

3.4 Band Edge

3.4.1 Limit of Band Edge

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB equal to -13dBm.

3.4.2 Test Procedures

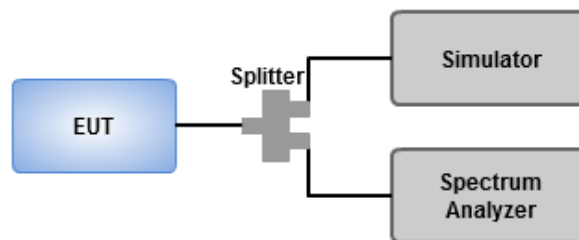
For WCDMA

1. Lowest and highest operating channels are tested for this item.
2. The center frequency of spectrum analyzer will be set to 824 and 849 MHz.
3. Set RBW = 100 kHz, VBW = 300 kHz, span = 5 MHz, detector = RMS, sweep time = auto.
4. Record the max trace value and capture the test plot.

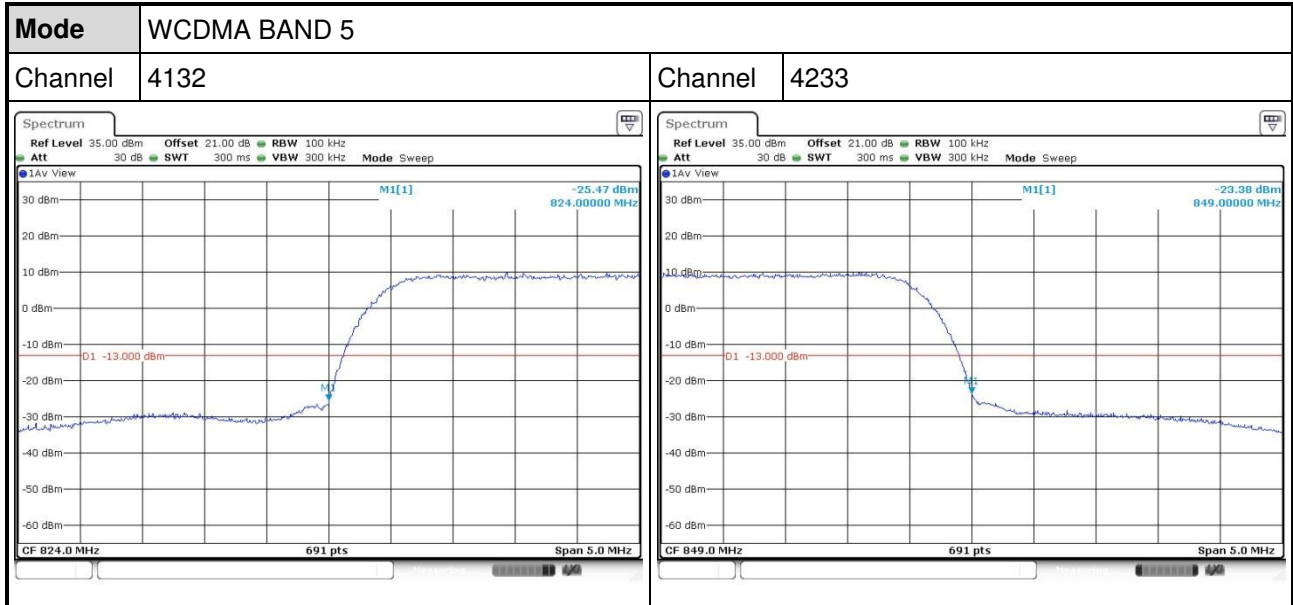
For LTE

1. Lowest and highest operating channels are tested for this item.
2. Set RBW = 15 / 39 / 56 / 110 kHz, VBW = 62 / 120 / 180 / 330 kHz for LTE channel bandwidth 1.4 / 3 / 5 / 10 MHz, detector = RMS, sweep time = auto to measure trace.
3. Set RBW = 20 / 50 / 100 / 200 kHz, VBW = 100 / 200 / 300 / 1000 kHz for LTE channel bandwidth 1.4 / 3 / 5 / 10 MHz, detector = RMS and use channel power measurement function of spectrum analyzer to integrate power over 1MHz.

3.4.3 Test Setup



3.4.4 Test Result of Band Edge





Mode	LTE Band 5, CB: 1.4MHz, QPSK				
Channel	20643	1 RB upper / Offset 0	Channel	20643	1 RB upper / Offset 0

 <p>KeySight Spectrum Analyzer - Sweep SA Marker 1 849.000000000 MHz Ref Offset 21 dB Ref 29.60 dBm Mkr1 849.000 0 MHz -20.736 dBm Start 847.500 MHz #Res BW 15 kHz #VBW 62 kHz* #Sweep 100.0 ms (1001 pts)</p>	 <p>Spectrum Ref Level 30.00 dBm Offset 21.00 dB RBW 20 kHz Att 20 dB SWT 100 ms VBW 100 kHz Mode Sweep SGL Count 100/100 1Rm AvgPwr Start 850.0 MHz 1001 pts Stop 855.0 MHz Channel Power <table border="1"> <thead> <tr> <th>Channel</th> <th>Bandwidth</th> <th>Offset</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td>TX1 (Ref)</td> <td>1.000 MHz</td> <td></td> <td>-35.75 dBm</td> </tr> <tr> <td>TX2</td> <td>1.000 MHz</td> <td>1.000 MHz</td> <td>-40.28 dBm</td> </tr> <tr> <td>TX3</td> <td>1.000 MHz</td> <td>1.000 MHz</td> <td>-45.15 dBm</td> </tr> <tr> <td>TX4</td> <td>1.000 MHz</td> <td>1.000 MHz</td> <td>-47.05 dBm</td> </tr> <tr> <td>TX5</td> <td>1.000 MHz</td> <td>1.000 MHz</td> <td>-48.13 dBm</td> </tr> <tr> <td>Tx Total</td> <td></td> <td></td> <td>-33.71 dBm</td> </tr> </tbody> </table> </p>	Channel	Bandwidth	Offset	Power	TX1 (Ref)	1.000 MHz		-35.75 dBm	TX2	1.000 MHz	1.000 MHz	-40.28 dBm	TX3	1.000 MHz	1.000 MHz	-45.15 dBm	TX4	1.000 MHz	1.000 MHz	-47.05 dBm	TX5	1.000 MHz	1.000 MHz	-48.13 dBm	Tx Total			-33.71 dBm
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