



Hearing Aid Compatibility - Update

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Update to Oct, 2013 TCB Workshop



Handsets with Air interface Bands and Modes contained within:

A. Contained within C63.19-2007 :

- ❑ **800 MHz to 3 GHz Bands:**
 - **CMRS Voice Services* over air interfaces Defined:**
 - ✓ TIA/EIA/IS-2000 CDMA
 - ✓ TIA/EIA-136 TDMA (50 Hz)
 - ✓ J-STD-007 GSM (217) * 5 dB
 - ✓ T1/T1P1/3GPP UMTS (WCDMA)
 - ✓ iDEN TDMA (22 Hz and 11 Hz)
 - **M rating based on max RMS Field Strength + 0 or * 5 dB based on air interface.**

B. Contained within C63.19-2011

- ❑ **698 MHz to 6 GHz Bands**
 - **All CMRS Voice Services* that include air interfaces:**
 - ✓ TIA/EIA/IS-2000 CDMA
 - ✓ TIA/EIA-136 TDMA (50 Hz)
 - ✓ J-STD-007 GSM (217) –5
 - ✓ T1/T1P1/3GPP UMTS (WCDMA)
 - ✓ iDEN TDMA (22 Hz and 11 Hz)
 - ✓ **CMRS IP Voice Services**
 - **M rating based on:**
 - ✓ **Direct measurement (No grants todate)**
 - ✓ **Indirect- Max RMS Field Strength Plus MIF**
 - ✓ **Measured MIF**
 - ✓ **Predetermined MIF (Provided vales by test vendor)**

* FCC rules § 20.19 Hearing aid-compatible mobile handsets for handsets providing CMRS Telephone “Voice” Service.



Bands & Air Interfaces Supported		As defined in C63.19-2007		As defined in C63.19-2011						OTT Considerations CMRS IP is not Supported (WI-FI or DT)
				Without CMRS IP Service	With CMRS IP Services					
					T coil CMRS IP Tested		T coil CMRS IP Not Tested			
Standard		C63.19-2007 or 2011		C63.19-2011						
Test Reports	Report	M	T*	M	T*	M	T	M	T*	
	CMRS IP Notes	NA						1a	1b	
	Test Review	2**	Na	2	Na	2	3	2	2	
Grant Notes		4 HC						7 HX Only		
HAC Grant Comments		4 Auto "This equipment complies...HAC"				4 & 5 + "Note, nor all T Coil"				
HAC Manual HAC Disclosure		20.19 (f) (1) HAC Rating and an explanation of the ANSI C63.19 rating system						6 20.19 (f) (2) (i)		

* If applicable

** if C63.19-2011 is used



1 Notes in Test Report	a – M report	Air interface Matrix “No Associated T-Coil measurement has been made in accordance with 285076 D02 T-Coil testing for CMRS IP”
		Test Results: The M value for the associated acoustical location not tested can be listed in the test report. And noted: in same section “No Associated T-Coil measurement has been made in accordance with 285076 D02 T-Coil testing for CMRS IP”
	b –T report	Air interface Matrix “No Associated T-Coil measurement has been made in accordance with 285076 D02 T-Coil testing for CMRS IP”
2 M- report	MIF Section of test report must define how MIF value was obtained.	
	Predetermined (test vendor provided)Value	MIF Tested
	<ol style="list-style-type: none"> State not tested State all (* UID file reference) MIF reference for all specific air interfaces using predetermined values. Validation of Values (** SPEAG Validation). Attestation from manufacture listing same files to confirm worst case (*UID file reference) values. 	<ol style="list-style-type: none"> State tested Demonstrate Test results. Validation of Values
3 PBA T-report	If CMRS IP voice services have been tested for T-Coil then full description in accordance with 285076 D02 T-Coil testing for CMRS IP” needs to be included in the test report. Currently under PBA—No Grants to date have submitted T-coil testing for CMRS IP services.	
4 Grant Note & Comment	Grant Note HC is to be used for all CMRS air interfaces tested: (including CMRS IP WI-FI and air interfaces not t-coil tested in accordance with 285076 D02 T-Coil testing for CMRS IP” see 5 below) HC automatically generates Grant Comment : “ <i>This equipment complies with the hearing aid compatibility technical requirements of Section 20.19 of the rules.</i> ”	
5 Grant Note & Comment	For CMRS IP air interfaces not test for T-coil in accordance with 285076 D02- manually add the additional grant comment: “ <i>Note, not all T Coil air interface modes have been tested as permitted by policy</i> ”	
6 Disclosure	20.19 (f) (2) (i); Disclosure for handset with CMRS IP air interfaces not tested for T-coil in accordance with KDB 285076 D02: “ <i>This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids.....</i> ”	
7 HX Code	HX Code : Only use HX for air interface that do not support CMRS IP voice services but support OTT. For example. If CMRS IP is supported as well as OTT only use HC. If CMRS IP is not supported and OTT capable only use HX.	

* Files provided by SPEAG

** Validation provided by SPEAG