same in terms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



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.

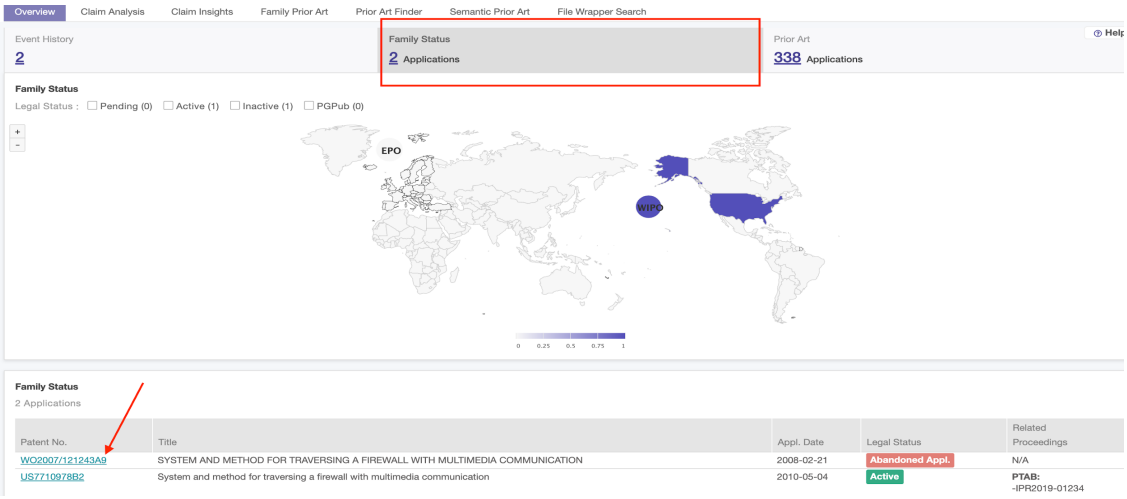
When a **Download** or **Printout** is needed, you can do so by clicking on the designated buttons on the right top corner. You can even **Bookmark** this file for later.



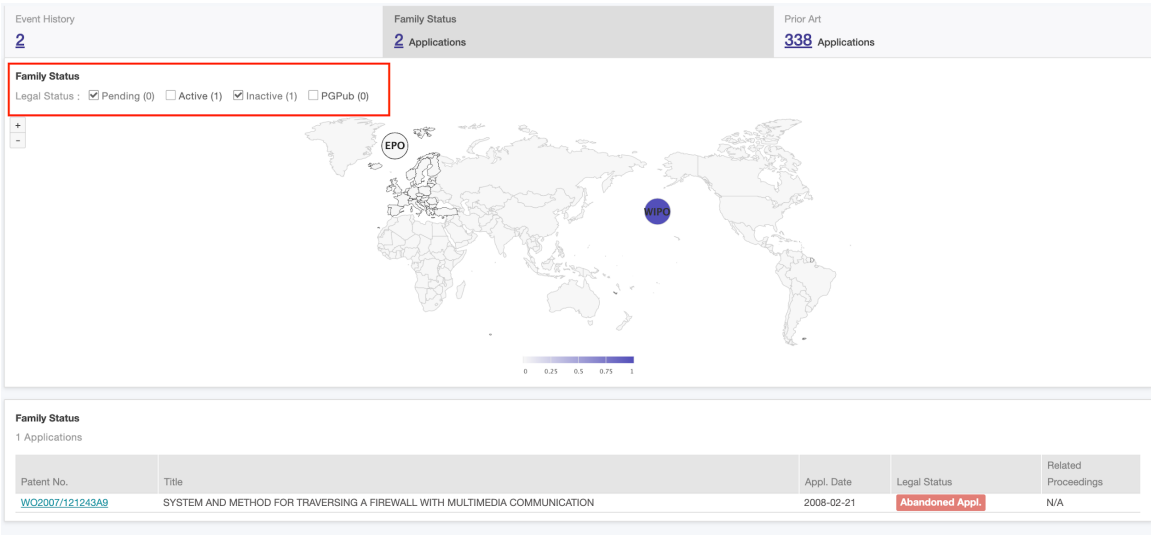
Family Status

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) .

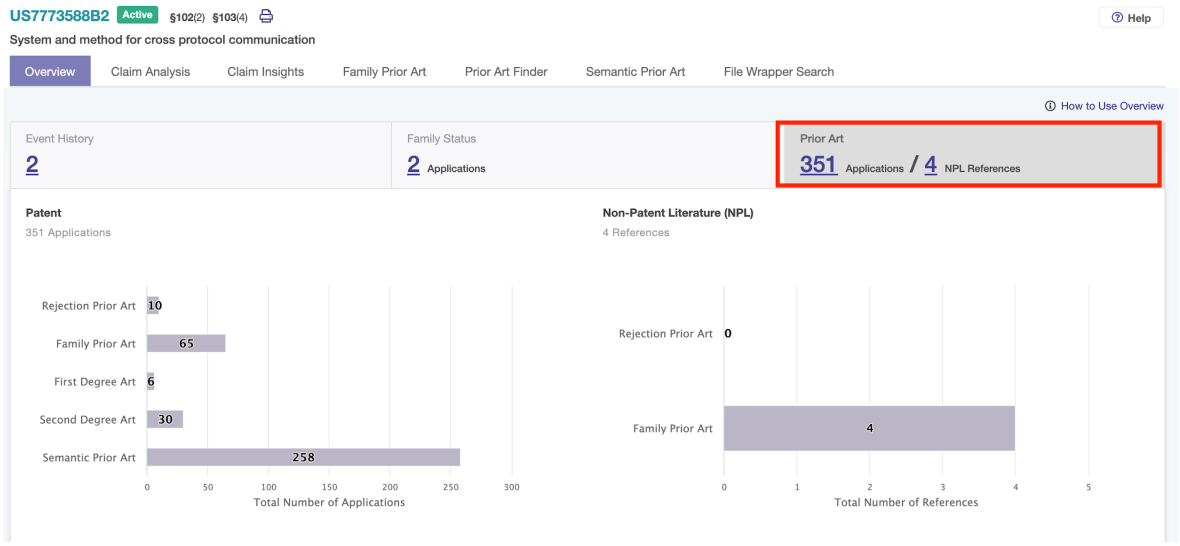


Similarly, you can go on to **Family Prior Art** for the overall family members in List View, Summary View or Gallery View.

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.

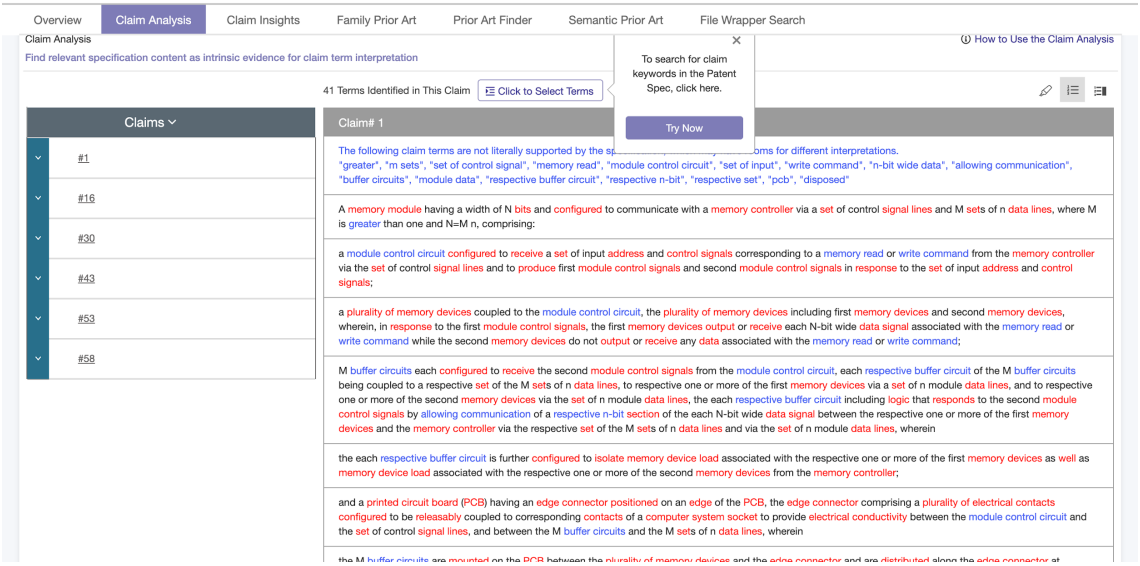


Claim Analysis

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

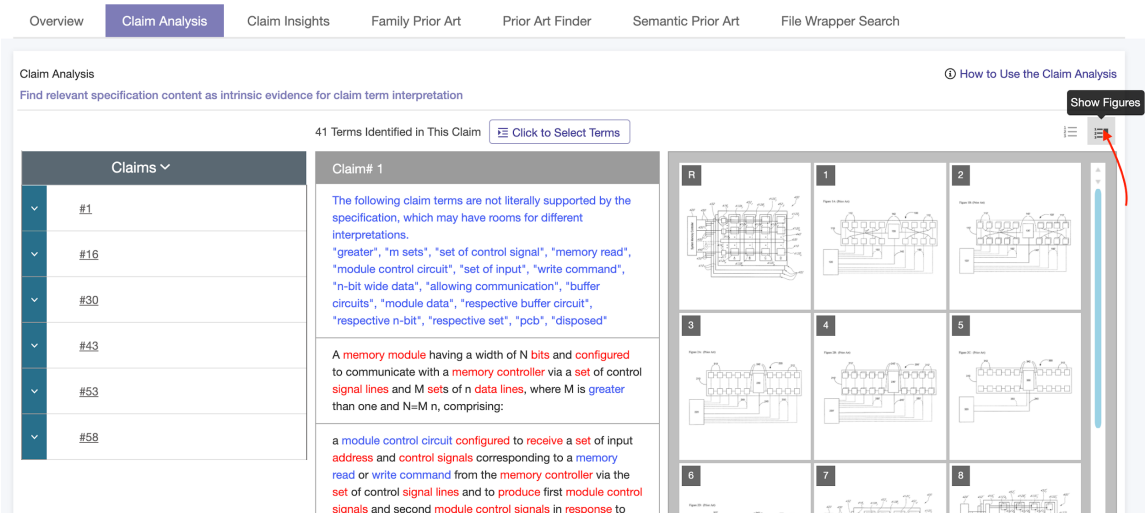
The **Claim Analysis** tab provides the claims with terms automatically generated by Quality Insights. The claim terms that appear in the patent specification are highlighted in red, and the claim terms that are not found in the specification are highlighted in blue.

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



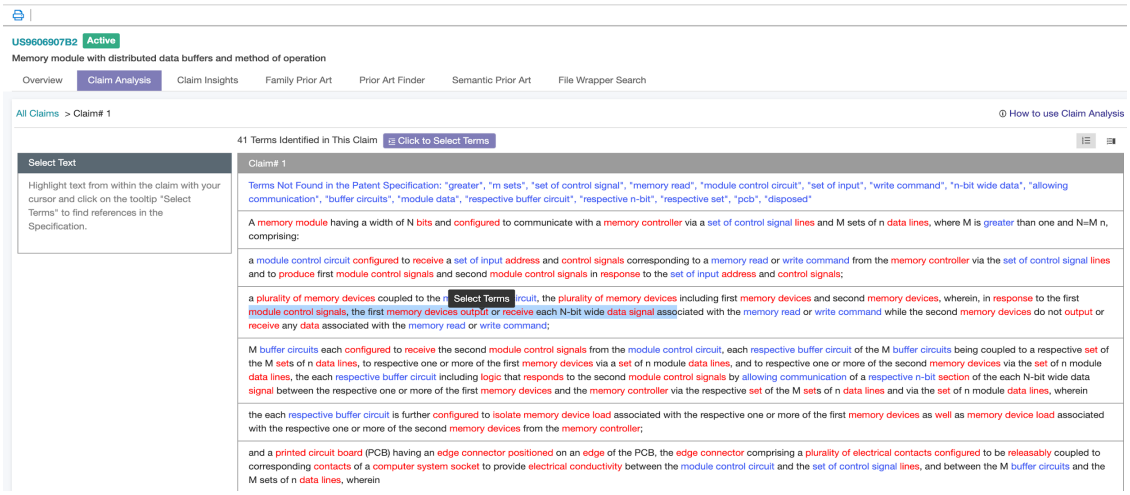
Show or Hide Figures

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.

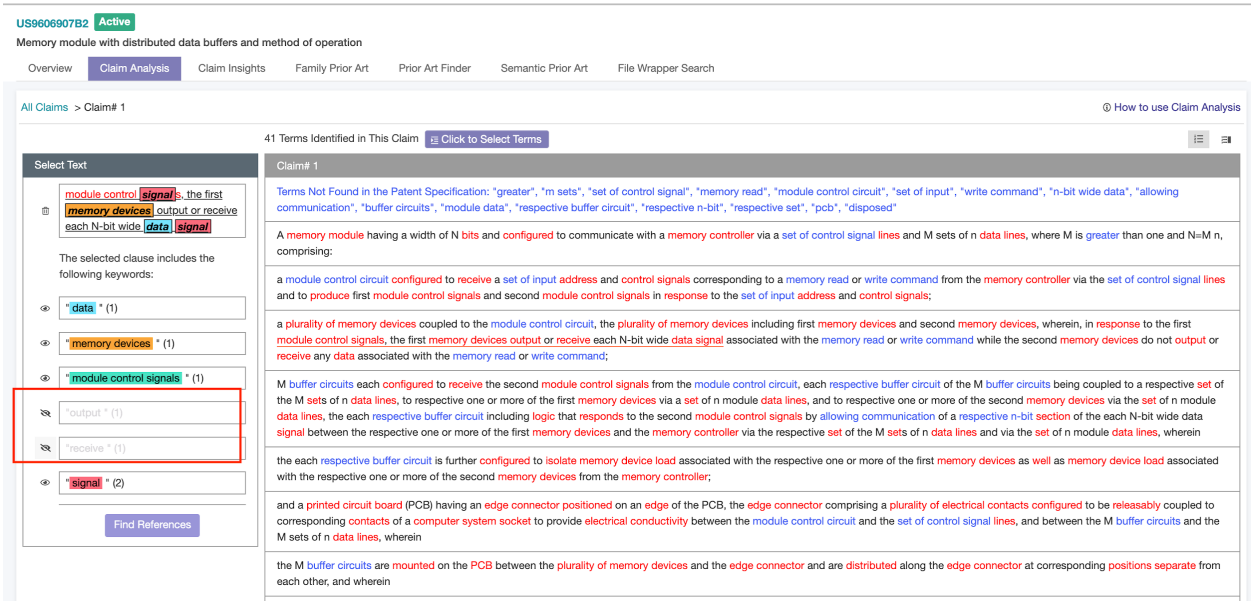


Select Terms

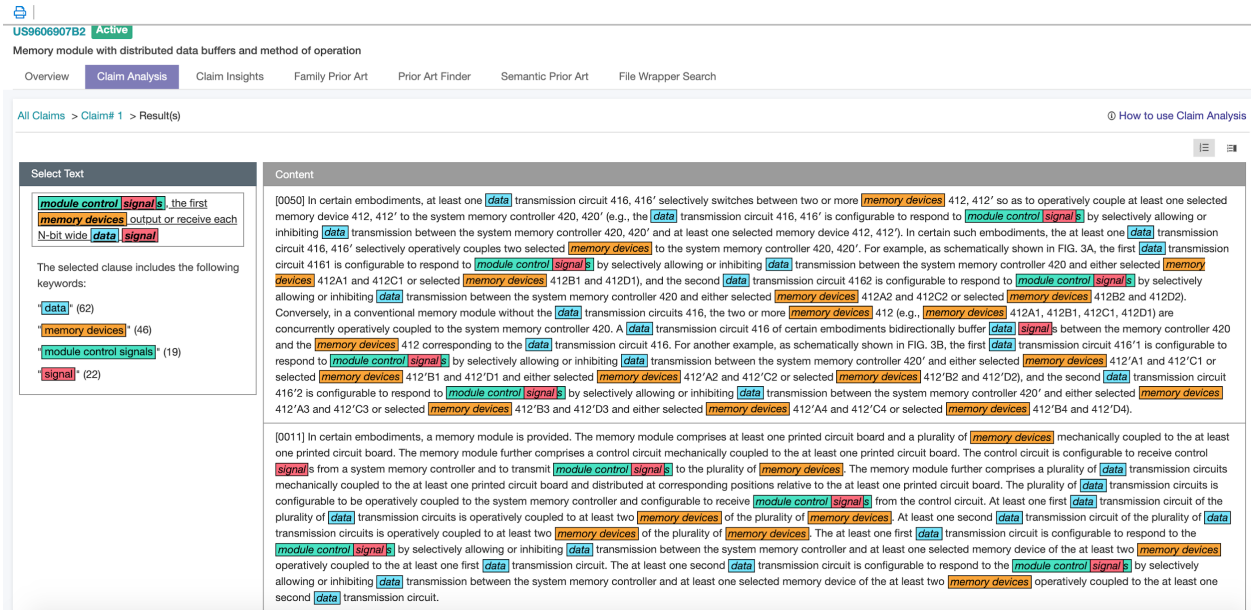
Select claim terms for related paragraphs to the specification. Clicking the **Click to Select Terms** button, you will enter the “select text” mode. After you can select a specific term or a clause of claim terms, there will be a black dialog pop-up **Select Terms** for your confirmation. Upon clicking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



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.



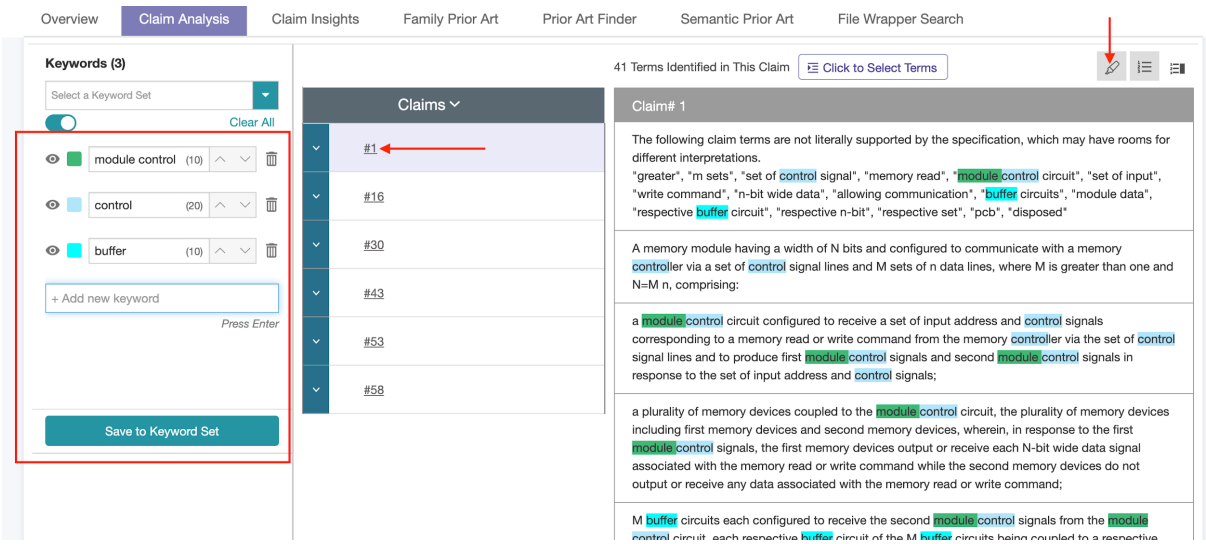
All the relevant paragraphs in the specification are provided with the keywords highlighted as references.



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.



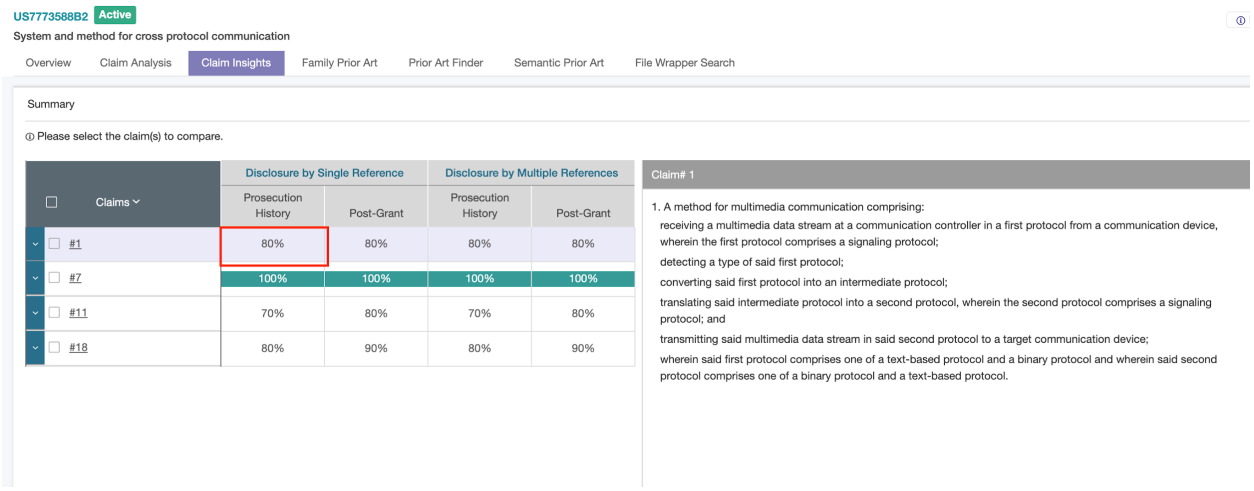
Claim Insights

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.



The disclosures are further categorized:

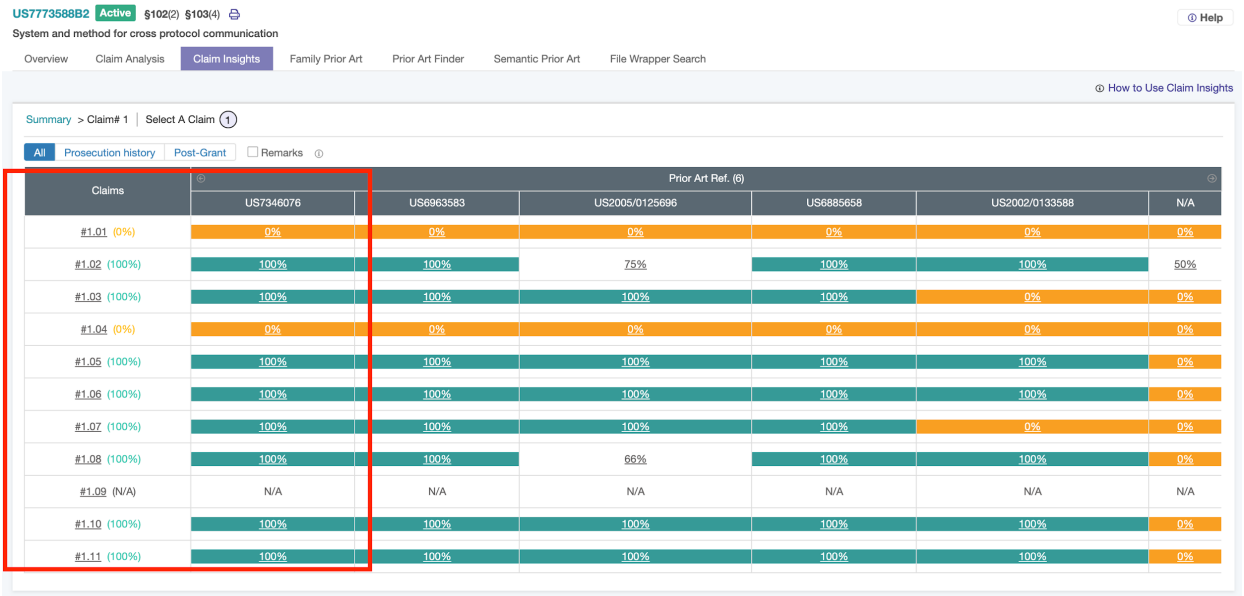
- **Disclosure by Single Reference**: it reveals the highest average percentage of the claim element disclosures among all the single references in the file wrappers (Prosecution History) or dockets (Post-Grant);
- **Disclosure by Multiple References**: it reveals the average percentage of the highest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

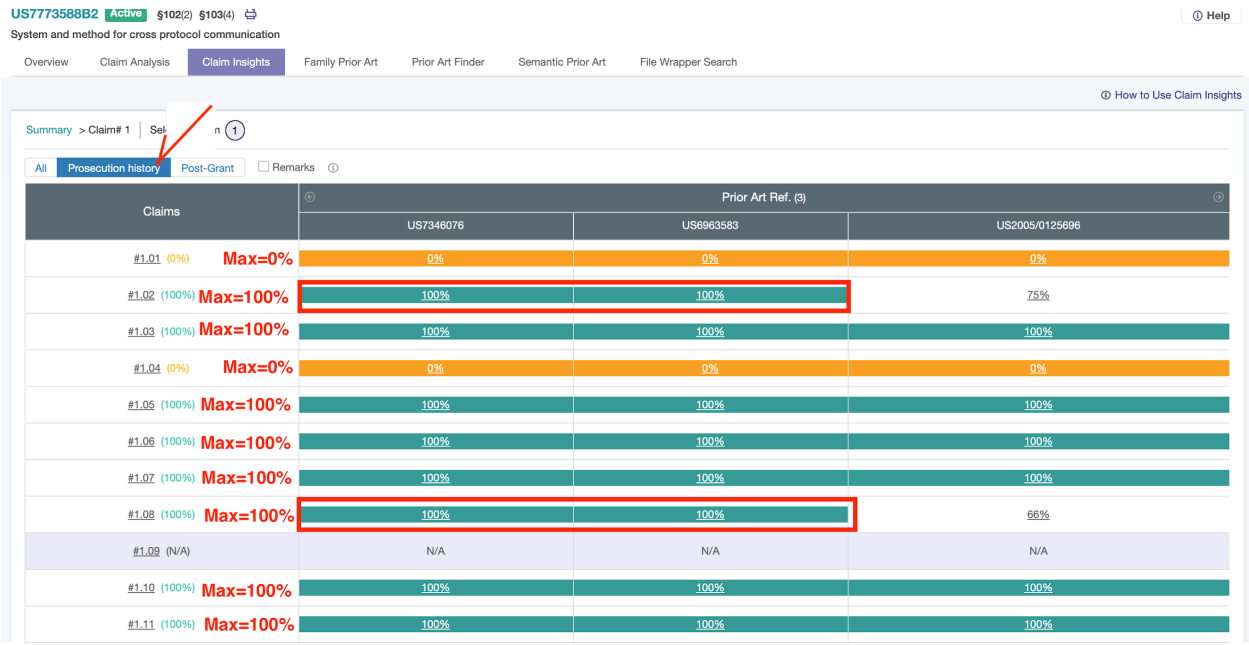
Claim Table

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 x 2/10 + 100% x 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.

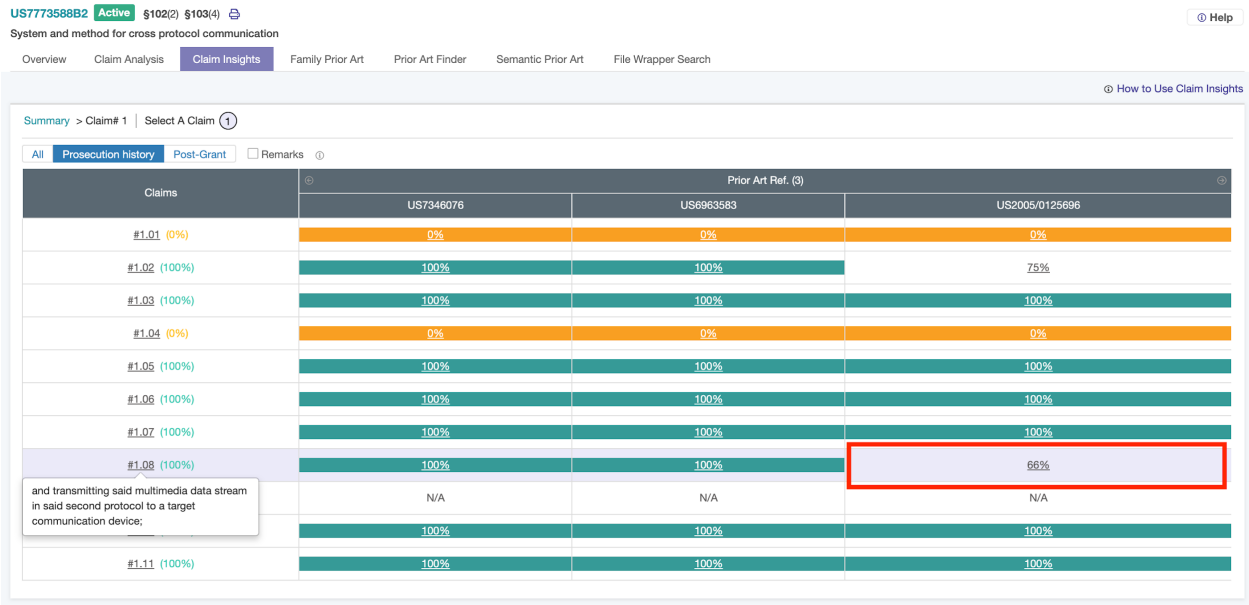

US7773588B2 Active §102(2) §103(4)
System and method for cross protocol communication
Help
Overview | Claim Analysis | Claim Insights | Family Prior Art | Prior Art Finder | Semantic Prior Art | File Wrapper Search
How to Use Claim Insights
Summary > Claim# 1 | Select A Claim 1
All | Prosecution history | 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 x 2/10 + 1 x 8/10). Please note that "N/A" is not taken into calculation.



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.

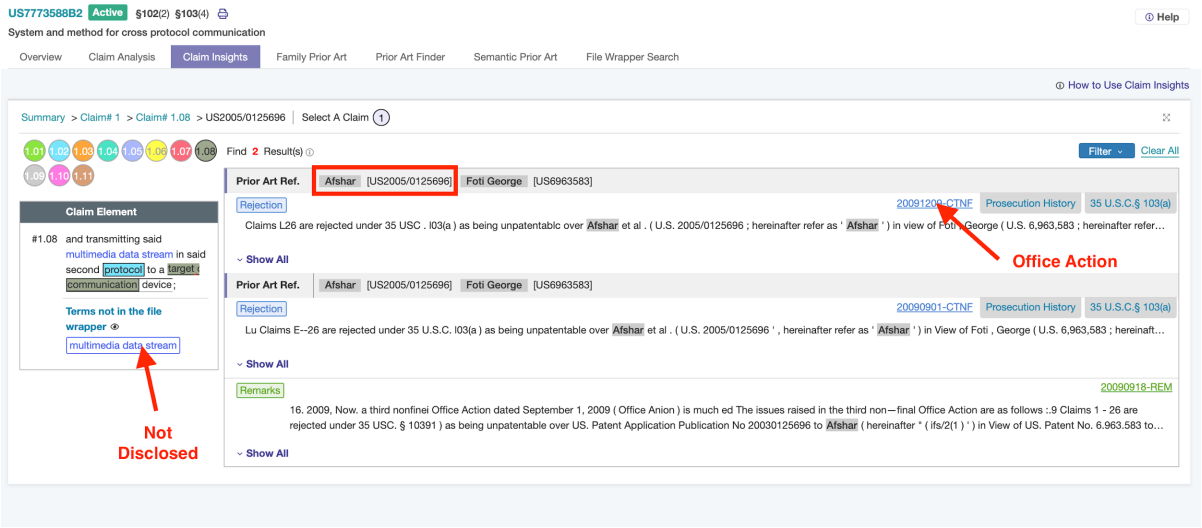


After selecting a claim, a table is provided on a per-claim-element basis with % of keywords, or claim terms, disclosed by each reference in the file wrappers and dockets. In the example of US7773588 in Prosecution History, the claim element #1.08 has claim terms that are disclosed by three prior art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

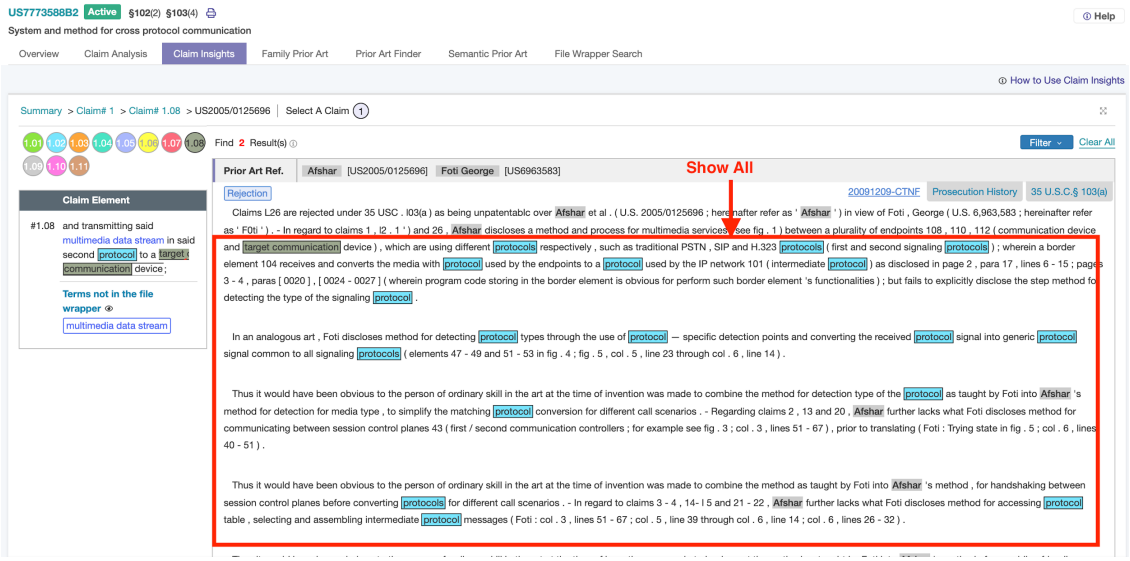
Select A Claim

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.



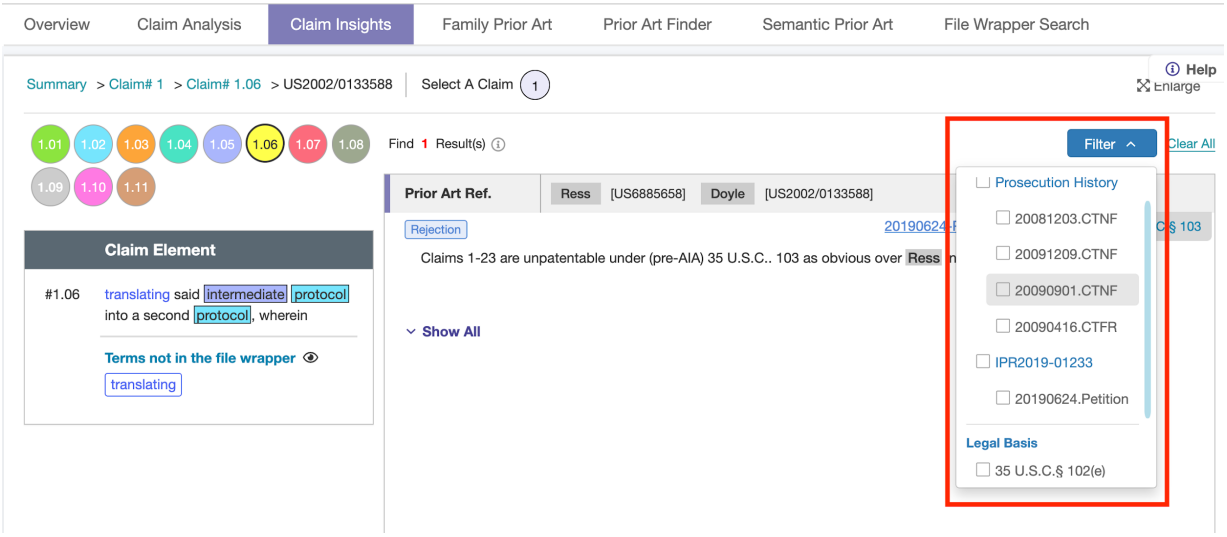
To expand all the paragraphs featuring "protocol" and/ or "communication device", click on **Show All**.



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.

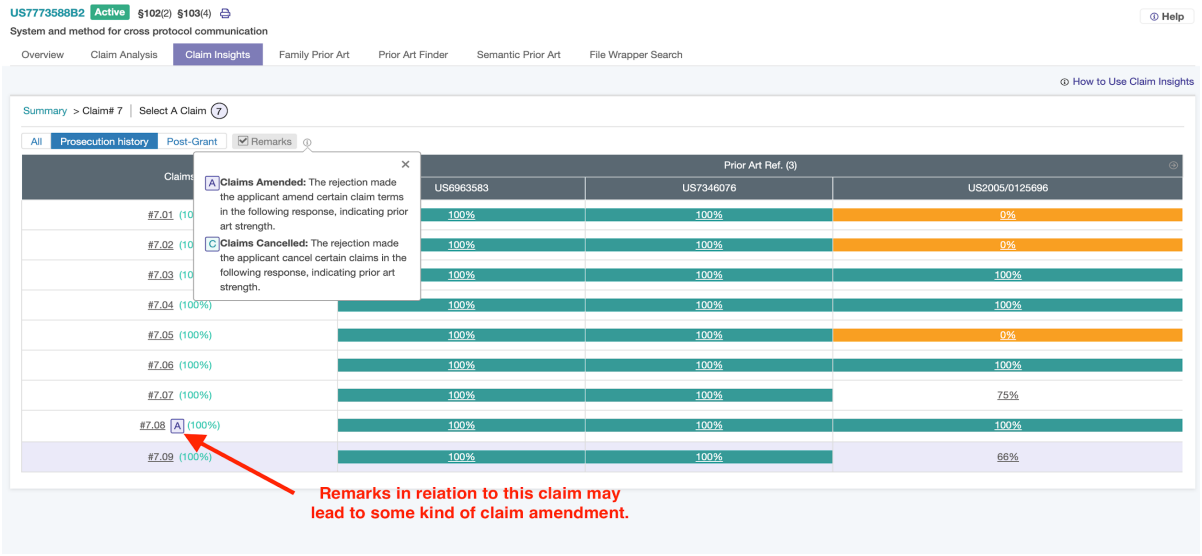
On the right-hand side, the OA in the file wrapper along with its corresponding case/ event type (prosecution or post grant) and legal basis (35 U.S.C.§ 102 or 103) are provided with the terms highlighted in black texts with the same color boxes to review the examiner's comments by comparison. If you 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.

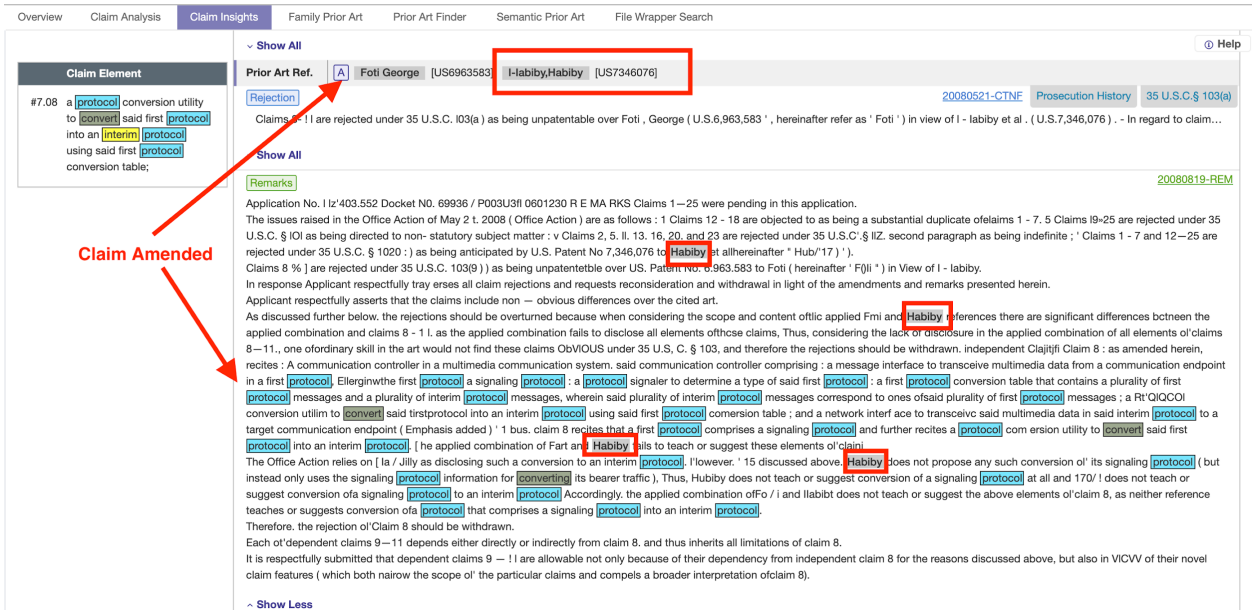


Claim Amended or Cancelled

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.

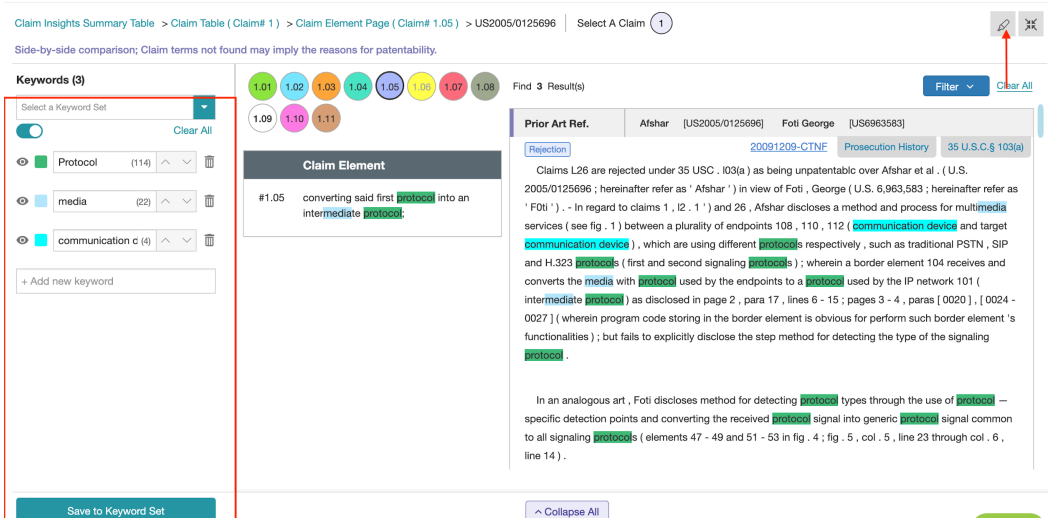


In the case of #7.08, the prior art reference US7346076 (20080521-CTNF) and the remark (20080819-REM) to it reveal the reasoning and at least one part of the claims were amended. That being said, it is NOT necessarily the claim #7, or the element #7.08.



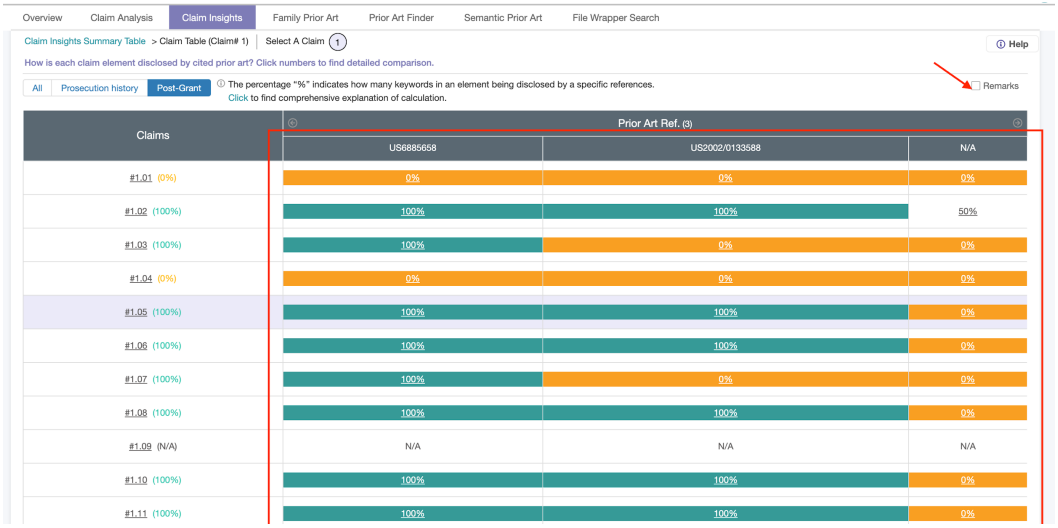
Highlighter

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.

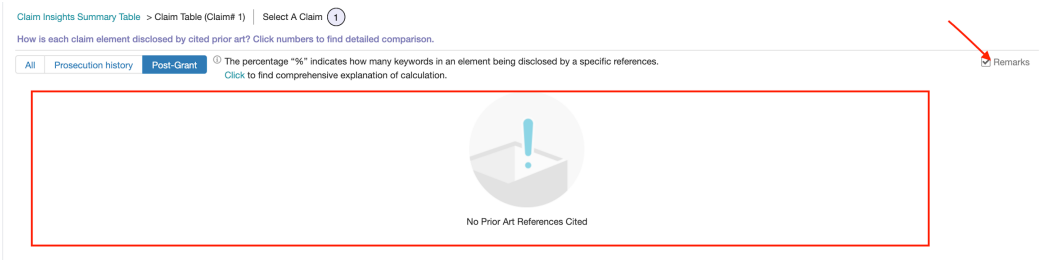


Remarks Box

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.



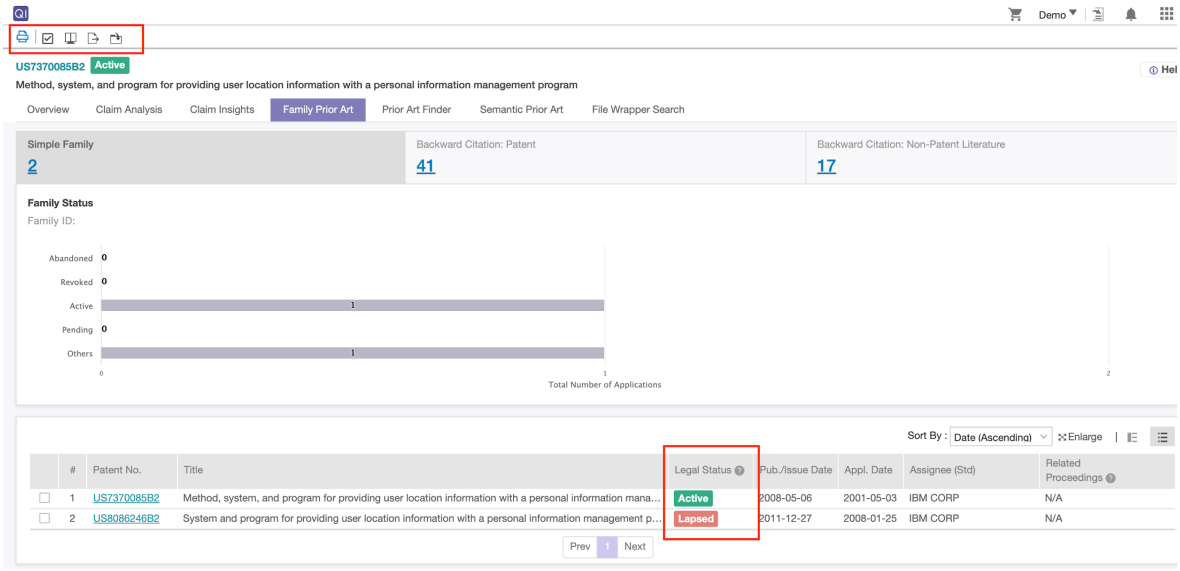
It's screened out after the box is checked.



Family Prior Art

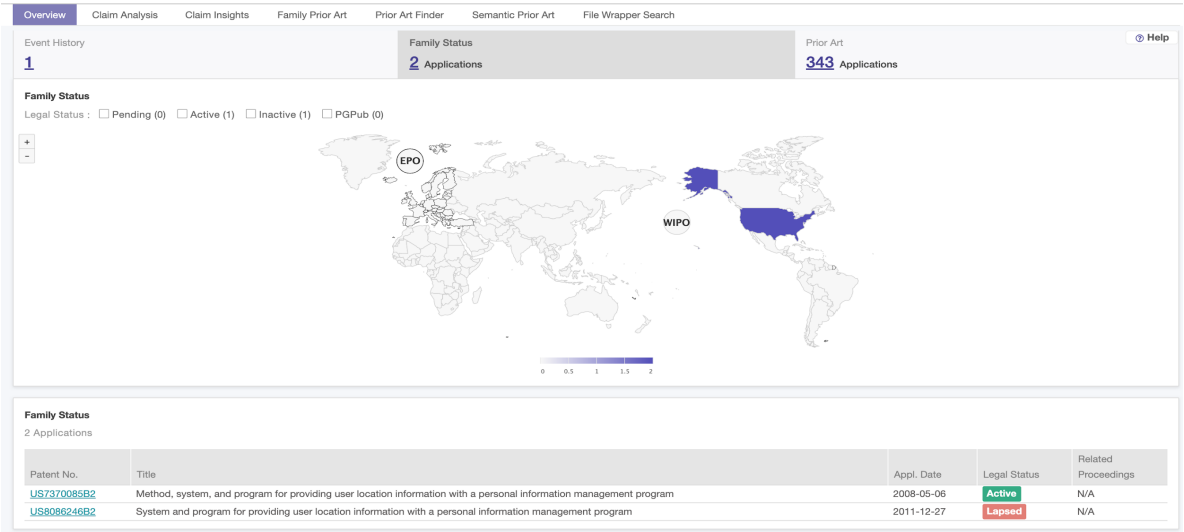
You can find patent family information (see also **Patent Family** in **Glossary,**) including the family members' patent numbers, titles, legal status, publication/ issue dates, application date, and their related post-grant proceeding cases.

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.

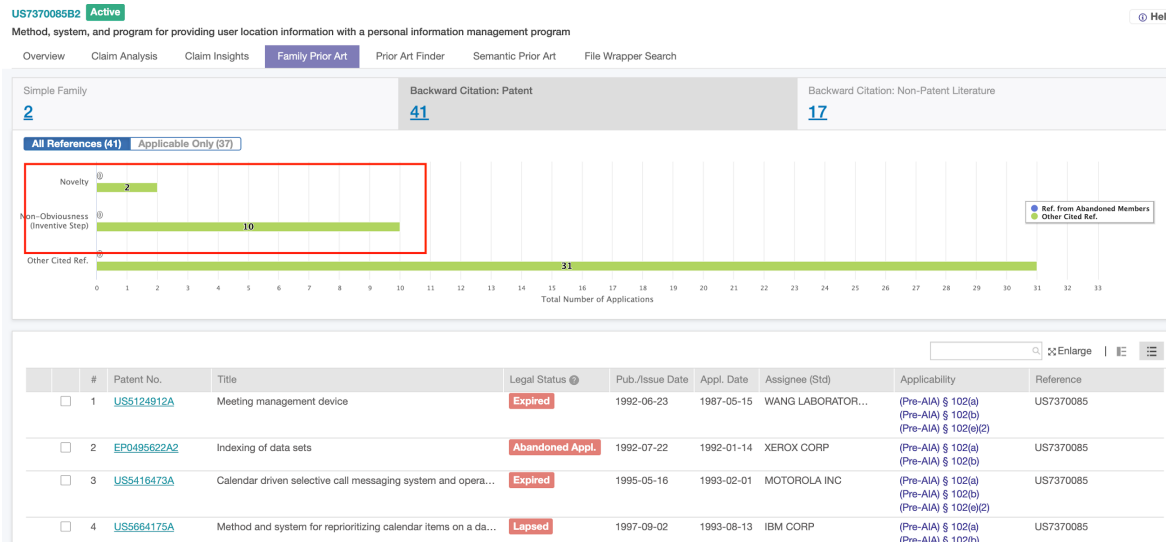


Back to the **Family Prior Art** tab. When clicking on the number in the box of “Backward Citation: Patent”, you can further go to the backward citation page.

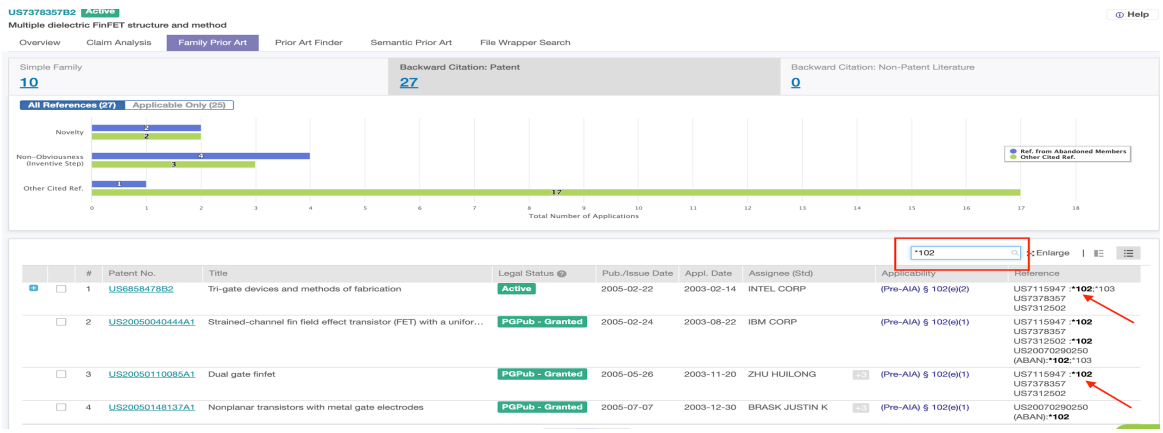
On the backward citation page, you can find prior art in the family citations of the patent at issue, especially citations of its family counterparts that are foreign patent applications. The "References" column lists the family members citing the prior art reference, and:

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

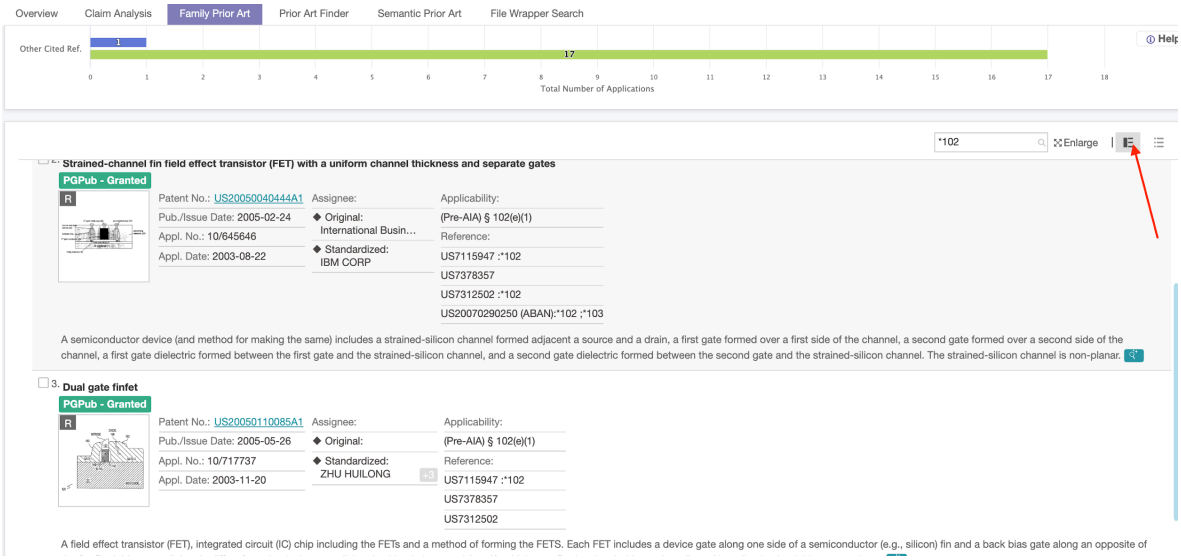
If the prior art reference was considered as 35 U.S.C § 102/103 prior art in the prosecution, re-**E**xam, **I**PR/CBM review or **P**ost-grant review of the family member, it will be marked with "*/E/I/P", "102/103". (For example, "*102" for § 102 prior art in prosecution history.)



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.



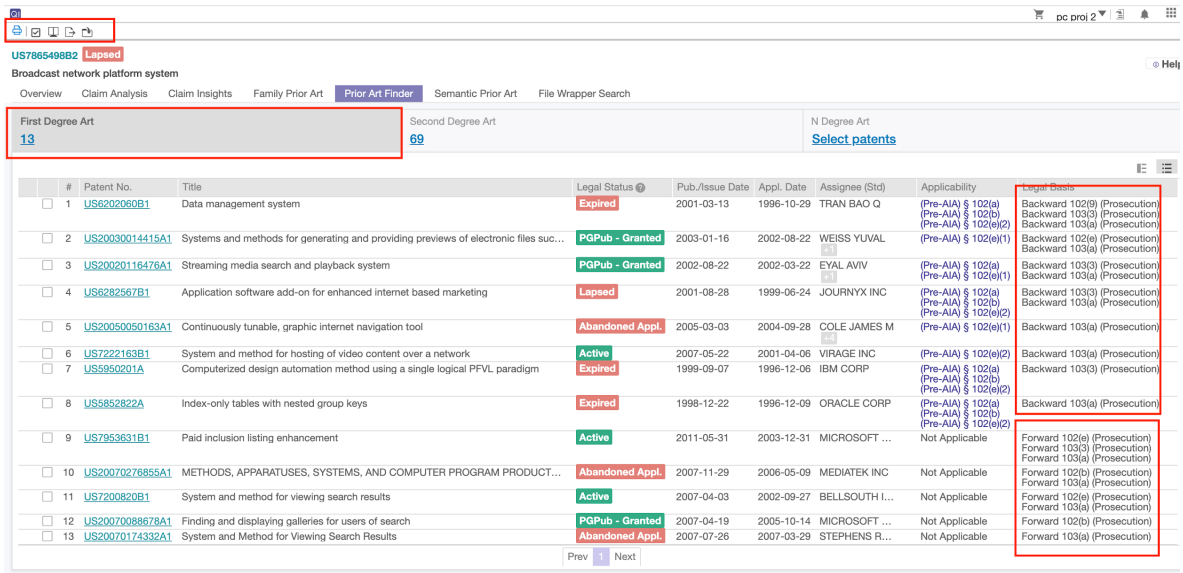
Prior Art Finder

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.

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.

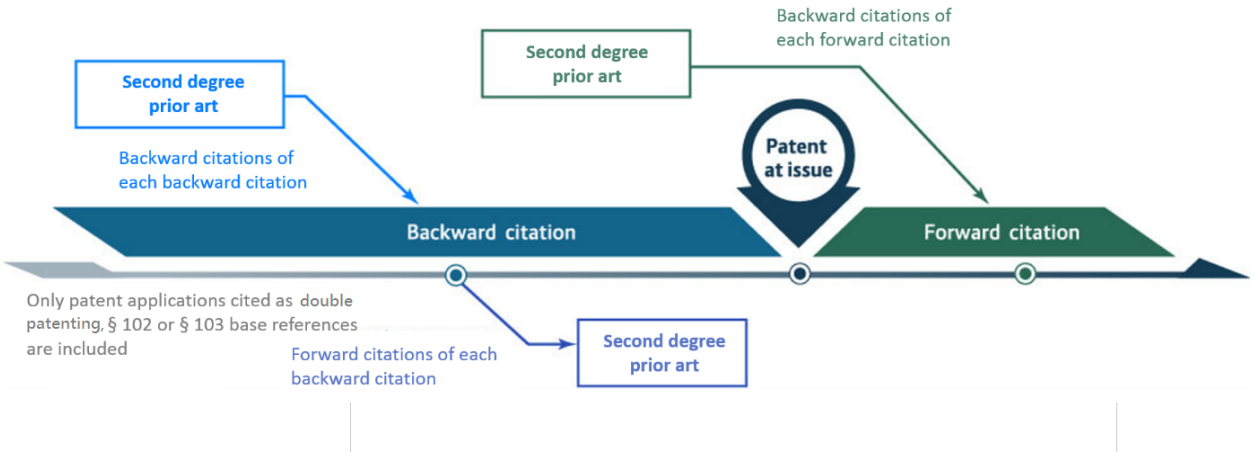
On the page of "First Degree Art", you can see the total of prior art (backward rejections based on double patenting, § 102 or § 103) and subsequent art (forward rejections also based on double patenting, § 102 or § 103). Take the US7865498 patent for example, out of the 13 First Degree Art references,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



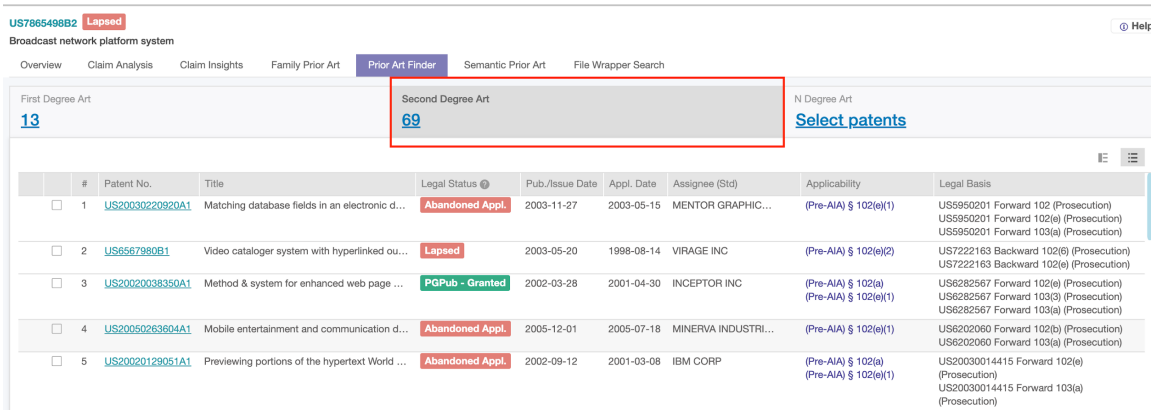
On the page of "Second Degree Art", the patents identified include:

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.

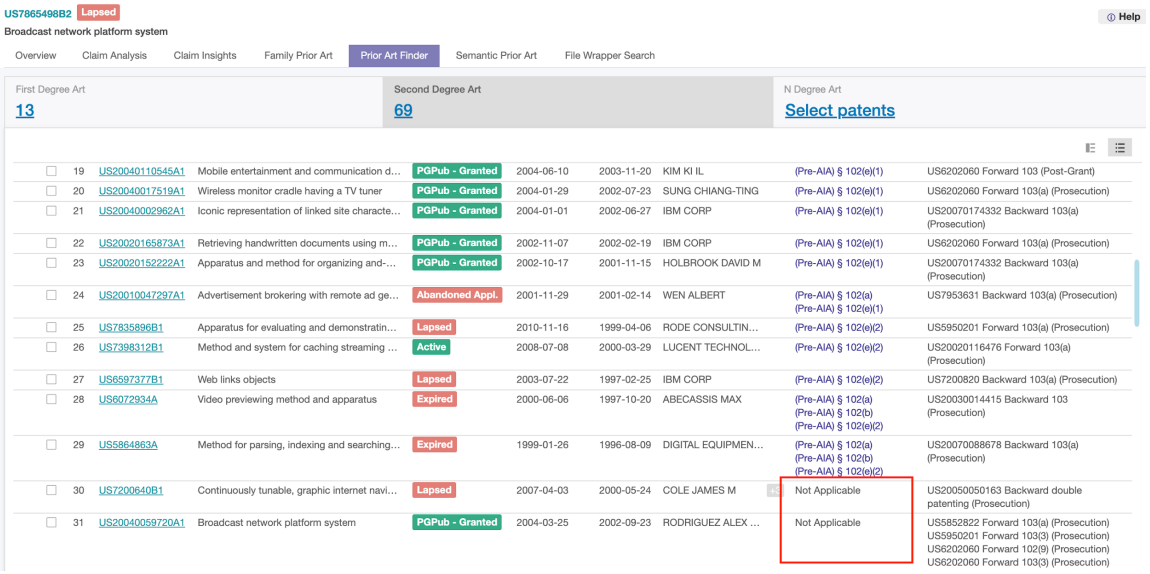

US7865498B2 Lapsed
Broadcast network platform system
Overview | Claim Analysis | Claim Insights | Family Prior Art | Prior Art Finder | Semantic Prior Art | File Wrapper Search
First Degree Art 13 | Second Degree Art 69 | N Degree Art Select patents

#	Patent No.	Title	Legal Status	Pub./Issue Date	Appl. Date	Assignee (Std)	Applicability	Legal Basis
1	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)
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(6) (Prosecution) US7222163 Backward 102(e) (Prosecution)
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)
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)
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:

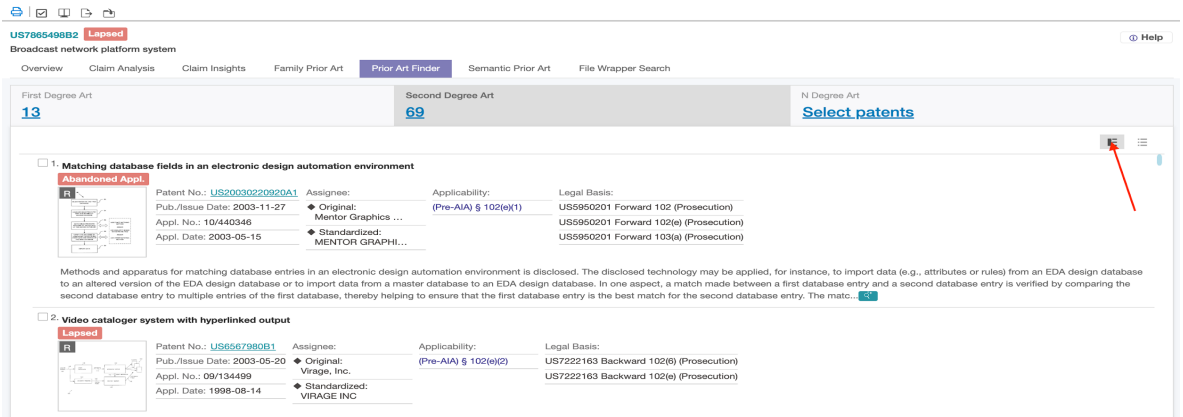
1. Applicability. A preliminary evaluation on second degree art for eligibility as prior art of the patent at issue under 35 USC § 102.
2. Patent Title of “List View”. It is to facilitate an intuitive evaluation of relevance.
3. Legal Basis**.** This also helps evaluate the relevance of the prior art. 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.

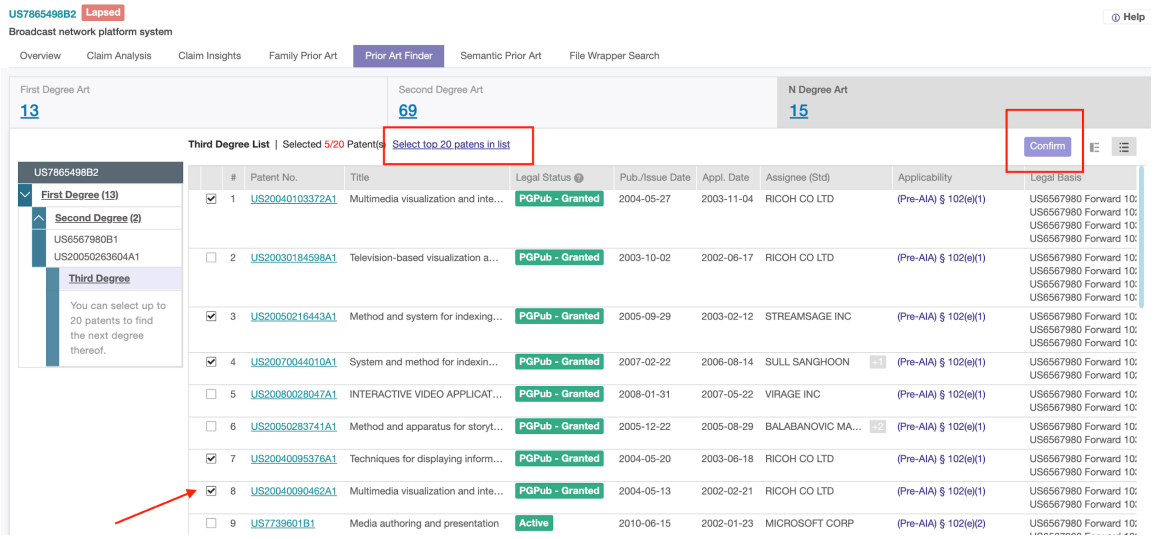


19	US20040110545A1	Mobile entertainment and communication d…	PGPub - Granted	2004-06-10	2003-11-20	KIM KI IL	(Pre-AIA) § 102(e)(1)	US6202060 Forward 103 (Post-Grant)
20	US20040017519A1	Wireless monitor cradle having a TV tuner	PGPub - Granted	2004-01-29	2002-07-23	SUNG CHIANG-TING	(Pre-AIA) § 102(e)(1)	US6202060 Forward 103(a) (Prosecution)
21	US20040002962A1	Iconic representation of linked site characte…	PGPub - Granted	2004-01-01	2002-06-27	IBM CORP	(Pre-AIA) § 102(e)(1)	US20070174332 Backward 103(a) (Prosecution)
22	US20020165873A1	Retrieving handwritten documents using m…	PGPub - Granted	2002-11-07	2002-02-19	IBM CORP	(Pre-AIA) § 102(e)(1)	US6202060 Forward 103(a) (Prosecution)
23	US20020152222A1	Apparatus and method for organizing and-…	PGPub - Granted	2002-10-17	2001-11-15	HOLBROOK DAVID M	(Pre-AIA) § 102(e)(1)	US20070174332 Backward 103(a) (Prosecution)
24	US20010047297A1	Advertisement brokering with remote ad ge…	Abandoned Appl.	2001-11-29	2001-02-14	WEN ALBERT	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)	US7953631 Backward 103(a) (Prosecution)
25	US7835896B1	Apparatus for evaluating and demonstratin…	Lapsed	2010-11-16	1999-04-06	RODE CONSULTIN…	(Pre-AIA) § 102(e)(2)	US5950201 Forward 103(a) (Prosecution)
26	US7398312B1	Method and system for caching streaming …	Active	2008-07-08	2000-03-29	LUCENT TECHNOL…	(Pre-AIA) § 102(e)(2)	US20020116476 Forward 103(a) (Prosecution)
27	US6597377B1	Web links objects	Lapsed	2003-07-22	1997-02-25	IBM CORP	(Pre-AIA) § 102(e)(2)	US7200820 Backward 103(a) (Prosecution)
28	US6072934A	Video previewing method and apparatus	Expired	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)
29	US5864863A	Method for parsing, indexing and searching…	Expired	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)
30	US7200640B1	Continuously tunable, graphic internet navi…	Lapsed	2007-04-03	2000-05-24	COLE JAMES M	Not Applicable	US20050050163 Backward double patenting (Prosecution)
31	US20040059720A1	Broadcast network platform system	PGPub - Granted	2004-03-25	2002-09-23	RODRIGUEZ ALEX …	Not Applicable	US5852822 Forward 103(a) (Prosecution) US5950201 Forward 103(3) (Prosecution) US6202060 Forward 102(9) (Prosecution) US6202060 Forward 103(3) (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.

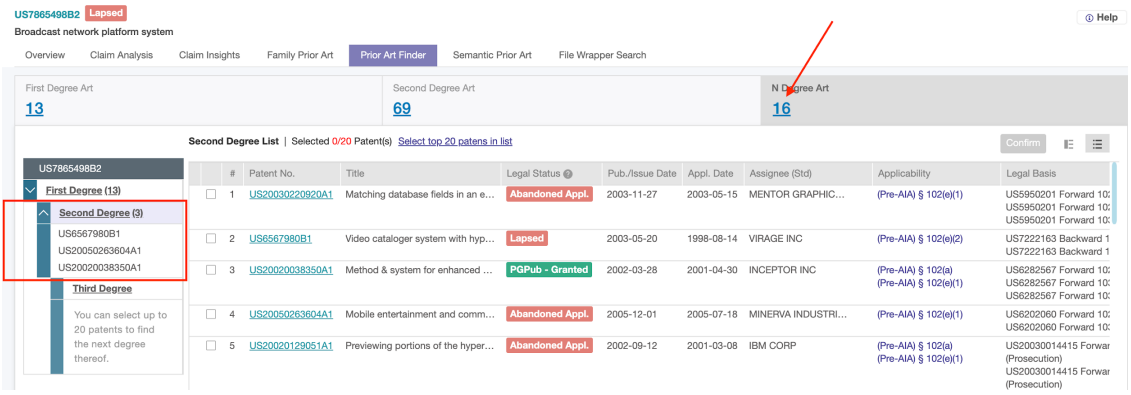


On the page of “N Degree Art”, you can expand the citations based on double patenting, § 102 or § 103 rejections to find the next degree citations, namely the forward and backward citations, up to the sixth degree citations. In each degree of citations to be expanded, the maximum number is 20.



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.



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.

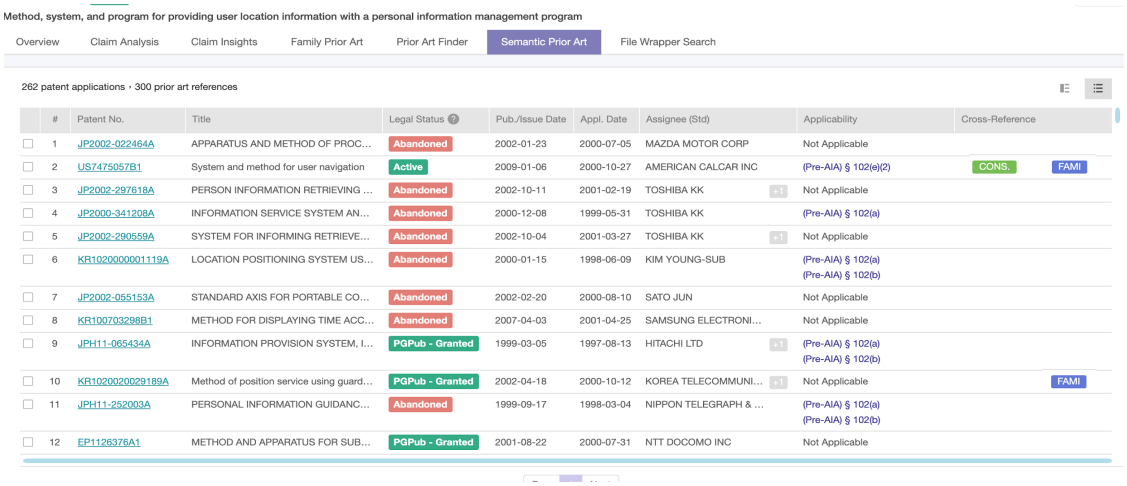
Semantic Prior Art

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.

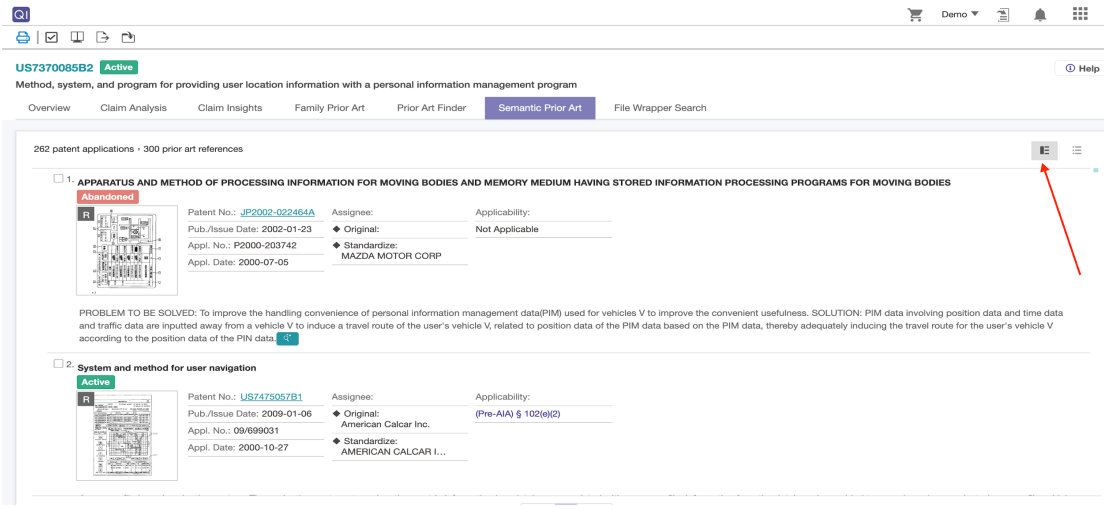
CONS. Previously considered in the prosecution or PTAB.

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

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



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.

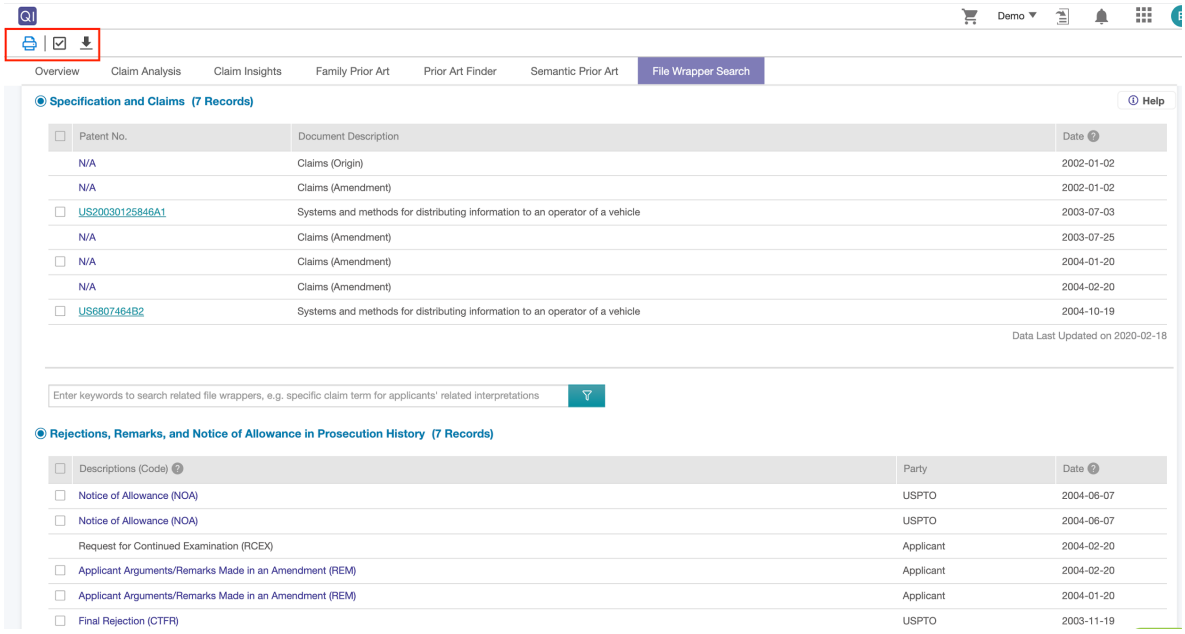


File Wrapper Search

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.



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

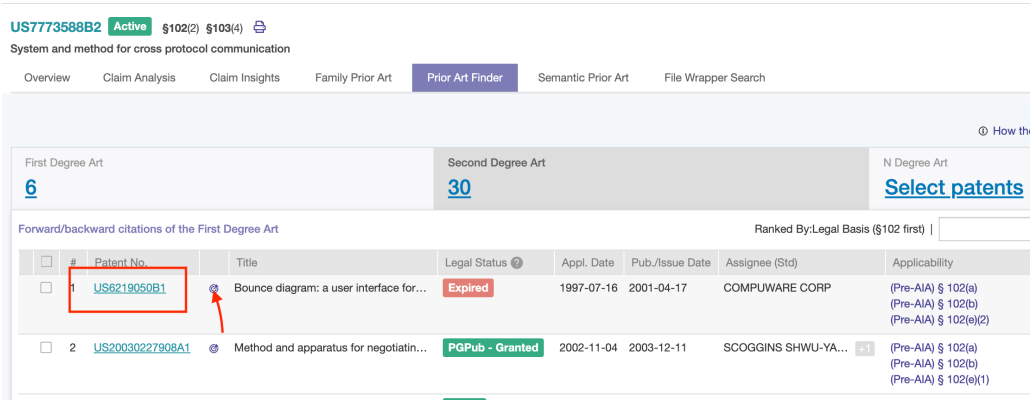
Quality Insights provides a variety of useful functions that enables users to link to a patent's page view, to print, to select all patents at once, to add to project, to compare, or to export.

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.

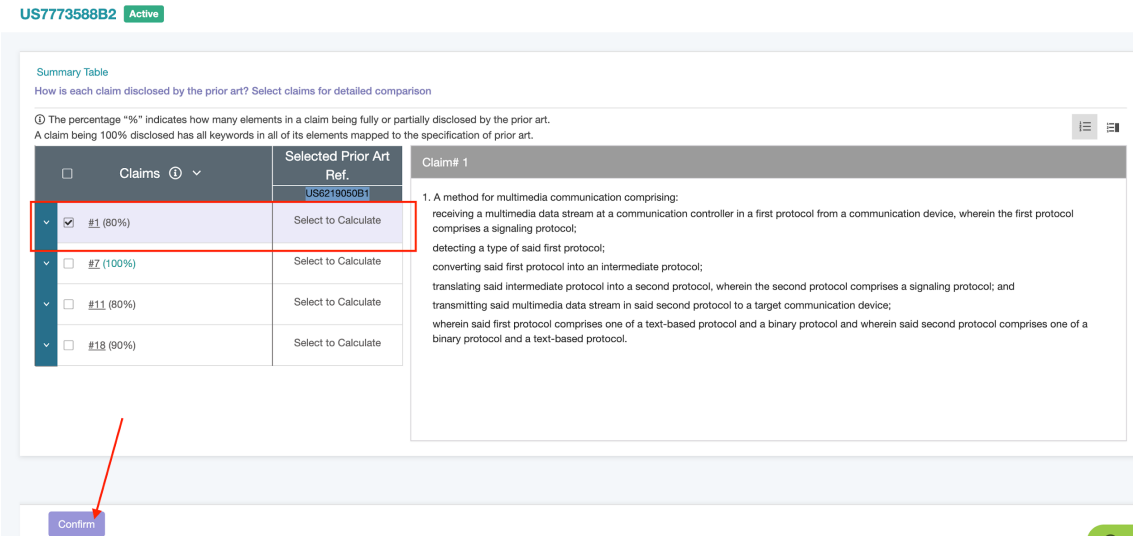
In the example of **US7773588B2** as the patent at issue, we click the icon next to **US6219050B1**, one of the 2nd degree prior art references on the top.



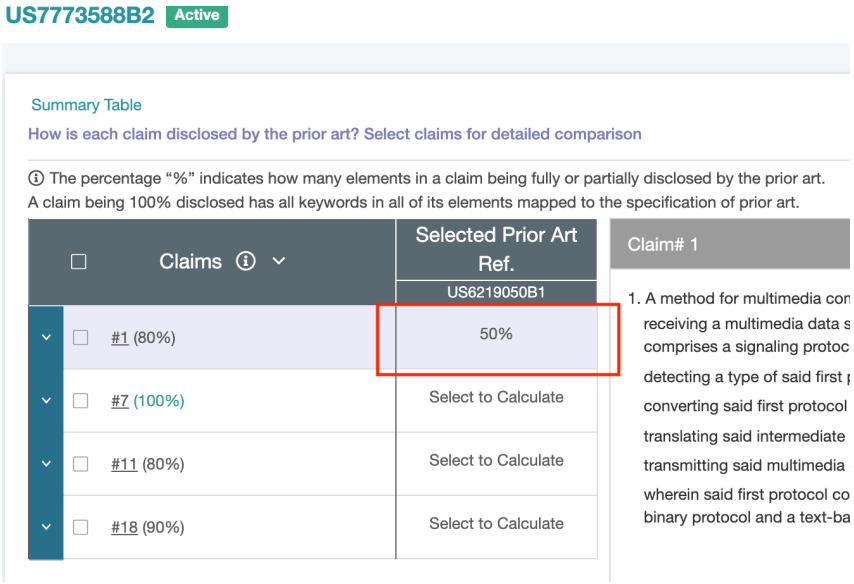
Summary Table

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.



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.

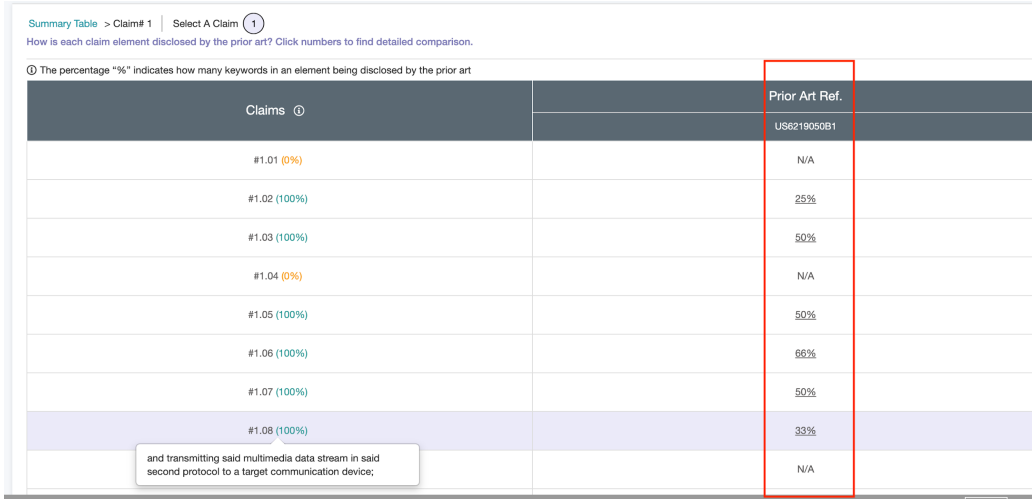


Select A Claim

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 .

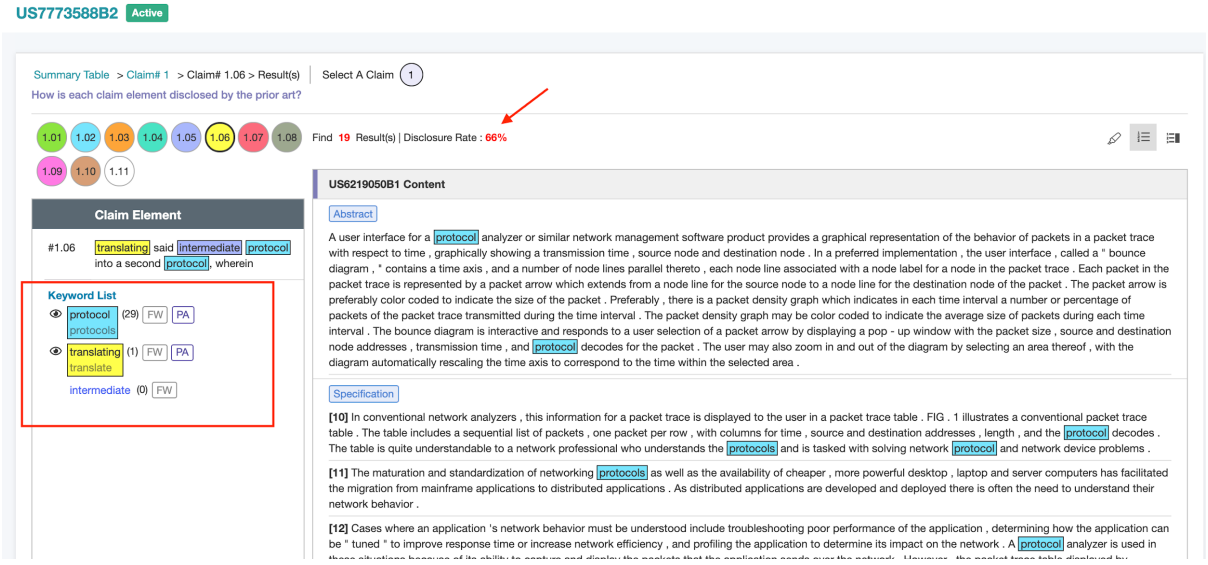
In the example of comparing the first claim of the **US7773588B2** at issue with the potential prior art **US6219050B1**, each % under US6219050B1 indicates that, out of the total number of claim terms defined for each corresponding element of US7773588B2,, how many terms can also be discovered in the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



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.

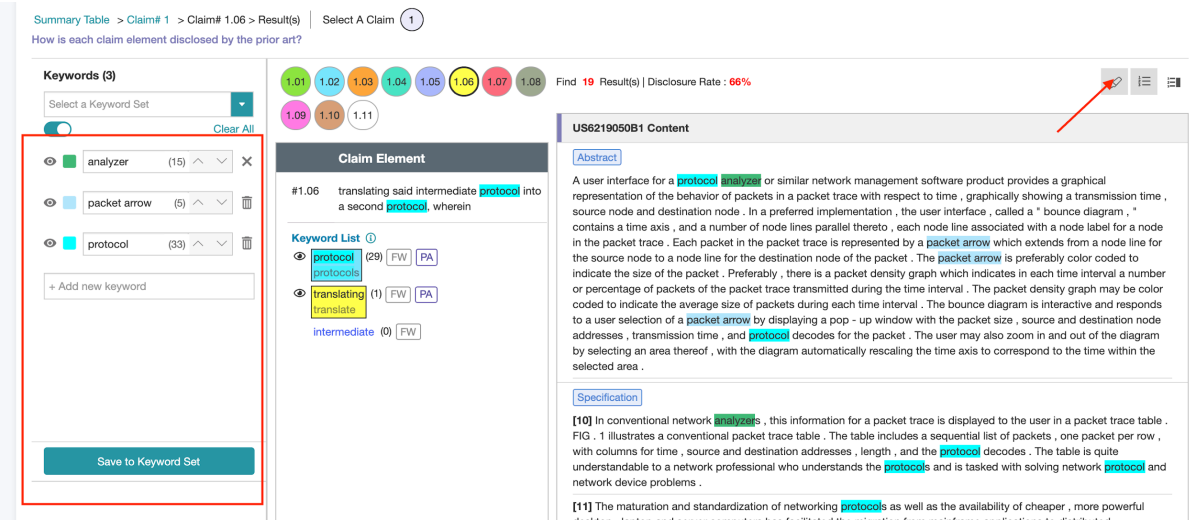
How is the 66% calculated? Two (*protocol* and *transmitting*) of the three claim terms (*protocol*, *transmitting*, and *intermediate*) are found in the content of US6219050B1. There are **19** results of these two claim terms, which can appear in different tenses (verbs) or singular/ plural forms (nouns).

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.



Highlighter

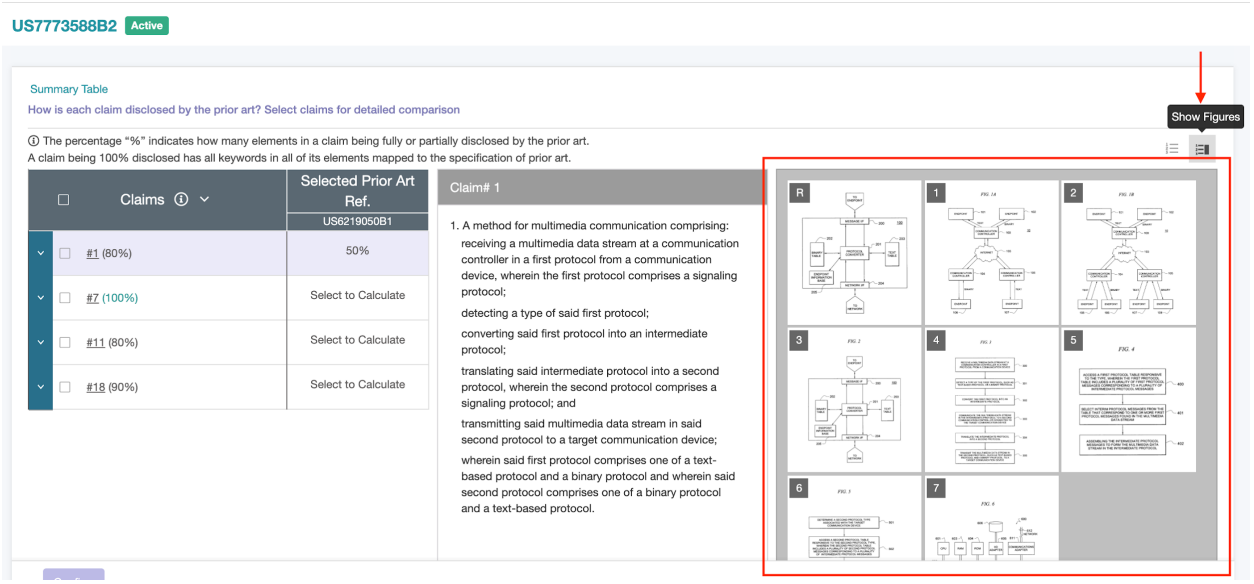
Wanna do your own keyword listing? You can click on the Highlighter icon to personalize keywords by **Saving to Keyword Set**. Or simply use it to quickly search a certain keyword or phrase in the full text.



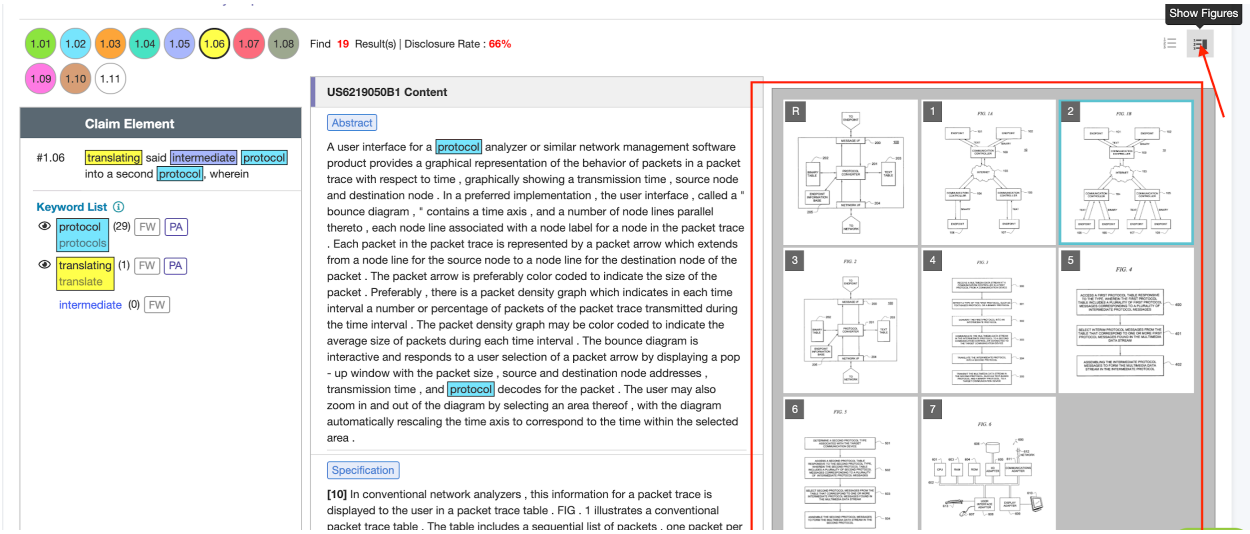
Show or Hide Figures

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.

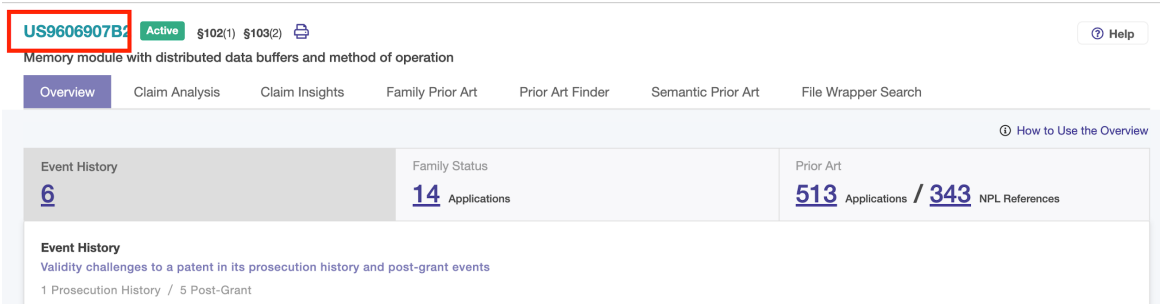


Similarly, on the Select A Claim pages, you can click on the **Show Figures** icon to better understand the potential art for references. To deactivate the function, click on the **Hide Figures** icon next to it.

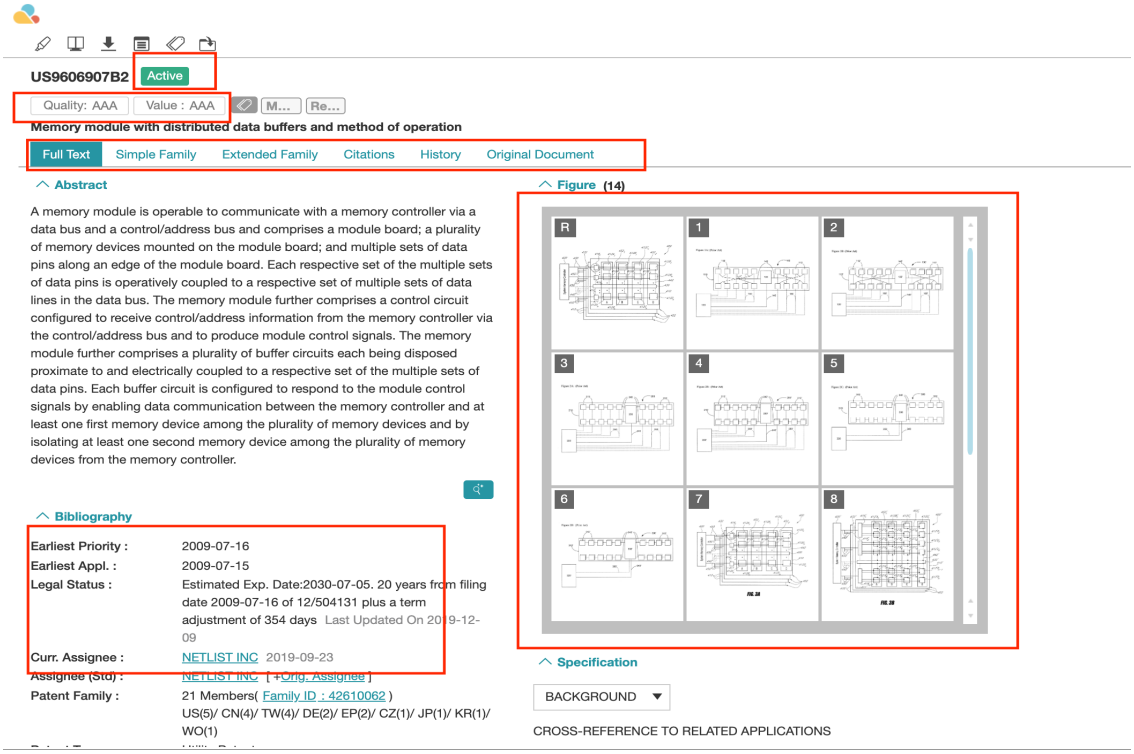


Patent Page

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

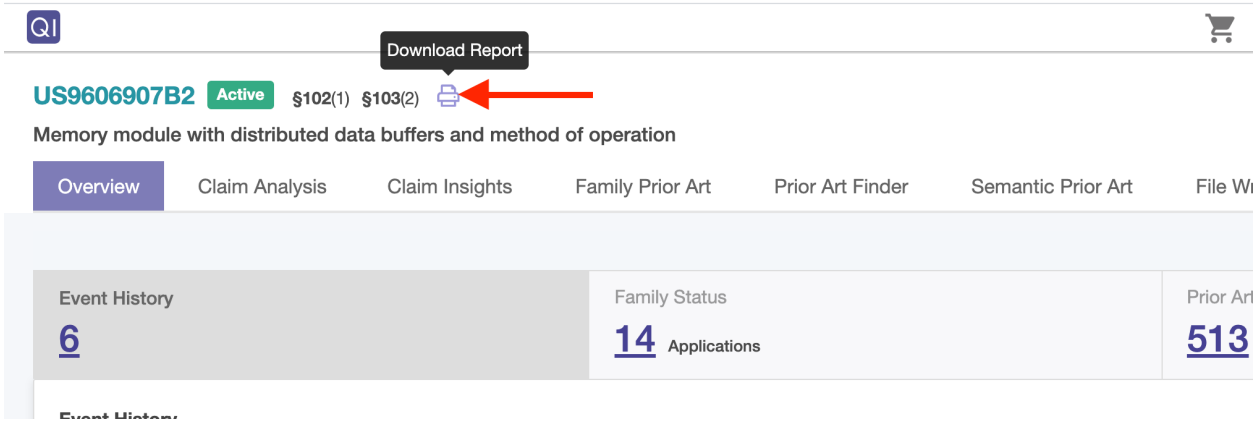


On the **Patent Page** view, you should be able to find Quality and Value Rankings, Legal Status, Bibliography, Images among others. When you click on the other tabs, you will get “Simple/ Extended Families, Backward/Forward Citations, History (of Application, Assignment, Fee and Patent Term Adjustment,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

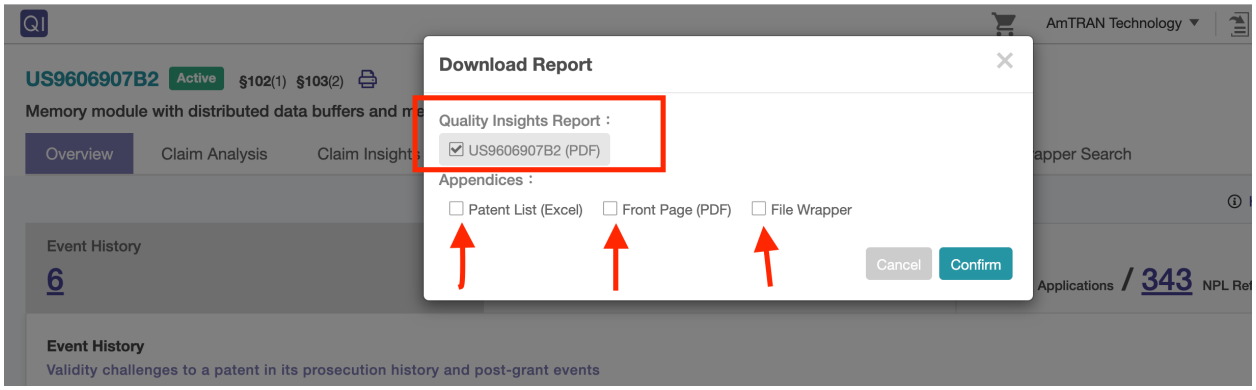


Download Report

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

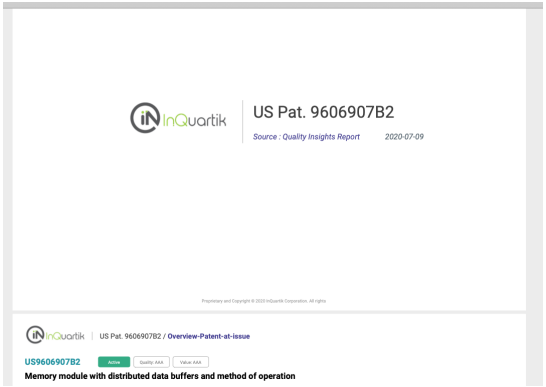


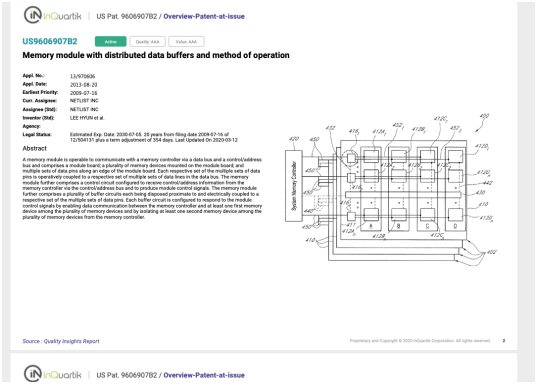
A pop-up window will ask if you want the QI Reports together with Patent List (Excel), Front Page (PDF) and/or File Wrapper.



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.



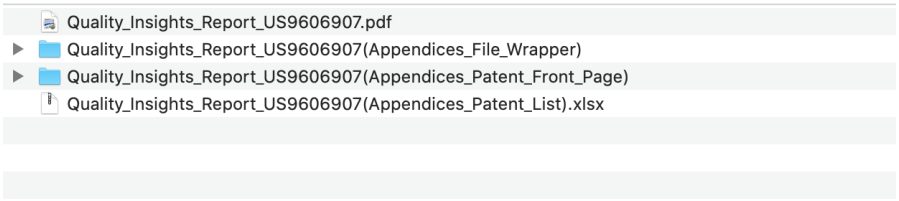


Appendices

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.

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

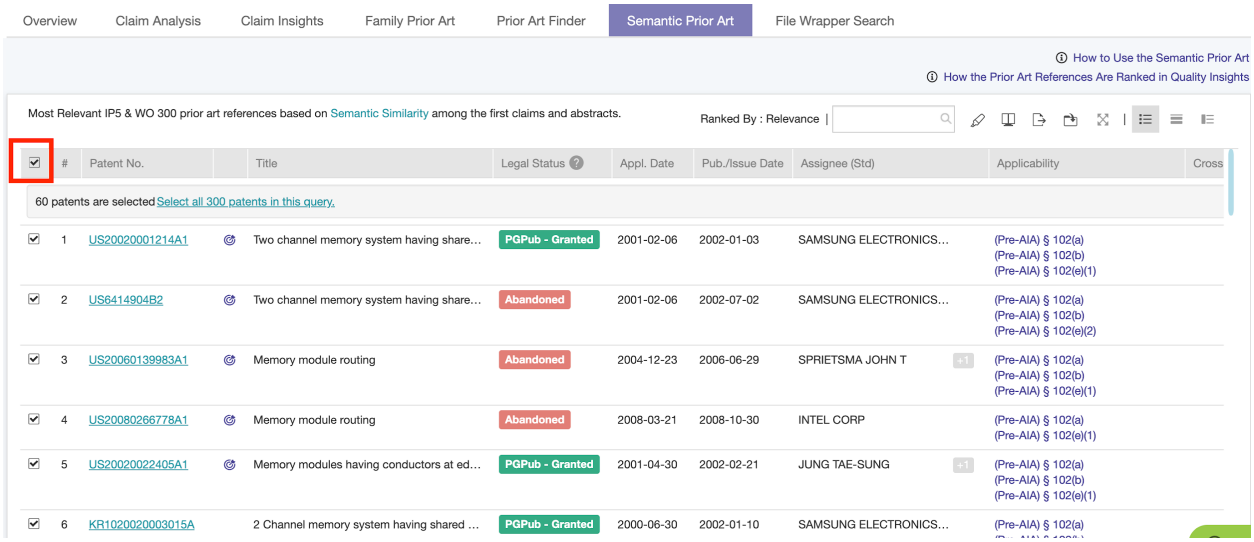
The following is what the unzipped file of QI data Export: US9606907 looks like.



Select All

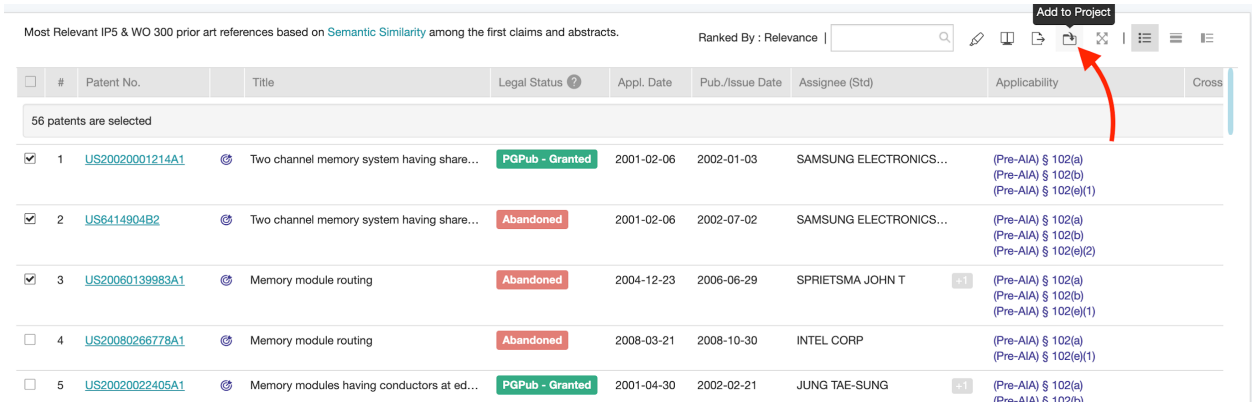
To select all the items on the current page for bulk operations such as **Add to Project**, **Compare**, or **Export**, you can put a check mark on the box located in the upper left-hand corner. In this example, 60 patents are selected because that is how many patents appearing on each page.

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



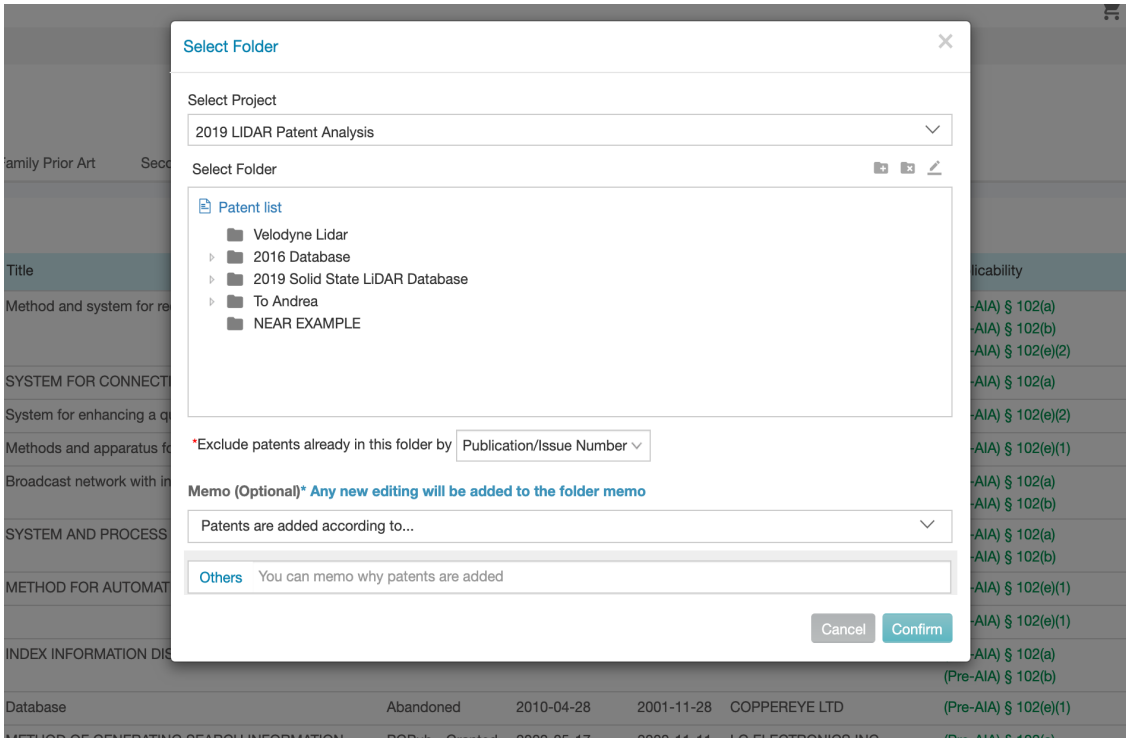
Add to Project

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



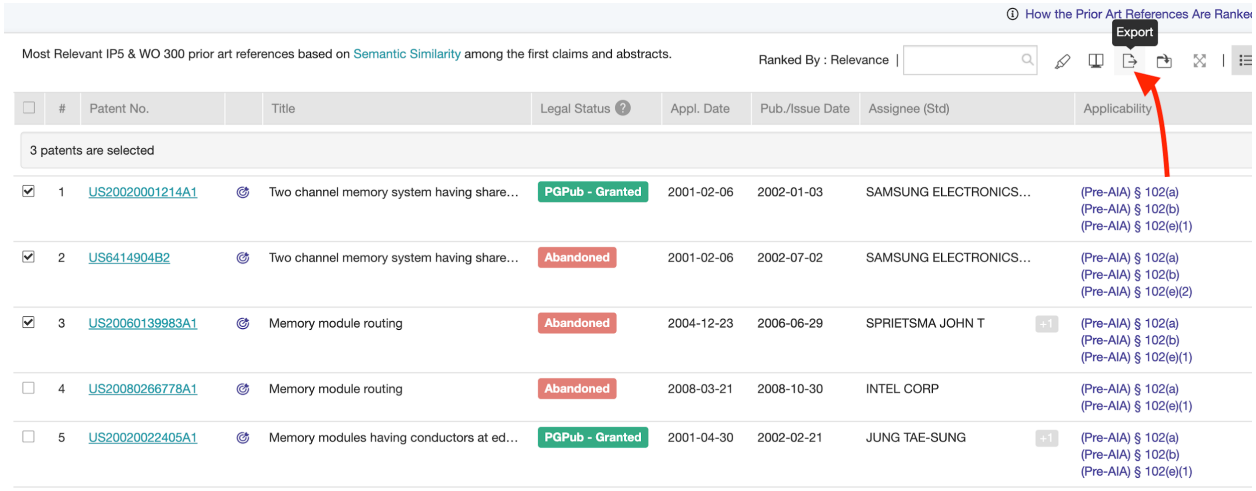
#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Applicability
1	US20020001214A1	Two channel memory system having share…	PGPub - Granted	2001-02-06	2002-01-03	SAMSUNG ELECTRONICS…	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
2	US6414904B2	Two channel memory system having share…	Abandoned	2001-02-06	2002-07-02	SAMSUNG ELECTRONICS…	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)
3	US20060139983A1	Memory module routing	Abandoned	2004-12-23	2006-06-29	SPRIETSMA JOHN T +1	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
4	US20080266778A1	Memory module routing	Abandoned	2008-03-21	2008-10-30	INTEL CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)
5	US20020022405A1	Memory modules having conductors at ed…	PGPub - Granted	2001-04-30	2002-02-21	JUNG TAE-SUNG +1	(Pre-AIA) § 102(a)

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).

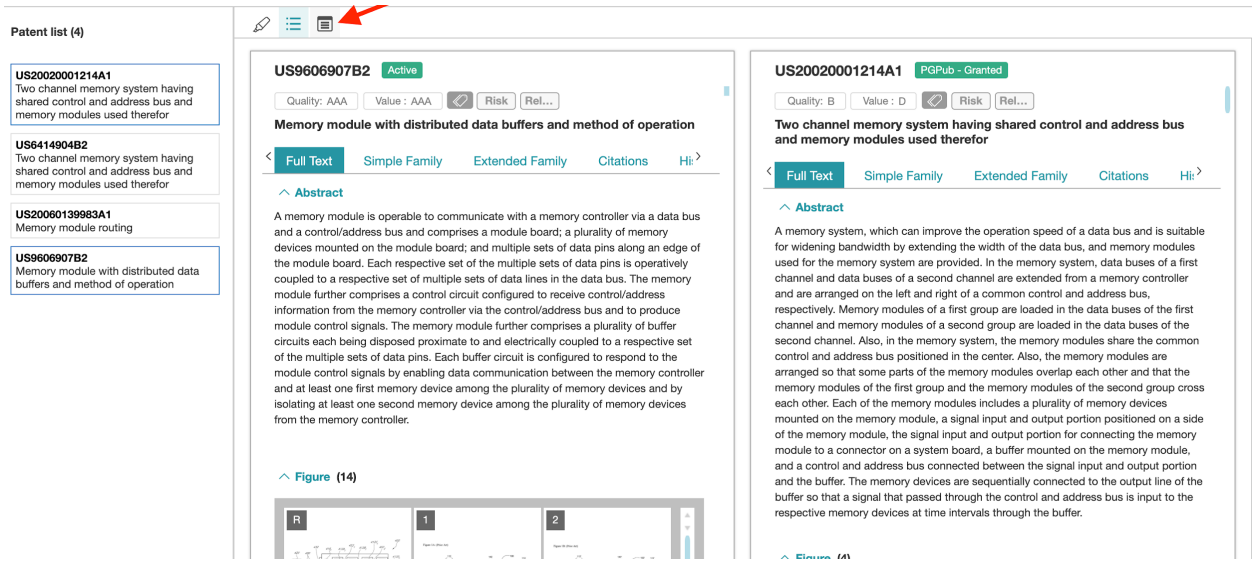


#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Applicability
1	US20020001214A1	Two channel memory system having share…	PGPub - Granted	2001-02-06	2002-01-03	SAMSUNG ELECTRONICS…	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
2	US6414904B2	Two channel memory system having share…	Abandoned	2001-02-06	2002-07-02	SAMSUNG ELECTRONICS…	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(2)
3	US20060139983A1	Memory module routing	Abandoned	2004-12-23	2006-06-29	SPRIETSMA JOHN T +1	(Pre-AIA) § 102(a) (Pre-AIA) § 102(b) (Pre-AIA) § 102(e)(1)
4	US20080266778A1	Memory module routing	Abandoned	2008-03-21	2008-10-30	INTEL CORP	(Pre-AIA) § 102(a) (Pre-AIA) § 102(e)(1)
5	US20020022405A1	Memory modules having conductors at ed…	PGPub - Granted	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**.

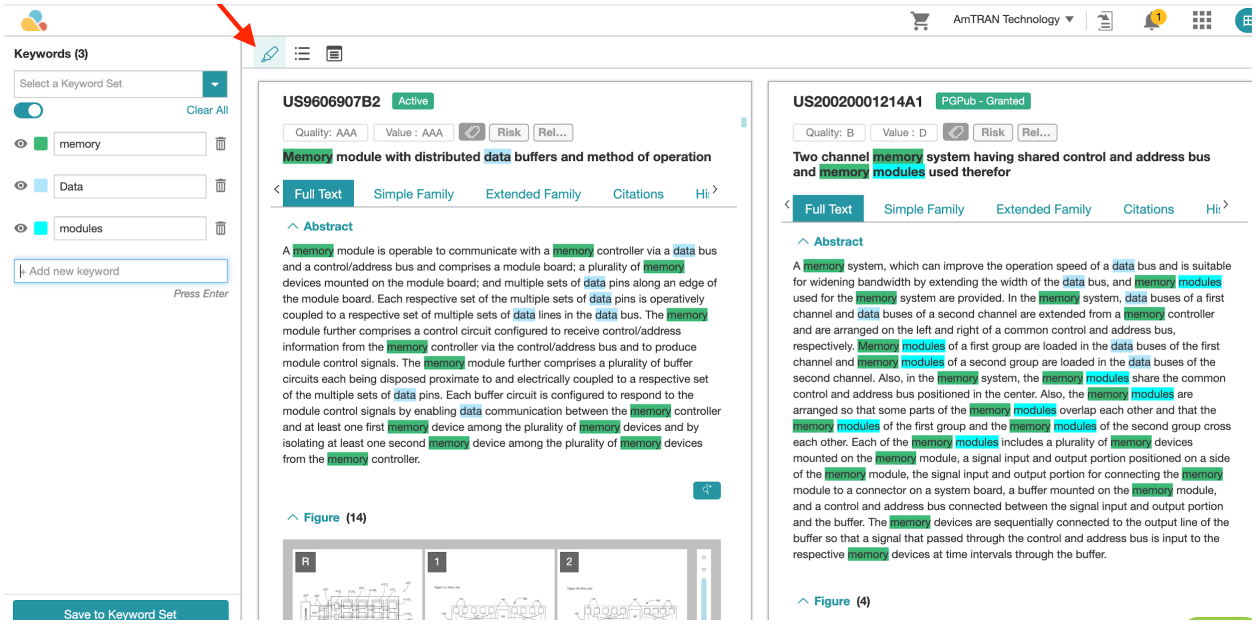
Patent List

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



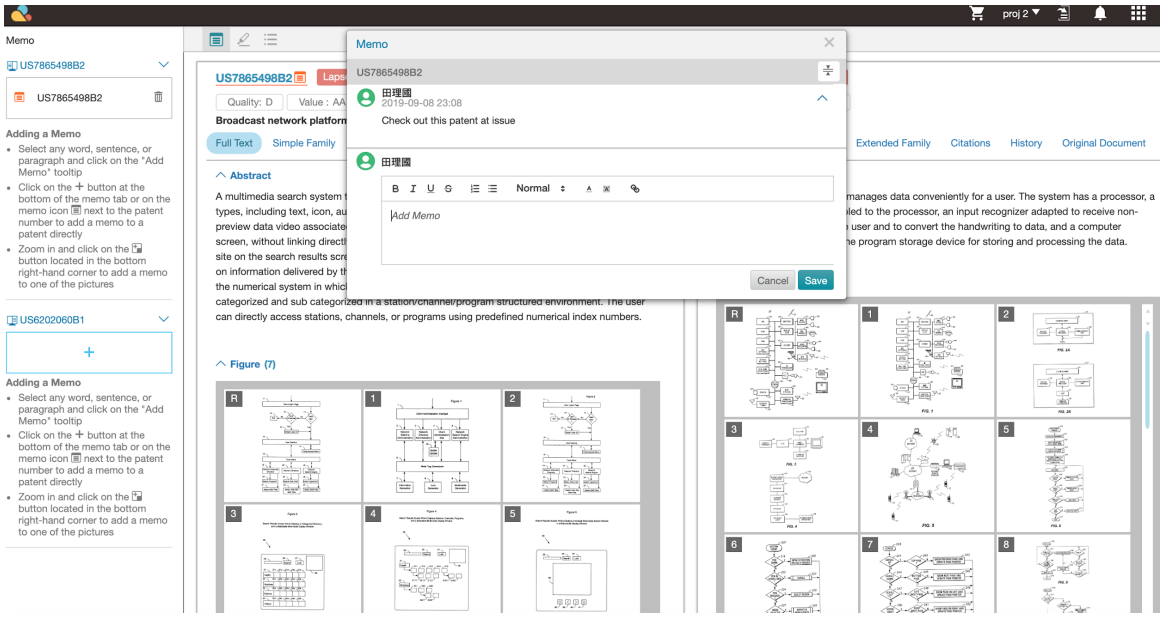
Highlighter

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



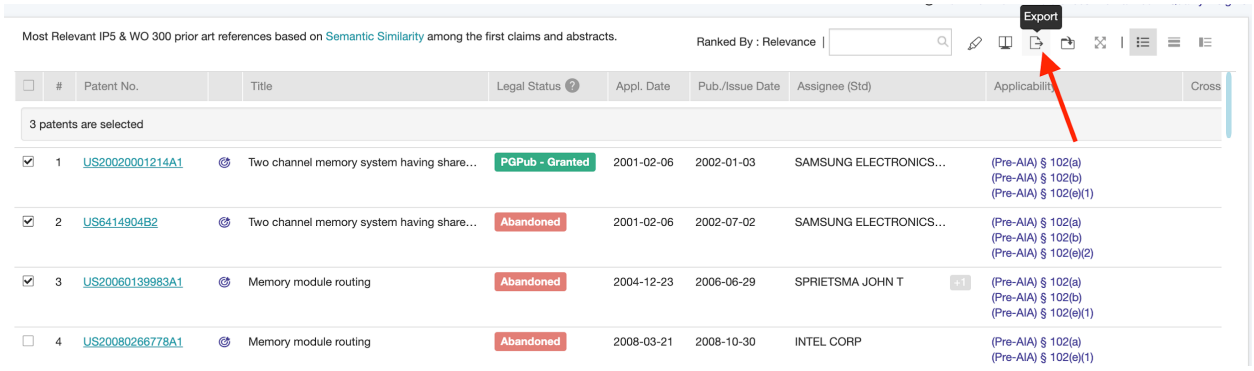
Memo

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.

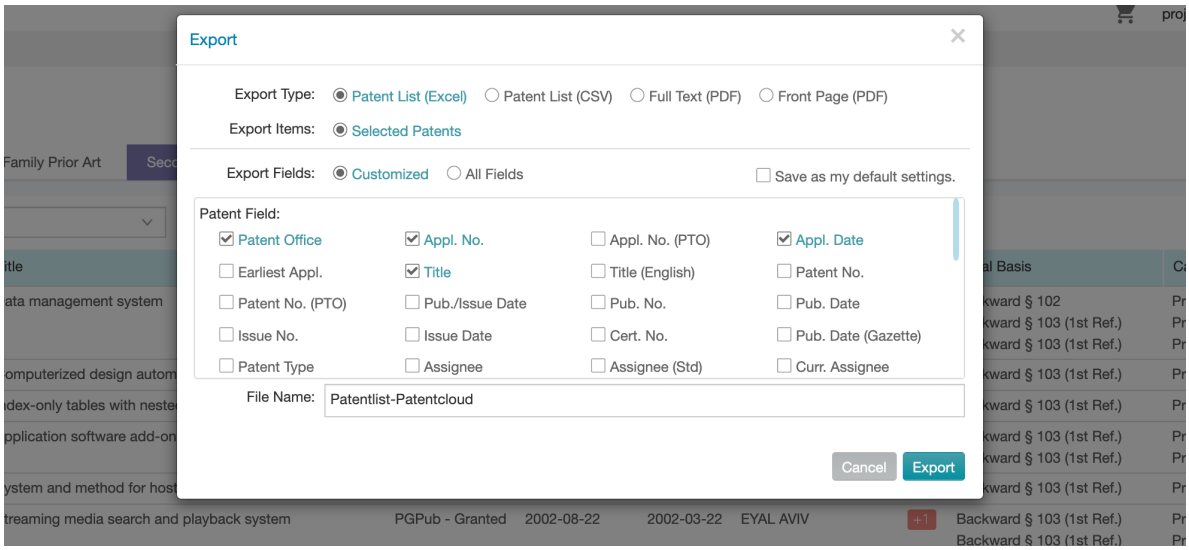


Export

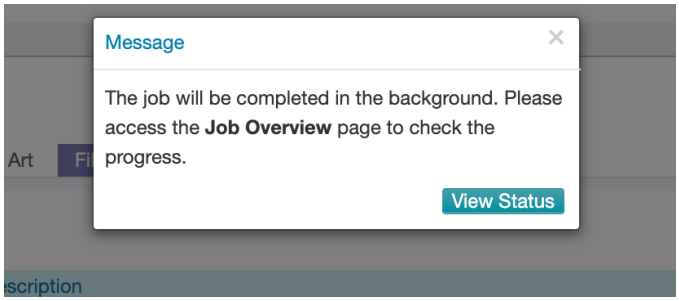
Click the **Export** icon, and a window will appear. Select the export type, which items and fields to export, and give the exported file a name.



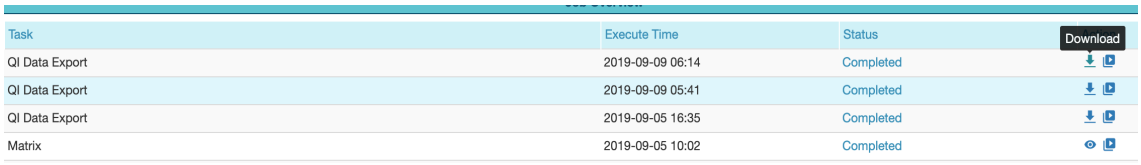
Quality Insights allows users to export the selected patents into a variety of formats, including patent list (.xls format or .csv format), patent full-text image (.zip format), and patent front page (.pdf format). Then, press “Export.”



During the export, you will see the output **Message** as follows.

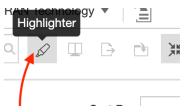


Click **View Status** to view the status. Or when the task is completed, you can click **Download** to save it on your computer.

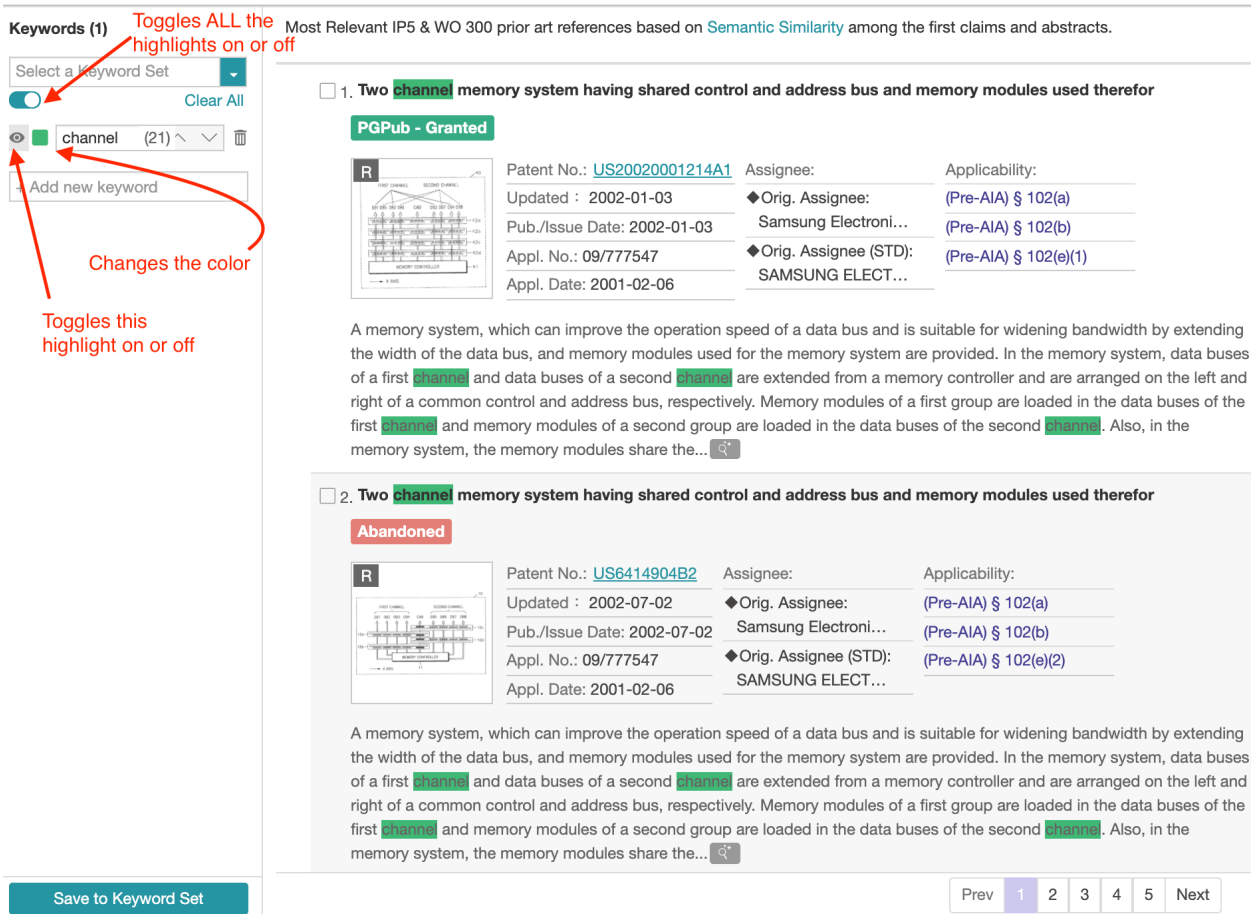


Highlighter

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



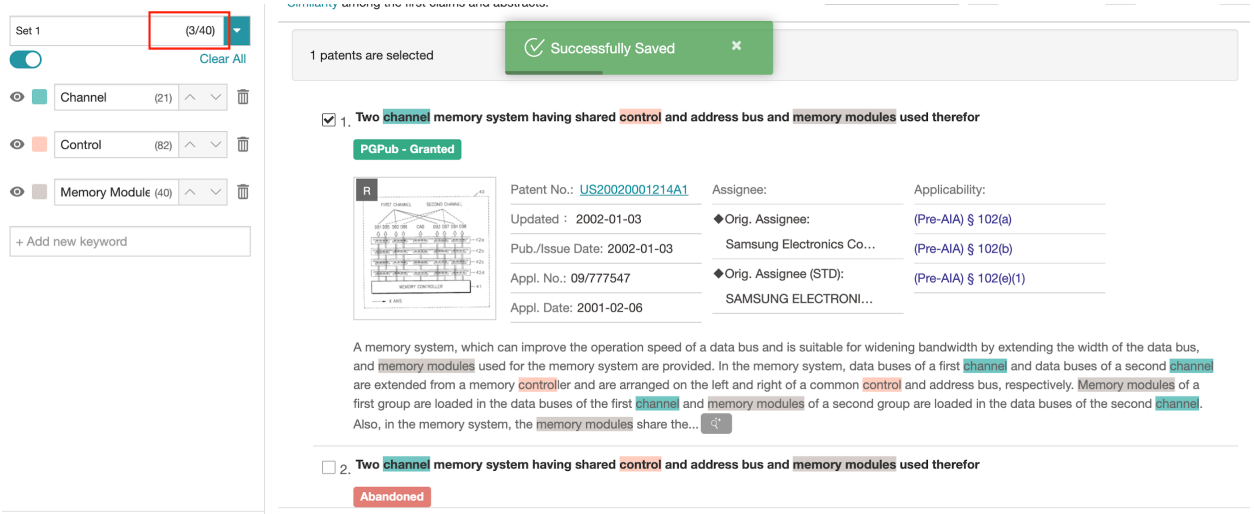
Enter a specific word or phrase you want to highlight in the text box and click Enter. The keyword will then be highlighted in a specific color throughout the current folder. If you want to change the color, click on the color of the highlight and a color palette will appear from which you can select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



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

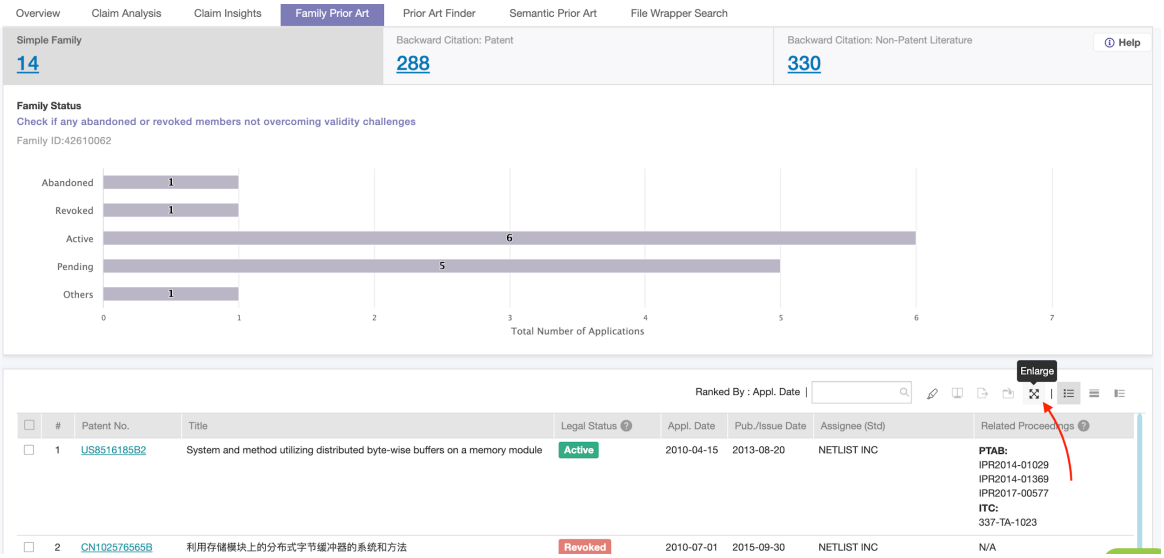
You can save up to 10 keyword sets that can store up to 40 keywords each. Select an empty set where you want to save the keywords. By default, they are named Set 1 to Set 10, which can be renamed.

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.

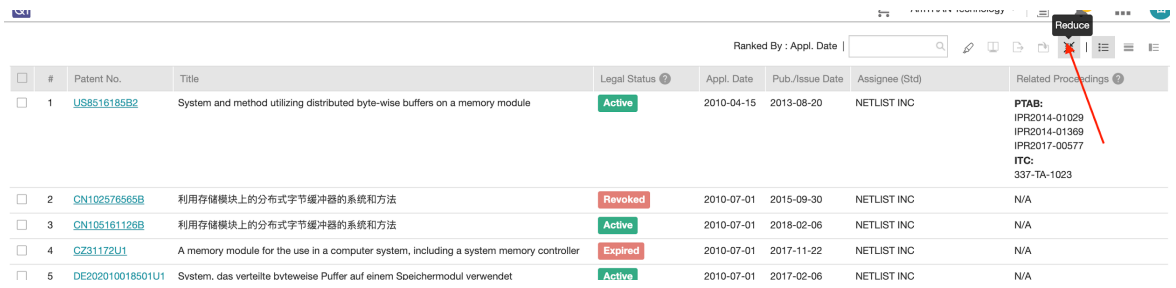


Enlarge or Reduce

Do you know how to hide the above dashboard to read the most data on your device screen? Yes, click the **Enlarge** button.

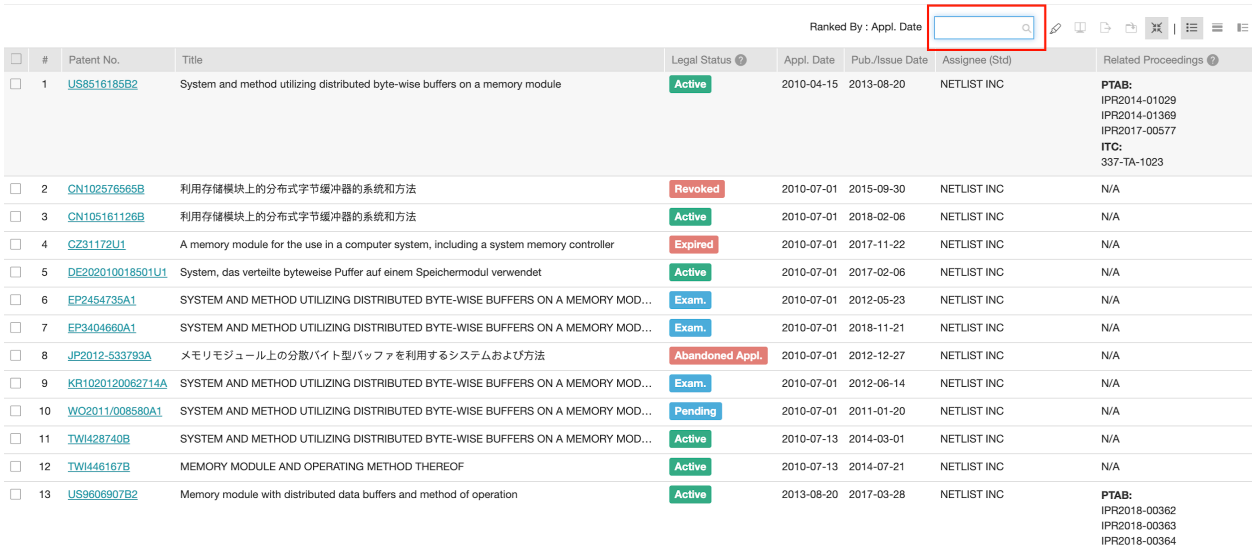


When the hidden dashboard needs revisiting, click the **Reduce** button to resume it.



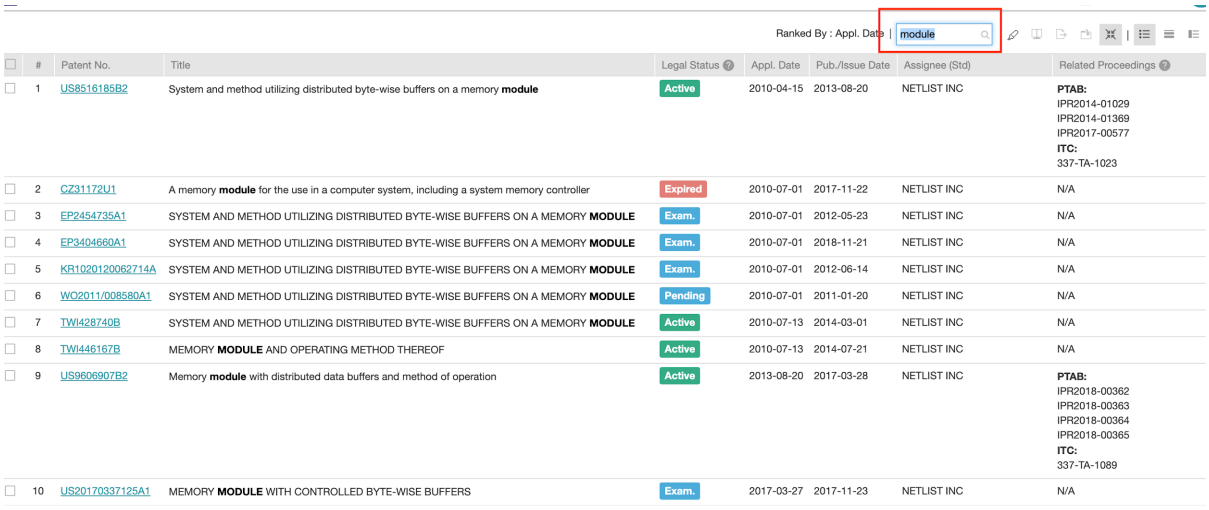
Search Box

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	US8516185B2	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	CN102576565B	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	CN105161126B	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	CZ31172U1	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	DE202010018501U1	System, das verteilte byteweise Puffer auf einem Speichermodul verwendet	Active	2010-07-01	2017-02-06	NETLIST INC	N/A
6	EP2454735A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD…	Exam.	2010-07-01	2012-05-23	NETLIST INC	N/A
7	EP3404660A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD…	Exam.	2010-07-01	2018-11-21	NETLIST INC	N/A
8	JP2012-533793A	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	KR1020120062714A	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD…	Exam.	2010-07-01	2012-06-14	NETLIST INC	N/A
10	WO2011/008580A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD…	Pending	2010-07-01	2011-01-20	NETLIST INC	N/A
11	TWI428740B	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MOD…	Active	2010-07-13	2014-03-01	NETLIST INC	N/A
12	TWI446167B	MEMORY MODULE AND OPERATING METHOD THEREOF	Active	2010-07-13	2014-07-21	NETLIST INC	N/A
13	US9606907B2	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 | module

#	Patent No.	Title	Legal Status	Appl. Date	Pub./Issue Date	Assignee (Std)	Related Proceedings
1	US8516185B2	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	CZ31172U1	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
3	EP2454735A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY **MODULE**	Exam.	2010-07-01	2012-05-23	NETLIST INC	N/A
4	EP3404660A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY **MODULE**	Exam.	2010-07-01	2018-11-21	NETLIST INC	N/A
5	KR1020120062714A	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY **MODULE**	Exam.	2010-07-01	2012-06-14	NETLIST INC	N/A
6	WO2011/008580A1	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY **MODULE**	Pending	2010-07-01	2011-01-20	NETLIST INC	N/A
7	TWI428740B	SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY **MODULE**	Active	2010-07-13	2014-03-01	NETLIST INC	N/A
8	TWI446167B	MEMORY **MODULE** AND OPERATING METHOD THEREOF	Active	2010-07-13	2014-07-21	NETLIST INC	N/A
9	US9606907B2	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 IPR2018-00365 **ITC:** 337-TA-1089
10	US20170337125A1	MEMORY **MODULE** 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 (1st 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 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.

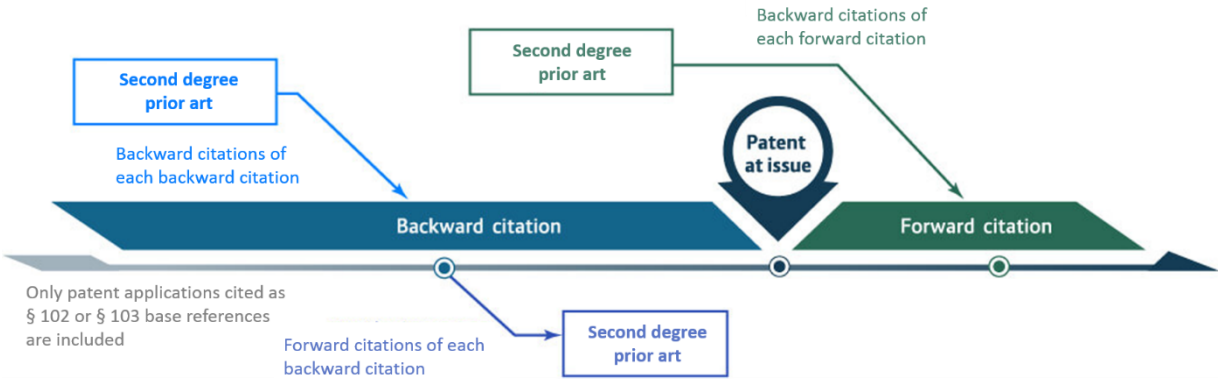
Second Degree Prior Art

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