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R&S CMU 200 COMMUNICATION TESTER AUDIO CODEC CALIBRATION

Audio signal path from AMMI to DUT goes trough CMU 200 communication tester. Therefore the CMU 200 Audio codec must be calibrated in order to create correct digital modulation while used in combination with AMMI and CMU 200 external audio Input (D-Connector).

- CMU 200, Select Correct Codec [Full Rate Version 2] from [Connection Control, Network, Traffic Mode] if not otherwise defined by the product program.
- Set-Up a Call to EUT [Middle Channel] according the CMU 200 Instructions.
- Select from Network Bit Stream menu [Decoder Cal].
- From DASY 4 run a procedure Geometry & Signal check until audio signal level measurement [Check Audio Signal Level, measuring Continuously].
- At this point, stop continuous measurement and connect D-Connector Cable [XLR-Male-end], [GSM UPL CH2 I/O to CMU Speak Link Handler 1, 1117.408.2] from CMU 200 Speech Output (D-Connector) to AMMI Coil In [Female].
- From DASY 4 run a procedure Geometry & Signal check until audio signal level measurement [Check Audio Signal Level, measuring Continuously] and note RMS signal level from coil signal column. (Typically about –2.7 dBV.) This level is equivalent to 3.14 dBm0.
- Select from Network Bit Stream menu [Encoder Cal].
- Using Check Audio Signal level measurement, find out correct gain settings for each type of audio signals used in measurements. For example, -16 dBm0 level is 19.14 dB lower than signal level measured during previous phase.

Prepare CMU 200 for measurements by setting the correct Audio signal Path [Handset low]

Prepare EUT for measurements by setting muting the Microphone [mute], and the volume setting to [volume Max] or as specified by the product program.

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Measured signal levels (RMS) during vocoder calibration

Decoder Cal

3.14 dBm0 => -2.69 dBV

Encoder Cal

- 16 dBm0 => -2.69 dBV –19.4 dBV = - 21.83 dBV

=>

Voice 2 s Gain: 69.5
Sine Gain 8.3