

#	Document and Section	Type of Comment (General/Technical/Editorial)	Comments
1	D01 Footnote 3	Technical	The term 'single bonded connection' is not well-defined in this document. Can this term be clarified with examples or additional details? For example, are WLAN MIMO, inter-band LTE ULCA, and intra-band LTE ULCA considered 'single bonded connections,' and why or why not?
2	D01 Section 3.d	Technical	The sections referenced for the Tcoil test methods are only applicable for the 2011 standard. For the 2019 standard, the correct section references are 6.3.3 and 6.3.4, respectively.
3	D01 Section 6.f	Editorial	This section should be 6.a
4	D01 Section 6.f.1	Technical	The last sentence of this section gives clarity about which Conversational Gain (CG) value must be shown for use with a Hearing Aid, but there is no clarity given for the CG value which must be shown for use without a Hearing Aid. Adding clarifying text which states 'The actual conversational gain displayed with <b>and without</b> a hearing aid...' is suggested.
5	D01 Section 8.b	Editorial	The phrasing of the parenthetical at the end of this clause may be confusing since the 2019 standard does not have ratings. Revising the parenthetical to read '(highest interference potential)' is suggested, or, if detail is desired, the phrasing could be '(highest interference potential resulting in a higher RF interference potential, lower T-coil SNR, or lower CG, as applicable)'  Also a general note that 'rating'-based language may be confusing or incorrect in the future. Some references to 'ratings' may be better if updated to reference something like 'pass or fail result.'
6	D01 Section 8.l, 8.m	General	The term 'foldable phone' is unclear and could lead to confusion. Does this term include any phones with a hinge-like mechanism? Would sliding phones (including the rotating mechanism of 'Sidekick' model phones from the past) be considered folding phones? Would older style clamshell-style phones (e.g. the original Motorola Razr from the early 2000's) also be considered foldable phones? What amount of physical device shape changing is the threshold for 'folding'?
7	D01 Section 8.h, 8.l, and 8.m	Technical	There seems to be a lack of clarity between the requirements of clause 8.h and clauses 8.l and 8.m. Clauses 8.l and 8.m indicate that any 'support' for held-to-ear calls is enough to require testing, while clause 8.h indicates a weaker requirement that only 'typical' held-to-ear handset positions must be tested. Clause 8.h seems to obviously allow the possibility of a device which can be held to the ear in certain scenarios which are not tested, so long as it is clear that those omitted scenarios are not 'typical' for being held to the ear. The relationship between these clauses should be clarified to avoid confusion, especially since clause 8.h mentions device position changes which could be confused with folding position changes (i.e., the example in 8.h of extendable keyboard seems to blur the line between 'foldable phones' and 'non-foldable phones which can change position').
8	D01 Section 2.d.4	General	Additional guidance on how to indicate concurrent connection in the test report would be helpful to address questions such as: Do all combos need to be listed? Should the combos be in the air interface table?
9	D01 Section 8.h	General	Additional guidance on the definition of 'antenna efficiency' and how it is to be determined would be helpful.
10	D01 Section 8.k	General	Additional guidance about what defines a held-to-the-ear mode would be helpful. Is the criterion based on having an ERP, use cases as defined by the manufacturer, etc.?
11	D03 Question A9	Editorial	I think it should say VoNR instead of VoLTE, also is this still true and how should we handle interim procedure moving forward
12	D02 Section 2	Technical	The 1kHz ABM1 signal is not used to normalize the FR result
13	D02 Section 3 (4th paragraph)	Technical	The referenced paragraph seems to indicate that the set of VoIP services which use -16dBm0 as the speech input level is strictly limited to the modes listed (i.e. VoLTE, VoWiFi, and VoIMS). Additional clarity may be useful in preventing labs from misinterpreting and using -16dBm0 for other modes (e.g. OTT VoIP apps like Google Duo). Also, explicit clarification that VoNR falls under 'VoIMS' may be helpful.
14	D03 Q7	General	In the updated D01 for this KDB (D01 v06), clarification is provided that Tcoil testing for VoWiFi under C63.19-2019 shall use a speech input level of -16dBm0 (as specified in C63.19-2019); however Q7 of D03 v05 indicates that 'Wi-Fi calling is not defined by ANSI C63.19 and therefore shall use a reference level of -20dBm0[.]' These two pieces of information seem diametrically opposed and need clarification. Since the definition of 'Wi-Fi calling' in Q7 seems synonymous with VoWiFi, it is suggested to specify in Q7 that C63.19-2011 does not define a speech input level for VoWiFi while C63.19-2019 does define a speech input level. Further clarification of the correct speech input level to use for C63.19-2019 testing is also suggested.
15	D03 Q9	Editorial	The answer for this question has some confusing parts. - in 6.ii.1, the term 'ABM1LTE' is used but there is not a corresponding term for OTT testing. Suggest replacing 'ABM1LTE' with 'ABM1S6G' which covers both the 'LTE' and the 'OTT' cases - in 6.ii.1, the parenthetical remark will be more clear if it includes step 3 in the comment as well (assuming the above item in this list is accepted) - There is no explicit mention of applicability of the interim procedure for VoNR operations, but there is mention of using VoLTE for the interim procedures. The logical conclusion is that VoNR can be tested using the interim procedures as well, so an explicit statement confirming such a conclusion may be helpful.
16	D04 Section II (4th paragraph)	Technical	This paragraph is written such that a grammatically valid interpretation would be that handsets with 'alternative audio functions' (e.g. 'automatic gain control') do not need to meet any of the Volume Control requirements at all. However, it seems that the intention was only to exclude those special functions from Volume Control testing. Clarification may be needed to prevent misinterpretation.
17	D04 Section V (2nd paragraph)	Editorial	The first two sentences in this paragraph use the word 'should' which is not normative. Grammatically, this section does not require that a separate Volume Control Report be submitted or that a summary data table is included in the 'forward.' Replacing the word 'should' with 'shall' is recommended to make the sentences normative requirements instead of suggestions/recommendations.
18	D04 Section V (3rd paragraph, #3)	Technical	Number 3 in the list of information to be included in the Volume Control report indicates using units of dB SPL. Must these units be used in addition to the units of Conversational Gain which are specified in TIA-5050? Moreover, dB SPL are absolute units (due to a fixed reference point) whereas a 'gain' is typically a relative measurement, so dB SPL values are typically considered absolute values, not gain values. This item may be more intuitive if the units required are dB of Conversational Gain instead of dB SPL.
19	D04 Section V (3rd paragraph, #6)	General	Historically, graphical data with a single, numerical margin has been acceptable for Tcoil frequency response testing, so we wonder if such presentation may be acceptable for Volume Control FR testing as well. Tabulated data in 12th octave bands is a lot of raw, numerical data for a reviewer to look at or sift through during review.
20	D04 Table V-1 (#1)	General	Many devices do not show numerical representations of volume level. Some show a series of 'notches' or 'bars' which could be counted during testing to find a percentage (e.g. 9 volume bars out of 10 would be 90% volume), but some devices feature a much more granular 'slider' to set the volume (i.e. a setting akin to a physical rotary knob). For such devices with difficult to quantify volume settings, is it the responsibility of the manufacturer to provide a clear way to quantify the volume setting?
21	D04 Table V-1 (#3)	Technical	The equation cited in this item of the list is mathematically wrong. The equation does match the equation as stated in the TIA-5050 standard, but the standard lists a mathematically incorrect equation. The correct equation would be: Conversational Gain = (measured dB SPL Level - 70dB) dB Note the change in the '- 70dB' term which is written as '- 70dB SPL' in the standard and draft KDB.
22	various	Editorial	There are several minor typographical errors which should be addressed. A full list of identified errors is not included here, but can be provided.