

Appendix A

Volume Control Test Data and Graph for

Report No.: SUES2506001077AT

The DUT shall have at least one volume control setting that will produce a conversational gain of ≥ 6 .

Verdict: Pass.

1.1 For codecs with bit rate, check the bit rate with the worst conversational gain

Codec	Codec Bitrate (kbps)	Conv. Gain(dB)			
		WCDMA B4		LTE B66	
		2N	8N	2N	8N
AMR-NB	4.75	7.31	12.25	7.32	12.03
	5.15	7.35	12.34	7.33	12.07
	5.90	7.57	12.41	7.50	12.08
	6.70	7.65	12.43	7.55	12.28
	7.40	7.70	12.44	7.69	12.35
	7.95	7.71	12.55	7.72	12.48
	10.20	7.74	12.56	7.77	12.58
	12.20	7.79	12.65	7.78	12.62
AMR-WB	6.60	7.97	12.96	7.75	12.85
	8.85	8.26	13.19	7.93	12.98
	12.65	8.50	13.46	8.15	13.11
EVS-NB	5.90	N/A		7.24	12.03
	7.20			7.30	12.24
	8.0			7.43	12.32
	9.6			7.45	12.41
	13.20			7.51	12.44
EVS-WB	5.90			7.77	12.65
	7.20			7.84	12.70
	8.0			8.07	12.91
	9.6			8.44	13.23
	13.20			8.63	13.34

1.2 For codecs with bit rate, tested only bit rate with the worst conversational gain

Air Interface	Band	Limit (dB)	Conv. Gain(dB)					
			FR V1		FR V2		HR V1	
			2N	8N	2N	8N	2N	8N
GSM	850	6	6.42	11.74	7.38	12.25	7.96	12.78
	1900	6	6.48	11.79	7.41	12.29	8.02	12.81

Air Interface	Band	Limit (dB)	Conv. Gain(dB)							
			AMR NB (4.75kbps)		AMR WB (6.6kbps)		EVS NB (5.9kbps)		EVS WB (5.9kbps)	
			2N	8N	2N	8N	2N	8N	2N	8N
WCDMA	B2	6	7.13	12.18	8.10	13.01	N/A			
	B4	6	7.31	12.25	7.97	12.96				
	B5	6	7.39	12.37	8.19	13.15				
LTE	B25(2)	6	7.48	12.17	7.62	12.92	7.18	12.00	7.73	12.94
	B26(5)	6	7.46	12.24	7.91	12.87	7.04	12.05	7.93	12.98
	B71	6	7.41	12.20	7.93	12.86	7.38	12.02	7.82	13.12
	B12(17)	6	7.32	12.26	8.00	13.20	7.07	12.10	7.98	13.16
	B13	6	7.38	12.24	7.87	12.81	7.28	11.98	7.93	13.02
	B66(4)	6	7.32	12.03	7.75	12.85	7.24	12.03	7.77	12.65

The noise power shall ≥ 20 when tested over the range of 1/3 octave band center frequencies.

The receive frequency response shall be measured at the DRP in 1/12 octave bands. After translation to the FF, it shall fall between the applicable upper and lower limits.

Volume Control: Max-3, LRP: FF

Verdict: Pass

2.1 Distortion Test Result and Frequency Response for EVS-NB 13.20 kbps and LTE

Air Interface	Band	Limit (dB)	Mounting Force	Minimum PN-SDNR (dB)	Receive Acoustic Frequency Response Performance
LTE	B25(2)	20	2N	25.74	2.11
	B25(2)	20	8N	21.40	2.30
	B26(5)	20	2N	24.32	1.91
	B26(5)	20	8N	22.81	2.18
	B71	20	2N	23.62	2.51
	B71	20	8N	22.47	2.53
	B12(17)	20	2N	24.79	2.14
	B12(17)	20	8N	21.18	2.25
	B13	20	2N	26.20	2.21
	B13	20	8N	20.95	2.18
	B66(4)	20	2N	24.19	2.54
	B66(4)	20	8N	21.85	2.26

2.2 Distortion Test Result and Frequency Response for EVB-WB 13.20 kbps and LTE

Air Interface	Band	Limit (dB)	Mounting Force	Minimum PN-SDNR (dB)	Receive Acoustic Frequency Response Performance
LTE	B25(2)	20	2N	22.05	1.38
	B25(2)	20	8N	21.66	1.44
	B26(5)	20	2N	22.14	1.47
	B26(5)	20	8N	22.26	1.34
	B71	20	2N	21.42	1.80
	B71	20	8N	21.18	1.53
	B12(17)	20	2N	20.75	1.23
	B12(17)	20	8N	20.64	0.73
	B13	20	2N	21.76	1.33
	B13	20	8N	21.39	1.46
	B66(4)	20	2N	22.96	1.46
	B66(4)	20	8N	21.26	1.53