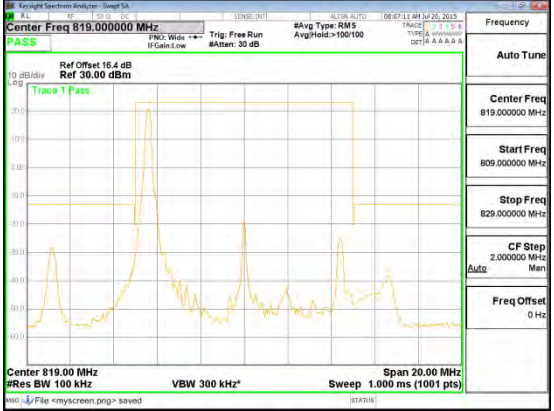
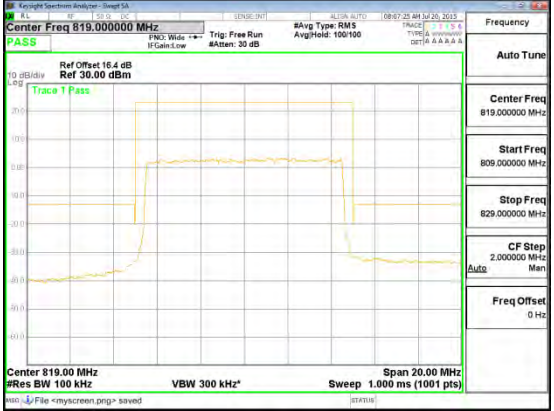
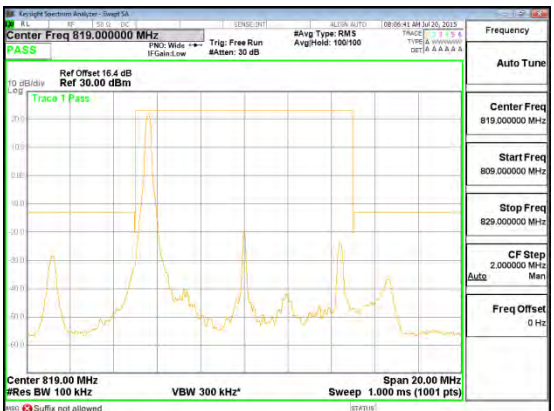
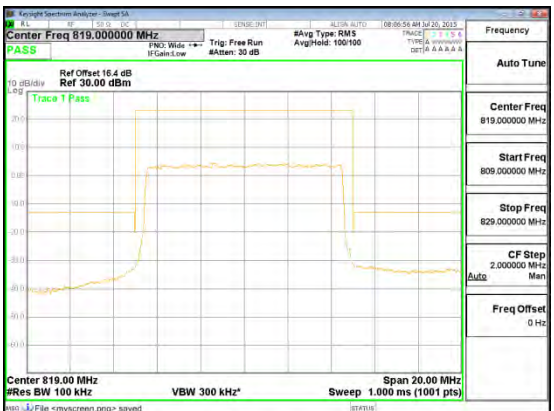
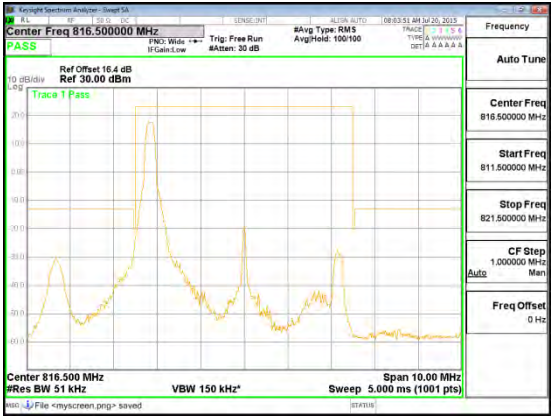
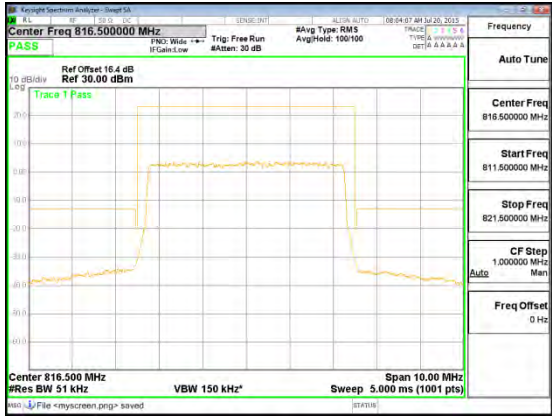
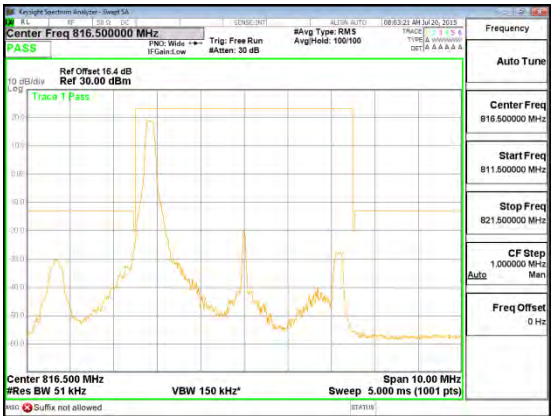


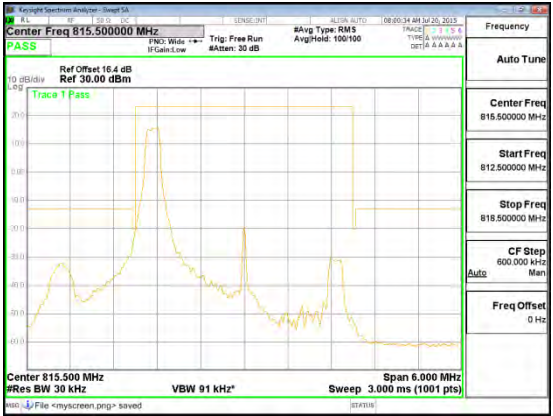
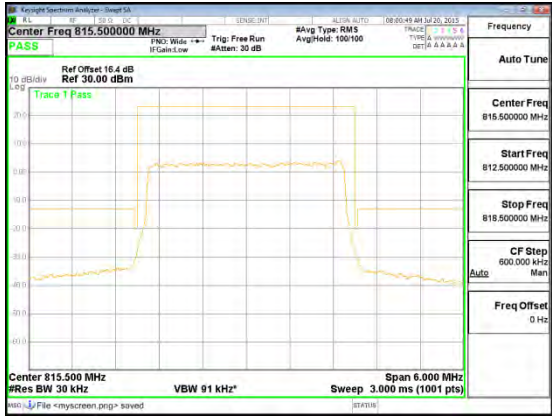
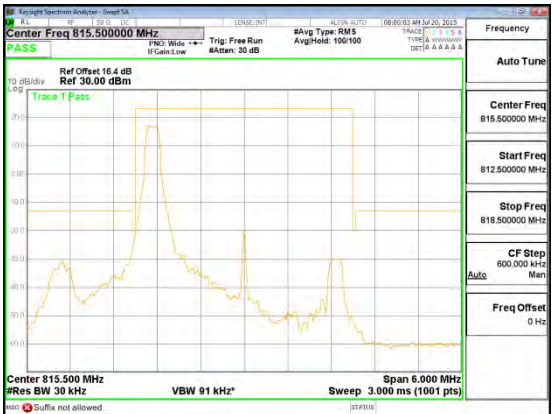
Band LTE7 5MHz 16QAM	Agilent 18:47:22 Jul 9, 2015 Ch Freq 2.5025 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/ Offst 27.1 dB Center 2.502 50 GHz Span 30 MHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power</td><td>4.000 MHz 1.000 MHz</td><td>-62.45 -40.48 -72.51</td><td>-58.54</td></tr><tr><td>21.97 dBm / 7.000 MHz</td><td>1.000 MHz</td><td>-68.24 -46.27 -65.93</td><td>-43.96</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM 16QAM Low Channel 1RB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power	4.000 MHz 1.000 MHz	-62.45 -40.48 -72.51	-58.54	21.97 dBm / 7.000 MHz	1.000 MHz	-68.24 -46.27 -65.93	-43.96	5.00000 MHz				Agilent 18:47:41 Jul 9, 2015 Ch Freq 2.5025 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/ Offst 27.1 dB Center 2.502 50 GHz Span 30 MHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power</td><td>4.000 MHz 1.000 MHz</td><td>-46.91 -26.18 -47.64</td><td>-26.91</td></tr><tr><td>20.73 dBm / 7.000 MHz</td><td>1.000 MHz</td><td>-56.45 -35.72 -52.45</td><td>-31.72</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM 16QAM Low Channel FRB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power	4.000 MHz 1.000 MHz	-46.91 -26.18 -47.64	-26.91	20.73 dBm / 7.000 MHz	1.000 MHz	-56.45 -35.72 -52.45	-31.72	5.00000 MHz			
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5.00000 MHz																																		
Band LTE7 5MHz QPSK	Agilent 18:46:42 Jul 9, 2015 Ch Freq 2.5025 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/ Offst 27.1 dB Center 2.502 50 GHz Span 30 MHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power</td><td>4.000 MHz 1.000 MHz</td><td>-63.32 -41.43 -72.56</td><td>-58.67</td></tr><tr><td>21.89 dBm / 7.000 MHz</td><td>1.000 MHz</td><td>-63.64 -41.75 -66.47</td><td>-44.58</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM QPSK Low Channel 1RB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power	4.000 MHz 1.000 MHz	-63.32 -41.43 -72.56	-58.67	21.89 dBm / 7.000 MHz	1.000 MHz	-63.64 -41.75 -66.47	-44.58	5.00000 MHz				Agilent 18:47:02 Jul 9, 2015 Ch Freq 2.5025 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/ Offst 27.1 dB Center 2.502 50 GHz Span 30 MHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power</td><td>4.000 MHz 1.000 MHz</td><td>-58.68 -27.77 -58.39</td><td>-27.48</td></tr><tr><td>22.91 dBm / 7.000 MHz</td><td>1.000 MHz</td><td>-53.28 -30.37 -54.19</td><td>-31.28</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM QPSK Low Channel FRB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power	4.000 MHz 1.000 MHz	-58.68 -27.77 -58.39	-27.48	22.91 dBm / 7.000 MHz	1.000 MHz	-53.28 -30.37 -54.19	-31.28	5.00000 MHz			
	Freq Offset	Ref BW	dBc Lower	dBc Upper																														
Carrier Power	4.000 MHz 1.000 MHz	-63.32 -41.43 -72.56	-58.67																															
21.89 dBm / 7.000 MHz	1.000 MHz	-63.64 -41.75 -66.47	-44.58																															
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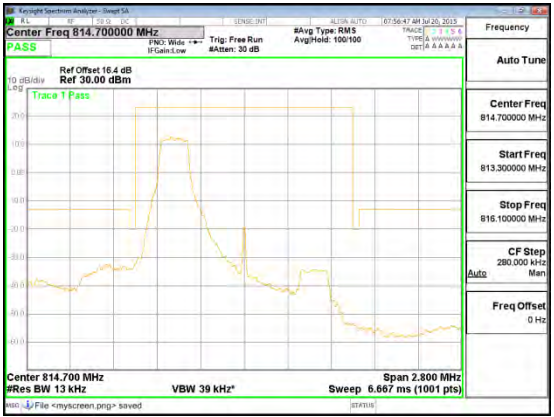
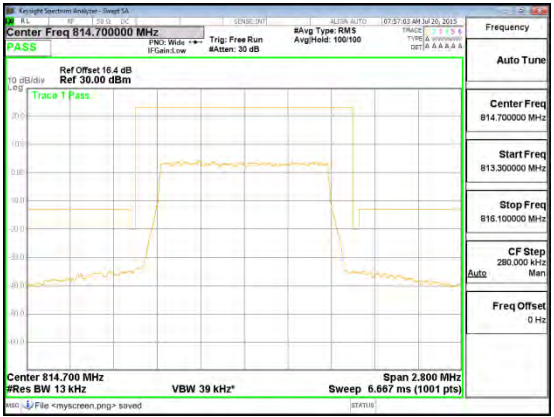
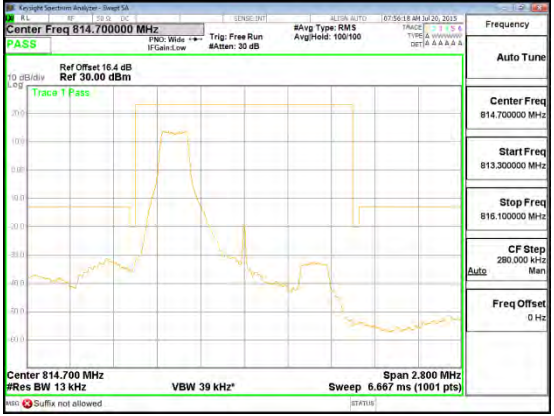
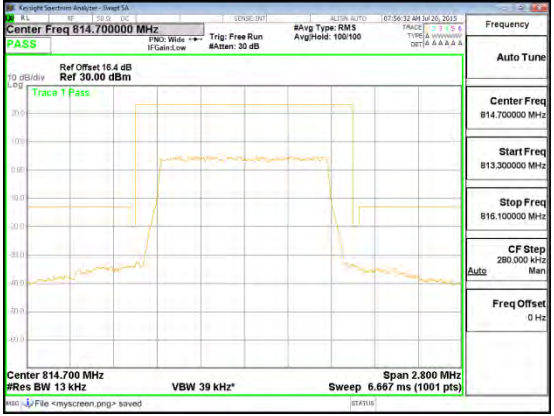
Band LTE7 5MHz 16QAM	Agilent 18:48:46 Jul 9, 2015 Ch Freq 2.5675 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/Offst 27.1 dB Center 2.567 50 GHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) Span 30 MHz <table><tr><th colspan="2">RMS Results</th><th>Freq</th><th>Offset</th><th>Ref BW</th><th>dBc</th><th>Lower</th><th>dBc</th><th>Upper</th><th>dBc</th></tr><tr><td>Carrier Power</td><td>4.000 MHz</td><td>1.000 MHz</td><td>-65.32</td><td>-40.55</td><td>-68.86</td><td>-44.09</td><td></td><td></td></tr><tr><td>24.77 dBm /</td><td>8.000 MHz</td><td>1.000 MHz</td><td>-77.54</td><td>-52.78</td><td>-78.08</td><td>-53.31</td><td></td><td></td></tr><tr><td>5.00000 MHz</td><td>14.00 MHz</td><td>1.000 MHz</td><td>-77.30</td><td>-52.53</td><td>-79.66</td><td>-54.90</td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM 16QAM High Channel 1RB.gif	RMS Results		Freq	Offset	Ref BW	dBc	Lower	dBc	Upper	dBc	Carrier Power	4.000 MHz	1.000 MHz	-65.32	-40.55	-68.86	-44.09			24.77 dBm /	8.000 MHz	1.000 MHz	-77.54	-52.78	-78.08	-53.31			5.00000 MHz	14.00 MHz	1.000 MHz	-77.30	-52.53	-79.66	-54.90			Agilent 18:49:06 Jul 9, 2015 Ch Freq 2.5675 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/Offst 27.1 dB Center 2.567 50 GHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) Span 30 MHz <table><tr><th colspan="2">RMS Results</th><th>Freq</th><th>Offset</th><th>Ref BW</th><th>dBc</th><th>Lower</th><th>dBc</th><th>Upper</th><th>dBc</th></tr><tr><td>Carrier Power</td><td>4.000 MHz</td><td>1.000 MHz</td><td>-42.15</td><td>-20.81</td><td>-42.43</td><td>-21.09</td><td></td><td></td></tr><tr><td>21.34 dBm /</td><td>8.000 MHz</td><td>1.000 MHz</td><td>-53.42</td><td>-32.08</td><td>-53.85</td><td>-32.52</td><td></td><td></td></tr><tr><td>5.00000 MHz</td><td>14.00 MHz</td><td>1.000 MHz</td><td>-69.07</td><td>-47.73</td><td>-67.08</td><td>-45.75</td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM 16QAM High Channel FRB.gif	RMS Results		Freq	Offset	Ref BW	dBc	Lower	dBc	Upper	dBc	Carrier Power	4.000 MHz	1.000 MHz	-42.15	-20.81	-42.43	-21.09			21.34 dBm /	8.000 MHz	1.000 MHz	-53.42	-32.08	-53.85	-32.52			5.00000 MHz	14.00 MHz	1.000 MHz	-69.07	-47.73	-67.08	-45.75		
	RMS Results		Freq	Offset	Ref BW	dBc	Lower	dBc	Upper	dBc																																																																		
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Agilent 18:48:07 Jul 9, 2015 Ch Freq 2.5675 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/Offst 27.1 dB Center 2.567 50 GHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) Span 30 MHz <table><tr><th colspan="2">RMS Results</th><th>Freq</th><th>Offset</th><th>Ref BW</th><th>dBc</th><th>Lower</th><th>dBc</th><th>Upper</th><th>dBc</th></tr><tr><td>Carrier Power</td><td>4.000 MHz</td><td>1.000 MHz</td><td>-63.45</td><td>-37.94</td><td>-75.26</td><td>-49.75</td><td></td><td></td></tr><tr><td>25.51 dBm /</td><td>8.000 MHz</td><td>1.000 MHz</td><td>-76.62</td><td>-51.11</td><td>-78.21</td><td>-52.70</td><td></td><td></td></tr><tr><td>5.00000 MHz</td><td>14.00 MHz</td><td>1.000 MHz</td><td>-78.89</td><td>-53.38</td><td>-79.73</td><td>-54.22</td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM QPSK High Channel 1RB.gif	RMS Results		Freq	Offset	Ref BW	dBc	Lower	dBc	Upper	dBc	Carrier Power	4.000 MHz	1.000 MHz	-63.45	-37.94	-75.26	-49.75			25.51 dBm /	8.000 MHz	1.000 MHz	-76.62	-51.11	-78.21	-52.70			5.00000 MHz	14.00 MHz	1.000 MHz	-78.89	-53.38	-79.73	-54.22			Agilent 18:48:26 Jul 9, 2015 Ch Freq 2.5675 GHz Trig Free Adj Channel Power Ref 27.06 dBm *Atten 10 dB *Avg Log 10 dB/Offst 27.1 dB Center 2.567 50 GHz *Res BW 100 kHz VBW 300 kHz Sweep 9.08 ms (601 pts) Span 30 MHz <table><tr><th colspan="2">RMS Results</th><th>Freq</th><th>Offset</th><th>Ref BW</th><th>dBc</th><th>Lower</th><th>dBc</th><th>Upper</th><th>dBc</th></tr><tr><td>Carrier Power</td><td>4.000 MHz</td><td>1.000 MHz</td><td>-42.89</td><td>-20.47</td><td>-43.60</td><td>-21.19</td><td></td><td></td></tr><tr><td>22.42 dBm /</td><td>8.000 MHz</td><td>1.000 MHz</td><td>-53.46</td><td>-31.04</td><td>-53.40</td><td>-30.98</td><td></td><td></td></tr><tr><td>5.00000 MHz</td><td>14.00 MHz</td><td>1.000 MHz</td><td>-70.19</td><td>-47.77</td><td>-67.85</td><td>-45.44</td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE7 5MHz EM QPSK High Channel FRB.gif	RMS Results		Freq	Offset	Ref BW	dBc	Lower	dBc	Upper	dBc	Carrier Power	4.000 MHz	1.000 MHz	-42.89	-20.47	-43.60	-21.19			22.42 dBm /	8.000 MHz	1.000 MHz	-53.46	-31.04	-53.40	-30.98			5.00000 MHz	14.00 MHz	1.000 MHz	-70.19	-47.77	-67.85	-45.44			
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LTE Band 26

Band LTE26 10MHz 16QAM	 Band LTE26 10MHz EM 16QAM Low Channel 1RB.gif	 Band LTE26 10MHz EM 16QAM Low Channel FRB.gif
Band LTE26 10MHz QPSK	 Band LTE26 10MHz EM QPSK Low Channel 1RB.gif	 Band LTE26 10MHz EM QPSK Low Channel FRB.gif

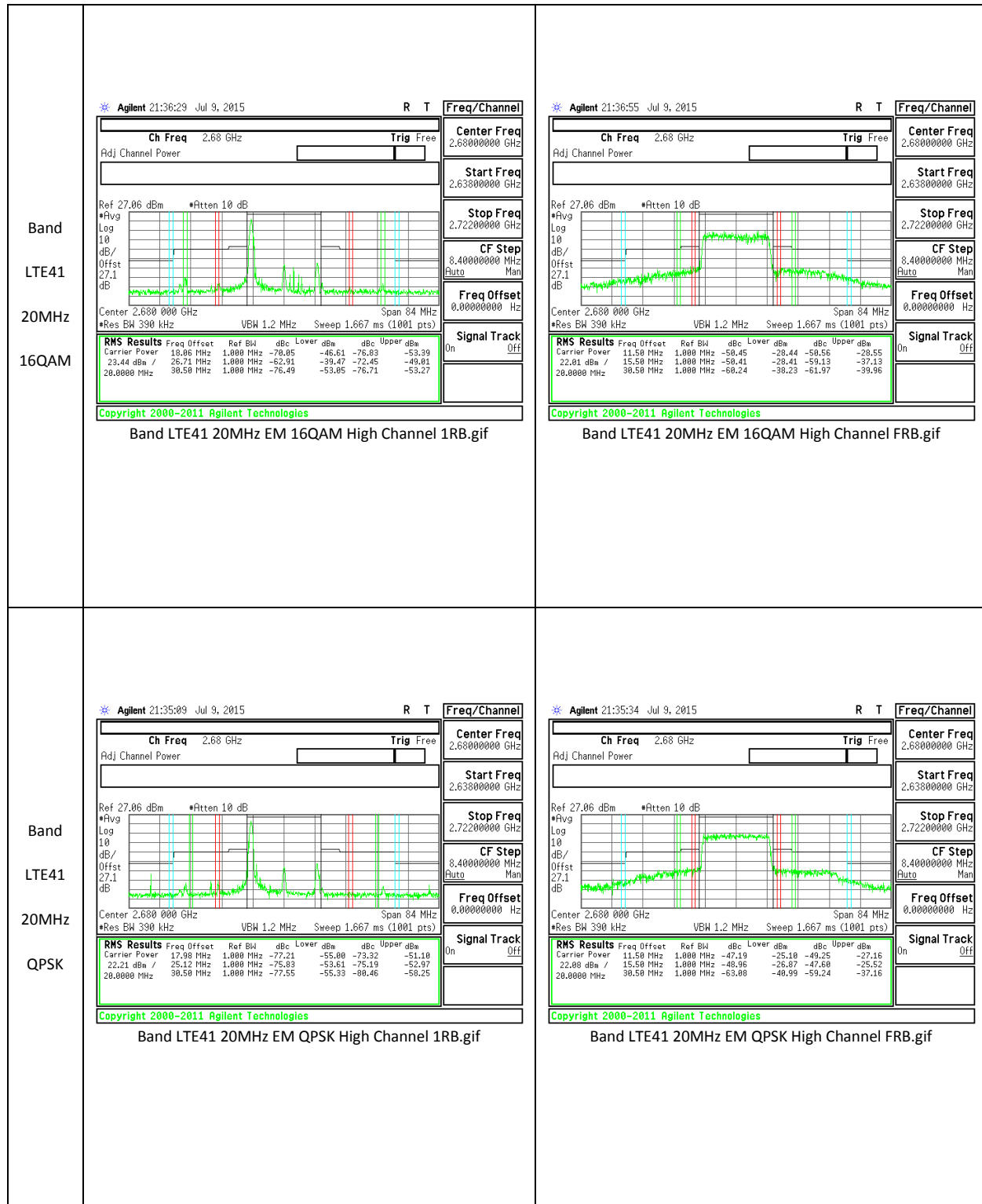
Band LTE26 5MHz 16QAM	 Band LTE26 5MHz EM 16QAM Low Channel 1RB.gif	 Band LTE26 5MHz EM 16QAM Low Channel FRB.gif
Band LTE26 5MHz QPSK	 Band LTE26 5MHz EM QPSK Low Channel 1RB.gif	 Band LTE26 5MHz EM QPSK Low Channel FRB.gif

Band LTE26 3MHz 16QAM	 Band LTE26 3MHz EM 16QAM Low Channel 1RB.gif	 Band LTE26 3MHz EM 16QAM Low Channel FRB.gif
Band LTE26 3MHz QPSK	 Band LTE26 5MHz EM QPSK Low Channel 1RB.gif	 Band LTE26 3MHz EM QPSK Low Channel FRB.gif

Band LTE26 1.4MHz 16QAM	 Band LTE26 1.4MHz EM 16QAM Low Channel 1RB.gif	 Band LTE26 1.4MHz EM 16QAM Low Channel FRB.gif
Band LTE26 1.4MHz QPSK	 Band LTE26 1.4MHz EM QPSK Low Channel 1RB.gif	 Band LTE26 1.4MHz EM QPSK Low Channel FRB.gif

LTE Band 41

Band LTE41 20MHz 16QAM	Agilent 21:33:43 Jul 9, 2015 R T Freq/Channel Ch Freq 2.506 GHz Trig Free Adj Channel Power Ref 27.06 dBm Atten 10 dB Log 10 dB/ Offset 27.1 dB Center 2.506 000 GHz Span 84 MHz VBW 1.2 MHz Sweep 1.667 ms (1001 pts) RMS Results <table><tr><td>Freq Offset</td><td>Ref BW</td><td>dBc</td><td>Lower dBm</td><td>dBc</td><td>Upper dBm</td></tr><tr><td>Carrier Power</td><td>12.00 MHz</td><td>1.000 MHz</td><td>-64.69</td><td>-44.24</td><td>-75.50</td></tr><tr><td>20.45 dBm /</td><td>16.00 MHz</td><td>1.000 MHz</td><td>-71.90</td><td>-51.54</td><td>-75.40</td></tr><tr><td>20.0000 MHz</td><td></td><td></td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 20MHz EM 16QAM Low Channel 1RB.gif	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm	Carrier Power	12.00 MHz	1.000 MHz	-64.69	-44.24	-75.50	20.45 dBm /	16.00 MHz	1.000 MHz	-71.90	-51.54	-75.40	20.0000 MHz						Agilent 21:34:08 Jul 9, 2015 R T Freq/Channel Ch Freq 2.506 GHz Trig Free Adj Channel Power Ref 27.06 dBm Atten 10 dB Log 10 dB/ Offset 27.1 dB Center 2.506 000 GHz Span 84 MHz VBW 1.2 MHz Sweep 1.667 ms (1001 pts) RMS Results <table><tr><td>Freq Offset</td><td>Ref BW</td><td>dBc</td><td>Lower dBm</td><td>dBc</td><td>Upper dBm</td></tr><tr><td>Carrier Power</td><td>12.00 MHz</td><td>1.000 MHz</td><td>-52.85</td><td>-31.49</td><td>-46.87</td></tr><tr><td>21.36 dBm /</td><td>16.00 MHz</td><td>1.000 MHz</td><td>-53.41</td><td>-32.05</td><td>-46.59</td></tr><tr><td>20.0000 MHz</td><td></td><td></td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 20MHz EM 16QAM Low Channel FRB.gif	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm	Carrier Power	12.00 MHz	1.000 MHz	-52.85	-31.49	-46.87	21.36 dBm /	16.00 MHz	1.000 MHz	-53.41	-32.05	-46.59	20.0000 MHz					
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21.36 dBm /	16.00 MHz	1.000 MHz	-53.41	-32.05	-46.59																																													
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Agilent 21:30:09 Jul 9, 2015 R T Freq/Channel Ch Freq 2.506 GHz Trig Free Adj Channel Power Ref 27.06 dBm Atten 10 dB Log 10 dB/ Offset 27.1 dB Center 2.506 000 GHz Span 84 MHz VBW 1.2 MHz Sweep 1.667 ms (1001 pts) RMS Results <table><tr><td>Freq Offset</td><td>Ref BW</td><td>dBc</td><td>Lower dBm</td><td>dBc</td><td>Upper dBm</td></tr><tr><td>Carrier Power</td><td>12.00 MHz</td><td>1.000 MHz</td><td>-70.90</td><td>-48.13</td><td>-74.77</td></tr><tr><td>22.78 dBm /</td><td>16.00 MHz</td><td>1.000 MHz</td><td>-76.09</td><td>-53.31</td><td>-75.96</td></tr><tr><td>20.0000 MHz</td><td></td><td></td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 20MHz EM QPSK Low Channel 1RB.gif	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm	Carrier Power	12.00 MHz	1.000 MHz	-70.90	-48.13	-74.77	22.78 dBm /	16.00 MHz	1.000 MHz	-76.09	-53.31	-75.96	20.0000 MHz						Agilent 21:31:44 Jul 9, 2015 R T Freq/Channel Ch Freq 2.506 GHz Trig Free Adj Channel Power Ref 27.06 dBm Atten 10 dB Log 10 dB/ Offset 27.1 dB Center 2.506 000 GHz Span 84 MHz VBW 1.2 MHz Sweep 1.667 ms (1001 pts) RMS Results <table><tr><td>Freq Offset</td><td>Ref BW</td><td>dBc</td><td>Lower dBm</td><td>dBc</td><td>Upper dBm</td></tr><tr><td>Carrier Power</td><td>12.00 MHz</td><td>1.000 MHz</td><td>-51.29</td><td>-29.47</td><td>-50.11</td></tr><tr><td>21.82 dBm /</td><td>16.00 MHz</td><td>1.000 MHz</td><td>-51.94</td><td>-30.12</td><td>-51.14</td></tr><tr><td>20.0000 MHz</td><td></td><td></td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 20MHz EM QPSK Low Channel FRB.gif	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm	Carrier Power	12.00 MHz	1.000 MHz	-51.29	-29.47	-50.11	21.82 dBm /	16.00 MHz	1.000 MHz	-51.94	-30.12	-51.14	20.0000 MHz						
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22.78 dBm /	16.00 MHz	1.000 MHz	-76.09	-53.31	-75.96																																													
20.0000 MHz																																																		
Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm																																													
Carrier Power	12.00 MHz	1.000 MHz	-51.29	-29.47	-50.11																																													
21.82 dBm /	16.00 MHz	1.000 MHz	-51.94	-30.12	-51.14																																													
20.0000 MHz																																																		



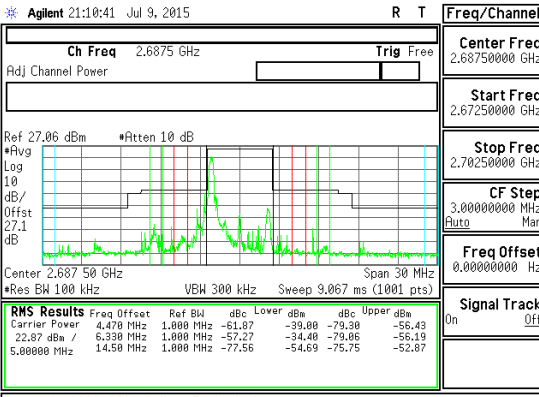
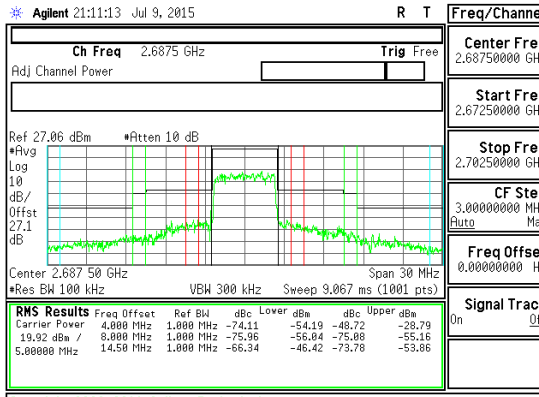
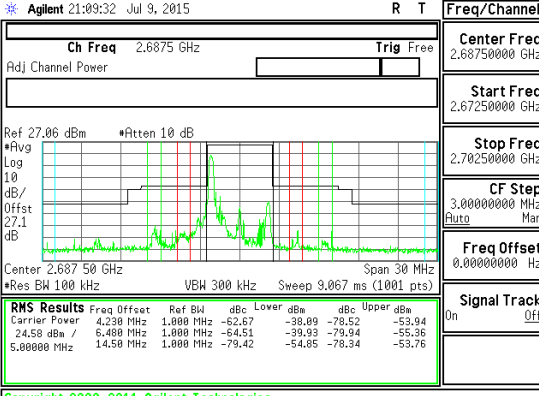
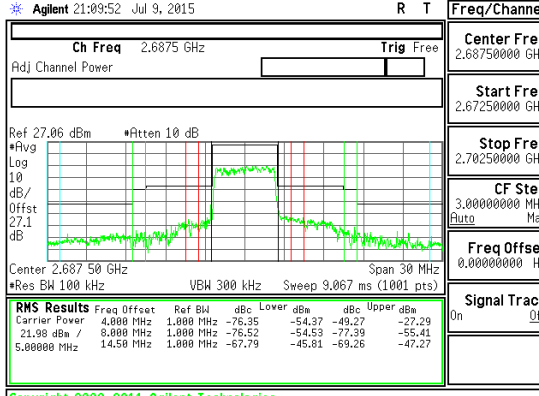
Band LTE41 15MHz 16QAM	Agilent 21:24:54 Jul 9, 2015 R T Freq/Channel Ch Freq 2.5355 GHz Trig Free Center Freq 2.53550000 GHz Start Freq 2.50450000 GHz Stop Freq 2.56650000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 13.27 MHz 23.07 dBm / 20.09 MHz 1.000 MHz -61.20 -38.14 -72.01 -48.94 -69.30 -46.23 -70.50 -47.43 15.0000 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM 16QAM Low Channel 1RB.gif	Agilent 21:25:20 Jul 9, 2015 R T Freq/Channel Ch Freq 2.5355 GHz Trig Free Center Freq 2.53550000 GHz Start Freq 2.50450000 GHz Stop Freq 2.56650000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 9.000 MHz 21.15 dBm / 13.50 MHz 1.000 MHz -46.84 -25.69 -52.05 -30.90 -50.23 -29.08 -50.91 -29.76 15.0000 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM 16QAM Low Channel FRB.gif
Band LTE41 15MHz QPSK	Agilent 21:23:41 Jul 9, 2015 R T Freq/Channel Ch Freq 2.5355 GHz Trig Free Center Freq 2.53550000 GHz Start Freq 2.50450000 GHz Stop Freq 2.56650000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 13.27 MHz 23.25 dBm / 19.90 MHz 1.000 MHz -68.73 -37.48 -74.31 -51.06 -67.71 -44.46 -80.94 -57.70 15.0000 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM QPSK Low Channel 1RB.gif	Agilent 21:24:01 Jul 9, 2015 R T Freq/Channel Ch Freq 2.5355 GHz Trig Free Center Freq 2.53550000 GHz Start Freq 2.50450000 GHz Stop Freq 2.56650000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 9.000 MHz 21.97 dBm / 13.50 MHz 1.000 MHz -44.60 -22.63 -52.11 -30.14 -51.40 -29.43 -52.38 -30.41 15.0000 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM QPSK Low Channel FRB.gif

Band LTE41 15MHz 16QAM	Agilent 21:27:47 Jul 9, 2015 Ch Freq 2.6825 GHz Trig Free Center Freq 2.68250000 GHz Start Freq 2.65150000 GHz Stop Freq 2.71350000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB dB/Log 10 dB/Offset 27.1 dB Center 2.682 500 GHz Span 62 MHz Res BW 300 kHz VBW 910 kHz Sweep 2.133 ms (1001 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc</th><th>Lower dBc</th><th>dBc</th><th>Upper dBc</th></tr><tr><td>Carrier Power</td><td>13.76 MHz</td><td>1.000 MHz</td><td>-65.26</td><td>-41.14</td><td>-76.23</td></tr><tr><td>24.12 dBm /</td><td>20.34 MHz</td><td>1.000 MHz</td><td>-66.33</td><td>-42.21</td><td>-76.93</td></tr><tr><td>15.0000 MHz</td><td>23.00 MHz</td><td>1.000 MHz</td><td>-77.31</td><td>-53.19</td><td>-76.20</td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM 16QAM High Channel 1RB.gif	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc	Carrier Power	13.76 MHz	1.000 MHz	-65.26	-41.14	-76.23	24.12 dBm /	20.34 MHz	1.000 MHz	-66.33	-42.21	-76.93	15.0000 MHz	23.00 MHz	1.000 MHz	-77.31	-53.19	-76.20	Agilent 21:28:06 Jul 9, 2015 Ch Freq 2.6825 GHz Trig Free Center Freq 2.68250000 GHz Start Freq 2.65150000 GHz Stop Freq 2.71350000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB dB/Log 10 dB/Offset 27.1 dB Center 2.682 500 GHz Span 62 MHz Res BW 300 kHz VBW 910 kHz Sweep 2.133 ms (1001 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc</th><th>Lower dBc</th><th>dBc</th><th>Upper dBc</th></tr><tr><td>Carrier Power</td><td>9.000 MHz</td><td>1.000 MHz</td><td>-47.53</td><td>-26.76</td><td>-76.04</td></tr><tr><td>20.77 dBm /</td><td>13.00 MHz</td><td>1.000 MHz</td><td>-50.58</td><td>-29.72</td><td>-77.58</td></tr><tr><td>15.0000 MHz</td><td>23.00 MHz</td><td>1.000 MHz</td><td>-57.37</td><td>-36.68</td><td>-75.55</td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM 16QAM High Channel FRB.gif	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc	Carrier Power	9.000 MHz	1.000 MHz	-47.53	-26.76	-76.04	20.77 dBm /	13.00 MHz	1.000 MHz	-50.58	-29.72	-77.58	15.0000 MHz	23.00 MHz	1.000 MHz	-57.37	-36.68	-75.55
	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc																																												
Carrier Power	13.76 MHz	1.000 MHz	-65.26	-41.14	-76.23																																													
24.12 dBm /	20.34 MHz	1.000 MHz	-66.33	-42.21	-76.93																																													
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Carrier Power	9.000 MHz	1.000 MHz	-47.53	-26.76	-76.04																																													
20.77 dBm /	13.00 MHz	1.000 MHz	-50.58	-29.72	-77.58																																													
15.0000 MHz	23.00 MHz	1.000 MHz	-57.37	-36.68	-75.55																																													
Band LTE41 15MHz QPSK	Agilent 21:26:30 Jul 9, 2015 Ch Freq 2.6825 GHz Trig Free Center Freq 2.68250000 GHz Start Freq 2.65150000 GHz Stop Freq 2.71350000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB dB/Log 10 dB/Offset 27.1 dB Center 2.682 500 GHz Span 62 MHz Res BW 300 kHz VBW 910 kHz Sweep 2.133 ms (1001 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc</th><th>Lower dBc</th><th>dBc</th><th>Upper dBc</th></tr><tr><td>Carrier Power</td><td>13.76 MHz</td><td>1.000 MHz</td><td>-64.53</td><td>-41.00</td><td>-78.66</td></tr><tr><td>23.53 dBm /</td><td>20.27 MHz</td><td>1.000 MHz</td><td>-62.40</td><td>-38.87</td><td>-78.15</td></tr><tr><td>15.0000 MHz</td><td>23.00 MHz</td><td>1.000 MHz</td><td>-76.97</td><td>-53.44</td><td>-78.04</td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM QPSK High Channel 1RB.gif	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc	Carrier Power	13.76 MHz	1.000 MHz	-64.53	-41.00	-78.66	23.53 dBm /	20.27 MHz	1.000 MHz	-62.40	-38.87	-78.15	15.0000 MHz	23.00 MHz	1.000 MHz	-76.97	-53.44	-78.04	Agilent 21:26:55 Jul 9, 2015 Ch Freq 2.6825 GHz Trig Free Center Freq 2.68250000 GHz Start Freq 2.65150000 GHz Stop Freq 2.71350000 GHz CF Step 6.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB dB/Log 10 dB/Offset 27.1 dB Center 2.682 500 GHz Span 62 MHz Res BW 300 kHz VBW 910 kHz Sweep 2.133 ms (1001 pts) RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc</th><th>Lower dBc</th><th>dBc</th><th>Upper dBc</th></tr><tr><td>Carrier Power</td><td>9.000 MHz</td><td>1.000 MHz</td><td>-46.77</td><td>-26.46</td><td>-74.04</td></tr><tr><td>20.31 dBm /</td><td>13.00 MHz</td><td>1.000 MHz</td><td>-47.32</td><td>-27.02</td><td>-76.06</td></tr><tr><td>15.0000 MHz</td><td>23.00 MHz</td><td>1.000 MHz</td><td>-57.79</td><td>-37.48</td><td>-75.25</td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 15MHz EM QPSK High Channel FRB.gif	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc	Carrier Power	9.000 MHz	1.000 MHz	-46.77	-26.46	-74.04	20.31 dBm /	13.00 MHz	1.000 MHz	-47.32	-27.02	-76.06	15.0000 MHz	23.00 MHz	1.000 MHz	-57.79	-37.48	-75.25
	Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc																																												
Carrier Power	13.76 MHz	1.000 MHz	-64.53	-41.00	-78.66																																													
23.53 dBm /	20.27 MHz	1.000 MHz	-62.40	-38.87	-78.15																																													
15.0000 MHz	23.00 MHz	1.000 MHz	-76.97	-53.44	-78.04																																													
Freq Offset	Ref BW	dBc	Lower dBc	dBc	Upper dBc																																													
Carrier Power	9.000 MHz	1.000 MHz	-46.77	-26.46	-74.04																																													
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15.0000 MHz	23.00 MHz	1.000 MHz	-57.79	-37.48	-75.25																																													

Band LTE41 10MHz 16QAM	Agilent 21:14:16 Jul 9, 2015 R T Freq/Channel Ch Freq 2.501 GHz Trig Free Center Freq 2.50100000 GHz Start Freq 2.47500000 GHz Stop Freq 2.52700000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 8.892 MHz 24.19 dBm / 10.0000 MHz 1.000 MHz dBc Lower -68.55 dBc Upper -53.87 dBc Lower -38.76 dBc Upper -58.15 Center 2.501 000 GHz Res BW 200 kHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM 16QAM Low Channel 1RB.gif	Agilent 21:14:54 Jul 9, 2015 R T Freq/Channel Ch Freq 2.501 GHz Trig Free Center Freq 2.50100000 GHz Start Freq 2.47500000 GHz Stop Freq 2.52700000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 6.500 MHz 21.29 dBm / 10.0000 MHz 1.000 MHz dBc Lower -58.15 dBc Upper -27.72 dBc Lower -55.75 dBc Upper -29.18 Center 2.501 000 GHz Res BW 200 kHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM 16QAM Low Channel FRB.gif
	Agilent 21:12:58 Jul 9, 2015 R T Freq/Channel Ch Freq 2.501 GHz Trig Free Center Freq 2.50100000 GHz Start Freq 2.47500000 GHz Stop Freq 2.52700000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 8.788 MHz 25.13 dBm / 10.0000 MHz 1.000 MHz dBc Lower -64.25 dBc Upper -53.17 dBc Lower -47.15 dBc Upper -54.38 Center 2.501 000 GHz Res BW 200 kHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM QPSK Low Channel 1RB.gif	Agilent 21:13:23 Jul 9, 2015 R T Freq/Channel Ch Freq 2.501 GHz Trig Free Center Freq 2.50100000 GHz Start Freq 2.47500000 GHz Stop Freq 2.52700000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 6.500 MHz 20.30 dBm / 10.0000 MHz 1.000 MHz dBc Lower -76.05 dBc Upper -23.57 dBc Lower -55.09 dBc Upper -25.84 Center 2.501 000 GHz Res BW 200 kHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM QPSK Low Channel FRB.gif

Band LTE41 10MHz 16QAM	Agilent 21:19:56 Jul 9, 2015 R T Freq/Channel Ch Freq 2.685 GHz Trig Free Center Freq 2.68500000 GHz Start Freq 2.65900000 GHz Stop Freq 2.71100000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 8.736 MHz 20.62 dBm / 12.58 MHz 10.0000 MHz 15.50 MHz Ref BW 1.000 MHz dBc Lower -62.68 dBc Upper -53.85 dBc Lower -42.06 dBc Upper -54.36 dBc Lower -41.75 dBc Upper -54.85 Center 2.685 000 GHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Res BW 200 kHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM 16QAM High Channel 1RB.gif	Agilent 21:20:28 Jul 9, 2015 R T Freq/Channel Ch Freq 2.685 GHz Trig Free Center Freq 2.68500000 GHz Start Freq 2.65900000 GHz Stop Freq 2.71100000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 6.500 MHz 20.54 dBm / 10.50 MHz 10.0000 MHz 15.50 MHz Ref BW 1.000 MHz dBc Lower -44.87 dBc Upper -56.31 dBc Lower -49.28 dBc Upper -54.61 dBc Lower -39.08 dBc Upper -56.67 Center 2.685 000 GHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Res BW 200 kHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM 16QAM High Channel FRB.gif
Band LTE41 10MHz QPSK	Agilent 21:17:16 Jul 9, 2015 R T Freq/Channel Ch Freq 2.685 GHz Trig Free Center Freq 2.68500000 GHz Start Freq 2.65900000 GHz Stop Freq 2.71100000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 8.840 MHz 24.64 dBm / 13.26 MHz 10.0000 MHz 15.50 MHz Ref BW 1.000 MHz dBc Lower -66.14 dBc Upper -51.08 dBc Lower -81.59 dBc Upper -52.47 dBc Lower -56.86 dBc Upper -53.70 Center 2.685 000 GHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Res BW 200 kHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM QPSK High Channel 1RB.gif	Agilent 21:19:15 Jul 9, 2015 R T Freq/Channel Ch Freq 2.685 GHz Trig Free Center Freq 2.68500000 GHz Start Freq 2.65900000 GHz Stop Freq 2.71100000 GHz CF Step 5.20000000 MHz Freq Offset 0.00000000 Hz Signal Track On Off Ref 27.06 dBm Atten 10 dB Carrier Power 6.500 MHz 21.91 dBm / 10.50 MHz 10.0000 MHz 15.50 MHz Ref BW 1.000 MHz dBc Lower -77.57 dBc Upper -33.38 dBc Lower -75.88 dBc Upper -27.29 dBc Lower -53.54 dBc Upper -35.18 Center 2.685 000 GHz VBW 620 kHz Sweep 3.933 ms (1001 pts) Span 52 MHz Res BW 200 kHz Copyright 2000-2011 Agilent Technologies Band LTE41 10MHz EM QPSK High Channel FRB.gif

Band LTE41 5MHz 16QAM	Agilent 21:07:17 Jul 9, 2015 Ch Freq 2.4985 GHz Trig Free Center Freq 2.49850000 GHz Start Freq 2.48350000 GHz Stop Freq 2.51350000 GHz CF Step 3.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB Log 10 dB/Offst 27.1 dB Center 2.498 50 GHz Res BW 100 kHz VBW 300 kHz Sweep 9.067 ms (1001 pts) Span 30 MHz RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power 4.320 MHz</td><td>1.000 MHz</td><td>-62.10</td><td>-55.44</td></tr><tr><td>21.74 dBm / 6.330 MHz</td><td>1.000 MHz</td><td>-59.32</td><td>-54.64</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM 16QAM Low Channel 1RB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power 4.320 MHz	1.000 MHz	-62.10	-55.44	21.74 dBm / 6.330 MHz	1.000 MHz	-59.32	-54.64	5.00000 MHz				Agilent 21:08:13 Jul 9, 2015 Ch Freq 2.4985 GHz Trig Free Center Freq 2.49850000 GHz Start Freq 2.48350000 GHz Stop Freq 2.51350000 GHz CF Step 3.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB Log 10 dB/Offst 27.1 dB Center 2.498 50 GHz Res BW 100 kHz VBW 300 kHz Sweep 9.067 ms (1001 pts) Span 30 MHz RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power 4.000 MHz</td><td>1.000 MHz</td><td>-49.24</td><td>-54.90</td></tr><tr><td>19.42 dBm / 8.500 MHz</td><td>1.000 MHz</td><td>-73.37</td><td>-53.41</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM 16QAM Low Channel FRB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power 4.000 MHz	1.000 MHz	-49.24	-54.90	19.42 dBm / 8.500 MHz	1.000 MHz	-73.37	-53.41	5.00000 MHz			
	Freq Offset	Ref BW	dBc Lower	dBc Upper																														
Carrier Power 4.320 MHz	1.000 MHz	-62.10	-55.44																															
21.74 dBm / 6.330 MHz	1.000 MHz	-59.32	-54.64																															
5.00000 MHz																																		
Freq Offset	Ref BW	dBc Lower	dBc Upper																															
Carrier Power 4.000 MHz	1.000 MHz	-49.24	-54.90																															
19.42 dBm / 8.500 MHz	1.000 MHz	-73.37	-53.41																															
5.00000 MHz																																		
Agilent 21:05:57 Jul 9, 2015 Ch Freq 2.4985 GHz Trig Free Center Freq 2.49850000 GHz Start Freq 2.48350000 GHz Stop Freq 2.51350000 GHz CF Step 3.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB Log 10 dB/Offst 27.1 dB Center 2.498 50 GHz Res BW 100 kHz VBW 300 kHz Sweep 9.067 ms (1001 pts) Span 30 MHz RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power 4.410 MHz</td><td>1.000 MHz</td><td>-64.48</td><td>-53.76</td></tr><tr><td>24.55 dBm / 6.420 MHz</td><td>1.000 MHz</td><td>-61.64</td><td>-54.55</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM QPSK Low Channel 1RB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power 4.410 MHz	1.000 MHz	-64.48	-53.76	24.55 dBm / 6.420 MHz	1.000 MHz	-61.64	-54.55	5.00000 MHz				Agilent 21:06:29 Jul 9, 2015 Ch Freq 2.4985 GHz Trig Free Center Freq 2.49850000 GHz Start Freq 2.48350000 GHz Stop Freq 2.51350000 GHz CF Step 3.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Ref 27.06 dBm Atten 10 dB Log 10 dB/Offst 27.1 dB Center 2.498 50 GHz Res BW 100 kHz VBW 300 kHz Sweep 9.067 ms (1001 pts) Span 30 MHz RMS Results <table><tr><th>Freq Offset</th><th>Ref BW</th><th>dBc Lower</th><th>dBc Upper</th></tr><tr><td>Carrier Power 4.000 MHz</td><td>1.000 MHz</td><td>-74.22</td><td>-42.63</td></tr><tr><td>19.39 dBm / 8.500 MHz</td><td>1.000 MHz</td><td>-74.33</td><td>-54.24</td></tr><tr><td>5.00000 MHz</td><td></td><td></td><td></td></tr></table> Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM QPSK Low Channel FRB.gif	Freq Offset	Ref BW	dBc Lower	dBc Upper	Carrier Power 4.000 MHz	1.000 MHz	-74.22	-42.63	19.39 dBm / 8.500 MHz	1.000 MHz	-74.33	-54.24	5.00000 MHz				
Freq Offset	Ref BW	dBc Lower	dBc Upper																															
Carrier Power 4.410 MHz	1.000 MHz	-64.48	-53.76																															
24.55 dBm / 6.420 MHz	1.000 MHz	-61.64	-54.55																															
5.00000 MHz																																		
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5.00000 MHz																																		

Band LTE41 5MHz 16QAM	 Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM 16QAM High Channel 1RB.gif	 Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM 16QAM High Channel FRB.gif
Band LTE41 5MHz QPSK	 Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM QPSK High Channel 1RB.gif	 Copyright 2000-2011 Agilent Technologies Band LTE41 5MHz EM QPSK High Channel FRB.gif

10.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53 and §90.691

LIMITS

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.

Part 27: (m)(4) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

MODES TESTED

GSM, WCDMA, CDMA, and LTE

RESULTS

10.3.1. OUT OF BAND EMISSIONS RESULT

GSM

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
GSM 850	GPRS	824.2	-19.168	-13	-6.168
		836.6	-19.14	-13	-6.14
		848.8	-19.017	-13	-6.017
	EGPRS	824.2	-18.52	-13	-5.52
		836.6	-19.664	-13	-6.664
		848.8	-18.725	-13	-5.725
GSM 1900	GPRS	1850.2	-18.348	-13	-5.348
		1880	-18.723	-13	-5.723
		1909.8	-18.18	-13	-5.18
	EGPRS	1850.2	-19.172	-13	-6.172
		1880	-18.88	-13	-5.88
		1909.8	-18.869	-13	-5.869

WCDMA

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
Band 5	REL99	826.4	-28.175	-13	-15.175
		836.6	-28.345	-13	-15.345
		846.6	-28.462	-13	-15.462
	HSDPA	826.4	-28.563	-13	-15.563
		836.6	-28.933	-13	-15.933
		846.6	-28.668	-13	-15.668
Band 4	REL99	1712.4	-28.504	-13	-15.504
		1732.6	-28.072	-13	-15.072
		1752.6	-28.796	-13	-15.796
	HSDPA	1712.4	-28.361	-13	-15.361
		1732.6	-27.497	-13	-14.497
		1752.6	-28.181	-13	-15.181
Band 2	REL99	1852.4	-25.755	-13	-12.755
		1880	-27.201	-13	-14.201
		1907.6	-28.432	-13	-15.432
	HSDPA	1852.4	-26.551	-13	-13.551
		1880	-26.751	-13	-13.751
		1907.6	-27.646	-13	-14.646

CDMA

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
BC10	1xRTT	817.9	-27.6	-13	-14.6
		820.5	-27.18	-13	-14.18
		823.1	-26.85	-13	-13.85
	EVDO	817.9	-26.51	-13	-13.51
		820.5	-27.22	-13	-14.22
		823.1	-27.22	-13	-14.22
BC0	1xRTT	824.7	-27.932	-13	-14.932
		836.52	-27.012	-13	-14.012
		848.31	-27.64	-13	-14.64
	EVDO	824.7	-24.04	-13	-11.04
		836.52	-23.77	-13	-10.77
		848.31	-23.34	-13	-10.34
BC1	1xRTT	1851.25	-24.451	-13	-11.451
		1880	-25.625	-13	-12.625
		1908.75	-27.716	-13	-14.716
	EVDO	1851.25	-23.13	-13	-10.13
		1880	-23.701	-13	-10.701
		1908.75	-27.15	-13	-14.15

LTE Band 2

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	20	16QAM	1860	-21.73	-13	-8.73
			1880	-22.69	-13	-9.69
			1900	-21.91	-13	-8.91
		QPSK	1860	-20.906	-13	-7.906
			1880	-21.56	-13	-8.56
			1900	-21.98	-13	-8.98
	15	16QAM	1857.5	-22.632	-13	-9.632
			1880	-22.09	-13	-9.09
			1902.5	-21.062	-13	-8.062
		QPSK	1857.5	-21.924	-13	-8.924
			1880	-21.62	-13	-8.62
			1902.5	-20.857	-13	-7.857
	10	16QAM	1855	-22.434	-13	-9.434
			1880	-22.77	-13	-9.77
			1905	-22.05	-13	-9.05
		QPSK	1855	-22.687	-13	-9.687
			1880	-22.522	-13	-9.522
			1905	-22.57	-13	-9.57
	5	16QAM	1852.5	-22.072	-13	-9.072
			1880	-21.929	-13	-8.929
			1907.5	-22.384	-13	-9.384
		QPSK	1852.5	-22.466	-13	-9.466
			1880	-21.807	-13	-8.807
			1907.5	-22.433	-13	-9.433

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	3	16QAM	1851.5	-22.253	-13	-9.253
			1880	-21.848	-13	-8.848
			1908.5	-21.525	-13	-8.525
		QPSK	1851.5	-22.322	-13	-9.322
			1880	-22.007	-13	-9.007
			1908.5	-22.132	-13	-9.132
	1.4	16QAM	1850.7	-21.576	-13	-8.576
			1880	-22.362	-13	-9.362
			1909.3	-21.612	-13	-8.612
		QPSK	1850.7	-20.726	-13	-7.726
			1880	-21.735	-13	-8.735
			1909.3	-21.977	-13	-8.977

LTE Band 4

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	20	16QAM	1720	-21.79	-13	-8.79
			1732.5	-22.29	-13	-9.29
			1745	-22.36	-13	-9.36
		QPSK	1720	-22.01	-13	-9.01
			1732.5	-20.9	-13	-7.9
			1745	-21.84	-13	-8.84
	15	16QAM	1717.5	-22.32	-13	-9.32
			1732.5	-21.27	-13	-8.27
			1747.5	-21.55	-13	-8.55
		QPSK	1717.5	-22.49	-13	-9.49
			1732.5	-21.43	-13	-8.43
			1747.5	-21.83	-13	-8.83
	10	16QAM	1715	-21.994	-13	-8.994
			1732.5	-21.459	-13	-8.459
			1750	-21.722	-13	-8.722
		QPSK	1715	-22.74	-13	-9.74
			1732.5	-22.61	-13	-9.61
			1750	-22.15	-13	-9.15
	5	16QAM	1712.5	-22.021	-13	-9.021
			1732.5	-21.933	-13	-8.933
			1752.5	-22.472	-13	-9.472
		QPSK	1712.5	-22.091	-13	-9.091
			1732.5	-22.322	-13	-9.322
			1752.5	-22.17	-13	-9.17

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	3	16QAM	1711.5	-20.827	-13	-7.827
			1732.5	-21.126	-13	-8.126
			1753.5	-22.244	-13	-9.244
		QPSK	1711.5	-21.762	-13	-8.762
			1732.5	-22.039	-13	-9.039
			1753.5	-22.586	-13	-9.586
	1.4	16QAM	1710.7	-22.079	-13	-9.079
			1732.5	-22.371	-13	-9.371
			1754.3	-22.631	-13	-9.631
		QPSK	1710.7	-22.446	-13	-9.446
			1732.5	-22.211	-13	-9.211
			1754.3	-22.321	-13	-9.321

LTE Band 5

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE5	10	16QAM	829	-23.13	-13	-10.13
			836.5	-23.08	-13	-10.08
			844	-22.29	-13	-9.29
		QPSK	829	-22.21	-13	-9.21
			836.5	-22.58	-13	-9.58
			844	-21.95	-13	-8.95
	5	16QAM	826.5	-21.859	-13	-8.859
			836.5	-22.71	-13	-9.71
			846.5	-22.25	-13	-9.25
		QPSK	826.5	-22.38	-13	-9.38
			836.5	-21.746	-13	-8.746
			846.5	-22.93	-13	-9.93
	3	16QAM	825.5	-22.598	-13	-9.598
			836.5	-22.802	-13	-9.802
			847.5	-21.415	-13	-8.415
		QPSK	825.5	-22.283	-13	-9.283
			836.5	-22.482	-13	-9.482
			847.5	-22.404	-13	-9.404
	1.4	16QAM	824.7	-22.234	-13	-9.234
			836.5	-23.233	-13	-10.233
			848.3	-21.02	-13	-8.02
		QPSK	824.7	-22.02	-13	-9.02
			836.5	-22.352	-13	-9.352
			848.3	-22.509	-13	-9.509

LTE Band 7

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	20	16QAM	2510	-34.124	-25	-9.124
			2535	-34.101	-25	-9.101
			2560	-33.514	-25	-8.514
		QPSK	2510	-34.032	-25	-9.032
			2535	-34.464	-25	-9.464
			2560	-33.712	-25	-8.712
	15	16QAM	2507.5	-33.915	-25	-8.915
			2535	-34.184	-25	-9.184
			2562.5	-34.065	-25	-9.065
		QPSK	2507.5	-33.308	-25	-8.308
			2535	-33.219	-25	-8.219
			2562.5	-33.272	-25	-8.272
	10	16QAM	2505	-33.778	-25	-8.778
			2535	-34.121	-25	-9.121
			2565	-32.837	-25	-7.837
		QPSK	2505	-34.251	-25	-9.251
			2535	-33.876	-25	-8.876
			2565	-34.246	-25	-9.246
	5	16QAM	2502.5	-33.847	-25	-8.847
			2535	-34.392	-25	-9.392
			2567.5	-33.863	-25	-8.863
		QPSK	2502.5	-33.735	-25	-8.735
			2535	-33.86	-25	-8.86
			2567.5	-34.046	-25	-9.046

LTE Band 12

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE12	10	16QAM	704	-22.67	-13	-9.67
			707.5	-22.71	-13	-9.71
			711	-22.957	-13	-9.957
		QPSK	704	-22.667	-13	-9.667
			707.5	-22.262	-13	-9.262
			711	-22.159	-13	-9.159
	5	16QAM	701.5	-22.875	-13	-9.875
			707.5	-23.216	-13	-10.216
			713.5	-22.718	-13	-9.718
		QPSK	701.5	-22.274	-13	-9.274
			707.5	-21.895	-13	-8.895
			713.5	-22.54	-13	-9.54
	3	16QAM	700.5	-22.972	-13	-9.972
			707.5	-22.077	-13	-9.077
			714.5	-23.162	-13	-10.162
		QPSK	700.5	-23.213	-13	-10.213
			707.5	-22.403	-13	-9.403
			714.5	-22.559	-13	-9.559
	1.4	16QAM	699.7	-22.67	-13	-9.67
			707.5	-23.161	-13	-10.161
			715.3	-22.303	-13	-9.303
		QPSK	699.7	-21.676	-13	-8.676
			707.5	-22.971	-13	-9.971
			715.3	-22.544	-13	-9.544

LTE Band 13

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE13	10	16QAM	782	-22.73	-13	-9.73
			782	-22.73	-13	-9.73
			782	-22.73	-13	-9.73
		QPSK	782	-22.08	-13	-9.08
			782	-22.08	-13	-9.08
			782	-22.08	-13	-9.08
	5	16QAM	779.5	-23.172	-13	-10.172
			785	-22.274	-13	-9.274
			784.5	-22.721	-13	-9.721
		QPSK	779.5	-21.612	-13	-8.612
			785	-22.443	-13	-9.443
			784.5	-22.314	-13	-9.314

LTE Band 17

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE17	10	16QAM	709	-28.63	-13	-15.63
			710	-28.45	-13	-15.45
			711	-28.84	-13	-15.84
		QPSK	709	-27.91	-13	-14.91
			710	-28.35	-13	-15.35
			711	-28.63	-13	-15.63
	5	16QAM	706.5	-27.89	-13	-14.89
			710	-28.24	-13	-15.24
			713.5	-28.10	-13	-15.10
		QPSK	706.5	-29.00	-13	-16.00
			710	-28.49	-13	-15.49
			713.5	-27.96	-13	-14.96

LTE Band 25

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE25	20	16QAM	1860	-28.5	-13	-15.5
			1882.5	-28.32	-13	-15.32
			1905	-28.45	-13	-15.45
		QPSK	1860	-27.73	-13	-14.73
			1882.5	-27.74	-13	-14.74
			1905	-28.4	-13	-15.4
	15	16QAM	1857.5	-28.05	-13	-15.05
			1882.5	-27.41	-13	-14.41
			1907.5	-27.96	-13	-14.96
		QPSK	1857.5	-28.3	-13	-15.3
			1882.5	-27.03	-13	-14.03
			1907.5	-28.03	-13	-15.03
	10	16QAM	1855	-27.36	-13	-14.36
			1882.5	-28.57	-13	-15.57
			1910	-27.65	-13	-14.65
		QPSK	1855	-28.39	-13	-15.39
			1882.5	-28.26	-13	-15.26
			1910	-27.74	-13	-14.74
	5	16QAM	1852.5	-27.06	-13	-14.06
			1882.5	-28.13	-13	-15.13
			1912.5	-28.39	-13	-15.39
		QPSK	1852.5	-28.27	-13	-15.27
			1882.5	-27.53	-13	-14.53
			1912.5	-27.66	-13	-14.66

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE25	3	16QAM	1851.5	-27.93	-13	-14.93
			1882.5	-28.44	-13	-15.44
			1913.5	-27.90	-13	-14.90
		QPSK	1851.5	-27.85	-13	-14.85
			1882.5	-27.89	-13	-14.89
			1913.5	-27.22	-13	-14.22
	1.4	16QAM	1850.7	-27.42	-13	-14.42
			1882.5	-27.65	-13	-14.65
			1914.3	-28.05	-13	-15.05
		QPSK	1850.7	-24.44	-13	-11.44
			1882.5	-28.23	-13	-15.23
			1914.3	-27.56	-13	-14.56

LTE Band 26

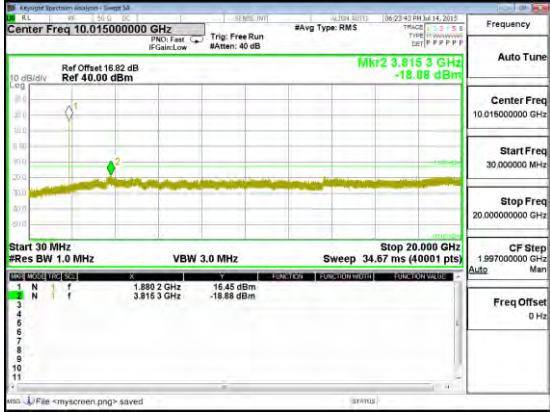
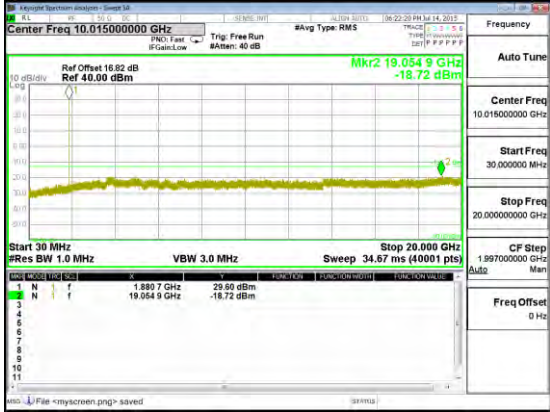
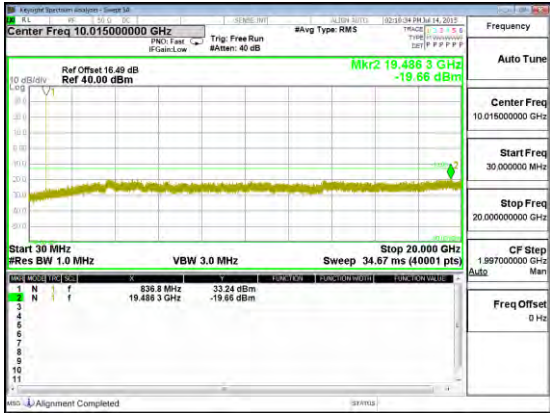
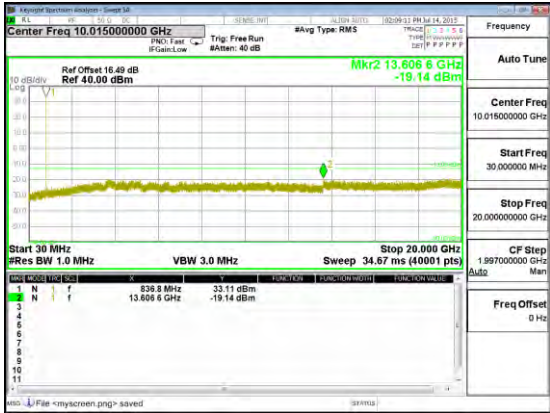
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE26	15	16QAM	831.5	-21.60	-13	-8.60
			836.5	-23.96	-13	-10.96
			841.5	-22.53	-13	-9.53
		QPSK	831.5	-22.18	-13	-9.18
			836.5	-24.75	-13	-11.75
			841.5	-22.37	-13	-9.37
	10	16QAM	819	-22.72	-13	-9.72
			831.5	-22.29	-13	-9.29
			844	-22.03	-13	-9.03
		QPSK	819	-22.55	-13	-9.55
			831.5	-22.90	-13	-9.90
			844	-22.17	-13	-9.17
	5	16QAM	816.5	-21.72	-13	-8.72
			831.5	-22.30	-13	-9.30
			846.5	-22.95	-13	-9.95
		QPSK	816.5	-22.48	-13	-9.48
			831.5	-23.30	-13	-10.30
			846.5	-22.74	-13	-9.74
	3	16QAM	815.5	-22.24	-13	-9.24
			831.5	-22.15	-13	-9.15
			847.5	-21.74	-13	-8.74
		QPSK	815.5	-21.85	-13	-8.85
			831.5	-22.57	-13	-9.57
			847.5	-22.65	-13	-9.65
	1.4	16QAM	814.7	-22.04	-13	-9.04
			831.5	-22.57	-13	-9.57
			848.3	-22.40	-13	-9.40
		QPSK	814.7	-22.51	-13	-9.51
			831.5	-22.60	-13	-9.60
			848.3	-23.15	-13	-10.15

LTE Band 41

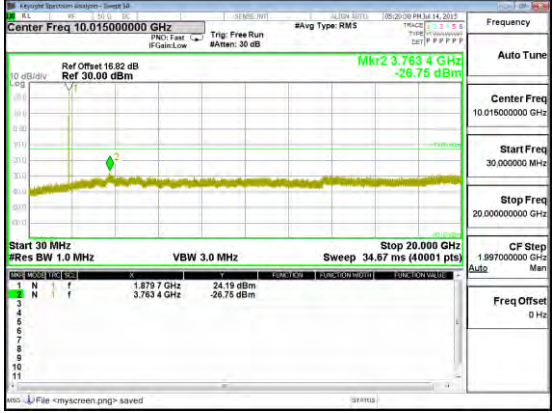
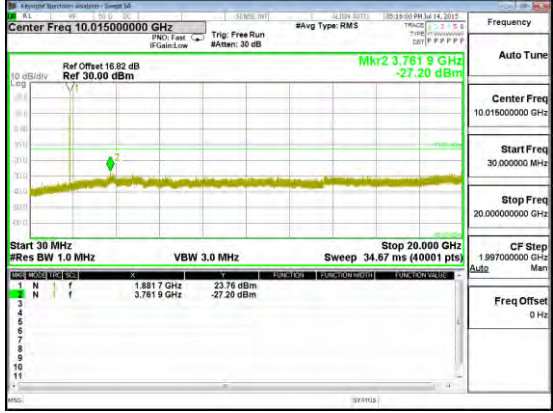
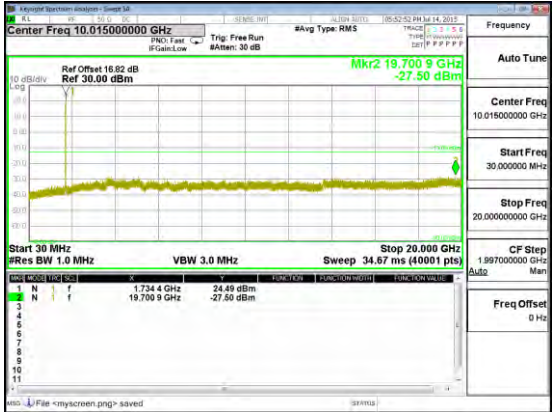
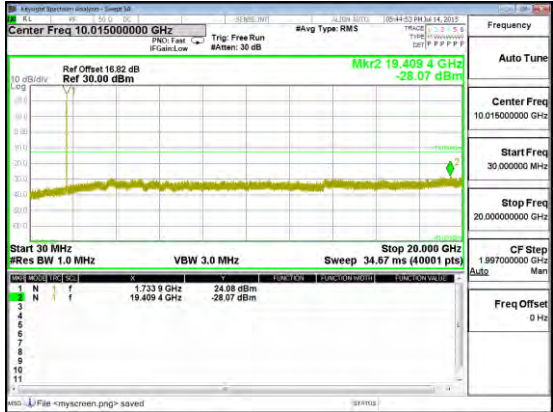
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE41	20	16QAM	2506	-33.49	-25	-8.49
			2593	-34.31	-25	-9.31
			2680	-34.01	-25	-9.01
		QPSK	2506	-34.38	-25	-9.38
			2593	-33.85	-25	-8.85
			2680	-33.90	-25	-8.90
	15	16QAM	2503.5	-33.07	-25	-8.07
			2593	-34.10	-25	-9.10
			2682.5	-33.95	-25	-8.95
		QPSK	2503.5	-34.38	-25	-9.38
			2593	-33.74	-25	-8.74
			2682.5	-33.64	-25	-8.64
	10	16QAM	2501	-32.55	-25	-7.55
			2593	-34.57	-25	-9.57
			2685	-33.68	-25	-8.68
		QPSK	2501	-33.54	-25	-8.54
			2593	-33.30	-25	-8.30
			2685	-34.09	-25	-9.09
	5	16QAM	2498.5	-33.94	-25	-8.94
			2593	-33.75	-25	-8.75
			2687.5	-33.67	-25	-8.67
		QPSK	2498.5	-33.32	-25	-8.32
			2593	-33.78	-25	-8.78
			2687.5	-33.18	-25	-8.18

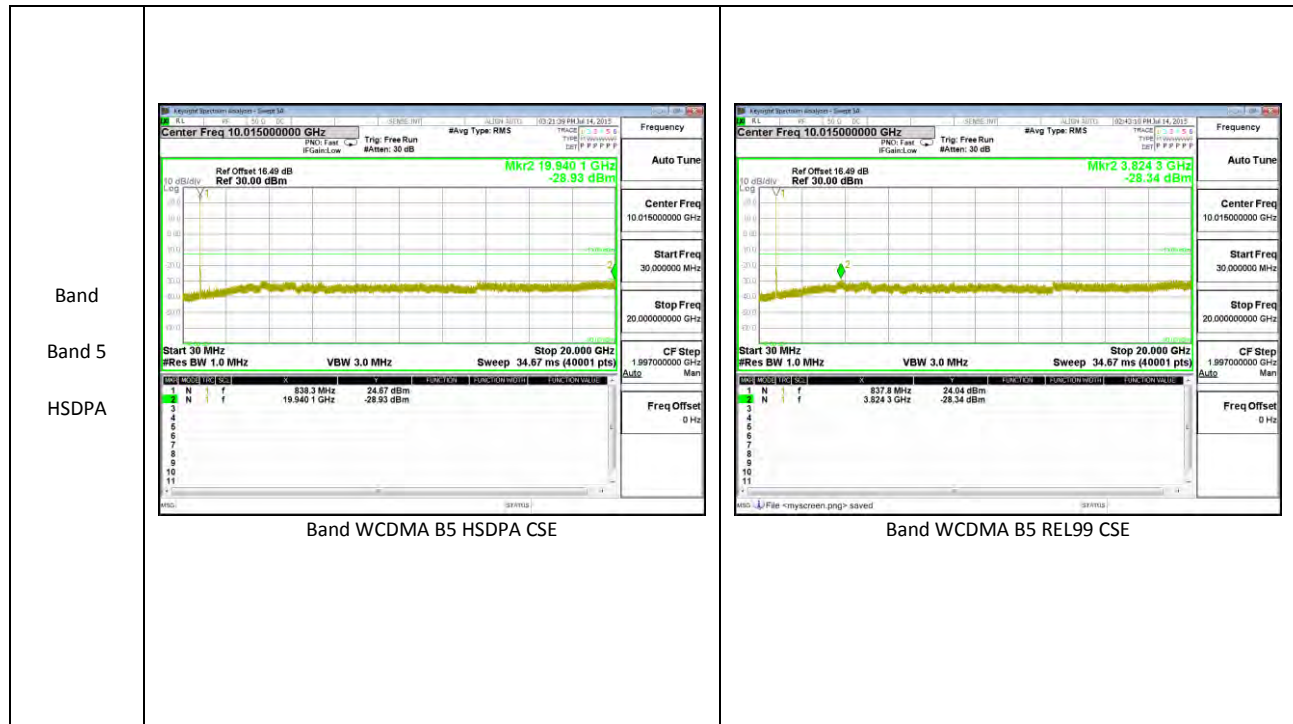
10.3.2. OUT OF BAND EMISSIONS PLOTS

GSM

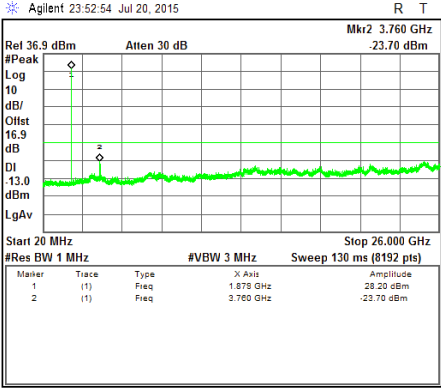
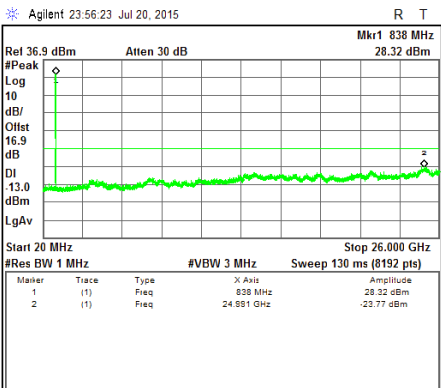
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Band GSM850 EGPRS	 Band GSM850 EGPRS CSE Mid channel	 Band GSM850 GPRS CSE Mid channel

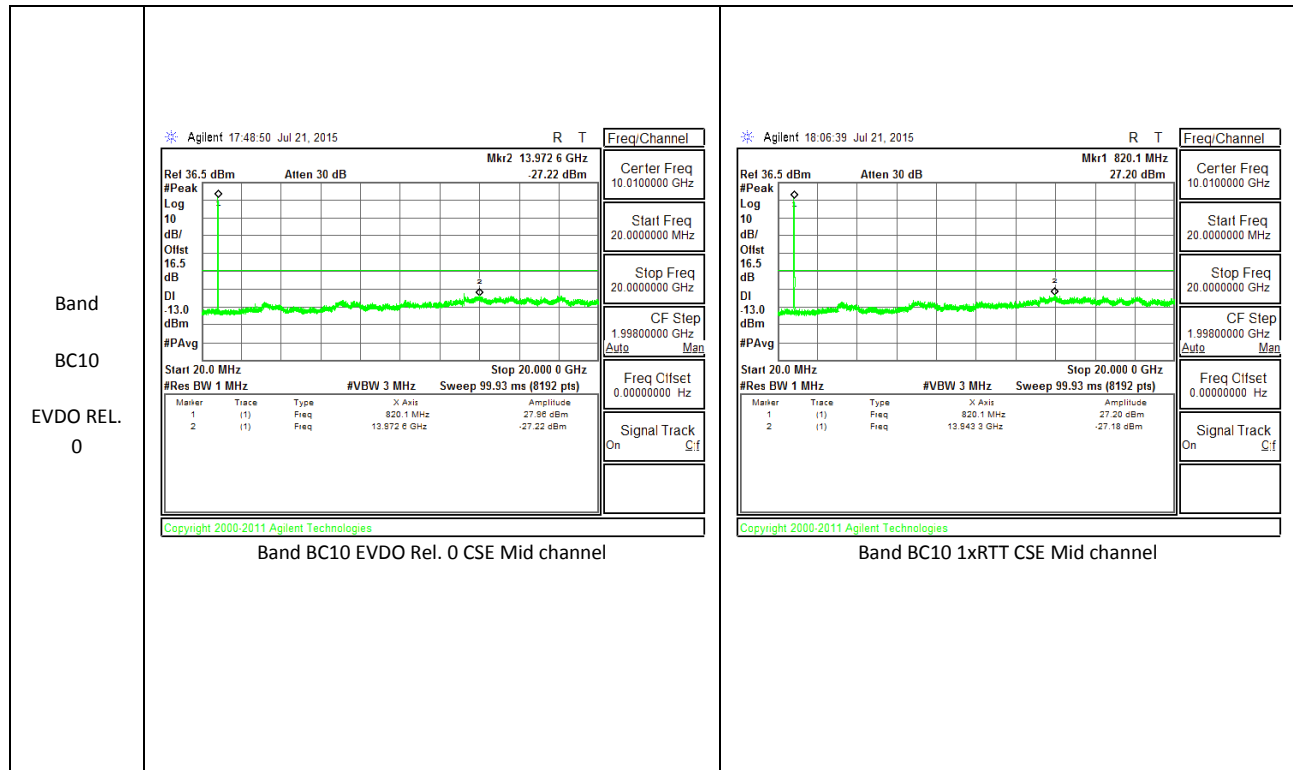
WCDMA

Band Band 2 HSDPA	 Band WCDMA B2 HSDPA CSE	 Band WCDMA B2 REL99 CSE
Band Band 4 HSDPA	 Band WCDMA B4 HSDPA CSE	 Band WCDMA B4 REL99 CSE



CDMA

Band BC1 EVDO REL. 0	Agilent 23:52:54 Jul 20, 2015  Rel 36.9 dBm Atten 30 dB Mkr2 3.760 GHz -23.70 dBm Start 20 MHz Stop 26.000 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 3.760 GHz -23.70 dBm 2 (1) Freq 3.760 GHz -23.70 dBm Copyright 2000-2011 Agilent Technologies Band BC1 EVDO Rel. 0 CSE Mid channel	 Rel Offset 16.9 dB Ref 30.00 dBm Mkr1 1.879 GHz -26.130 dBm Start 20 MHz Stop 26.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* #Sweep 26.67 ms (40001 pts) Marker Trace Type X Axis Amplitude 1 N f 1.879 GHz -26.130 dBm 2 N f 3.759 GHz -26.625 dBm Copyright 2000-2011 Agilent Technologies Band BC1 1xRTT CSE Mid channel
Band BC0 EVDO REL. 0	Agilent 23:56:23 Jul 20, 2015  Rel 36.9 dBm Atten 30 dB Mkr1 838 MHz -23.77 dBm Start 20 MHz Stop 26.000 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 838 MHz -23.77 dBm 2 (1) Freq 24.991 GHz -23.77 dBm Copyright 2000-2011 Agilent Technologies Band BC0 EVDO Rel. 0 CSE Mid channel	 Rel Offset 16.9 dB Ref 30.00 dBm Mkr2 25.651 GHz -27.012 dBm Start 20 MHz Stop 26.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* #Sweep 26.67 ms (40001 pts) Marker Trace Type X Axis Amplitude 1 N f 838.4 MHz -25.163 dBm 2 N f 25.651 GHz -27.012 dBm Copyright 2000-2011 Agilent Technologies Band BC0 1xRTT CSE Mid channel



LTE Band 2

Band LTE2 20MHz 16QAM	Agilent 22:22:08 Jul 9, 2015 Ref 22 dBm *Peak Log 10 dB/ Offst 26.9 dB DI -13.0 dBm *PAvg Mkr2 25.036 GHz -22.69 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Center 13.015 GHz *Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Freq Offset 0.00000000 Hz Marker Trace Type X Axis Amplitude 1 (1) Freq 25.036 GHz -22.69 dBm Signal Track On Off File Operation Status: C:PICTURE.6IF file saved Band LTE2 20MHz CSE 16QAM Mid channel	Agilent 22:21:41 Jul 9, 2015 Ref 22 dBm *Peak Log 10 dB/ Offst 26.9 dB DI -13.0 dBm *PAvg Mkr2 24.976 GHz -21.56 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Center 13.015 GHz *Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Freq Offset 0.00000000 Hz Marker Trace Type X Axis Amplitude 1 (1) Freq 24.976 GHz -21.56 dBm Signal Track On Off File Operation Status: C:PICTURE.6IF file saved Band LTE2 20MHz CSE QPSK Mid channel
Band LTE2 15MHz 16QAM	Agilent 22:18:50 Jul 9, 2015 Ref 22 dBm *Peak Log 10 dB/ Offst 26.9 dB DI -13.0 dBm *PAvg Mkr2 24.982 GHz -22.09 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Center 13.015 GHz *Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Freq Offset 0.00000000 Hz Marker Trace Type X Axis Amplitude 1 (1) Freq 24.982 GHz -22.09 dBm Signal Track On Off File Operation Status: C:PICTURE.6IF file saved Band LTE2 15MHz CSE 16QAM Mid channel	Agilent 22:18:23 Jul 9, 2015 Ref 22 dBm *Peak Log 10 dB/ Offst 26.9 dB DI -13.0 dBm *PAvg Mkr2 24.928 GHz -21.62 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Center 13.015 GHz *Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Freq Offset 0.00000000 Hz Marker Trace Type X Axis Amplitude 1 (1) Freq 24.928 GHz -21.62 dBm Signal Track On Off File Operation Status: C:PICTURE.6IF file saved Band LTE2 15MHz CSE QPSK Mid channel

Band LTE2 10MHz 16QAM	* Agilent 22:15:08 Jul 9, 2015 R T Freq/Channel Ref 22 dBm #Peak #Atten 22 dB Mkr2 24.985 GHz -22.77 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.53700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Center 13.015 GHz Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 1.875 GHz 27.25 dBm 2 (1) Freq 24.985 GHz -22.77 dBm File Operation Status: C:PICTURE.0IF file saved Band LTE2 10MHz CSE 16QAM Mid channel	* Agilent 22:14:41 Jul 9, 2015 R T Freq/Channel Ref 22 dBm #Peak #Atten 22 dB Mkr2 24.865 GHz -22.52 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.53700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Center 13.015 GHz Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 1.875 GHz 26.98 dBm 2 (1) Freq 24.865 GHz -22.52 dBm File Operation Status: C:PICTURE.0IF file saved Band LTE2 10MHz CSE QPSK Mid channel
Band LTE2 5MHz 16QAM	* Agilent 22:12:00 Jul 9, 2015 R T Freq/Channel Ref 22 dBm #Peak #Atten 22 dB Mkr2 24.992 GHz -21.93 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.53700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Center 13.015 GHz Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 1.878 GHz 27.95 dBm 2 (1) Freq 24.992 GHz -21.93 dBm File Operation Status: C:PICTURE.0IF file saved Band LTE2 5MHz CSE 16QAM Mid channel	* Agilent 22:11:36 Jul 9, 2015 R T Freq/Channel Ref 22 dBm #Peak #Atten 22 dB Mkr2 25.036 GHz -21.81 dBm Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.53700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Center 13.015 GHz Res BW 1 MHz VBW 3 MHz Sweep 130 ms (8192 pts) Marker Trace Type X Axis Amplitude 1 (1) Freq 1.878 GHz 28.24 dBm 2 (1) Freq 25.036 GHz -21.81 dBm File Operation Status: C:PICTURE.0IF file saved Band LTE2 5MHz CSE QPSK Mid channel

Band LTE2 3MHz CSE 16QAM Mid channel

Agilent 22:09:01 Jul 9, 2015

Center Freq 13.0150000 GHz

Start Freq 30.0000000 MHz

Stop Freq 26.0000000 GHz

CF Step 2.59700000 GHz

Freq Offset 0.00000000 Hz

Signal Track Off

File Operation Status, C:PICTURE.6IF file saved

Band LTE2 3MHz CSE QPSK Mid channel

Agilent 22:08:36 Jul 9, 2015

Center Freq 13.0150000 GHz

Start Freq 30.0000000 MHz

Stop Freq 26.0000000 GHz

CF Step 2.59700000 GHz

Freq Offset 0.00000000 Hz

Signal Track Off

File Operation Status, C:PICTURE.6IF file saved

Band LTE2 1.4MHz CSE 16QAM Mid channel

Agilent 22:06:01 Jul 9, 2015

Center Freq 13.0150000 GHz

Start Freq 30.0000000 MHz

Stop Freq 26.0000000 GHz

CF Step 2.59700000 GHz

Freq Offset 0.00000000 Hz

Signal Track Off

File Operation Status, C:PICTURE.6IF file saved

Band LTE2 1.4MHz CSE QPSK Mid channel

Agilent 22:05:36 Jul 9, 2015

Center Freq 13.0150000 GHz

Start Freq 30.0000000 MHz

Stop Freq 26.0000000 GHz

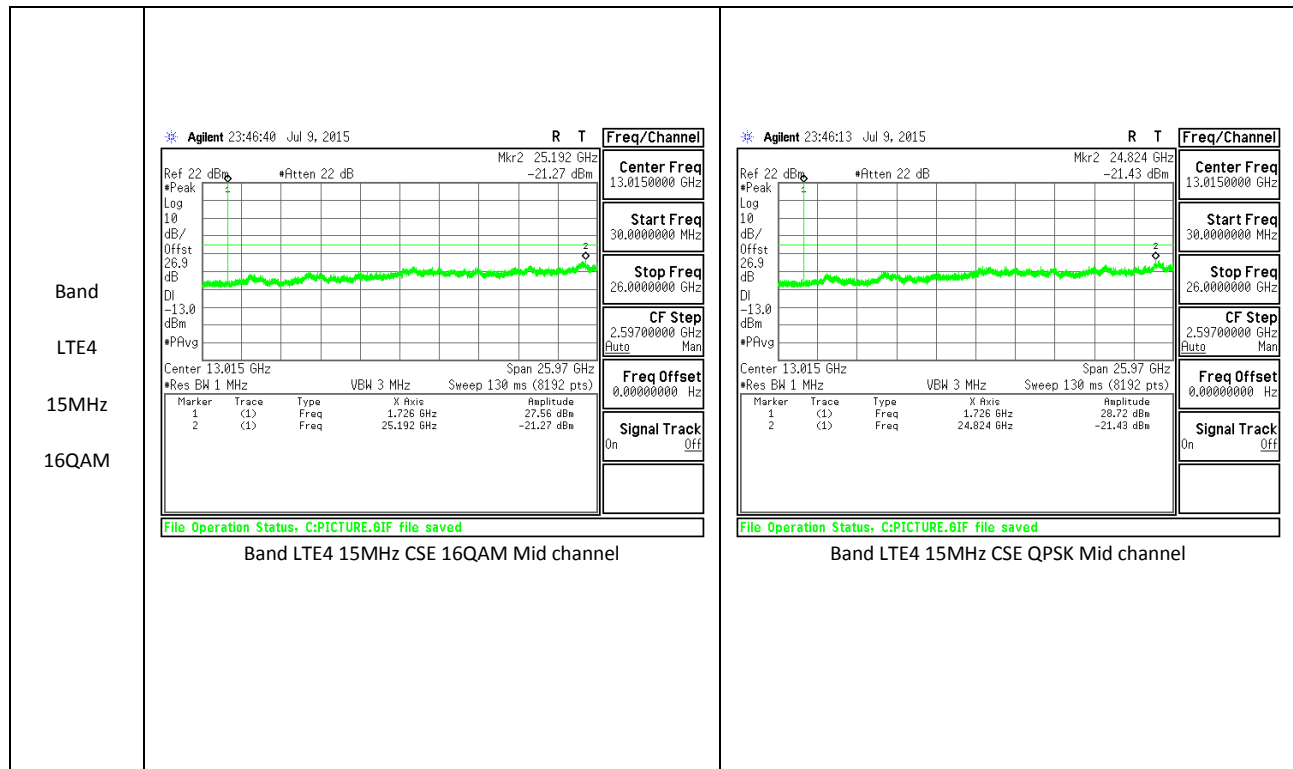
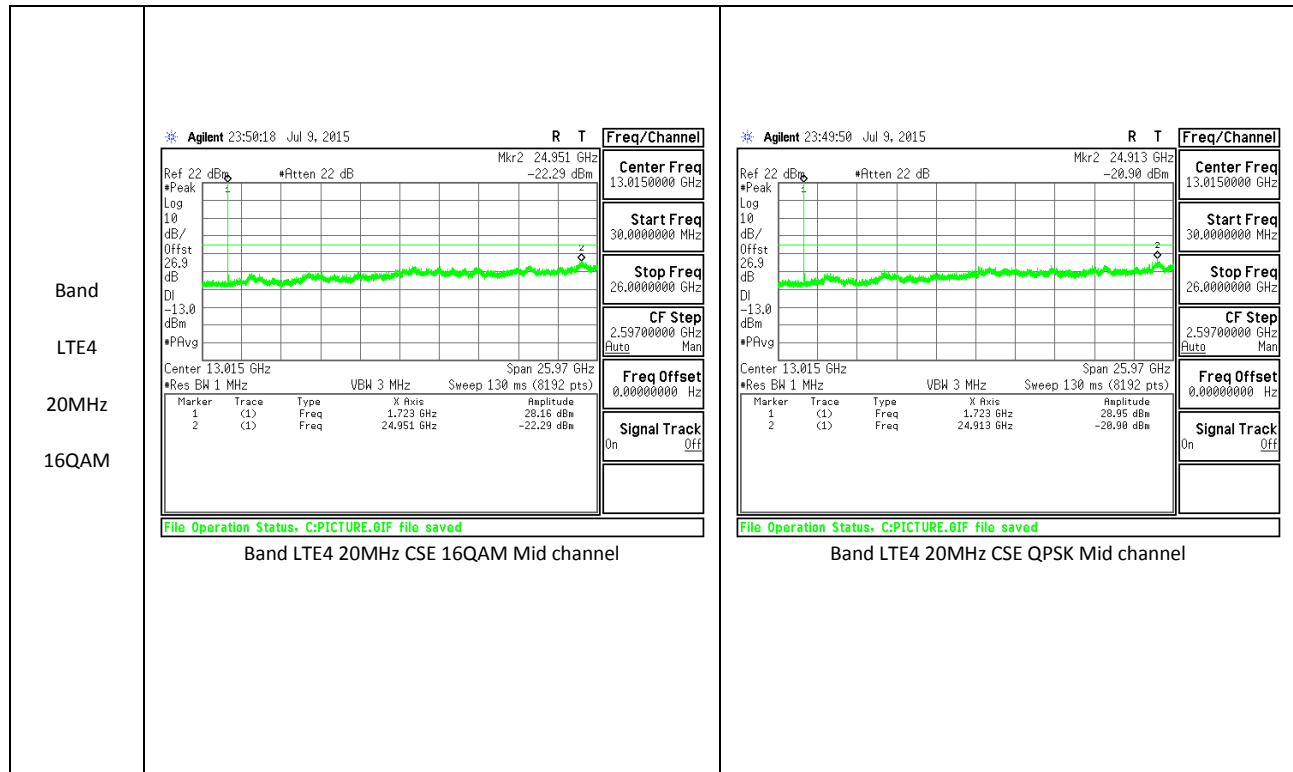
CF Step 2.59700000 GHz

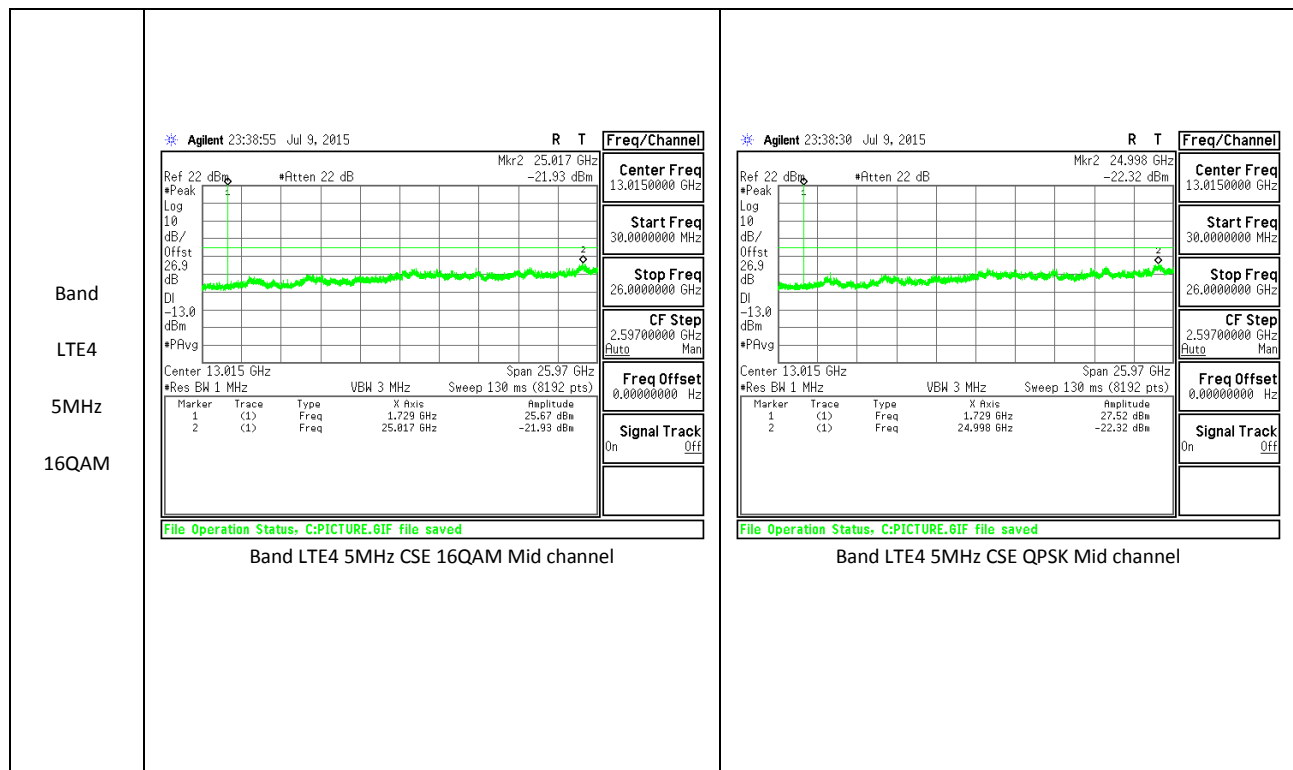
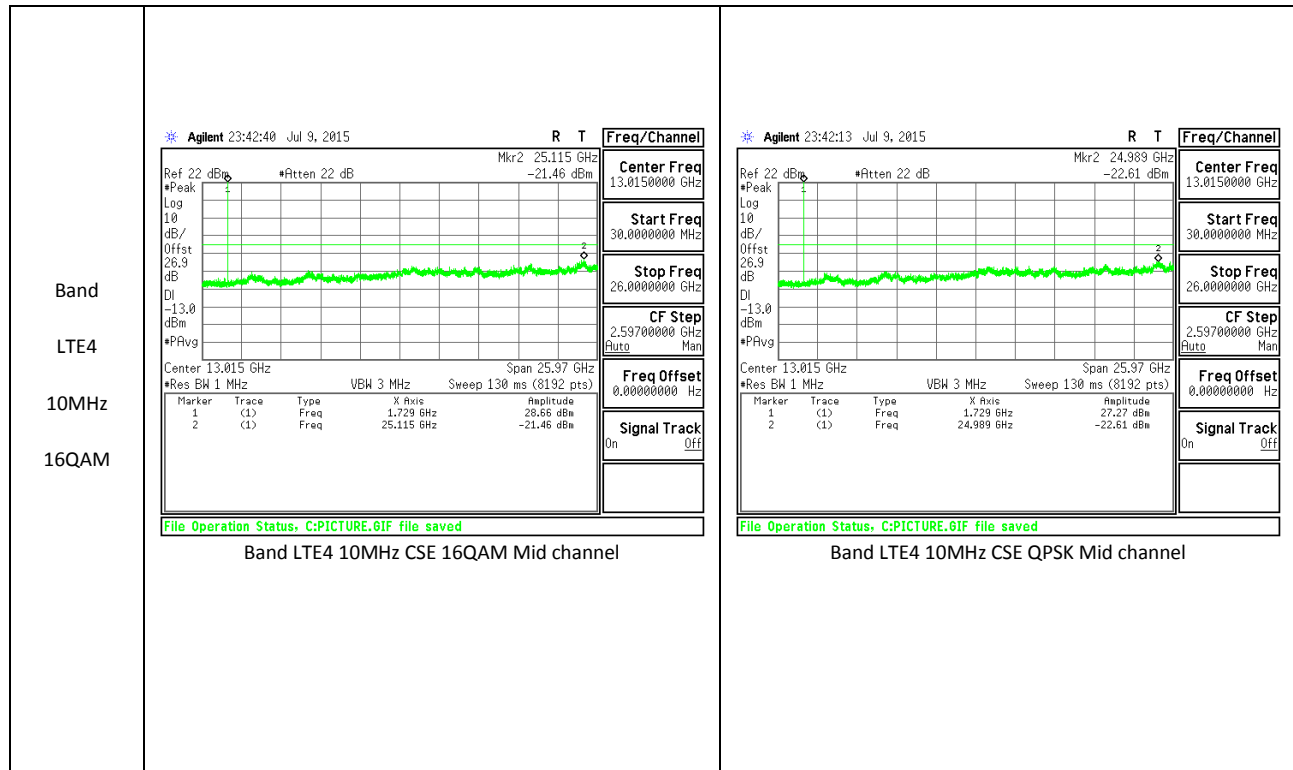
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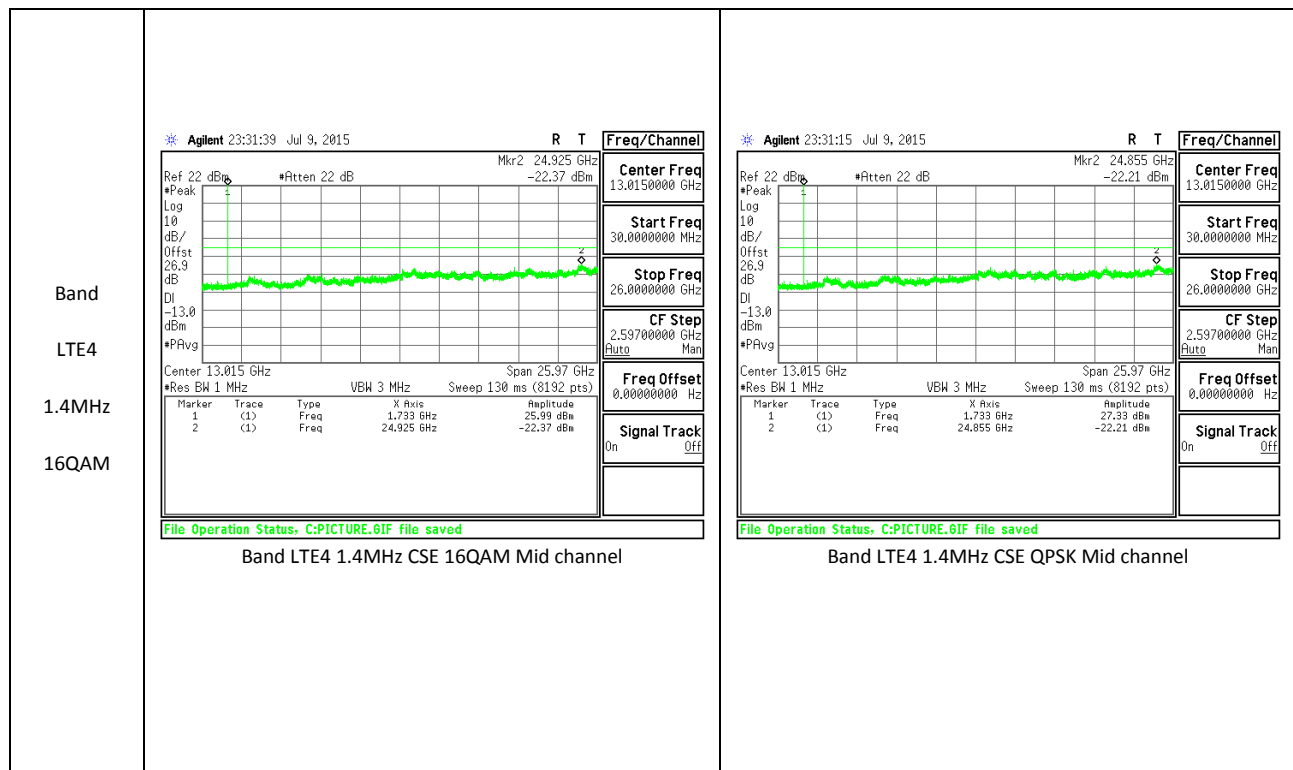
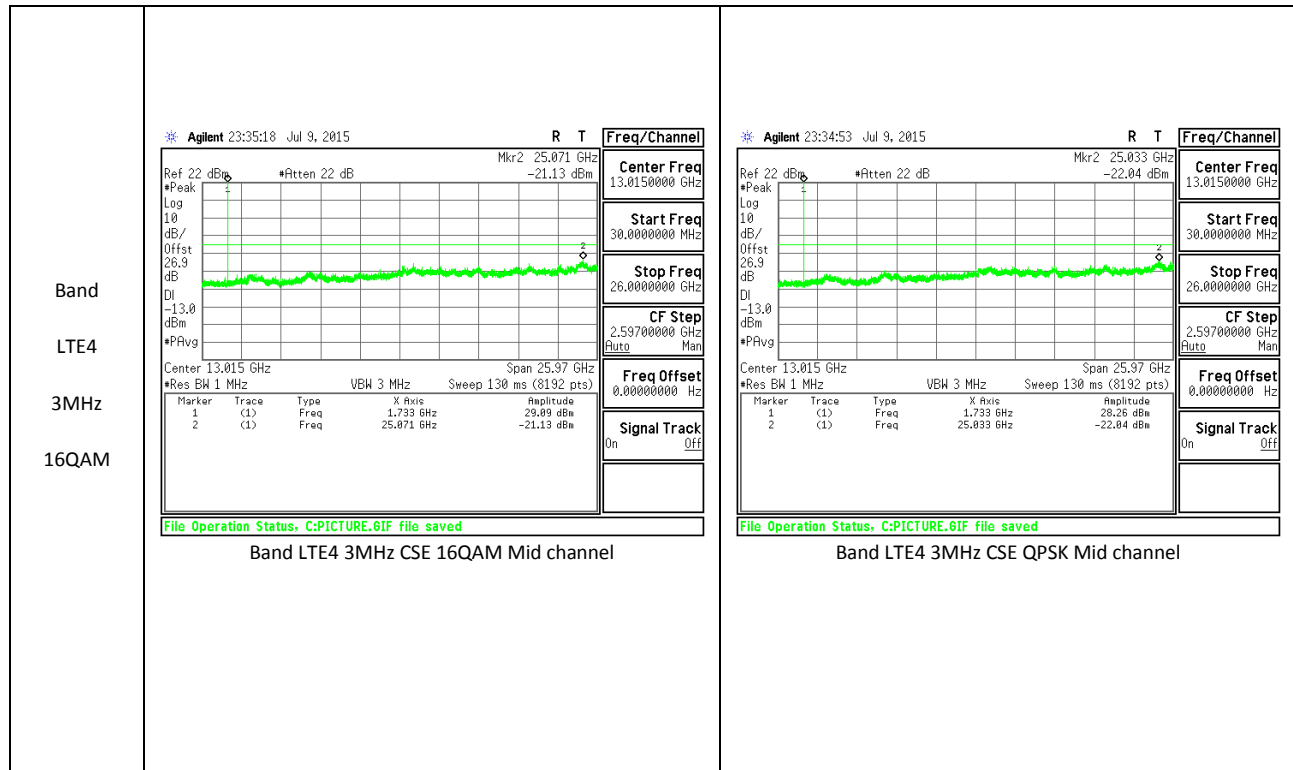
Signal Track Off

File Operation Status, C:PICTURE.6IF file saved

LTE Band 4





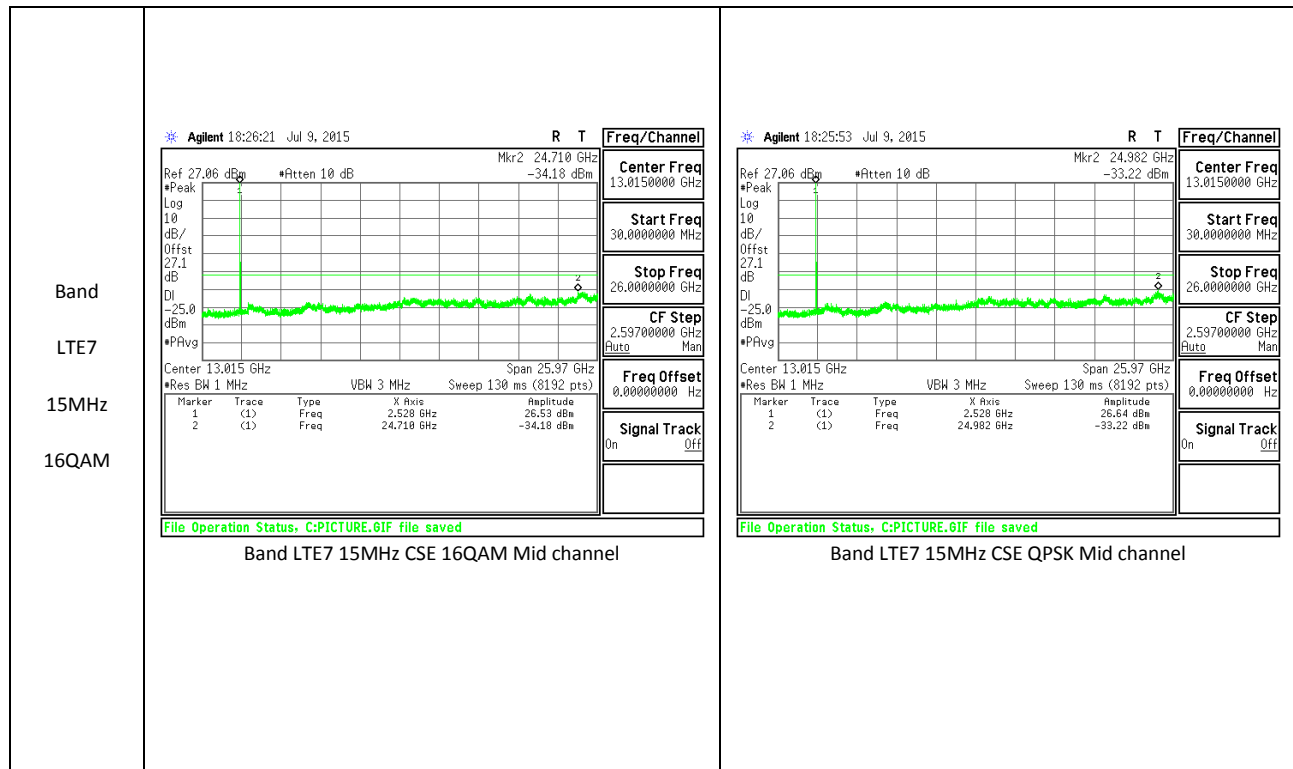
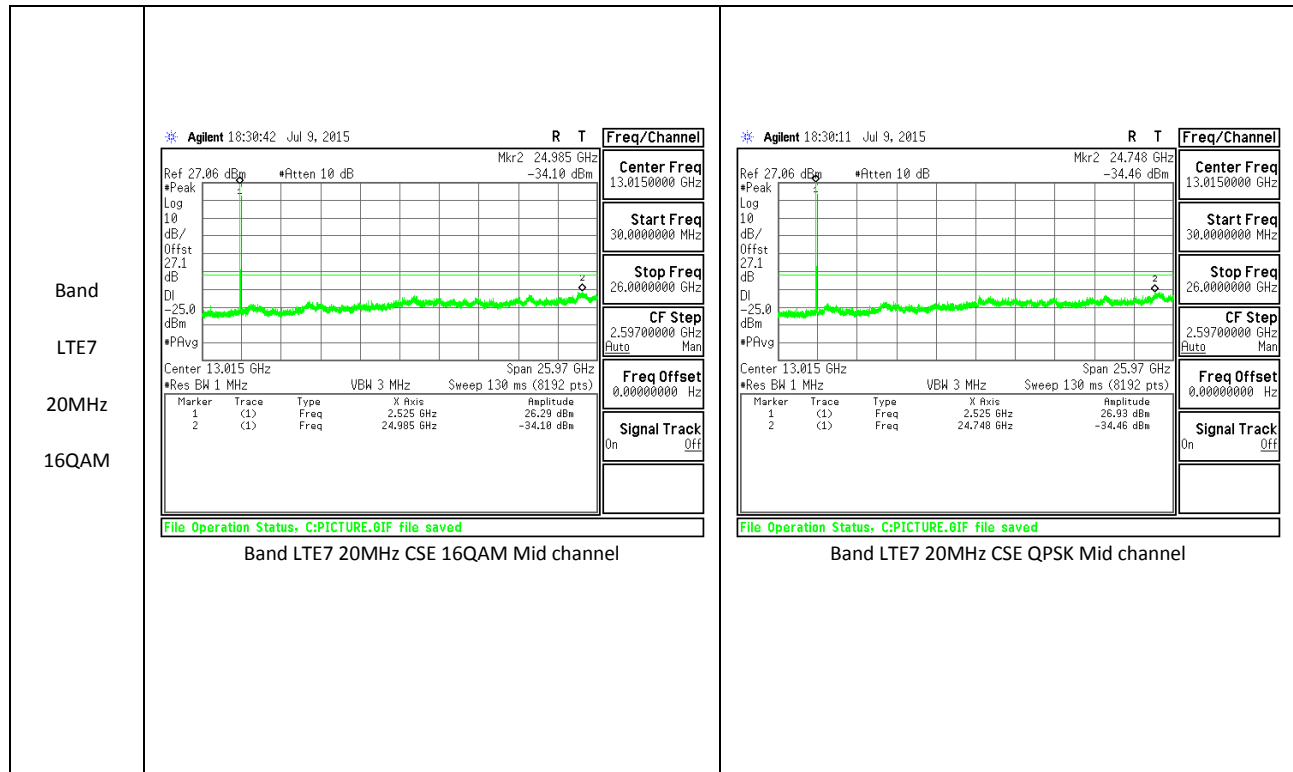


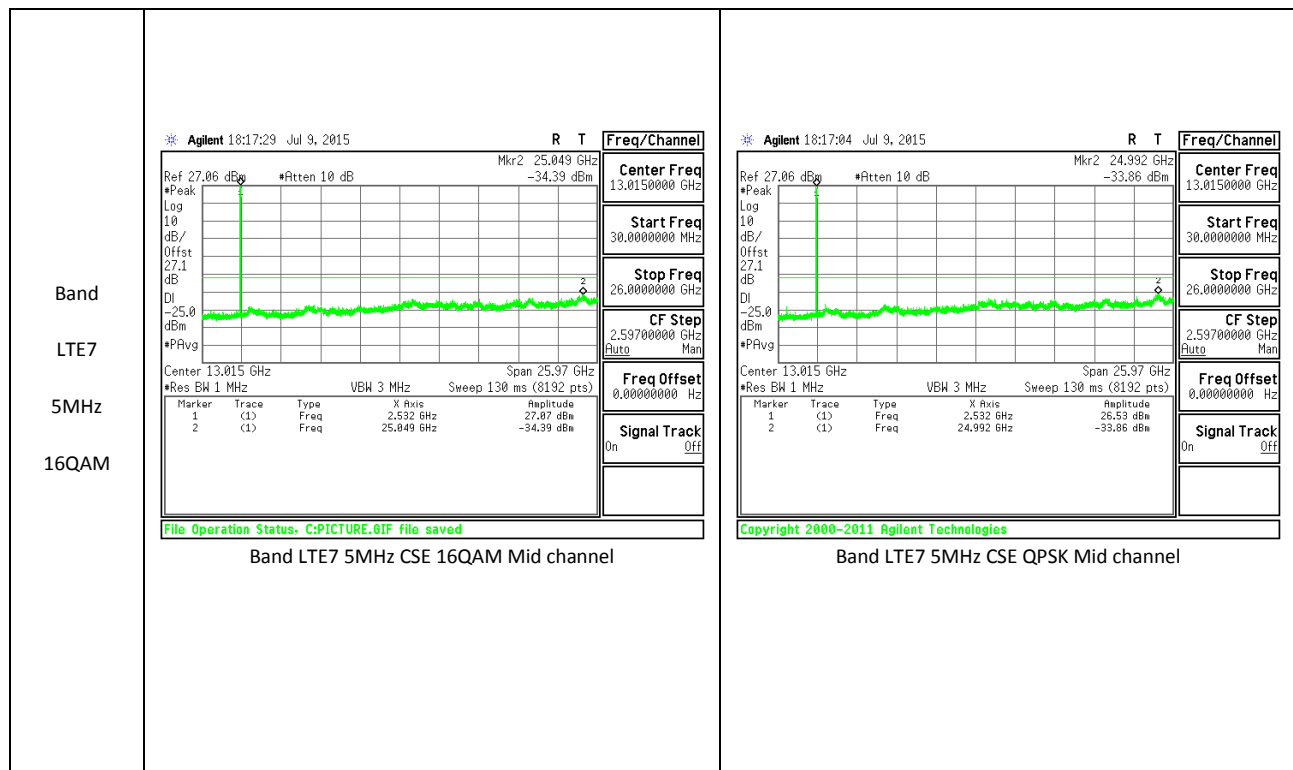
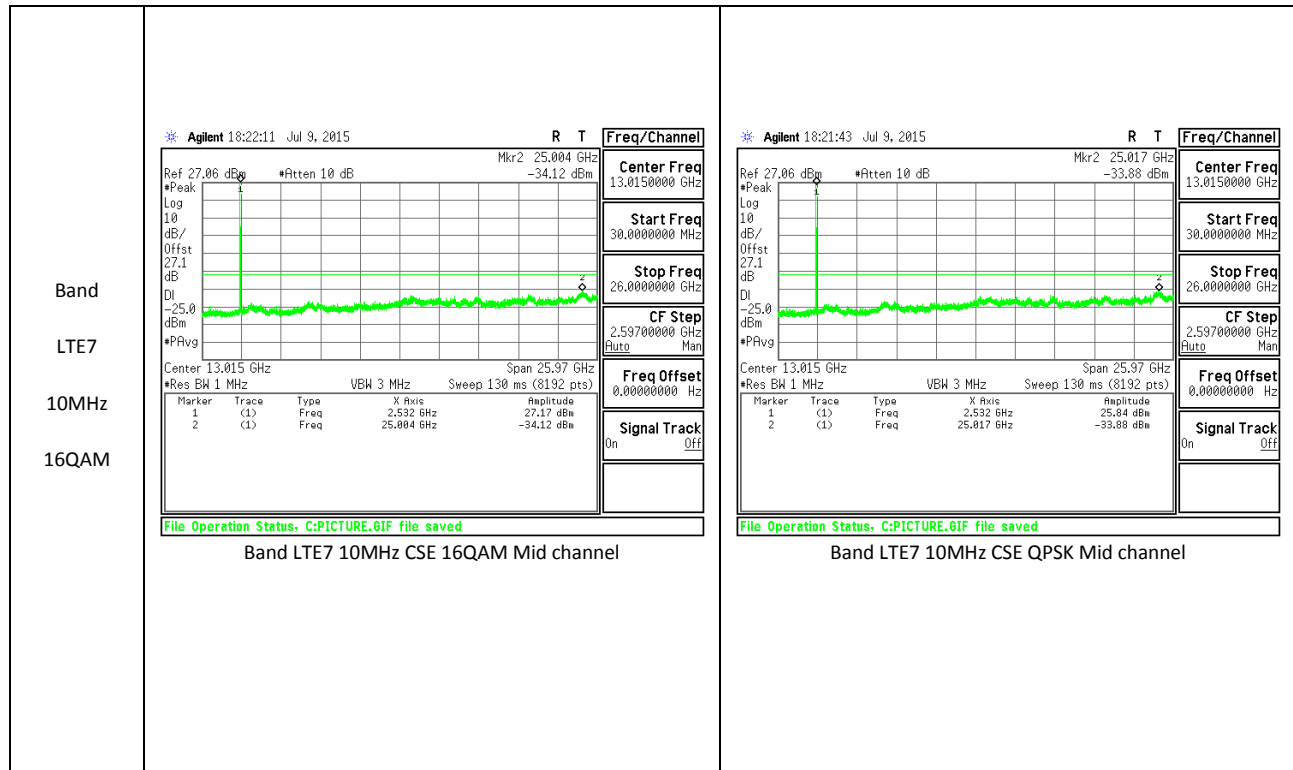
LTE Band 5



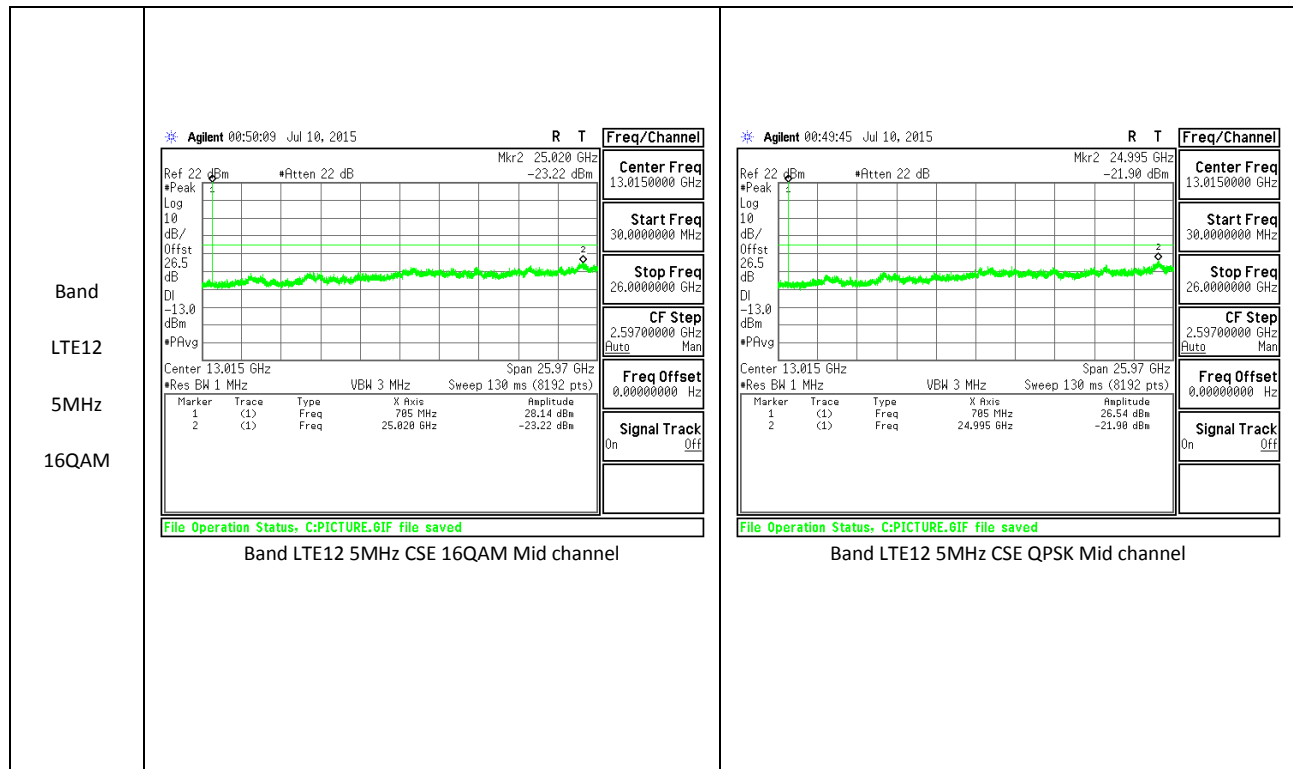
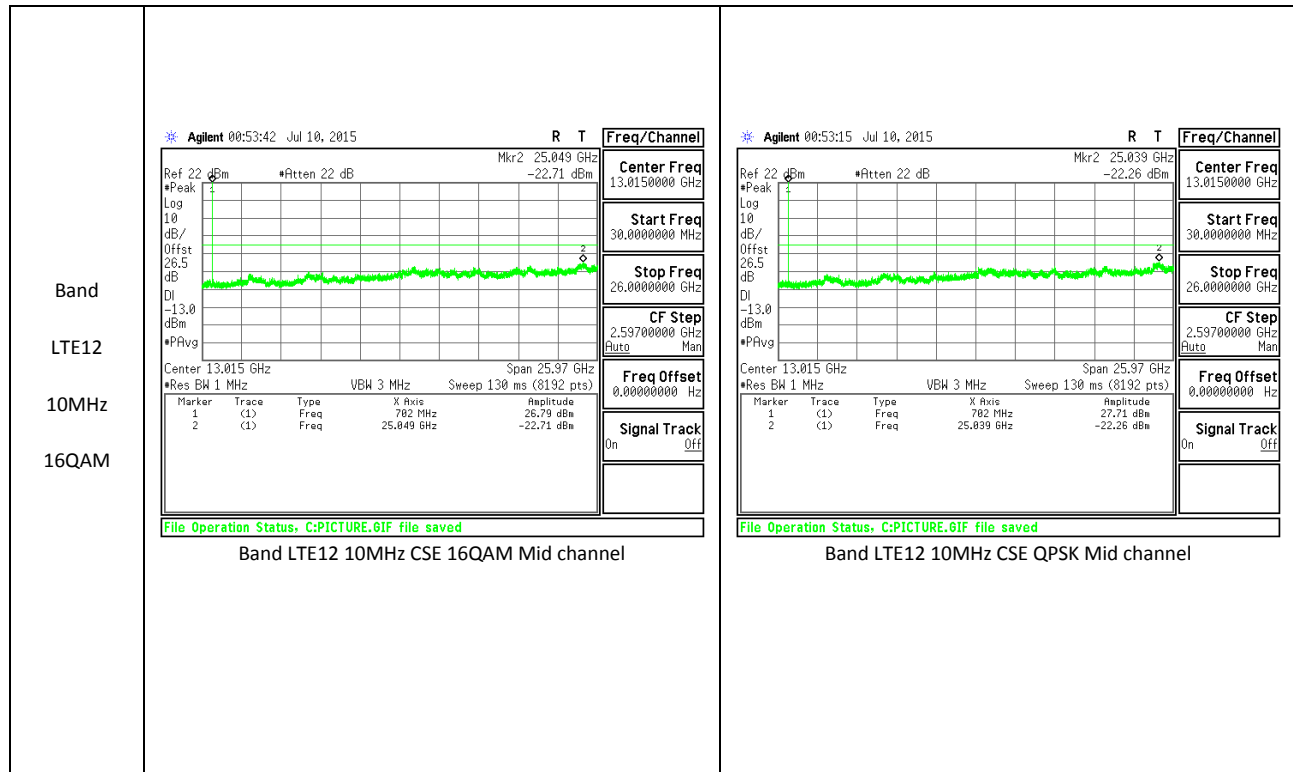


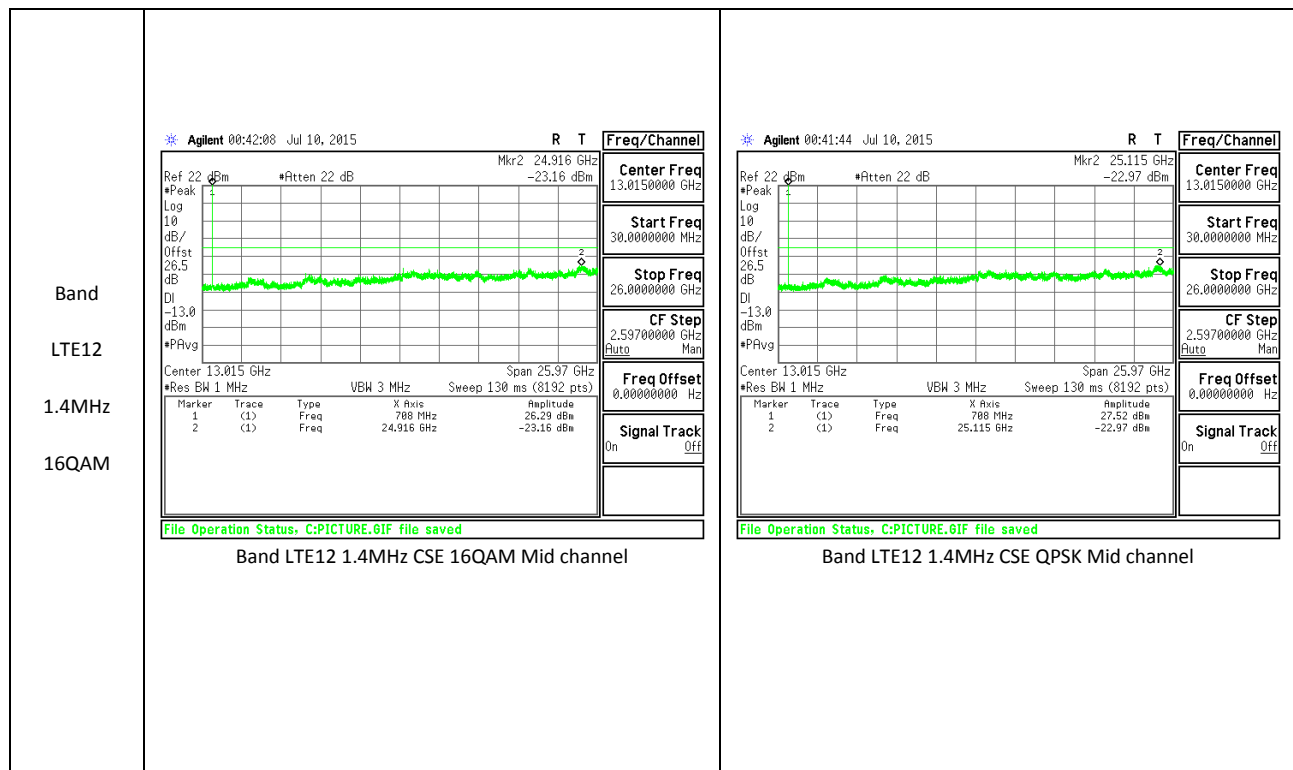
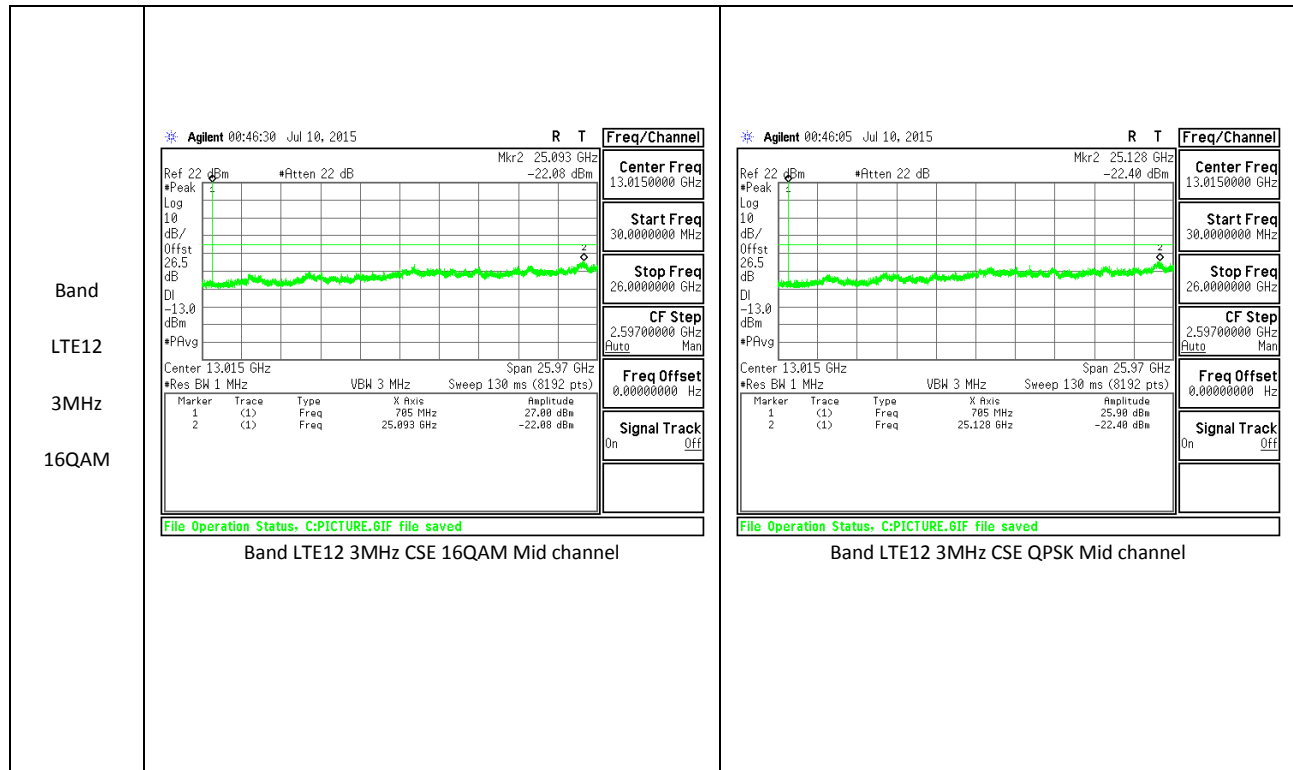
LTE Band 7



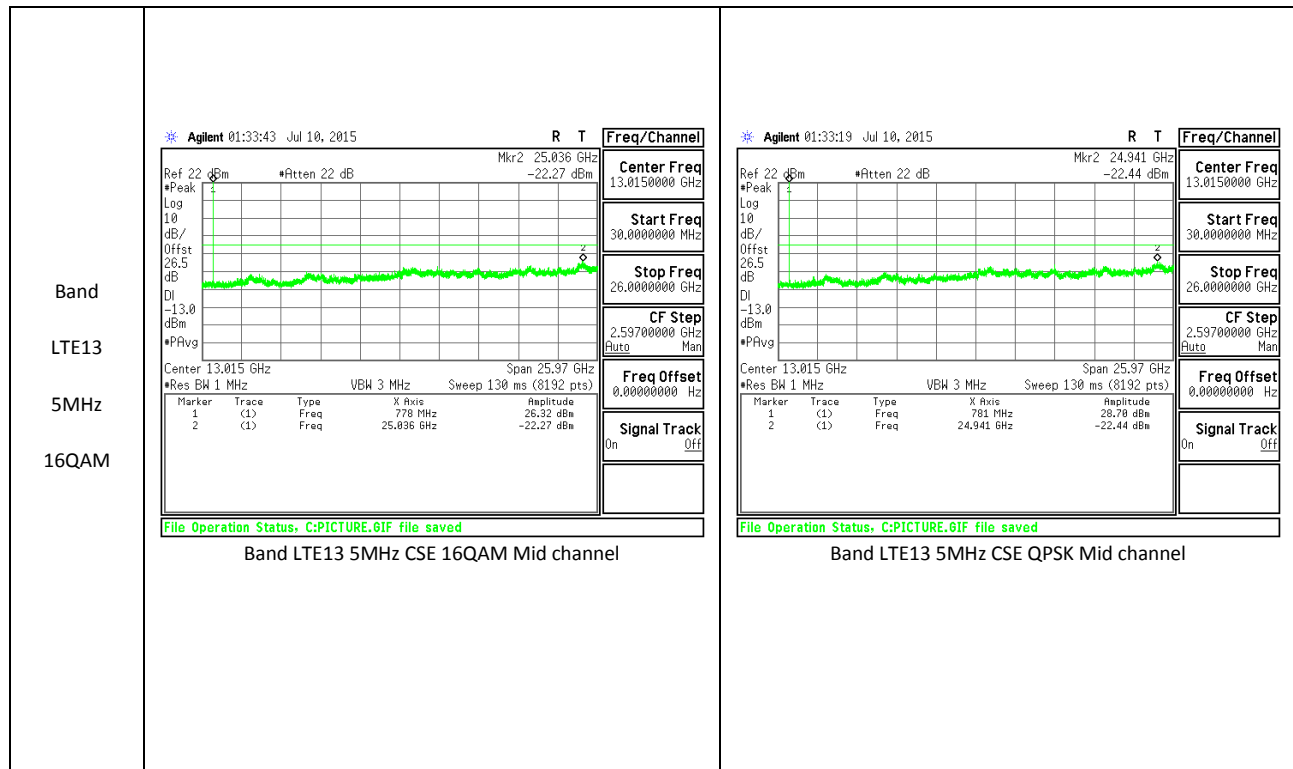
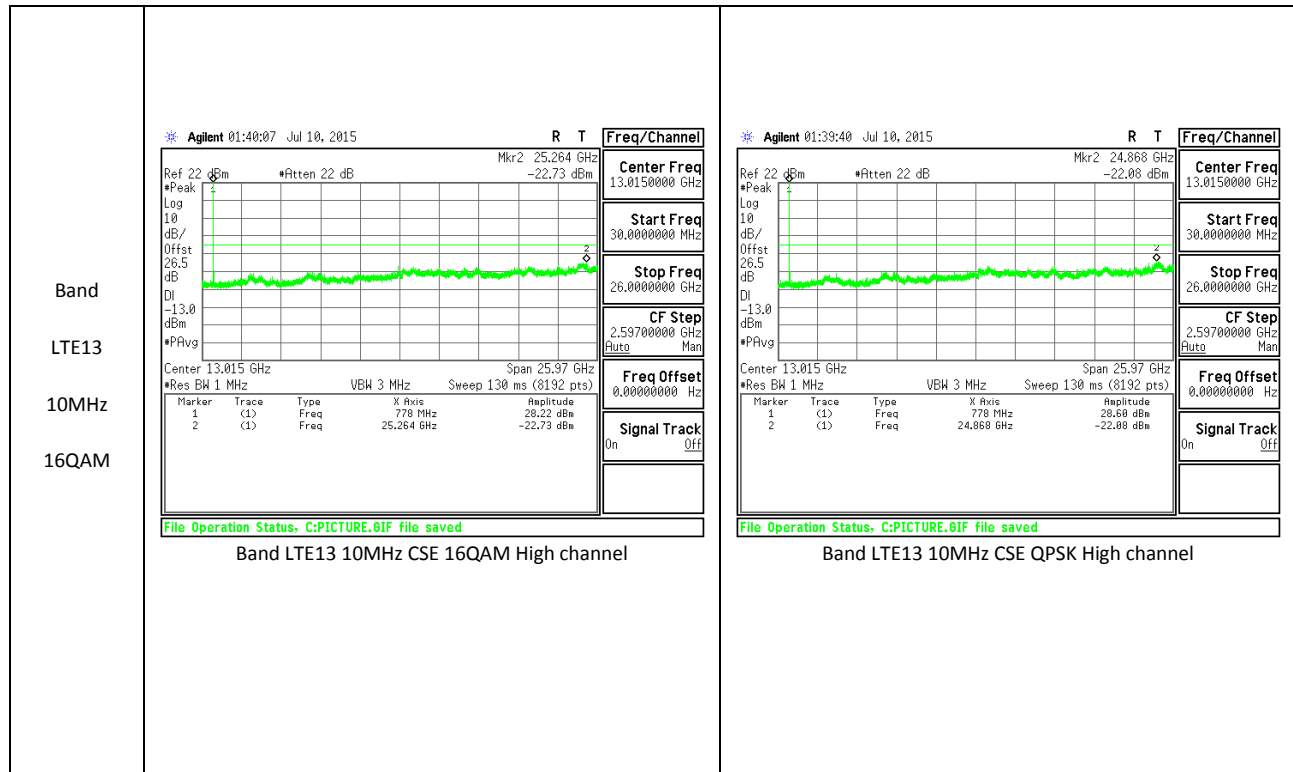


LTE Band 12





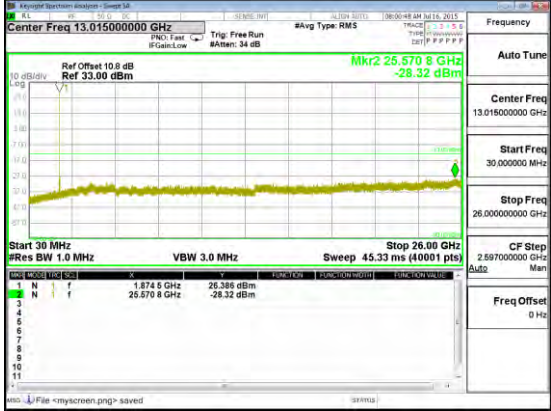
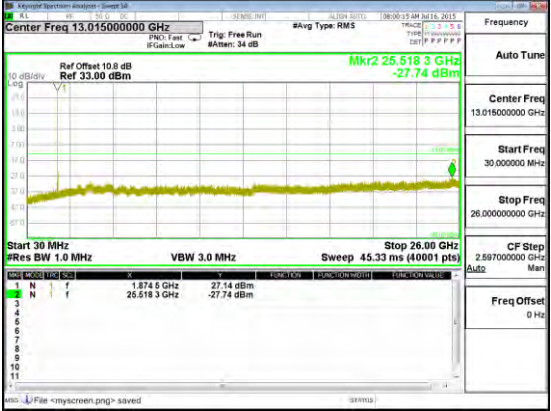
LTE Band 13

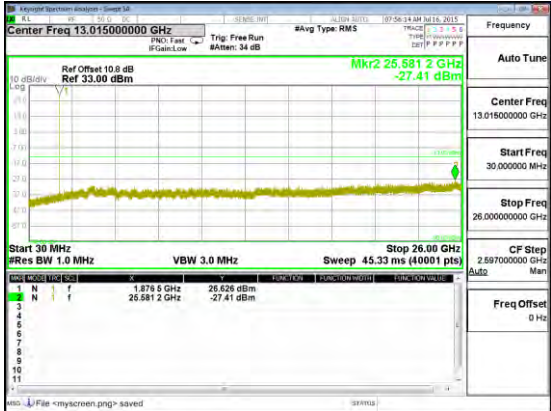
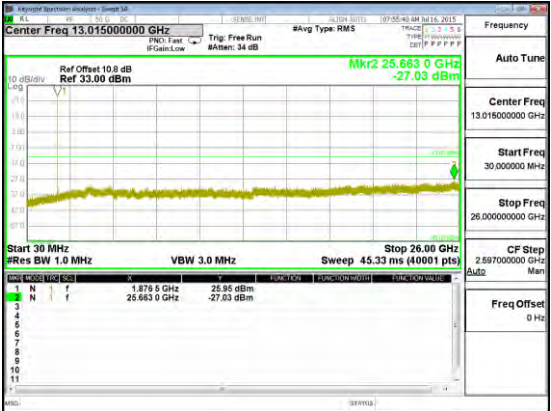


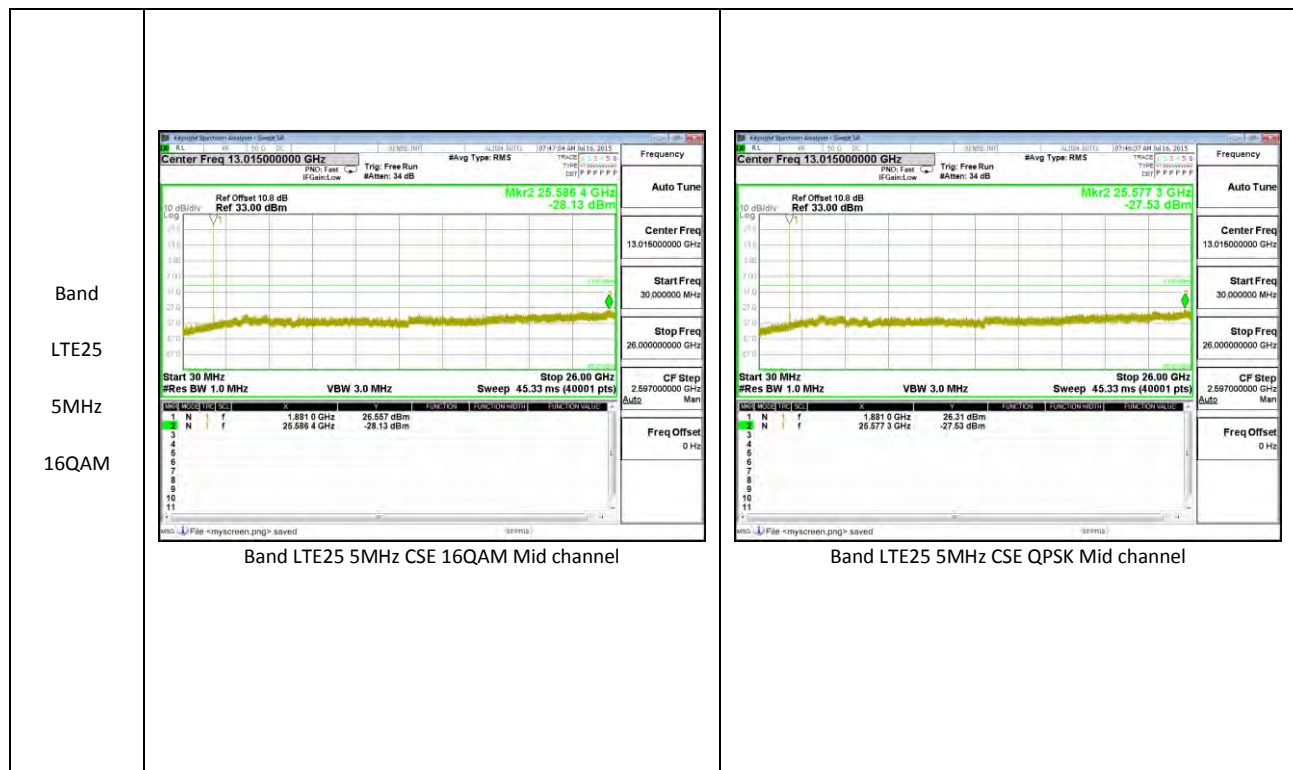
LTE Band 17



LTE Band 25

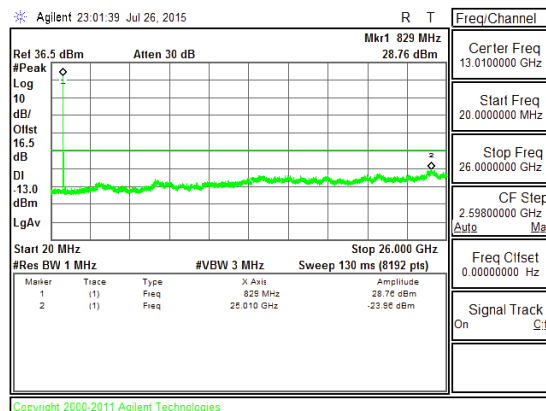
Band LTE25 20MHz 16QAM	 Band LTE25 20MHz CSE 16QAM Mid channel	 Band LTE25 20MHz CSE QPSK Mid channel

Band LTE25 15MHz 16QAM	 Band LTE25 15MHz CSE 16QAM Mid channel	 Band LTE25 15MHz CSE QPSK Mid channel

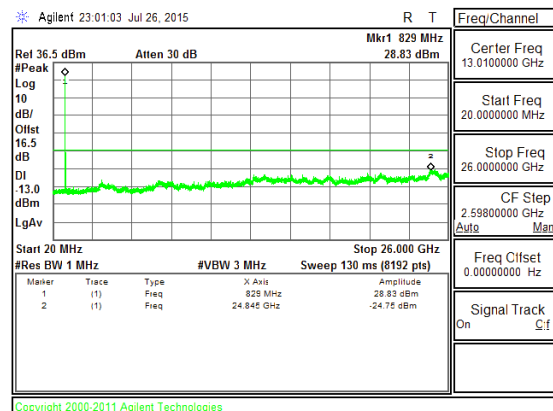




Band
LTE26
15MHz
16QAM

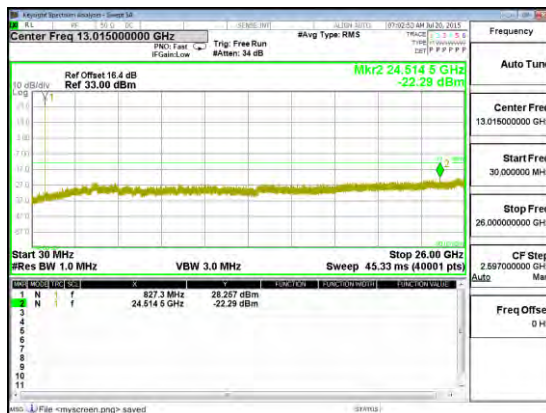


Band LTE26 15MHz CSE 16QAM Mid channel



Band LTE26 15MHz CSE QPSK Mid channel

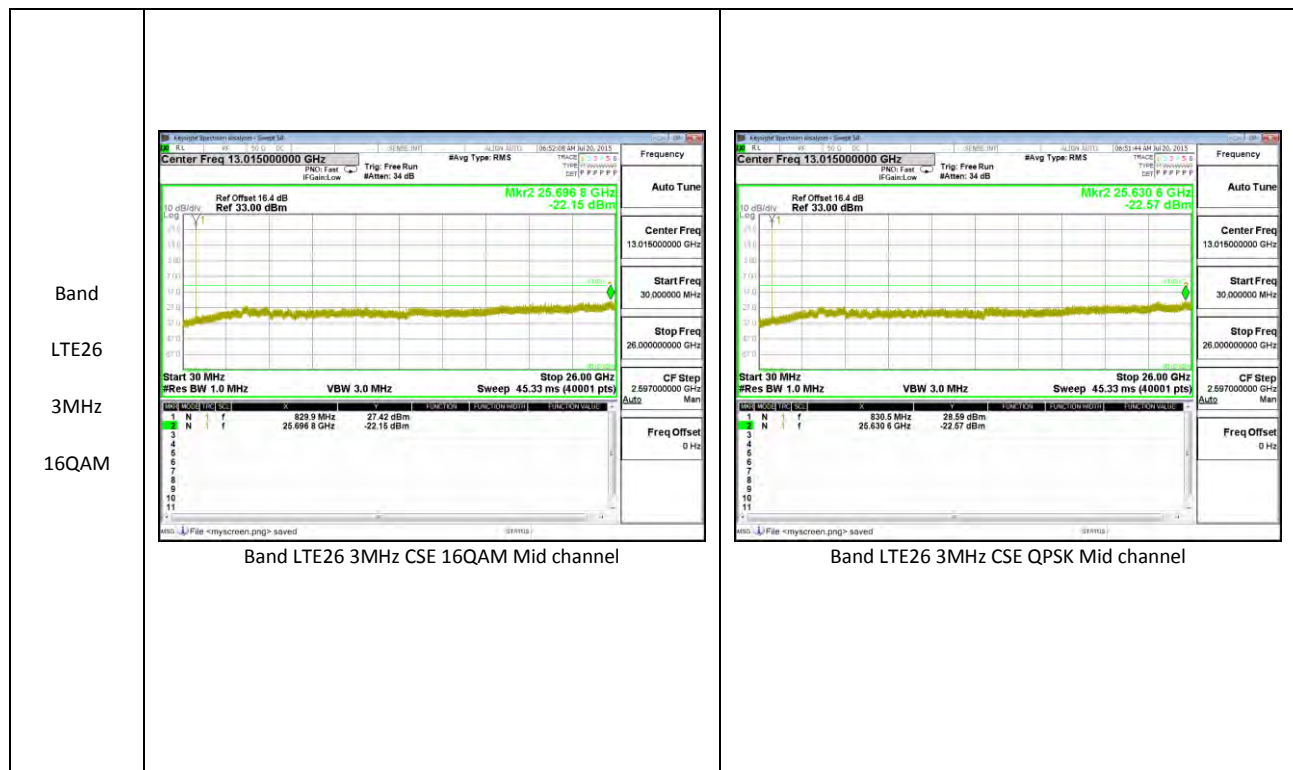
Band
LTE26
10MHz
16QAM



Band LTE26 10MHz CSE 16QAM Mid channel

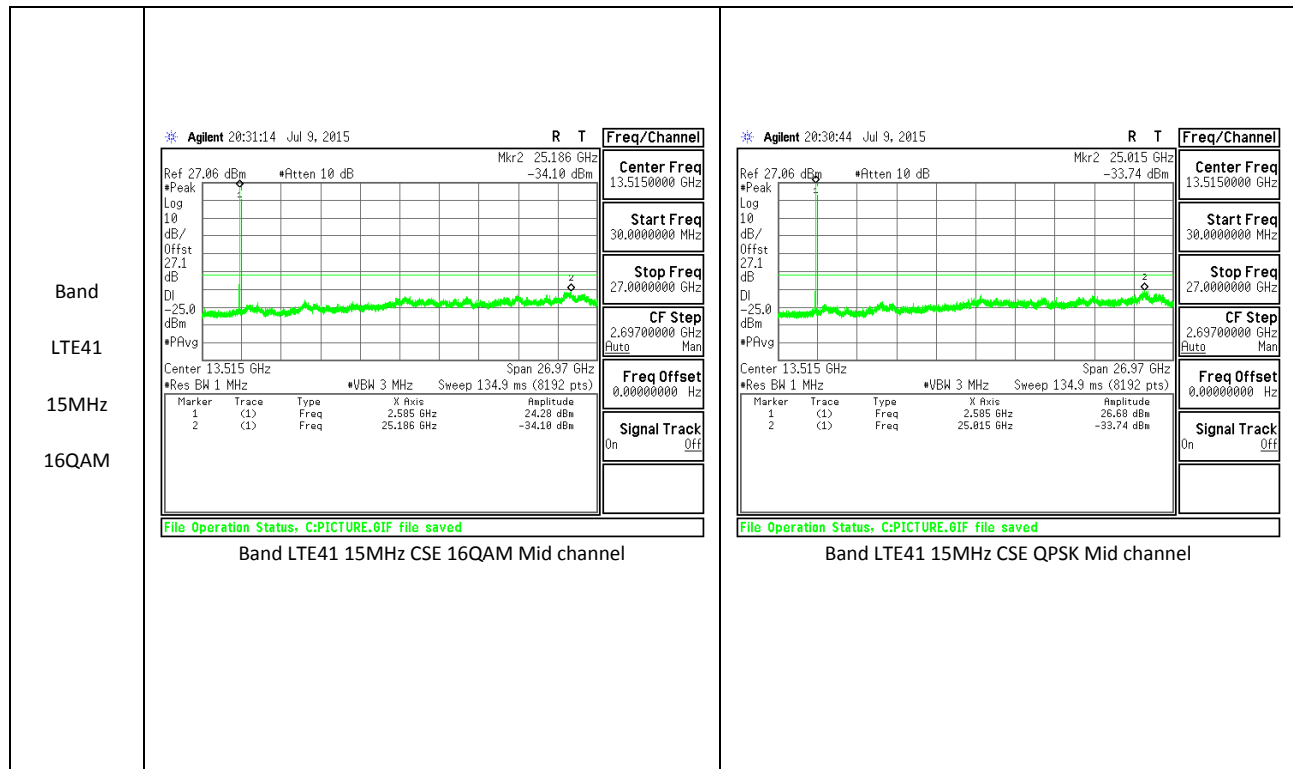
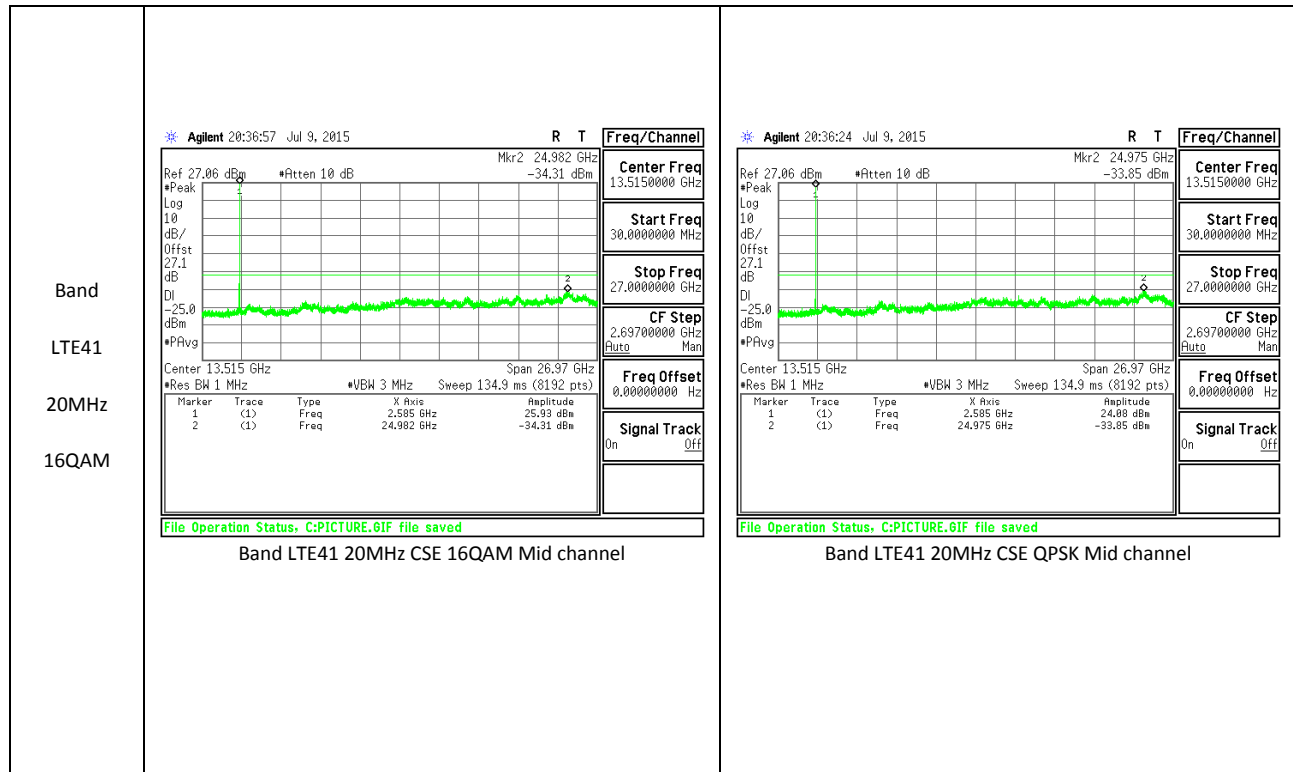


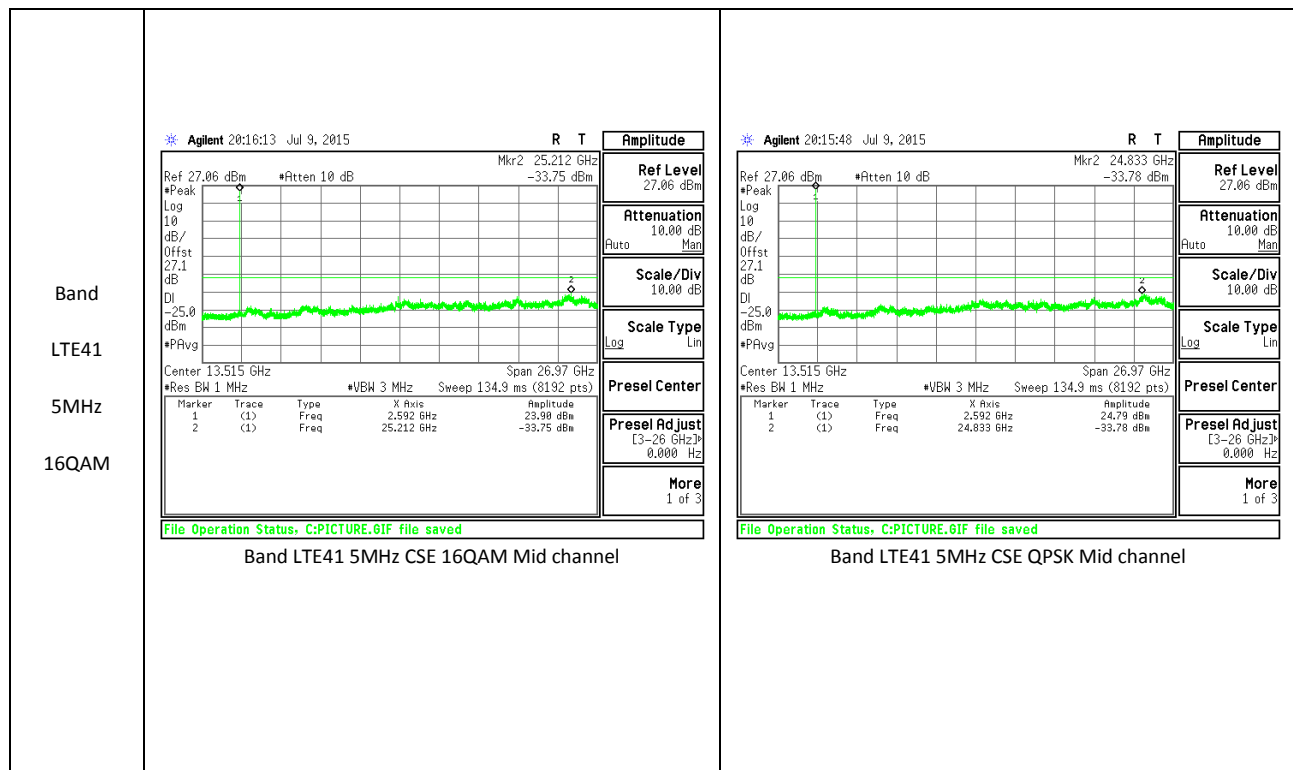
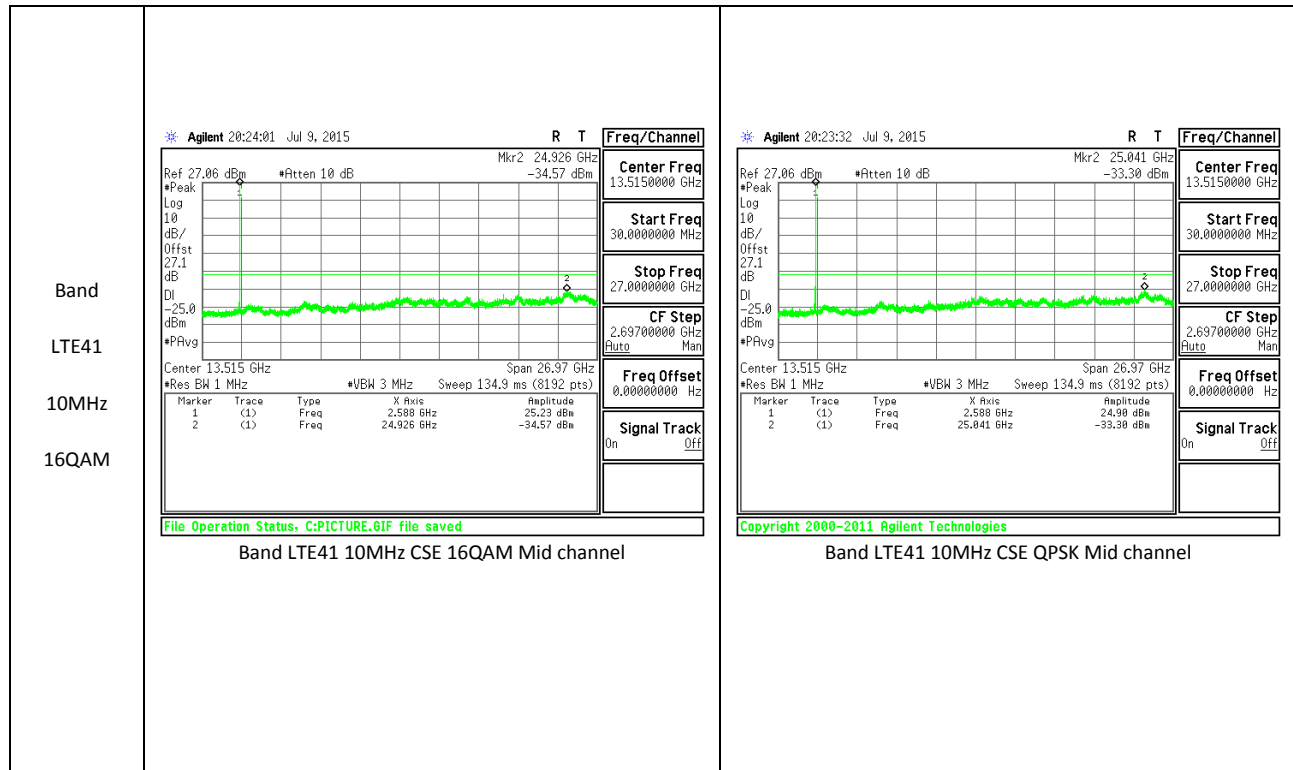
Band LTE26 10MHz CSE QPSK Mid channel





LTE Band 41





11. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, §27.54 and §90.213

LIMITS

§22.355 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

§24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

§27.54 - The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

§90.213 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

MODES TESTED

GSM, WCDMA, CDMA, and LTE

RESULTS

See the following pages.

11.1.1. FREQUENCY STABILITY RESULTS

GSM 850

Reference Frequency: PCS Mid Channel 836.6 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.600023	0.001	2.5
3.80	40	836.600025	-0.001	2.5
3.80	30	836.600025	-0.001	2.5
3.80	20	836.600024	0	2.5
3.80	10	836.600022	0.002	2.5
3.80	0	836.600021	0.004	2.5
3.80	-10	836.600022	0.003	2.5
3.80	-20	836.600021	0.004	2.5
3.80	-30	836.600020	0.005	2.5

Reference Frequency: PCS Mid Channel 836.6 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	836.600024	0	2.5
4.37	20	836.6000219	0.003	2.5
3.23(End of Volt)	20	836.6000236	0.001	2.5

GSM 1900

Reference Frequency: PCS Mid Channel Limit: to stay +/- 2.5 ppm =			1880 4700.000	MHz @ 20°C Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1880.000039	0.000	2.5
3.80	40	1880.000038	0.000	2.5
3.80	30	1880.000036	0.001	2.5
3.80	20	1880.000038	0	2.5
3.80	10	1880.000035	0.002	2.5
3.80	0	1880.000024	0.007	2.5
3.80	-10	1880.000023	0.008	2.5
3.80	-20	1880.000021	0.009	2.5
3.80	-30	1880.000022	0.008	2.5

Reference Frequency: PCS Mid Channel			1880	MHz @ 20°C
Limit: to stay +/- 2.5 ppm =			4700.000	Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	1880.000038	0	2.5
4.37	20	1880.000041	-0.002	2.5
3.23(End of Volt)	20	1880.000032	0.003	2.5

LTE Band 4

Reference Frequency: PCS Mid Channel Limit: to stay +/- 2.5 ppm =			1732.5 4331.250	MHz @ 20°C Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1732.499993	0.001	2.5
3.80	40	1732.499994	0.000	2.5
3.80	30	1732.499994	0.000	2.5
3.80	20	1732.499994	0	2.5
3.80	10	1732.499995	0.000	2.5
3.80	0	1732.499996	-0.001	2.5
3.80	-10	1732.500007	-0.007	2.5
3.80	-20	1732.500005	-0.006	2.5
3.80	-30	1732.500005	-0.006	2.5

Reference Frequency: PCS Mid Channel			1732.5	MHz @ 20°C
Limit: to stay +/- 2.5 ppm =			4331.250	Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	1732.499994	0	2.5
4.37	20	1732.499993	0.000	2.5
3.23(End of volt)	20	1732.499995	-0.001	2.5

LTE Band 7

Reference Frequency: Cellular Mid Channel 2535.000019 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 6337.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	2534.999993	0.000	2.5
3.80	40	2534.999992	0.000	2.5
3.80	30	2534.999994	-0.001	2.5
3.80	20	2534.999992	0	2.5
3.80	10	2534.999993	0.000	2.5
3.80	0	2534.999994	-0.001	2.5
3.80	-10	2534.999994	0.000	2.5
3.80	-20	2534.999993	0.000	2.5
3.80	-30	2534.999993	0.000	2.5

Reference Frequency: Cellular Mid Channel 2535.000019 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 6337.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	2534.999992	0	2.5
4.37	20	2534.999992	0.000	2.5
3.23(End of Volt)	20	2534.999993	0.000	2.5

LTE Band 12

Reference Frequency: Cellular Mid Channel 707.5 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1768.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	707.500004	0.000	2.5
3.80	40	707.500005	-0.001	2.5
3.80	30	707.500003	0.001	2.5
3.80	20	707.500004	0	2.5
3.80	10	707.500003	0.001	2.5
3.80	0	707.500005	-0.001	2.5
3.80	-10	707.499997	0.010	2.5
3.80	-20	707.499997	0.010	2.5
3.80	-30	707.500004	0.000	2.5
Reference Frequency: Cellular Mid Channel 707.5 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1768.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	707.500004	0	2.5
4.37	20	707.500004	0.000	2.5
3.23(End of Volt)	20	707.500005	-0.001	2.5

LTE Band 13

Reference Frequency: PCS Mid Channel Limit: to stay +- 2.5 ppm =			782 1955.000	MHz @ 20°C Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	782.000003	0.002	2.5
3.80	40	782.000004	0.001	2.5
3.80	30	782.000003	0.001	2.5
3.80	20	782.000004	0	2.5
3.80	10	781.999998	0.009	2.5
3.80	0	781.999998	0.009	2.5
3.80	-10	782.000003	0.002	2.5
3.80	-20	781.999997	0.009	2.5
3.80	-30	782.000003	0.001	2.5
			782.000000	0.006

Reference Frequency: PCS Mid Channel Limit: to stay +- 2.5 ppm =			782 1955.000	MHz @ 20°C Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	782.000004	0	2.5
4.37	20	782.0000032	0.002	2.5
3.23(End of volt)	20	782.0000027	0.002	2.5

12. RADIATED TEST RESULTS

12.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27 and § 90.635.

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50(b) - (10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP. (LTE B13)

27.50(c) - (10) Portable stations (hand-held devices) are limited to 3 watts ERP; (LTE B17)

27.50(d) - (4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.(Band 4)

27.50(h) - (2) Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.(LTE B41 & 7)

90.635(b) - The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw). (LTE B26)

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13dB.

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17; PSA setting reference to 971168 D01 v02r02

For peak power measurement with a PSA:

a) Set the RBW $\geq$ OBW; b) Set VBW $\geq 3 \times$ RBW; c) Set span $\geq 2 \times$ RBW; d) Sweep time = auto couple; e) Detector = peak; f) Ensure that the number of measurement points $\geq$ span/RBW; g) Trace mode = max hold;

For average power measurement with a PSA:

a) Set span to at least 1.5 times the OBW; b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz; c) Set VBW $\geq 3 \times$ RBW; d) Set number of points in sweep $\geq 2 \times$ span / RBW; e) Sweep time = auto-couple; f) Detector = RMS (power averaging); g) Use free run trigger If burst duty cycle ≥ 98 ; h) Use trigger to capture bursts If burst duty cycle < 98 ; i) Trace average at least 100 traces in power averaging (i.e., RMS) mode. j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function.

MODES TESTED

GSM, WCDMA, CDMA, and LTE

TEST RESULTS

12.1.1. ERP/EIRP RESULTS

GSM

Band	Mode	Channel	f(MHz)	ERP	
				dBm	mW
GSM850	GPRS	128	824.2	30.43	1103.82
		190	836.6	31.01	1261.83
		251	848.8	30.32	1077.46
	EGPRS	128	824.2	25.38	345.14
		190	836.6	26.80	479.07
		251	848.8	25.69	370.68
GSM1900	GPRS	512	1850.2	29.68	928.83
		661	1880	29.55	901.32
		810	1909.8	29.56	904.34
	EGPRS	512	1850.2	25.04	319.11
		661	1880	25.12	325
		810	1909.8	24.76	299.46

WCDMA

Band	Mode	Channel	f(MHz)	EIRP	
				dBm	mW
Band 2	REL99	9262	1852.4	24.08	255.73
		9400	1880	24.24	265.39
		9538	1907.6	22.71	186.51
	HSDPA	9262	1852.4	22.78	189.58
		9400	1880	21.66	146.51
		9538	1907.6	22.09	161.69
Band 4	REL99	1312	1712.4	25.22	332.66
		1413	1732.6	24.54	284.45
		1513	1752.6	26.11	408.32
	HSDPA	1312	1712.4	23.87	243.78
		1413	1732.6	23.00	199.53
		1513	1752.6	24.32	270.4
Band 5	REL99	4132	826.4	23.61	229.61
		4183	836.6	23.18	207.97
		4233	846.6	22.66	184.5
	HSDPA	4132	826.4	22.57	180.72
		4183	836.6	22.17	164.82
		4233	846.6	21.64	145.88

CDMA

Band	Mode	Channel	f(MHz)	ERP	
				dBm	mW
BC10	1xRTT	476	817.9	21.84	152.79
		580	820.5	21.99	158.16
		684	823.1	22.14	163.72
	EVDO REL. 0	476	817.9	21.50	141.25
		580	820.5	21.50	141.25
		684	823.1	21.51	141.58
BC0	1xRTT	1013	824.7	21.57	143.58
		384	836.52	21.51	141.61
		777	848.31	20.79	119.98
	EVDO REL. 0	1013	824.7	21.38	137.40
		384	836.52	21.32	135.52
		777	848.31	20.66	116.41
BC1	1xRTT	25	1851.25	27.62	578.1
		600	1880	27.69	587.49
		1175	1908.75	27.61	576.77
	EVDO REL. 0	25	1851.25	27.50	562.34
		600	1880	27.57	571.48
		1175	1908.75	27.45	555.90

LTE Band 2

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE2	20	QPSK	1/0	1860	25.92	390.84
			1/0	1880	26.12	409.26
			1/0	1900	25.95	393.55
		16QAM	1/0	1860	24.94	311.89
			1/0	1880	25.37	344.35
			1/0	1900	25.02	317.69
LTE2	15	QPSK	1/0	1857.5	25.92	390.84
			1/0	1880	26.1	407.38
			1/0	1902.5	25.96	394.46
		16QAM	1/0	1857.5	24.92	310.46
			1/0	1880	25.3	338.84
			1/0	1902.5	24.94	311.89
LTE2	10	QPSK	1/0	1855	25.83	382.82
			1/0	1880	26.14	411.15
			1/0	1905	25.95	393.55
		16QAM	1/0	1855	24.91	309.74
			1/0	1880	25.38	345.14
			1/0	1905	24.94	311.89

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE2	5	QPSK	1/0	1852.5	25.84	383.71
			1/0	1880	26.13	410.2
			1/0	1907.5	25.98	396.28
		16QAM	1/0	1852.5	24.89	308.32
			1/0	1880	25.18	329.61
			1/0	1907.5	25	316.23
LTE2	3	QPSK	1/0	1851.5	25.81	381.07
			1/0	1880	26.11	408.32
			1/0	1908.5	25.97	395.37
		16QAM	1/0	1851.5	24.9	309.03
			1/0	1880	25.3	338.84
			1/0	1908.5	24.96	313.33
LTE2	1.4	QPSK	1/0	1850.7	25.81	381.07
			1/0	1880	26.16	413.05
			1/0	1909.3	25.98	396.28
		16QAM	1/0	1850.7	24.99	315.5
			1/0	1880	25.12	325.09
			1/0	1909.3	24.99	315.5

LTE Band 4

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE4	20	QPSK	1/0	1720	24.41	276.07
			1/0	1732.5	25.55	358.68
			1/0	1745	26.03	400.76
		16QAM	1/0	1720	23.45	221.32
			1/0	1732.5	24.72	296.28
			1/0	1745	25.02	317.6
LTE4	15	QPSK	1/0	1717.5	24.34	271.89
			1/0	1732.5	25.53	357.03
			1/0	1747.5	26.13	409.75
		16QAM	1/0	1717.5	23.37	217.47
			1/0	1732.5	24.71	295.6
			1/0	1747.5	25.16	327.73
LTE4	10	QPSK	1/0	1715	24.29	268.35
			1/0	1732.5	25.62	364.51
			1/0	1750	26.23	419.98
		16QAM	1/0	1715	23.27	212.18
			1/0	1732.5	24.74	297.65
			1/0	1750	25.25	335.14

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE4	5	QPSK	1/0	1712.5	24.38	274.17
			1/0	1732.5	25.56	359.51
			1/0	1752.5	26.19	415.8
		16QAM	1/0	1712.5	23.39	218.29
			1/0	1732.5	24.67	292.89
			1/0	1752.5	25.21	331.81
LTE4	3	QPSK	1/0	1711.5	24.36	273.14
			1/0	1732.5	25.59	362
			1/0	1753.5	26.18	414.49
		16QAM	1/0	1711.5	23.35	216.47
			1/0	1732.5	24.70	294.92
			1/0	1753.5	25.19	330
LTE4	1.4	QPSK	1/0	1710.7	24.30	268.97
			1/0	1732.5	25.60	362.83
			1/0	1754.3	26.20	417.09
		16QAM	1/0	1710.7	23.32	214.64
			1/0	1732.5	24.68	293.57
			1/0	1754.3	25.21	332.07

LTE Band 5

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP	
					dBm	mW
LTE5	10	QPSK	1/0	829	21.01	126.18
			1/0	836.5	22.25	167.88
			1/0	844	21.74	149.28
		16QAM	1/0	829	20.91	123.31
			1/0	836.5	22.13	163.31
			1/0	844	21.59	144.21
LTE5	5	QPSK	1/0	826.5	21.11	129.12
			1/0	836.5	22.47	176.60
			1/0	846.5	21.68	147.23
		16QAM	1/0	826.5	20.91	123.31
			1/0	836.5	22.23	167.11
			1/0	846.5	21.40	138.04
LTE5	3	QPSK	1/0	825.5	21.31	135.21
			1/0	836.5	22.44	175.39
			1/0	847.5	21.53	142.23
		16QAM	1/0	825.5	21.01	126.18
			1/0	836.5	22.20	165.96
			1/0	847.5	21.10	128.82
LTE5	1.4	QPSK	1/0	824.7	21.51	141.58
			1/0	836.5	22.52	178.65
			1/0	848.3	21.45	139.64
		16QAM	1/0	824.7	20.86	121.90
			1/0	836.5	21.69	147.57
			1/0	848.3	21.00	125.89

LTE Band 7

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE7	20	QPSK	1/0	2510	20.75	118.74
			1/0	2535	21.00	125.78
			1/0	2560	22.07	160.88
		16QAM	1/0	2510	19.89	97.41
			1/0	2535	20.04	100.83
			1/0	2560	21.23	132.59
LTE7	15	QPSK	1/0	2507.5	20.81	120.39
			1/0	2535	21.45	139.51
			1/0	2562.5	21.73	149
		16QAM	1/0	2507.5	20.10	102.24
			1/0	2535	20.28	106.56
			1/0	2562.5	20.87	122.24
LTE7	10	QPSK	1/0	2505	19.90	97.71
			1/0	2535	20.29	106.87
			1/0	2565	22.19	165.48
		16QAM	1/0	2505	18.91	77.79
			1/0	2535	19.73	93.94
			1/0	2565	21.73	148.85
LTE7	5	QPSK	1/0	2502.5	21.57	143.51
			1/0	2535	21.18	131.17
			1/0	2567.5	22.03	159.52
		16QAM	1/0	2502.5	21.67	146.85
			1/0	2535	20.47	111.39
			1/0	2567.5	21.05	127.3

LTE Band 12

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP	
					dBm	mW
LTE12	10	QPSK	1/0	704	19.44	87.9
			1/0	707.5	19.96	99.08
			1/0	711	19.33	85.7
		16QAM	1/0	704	18.20	66.07
			1/0	707.5	19.00	79.43
			1/0	711	18.26	66.99
LTE12	5	QPSK	1/0	701.5	18.80	75.86
			1/0	707.5	19.46	88.31
			1/0	713.5	18.80	75.86
		16QAM	1/0	701.5	18.60	72.44
			1/0	707.5	18.39	69.02
			1/0	713.5	17.80	60.26
LTE12	3	QPSK	1/0	700.5	18.85	76.74
			1/0	707.5	19.30	85.11
			1/0	714.5	18.84	76.56
		16QAM	1/0	700.5	18.50	70.79
			1/0	707.5	19.70	93.33
			1/0	714.5	19.60	91.2
LTE12	1.4	QPSK	1/0	699.7	19.09	81.1
			1/0	707.5	19.10	81.28
			1/0	715.3	18.78	75.51
		16QAM	1/0	699.7	18.20	66.07
			1/0	707.5	17.90	61.66
			1/0	715.3	17.80	60.26

LTE Band 13

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP	
					dBm	mW
LTE13	10	QPSK	1/0	782	20	100
			1/0	782	20	100
			1/0	782	20	100
		16QAM	1/0	782	18.9	77.62
			1/0	782	18.9	77.62
			1/0	782	18.9	77.62
LTE13	5	QPSK	1/0	779.5	19.55	90.16
			1/0	782	19.5	89.13
			1/0	784.5	19.3	85.11
		16QAM	1/0	779.5	18.2	66.07
			1/0	782	18.4	69.18
			1/0	784.5	18.5	70.79

LTE Band 17

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP	
					dBm	mW
LTE17	10	QPSK	1/0	709	19.44	87.9
			1/0	710	19.96	99.08
			1/0	711	19.33	85.7
		16QAM	1/0	709	18.20	66.07
			1/0	710	19.00	79.43
			1/0	711	18.26	66.99
LTE17	5	QPSK	1/0	706.5	18.80	75.86
			1/0	710	19.46	88.31
			1/0	713.5	18.80	75.86
		16QAM	1/0	706.5	18.60	72.44
			1/0	710	18.39	69.02
			1/0	713.5	17.80	60.26

LTE Band 25

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE25	20	QPSK	1/0	1860	25.92	390.84
			1/0	1882.5	26.12	409.26
			1/0	1905	25.95	393.55
		16QAM	1/0	1860	24.94	311.89
			1/0	1882.5	25.37	344.35
			1/0	1905	25.02	317.69
LTE25	15	QPSK	1/0	1857.5	25.92	390.84
			1/0	1882.5	26.1	407.38
			1/0	1907.5	25.96	394.46
		16QAM	1/0	1857.5	24.92	310.46
			1/0	1882.5	25.3	338.84
			1/0	1907.5	24.94	311.89
LTE25	10	QPSK	1/0	1855	25.83	382.82
			1/0	1882.5	26.14	411.15
			1/0	1910	25.95	393.55
		16QAM	1/0	1855	24.91	309.74
			1/0	1882.5	25.38	345.14
			1/0	1910	24.94	311.89

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE25	5	QPSK	1/0	1852.5	25.84	383.71
			1/0	1882.5	26.13	410.2
			1/0	1912.5	25.98	396.28
		16QAM	1/0	1852.5	24.89	308.32
			1/0	1882.5	25.18	329.61
			1/0	1912.5	25	316.23
LTE25	3	QPSK	1/0	1851.5	25.81	381.07
			1/0	1882.5	26.11	408.32
			1/0	1913.5	25.97	395.37
		16QAM	1/0	1851.5	24.9	309.03
			1/0	1882.5	25.3	338.84
			1/0	1913.5	24.96	313.33
LTE25	1.4	QPSK	1/0	1850.7	25.81	381.07
			1/0	1882.5	26.16	413.05
			1/0	1914.3	25.98	396.28
		16QAM	1/0	1850.7	24.99	315.5
			1/0	1882.5	25.12	325.09
			1/0	1914.3	24.99	315.5

LTE Band 26

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP	
					dBm	mW
LTE26	15	QPSK	1/0	831.5	23.07	202.77
			1/0	836.5	22.35	171.79
			1/0	841.5	22.01	158.85
		16QAM	1/0	831.5	22.65	184.08
			1/0	836.5	21.84	152.76
			1/0	841.5	21.72	148.59
LTE26	10	QPSK	1/0	819	23.30	213.80
			1/0	829	21.01	126.18
			1/0	831.5	22.25	167.88
			1/0	844	21.74	149.28
		16QAM	1/0	819	22.95	197.24
			1/0	829	20.91	123.31
			1/0	831.5	22.13	163.31
			1/0	844	21.59	144.21
LTE26	5	QPSK	1/0	816.5	23.66	232.27
			1/0	826.5	21.11	129.12
			1/0	831.5	22.47	176.60
			1/0	846.5	21.68	147.23
		16QAM	1/0	816.5	23.57	227.51
			1/0	826.5	20.91	123.31
			1/0	831.5	22.23	167.11
			1/0	846.5	21.40	138.04
LTE26	3	QPSK	1/0	815.5	23.47	222.33
			1/0	825.5	21.31	135.21
			1/0	831.5	22.44	175.39
			1/0	847.5	21.53	142.23
		16QAM	1/0	815.5	23.34	215.77
			1/0	825.5	21.01	126.18
			1/0	831.5	22.20	165.96
			1/0	847.5	21.10	128.82

LTE26	1.4	QPSK	1/0	814.7	23.71	234.96
			1/0	824.7	21.51	141.58
			1/0	831.5	22.52	178.65
			1/0	848.3	21.45	139.64
		16QAM	1/0	814.7	23.38	217.77
			1/0	824.7	20.86	121.90
			1/0	831.5	21.69	147.57
			1/0	848.3	21.00	125.89

LTE Band 41

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	EIRP	
					dBm	mW
LTE41	20	QPSK	1/0	2506	17.34	54.2
			1/0	2593	19.70	93.24
			1/0	2680	19.28	84.64
		16QAM	1/0	2506	16.27	42.36
			1/0	2593	18.84	76.49
			1/0	2680	18.80	75.78
	15	QPSK	1/0	2503.5	16.82	48.07
			1/0	2593	18.13	64.95
			1/0	2682.5	18.23	66.56
		16QAM	1/0	2503.5	16.37	43.34
			1/0	2593	17.59	57.36
			1/0	2682.5	17.73	59.33
	10	QPSK	1/0	2501	16.03	40.07
			1/0	2593	18.87	77.02
			1/0	2685	16.71	46.87
		16QAM	1/0	2501	15.38	34.5
			1/0	2593	18.77	75.26
			1/0	2685	16.30	42.65
	5	QPSK	1/0	2498.5	16.54	45.12
			1/0	2593	19.25	84.06
			1/0	2687.5	18.37	68.64
		16QAM	1/0	2498.5	16.29	42.6
			1/0	2593	18.53	71.22
			1/0	2687.5	17.54	56.7

GSM

Band GSM 1900 EGPRS	High Frequency Substitution Measurement UL Verification Services, Inc.								
	Company: LG Electronics Project #: 15I21235 Date: 7/15/2015 Test Engineer: A. Escamilla Configuration: X-pos , EUT only Location: Chamber A Mode: EGPRS 1900 MHz Fundamentals								
	Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse								
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch								
	1850.20	18.05	V	0.9	7.9	25.04	33.0	-8.0	
	1850.20	17.54	H	0.9	7.9	24.53	33.0	-8.5	
	Mid Ch								
	1880.00	17.27	V	0.9	7.9	24.24	33.0	-8.8	
	1880.00	18.15	H	0.9	7.9	25.12	33.0	-7.9	
High Ch									
1909.80	17.14	V	0.9	7.9	24.12	33.0	-8.9		
1909.80	17.78	H	0.9	7.9	24.76	33.0	-8.2		

Band GSM19 00 GPRS	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/15/2015 Test Engineer: A. Escamilla Configuration: X-pos EUT w/ AC Adapter + Headset Location: Chamber A Mode: GPRS 1900 MHz Fundamentals Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 10%;">f MHz</th> <th style="width: 10%;">SG reading (dBm)</th> <th style="width: 10%;">Ant. Pol. (H/V)</th> <th style="width: 10%;">Cable Loss (dB)</th> <th style="width: 10%;">Antenna Gain (dBi)</th> <th style="width: 10%;">EIRP (dBm)</th> <th style="width: 10%;">Limit (dBm)</th> <th style="width: 10%;">Delta (dB)</th> <th style="width: 20%;">Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1850.20</td> <td>22.48</td> <td>V</td> <td>0.9</td> <td>7.9</td> <td>29.47</td> <td>33.0</td> <td>-3.5</td> <td></td> </tr> <tr> <td>1850.20</td> <td>22.69</td> <td>H</td> <td>0.9</td> <td>7.9</td> <td>29.68</td> <td>33.0</td> <td>-3.3</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1880.00</td> <td>22.58</td> <td>V</td> <td>0.9</td> <td>7.9</td> <td>29.55</td> <td>33.0</td> <td>-3.5</td> <td></td> </tr> <tr> <td>1880.00</td> <td>22.55</td> <td>H</td> <td>0.9</td> <td>7.9</td> <td>29.52</td> <td>33.0</td> <td>-3.5</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1909.80</td> <td>21.60</td> <td>V</td> <td>0.9</td> <td>7.9</td> <td>28.58</td> <td>33.0</td> <td>-4.4</td> <td></td> </tr> <tr> <td>1909.80</td> <td>22.58</td> <td>H</td> <td>0.9</td> <td>7.9</td> <td>29.56</td> <td>33.0</td> <td>-3.4</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1850.20	22.48	V	0.9	7.9	29.47	33.0	-3.5		1850.20	22.69	H	0.9	7.9	29.68	33.0	-3.3		Mid Ch									1880.00	22.58	V	0.9	7.9	29.55	33.0	-3.5		1880.00	22.55	H	0.9	7.9	29.52	33.0	-3.5		High Ch									1909.80	21.60	V	0.9	7.9	28.58	33.0	-4.4		1909.80	22.58	H	0.9	7.9	29.56	33.0	-3.4	
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WCDMA

Band Band 2 HSDPA	High Frequency Substitution Measurement UL Verification Services, Inc.								
	Company:		LG Electronics						
	Project #:		15I21235 -						
	Date:		7/15/2015						
	Test Engineer:		A. Escamilla						
	Configuration:		X-pos EUT Only						
	Location:		Chamber A						
	Mode:		HSDPA Band 2 Fundamentals						
	Test Equipment:								
	Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse								
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch								
	1852.40	15.29	V	0.9	7.9	22.28	33.0	-10.7	
	1852.40	15.79	H	0.9	7.9	22.78	33.0	-10.2	
	Mid Ch								
	1880.00	14.69	V	0.9	7.9	21.66	33.0	-11.3	
	1880.00	14.20	H	0.9	7.9	21.17	33.0	-11.8	
	High Ch								
	1907.60	14.95	V	0.9	7.9	21.93	33.0	-11.1	
	1907.60	15.11	H	0.9	7.9	22.09	33.0	-10.9	

Band Band 4 REL99	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/15/2015 Test Engineer: A. Escamilla Configuration: X-pos, EUT only Location: Chamber A Mode: REL99 Band 4 Fundamentals Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse							
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)
	Low Ch							
	1712.40	17.00	V	0.9	8.2	24.30	33.0	-8.7
	1712.40	17.92	H	0.9	8.2	25.22	33.0	-7.8
	Mid Ch							
	1732.60	16.51	V	0.9	8.2	23.81	33.0	-9.2
	1732.60	17.24	H	0.9	8.2	24.54	33.0	-8.5
	High Ch							
	1752.60	17.26	V	0.9	8.1	24.46	33.0	-8.5
	1752.60	18.91	H	0.9	8.1	26.11	33.0	-6.9

CDMA

Band BC1	High Frequency Fundamental Measurement UL Verification Services, Inc.								
	Company: LG Electronics Project #: 15I21235 Date: 7/21/2015 Test Engineer: R.Alegre Configuration: EUT Only Mode: CDMA EVDO BC1								
	Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable Warehouse								
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch								
	1.8513	16.7	V	0.90	8.01	23.81	33.0	-9.2	
	1.8513	20.4	H	0.90	8.01	27.50	33.0	-5.5	
	Mid Ch								
	1.8800	16.3	V	0.90	8.01	23.43	33.0	-9.6	
	1.8800	20.5	H	0.90	8.01	27.57	33.0	-5.4	
High Ch									
1.9088	17.7	V	0.90	8.01	24.84	33.0	-8.2		
1.9088	20.3	H	0.90	8.01	27.45	33.0	-5.6		
Rev. 3.17.11									

Band BC1 1xRTT	High Frequency Fundamental Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/21/2015 Test Engineer: R. Alegre Configuration: EUT Only Mode: CDMA RTT BC1 Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable Warehouse							
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta
	GHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)
	Low Ch							
	1.8513	16.8	V	0.90	8.01	23.91	33.0	-9.1
	1.8513	20.5	H	0.90	8.01	27.62	33.0	-5.4
	Mid Ch							
	1.8800	16.5	V	0.90	8.01	23.56	33.0	-9.4
	1.8800	20.6	H	0.90	8.01	27.69	33.0	-5.3
	High Ch							
	1.9088	17.9	V	0.90	8.01	24.97	33.0	-8.0
	1.9088	20.5	H	0.90	8.01	27.61	33.0	-5.4
Rev. 3.17.11								

Band BC0	High Frequency Substitution Measurement UL Verification Services Chamber C Company: LG Electronics Project #: 15I21235 Date: 7/21/2015 Test Engineer: R.Alegre Configuration: EUT Only Mode: CDMA EVDO BC0 Test Equipment: Receiving: T185, and Chamber C Cable Substitution: Dipole T273, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Margin (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>824.70</td> <td>14.61</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>13.71</td> <td>38.5</td> <td>-24.7</td> <td></td> </tr> <tr> <td>824.70</td> <td>22.28</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.38</td> <td>38.5</td> <td>-17.1</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>836.52</td> <td>13.82</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.92</td> <td>38.5</td> <td>-25.5</td> <td></td> </tr> <tr> <td>836.52</td> <td>22.22</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.32</td> <td>38.5</td> <td>-17.1</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>848.31</td> <td>14.06</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>13.16</td> <td>38.5</td> <td>-25.3</td> <td></td> </tr> <tr> <td>848.31</td> <td>21.56</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>20.66</td> <td>38.5</td> <td>-17.8</td> <td></td> </tr> </tbody> </table> Rev. 3.17.11	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									824.70	14.61	V	0.9	0.0	13.71	38.5	-24.7		824.70	22.28	H	0.9	0.0	21.38	38.5	-17.1		Mid Ch									836.52	13.82	V	0.9	0.0	12.92	38.5	-25.5		836.52	22.22	H	0.9	0.0	21.32	38.5	-17.1		High Ch									848.31	14.06	V	0.9	0.0	13.16	38.5	-25.3		848.31	21.56	H	0.9	0.0	20.66	38.5	-17.8	
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Band BC0 1xRTT	High Frequency Substitution Measurement UL Verification Services Chamber C																																																																																																
	Company: LG Electronics Project #: 15I21235 Date: 7/21/2015 Test Engineer: R.Alegre Configuration: EUT Only Mode: CDMA RTT BC0																																																																																																
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LTE Band 2

Band LTE2 20MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG Electronics																																																																																															
	Project #:		15I21235																																																																																															
	Date:		7/16/2015																																																																																															
	Test Engineer:		R.Alegre																																																																																															
	Configuration:		EUT Only(2160195)																																																																																															
	Location:		Chamber A																																																																																															
	Mode:		LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth																																																																																															
	Test Equipment:																																																																																																	
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LTE Band 4

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1745.00	15.49	V	0.9	8.1	22.69	30.0	-7.3																																																																																				
1745.00	18.83	H	0.9	8.1	26.03	30.0	-4.0																																																																																				

Band LTE4 15MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG Electronics																																																																																															
	Project #:		15I21235																																																																																															
	Date:		7/16/2015																																																																																															
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Band

LTE4

10MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Horn T136, and Chamber A SMA Cables

Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1715.00	14.26	V	0.9	8.2	21.53	30.0	-8.5	
1715.00	16.00	H	0.9	8.2	23.27	30.0	-6.7	
Mid Ch								
1732.50	14.46	V	0.9	8.2	21.73	30.0	-8.3	
1732.50	17.47	H	0.9	8.2	24.74	30.0	-5.3	
High Ch								
1750.00	14.51	V	0.9	8.1	21.70	30.0	-8.3	
1750.00	18.06	H	0.9	8.1	25.25	30.0	-4.7	

Band

LTE4

5MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Horn T136, and Chamber A SMA Cables

Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1712.50	15.13	V	0.9	8.2	22.48	30.0	-7.5	
1712.50	17.04	H	0.9	8.2	24.38	30.0	-5.6	
Mid Ch								
1732.50	15.60	V	0.9	8.2	22.87	30.0	-7.1	
1732.50	18.29	H	0.9	8.2	25.56	30.0	-4.4	
High Ch								
1752.50	15.35	V	0.9	8.1	22.55	30.0	-7.5	
1752.50	18.99	H	0.9	8.1	26.19	30.0	-3.8	

Band

LTE4

3MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

LG Electronics

15I21235

7/16/2015

R. Alegre

EUT Only(2160195)

Chamber A

LTE_16QAM Band 4 Fundamentals, 3MHz Bandwidth

Test Equipment:

Receiving: Horn T136, and Chamber A SMA Cables

Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1711.50	14.14	V	0.9	8.2	21.49	30.0	-8.5	
1711.50	16.01	H	0.9	8.2	23.35	30.0	-6.6	
Mid Ch								
1732.50	14.67	V	0.9	8.2	21.94	30.0	-8.1	
1732.50	17.43	H	0.9	8.2	24.70	30.0	-5.3	
High Ch								
1753.50	14.35	V	0.9	8.1	21.54	30.0	-8.5	
1753.50	17.99	H	0.9	8.1	25.19	30.0	-4.8	

Band LTE4 1.4MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R. Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td></tr> <tr> <td>1710.70</td><td>15.17</td><td>V</td><td>0.9</td><td>8.2</td><td>22.44</td><td>30.0</td><td>-7.6</td><td></td></tr> <tr> <td>1710.70</td><td>17.03</td><td>H</td><td>0.9</td><td>8.2</td><td>24.30</td><td>30.0</td><td>-5.7</td><td></td></tr> <tr> <td colspan="9">Mid Ch</td></tr> <tr> <td>1732.50</td><td>15.68</td><td>V</td><td>0.9</td><td>8.2</td><td>22.95</td><td>30.0</td><td>-7.1</td><td></td></tr> <tr> <td>1732.50</td><td>18.33</td><td>H</td><td>0.9</td><td>8.2</td><td>25.60</td><td>30.0</td><td>-4.4</td><td></td></tr> <tr> <td colspan="9">High Ch</td></tr> <tr> <td>1754.30</td><td>15.40</td><td>V</td><td>0.9</td><td>8.1</td><td>22.59</td><td>30.0</td><td>-7.4</td><td></td></tr> <tr> <td>1754.30</td><td>19.01</td><td>H</td><td>0.9</td><td>8.1</td><td>26.20</td><td>30.0</td><td>-3.8</td><td></td></tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1710.70	15.17	V	0.9	8.2	22.44	30.0	-7.6		1710.70	17.03	H	0.9	8.2	24.30	30.0	-5.7		Mid Ch									1732.50	15.68	V	0.9	8.2	22.95	30.0	-7.1		1732.50	18.33	H	0.9	8.2	25.60	30.0	-4.4		High Ch									1754.30	15.40	V	0.9	8.1	22.59	30.0	-7.4		1754.30	19.01	H	0.9	8.1	26.20	30.0	-3.8	
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LTE Band 5

Band LTE5 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																
	Company: LG																																																																																																
	Project #: 15I21235																																																																																																
	Date: 7/16/2015																																																																																																
	Test Engineer: A. Escamilla																																																																																																
	Configuration: EUT Only (X position)																																																																																																
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LTE Band 7

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Band LTE7 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/13/2015 Test Engineer: A. Escamilla Configuration: EUT Only (X position) Location: Chamber B Mode: LTE_16QAM Band 7 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Horn T1345, and Chamber B SMA Cables Substitution: Horn T59, SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">f MHz</th> <th style="text-align: center;">SG reading (dBm)</th> <th style="text-align: center;">Ant. Pol. (H/V)</th> <th style="text-align: center;">Cable Loss (dB)</th> <th style="text-align: center;">Antenna Gain (dBi)</th> <th style="text-align: center;">EIRP (dBm)</th> <th style="text-align: center;">Limit (dBm)</th> <th style="text-align: center;">Delta (dB)</th> <th style="text-align: center;">Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td style="text-align: center;">2505.00</td> <td style="text-align: center;">9.55</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">18.13</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-14.9</td> <td></td> </tr> <tr> <td style="text-align: center;">2505.00</td> <td style="text-align: center;">10.33</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">18.91</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-14.1</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td style="text-align: center;">2535.00</td> <td style="text-align: center;">10.74</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">19.33</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-13.7</td> <td></td> </tr> <tr> <td style="text-align: center;">2535.00</td> <td style="text-align: center;">11.14</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">19.73</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-13.3</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td style="text-align: center;">2565.00</td> <td style="text-align: center;">13.13</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">21.73</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-11.3</td> <td></td> </tr> <tr> <td style="text-align: center;">2565.00</td> <td style="text-align: center;">12.97</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">21.57</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-11.4</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									2505.00	9.55	V	0.9	9.5	18.13	33.0	-14.9		2505.00	10.33	H	0.9	9.5	18.91	33.0	-14.1		Mid Ch									2535.00	10.74	V	0.9	9.5	19.33	33.0	-13.7		2535.00	11.14	H	0.9	9.5	19.73	33.0	-13.3		High Ch									2565.00	13.13	V	0.9	9.5	21.73	33.0	-11.3		2565.00	12.97	H	0.9	9.5	21.57	33.0	-11.4	
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Band

LTE7

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Horn T1345, and Chamber B SMA Cables

Substitution: Horn T59, SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2505.00	10.66	V	0.9	9.5	19.24	33.0	-13.8	
2505.00	11.32	H	0.9	9.5	19.90	33.0	-13.1	
Mid Ch								
2535.00	11.24	V	0.9	9.5	19.83	33.0	-13.2	
2535.00	11.70	H	0.9	9.5	20.29	33.0	-12.7	
High Ch								
2565.00	13.59	V	0.9	9.5	22.19	33.0	-10.8	
2565.00	13.36	H	0.9	9.5	21.96	33.0	-11.0	

LTE Band 12

Band LTE12 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																
	Company: LG																																																																																																
	Project #: 15I21235																																																																																																
	Date: 7/23/2015																																																																																																
	Test Engineer: K.Kedida																																																																																																
	Configuration: EUT Only																																																																																																
	Location: Chamber A																																																																																																
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	Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, 6ft SMA Cable																																																																																																
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Band LTE12 10MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG																																																																																															
	Project #:		15I21235																																																																																															
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704.00	10.50	V	0.9	0.0	9.60	38.5	-28.9																																																																																											
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Band

LTE12

5MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company: LG

Project #: 15I21235

Date: 7/23/2015

Test Engineer: K.Kedida

Configuration: EUT Only

Location: Chamber A

Mode: LTE_16QAM Band 12 Fundamentals, 5MHz Bandwidth

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, 6ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
701.50	9.40	V	0.9	0.0	8.50	38.5	-30.0	
701.50	19.50	H	0.9	0.0	18.60	38.5	-19.9	
Mid Ch								
707.50	9.30	V	0.9	0.0	8.40	38.5	-30.1	
707.50	19.29	H	0.9	0.0	18.39	38.5	-20.1	
High Ch								
713.50	9.20	V	0.9	0.0	8.30	38.5	-30.2	
713.50	18.70	H	0.9	0.0	17.80	38.5	-20.7	

Band

LTE12

5MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, 6ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
701.50	10.50	V	0.9	0.0	9.60	38.5	-28.9	
701.50	19.70	H	0.9	0.0	18.80	38.5	-19.7	
Mid Ch								
707.50	10.45	V	0.9	0.0	9.55	38.5	-29.0	
707.50	20.36	H	0.9	0.0	19.46	38.5	-19.0	
High Ch								
713.50	10.12	V	0.9	0.0	9.22	38.5	-29.3	
713.50	19.70	H	0.9	0.0	18.80	38.5	-19.7	

Band

LTE12

3MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company: LG

Project #: 15I21235

Date: 7/23/2015

Test Engineer: K.Kedida

Configuration: EUT Only

Location: Chamber A

Mode: LTE_16QAM Band 12 Fundamentals, 3MHz Bandwidth

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, 6ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
700.50	9.60	V	0.9	0.0	8.70	38.5	-29.8	
700.50	19.40	H	0.9	0.0	18.50	38.5	-20.0	
Mid Ch								
707.50	10.15	V	0.9	0.0	9.25	38.5	-29.3	
707.50	20.60	H	0.9	0.0	19.70	38.5	-18.8	
High Ch								
714.50	10.30	V	0.9	0.0	9.40	38.5	-29.1	
714.50	20.50	H	0.9	0.0	19.60	38.5	-18.9	

Band LTE12 1.4MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG																																																																																															
	Project #:		15I21235																																																																																															
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	Test Engineer:		K. Kedida																																																																																															
	Configuration:		EUT Only																																																																																															
	Location:		Chamber A																																																																																															
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715.30	18.70	H	0.9	0.0	17.80	38.5	-20.7																																																																																											

Band

LTE12

1.4MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, 6ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
699.70	10.30	V	0.9	0.0	9.40	38.5	-29.1	
699.70	19.99	H	0.9	0.0	19.09	38.5	-19.4	
Mid Ch								
707.50	9.71	V	0.9	0.0	8.81	38.5	-29.7	
707.50	20.00	H	0.9	0.0	19.10	38.5	-19.4	
High Ch								
715.30	10.10	V	0.9	0.0	9.20	38.5	-29.3	
715.30	19.68	H	0.9	0.0	18.78	38.5	-19.7	

LTE Band 13

Band LTE13 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																								
	Company: LG																																																																								
	Project #: 15I21235																																																																								
	Date: 7/23/2015																																																																								
	Test Engineer: K.Kedida																																																																								
	Configuration: EUT only																																																																								
	Location: Chamber A																																																																								
	Mode: LTE_16QAM Band 13 Fundamentals, 10MHz Bandwidth																																																																								
	Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T416, Xft SMA Cable (SN # SERIALNUMBER) Warehouse																																																																								
	<table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>782.00</td> <td>9.90</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>9.00</td> <td>34.8</td> <td>-25.8</td> <td></td> </tr> <tr> <td>782.00</td> <td>19.80</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>18.90</td> <td>34.8</td> <td>-15.9</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch																		Mid Ch									782.00	9.90	V	0.9	0.0	9.00	34.8	-25.8		782.00	19.80	H	0.9	0.0	18.90	34.8	-15.9		High Ch																	
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782.00	19.80	H	0.9	0.0	18.90	34.8	-15.9																																																																		
High Ch																																																																									

Band LTE13 10MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																														
	Company:		LG																																																																												
	Project #:		15I21235																																																																												
	Date:		7/23/2015																																																																												
	Test Engineer:		K.Kedida																																																																												
	Configuration:		EUT only																																																																												
	Location:		Chamber A																																																																												
	Mode:		LTE_QPSK Band 13 Fundamentals, 10MHz Bandwidth																																																																												
	Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T416, Xft SMA Cable (SN # SERIALNUMBER) Warehouse																																																																														
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High Ch																																																																															

Band

LTE13

5MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Hybrid T243, and Chamber B SMA Cables

Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
779.50	11.20	V	0.9	0.0	10.30	34.8	-24.5	
779.50	19.10	H	0.9	0.0	18.20	34.8	-16.6	
Mid Ch								
782.00	10.50	V	0.9	0.0	9.60	34.8	-25.2	
782.00	19.30	H	0.9	0.0	18.40	34.8	-16.4	
High Ch								
784.50	10.80	V	0.9	0.0	9.90	34.8	-24.9	
784.50	19.40	H	0.9	0.0	18.50	34.8	-16.3	

LTE Band 17

Band LTE17 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																
	Company: LG																																																																																																
	Project #: 15I21235																																																																																																
	Date: 7/23/2015																																																																																																
	Test Engineer: K.Kedida																																																																																																
	Configuration: EUT Only																																																																																																
	Location: Chamber A																																																																																																
	Mode: LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth																																																																																																
	Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, 6ft SMA Cable																																																																																																
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f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes																																																																																									
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Band LTE17 10MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/23/2015 Test Engineer: K.Kedida Configuration: EUT Only Location: Chamber A Mode: LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, 6ft SMA Cable <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td>709.00</td> <td>10.50</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>9.60</td> <td>38.5</td> <td>-28.9</td> <td></td> </tr> <tr> <td>709.00</td> <td>20.34</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>19.44</td> <td>38.5</td> <td>-19.1</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td>710.00</td> <td>10.23</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>9.33</td> <td>38.5</td> <td>-29.2</td> <td></td> </tr> <tr> <td>710.00</td> <td>20.86</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>19.96</td> <td>38.5</td> <td>-18.5</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td>711.00</td> <td>10.44</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>9.54</td> <td>38.5</td> <td>-29.0</td> <td></td> </tr> <tr> <td>711.00</td> <td>20.23</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>19.33</td> <td>38.5</td> <td>-19.2</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									709.00	10.50	V	0.9	0.0	9.60	38.5	-28.9		709.00	20.34	H	0.9	0.0	19.44	38.5	-19.1		Mid Ch									710.00	10.23	V	0.9	0.0	9.33	38.5	-29.2		710.00	20.86	H	0.9	0.0	19.96	38.5	-18.5		High Ch									711.00	10.44	V	0.9	0.0	9.54	38.5	-29.0		711.00	20.23	H	0.9	0.0	19.33	38.5	-19.2	
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Band LTE17 5MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																
	Company:		LG																																																																																														
	Project #:		15I21235																																																																																														
	Date:		7/23/2015																																																																																														
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713.50	18.70	H	0.9	0.0	17.80	38.5	-20.7																																																																																										

Band

LTE17

5MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, 6ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
706.50	10.50	V	0.9	0.0	9.60	38.5	-28.9	
706.50	19.70	H	0.9	0.0	18.80	38.5	-19.7	
Mid Ch								
710.00	10.45	V	0.9	0.0	9.55	38.5	-29.0	
710.00	20.36	H	0.9	0.0	19.46	38.5	-19.0	
High Ch								
713.50	10.12	V	0.9	0.0	9.22	38.5	-29.3	
713.50	19.70	H	0.9	0.0	18.80	38.5	-19.7	

LTE Band 25

Band LTE25 20MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG Electronics																																																																																															
	Project #:		15I21235																																																																																															
	Date:		7/16/2015																																																																																															
	Test Engineer:		R.Alegre																																																																																															
	Configuration:		EUT Only(2160195)																																																																																															
	Location:		Chamber A																																																																																															
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Band LTE25 20MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R. Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_QPSK Band 25 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1860.00</td> <td>14.50</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>21.61</td> <td>33.0</td> <td>-11.4</td> <td></td> </tr> <tr> <td>1860.00</td> <td>18.81</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.92</td> <td>33.0</td> <td>-7.1</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1882.50</td> <td>14.72</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>21.83</td> <td>33.0</td> <td>-11.2</td> <td></td> </tr> <tr> <td>1882.50</td> <td>19.01</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>26.12</td> <td>33.0</td> <td>-6.9</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1905.00</td> <td>13.68</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.79</td> <td>33.0</td> <td>-12.2</td> <td></td> </tr> <tr> <td>1905.00</td> <td>18.84</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.95</td> <td>33.0</td> <td>-7.1</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1860.00	14.50	V	0.9	8.0	21.61	33.0	-11.4		1860.00	18.81	H	0.9	8.0	25.92	33.0	-7.1		Mid Ch									1882.50	14.72	V	0.9	8.0	21.83	33.0	-11.2		1882.50	19.01	H	0.9	8.0	26.12	33.0	-6.9		High Ch									1905.00	13.68	V	0.9	8.0	20.79	33.0	-12.2		1905.00	18.84	H	0.9	8.0	25.95	33.0	-7.1	
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Band

LTE25

15MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company: LG Electronics

Project #: 15I21235

Date: 7/16/2015

Test Engineer: R. Alegre

Configuration: EUT Only(2160195)

Location: Chamber A

Mode: LTE_16QAM Band 25 Fundamentals, 15MHz Bandwidth

Test Equipment:

Receiving: Horn T136, and Chamber A SMA Cables

Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1857.50	13.46	V	0.9	8.0	20.57	33.0	-12.4	
1857.50	17.81	H	0.9	8.0	24.92	33.0	-8.1	
Mid Ch								
1882.50	13.61	V	0.9	8.0	20.72	33.0	-12.3	
1882.50	18.19	H	0.9	8.0	25.30	33.0	-7.7	
High Ch								
1907.50	13.60	V	0.9	8.0	20.71	33.0	-12.3	
1907.50	17.83	H	0.9	8.0	24.94	33.0	-8.1	

Band LTE25 10MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R. Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_16QAM Band 25 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1855.00</td> <td>13.48</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.59</td> <td>33.0</td> <td>-12.4</td> <td></td> </tr> <tr> <td>1855.00</td> <td>17.80</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>24.91</td> <td>33.0</td> <td>-8.1</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1882.50</td> <td>13.48</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.59</td> <td>33.0</td> <td>-12.4</td> <td></td> </tr> <tr> <td>1882.50</td> <td>18.27</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.38</td> <td>33.0</td> <td>-7.6</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1910.00</td> <td>13.76</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.87</td> <td>33.0</td> <td>-12.1</td> <td></td> </tr> <tr> <td>1910.00</td> <td>17.83</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>24.94</td> <td>33.0</td> <td>-8.1</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1855.00	13.48	V	0.9	8.0	20.59	33.0	-12.4		1855.00	17.80	H	0.9	8.0	24.91	33.0	-8.1		Mid Ch									1882.50	13.48	V	0.9	8.0	20.59	33.0	-12.4		1882.50	18.27	H	0.9	8.0	25.38	33.0	-7.6		High Ch									1910.00	13.76	V	0.9	8.0	20.87	33.0	-12.1		1910.00	17.83	H	0.9	8.0	24.94	33.0	-8.1	
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1910.00	17.83	H	0.9	8.0	24.94	33.0	-8.1																																																																																				

Band

LTE25

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

LG Electronics

15I21235

7/16/2015

R.Alegre

EUT Only(2160195)

Chamber A

LTE_QPSK Band 25 Fundamentals, 10MHz Bandwidth

Test Equipment:

Receiving: Horn T136, and Chamber A SMA Cables

Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1855.00	14.53	V	0.9	8.0	21.64	33.0	-11.4	
1855.00	18.72	H	0.9	8.0	25.83	33.0	-7.2	
Mid Ch								
1882.50	14.56	V	0.9	8.0	21.67	33.0	-11.3	
1882.50	19.03	H	0.9	8.0	26.14	33.0	-6.9	
High Ch								
1910.00	14.59	V	0.9	8.0	21.70	33.0	-11.3	
1910.00	18.84	H	0.9	8.0	25.95	33.0	-7.1	

Band LTE25 5MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R.Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_16QAM Band 25 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td>1852.50</td> <td>13.48</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.59</td> <td>33.0</td> <td>-12.4</td> <td></td> </tr> <tr> <td>1852.50</td> <td>17.78</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>24.89</td> <td>33.0</td> <td>-8.1</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td>1882.50</td> <td>13.59</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.70</td> <td>33.0</td> <td>-12.3</td> <td></td> </tr> <tr> <td>1882.50</td> <td>18.07</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.18</td> <td>33.0</td> <td>-7.8</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td>1912.50</td> <td>13.61</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.72</td> <td>33.0</td> <td>-12.3</td> <td></td> </tr> <tr> <td>1912.50</td> <td>17.89</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.00</td> <td>33.0</td> <td>-8.0</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1852.50	13.48	V	0.9	8.0	20.59	33.0	-12.4		1852.50	17.78	H	0.9	8.0	24.89	33.0	-8.1		Mid Ch									1882.50	13.59	V	0.9	8.0	20.70	33.0	-12.3		1882.50	18.07	H	0.9	8.0	25.18	33.0	-7.8		High Ch									1912.50	13.61	V	0.9	8.0	20.72	33.0	-12.3		1912.50	17.89	H	0.9	8.0	25.00	33.0	-8.0	
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Band LTE25 1.4MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R. Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_16QAM Band 25 Fundamentals, 1.4MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td>1850.70</td> <td>13.52</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.63</td> <td>33.0</td> <td>-12.4</td> <td></td> </tr> <tr> <td>1850.70</td> <td>17.88</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>24.99</td> <td>33.0</td> <td>-8.0</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td>1882.50</td> <td>13.67</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.78</td> <td>33.0</td> <td>-12.2</td> <td></td> </tr> <tr> <td>1882.50</td> <td>18.01</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.12</td> <td>33.0</td> <td>-7.9</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td>1914.30</td> <td>13.72</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>20.83</td> <td>33.0</td> <td>-12.2</td> <td></td> </tr> <tr> <td>1914.30</td> <td>17.88</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>24.99</td> <td>33.0</td> <td>-8.0</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1850.70	13.52	V	0.9	8.0	20.63	33.0	-12.4		1850.70	17.88	H	0.9	8.0	24.99	33.0	-8.0		Mid Ch									1882.50	13.67	V	0.9	8.0	20.78	33.0	-12.2		1882.50	18.01	H	0.9	8.0	25.12	33.0	-7.9		High Ch									1914.30	13.72	V	0.9	8.0	20.83	33.0	-12.2		1914.30	17.88	H	0.9	8.0	24.99	33.0	-8.0	
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Mid Ch																																																																																											
1882.50	13.67	V	0.9	8.0	20.78	33.0	-12.2																																																																																				
1882.50	18.01	H	0.9	8.0	25.12	33.0	-7.9																																																																																				
High Ch																																																																																											
1914.30	13.72	V	0.9	8.0	20.83	33.0	-12.2																																																																																				
1914.30	17.88	H	0.9	8.0	24.99	33.0	-8.0																																																																																				

Band LTE25 1.4MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Electronics Project #: 15I21235 Date: 7/16/2015 Test Engineer: R.Alegre Configuration: EUT Only(2160195) Location: Chamber A Mode: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn T59, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1850.70</td> <td>14.51</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>21.62</td> <td>33.0</td> <td>-11.4</td> <td></td> </tr> <tr> <td>1850.70</td> <td>18.70</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.81</td> <td>33.0</td> <td>-7.2</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1882.50</td> <td>14.77</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>21.88</td> <td>33.0</td> <td>-11.1</td> <td></td> </tr> <tr> <td>1882.50</td> <td>19.05</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>26.16</td> <td>33.0</td> <td>-6.8</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1914.30</td> <td>14.70</td> <td>V</td> <td>0.9</td> <td>8.0</td> <td>21.81</td> <td>33.0</td> <td>-11.2</td> <td></td> </tr> <tr> <td>1914.30</td> <td>18.87</td> <td>H</td> <td>0.9</td> <td>8.0</td> <td>25.98</td> <td>33.0</td> <td>-7.0</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									1850.70	14.51	V	0.9	8.0	21.62	33.0	-11.4		1850.70	18.70	H	0.9	8.0	25.81	33.0	-7.2		Mid Ch									1882.50	14.77	V	0.9	8.0	21.88	33.0	-11.1		1882.50	19.05	H	0.9	8.0	26.16	33.0	-6.8		High Ch									1914.30	14.70	V	0.9	8.0	21.81	33.0	-11.2		1914.30	18.87	H	0.9	8.0	25.98	33.0	-7.0	
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LTE Band 26

Band LTE26 15MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
	Company:		LG																																																																																															
	Project #:		15I21235																																																																																															
	Date:		7/16/2015																																																																																															
	Test Engineer:		A. Escamilla																																																																																															
	Configuration:		EUT Only (X position)																																																																																															
	Location:		Chamber A																																																																																															
	Mode:		LTE_16QAM Band 26 Fundamentals, 15MHz Bandwidth																																																																																															
	Test Equipment:																																																																																																	
	Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse																																																																																																	
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841.50	13.29	V	0.9	0.0	12.39	38.5	-26.1																																																																																											
841.50	22.62	H	0.9	0.0	21.72	38.5	-16.8																																																																																											

Band

LTE26

15MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

LG

15I21235

7/16/2015

A. Escamilla

EUT Only (X position)

Chamber A

LTE_QPSK Band 26 Fundamentals, 15MHz Bandwidth

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
831.50	14.17	V	0.9	0.0	13.27	38.5	-25.2	
831.50	23.97	H	0.9	0.0	23.07	38.5	-15.4	
Mid Ch								
836.50	13.81	V	0.9	0.0	12.91	38.5	-25.6	
836.50	23.25	H	0.9	0.0	22.35	38.5	-16.2	
High Ch								
841.50	13.68	V	0.9	0.0	12.78	38.5	-25.7	
841.50	22.91	H	0.9	0.0	22.01	38.5	-16.5	

Band

LTE26

10MHz

16QAM

High Frequency Substitution Measurement UL Verification Services, Inc.								
Company:	LG							
Project #:	15I21235							
Date:	7/16/2015							
Test Engineer:	A. Escamilla							
Configuration:	EUT Only (X position)							
Location:	Chamber A							
Mode:	LTE_16QAM Band 26 Fundamentals, 10MHz Bandwidth							
Test Equipment:								
Receiving: Hybrid T130, and Chamber A SMA Cables								
Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Part 90								
819.00	13.91	V	0.9	0.0	13.01	50.0	-37.0	
819.00	23.85	H	0.9	0.0	22.95	50.0	-27.1	
Part 22								
829.00	13.74	H	0.9	0.0	12.84	38.5	-25.7	
829.00	21.81	H	0.9	0.0	20.91	38.5	-17.6	
Mid Ch								
831.50	13.34	V	0.9	0.0	12.44	38.5	-26.1	
831.50	23.03	H	0.9	0.0	22.13	38.5	-16.4	
High Ch								
844.00	13.42	V	0.9	0.0	12.52	38.5	-26.0	
844.00	22.49	H	0.9	0.0	21.59	38.5	-16.9	

Band

LTE26

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Part 90								
819.00	14.25	V	0.9	0.0	13.35	50.0	-36.7	
819.00	24.20	H	0.9	0.0	23.30	50.0	-26.7	
Part 22								
829.00	14.04	H	0.9	0.0	13.14	38.5	-25.4	
829.00	21.91	H	0.9	0.0	21.01	38.5	-17.5	
Mid Ch								
831.50	13.39	V	0.9	0.0	12.49	38.5	-26.0	
831.50	23.15	H	0.9	0.0	22.25	38.5	-16.3	
High Ch								
844.00	13.55	V	0.9	0.0	12.65	38.5	-25.9	
844.00	22.64	H	0.9	0.0	21.74	38.5	-16.8	

Band

LTE26

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: LG
Project #: 15I21235
Date: 7/16/2015
Test Engineer: A. Escamilla
Configuration: EUT Only (X position)
Location: Chamber A
Mode: LTE_16QAM Band 26 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Hybrid T130, and Chamber A SMA Cables
Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Part 90								
816.50	13.02	V	0.9	0.0	12.12	50.0	-37.9	
816.50	24.47	H	0.9	0.0	23.57	50.0	-26.4	
Part 22								
826.50	12.24	H	0.9	0.0	11.34	38.5	-27.2	
826.50	21.81	H	0.9	0.0	20.91	38.5	-17.6	
Mid Ch								
831.50	12.64	V	0.9	0.0	11.74	38.5	-26.8	
831.50	23.13	H	0.9	0.0	22.23	38.5	-16.3	
High Ch								
846.50	13.21	V	0.9	0.0	12.31	38.5	-26.2	
846.50	22.30	H	0.9	0.0	21.40	38.5	-17.1	

Band LTE26 5MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/16/2015 Test Engineer: A. Escamilla Configuration: EUT Only (X position) Location: Chamber A Mode: LTE_QPSK Band 26 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Part 90</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>816.50</td><td>13.15</td><td>V</td><td>0.9</td><td>0.0</td><td>12.25</td><td>50.0</td><td>-37.8</td><td></td></tr> <tr><td>816.50</td><td>24.56</td><td>H</td><td>0.9</td><td>0.0</td><td>23.66</td><td>50.0</td><td>-26.3</td><td></td></tr> <tr><td>Part 22</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>826.50</td><td>12.44</td><td>H</td><td>0.9</td><td>0.0</td><td>11.54</td><td>38.5</td><td>-27.0</td><td></td></tr> <tr><td>826.50</td><td>22.01</td><td>H</td><td>0.9</td><td>0.0</td><td>21.11</td><td>38.5</td><td>-17.4</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>831.50</td><td>12.83</td><td>V</td><td>0.9</td><td>0.0</td><td>11.93</td><td>38.5</td><td>-26.6</td><td></td></tr> <tr><td>831.50</td><td>23.37</td><td>H</td><td>0.9</td><td>0.0</td><td>22.47</td><td>38.5</td><td>-16.0</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>846.50</td><td>13.41</td><td>V</td><td>0.9</td><td>0.0</td><td>12.51</td><td>38.5</td><td>-26.0</td><td></td></tr> <tr><td>846.50</td><td>22.58</td><td>H</td><td>0.9</td><td>0.0</td><td>21.68</td><td>38.5</td><td>-16.8</td><td></td></tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Part 90									816.50	13.15	V	0.9	0.0	12.25	50.0	-37.8		816.50	24.56	H	0.9	0.0	23.66	50.0	-26.3		Part 22									826.50	12.44	H	0.9	0.0	11.54	38.5	-27.0		826.50	22.01	H	0.9	0.0	21.11	38.5	-17.4		Mid Ch									831.50	12.83	V	0.9	0.0	11.93	38.5	-26.6		831.50	23.37	H	0.9	0.0	22.47	38.5	-16.0		High Ch									846.50	13.41	V	0.9	0.0	12.51	38.5	-26.0		846.50	22.58	H	0.9	0.0	21.68	38.5	-16.8	
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846.50	13.41	V	0.9	0.0	12.51	38.5	-26.0																																																																																																															
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Band LTE26 3MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/16/2015 Test Engineer: A. Escamilla Configuration: EUT Only (X position) Location: Chamber A Mode: LTE_16QAM Band 26 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>815.50</td> <td>13.76</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.86</td> <td>50.0</td> <td>-37.1</td> <td></td> </tr> <tr> <td>815.50</td> <td>24.24</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>23.34</td> <td>50.0</td> <td>-26.7</td> <td></td> </tr> <tr> <td>Part 22</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>825.50</td> <td>13.04</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.14</td> <td>38.5</td> <td>-26.4</td> <td></td> </tr> <tr> <td>825.50</td> <td>21.91</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.01</td> <td>38.5</td> <td>-17.5</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>831.50</td> <td>13.03</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.13</td> <td>38.5</td> <td>-26.4</td> <td></td> </tr> <tr> <td>831.50</td> <td>23.10</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>22.20</td> <td>38.5</td> <td>-16.3</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>847.50</td> <td>12.61</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>11.71</td> <td>38.5</td> <td>-26.8</td> <td></td> </tr> <tr> <td>847.50</td> <td>22.00</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.10</td> <td>38.5</td> <td>-17.4</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									815.50	13.76	V	0.9	0.0	12.86	50.0	-37.1		815.50	24.24	H	0.9	0.0	23.34	50.0	-26.7		Part 22									825.50	13.04	V	0.9	0.0	12.14	38.5	-26.4		825.50	21.91	H	0.9	0.0	21.01	38.5	-17.5		Mid Ch									831.50	13.03	V	0.9	0.0	12.13	38.5	-26.4		831.50	23.10	H	0.9	0.0	22.20	38.5	-16.3		High Ch									847.50	12.61	V	0.9	0.0	11.71	38.5	-26.8		847.50	22.00	H	0.9	0.0	21.10	38.5	-17.4	
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Band LTE26 3MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/16/2015 Test Engineer: A. Escamilla Configuration: EUT Only (X position) Location: Chamber A Mode: LTE_QPSK Band 26 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Part 90</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>815.50</td><td>13.85</td><td>V</td><td>0.9</td><td>0.0</td><td>12.95</td><td>50.0</td><td>-37.1</td><td></td></tr> <tr><td>815.50</td><td>24.37</td><td>H</td><td>0.9</td><td>0.0</td><td>23.47</td><td>50.0</td><td>-26.5</td><td></td></tr> <tr><td>Part 22</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>825.50</td><td>13.24</td><td>V</td><td>0.9</td><td>0.0</td><td>12.34</td><td>38.5</td><td>-26.2</td><td></td></tr> <tr><td>825.50</td><td>22.21</td><td>H</td><td>0.9</td><td>0.0</td><td>21.31</td><td>38.5</td><td>-17.2</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>831.50</td><td>13.30</td><td>V</td><td>0.9</td><td>0.0</td><td>12.40</td><td>38.5</td><td>-26.1</td><td></td></tr> <tr><td>831.50</td><td>23.34</td><td>H</td><td>0.9</td><td>0.0</td><td>22.44</td><td>38.5</td><td>-16.1</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>847.50</td><td>12.91</td><td>V</td><td>0.9</td><td>0.0</td><td>12.01</td><td>38.5</td><td>-26.5</td><td></td></tr> <tr><td>847.50</td><td>22.43</td><td>H</td><td>0.9</td><td>0.0</td><td>21.53</td><td>38.5</td><td>-17.0</td><td></td></tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Part 90									815.50	13.85	V	0.9	0.0	12.95	50.0	-37.1		815.50	24.37	H	0.9	0.0	23.47	50.0	-26.5		Part 22									825.50	13.24	V	0.9	0.0	12.34	38.5	-26.2		825.50	22.21	H	0.9	0.0	21.31	38.5	-17.2		Mid Ch									831.50	13.30	V	0.9	0.0	12.40	38.5	-26.1		831.50	23.34	H	0.9	0.0	22.44	38.5	-16.1		High Ch									847.50	12.91	V	0.9	0.0	12.01	38.5	-26.5		847.50	22.43	H	0.9	0.0	21.53	38.5	-17.0	
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Band

LTE26

1.4MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

LG

15I21235

7/16/2015

A. Escamilla

EUT Only (X position)

Chamber A

LTE_16QAM Band 26 Fundamentals, 1.4MHz Bandwidth

Test Equipment:

Receiving: Hybrid T130, and Chamber A SMA Cables

Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Part 90								
814.70	13.72	V	0.9	0.0	12.82	50.0	-37.2	
814.70	24.28	H	0.9	0.0	23.38	50.0	-26.6	
Part 22								
824.70	13.19	V	0.9	0.0	12.29	38.5	-26.2	
824.70	21.76	H	0.9	0.0	20.86	38.5	-17.6	
Mid Ch								
831.50	12.70	V	0.9	0.0	11.80	38.5	-26.7	
831.50	22.59	H	0.9	0.0	21.69	38.5	-16.8	
High Ch								
848.30	12.66	V	0.9	0.0	11.76	38.5	-26.7	
848.30	21.90	H	0.9	0.0	21.00	38.5	-17.5	

Band LTE26 1.4MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/16/2015 Test Engineer: A. Escamilla Configuration: EUT Only (X position) Location: Chamber A Mode: LTE_QPSK Band 26 Fundamentals, 1.4MHz Bandwidth Test Equipment: Receiving: Hybrid T130, and Chamber A SMA Cables Substitution: Dipole T273, SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Part 90</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>814.70</td> <td>14.09</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>13.19</td> <td>50.0</td> <td>-36.8</td> <td></td> </tr> <tr> <td>814.70</td> <td>24.61</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>23.71</td> <td>50.0</td> <td>-26.3</td> <td></td> </tr> <tr> <td>Part 22</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>824.70</td> <td>13.44</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.54</td> <td>38.5</td> <td>-26.0</td> <td></td> </tr> <tr> <td>824.70</td> <td>22.41</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.51</td> <td>38.5</td> <td>-17.0</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>831.50</td> <td>13.12</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.22</td> <td>38.5</td> <td>-26.3</td> <td></td> </tr> <tr> <td>831.50</td> <td>23.42</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>22.52</td> <td>38.5</td> <td>-16.0</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>848.30</td> <td>13.13</td> <td>V</td> <td>0.9</td> <td>0.0</td> <td>12.23</td> <td>38.5</td> <td>-26.3</td> <td></td> </tr> <tr> <td>848.30</td> <td>22.35</td> <td>H</td> <td>0.9</td> <td>0.0</td> <td>21.45</td> <td>38.5</td> <td>-17.1</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Part 90									814.70	14.09	V	0.9	0.0	13.19	50.0	-36.8		814.70	24.61	H	0.9	0.0	23.71	50.0	-26.3		Part 22									824.70	13.44	V	0.9	0.0	12.54	38.5	-26.0		824.70	22.41	H	0.9	0.0	21.51	38.5	-17.0		Mid Ch									831.50	13.12	V	0.9	0.0	12.22	38.5	-26.3		831.50	23.42	H	0.9	0.0	22.52	38.5	-16.0		High Ch									848.30	13.13	V	0.9	0.0	12.23	38.5	-26.3		848.30	22.35	H	0.9	0.0	21.45	38.5	-17.1	
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LTE Band 41

Band LTE41 20MHz 16QAM	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																	
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	Project #:		15I21235																																																																																															
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	Mode:		LTE_16QAM Band 41 Fundamentals, 20MHz Bandwidth																																																																																															
	Test Equipment:																																																																																																	
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2680.00	4.86	V	0.9	9.7	13.69	33.0	-19.3																																																																																											
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Band LTE41 20MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/22/2015 Test Engineer: A. Escamilla Configuration: X-Pos, EUT Only Location: Chamber C Mode: LTE_QPSK Band 41 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T59, Xft SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">f MHz</th> <th style="text-align: center;">SG reading (dBm)</th> <th style="text-align: center;">Ant. Pol. (H/V)</th> <th style="text-align: center;">Cable Loss (dB)</th> <th style="text-align: center;">Antenna Gain (dBi)</th> <th style="text-align: center;">EIRP (dBm)</th> <th style="text-align: center;">Limit (dBm)</th> <th style="text-align: center;">Delta (dB)</th> <th style="text-align: center;">Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td style="text-align: center;">2506.00</td> <td style="text-align: center;">7.17</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">15.75</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-17.3</td> <td></td> </tr> <tr> <td style="text-align: center;">2506.00</td> <td style="text-align: center;">8.76</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">17.34</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-15.7</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td style="text-align: center;">2593.00</td> <td style="text-align: center;">8.54</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">17.15</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-15.9</td> <td></td> </tr> <tr> <td style="text-align: center;">2593.00</td> <td style="text-align: center;">11.09</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.5</td> <td style="text-align: center;">19.70</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-13.3</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td style="text-align: center;">2680.00</td> <td style="text-align: center;">5.75</td> <td style="text-align: center;">V</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.7</td> <td style="text-align: center;">14.58</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-18.4</td> <td></td> </tr> <tr> <td style="text-align: center;">2680.00</td> <td style="text-align: center;">10.45</td> <td style="text-align: center;">H</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">9.7</td> <td style="text-align: center;">19.28</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">-13.7</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									2506.00	7.17	V	0.9	9.5	15.75	33.0	-17.3		2506.00	8.76	H	0.9	9.5	17.34	33.0	-15.7		Mid Ch									2593.00	8.54	V	0.9	9.5	17.15	33.0	-15.9		2593.00	11.09	H	0.9	9.5	19.70	33.0	-13.3		High Ch									2680.00	5.75	V	0.9	9.7	14.58	33.0	-18.4		2680.00	10.45	H	0.9	9.7	19.28	33.0	-13.7	
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Band

LTE41

15MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company: LG

Project #: 15I21235

Date: 7/22/2015

Test Engineer: A. Escamilla

Configuration: X-Pos, EUT Only

Location: Chamber C

Mode: LTE_16QAM Band 41 Fundamentals, 15MHz Bandwidth

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: Horn T59, Xft SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2503.50	4.90	V	0.9	9.5	13.48	33.0	-19.5	
2503.50	7.79	H	0.9	9.5	16.37	33.0	-16.6	
Mid Ch								
2593.00	6.51	V	0.9	9.5	15.12	33.0	-17.9	
2593.00	8.98	H	0.9	9.5	17.59	33.0	-15.4	
High Ch								
2682.50	4.23	V	0.9	9.7	13.06	33.0	-19.9	
2682.50	8.90	H	0.9	9.7	17.73	33.0	-15.3	

Band LTE41 15MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Company: LG Project #: 15I21235 Date: 7/22/2015 Test Engineer: A. Escamilla Configuration: X-Pos, EUT Only Location: Chamber C Mode: LTE_QPSK Band 41 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T59, Xft SMA Cable (SN # 506392) Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2503.50</td> <td>5.67</td> <td>V</td> <td>0.9</td> <td>9.5</td> <td>14.25</td> <td>33.0</td> <td>-18.8</td> <td></td> </tr> <tr> <td>2503.50</td> <td>8.24</td> <td>H</td> <td>0.9</td> <td>9.5</td> <td>16.82</td> <td>33.0</td> <td>-16.2</td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2593.00</td> <td>7.15</td> <td>V</td> <td>0.9</td> <td>9.5</td> <td>15.76</td> <td>33.0</td> <td>-17.2</td> <td></td> </tr> <tr> <td>2593.00</td> <td>9.52</td> <td>H</td> <td>0.9</td> <td>9.5</td> <td>18.13</td> <td>33.0</td> <td>-14.9</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2682.50</td> <td>4.83</td> <td>V</td> <td>0.9</td> <td>9.7</td> <td>13.66</td> <td>33.0</td> <td>-19.3</td> <td></td> </tr> <tr> <td>2682.50</td> <td>9.40</td> <td>H</td> <td>0.9</td> <td>9.7</td> <td>18.23</td> <td>33.0</td> <td>-14.8</td> <td></td> </tr> </tbody> </table>	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch									2503.50	5.67	V	0.9	9.5	14.25	33.0	-18.8		2503.50	8.24	H	0.9	9.5	16.82	33.0	-16.2		Mid Ch									2593.00	7.15	V	0.9	9.5	15.76	33.0	-17.2		2593.00	9.52	H	0.9	9.5	18.13	33.0	-14.9		High Ch									2682.50	4.83	V	0.9	9.7	13.66	33.0	-19.3		2682.50	9.40	H	0.9	9.7	18.23	33.0	-14.8	
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes																																																																																			
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Band

LTE41

10MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: Horn T59, Xft SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2501.00	5.89	V	0.9	9.5	14.47	33.0	-18.5	
2501.00	6.80	H	0.9	9.5	15.38	33.0	-17.6	
Mid Ch								
2593.00	5.84	V	0.9	9.5	14.45	33.0	-18.6	
2593.00	10.16	H	0.9	9.5	18.77	33.0	-14.2	
High Ch								
2685.00	5.45	V	0.9	9.7	14.29	33.0	-18.7	
2685.00	7.46	H	0.9	9.7	16.30	33.0	-16.7	

Band

LTE41

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc.

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: Horn T59, Xft SMA Cable (SN # 506392) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2501.00	5.99	V	0.9	9.5	14.57	33.0	-18.4	
2501.00	7.45	H	0.9	9.5	16.03	33.0	-17.0	
Mid Ch								
2593.00	6.52	V	0.9	9.5	15.13	33.0	-17.9	
2593.00	10.26	H	0.9	9.5	18.87	33.0	-14.1	
High Ch								
2685.00	5.91	V	0.9	9.7	14.75	33.0	-18.3	
2685.00	7.87	H	0.9	9.7	16.71	33.0	-16.3	

Band LTE41 5MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc.																																																																																																
	Company:		LG																																																																																														
	Project #:		15I21235																																																																																														
	Date:		7/22/2015																																																																																														
	Test Engineer:		A. Escamilla																																																																																														
	Configuration:		X-Pos, EUT Only																																																																																														
	Location:		Chamber C																																																																																														
	Mode:		LTE_QPSK Band 41 Fundamentals, 5MHz Bandwidth																																																																																														
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