

# APEX STANDARDS

## GPT Prompting and Refinement Guidelines for Technical Scenarios

GPT Expert Guide  
 Prompting & Refinement  
 Technical Scenarios  
 10 September 2023

Action	Role	Scenario	Domain(s) of the Model	Logical Thinking	Querying GPT
(1) SEP Essentiality Evaluation	Portfolio Manager; Inventor; Strategic Acquirer	I am a portfolio manager at my company, and I am responsible for evaluating the potential of our patent, which has a priority date of January 12, 2023, to become a Standard Essential Patent (SEP). Based on my initial interview with the inventor, I believe that the patent is relevant to 5G radio access networks (RAN) in the TS 38.XXX series, either Release 16 or 17, specifically in the section clauses containing a keyword "beamforming."	ASG-11 etsi-ts-tr-gpt	According to the standard essentiality guidelines, the standard document that is used to assess whether a patent is a standard essential patent (SEP) must be published after the patent's priority date, which in this case is January 12, 2023. This is because if the standard document were published before the patent, it could be considered prior art and could invalidate the patent.	<b>Prompt:</b> Please find the most similar technical clauses to the claim element in the CONTEXT below, and map the similar features between them, with technical explanations. CONTEXT: (claim element texts follow...)  <b>Filter:</b> Must contain keyword: beamforming (optional) Release: 16   17 Spec: 38.* (wildcard) Earliest ETSI Publication Date: 2023-01-13
(2) Claim Validity Analysis	Portfolio Manager; Patent Attorney; Strategic Acquirer; Examiner	As a portfolio manager, I'm assigned to assess a patent acquisition target with a key patent having a priority date of March 9, 2015. My company needs to understand the robustness of the patent's claim elements against both known and not-yet-known prior patent arts before making a strategic offer.	ASG-05 claim-validity-gpt	To assess the validity of a target patent and identify potential invalidity risks, one must compare all features of its claim elements to all prior art to determine if the features have been anticipated by one or two prior art references, either in-view-of or ex-parte. This could pose a risk to the patent's validity and future IPR protection.	<b>Prompt:</b> Please find the most similar patents to the claim element in the CONTEXT below, and map the similar features between them, with technical explanations. CONTEXT: (claim element texts follow...)  <b>Filter:</b> Latest Prior Art Publication Date: 2015-03-08
(3) Non-Patent Literature Search (NPL) and Information Disclosure Statement (IDS) Obligation	University Professor; Corporate Researcher; Inventor	As a university professor, I have developed an inventive idea that I am considering patenting. I would like to know if this idea has been discussed in scientific literatures, and to what extent.	ASG-01 paper-gpt	To assess the novelty of your inventive idea and its presence in scientific literature, the steps involve: (1) Identify the key keywords and phrases that define your idea; (2) Conduct a thorough search of scientific paper databases using these keywords; (3) Carefully compare and contrast the results to see if your idea is similar to any existing ideas in scientific literature.	<b>Prompt:</b> I'm filing a patent and need help with my research. Please find papers that are similar to my idea, or to the parts of my patent claim draft. Also, find synonyms, keywords, and phrases that describe my idea and are commonly used in scientific papers. Finally, map these keywords and phrases to the papers I found, so I can understand the existing research on my topic.  CONTEXT: (claim element texts follow...)  <b>Filter:</b> N/A
(4) 3GPP Delegation	3GPP Delegate; Back Office Researcher	As a 3GPP delegate, I am keen on obtaining updates on the current status of topic X as discussed under Agenda Item Y during Meeting Z.	ASG-10 3gpp-tdoc-gpt	I need immediate analysis of relevant TDocs, to deduce the current status of topic X. Compile a detailed status report outlining developments and agreements, to be quickly understood and circulated among concerned parties.	<b>Prompt:</b> Summarize the company positions regarding topic X.  <b>Filter:</b> Meeting: Y Agenda Item: Z TDoc Status: noted   agreed   approved
(5) 3GPP Impact Analysis	3GPP Delegate; Corporate R&D; Government Agencies	As a corporate R&D researcher, I'm interested in understanding how the standardization of relevant technology Y in 3GPP would impact the deployment and position of my company's technology X, and I would need help in recommending next steps based on such an impact analysis.	ASG-10 3gpp-toc-gpt	To understand the impact of 3GPP's standardization of technology Y on your company's technology X, review Y's relevant TDocs, cross check common grounds and difference. Based on the analysis, estimate time, cost, and resources required to seamlessly integrate X with Y.	<b>Prompt:</b> Analyze potential impact of standardization and adoption of technology Y on technology X, identify common grounds and differences, and propose integration strategies between X and Y.  <b>Filter:</b> Working Group: preferred 3GPP responsible WG Spec: preferred 3GPP TS involved Time Period: preferred 3GPP discussion window TDoc Status: noted   agreed   approved
(6) 3GPP Competitive Analysis	3GPP Delegate; Corporate R&D	As a 3GPP delegate for RAN Z, I need to review hundreds of relevant TDocs within five days before the meeting week. I need to identify the most important and relevant documents and sections. I also need to check for any technical issues or weak points in TDocs authored by my company's major competitors A, B, C, so that I can challenge them and defend my company's position.	ASG-10 3gpp-toc-gpt	Use GPT capable of swiftly sorting through a large pile of TDocs to pinpoint the most relevant sections. Use GPT to analyze textual patterns to identify potential technical issues or weak points within competitors' TDocs, giving you a solid foundation to challenge their assertions effectively and allow for a well-prepared defense of your company's position during the meeting week.	<b>Prompt:</b> Identify and compare the potential technical issues, inefficiencies or faulty features of proposals on topic X to other proposals on the same topic, using benchmarks to support your arguments, so that you can debate against its standardization.  <b>Filter:</b> Working Group: R2 Spec: preferred 3GPP TS involved TDoc Source: Major competitors A   B   C Time Period: newly uploaded TDoc
(7) New Ideas for a new TDoc	3GPP Delegate	I'm looking to develop fresh and innovative ideas concerning sensing technologies for crafting a TDoc to present at the forthcoming 3GPP SA2 meeting.	ASG-10 3gpp-toc-gpt	To come up with fresh ideas for the next 3GPP SA2 meeting on sensing technologies, we use GPT to study the latest trends and find areas that haven't been explored yet. It will also help us predict possible future developments and spot new opportunities, helping create a forward-thinking TDoc, boosting my career prospects and strengthening my organization's position.	<b>Prompt:</b> Identify the most popular sensing features, explore recent discussions, and forecast emerging needs. Propose innovative ways to improve existing techniques.  <b>Filter:</b> Working Group: S2 Spec: 3GPP TS (optional) Time Period: newly uploaded TDoc
(8) New Topics for a New Patent	Corporate CTO; Inventor	I am seeking new patentable ideas, particularly those that are based on the recently approved features from 3GPP meetings and the newly published technical standards by the ETSI.	ASG-10 3gpp-toc-gpt; ASG-11 etsi-ts-tr-gpt ASG-20 lee-802-std-gpt ASG-40 open-ran-gpt	Instruct GPT to find new patent topics from newly published technical standards. By scanning the standards, identify gaps, and suggest potential areas for innovation. This can help you stay ahead in the intellectual property landscape and create strong patents.	<b>Prompt:</b> Please identify the new features for topic X that were introduced in the latest release and are not available in previous releases.  <b>Filter:</b> Release: inventor preference, the later the newer Spec: preferred TS based on the inventor familiarity Time Period: over the past six months
(9) Infringement Analysis	Inventor; Out Licensing Officer	I own a patent and have noticed products in the market that appear to be using aspects covered by my patent's claim scopes. I am eager to ascertain the extent of these overlaps and determine whether engaging in an out-licensing discussion would be a beneficial course of action.	ASG-05 claim-validity-gpt	Instruct GPT to scrutinize the product descriptions, aligning them with the specifics outlined in your patent's claim scopes. By constructing a detailed mapping between the product and claim features, it paves the way for a comprehensive analysis, assisting the patent owner in evaluating the prospects and advantages of initiating an out-licensing discussion, thereby refining your strategy with insights grounded in solid analysis.	<b>Prompt:</b> Please identify as many overlapping features as possible, accompanied by applicable use cases and detailed functional descriptions, between PRODUCT DESCRIPTION ... and CLAIM SCOPE ...  <b>Filter:</b> N/A
(10) Vertical	CEO; CTO; R&D Manager, Inventor	I'm interested in keeping abreast of the latest industry trends by exploring the recent whitepapers, guidelines and recommendations published by GSMA, NGMN, ATIS, and 5GAA concerning v2x roadmaps.	ASG-45 gsma-gpt; ASG-50 ngmn-gpt; ASG-55 atis-gpt; ASG-77 automotive-gpt	Instruct GPT to monitor and analyze recent publications from GSMA, NGMN, ATIS, and 5GAA regarding v2x roadmaps, so that you can quickly identify key trends and developments. This will save time and ensure that you have a comprehensive overview of the v2x landscape, including any differences between the major industrial alliances.	<b>Prompt:</b> Please identify emerging trends regarding v2x.  <b>Filter:</b> Publication Date: within the past three months

This table is a comprehensive guide to using Apex Standards GPT models to effectively and efficiently initiate and accomplish critical tasks in innovation and standardization.