

5. Analog Transmitter

Items	Standard Limit	*remark																											
RF Power Output (Ref: 3.2.1.1)	Class IV PL 0 - PL2 : 26dBm +0.2~ -4dB PL3 : 24dBm +2~-4dB PL4 : 20dBm +2--4dB PL5 : 16dBm +2 --4dB PL6 : 12dBm +2--4dB PL7 : 8dBm +2--4dB	A																											
Power Output Transition Time (Ref: 3.2.3)	Shall not exceed 20msec to switch between any two power level	M																											
Modulation Type & Stability (Ref: 3.3.1.1)	The peak deviation shall not exceed $\pm 10\%$	A																											
Compressor Output (Ref: 3.3.1.2.1)	Input level above 0dB: ± 0.5 dB. Input level below 0dB: ± 1 dB Attack time : 3 ± 0.6 ms Recovery time : 13.5 ± 2.7 ms	A																											
Electrical Audio Response (Ref: 3.3.1.2.2)	From 300 to 3000Hz : -6dB/octave With +1 to -3dB range	A																											
Modulation Deviation Limiting (Ref: 3.3.1.2.3)	Peak frequency deviation ± 12 kHz	A																											
Audio Voice-Path Muting (Ref: 3.3.1.2.4)	At least 40dB	M																											
Audio Frequency Response (Ref : 3.3.1.2.5)	Level Relative to Nominal @ 1kHz <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Freq(kHz)</th> <th>Upper Limit(dB)</th> <th>Low Limit(dB)</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>-4</td> <td>no</td> </tr> <tr> <td>0.2</td> <td>+2</td> <td>no</td> </tr> <tr> <td>0.3</td> <td>+2</td> <td>-12.5</td> </tr> <tr> <td>1.0</td> <td>+2</td> <td>-2</td> </tr> <tr> <td>2.0</td> <td>+14</td> <td>-2</td> </tr> <tr> <td>3.0</td> <td>+14</td> <td>-9</td> </tr> <tr> <td>3.4</td> <td>+14</td> <td>no</td> </tr> <tr> <td>4.0</td> <td>-4.8</td> <td>no</td> </tr> </tbody> </table>	Freq(kHz)	Upper Limit(dB)	Low Limit(dB)	0.1	-4	no	0.2	+2	no	0.3	+2	-12.5	1.0	+2	-2	2.0	+14	-2	3.0	+14	-9	3.4	+14	no	4.0	-4.8	no	S
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3.0	+14	-9																											
3.4	+14	no																											
4.0	-4.8	no																											
Audio Sensitivity (Ref : 3.3.1.2.6)	TOLR should have a nominal value of -46dB The range is -38 to -51dB	S																											
Wideband Data (Ref: 3.3.1.3)	± 8 KHz Peak frequency deviation with $\pm 10\%$ tolerance	A																											
Hum and Noise (Ref : 3.3.1.6)	At least 32dB	A																											
Modulation Distortion and Noise (Ref : 3.3.1.8)	Under 5%	A																											
Noise Suppression – Broadband (Ref: 3.4.1.1)	* refer Figure 1-5	M																											
Harmonic & Spurious Emission-Conducted (Ref: 3.4.2.1)	Tx Band : $43 + 10[\log(\text{mean output power in Watts})]$ dB Rx Band : -80dBm/30kHz	M																											

7. Digital Transmitter

Items	Standard Limit	*remark
RF Power Output (Ref : 3.2.1.2)	Class IV PL 0 ,1 ,2 : 25.8dBm +0.2dB~ -4dB PL3 24dBm +2dB ~ -4dB PL4 20dBm +2dB ~ -4dB PL5 16dBm +2dB ~ -4dB PL6 12dBm +2dB ~ -4dB PL7 8dBm +2dB ~ -4dB PL8 3dBm +2dB ~ -6dB PL9 -2dBm +2dB ~ -6dB PL10 : -7dBm +2dB ~ -6dB	A
Modulation Type and Accuracy (Ref: 3.3.2.1)	The RMS vector error shall be less than 12.5% The frequency offset shall be less than -20dBc	A
Audio Frequency Response.	Level Relative to Nominal @ 1kHz Freq(kHz) Upper Limit(dB) Low Limit(dB) 0.1 -4 no 0.2 +2 no 0.3 +2 -12.5 1.0 +2 -2 2.0 +14 -2 3.0 +14 -9 3.4 +14 no 4.0 -4.x no	S
Audio Sensitivity (Ref: 3.3.2.2.3)	TOLR(Trasmitter Objective Loudness Rating) : -46dB (range -38dB ~ -51dB)	S
Adjacent & Alternate Channel Power due to Modulation (Ref: 3.4.1.2)	* refer Figure1-10	A
Harmonic & Spurious Emission (conducted) (Ref: 3.4.2.2)	Tx band($F_c \pm 12\text{kHz}$) : 45dBc Rx band : shall not exceed -80dBm/30kHz	M

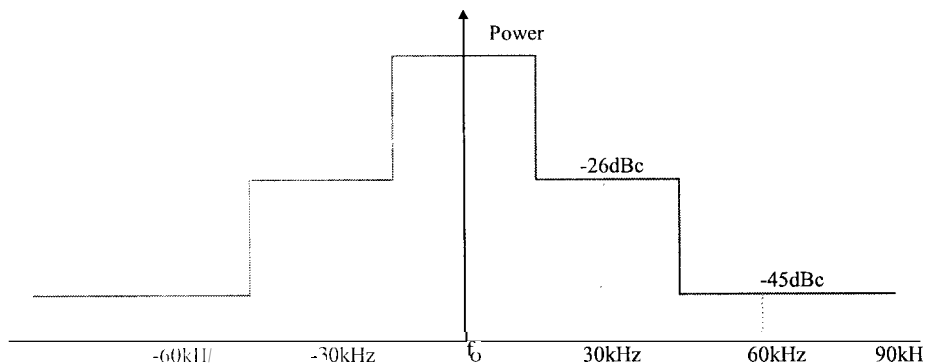


Figure1-10. Adjacent & Alternate Channel Power due to Modulation