

7 SPURIOUS EMISSIONS AT PORTENNA TERMINALS

Applicable Standard: FCC§2.1051, §90.1323

For digital base stations, the attenuation shall be not less than $43+10\log(P)$ dB, unless a documented interference complaint is received from an adjacent channel licensee with an overlapping Geographic Service Area. Mobile Satellite Service licensees operating on frequencies below 2495MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS No.1 on the same terms and conditions as adjacent channel BRS or EBS licensees. Provided applicable deadline, then the following additional attenuation requirements shall apply.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in §2.1051.

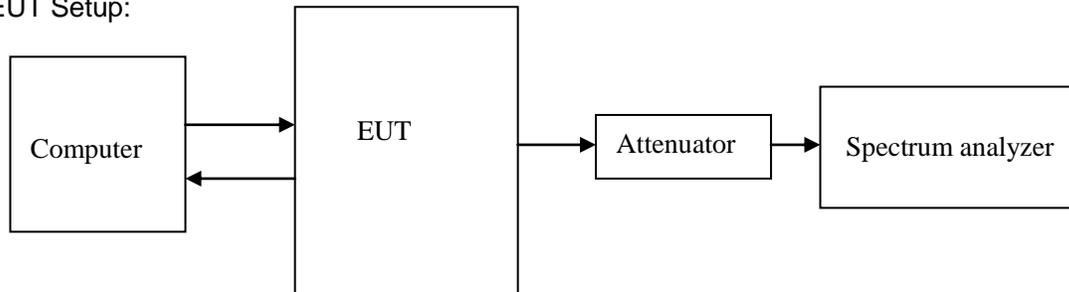
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51240300	2014.12.10	2015.12.10
Agilent	MXA Series Spectrum Analyze	N9030A	MY53310566	2015.06.28	2016.06.28
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2015.06.13	2016.06.13

***statement of traceability:** ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

EUT Setup:



The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

Test Data Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

Test Result: Pass

Test Mode: Transmitting LTE

Test Data:

Channel Bandwidth: 20M

Port	Carrier Freq. (MHz)	Spurious Emissions								
		QPSK			16QAM			64QAM		
		9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge
0	3660	-39.45	-28.68	-38.88	-38.98	-28.21	-38.03	-39.2	-28.64	-39.13
1		-39.4	-28.43	-39.98	-39.16	-28.58	-38.63	-38.51	-28.61	-37.65
2		-39.14	-28.43	-39.95	-39.23	-28.56	-37.65	-39.19	-28.71	-38.97
3		-38.35	-28.5	-39.45	-38.8	-28.63	-38.34	-38.92	-28.28	-38.62
0	3675	-38.76	-28.43	-39.25	-39.27	-28.34	-38.25	-38.86	-28.95	-39.24
1		-39.43	-28.49	-39.03	-38.97	-28.83	-37.08	-38.53	-28.21	-37.92
2		-37.89	-28.91	-39.91	-39.25	-28.59	-36.6	-39.48	-28.81	-38.65
3		-39.24	-28.31	-38.94	-39.29	-28.65	-37.67	-38.55	-28.9	-37.9
0	3690	-39.02	-28.13	-39.11	-38.75	-28.57	-37.79	-38.14	-28.78	-39.17
1		-39.18	-28.77	-39.04	-38.12	-28.1	-38.4	-39.49	-28.53	-36.62
2		-39.33	-27.82	-38.48	-39.14	-28.38	-37.24	-38.71	-28.38	-39.21
3		-39.05	-28.63	-38.69	-39.15	-28.48	-37.99	-39.14	-28.19	-38.98

Channel Bandwidth: 20+20+10M

Port	Carrier Freq. (MHz)	Spurious Emissions								
		QPSK			16QAM			64QAM		
		9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge

Port	Carrier Freq. (MHz)	Spurious Emissions								
		QPSK			16QAM			64QAM		
		9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge
0	3660+3680+3695	-39.27	-28.94	-40.77	-38.14	-28.77	-40.64	-39.04	-28.86	-40.83
1		-39.26	-28.81	-40.43	-38.99	-28.81	-39.49	-38.94	-28.93	-40.89
2		-39.23	-28.65	-39.48	-39.17	-28.71	-41.27	-39.04	-28.38	-39.41
3		-38.52	-28.76	-40.71	-39.27	-28.98	-40.36	-39.23	-29.14	-41.55

