10.4.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	17.13	V	0.62	0.0	16.51	18.66	38.45	40.60	-21.9	
814.70	-5.88	H	0.62	0.0	-6.50	-4.35	38.45	40.60	-45.0	
Mid Ch										
819.00	17.86	V	0.62	0.0	17.24	19.39	38.45	40.60	-21.2	
819.00	-6.60	H	0.62	0.0	-7.22	-5.07	38.45	40.60	-45.7	
High Ch										
823.30	17.43	V	0.62	0.0	16.81	18.96	38.45	40.60	-21.6	
823.30	-5.53	H	0.62	0.0	-6.15	-4.00	38.45	40.60	-44.6	

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16QAM EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	16.48	V	0.62	0.0	15.86	18.01	38.45	40.60	-22.6	
814.70	-6.67	H	0.62	0.0	-7.29	-5.14	38.45	40.60	-45.7	
Mid Ch										
819.00	16.96	V	0.62	0.0	16.34	18.49	38.45	40.60	-22.1	
819.00	-6.67	H	0.62	0.0	-7.29	-5.14	38.45	40.60	-45.7	
High Ch										
823.30	17.04	V	0.62	0.0	16.42	18.57	38.45	40.60	-22.0	
823.30	-5.92	H	0.62	0.0	-6.54	-4.39	38.45	40.60	-45.0	

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QPSK EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	17.92	V	0.62	0.0	17.30	19.45	38.45	40.60	-21.1	
815.50	-5.67	H	0.62	0.0	-6.29	-4.14	38.45	40.60	-44.7	
Mid Ch										
819.00	17.36	V	0.62	0.0	16.74	18.89	38.45	40.60	-21.7	
819.00	-5.57	H	0.62	0.0	-6.19	-4.04	38.45	40.60	-44.6	
High Ch										
822.50	17.52	V	0.62	0.0	16.90	19.05	38.45	40.60	-21.5	
822.50	-5.62	H	0.62	0.0	-6.24	-4.09	38.45	40.60	-44.7	

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16QAM EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	16.19	V	0.62	0.0	15.57	17.72	38.45	40.60	-22.9	
815.50	-6.54	H	0.62	0.0	-7.16	-5.01	38.45	40.60	-45.6	
Mid Ch										
819.00	16.54	V	0.62	0.0	15.92	18.07	38.45	40.60	-22.5	
819.00	-6.27	H	0.62	0.0	-6.89	-4.74	38.45	40.60	-45.3	
High Ch										
822.50	16.61	V	0.62	0.0	15.99	18.14	38.45	40.60	-22.5	
822.50	-5.10	H	0.62	0.0	-5.72	-3.57	38.45	40.60	-44.2	

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QPSK EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	17.71	V	0.62	0.0	17.09	19.24	38.45	40.60	-21.4	
816.50	-5.88	H	0.62	0.0	-6.50	-4.35	38.45	40.60	-45.0	
Mid Ch										
819.00	17.22	V	0.62	0.0	16.60	18.75	38.45	40.60	-21.9	
819.00	-5.99	H	0.62	0.0	-6.61	-4.46	38.45	40.60	-45.1	
High Ch										
821.50	17.72	V	0.62	0.0	17.10	19.25	38.45	40.60	-21.3	
821.50	-5.53	H	0.62	0.0	-6.15	-4.00	38.45	40.60	-44.6	

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16QAM EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	16.61	V	0.62	0.0	15.99	18.14	38.45	40.60	-22.5	
816.50	-6.27	H	0.62	0.0	-6.89	-4.74	38.45	40.60	-45.3	
Mid Ch										
819.00	16.35	V	0.62	0.0	15.73	17.88	38.45	40.60	-22.7	
819.00	-6.18	H	0.62	0.0	-6.80	-4.65	38.45	40.60	-45.3	
High Ch										
821.50	16.52	V	0.62	0.0	15.90	18.05	38.45	40.60	-22.5	
821.50	-5.45	H	0.62	0.0	-6.07	-3.92	38.45	40.60	-44.5	

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QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch										
819.00	17.08	V	0.62	0.0	16.46	18.61	38.45	40.60	-22.0	
819.00	-4.24	H	0.62	0.0	-4.86	-2.71	38.45	40.60	-43.3	

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16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
819.00	15.98	V	0.62	0.0	15.36	17.51	38.45	40.60	-23.1	
819.00	-5.73	H	0.62	0.0	-6.35	-4.20	38.45	40.60	-44.8	

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10.4.10. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	21.1	V	1.15	9.33	29.26	33.0	-3.7	
2.499	15.0	H	1.15	9.33	23.19	33.0	-9.8	
Mid Ch								
2.593	20.3	V	1.16	9.47	28.61	33.0	-4.4	
2.593	15.6	H	1.16	9.47	23.92	33.0	-9.1	
High Ch								
2.688	19.5	V	1.17	9.78	28.11	33.0	-4.9	
2.688	14.2	H	1.17	9.78	22.85	33.0	-10.1	

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16QAM EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	20.1	V	1.15	9.33	28.23	33.0	-4.8	
2.499	14.1	H	1.15	9.33	22.29	33.0	-10.7	
Mid Ch								
2.593	19.5	V	1.16	9.47	27.79	33.0	-5.2	
2.593	14.6	H	1.16	9.47	22.92	33.0	-10.1	
High Ch								
2.688	18.6	V	1.17	9.78	27.21	33.0	-5.8	
2.688	13.3	H	1.17	9.78	21.95	33.0	-11.0	

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QPSK EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.450	21.3	V	1.15	9.32	29.42	33.0	-3.6	
2.450	15.7	H	1.15	9.32	23.88	33.0	-9.1	
Mid Ch								
2.593	20.4	V	1.16	9.47	28.70	33.0	-4.3	
2.593	16.1	H	1.16	9.47	24.42	33.0	-8.6	
High Ch								
2.685	19.3	V	1.17	9.77	27.90	33.0	-5.1	
2.685	14.0	H	1.17	9.77	22.64	33.0	-10.4	

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16QAM EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.451	20.4	V	1.15	9.32	28.52	33.0	-4.5	
2.451	14.7	H	1.15	9.32	22.88	33.0	-10.1	
Mid Ch								
2.593	19.7	V	1.16	9.47	28.00	33.0	-5.0	
2.593	15.0	H	1.16	9.47	23.32	33.0	-9.7	
High Ch								
2.685	18.7	V	1.17	9.77	27.30	33.0	-5.7	
2.685	13.1	H	1.17	9.77	21.74	33.0	-11.3	

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QPSK EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	22.0	V	1.15	9.34	30.14	33.0	-2.9	
2.504	15.9	H	1.15	9.34	24.10	33.0	-8.9	
Mid Ch								
2.593	21.3	V	1.16	9.47	29.58	33.0	-3.4	
2.593	14.9	H	1.16	9.47	23.22	33.0	-9.8	
High Ch								
2.683	19.8	V	1.17	9.76	28.39	33.0	-4.6	
2.683	14.2	H	1.17	9.76	22.83	33.0	-10.2	

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16QAM EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	20.9	V	1.15	9.34	29.04	33.0	-4.0	
2.504	15.1	H	1.15	9.34	23.30	33.0	-9.7	
Mid Ch								
2.593	20.2	V	1.16	9.47	28.51	33.0	-4.5	
2.593	14.0	H	1.16	9.47	22.32	33.0	-10.7	
High Ch								
2.683	18.8	V	1.17	9.76	27.39	33.0	-5.6	
2.683	13.3	H	1.17	9.76	21.93	33.0	-11.1	

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QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	22.1	V	1.15	9.34	30.24	33.0	-2.8	
2.506	16.2	H	1.15	9.34	24.40	33.0	-8.6	
Mid Ch								
2.593	21.6	V	1.16	9.47	29.90	33.0	-3.1	
2.593	16.1	H	1.16	9.47	24.42	33.0	-8.6	
High Ch								
2.680	19.8	V	1.17	9.76	28.38	33.0	-4.6	
2.680	15.1	H	1.17	9.76	23.73	33.0	-9.3	

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16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20165
Date: 6/13/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	21.4	V	1.15	9.34	29.54	33.0	-3.5	
2.506	15.3	H	1.15	9.34	23.50	33.0	-9.5	
Mid Ch								
2.593	21.0	V	1.16	9.47	29.31	33.0	-3.7	
2.593	15.1	H	1.16	9.47	23.42	33.0	-9.6	
High Ch								
2.680	18.9	V	1.17	9.76	27.44	33.0	-5.6	
2.680	14.2	H	1.17	9.76	22.83	33.0	-10.2	

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10.5. PEAK-TO-AVERAGE RATIO (MODEL: A1633)

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

10.5.1. LTE BAND 2

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	1.4	1880.0	QPSK	28.97	23.97	5.00
			16QAM	28.9	23.15	5.75
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	3.0	1880.0	QPSK	28.95	23.95	5.00
			16QAM	28.35	23.10	5.25
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	5.0	1880.0	QPSK	28.69	23.94	4.75
			16QAM	28.73	23.23	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	10.0	1880.0	QPSK	28.71	23.96	4.75
			16QAM	28.71	23.21	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	15.0	1880.0	QPSK	27.47	23.97	3.50
			16QAM	28.93	23.43	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	20.0	1880.0	QPSK	27.53	23.93	3.60
			16QAM	27.59	23.39	4.20
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.2. LTE BAND 4

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	1.4	1732.5	QPSK	27.7	23.95	3.75
			16QAM	27.9	22.90	5.00
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	3.0	1732.5	QPSK	27.87	23.87	4.00
			16QAM	28.08	23.08	5.00
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	5.0	1732.5	QPSK	27.94	23.94	4.00
			16QAM	27.91	23.16	4.75
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	10.0	1732.5	QPSK	28.42	23.92	4.50
			16QAM	28.73	23.23	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	15.0	1732.5	QPSK	27.96	23.96	4.00
			16QAM	28.03	23.53	4.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	20.0	1732.5	QPSK	27.96	23.96	4.00
			16QAM	28.01	23.26	4.75
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.3. LTE BAND 5

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	1.4	836.5	QPSK	28.00	24.00	4.00
			16QAM	27.97	23.22	4.75
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	3.0	836.5	QPSK	27.99	23.99	4.00
			16QAM	27.94	23.19	4.75
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	5.0	836.5	QPSK	27.90	24.00	3.90
			16QAM	27.97	23.27	4.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	10.0	836.5	QPSK	27.67	24.00	3.67
			16QAM	29.22	23.32	5.90
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.4. LTE BAND 12

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	1.4	707.5	QPSK	28.63	23.88	4.75
			16QAM	28.60	23.10	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	3.0	707.5	QPSK	27.48	23.78	3.70
			16QAM	27.55	23.05	4.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	5.0	707.5	QPSK	27.56	23.76	3.80
			16QAM	27.63	23.13	4.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	10.0	707.5	QPSK	27.62	23.82	3.80
			16QAM	28.95	23.25	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.5. LTE BAND 13

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 13 RB1-0	5.0	782.0	QPSK	27.83	23.83	4.00
			16QAM	27.84	23.24	4.60
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 13 RB1-0	10.0	782.0	QPSK	28.89	23.89	5.00
			16QAM	28.88	23.28	5.60
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.6. LTE BAND 17

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 17 RB1-0	5.0	710.0	QPSK	28.69	23.94	4.75
			16QAM	28.82	23.32	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 17 RB1-0	10.0	710.0	QPSK	28.73	23.98	4.75
			16QAM	28.92	23.42	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.7. LTE BAND 25

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	1.4	1880.0	QPSK	28.73	23.93	4.80
			16QAM	28.91	23.21	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	3.0	1880.0	QPSK	28.73	23.93	4.80
			16QAM	28.72	23.12	5.60
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	5.0	1880.0	QPSK	28.77	23.97	4.80
			16QAM	28.81	23.21	5.60
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	10.0	1880.0	QPSK	28.80	24.00	4.80
			16QAM	28.80	23.30	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	15.0	1880.0	QPSK	28.68	23.88	4.80
			16QAM	28.83	23.33	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	20.0	1880.0	QPSK	27.46	23.96	3.50
			16QAM	27.61	23.21	4.40
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.5.8. LTE BAND 26

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	1.4	819.0	QPSK	28.02	23.92	4.10
			16QAM	28.05	23.15	4.90
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	3.0	819.0	QPSK	28.09	23.89	4.20
			16QAM	28.05	23.05	5.00
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	5.0	819.0	QPSK	28.06	23.86	4.20
			16QAM	28.02	23.12	4.90
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	10.0	819.0	QPSK	28.94	23.94	5.00
			16QAM	29.00	23.30	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

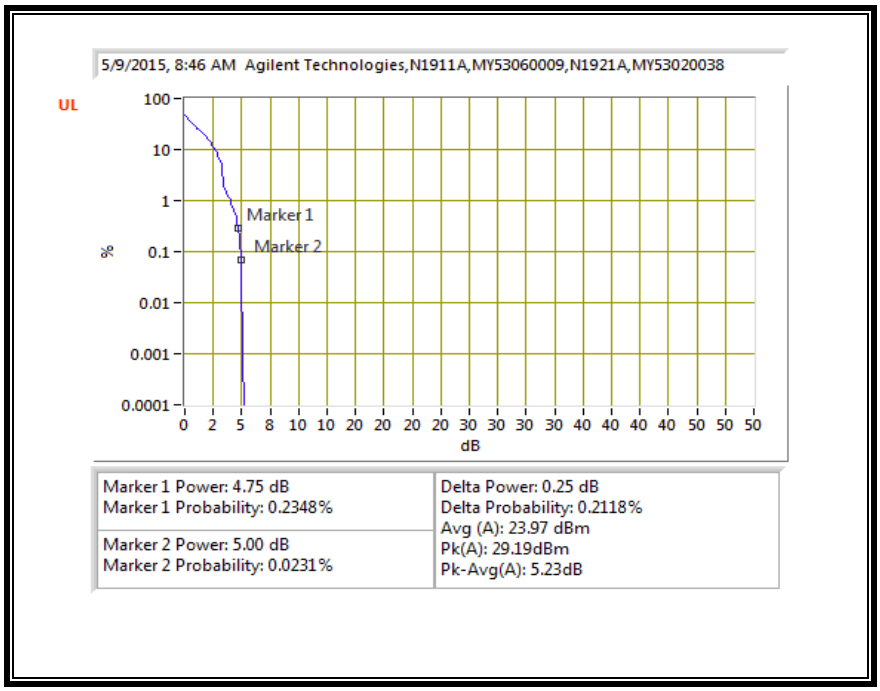
10.5.9. LTE BAND 30

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 30 RB1-0	5.0	2310.0	QPSK	27.71	22.91	4.80
			16QAM	27.80	22.20	5.60
*Peak Reading = Average Reading + Peak-to-Average Ratio						

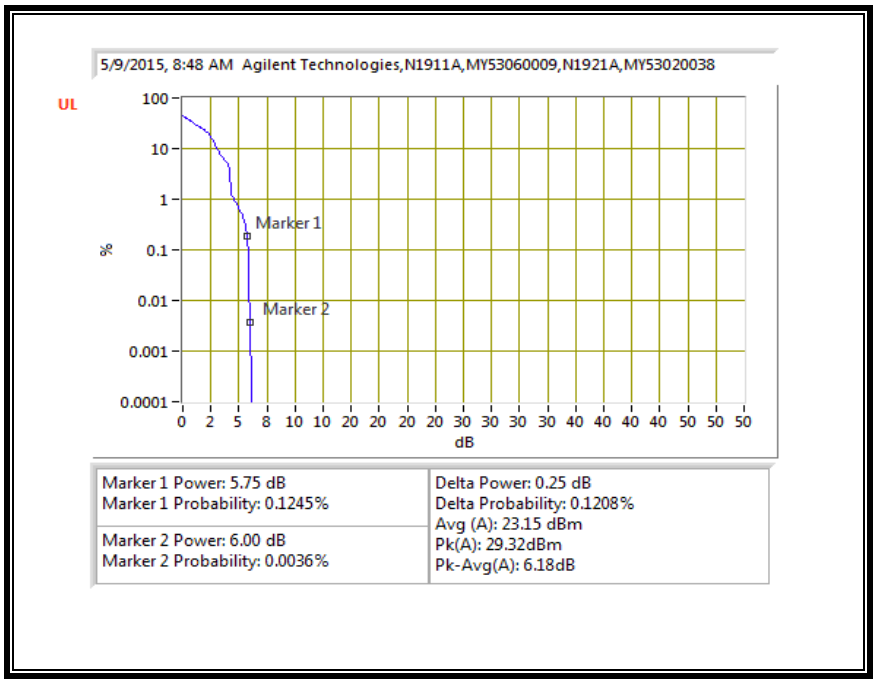
Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 30 RB1-0	10.0	2310.0	QPSK	27.50	22.90	4.60
			16QAM	27.74	22.24	5.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

LTE BAND 2

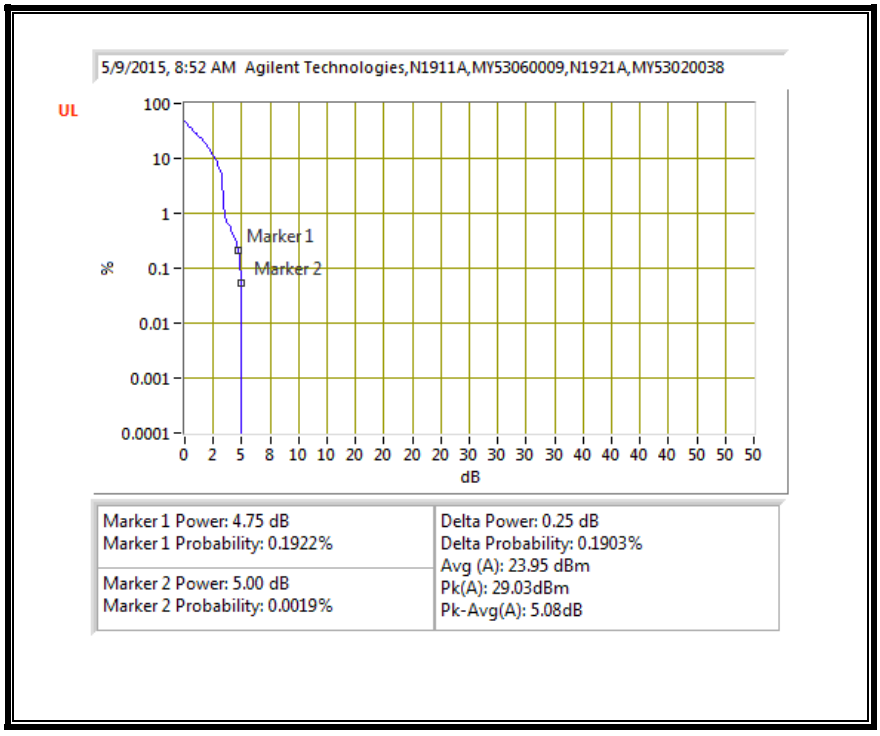
QPSK, (1.4 MHz BAND WIDTH)



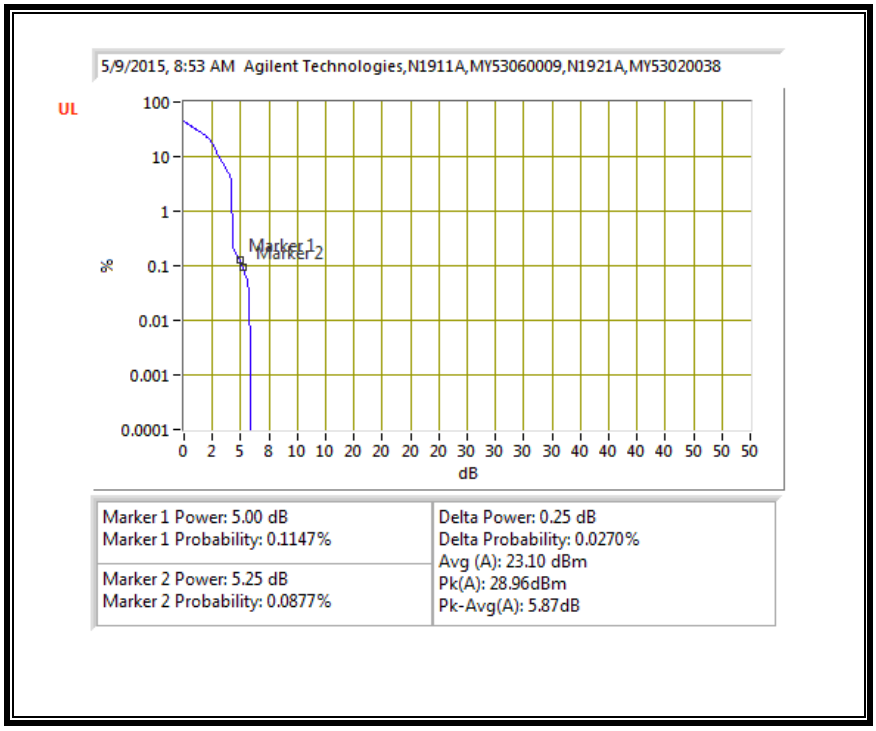
16QAM, (1.4 MHz BAND WIDTH)



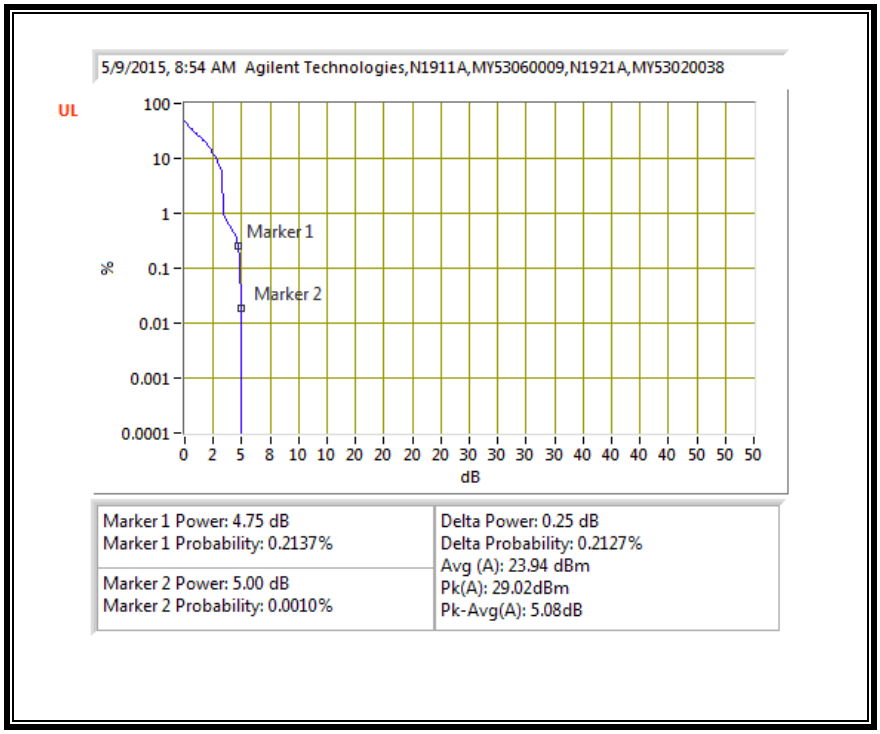
QPSK, (3.0 MHz BAND WIDTH)



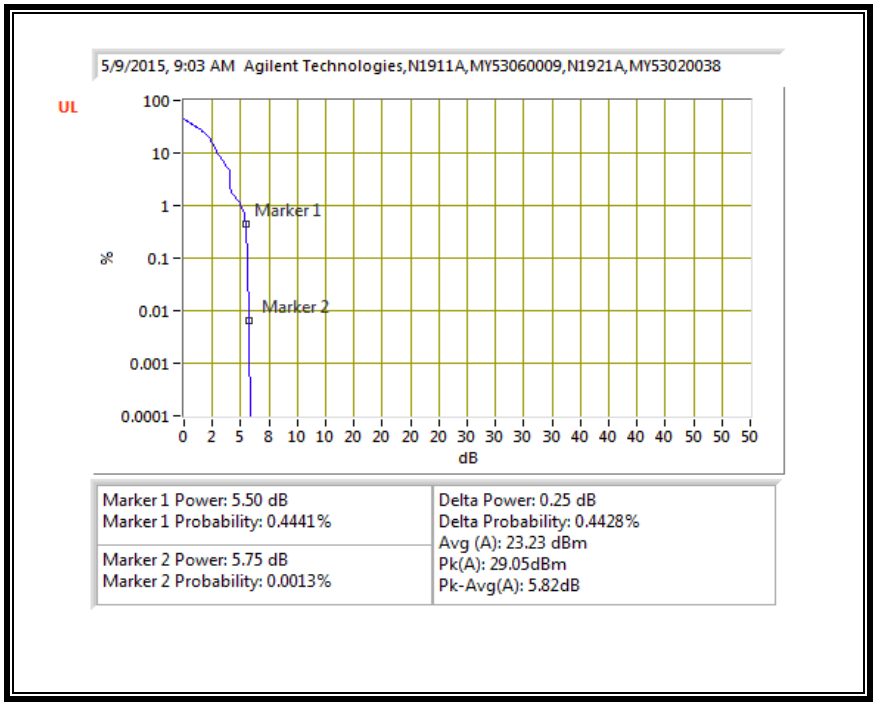
16QAM, (3.0 MHz BAND WIDTH)



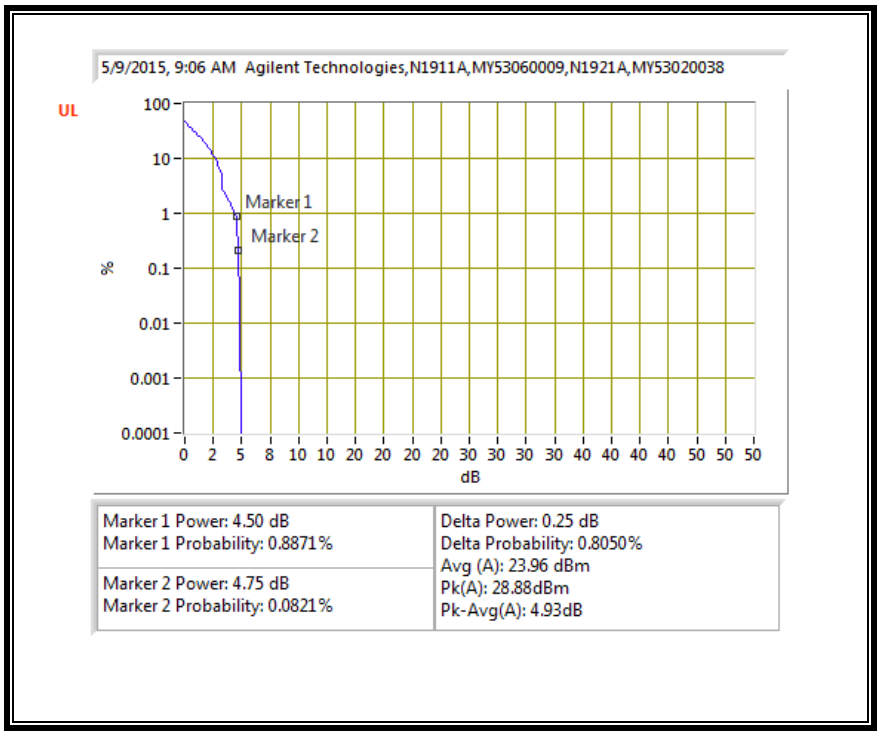
QPSK, (5.0 MHz BAND WIDTH)



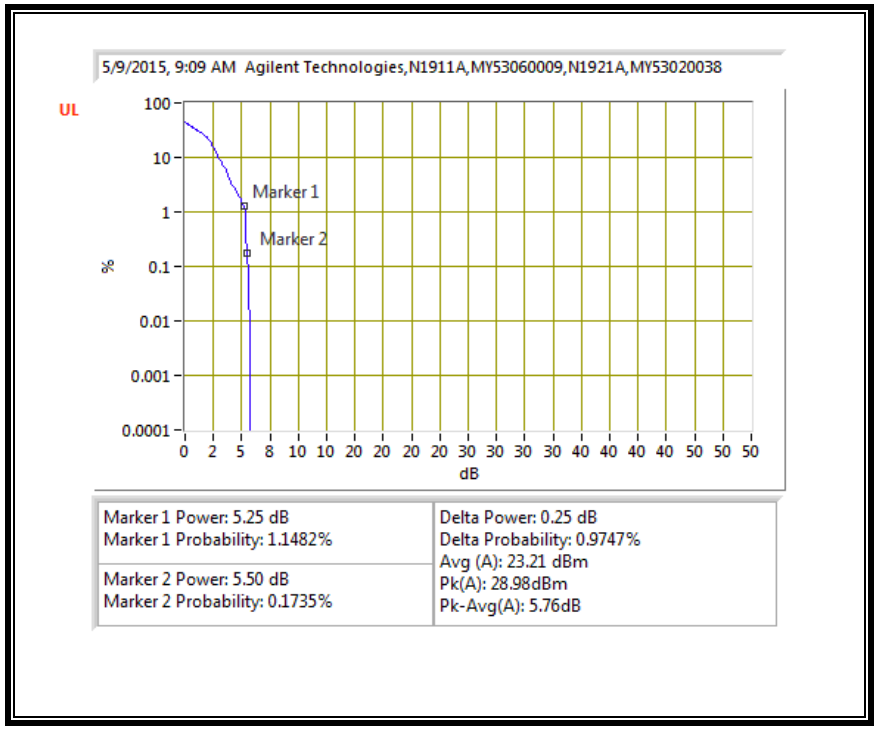
16QAM, (5.0 MHz BAND WIDTH)



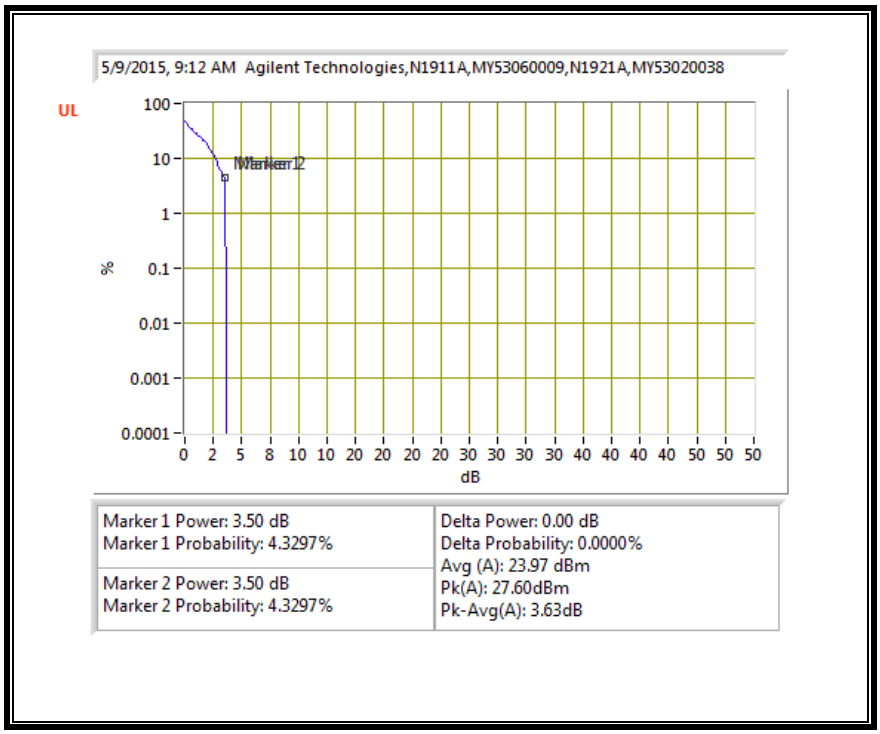
QPSK, (10.0 MHz BAND WIDTH)



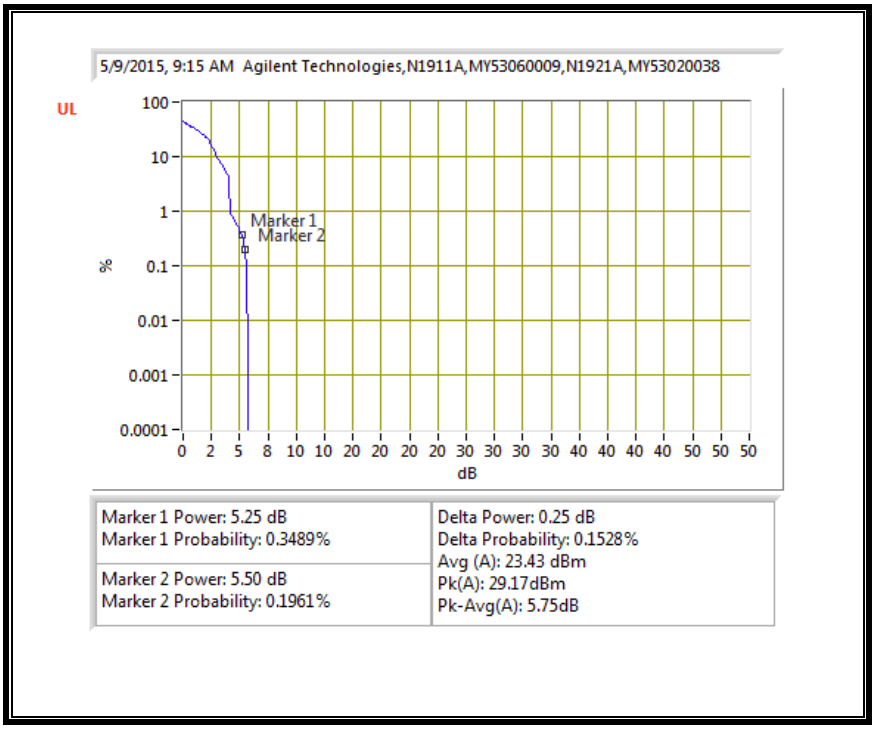
16QAM, (10.0 MHz BAND WIDTH)



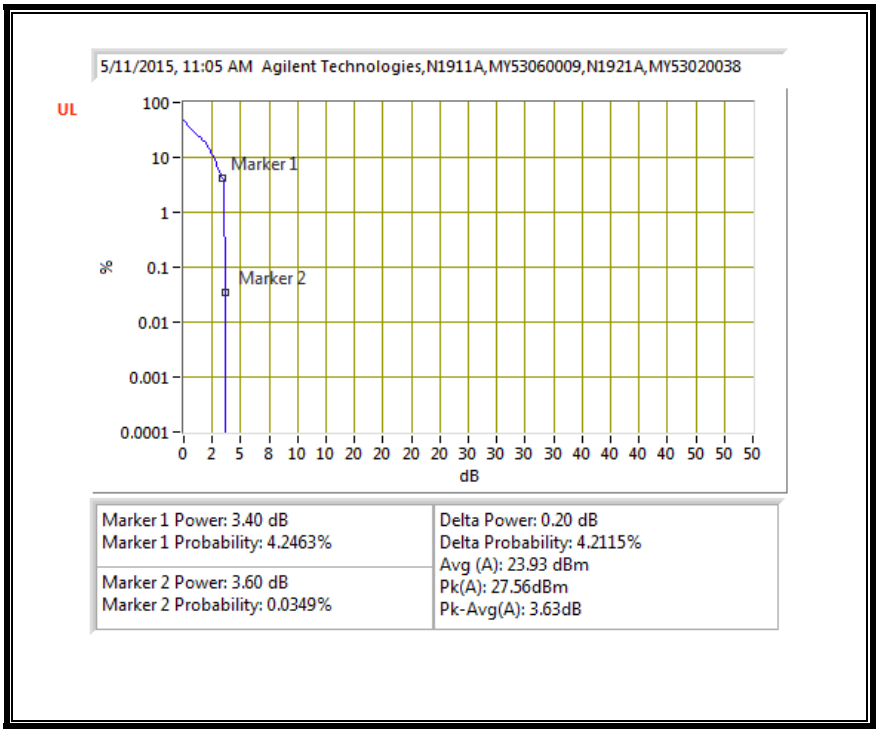
QPSK, (15.0 MHz BAND WIDTH)



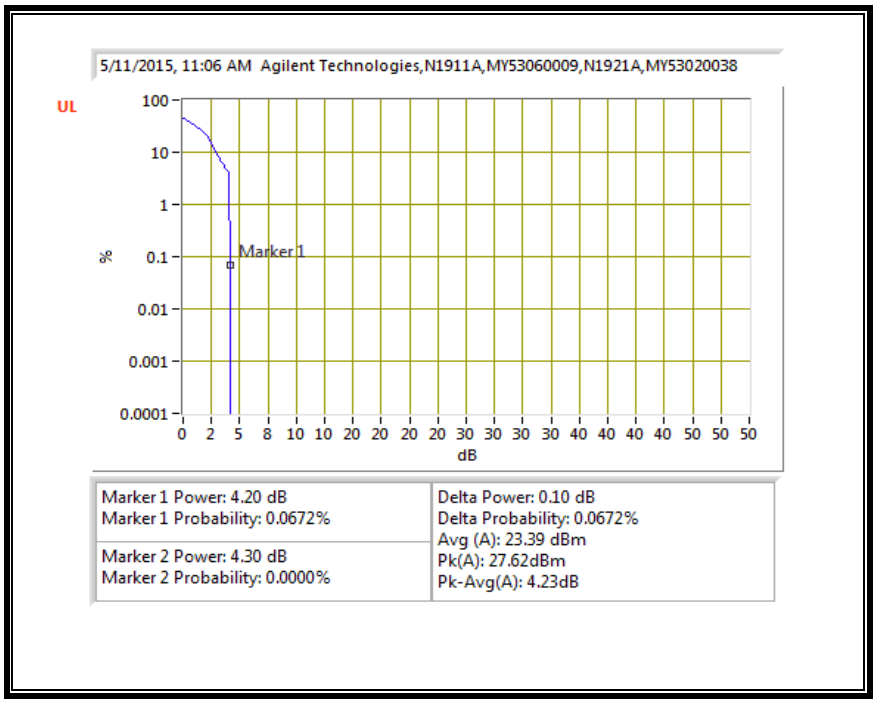
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

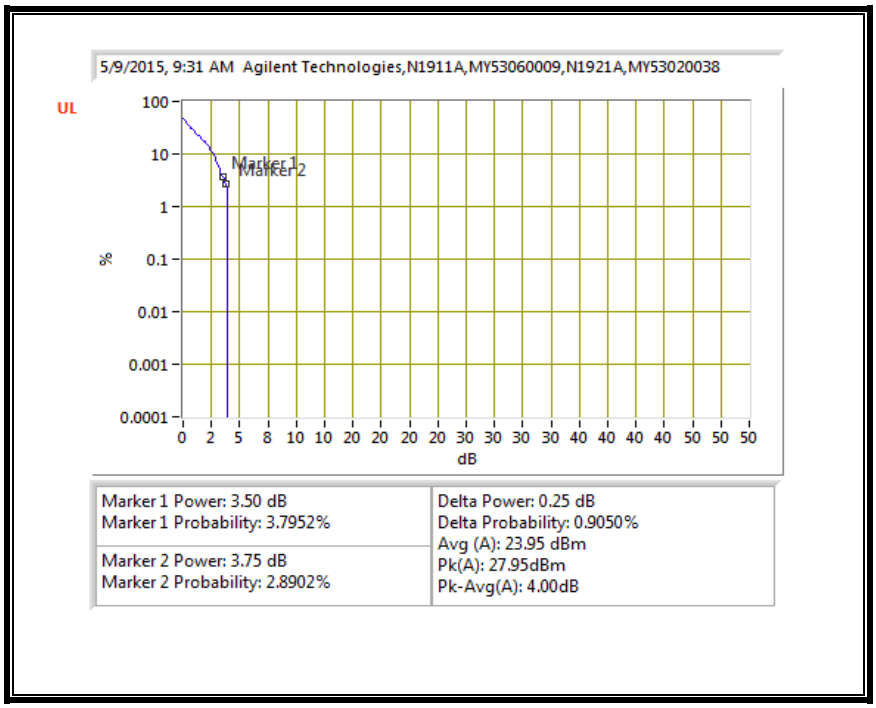


16QAM, (20.0 MHz BAND WIDTH)

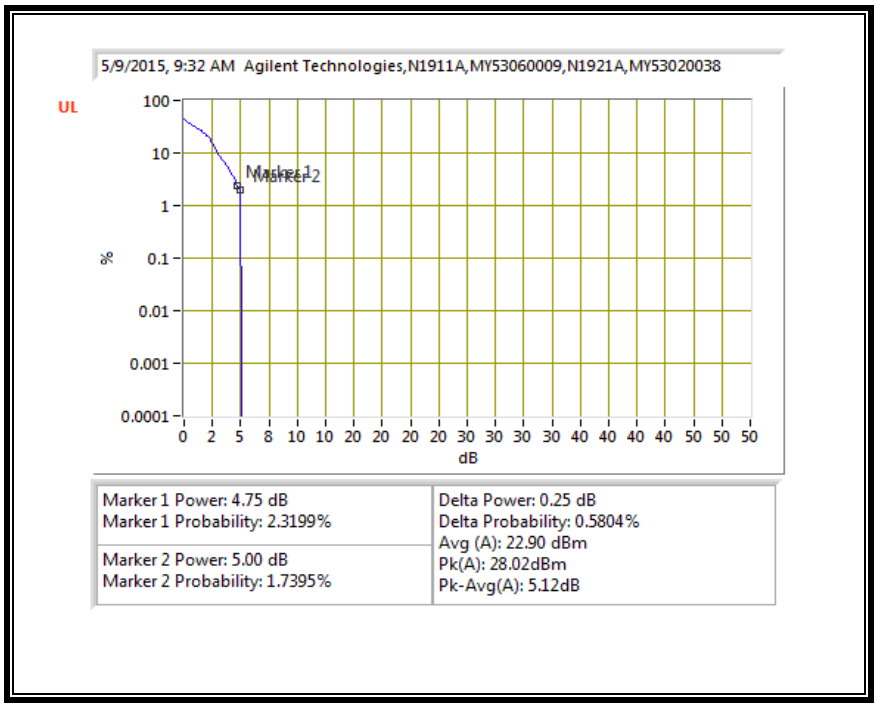


LTE BAND 4

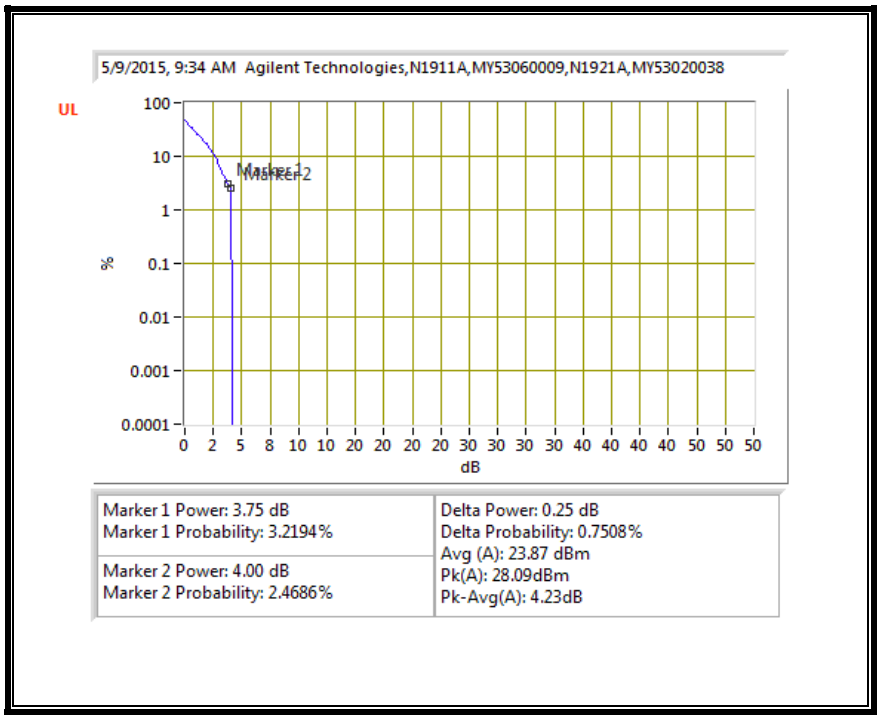
QPSK, (1.4 MHz BAND WIDTH)



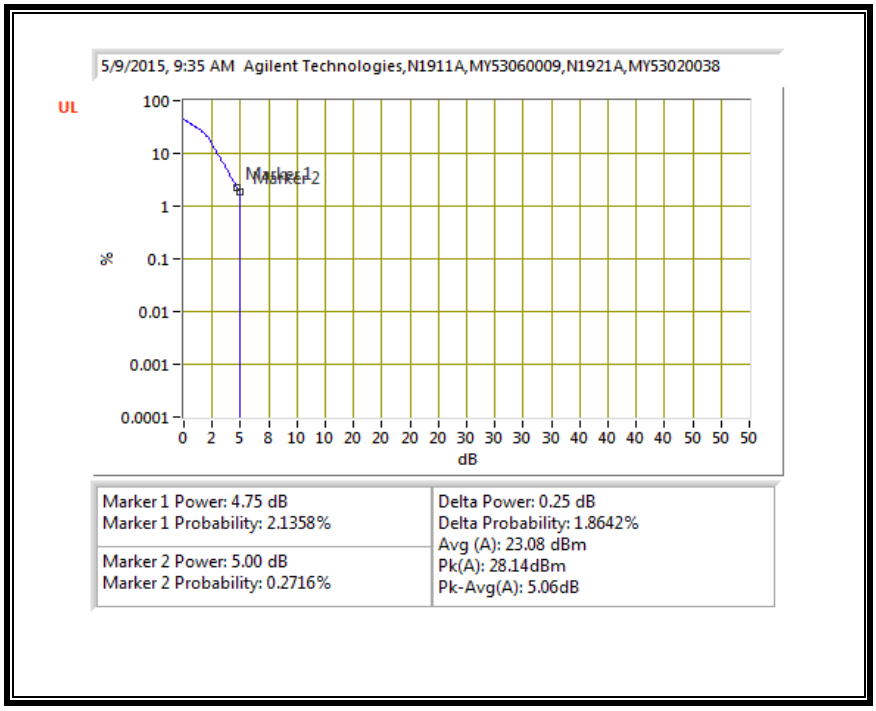
16QAM, (1.4 MHz BAND WIDTH)



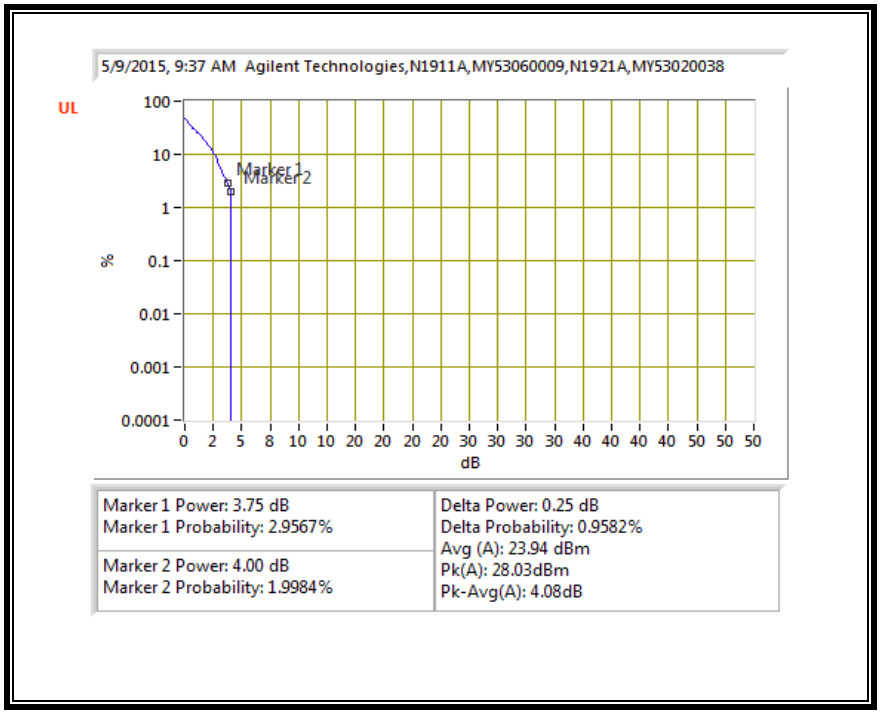
QPSK, (3.0 MHz BAND WIDTH)



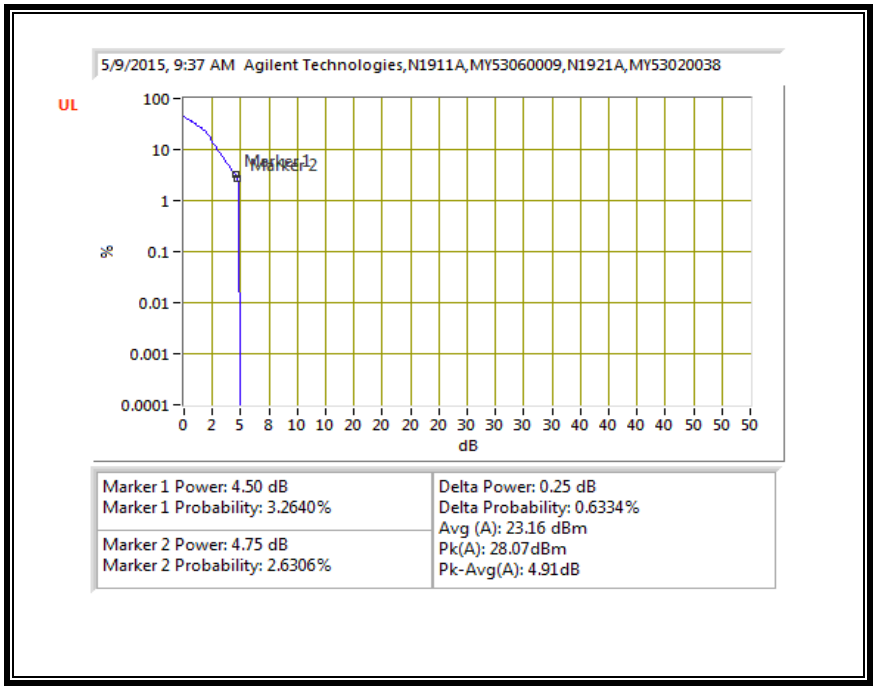
16QAM, (3.0 MHz BAND WIDTH)



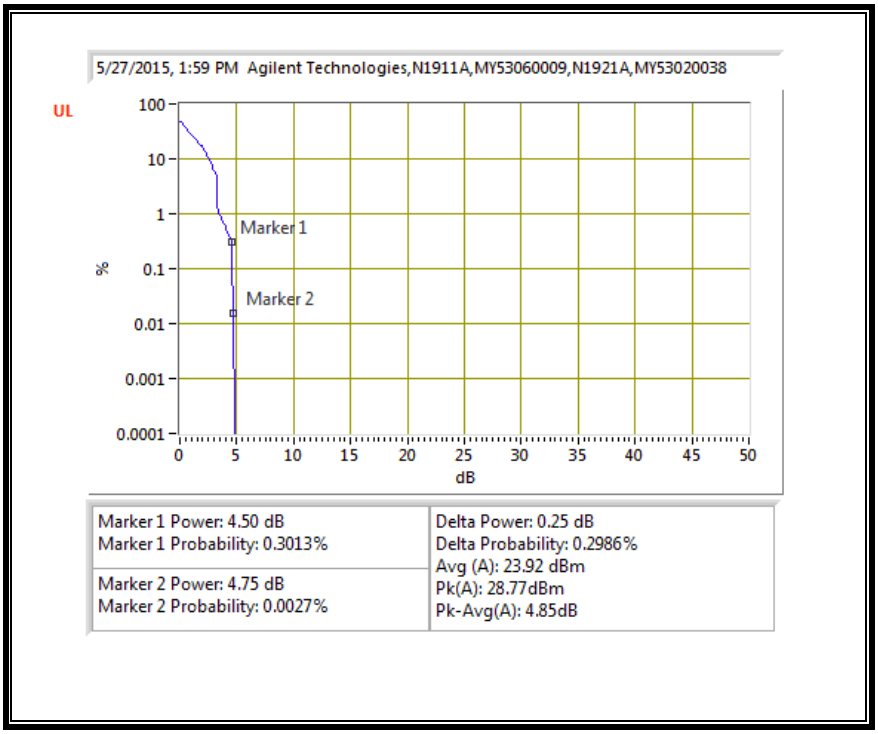
QPSK, (5.0 MHz BAND WIDTH)



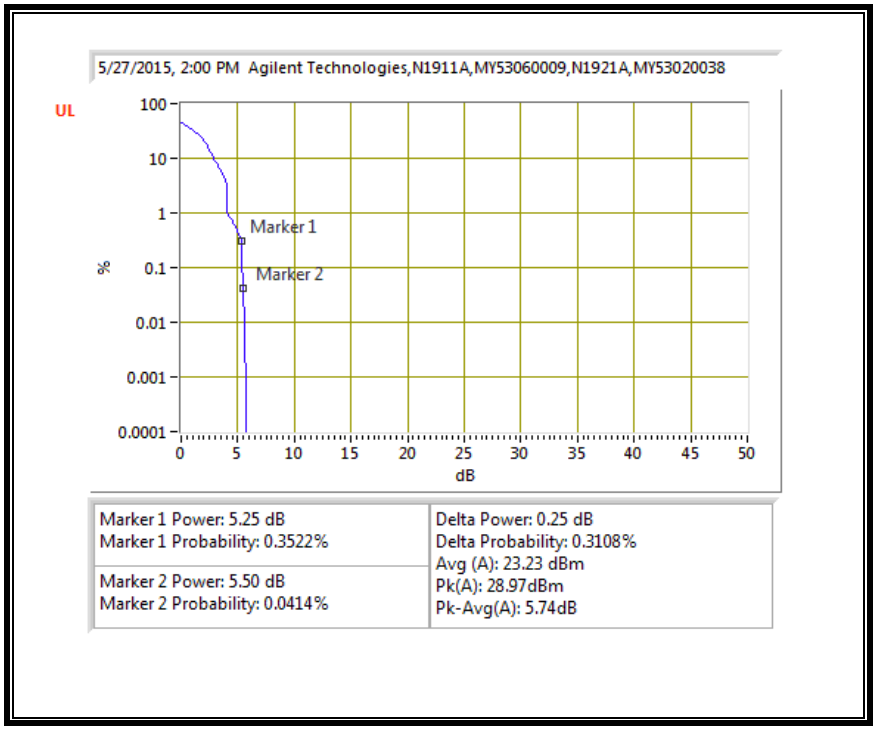
16QAM, (5.0 MHz BAND WIDTH)



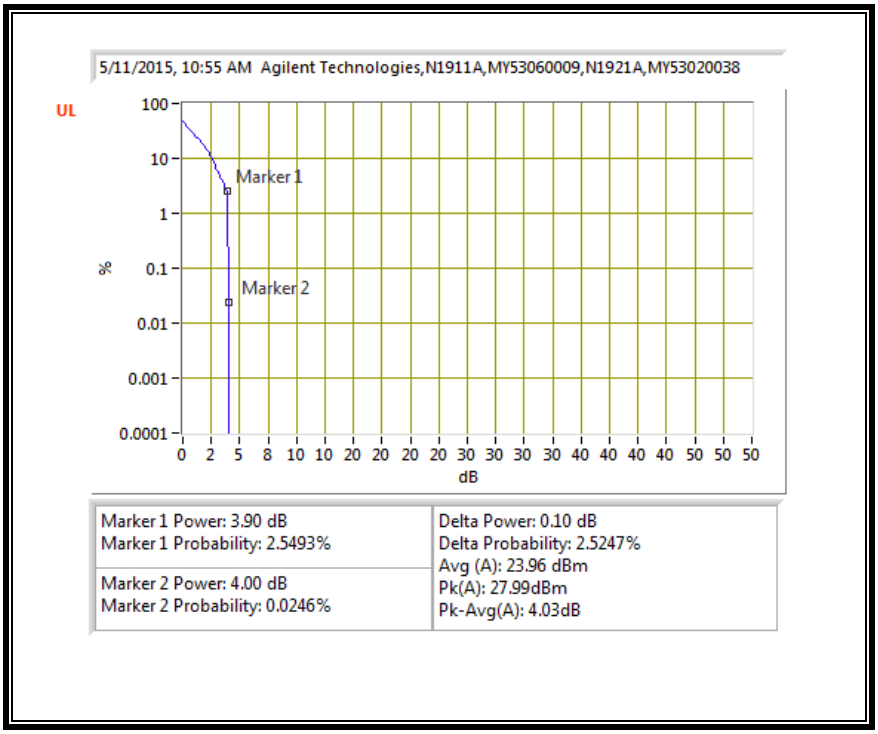
QPSK, (10.0 MHz BAND WIDTH)



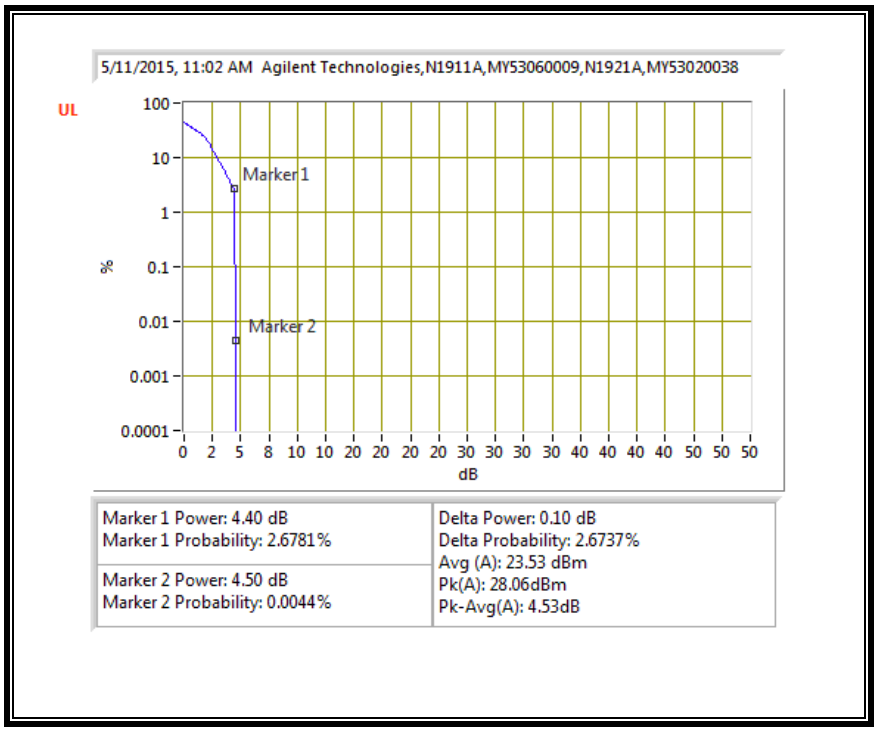
16QAM, (10.0 MHz BAND WIDTH)



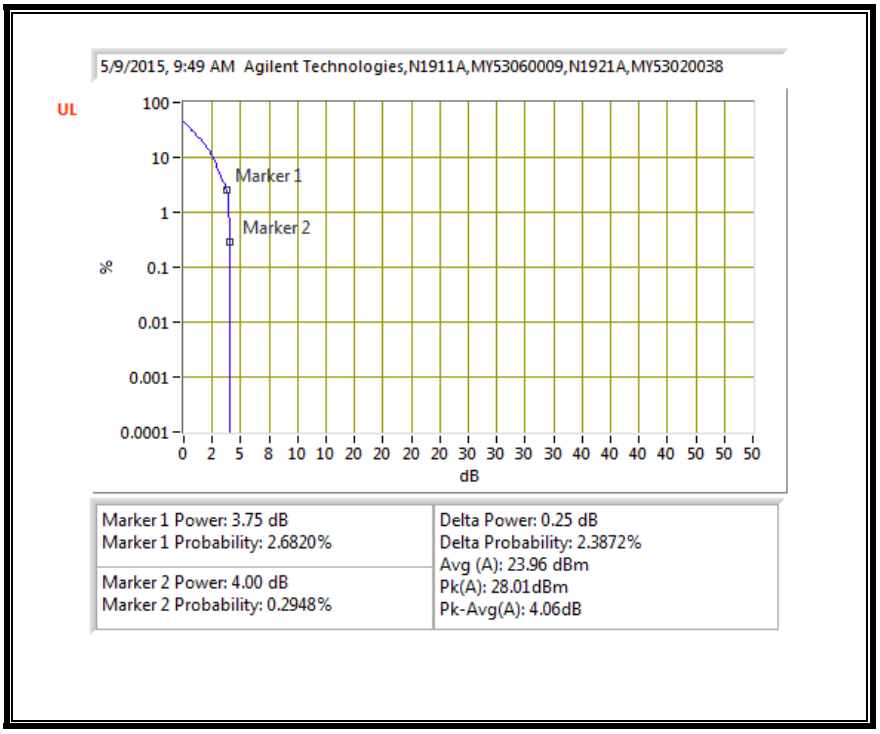
QPSK, (15.0 MHz BAND WIDTH)



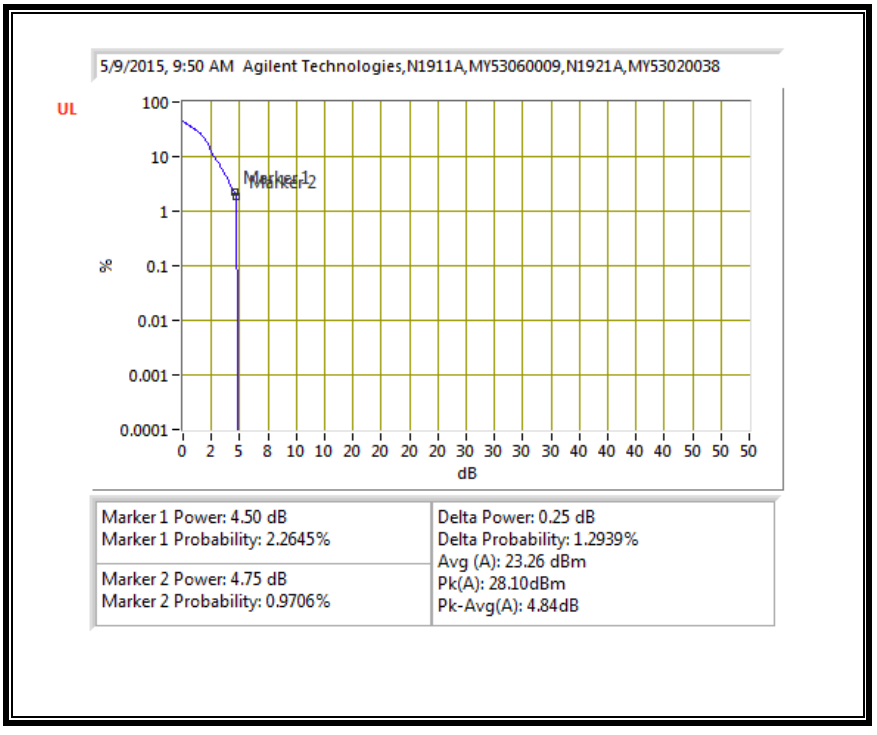
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

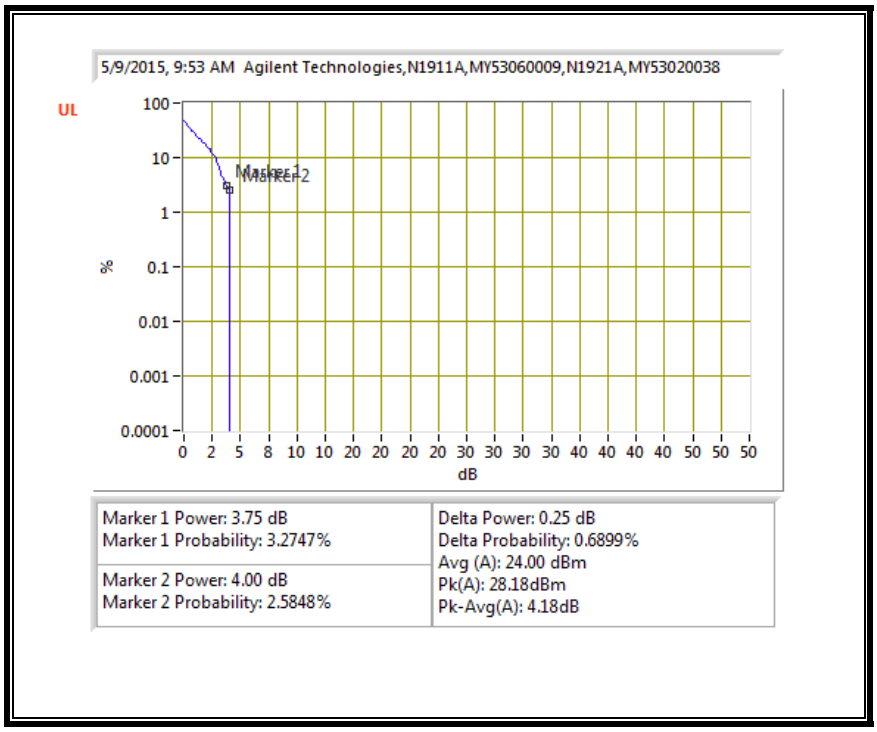


16QAM, (20.0 MHz BAND WIDTH)

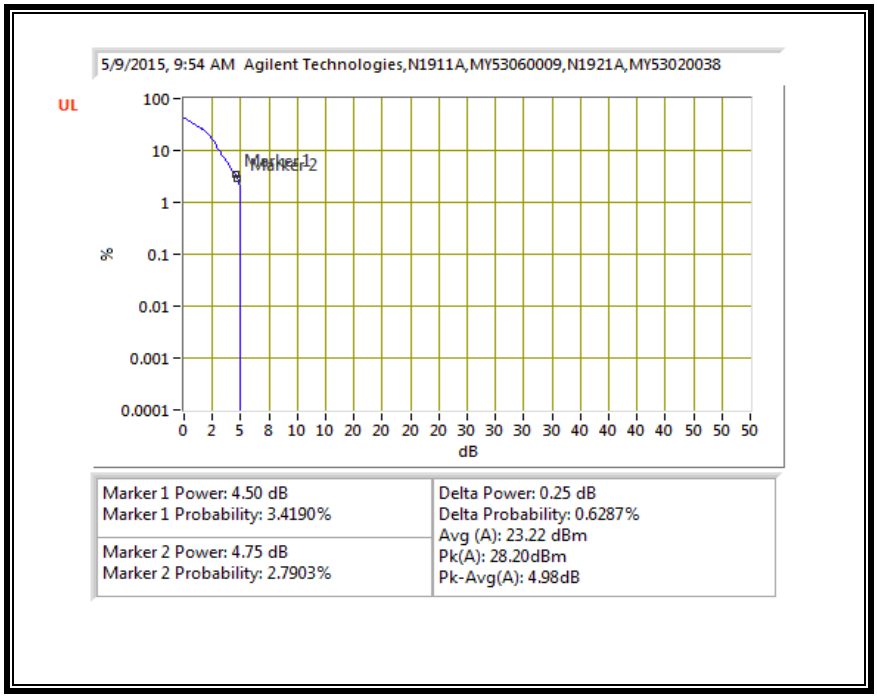


LTE BAND 5

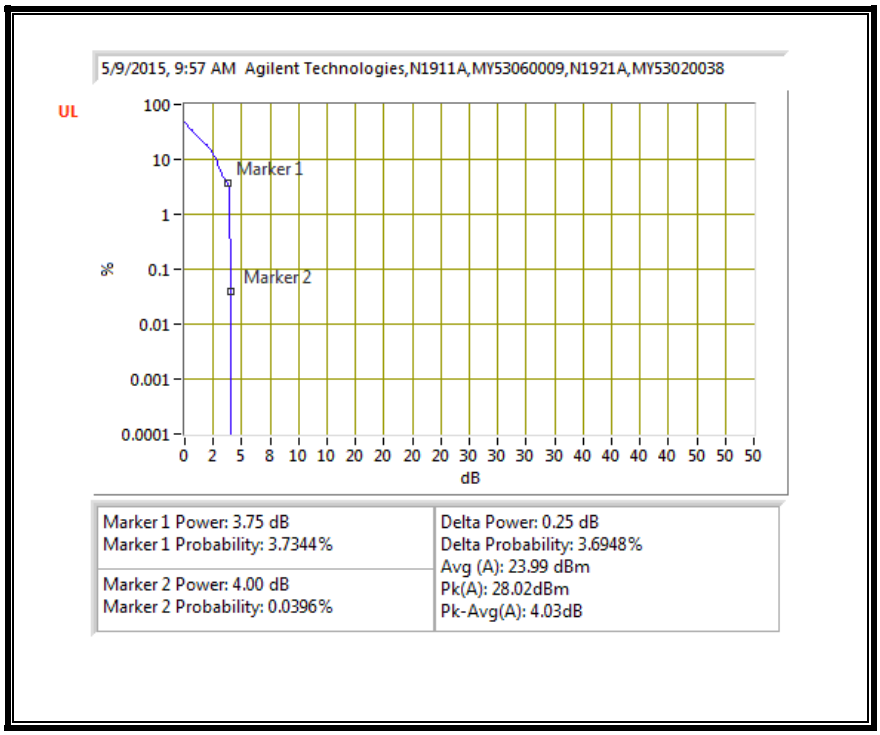
QPSK, (1.4 MHz BAND WIDTH)



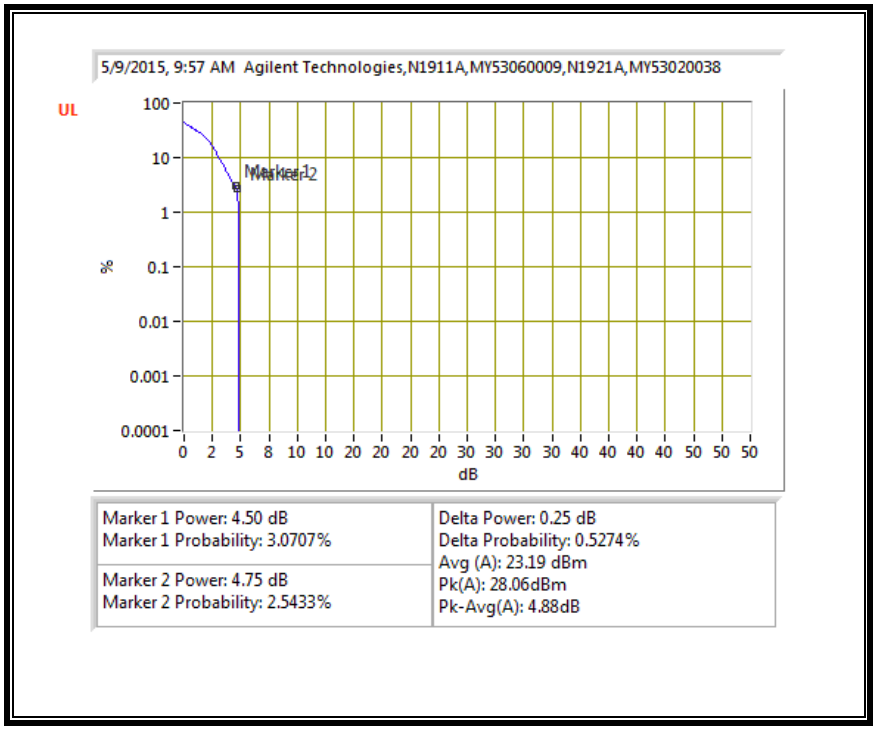
16QAM, (1.4 MHz BAND WIDTH)



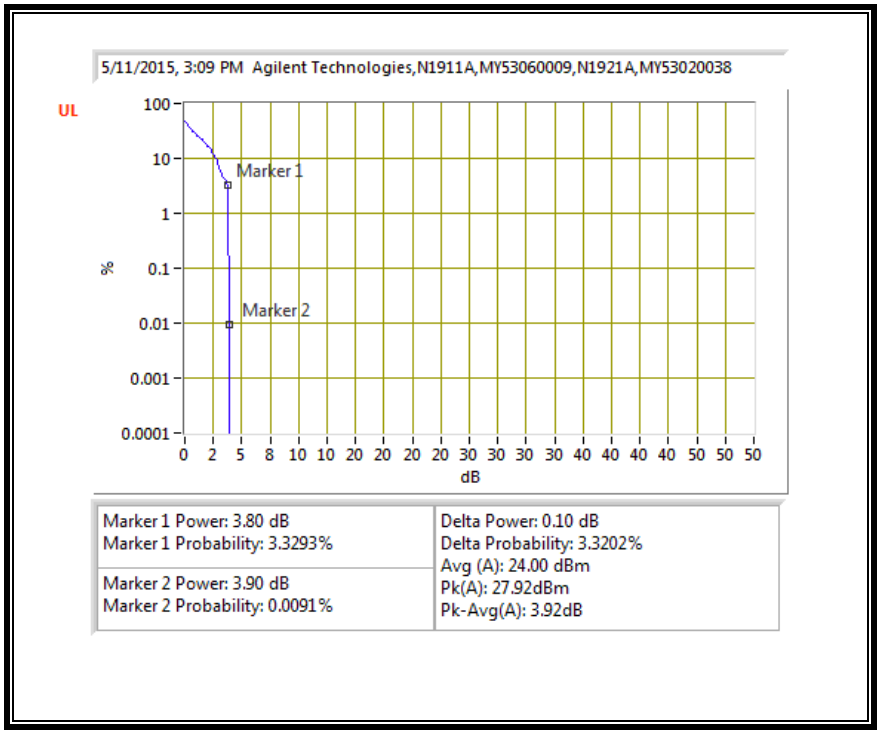
QPSK, (3.0 MHz BAND WIDTH)



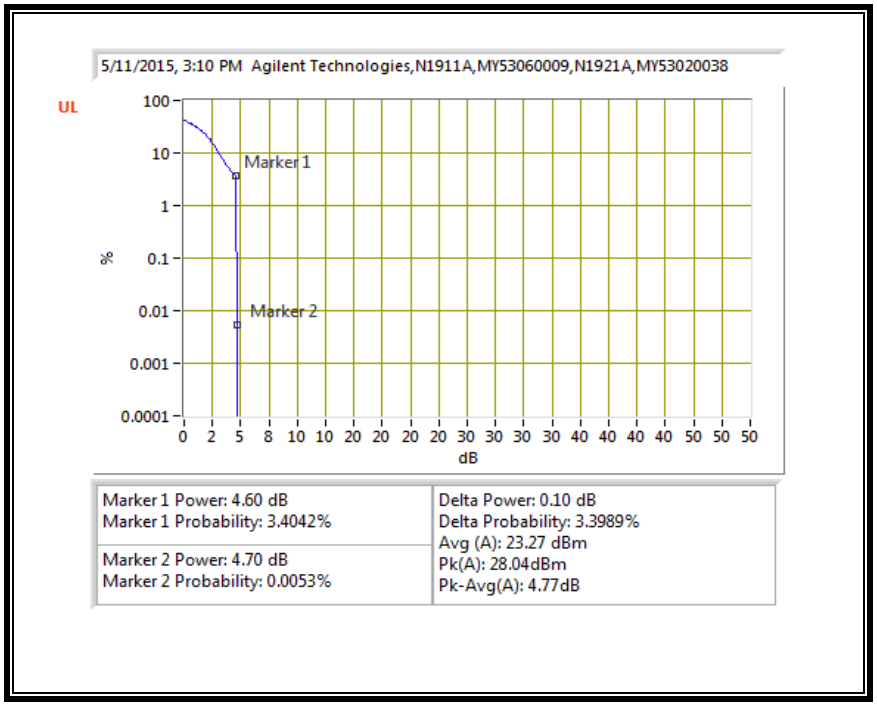
16QAM, (3.0 MHz BAND WIDTH)



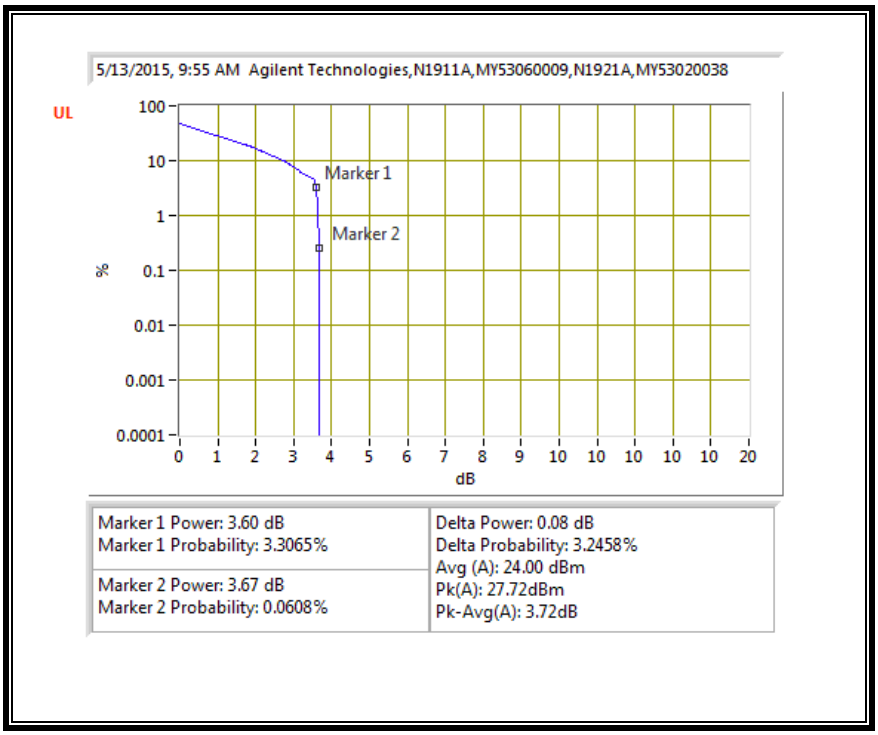
QPSK, (5.0 MHz BAND WIDTH)



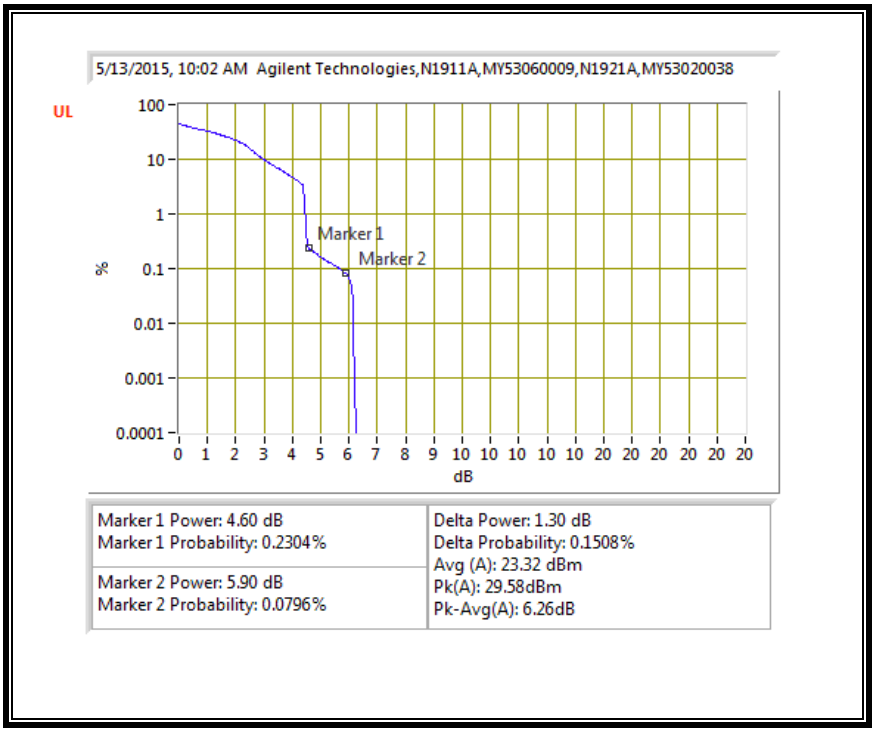
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

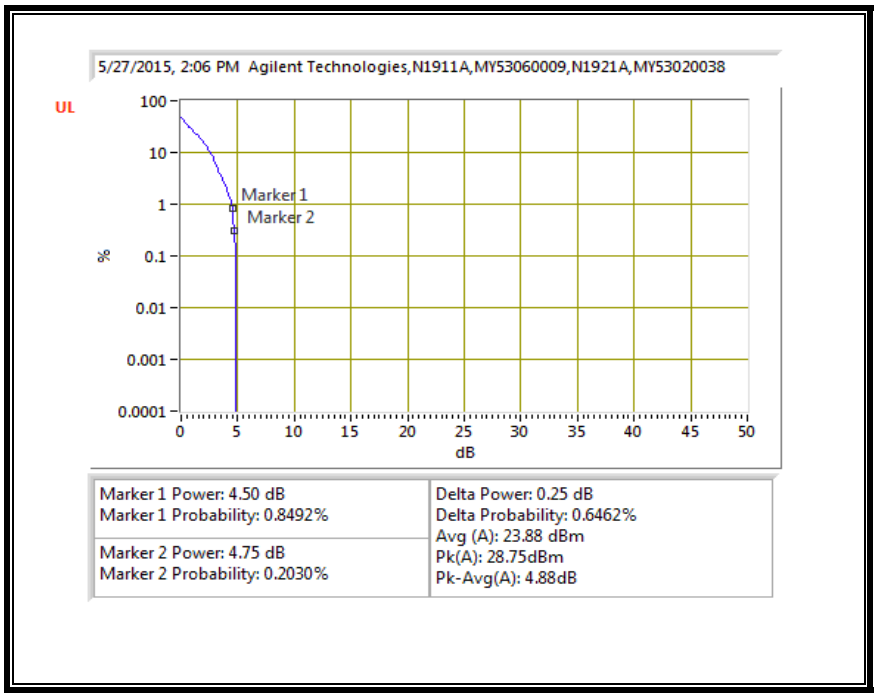


16QAM, (10.0 MHz BAND WIDTH)

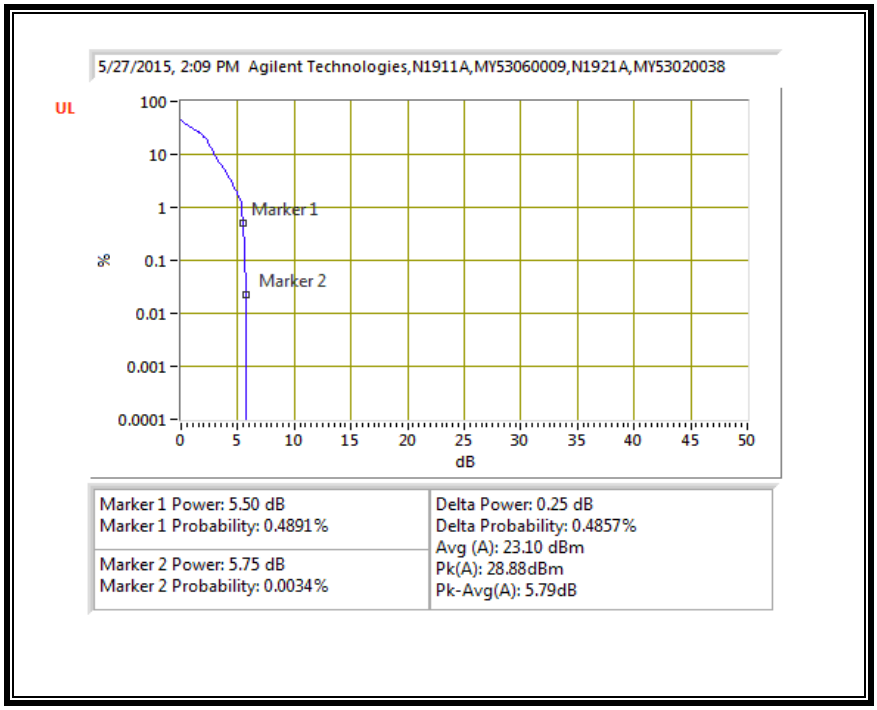


LTE BAND 12

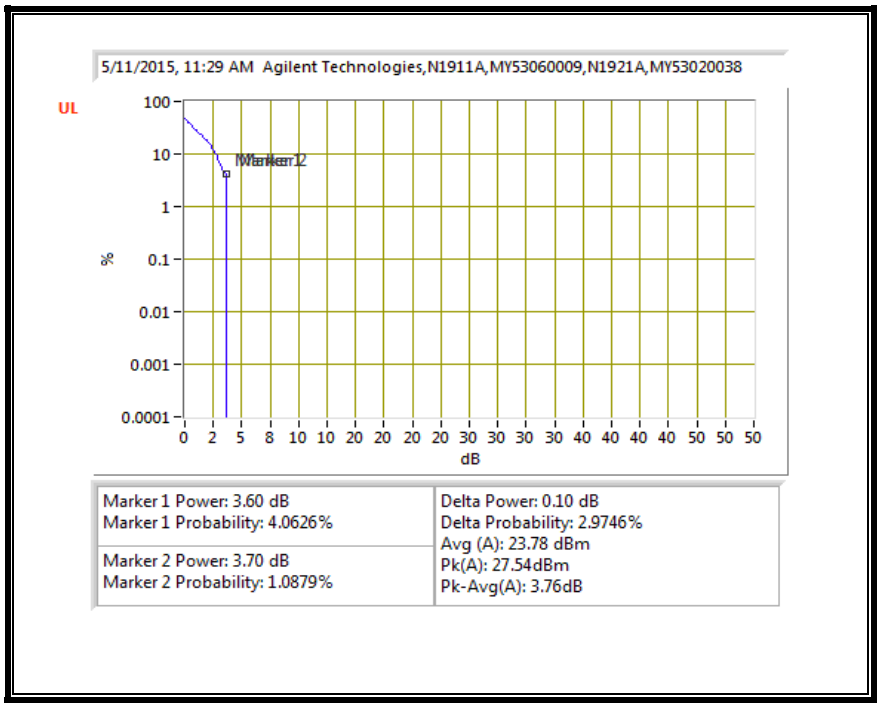
QPSK, (1.4 MHz BAND WIDTH)



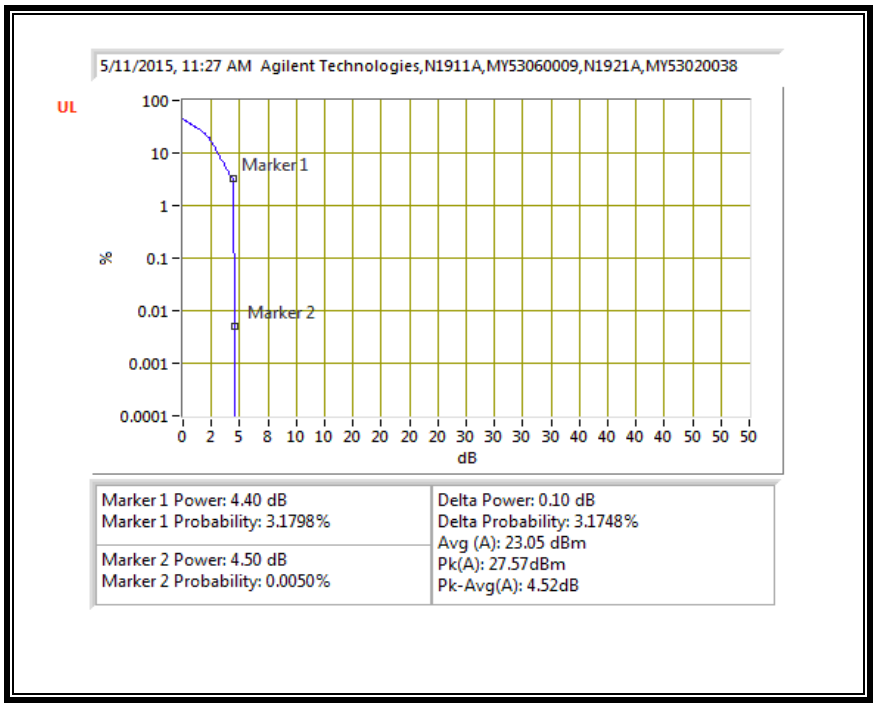
16QAM, (1.4 MHz BAND WIDTH)



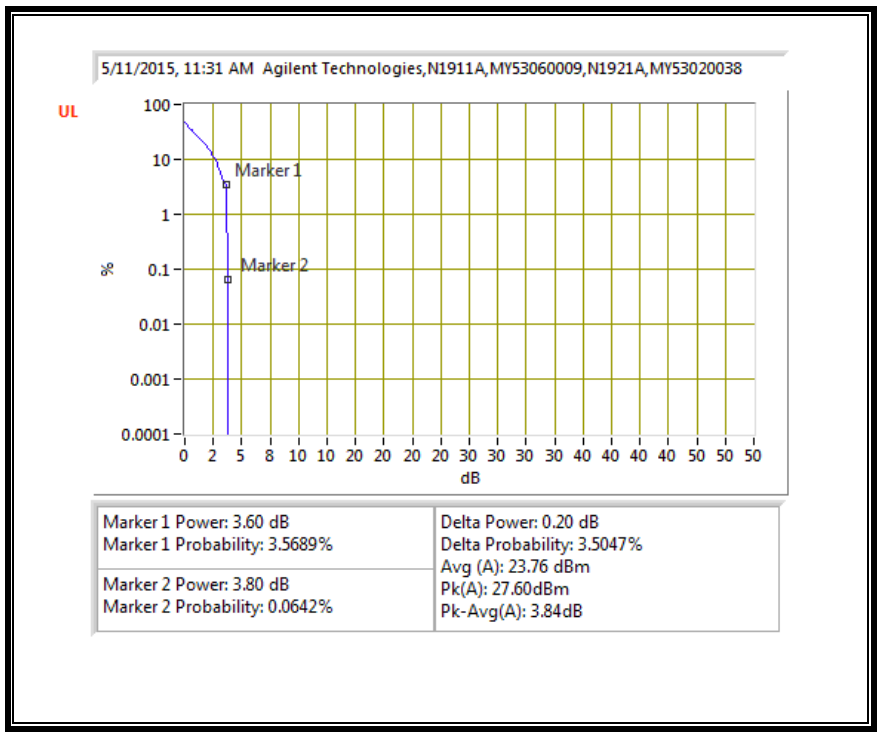
QPSK, (3.0 MHz BAND WIDTH)



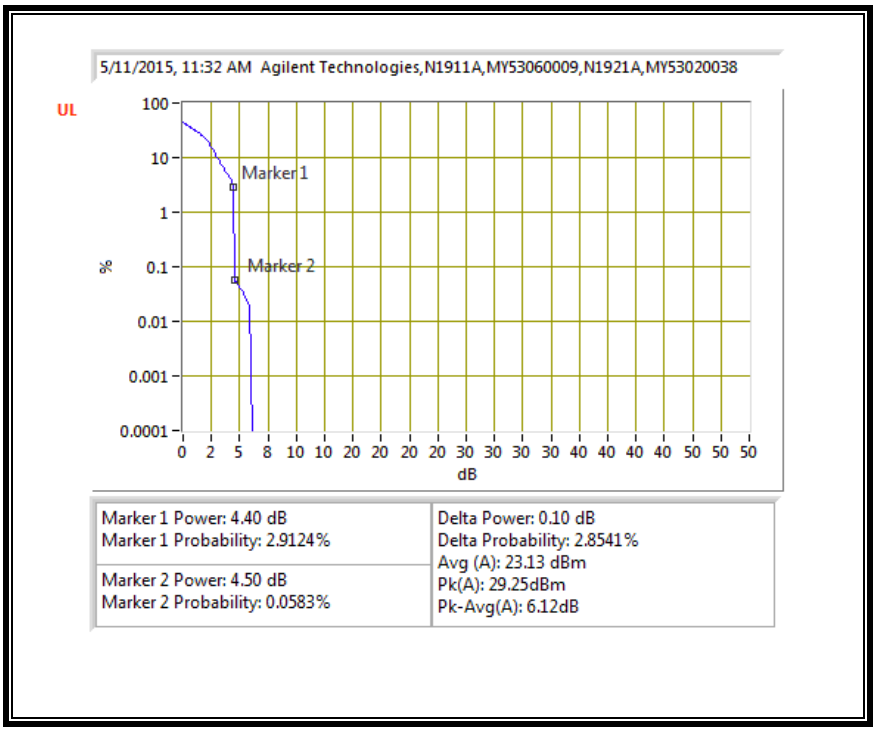
16QAM, (3.0 MHz BAND WIDTH)



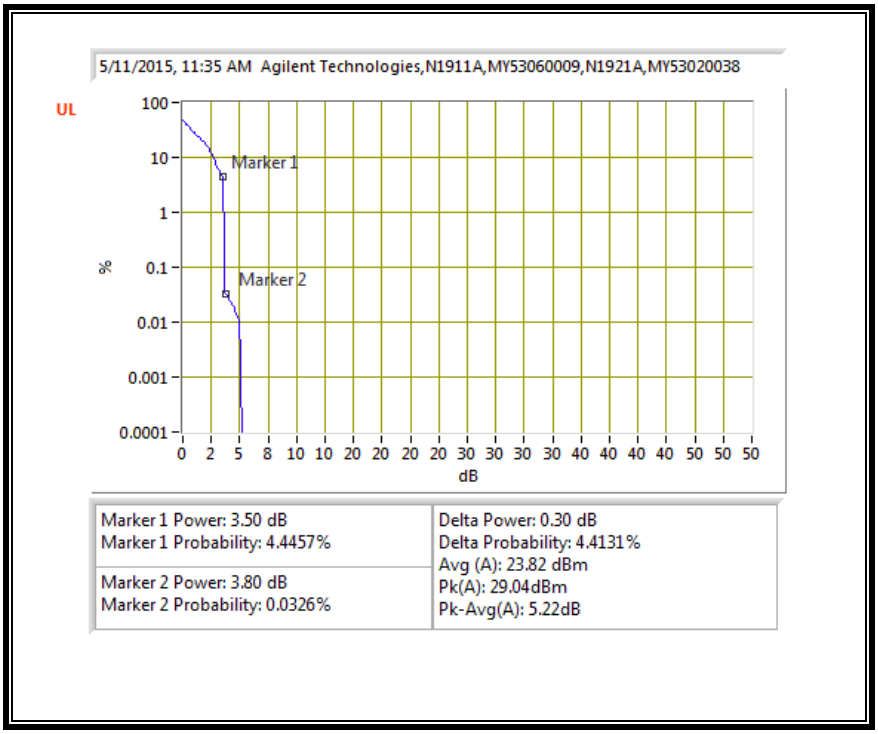
QPSK, (5.0 MHz BAND WIDTH)



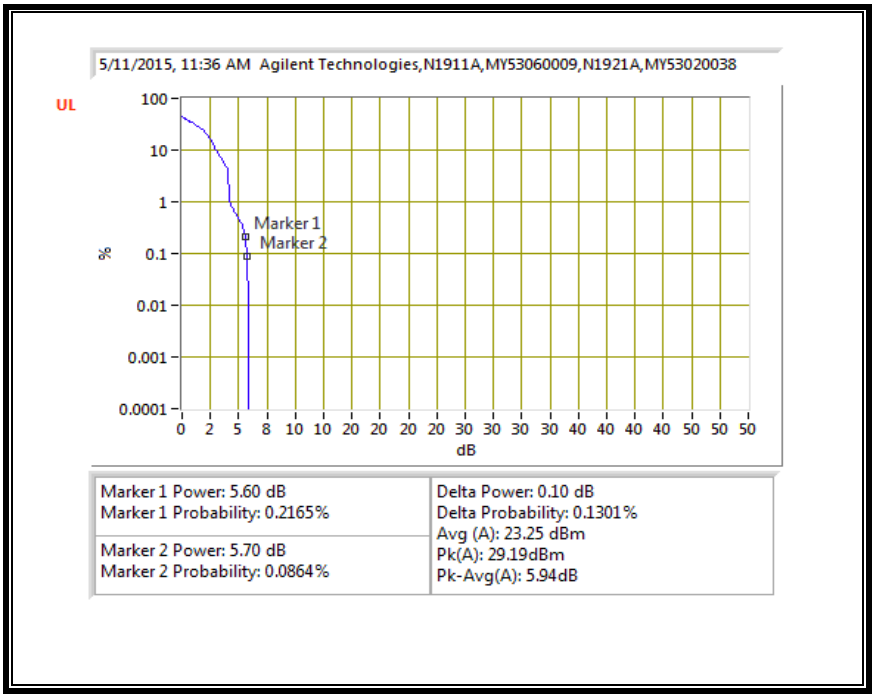
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

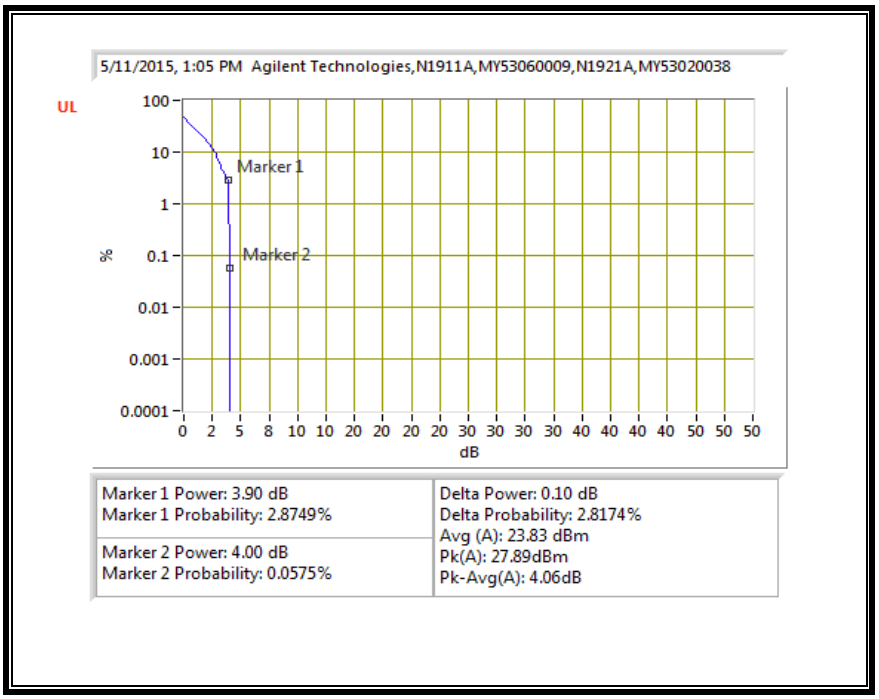


16QAM, (10.0 MHz BAND WIDTH)

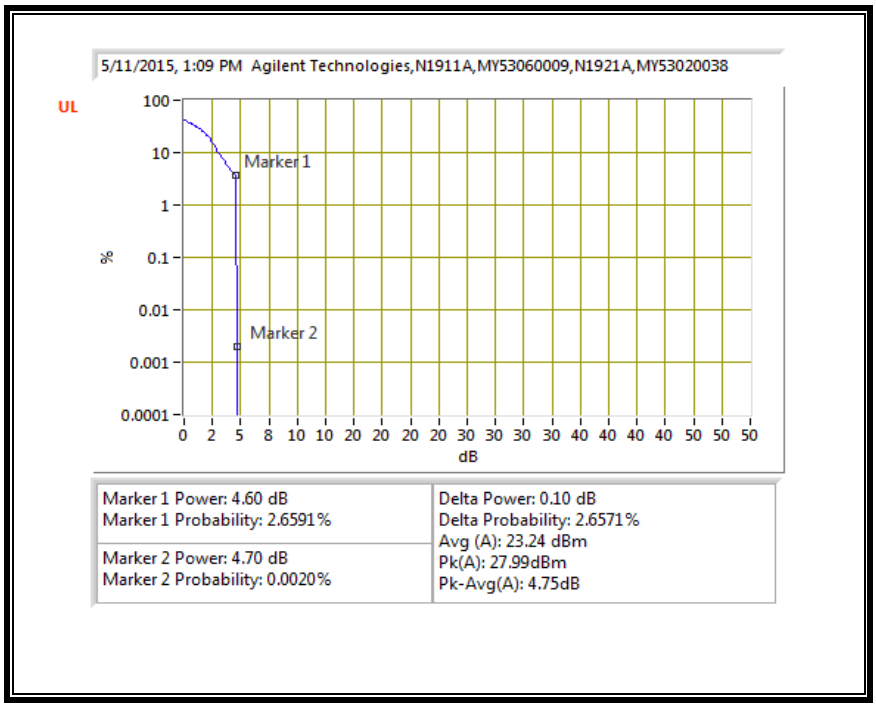


LTE BAND 13

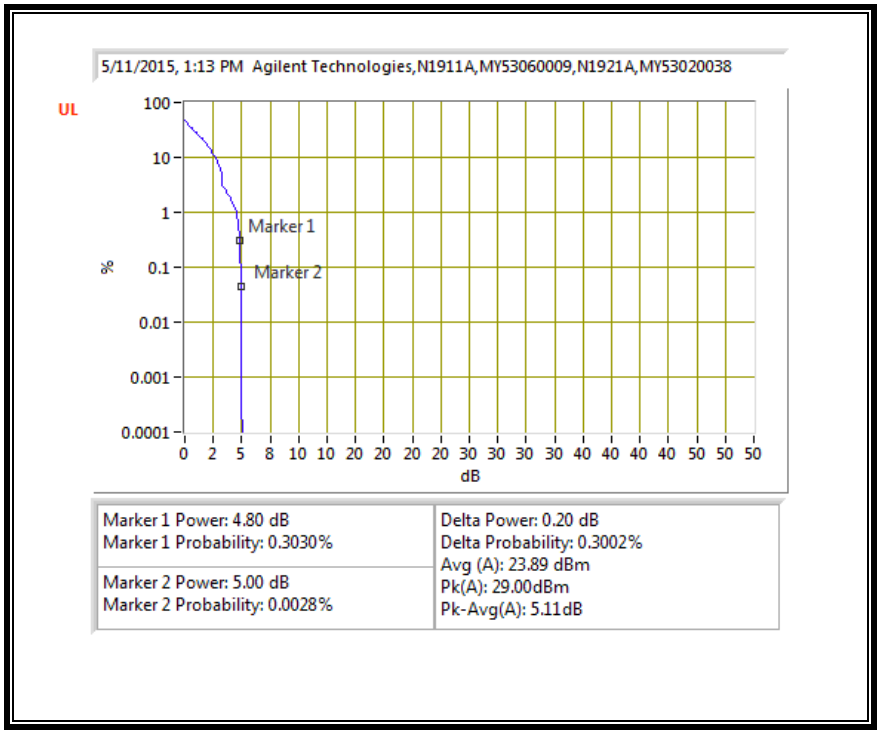
QPSK, (5.0 MHz BAND WIDTH)



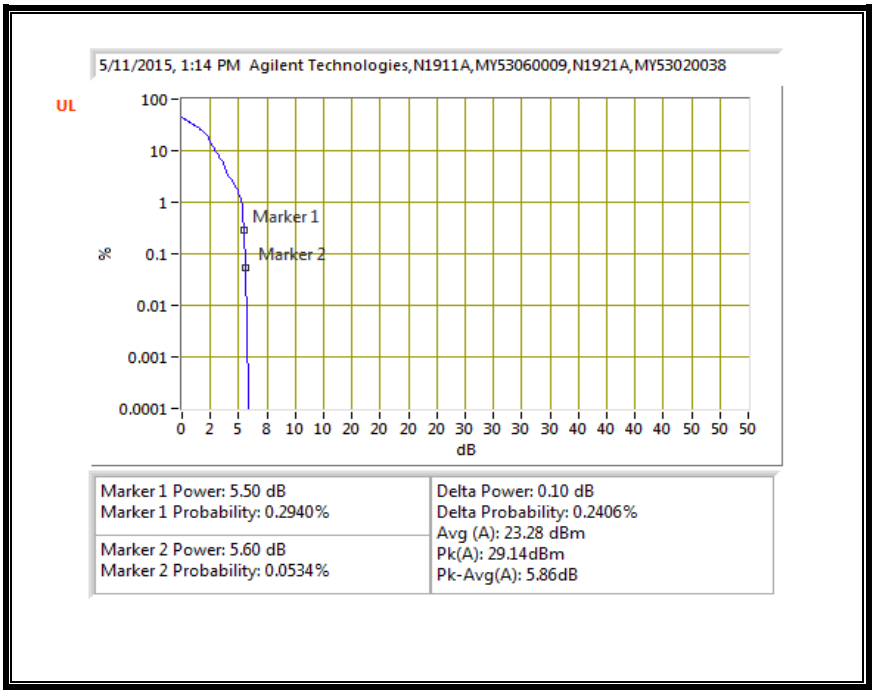
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

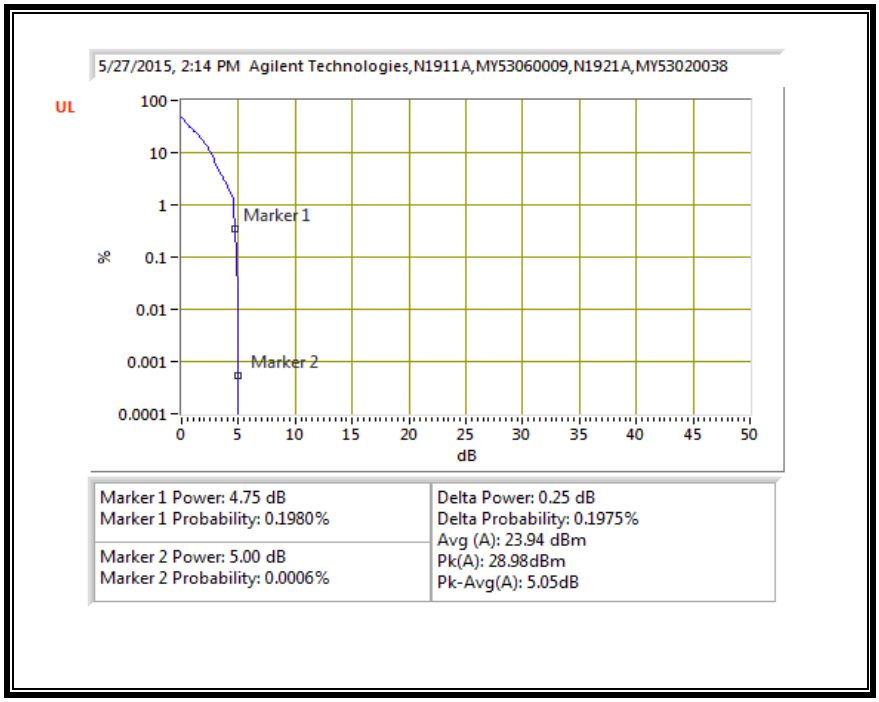


16QAM, (10.0 MHz BAND WIDTH)

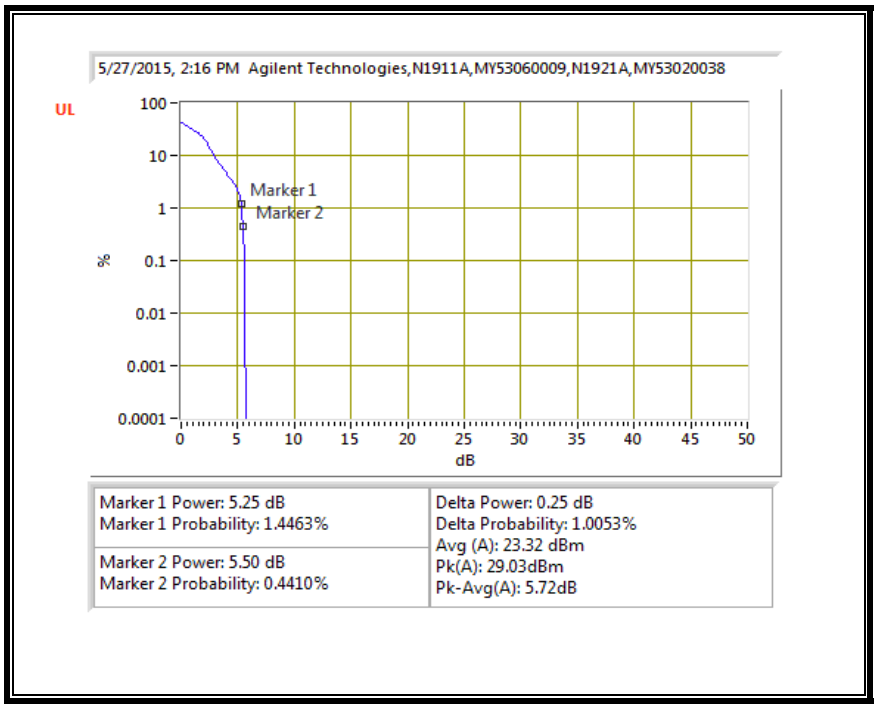


LTE BAND 17

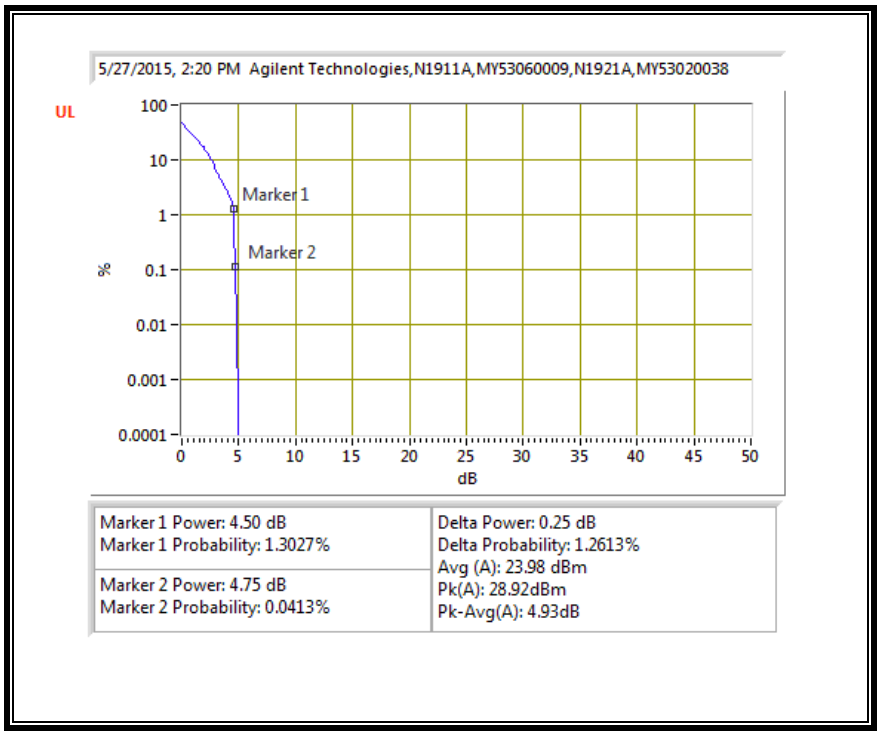
QPSK, (5.0 MHz BAND WIDTH)



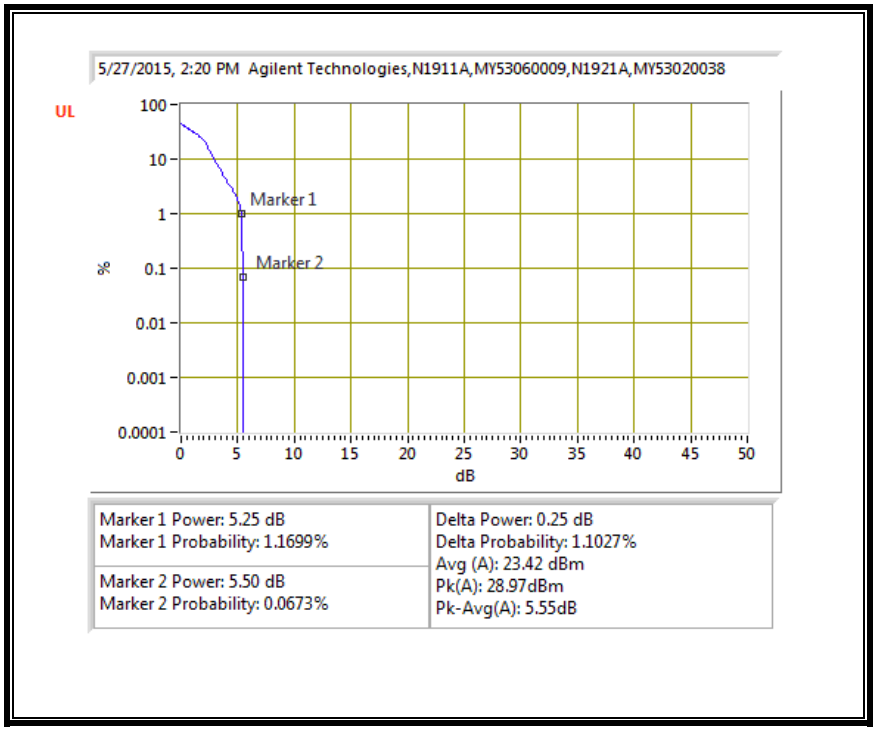
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

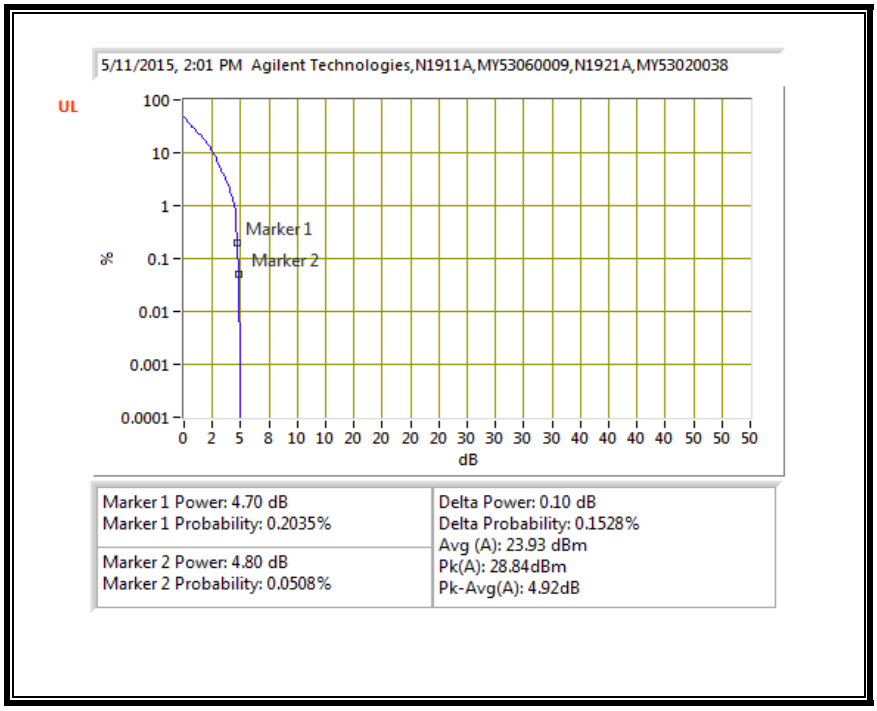


16QAM, (10.0 MHz BAND WIDTH)

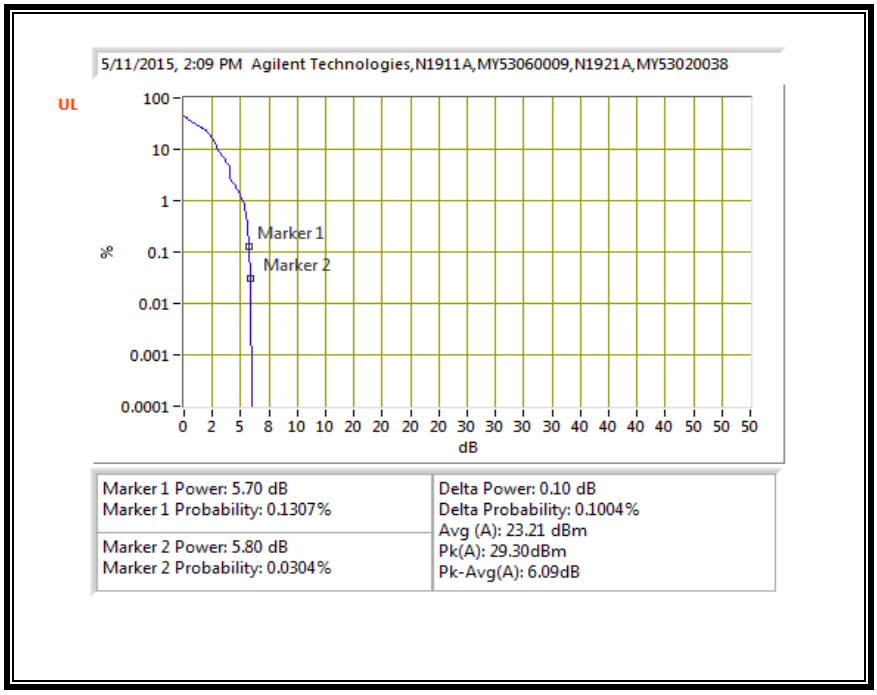


LTE BAND 25

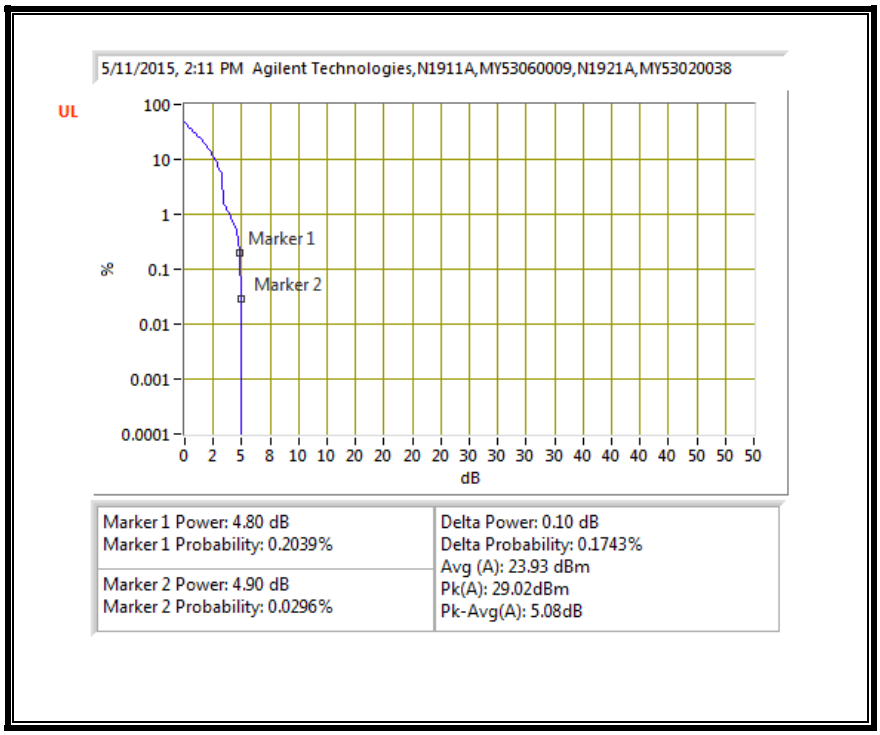
QPSK, (1.4 MHz BAND WIDTH)



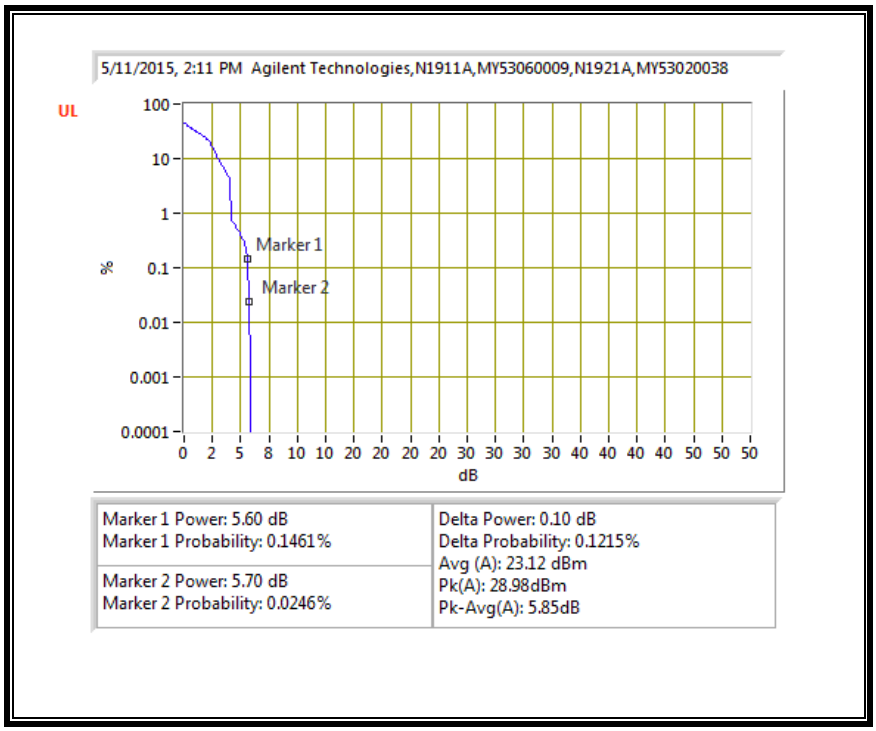
16QAM, (1.4 MHz BAND WIDTH)



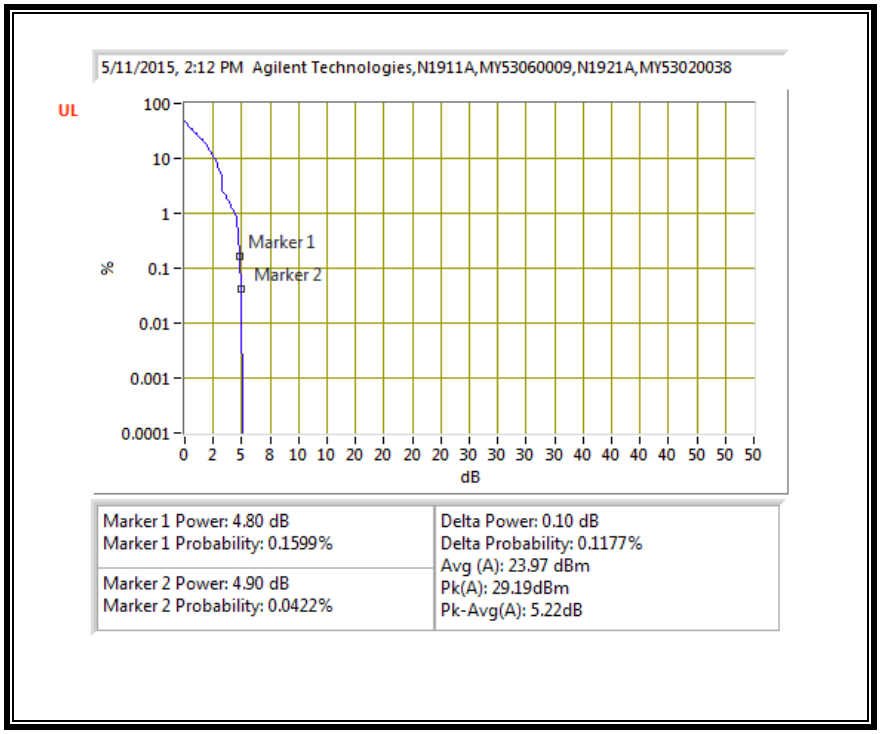
QPSK, (3.0 MHz BAND WIDTH)



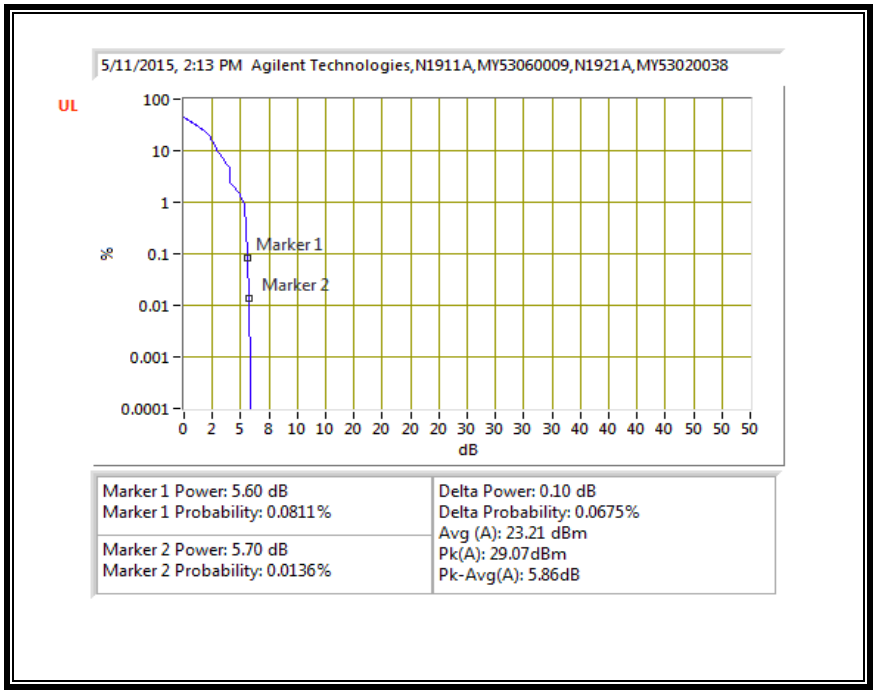
16QAM, (3.0 MHz BAND WIDTH)



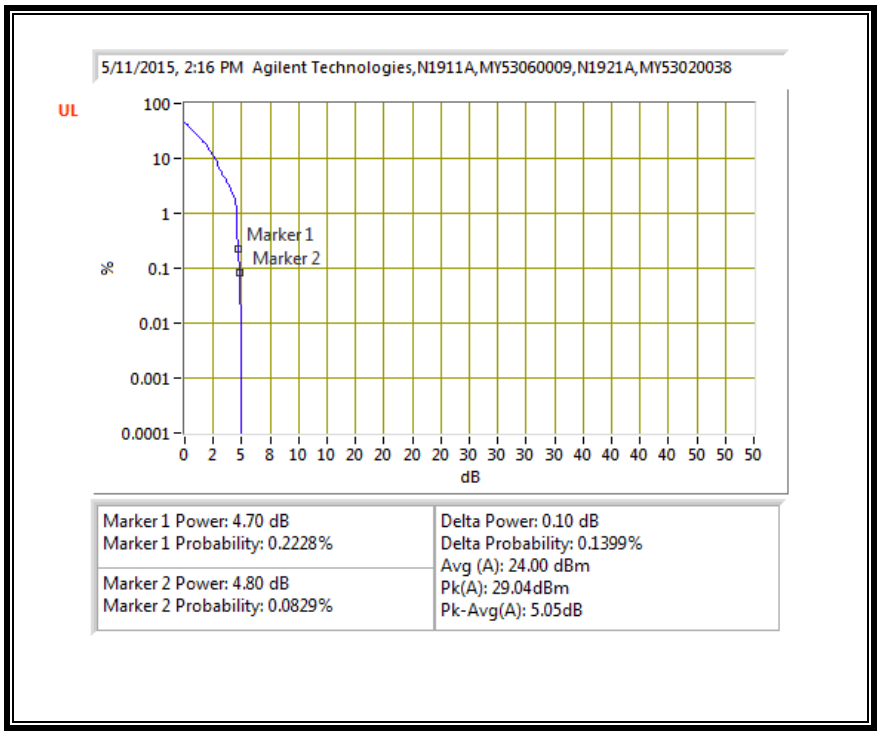
QPSK, (5.0 MHz BAND WIDTH)



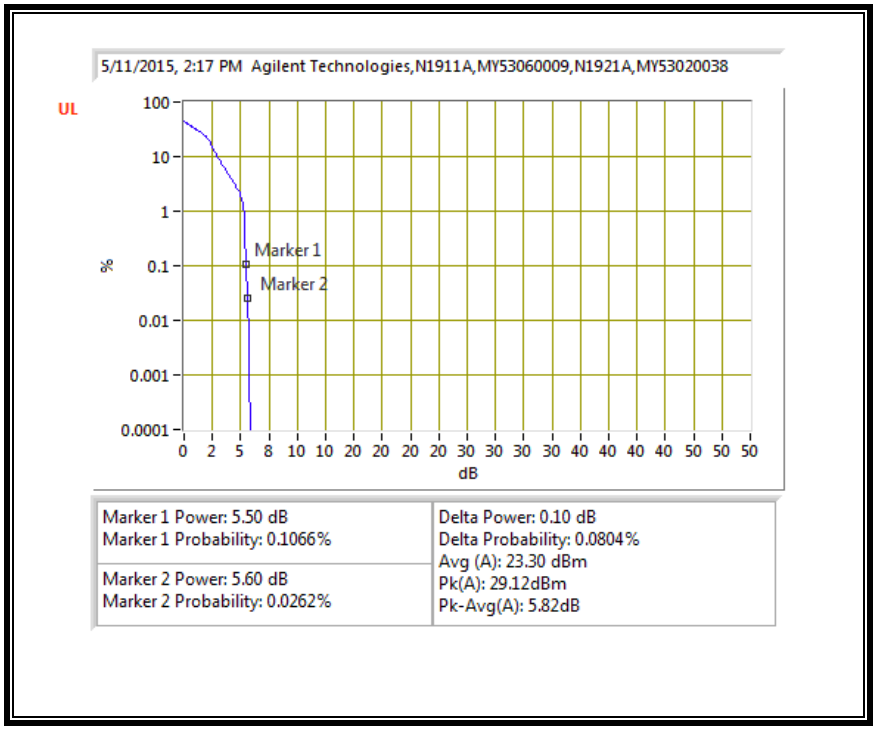
16QAM, (5.0 MHz BAND WIDTH)



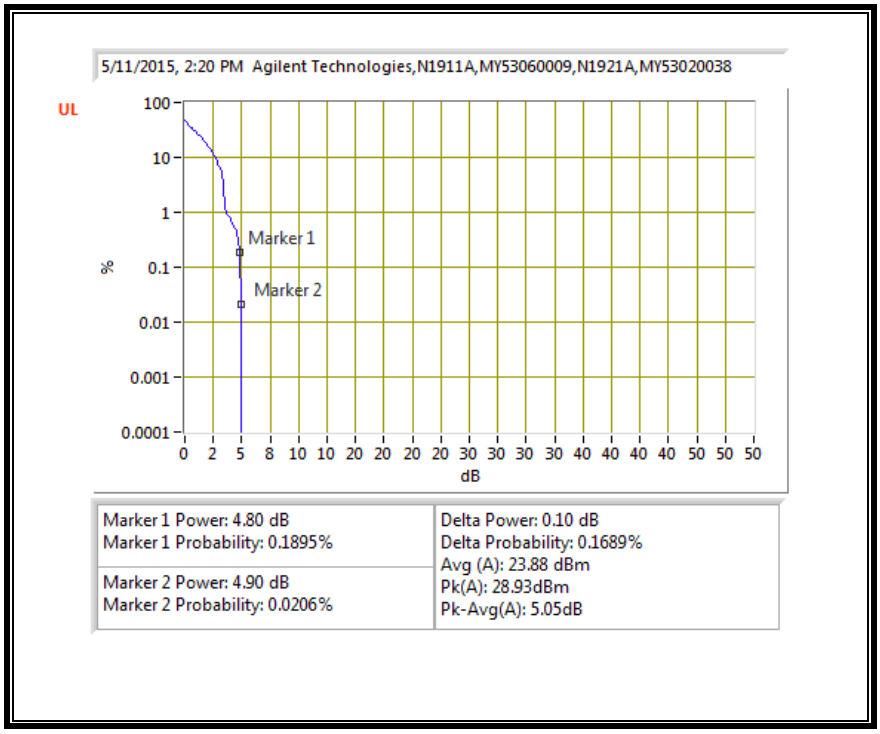
QPSK, (10.0 MHz BAND WIDTH)



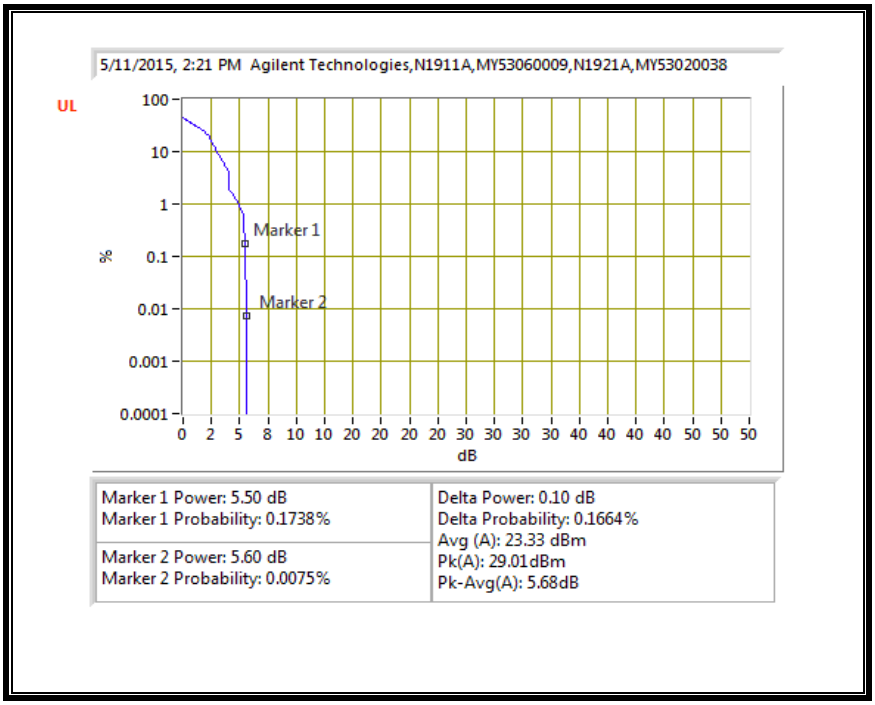
16QAM, (10.0 MHz BAND WIDTH)



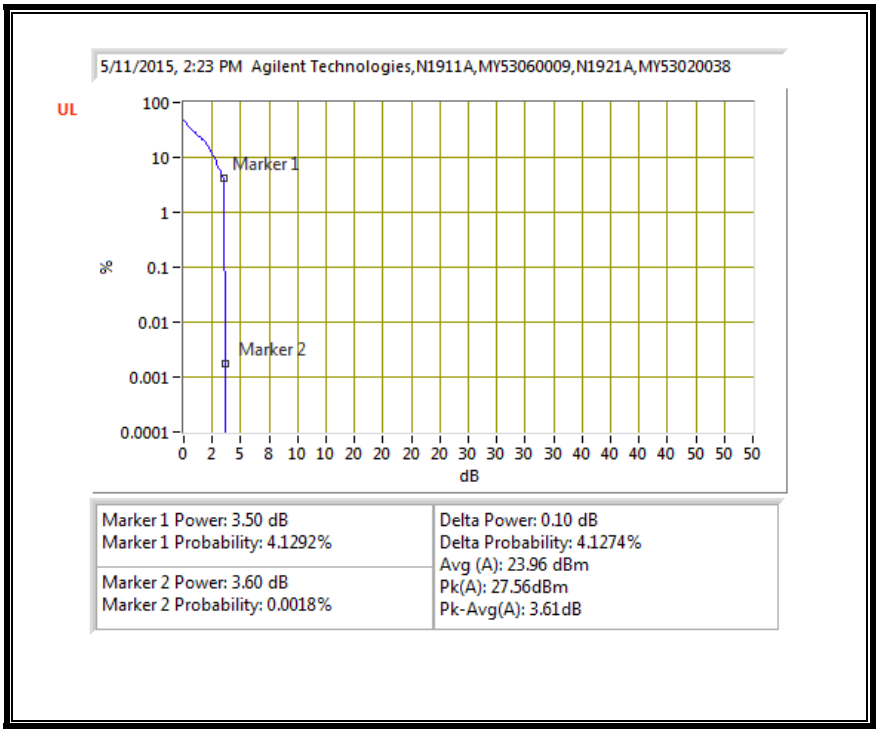
QPSK, (15.0 MHz BAND WIDTH)



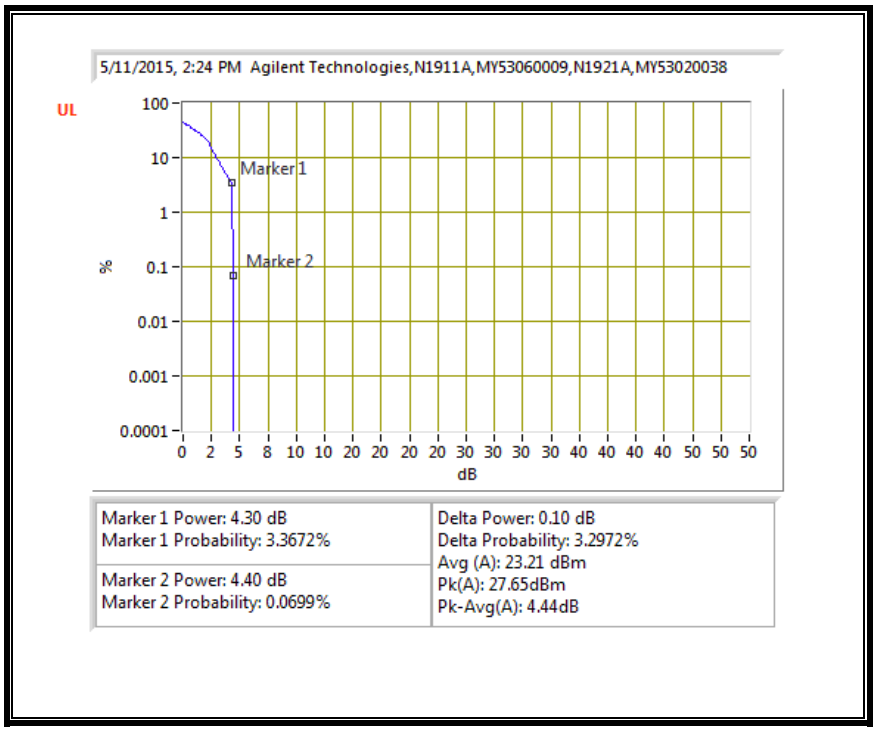
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

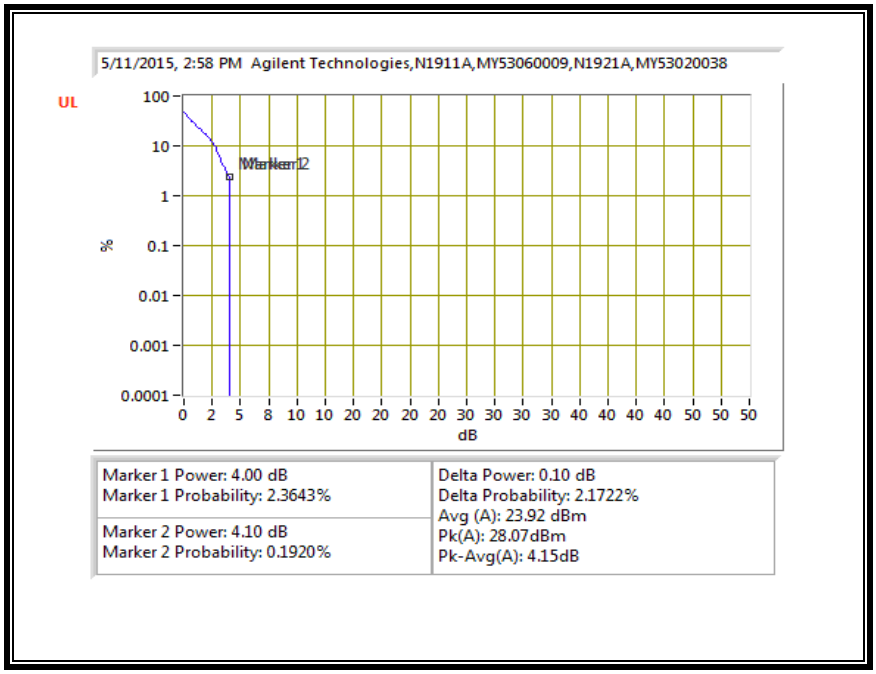


16QAM, (20.0 MHz BAND WIDTH)

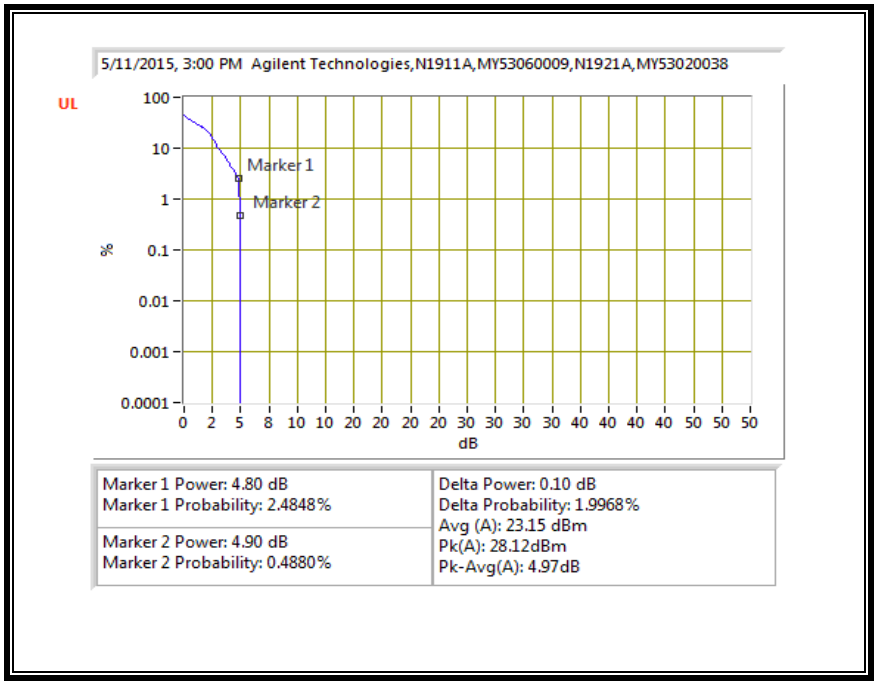


LTE BAND 26

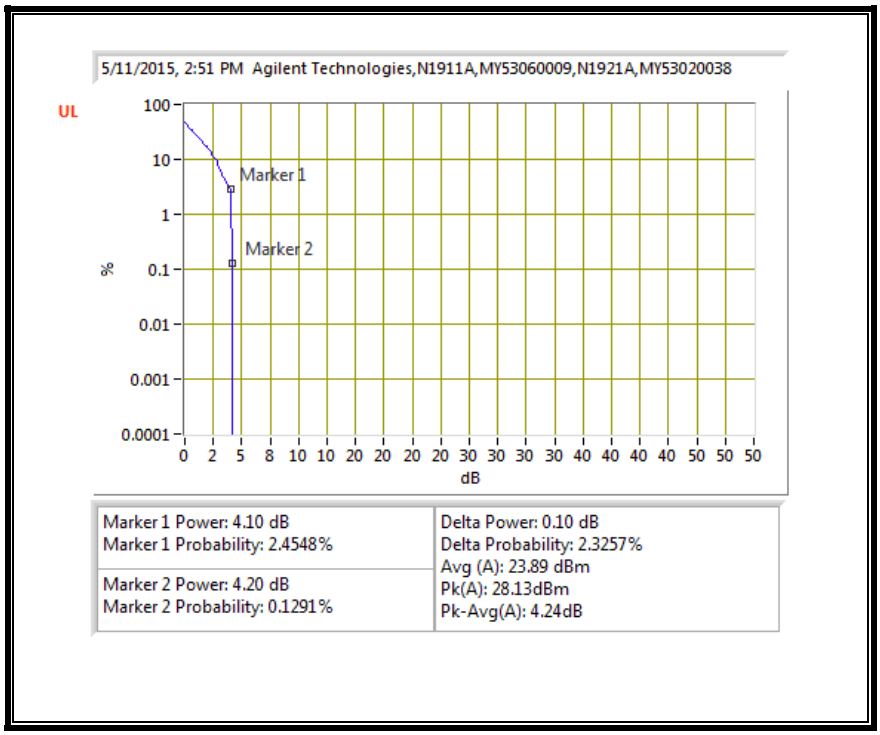
QPSK, (1.4 MHz BAND WIDTH)



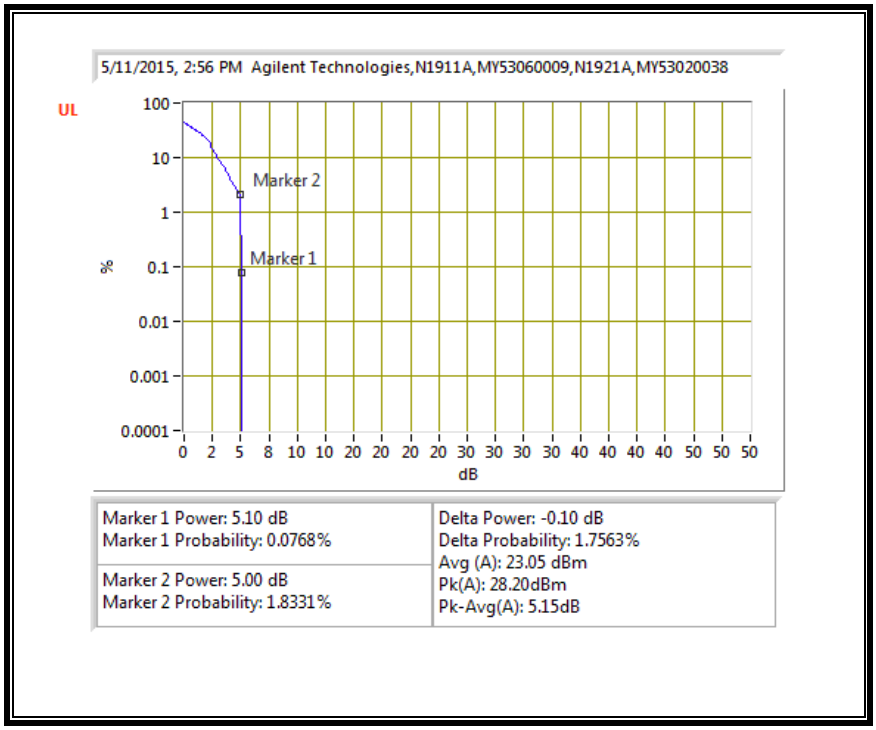
16QAM, (1.4 MHz BAND WIDTH)



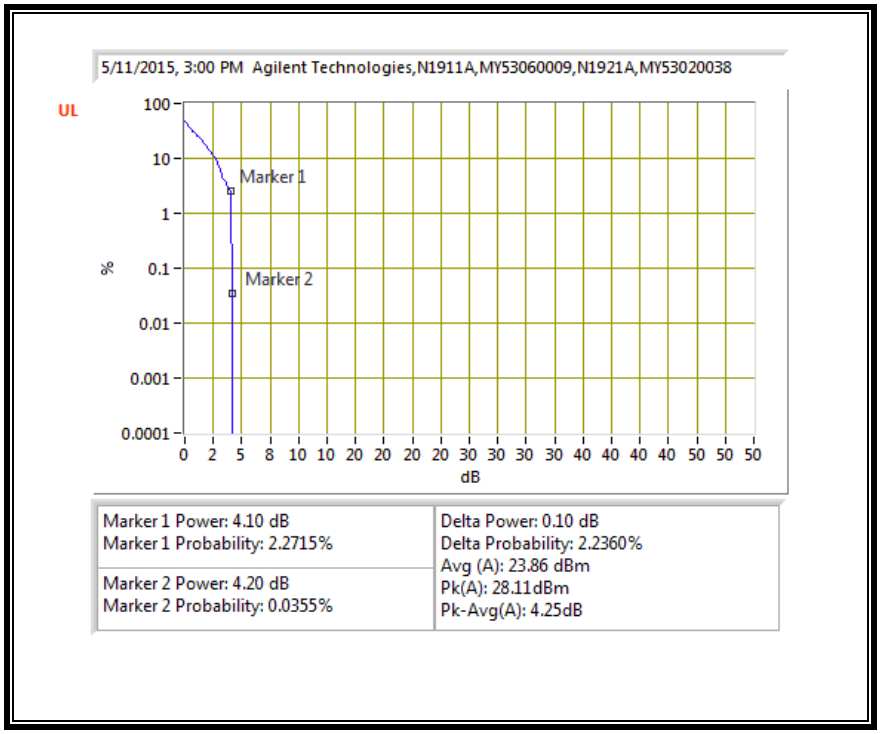
QPSK, (3.0 MHz BAND WIDTH)



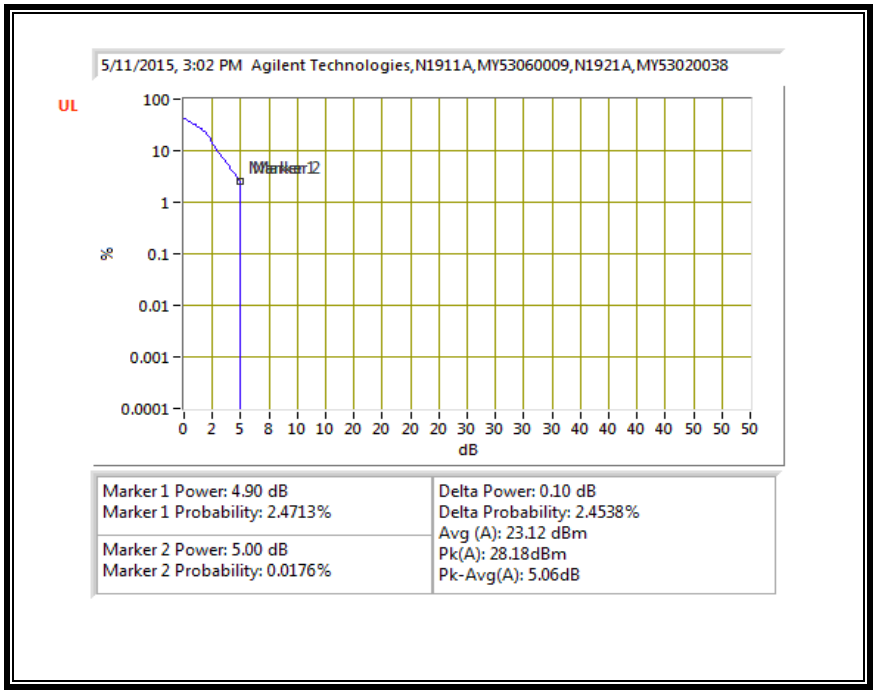
16QAM, (3.0 MHz BAND WIDTH)



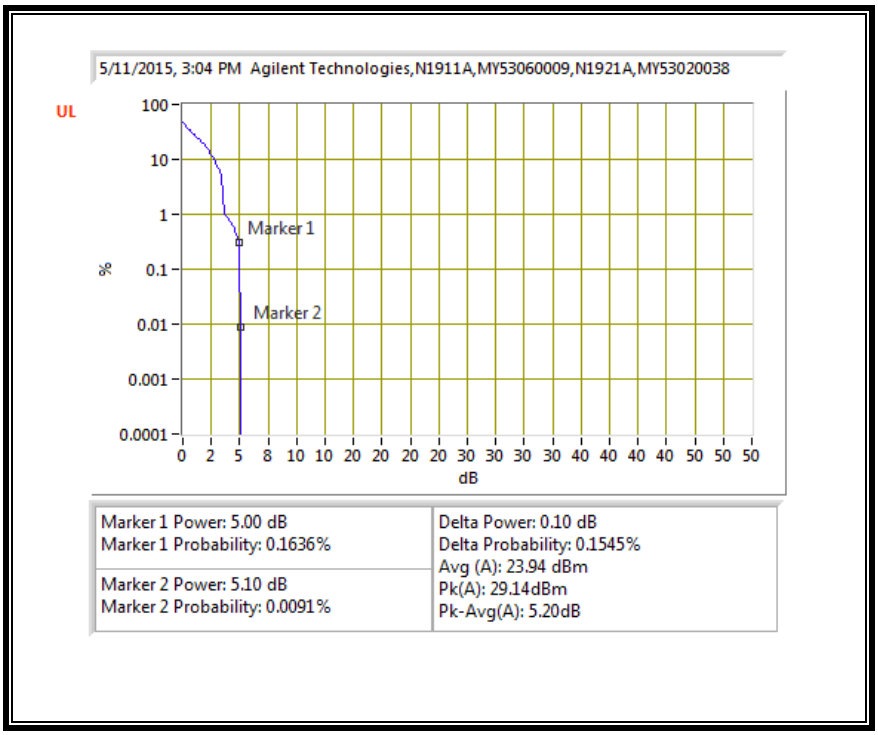
QPSK, (5.0 MHz BAND WIDTH)



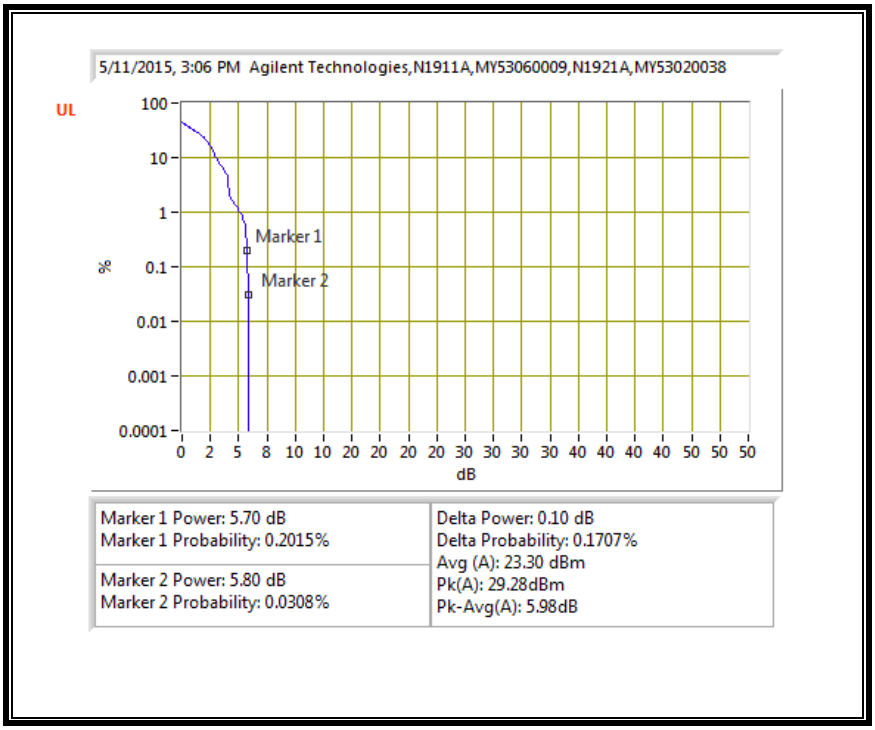
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

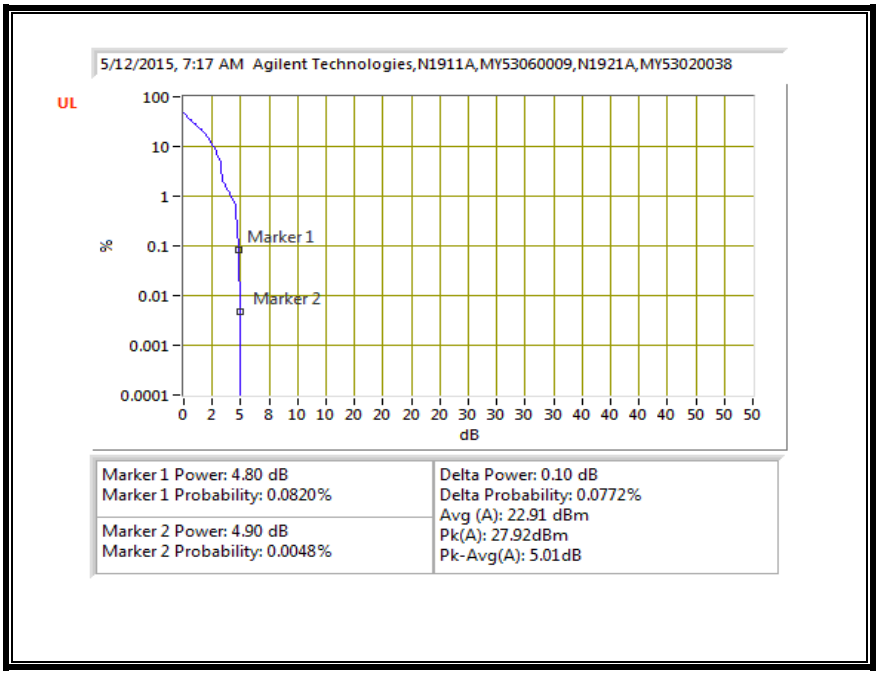


16QAM, (10.0 MHz BAND WIDTH)

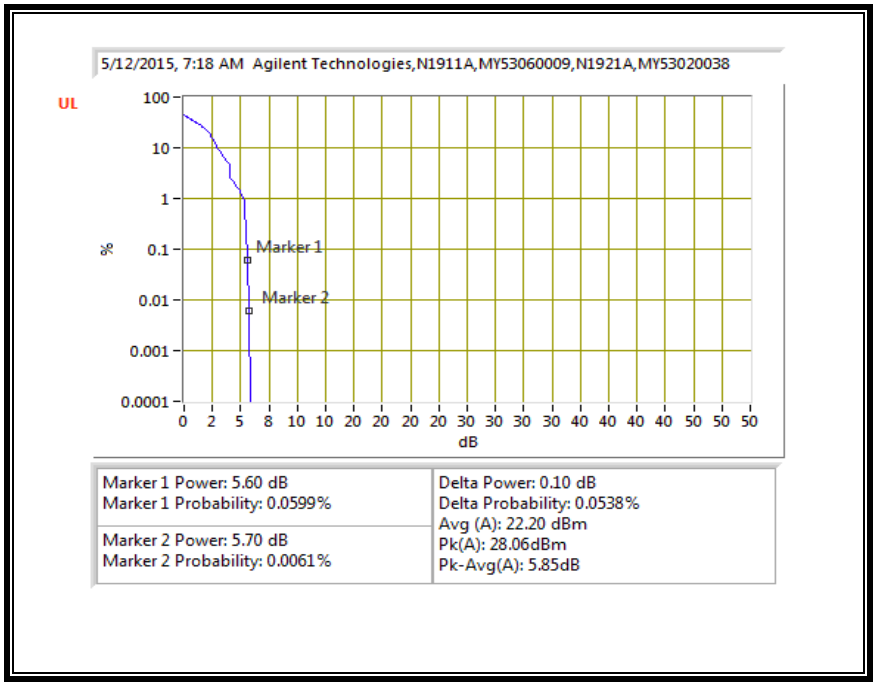


LTE BAND 30

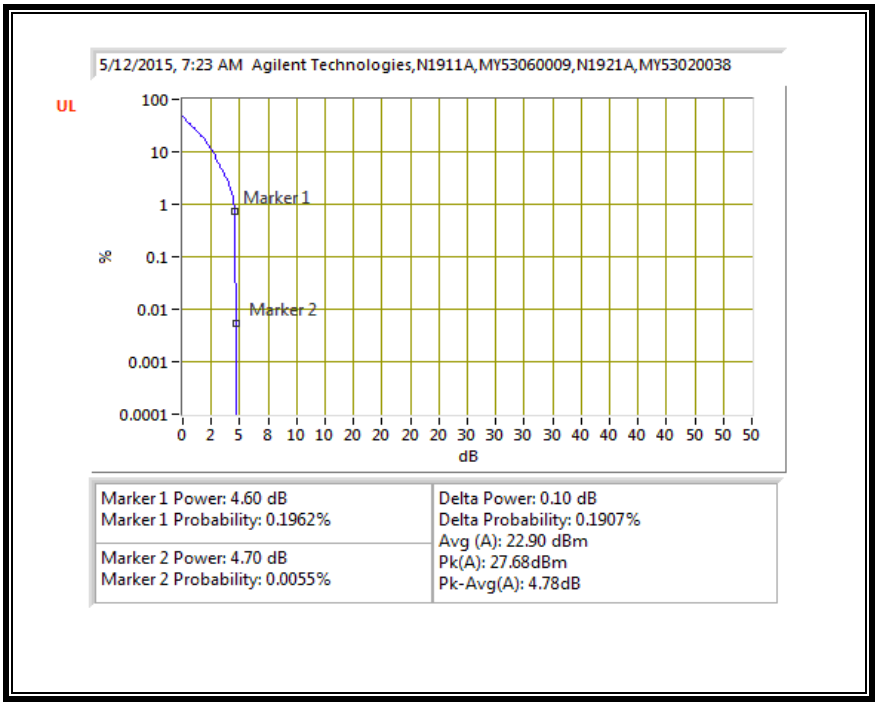
QPSK, (5.0 MHz BAND WIDTH)



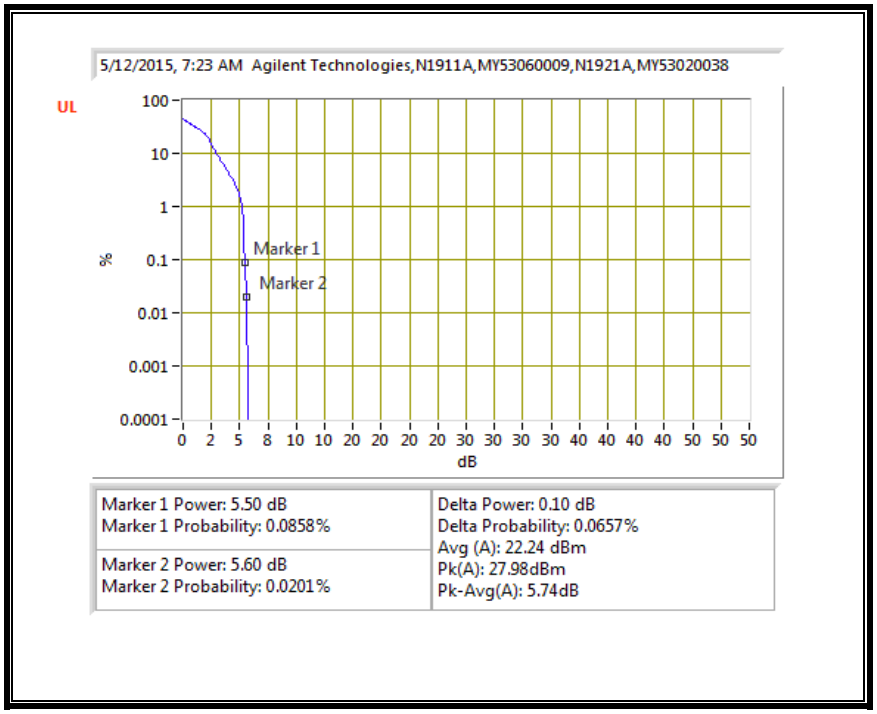
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



10.6. PEAK-TO-AVERAGE RATIO (MODEL: A1688)

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

10.6.1. LTE BAND 2

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	1.4	1880.0	QPSK	28.81	23.86	4.95
			16QAM	29.15	23.3	5.85
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	3.0	1880.0	QPSK	28.86	23.99	4.87
			16QAM	28.96	23.26	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	5.0	1880.0	QPSK	28.76	23.96	4.80
			16QAM	28.93	23.23	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	10.0	1880.0	QPSK	28.55	23.9	4.65
			16QAM	28.9	23.28	5.62
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	15.0	1880.0	QPSK	28.52	23.72	4.80
			16QAM	28.75	23.13	5.62
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 2 RB1-0	20.0	1880.0	QPSK	27.58	23.98	3.60
			16QAM	29	23.38	5.62
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.2. LTE BAND 4

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	1.4	1732.5	QPSK	28.55	23.90	4.65
			16QAM	28.54	23.14	5.40
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	3.0	1732.5	QPSK	28.53	23.95	4.58
			16QAM	28.54	23.14	5.40
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	5.0	1732.5	QPSK	28.57	23.92	4.65
			16QAM	28.66	23.26	5.40
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	10.0	1732.5	QPSK	28.3	23.95	4.35
			16QAM	28.34	23.39	4.95
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	15.0	1732.5	QPSK	28.4	23.82	4.58
			16QAM	28.44	23.27	5.17
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 4 RB1-0	20.0	1732.5	QPSK	28.38	23.88	4.50
			16QAM	28.31	23.14	5.17
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.3. LTE BAND 5

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	1.4	836.5	QPSK	28.55	23.83	4.72
			16QAM	27.43	22.71	4.72
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	3.0	836.5	QPSK	27.82	23.92	3.90
			16QAM	27.85	23.13	4.72
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	5.0	836.5	QPSK	27.72	23.97	3.75
			16QAM	29.2	23.42	5.78
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 5 RB1-0	10.0	836.5	QPSK	28.75	23.95	4.80
			16QAM	28.73	23.11	5.62
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.4. LTE BAND 7

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 7 RB1-0	5.0	2535.0	QPSK	28.01	23.36	4.65
			16QAM	28.24	22.69	5.55
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 7 RB1-0	10.0	2535.0	QPSK	27.92	23.34	4.58
			16QAM	28.04	22.64	5.40
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 7 RB1-0	15.0	2535.0	QPSK	27.81	23.39	4.42
			16QAM	28.24	22.77	5.47
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 7 RB1-0	20.0	2535.0	QPSK	26.73	23.28	3.45
			16QAM	28.15	22.60	5.55
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.5. LTE BAND 12

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	1.4	707.5	QPSK	28.79	23.99	4.80
			16QAM	27.49	22.77	4.72
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	3.0	707.5	QPSK	27.83	23.93	3.90
			16QAM	27.91	23.11	4.80
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	5.0	707.5	QPSK	27.8	23.97	3.83
			16QAM	27.79	23.21	4.58
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 12 RB1-0	10.0	707.5	QPSK	27.98	23.86	4.12
			16QAM	28.01	23.21	4.80
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.6. LTE BAND 13

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 13 RB1-0	5.0	782.0	QPSK	28.88	23.93	4.95
			16QAM	28.96	23.18	5.78
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 13 RB1-0	10.0	782.0	QPSK	28.28	23.86	4.42
			16QAM	28.24	23.07	5.17
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.7. LTE BAND 17

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 17 RB1-0	5.0	710.0	QPSK	27.93	23.95	3.98
			16QAM	28.99	23.29	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 17 RB1-0	10.0	710.0	QPSK	27.8	23.97	3.83
			16QAM	27.79	23.29	4.50
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.8. LTE BAND 25

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	1.4	1880.0	QPSK	28.89	23.94	4.95
			16QAM	29.02	23.10	5.92
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	3.0	1880.0	QPSK	28.48	23.83	4.65
			16QAM	28.78	23.08	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	5.0	1880.0	QPSK	28.72	23.85	4.87
			16QAM	28.91	23.21	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	10.0	1880.0	QPSK	28.75	23.95	4.80
			16QAM	29.09	23.39	5.70
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	15.0	1880.0	QPSK	28.5	23.85	4.65
			16QAM	28.76	23.29	5.47
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 25 RB1-0	20.0	1880.0	QPSK	28.65	24.00	4.65
			16QAM	28.51	23.18	5.33
*Peak Reading = Average Reading + Peak-to-Average Ratio						

10.6.9. LTE BAND 26

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	1.4	819.0	QPSK	29.11	23.94	5.17
			16QAM	29.45	23.30	6.15
*Peak Reading = Average Reading + Peak-to-Average Ratio						

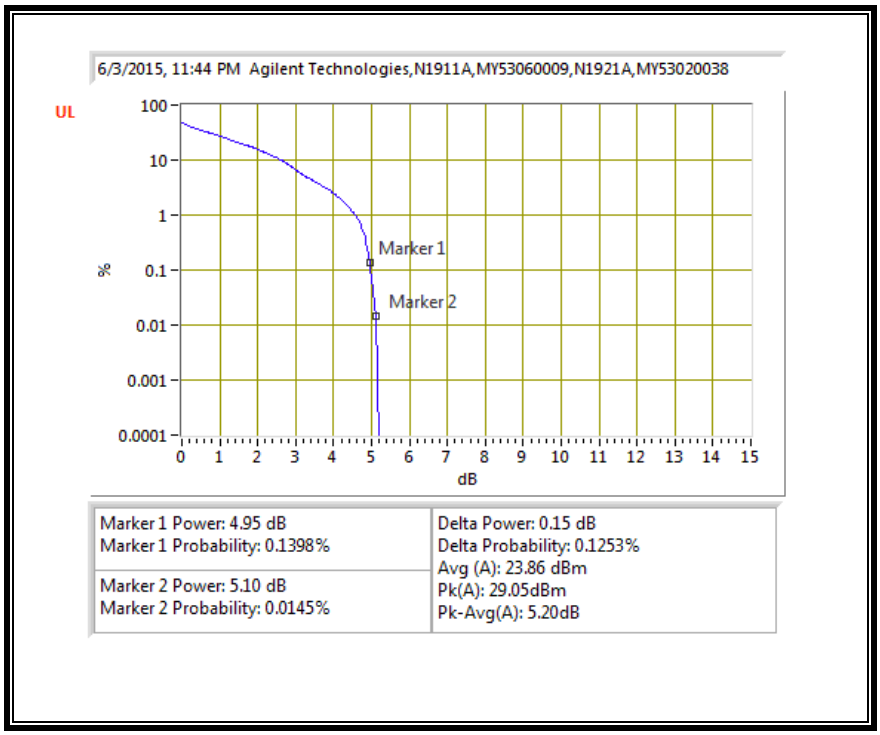
Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	3.0	819.0	QPSK	29	23.90	5.10
			16QAM	12.85	7.00	5.85
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	5.0	819.0	QPSK	29.01	23.91	5.10
			16QAM	29.02	23.17	5.85
*Peak Reading = Average Reading + Peak-to-Average Ratio						

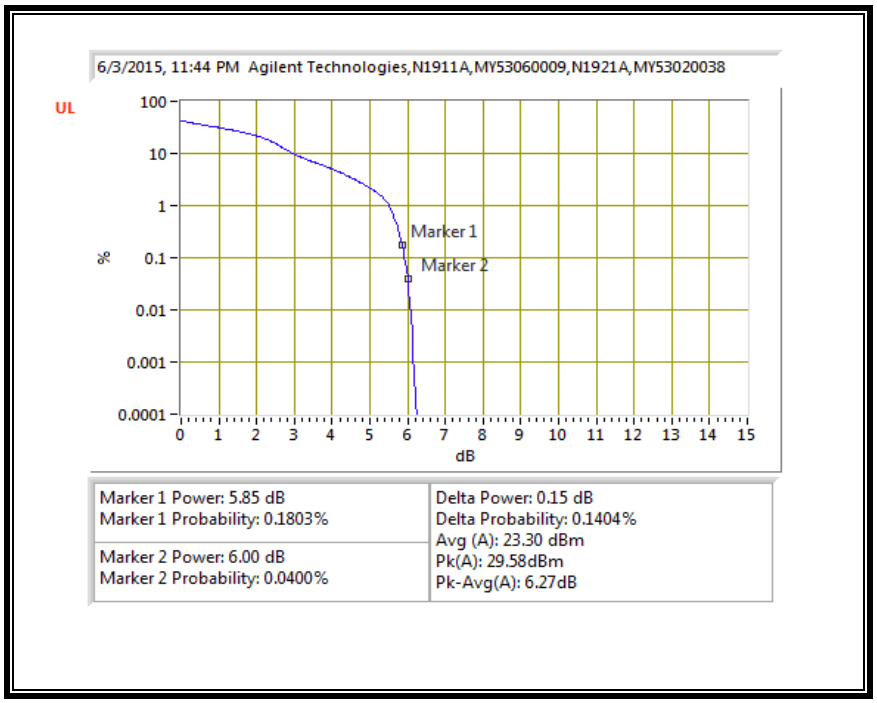
Mode	Channel Band-width (MHZ)	f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
LTE Band 26 RB1-0	10.0	819.0	QPSK	28.95	23.92	5.03
			16QAM	29.11	23.26	5.85
*Peak Reading = Average Reading + Peak-to-Average Ratio						

LTE BAND 2

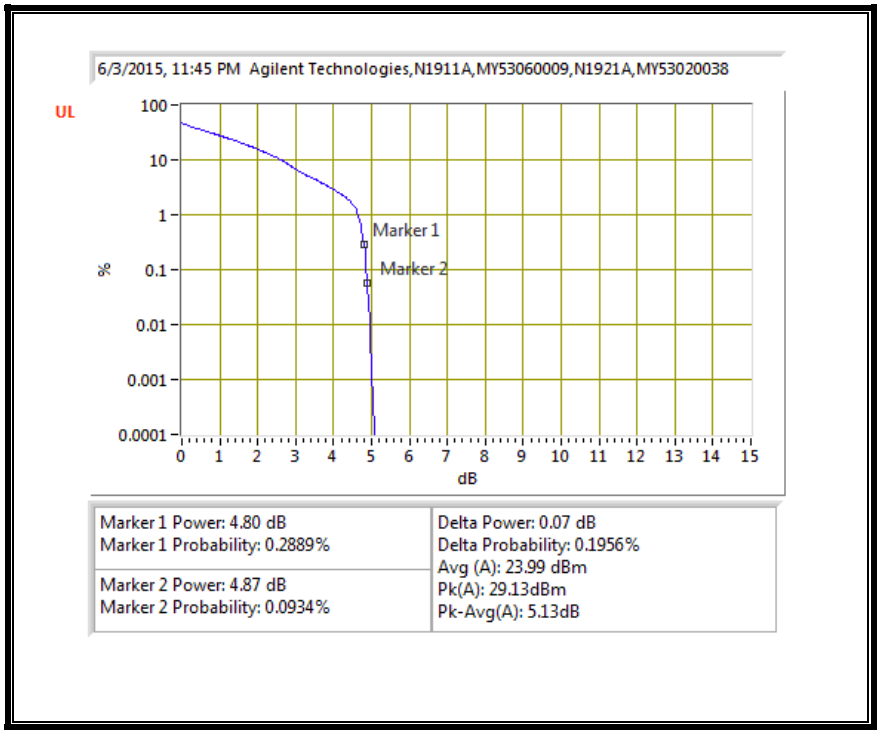
QPSK, (1.4 MHz BAND WIDTH)



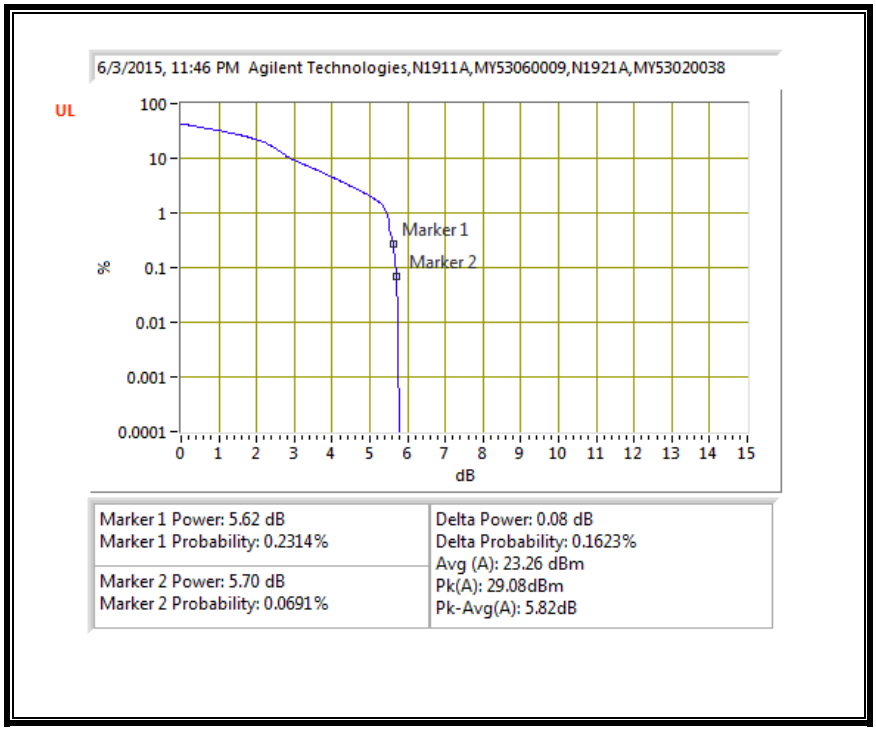
16QAM, (1.4 MHz BAND WIDTH)



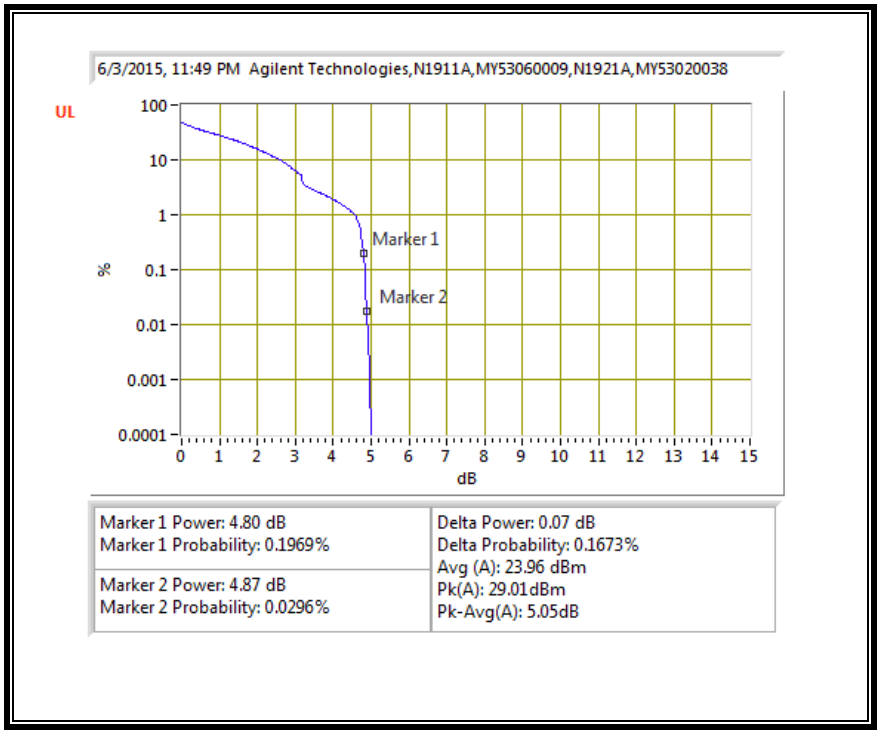
QPSK, (3.0 MHz BAND WIDTH)



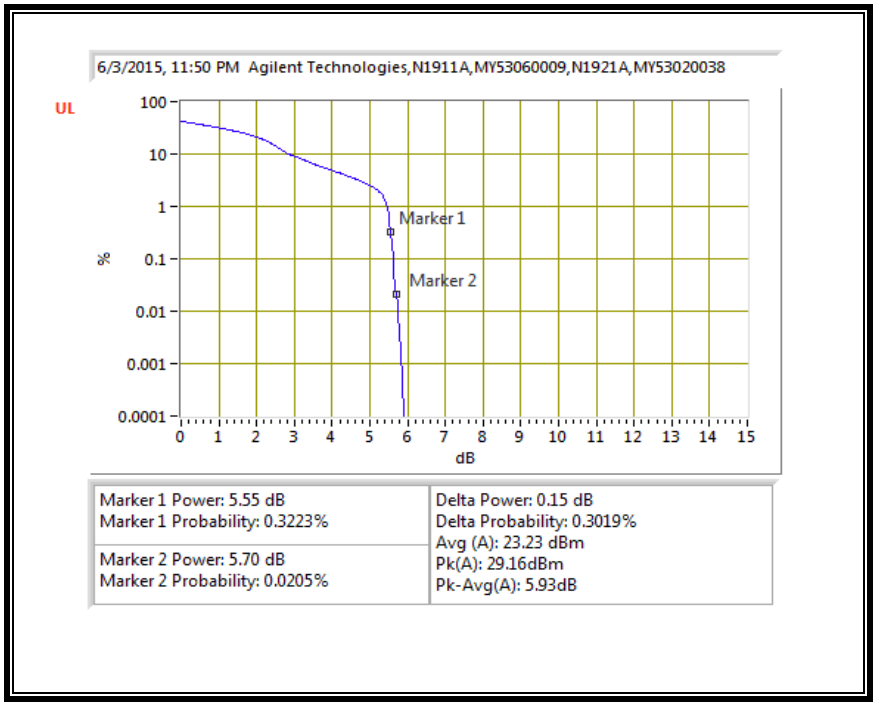
16QAM, (3.0 MHz BAND WIDTH)



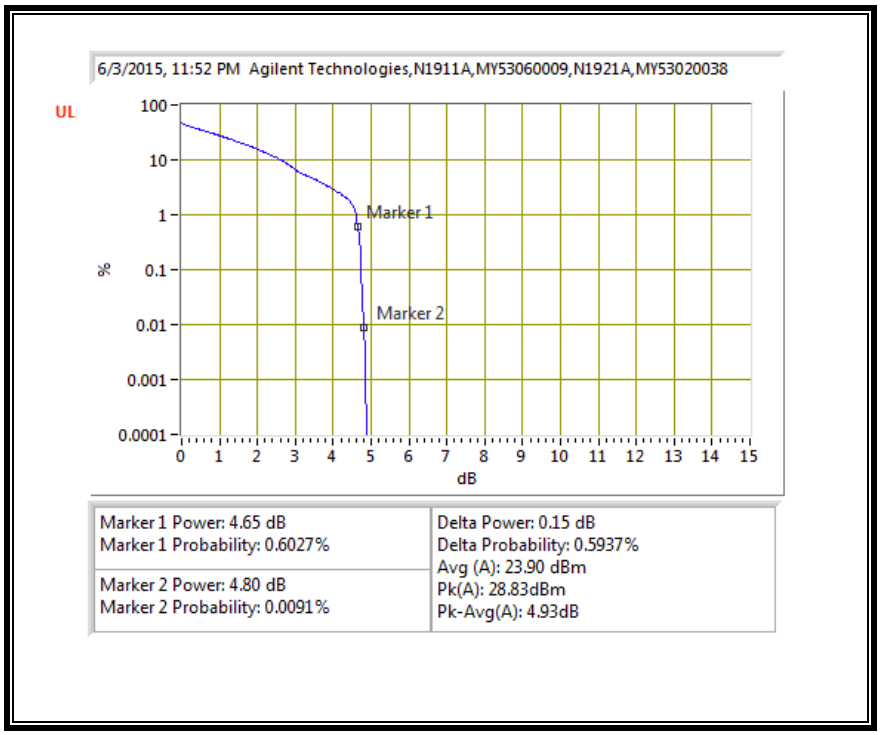
QPSK, (5.0 MHz BAND WIDTH)



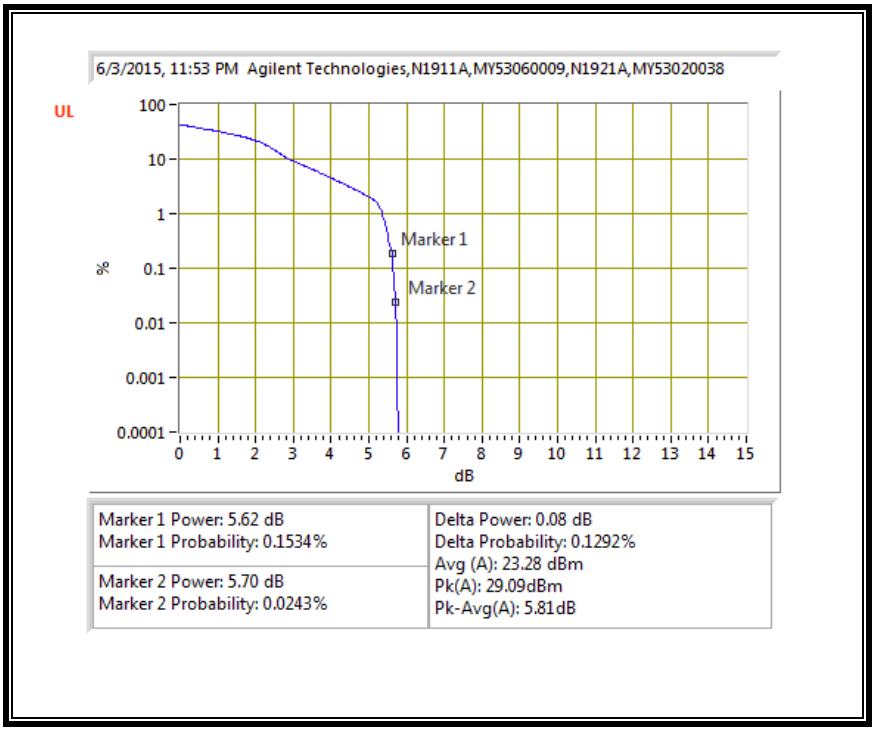
16QAM, (5.0 MHz BAND WIDTH)



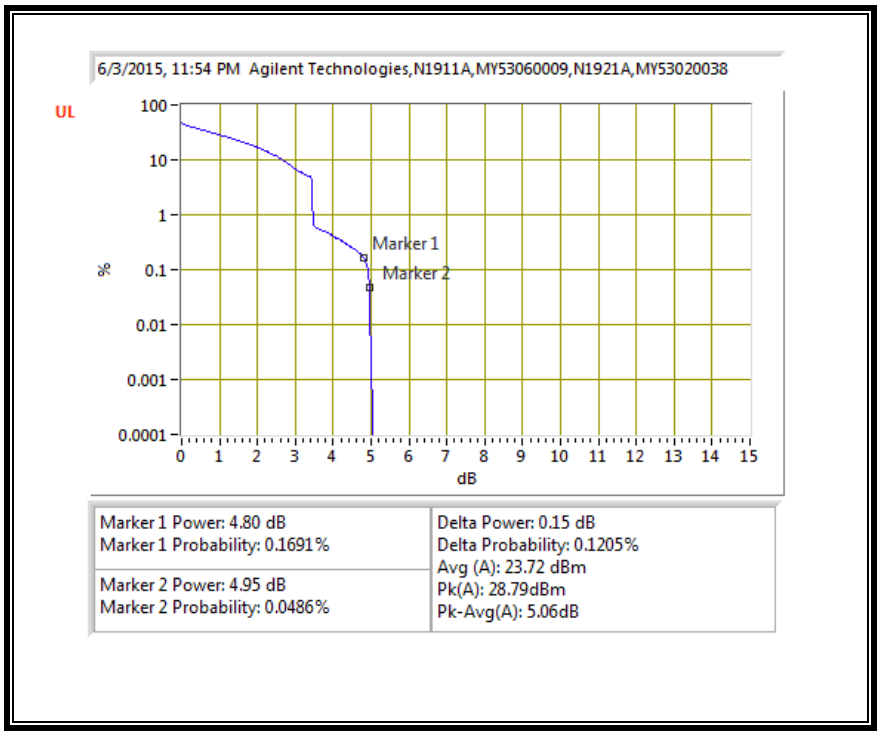
QPSK, (10.0 MHz BAND WIDTH)



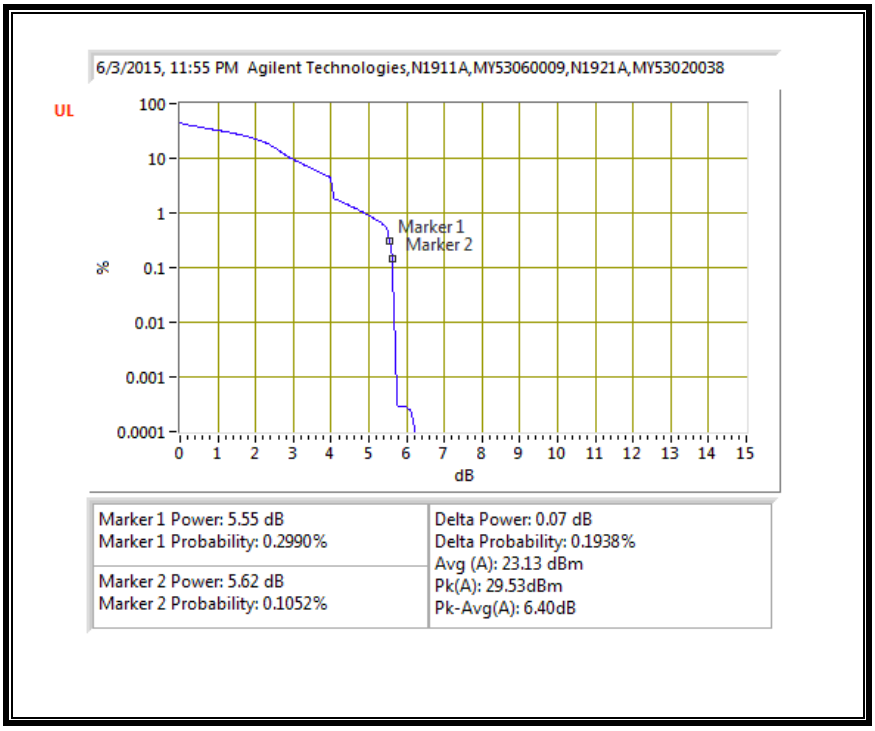
16QAM, (10.0 MHz BAND WIDTH)



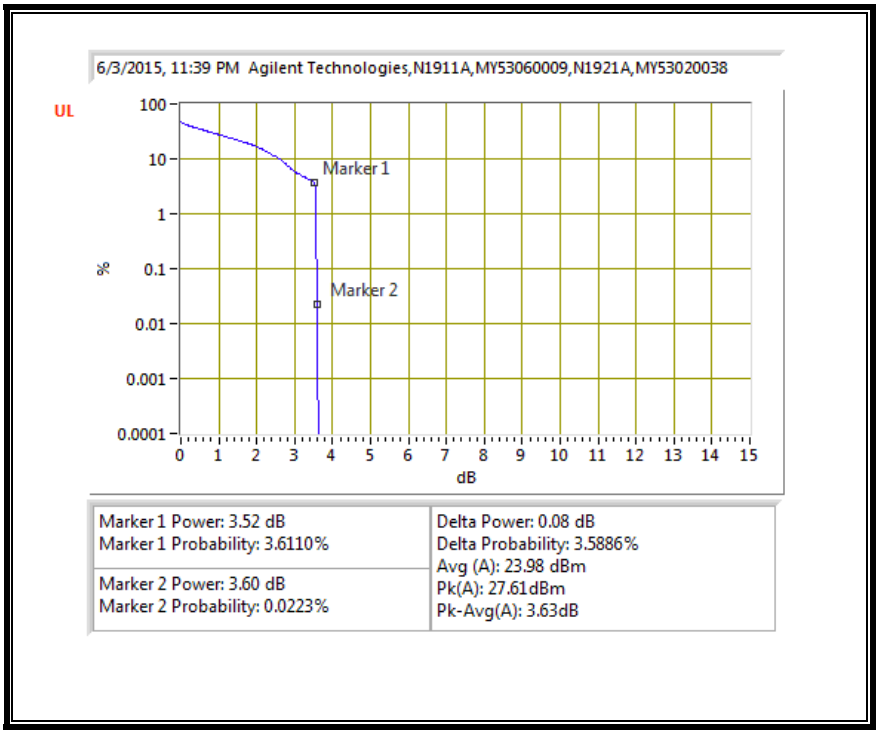
QPSK, (15.0 MHz BAND WIDTH)



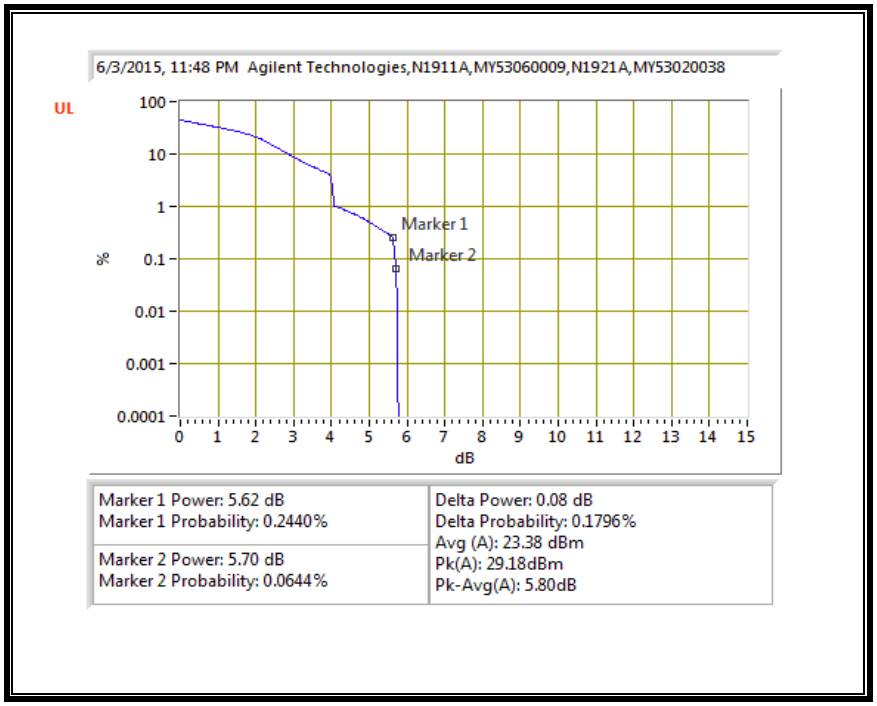
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

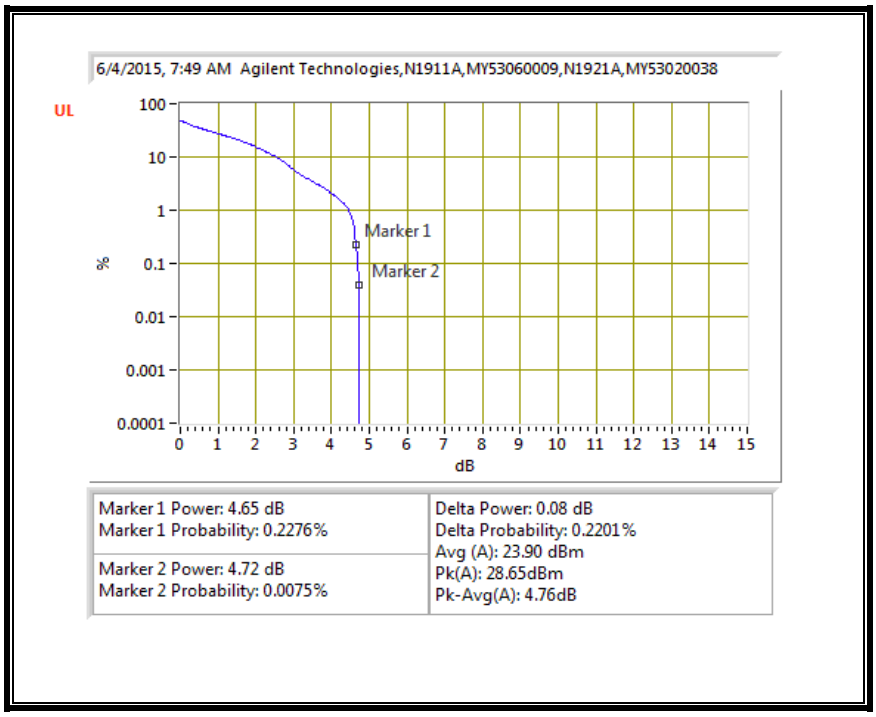


16QAM, (20.0 MHz BAND WIDTH)

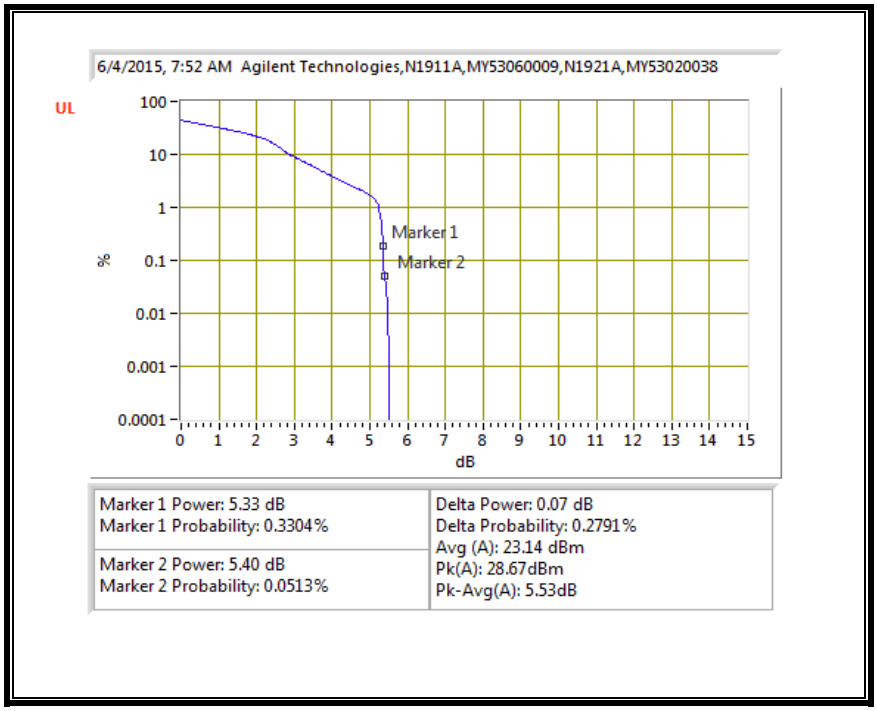


LTE BAND 4

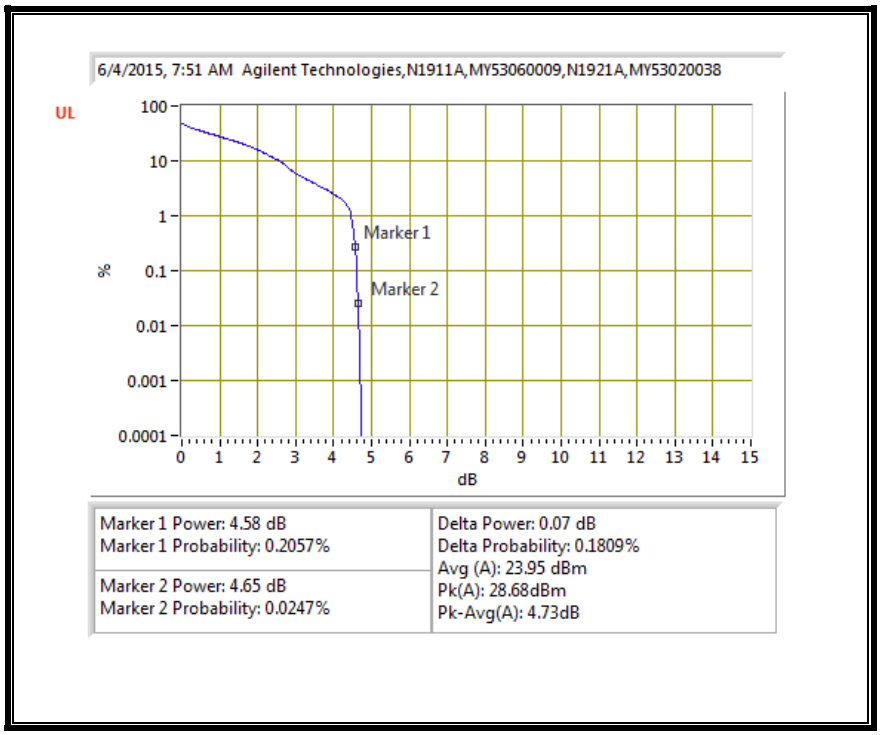
QPSK, (1.4 MHz BAND WIDTH)



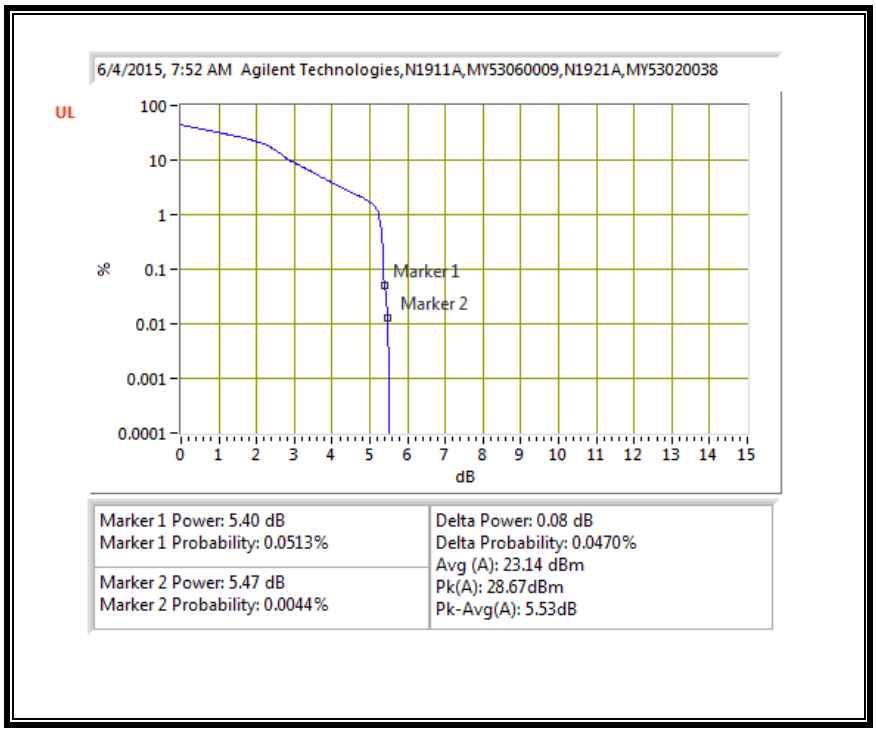
16QAM, (1.4 MHz BAND WIDTH)



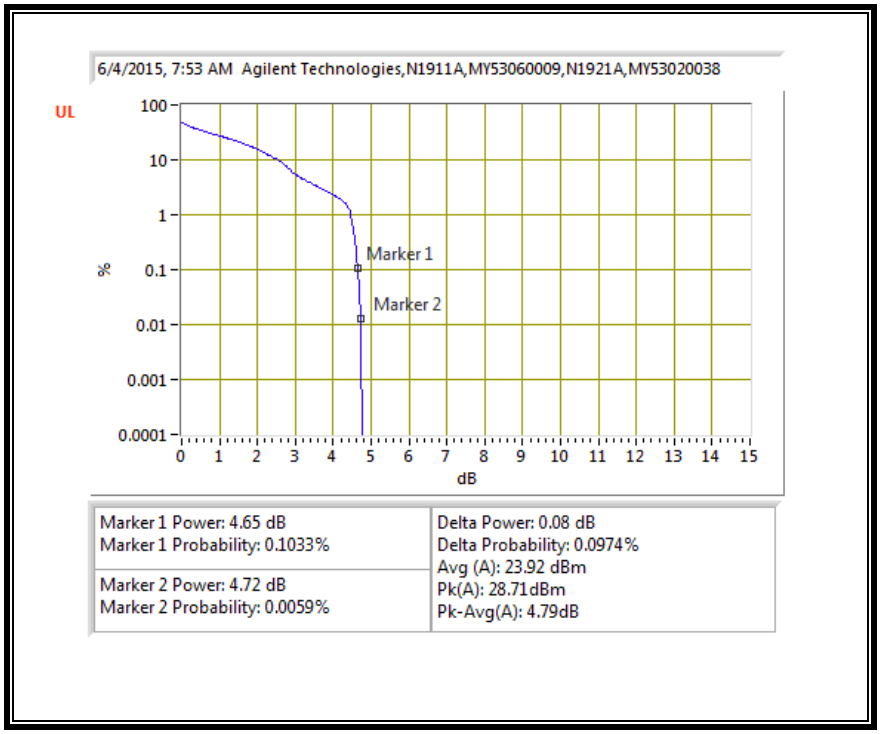
QPSK, (3.0 MHz BAND WIDTH)



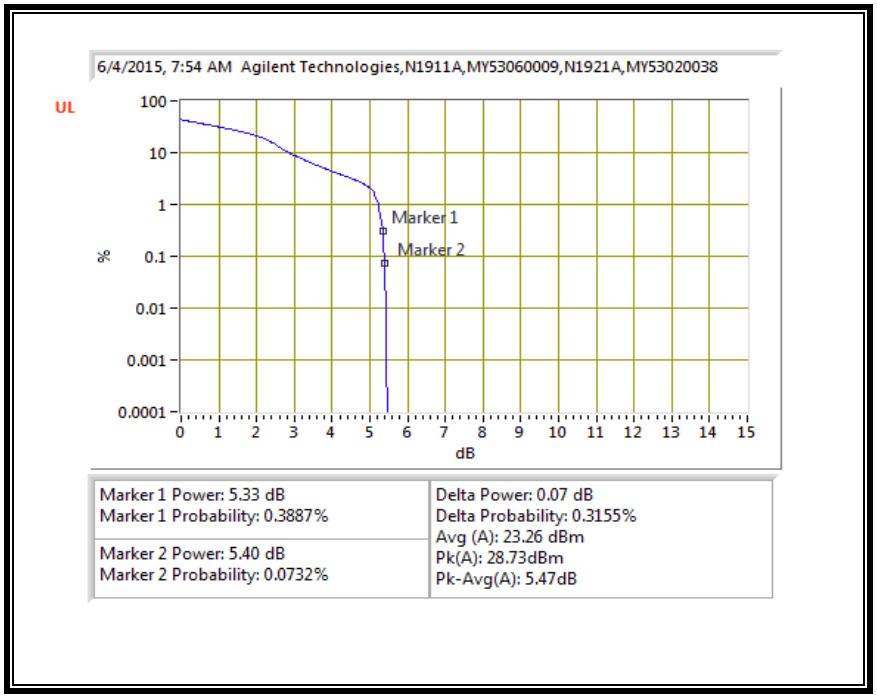
16QAM, (3.0 MHz BAND WIDTH)



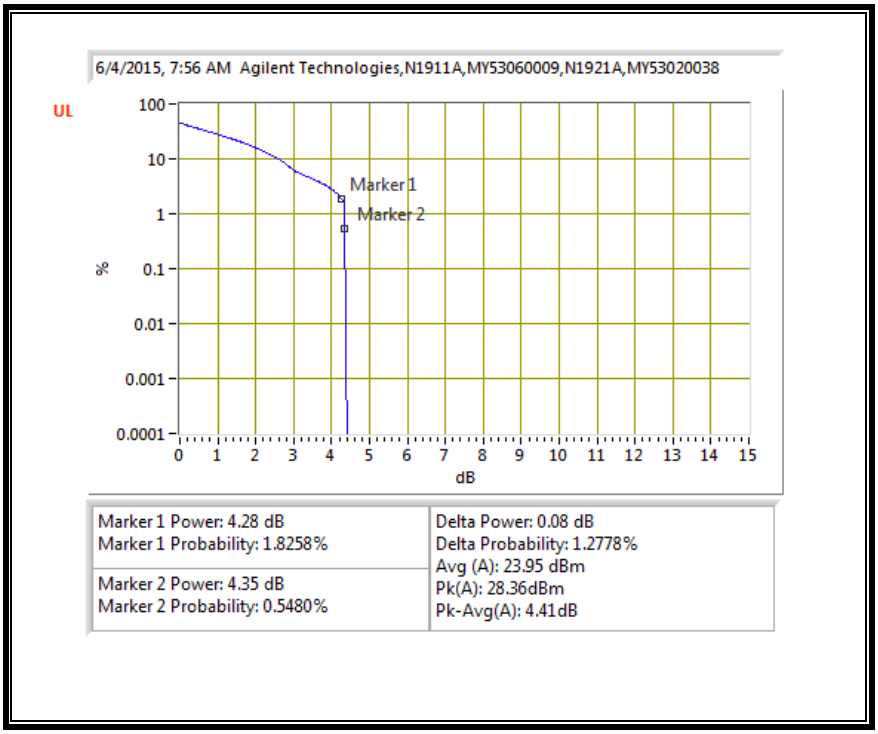
QPSK, (5.0 MHz BAND WIDTH)



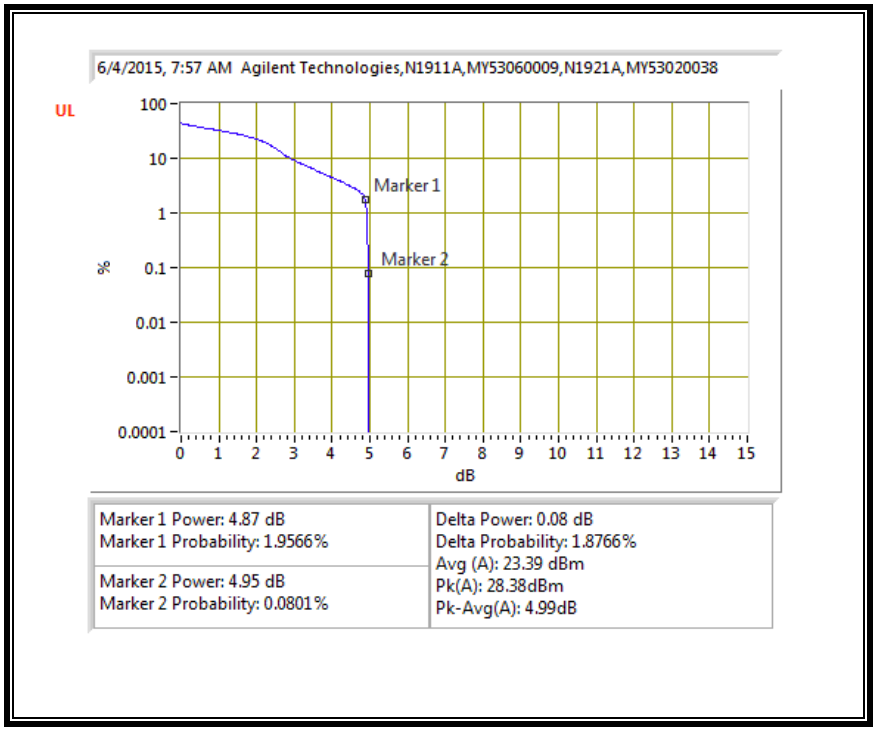
16QAM, (5.0 MHz BAND WIDTH)



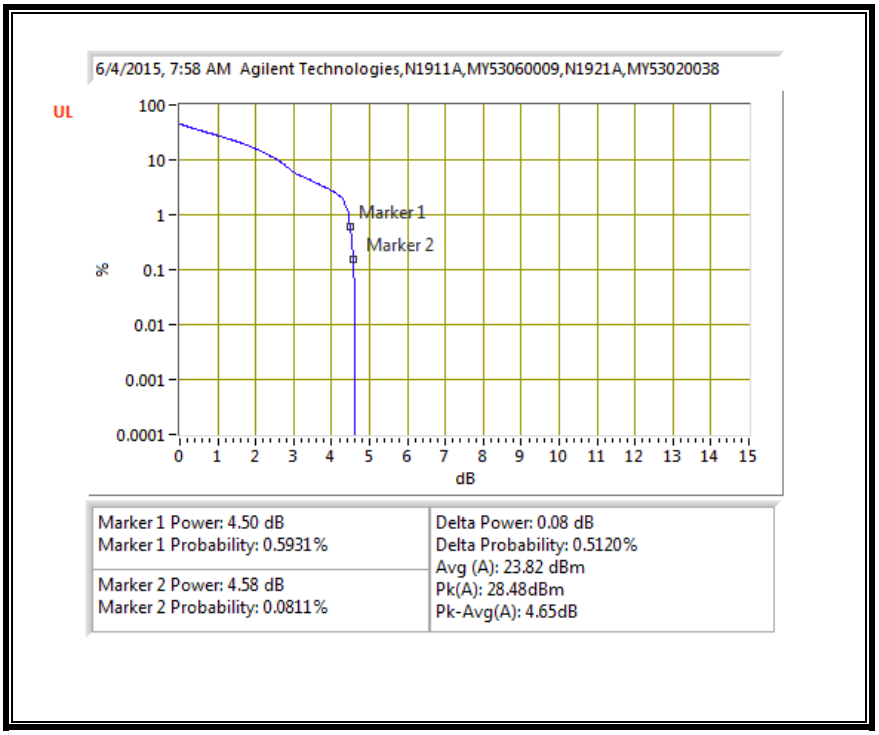
QPSK, (10.0 MHz BAND WIDTH)



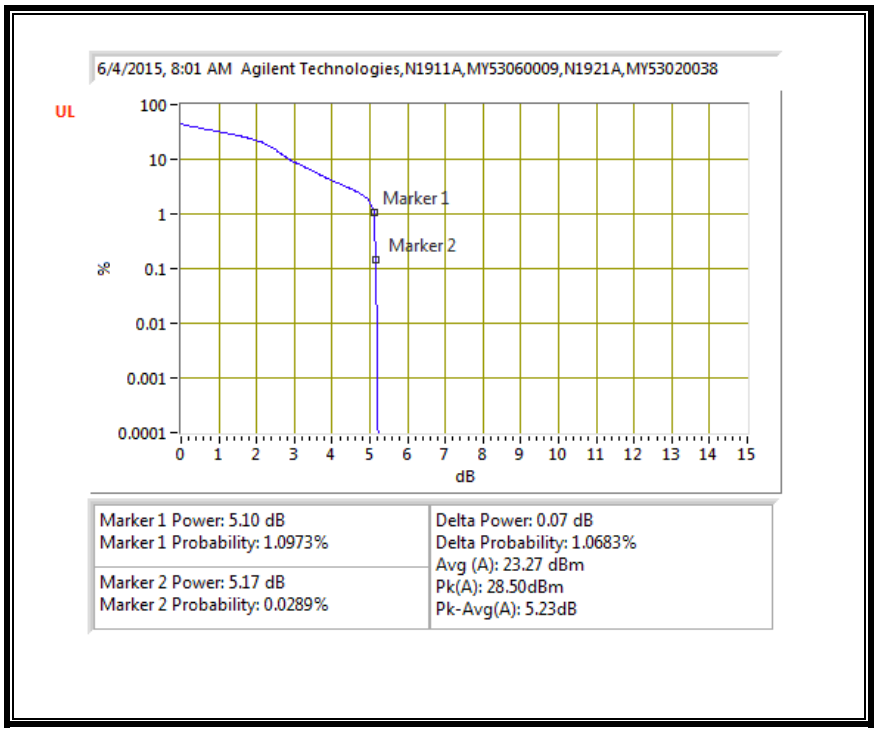
16QAM, (10.0 MHz BAND WIDTH)



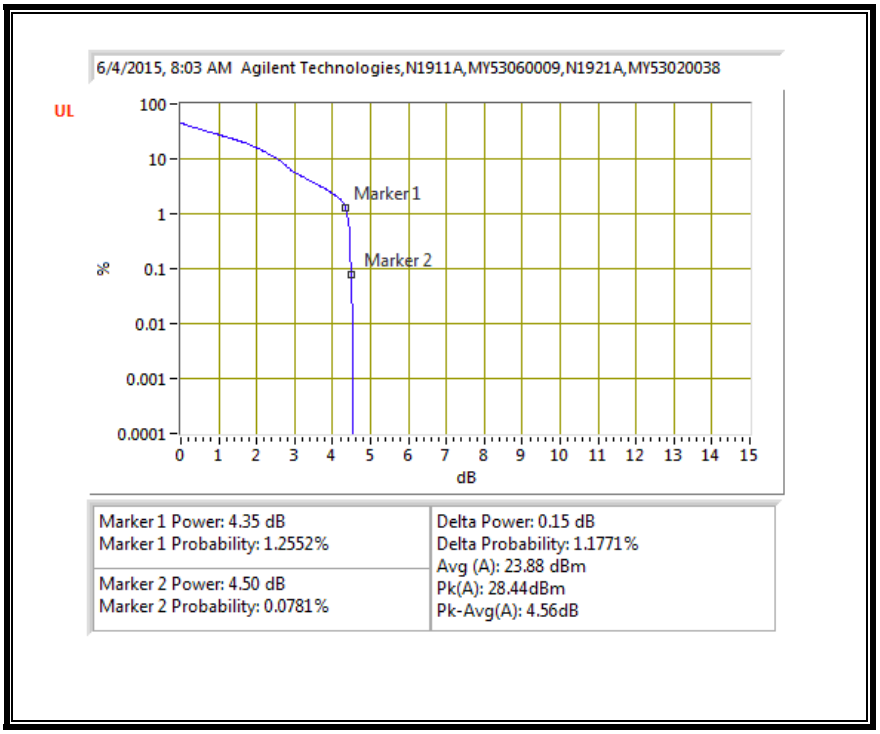
QPSK, (15.0 MHz BAND WIDTH)



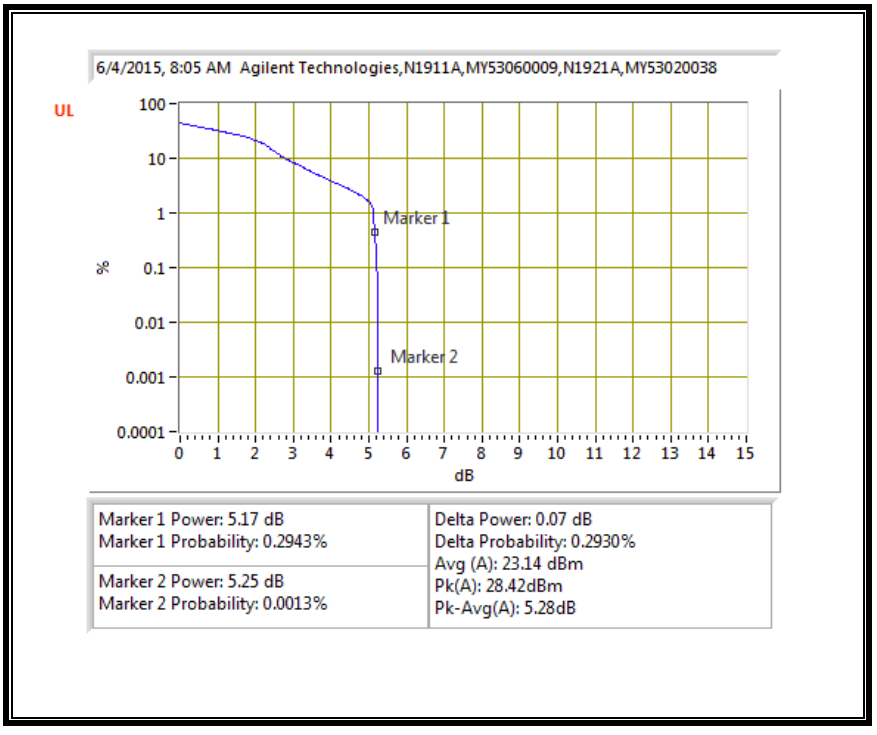
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

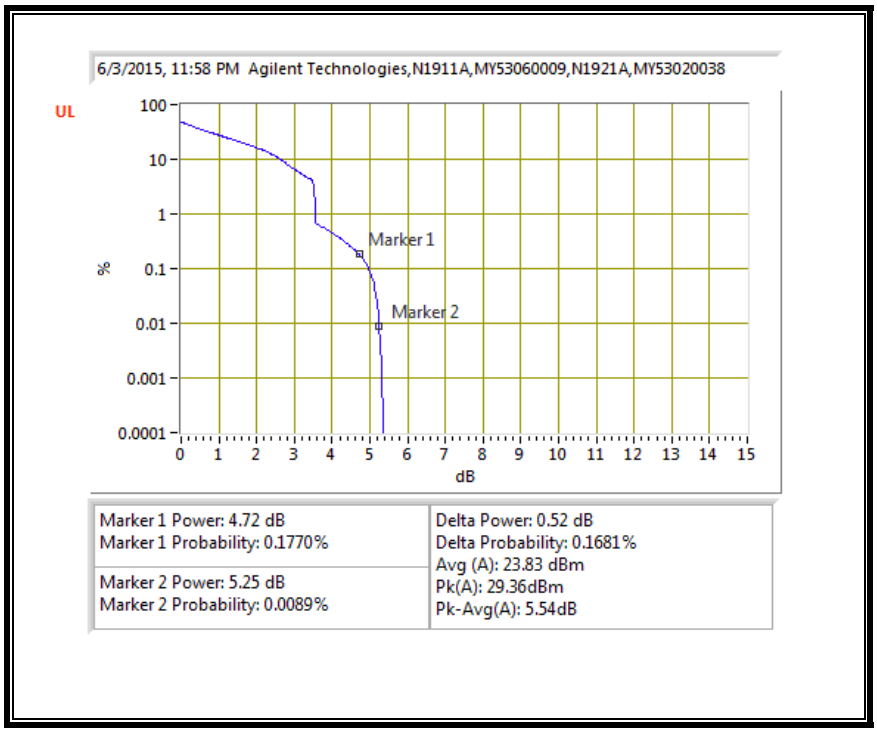


16QAM, (20.0 MHz BAND WIDTH)

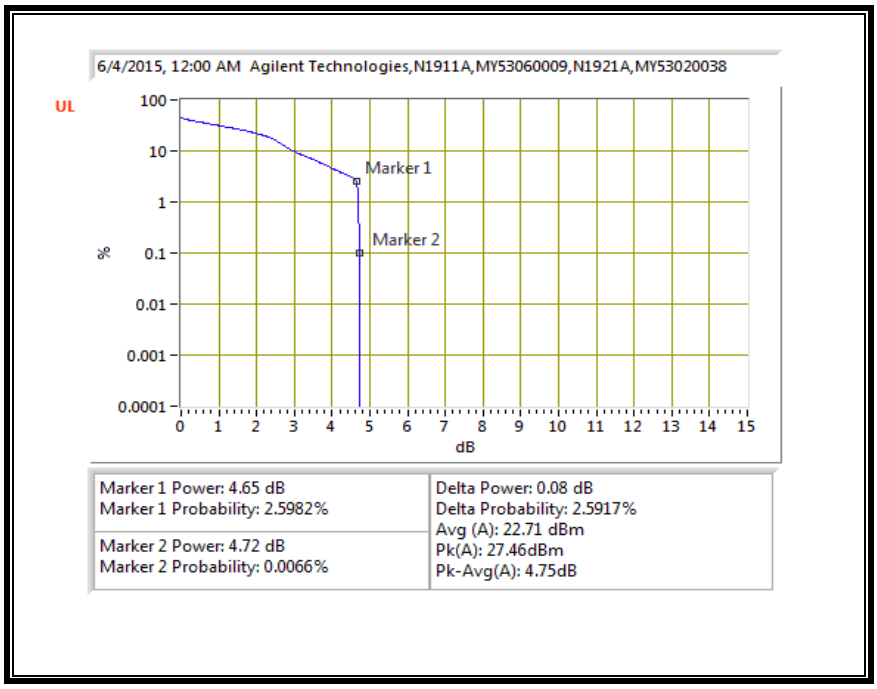


LTE BAND 5

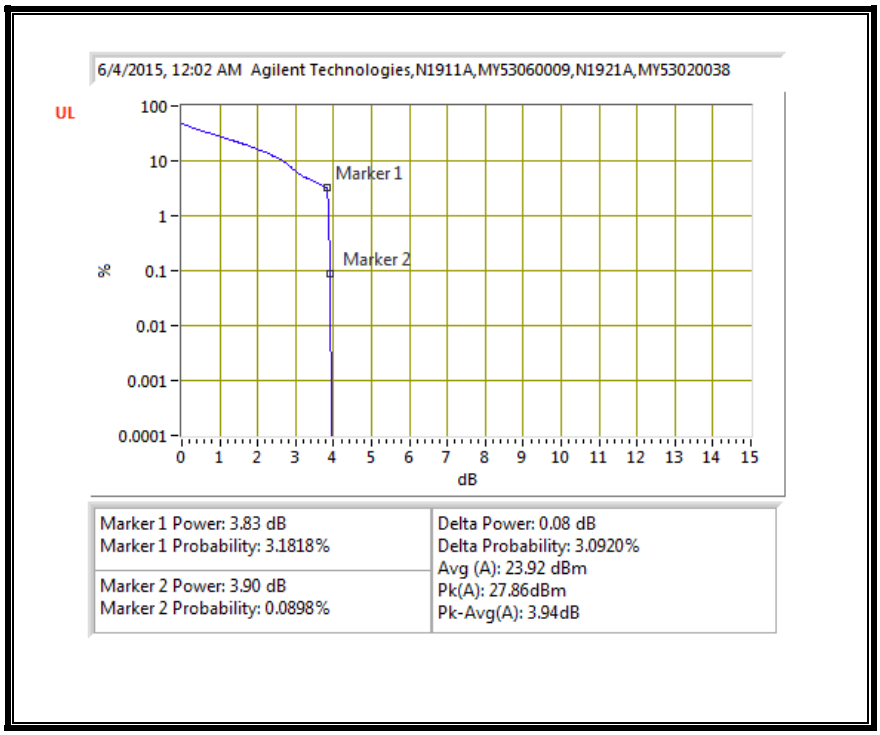
QPSK, (1.4 MHz BAND WIDTH)



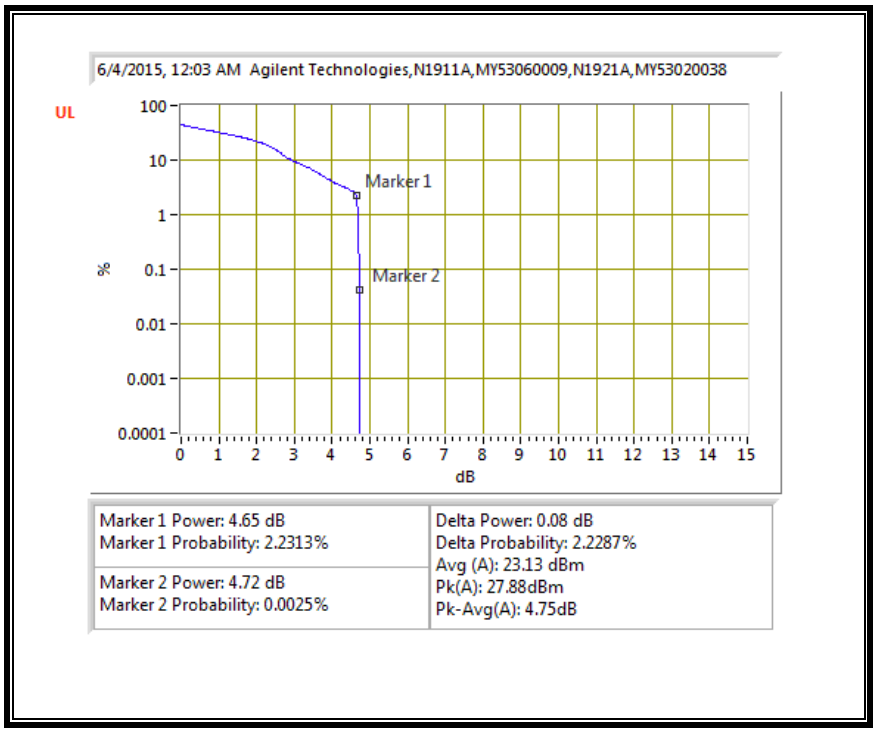
16QAM, (1.4 MHz BAND WIDTH)



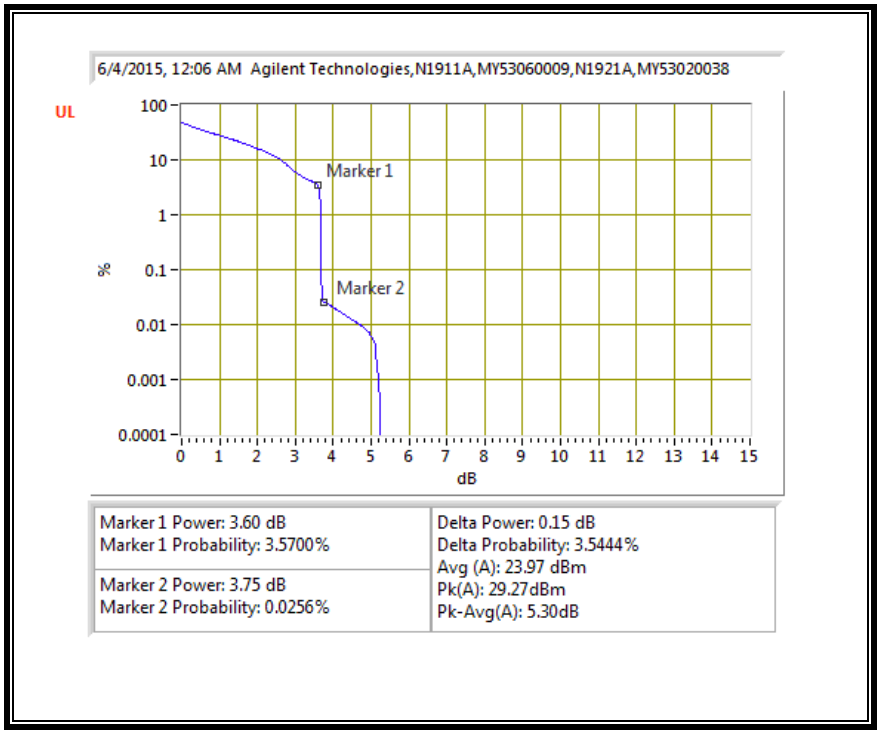
QPSK, (3.0 MHz BAND WIDTH)



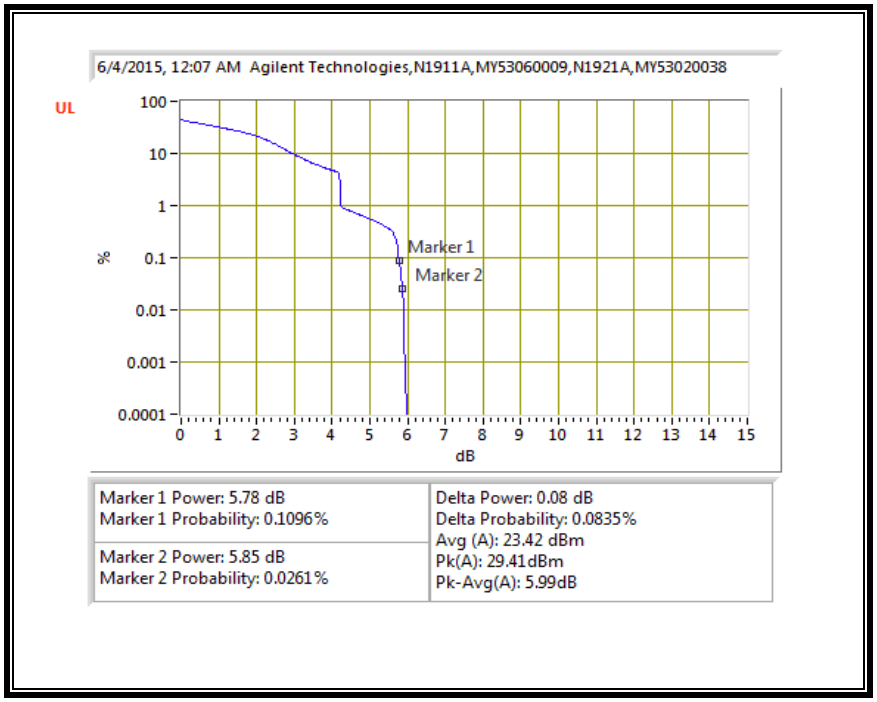
16QAM, (3.0 MHz BAND WIDTH)



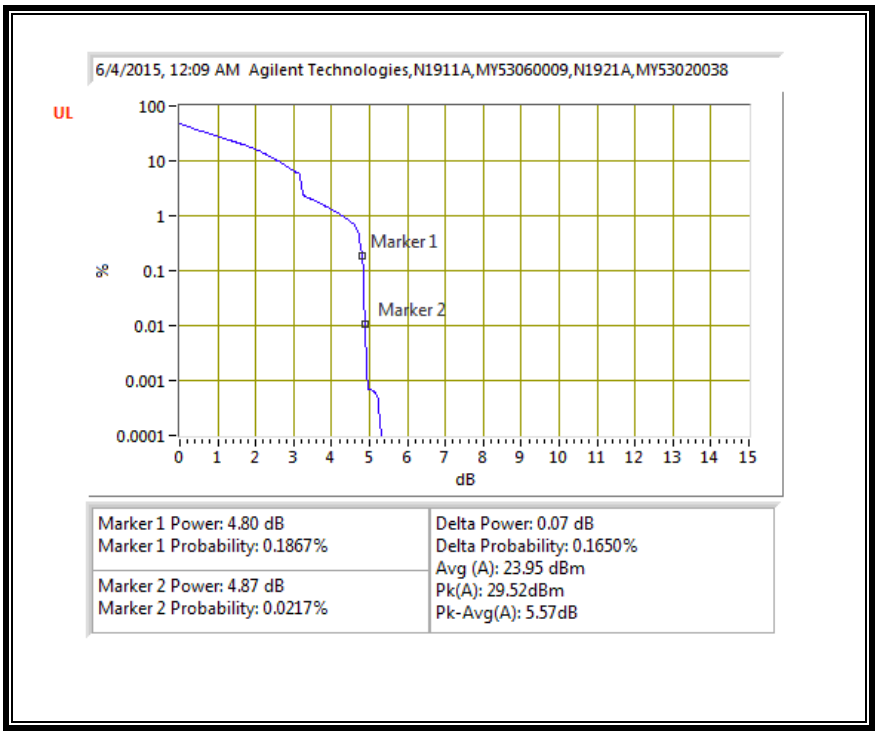
QPSK, (5.0 MHz BAND WIDTH)



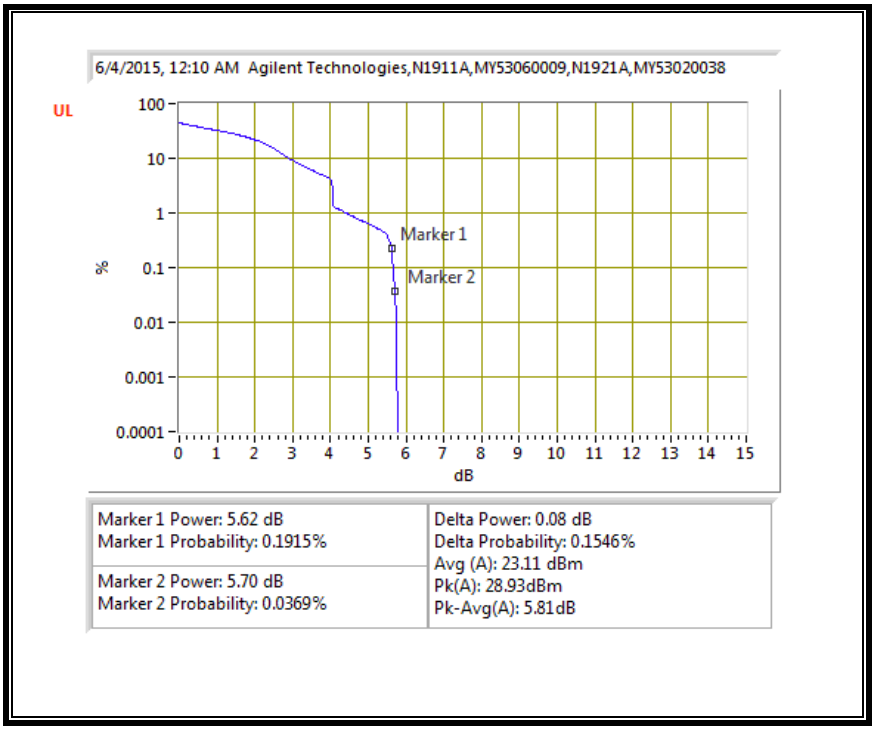
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

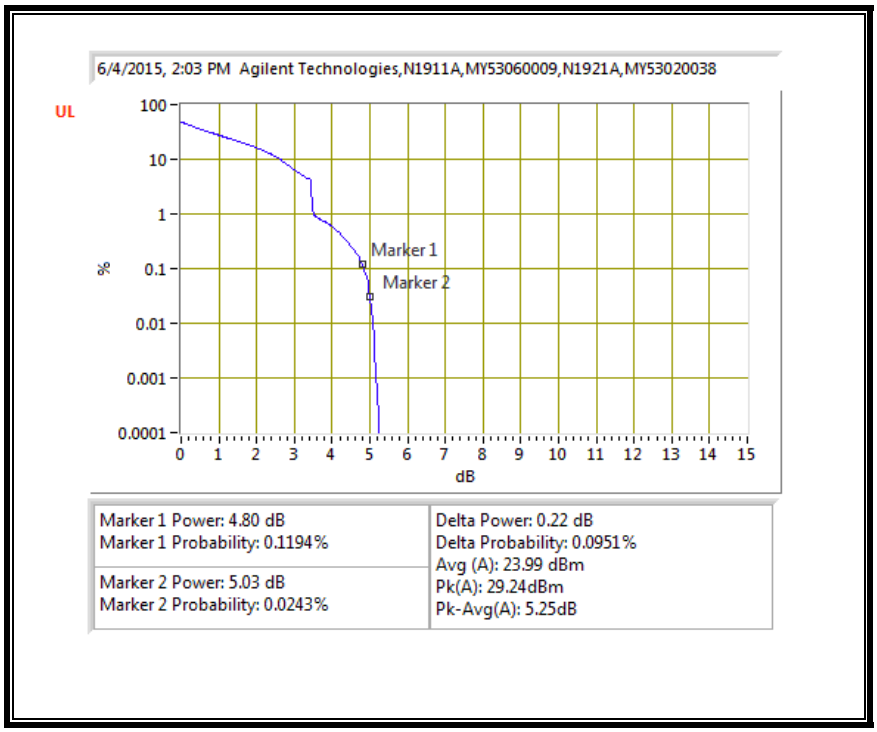


16QAM, (10.0 MHz BAND WIDTH)

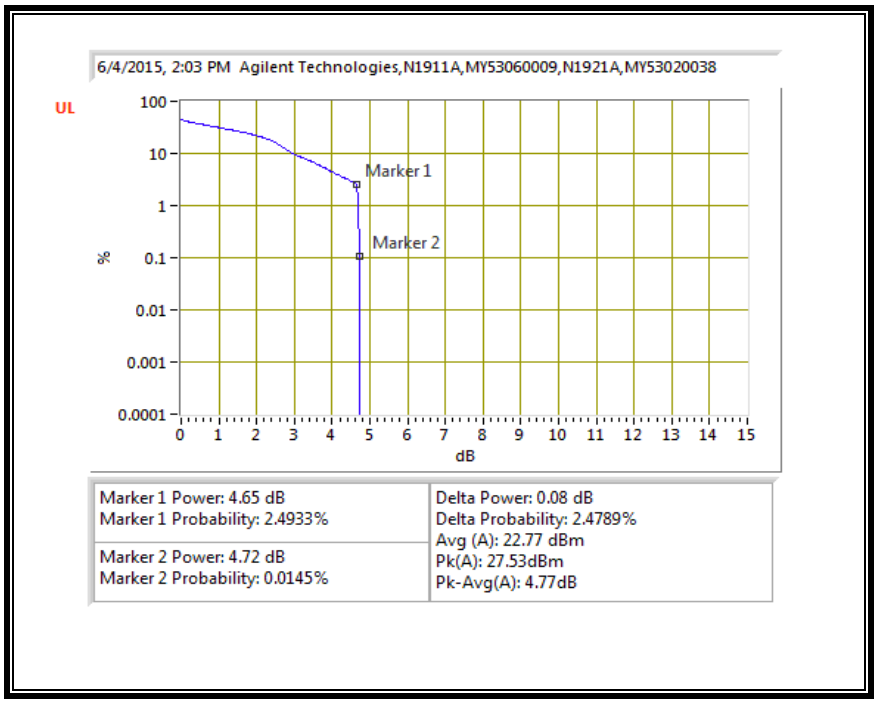


LTE BAND 12

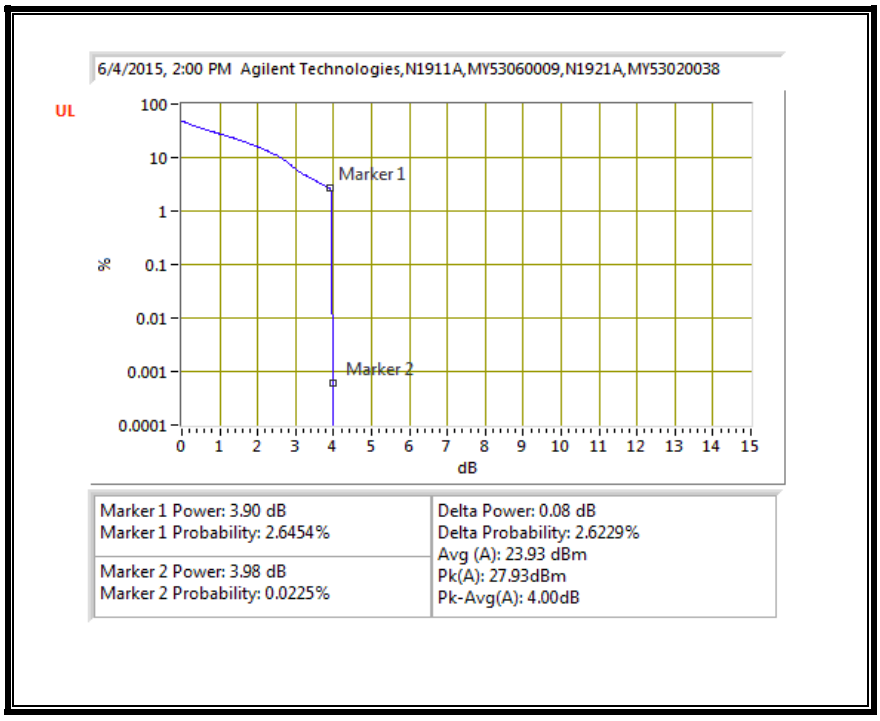
QPSK, (1.4 MHz BAND WIDTH)



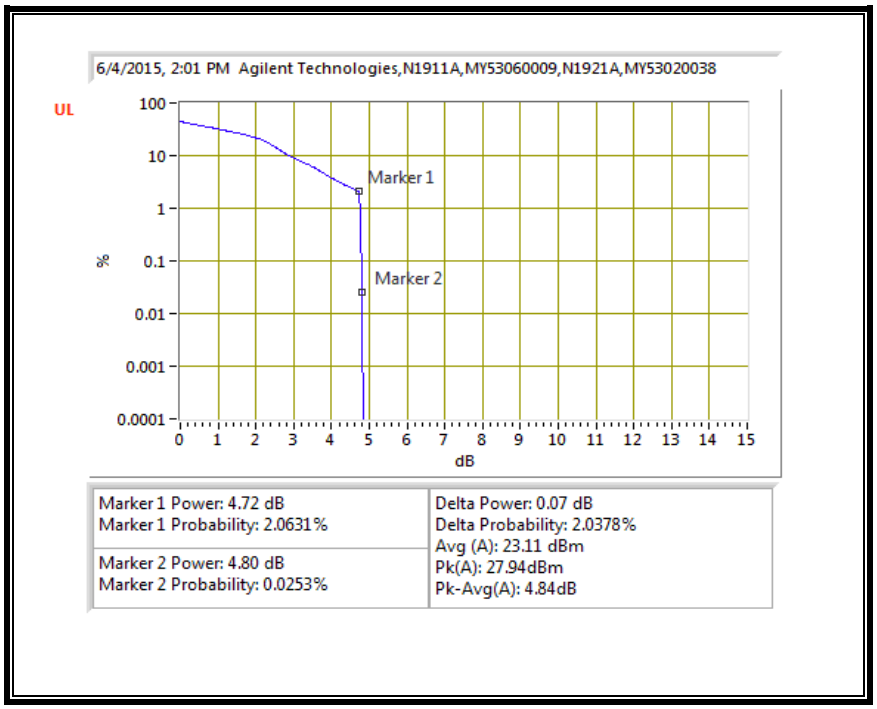
16QAM, (1.4 MHz BAND WIDTH)



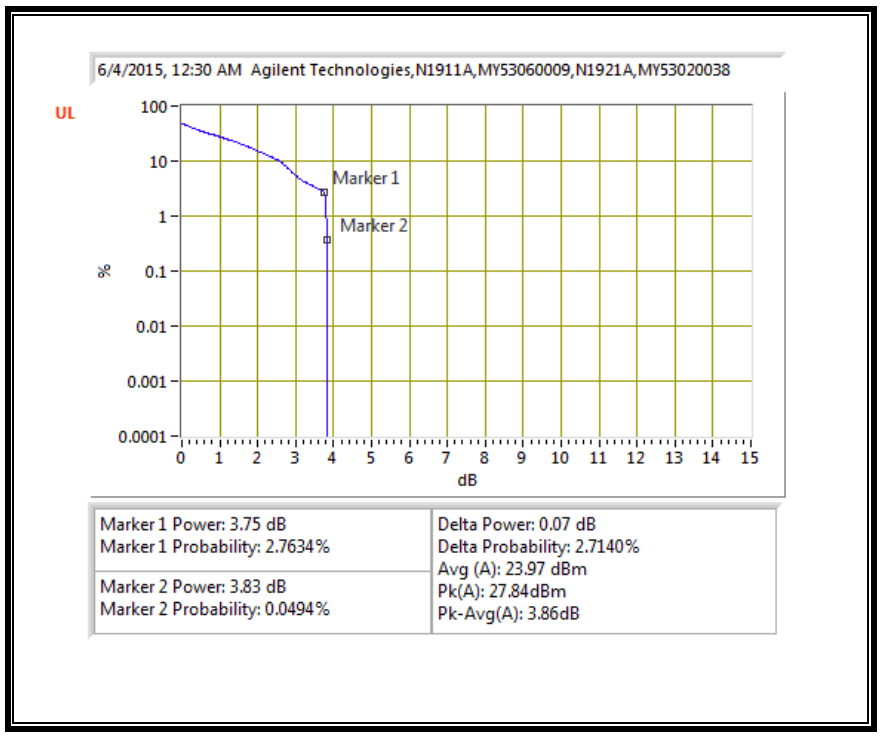
QPSK, (3.0 MHz BAND WIDTH)



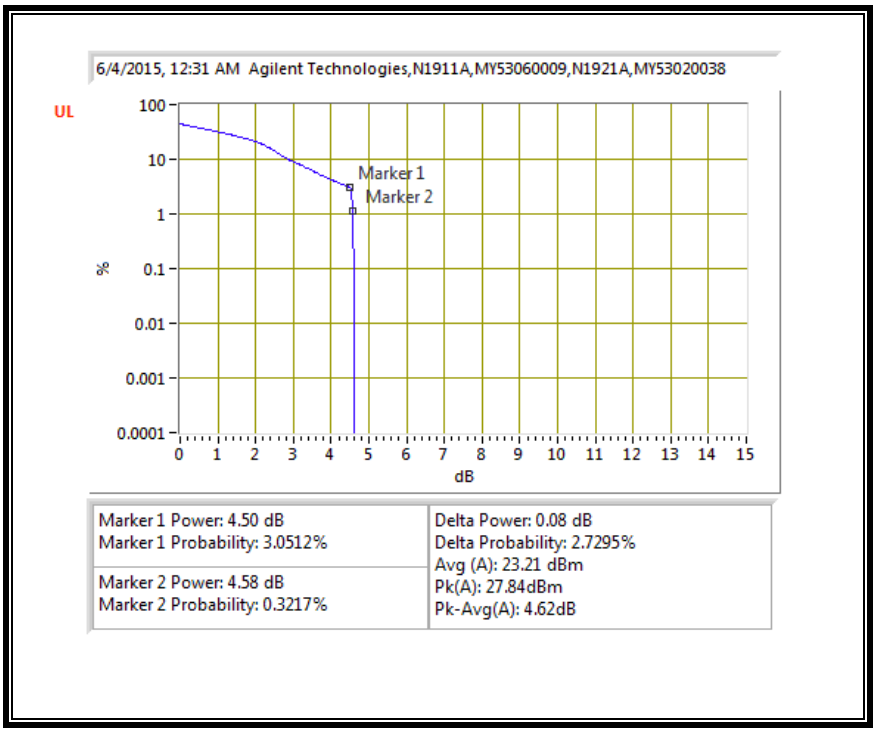
16QAM, (3.0 MHz BAND WIDTH)



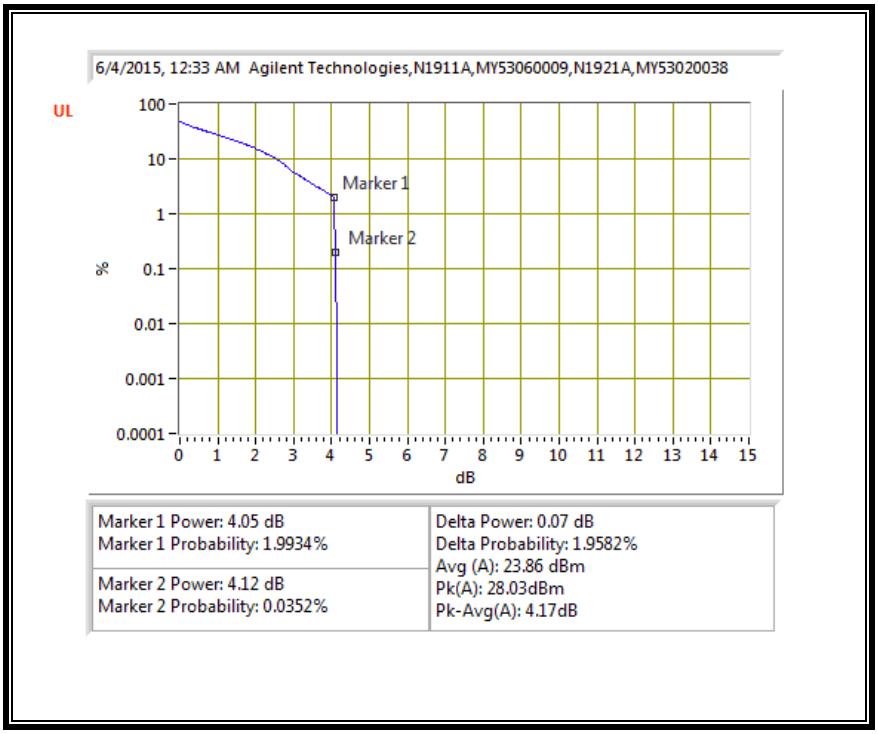
QPSK, (5.0 MHz BAND WIDTH)



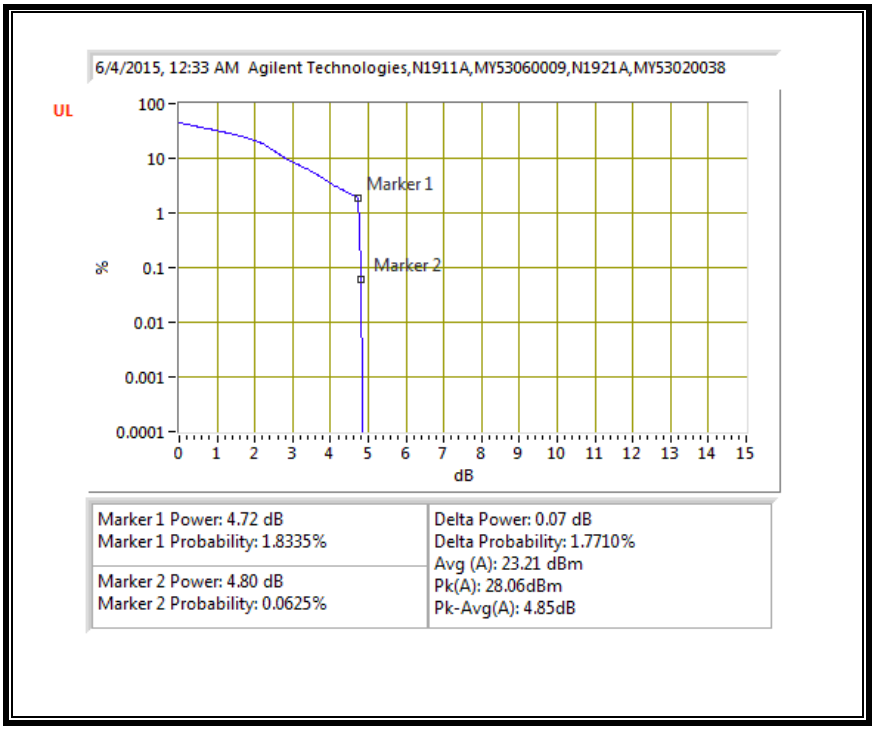
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

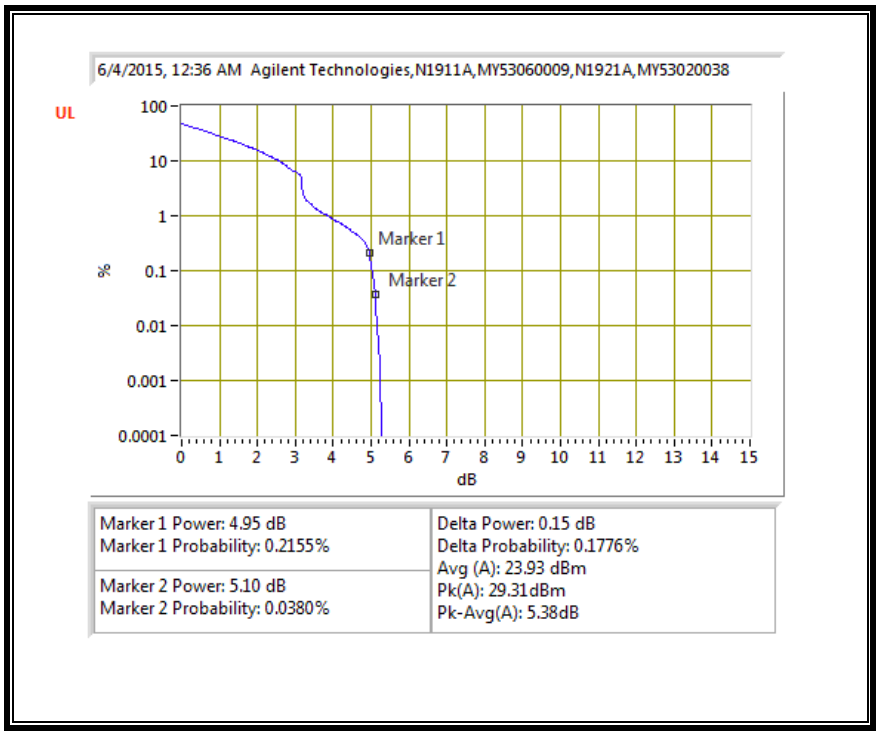


16QAM, (10.0 MHz BAND WIDTH)

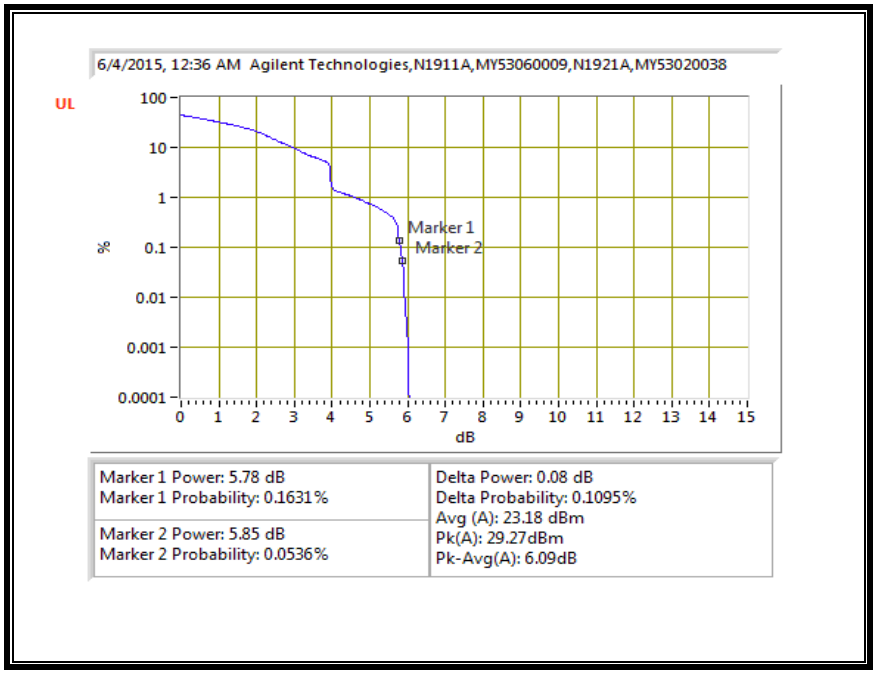


LTE BAND 13

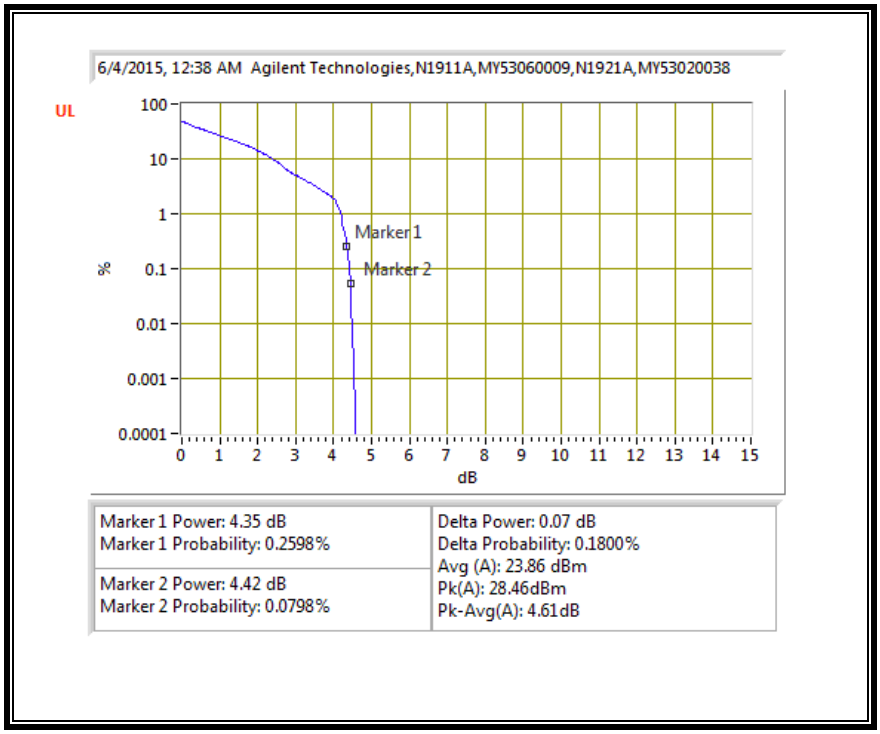
QPSK, (5.0 MHz BAND WIDTH)



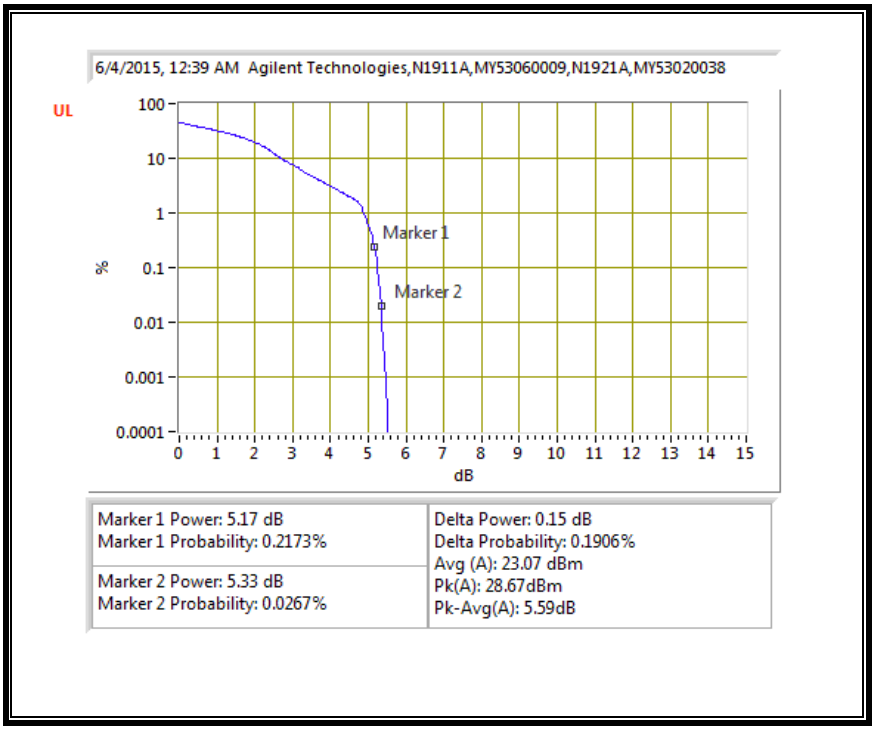
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

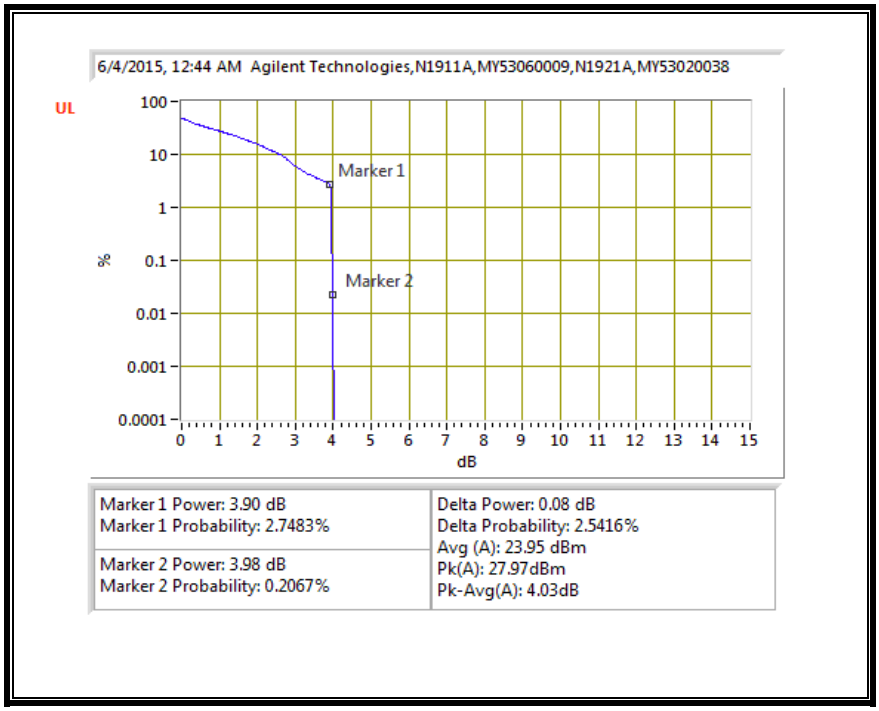


16QAM, (10.0 MHz BAND WIDTH)

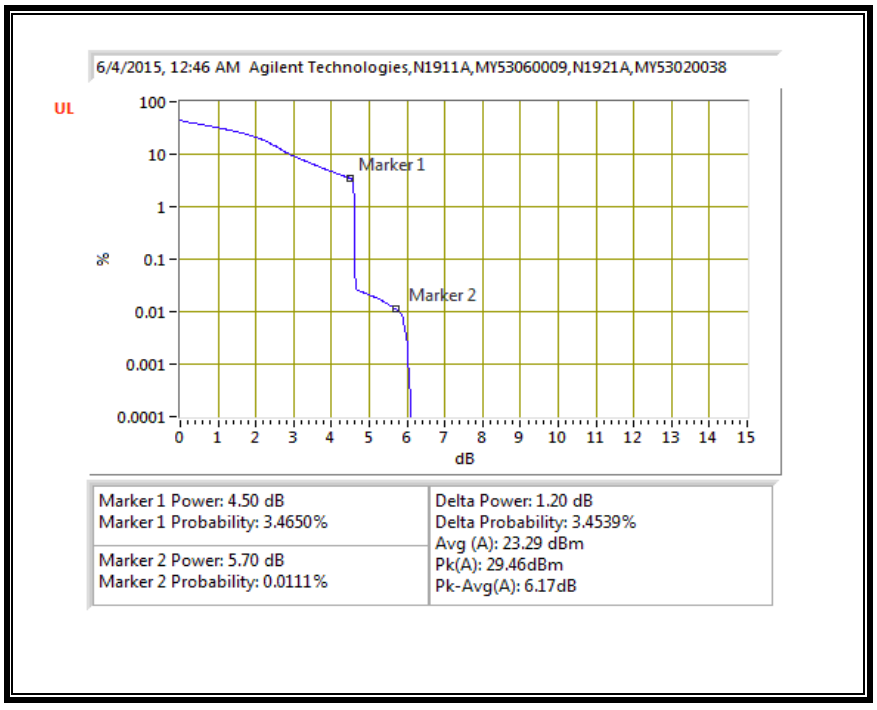


LTE BAND 17

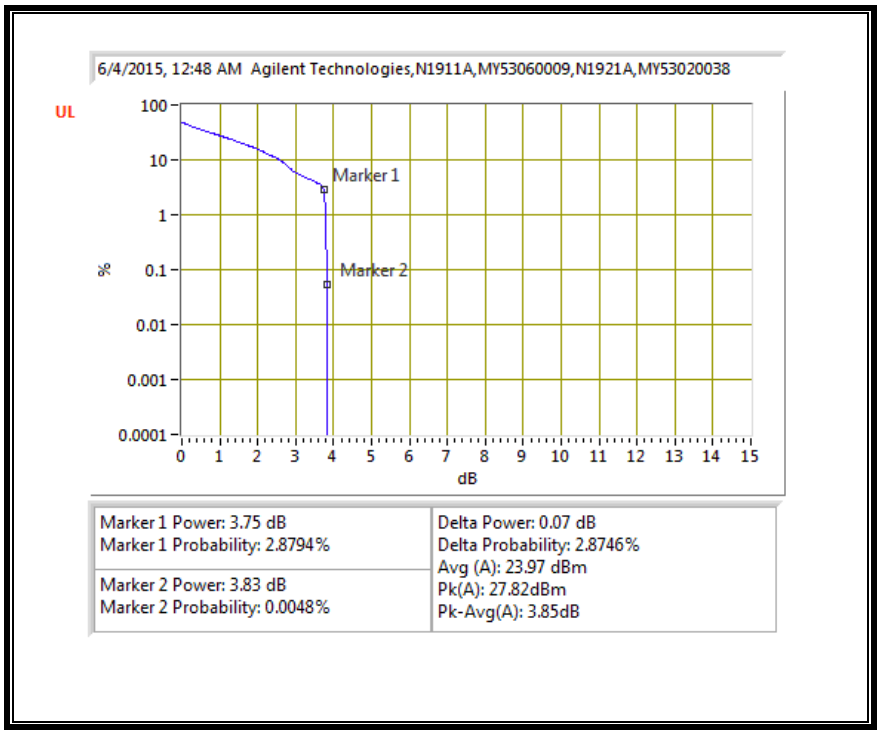
QPSK, (5.0 MHz BAND WIDTH)



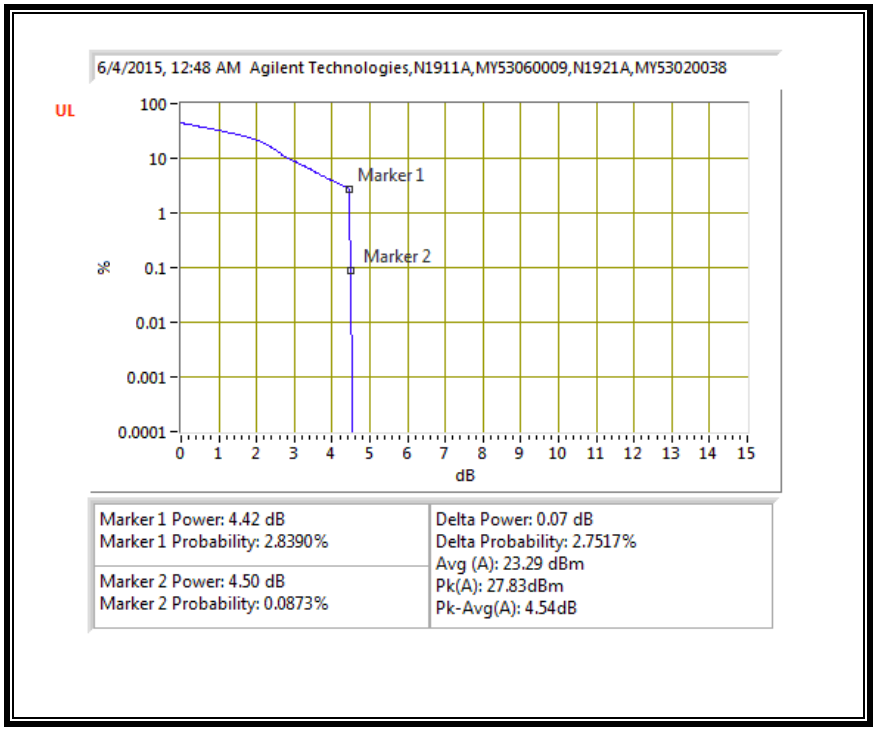
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

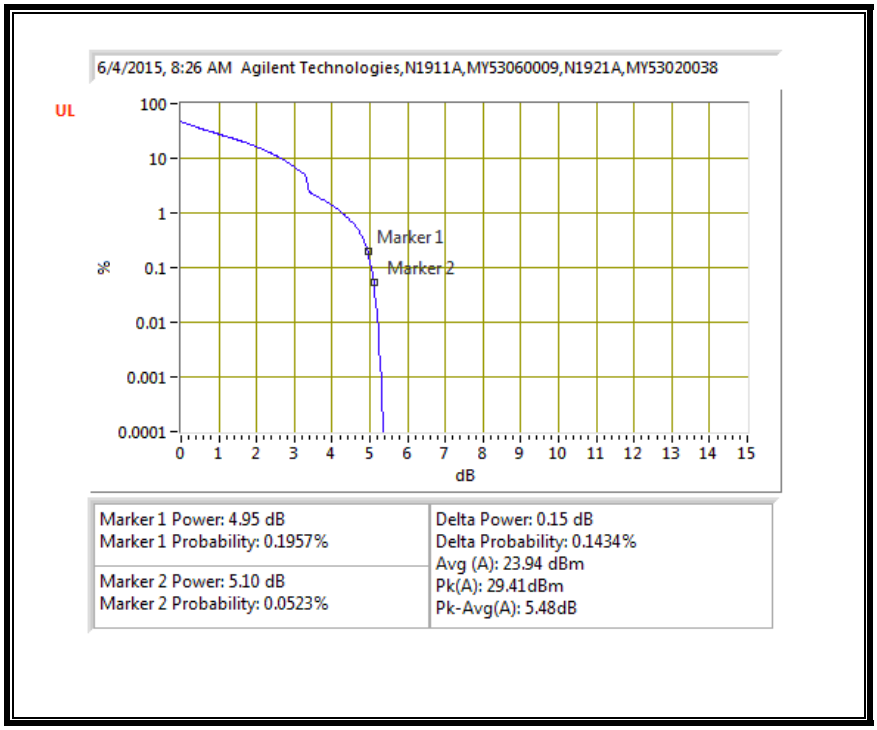


16QAM, (10.0 MHz BAND WIDTH)

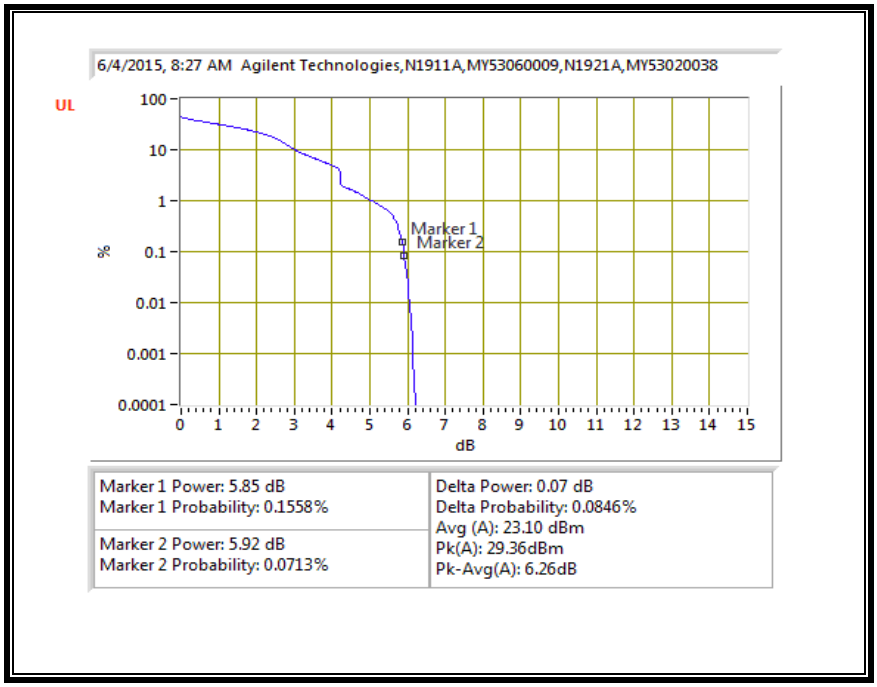


LTE BAND 25

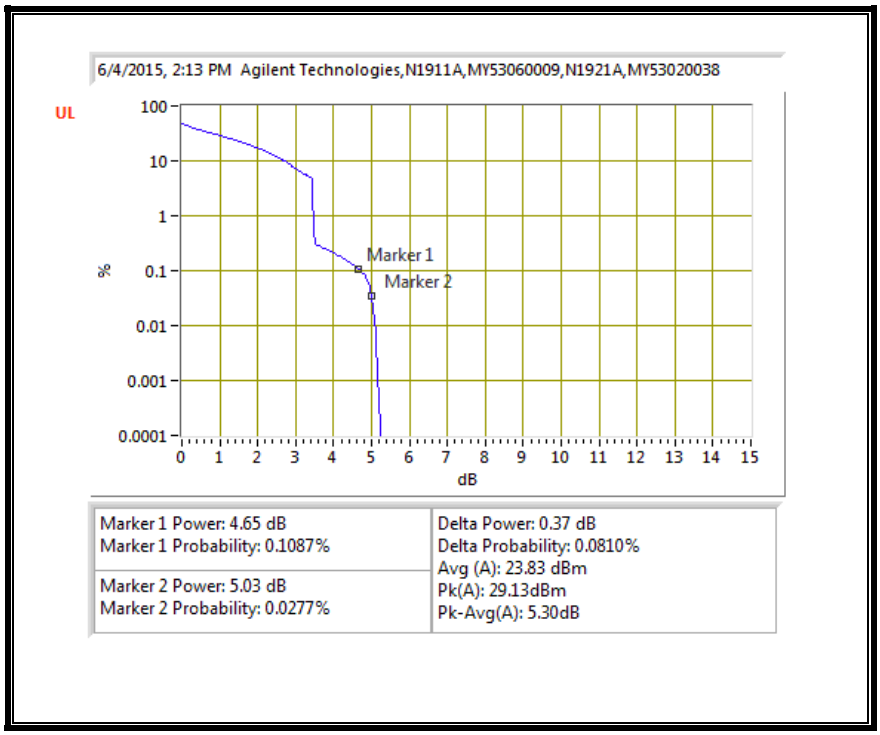
QPSK, (1.4 MHz BAND WIDTH)



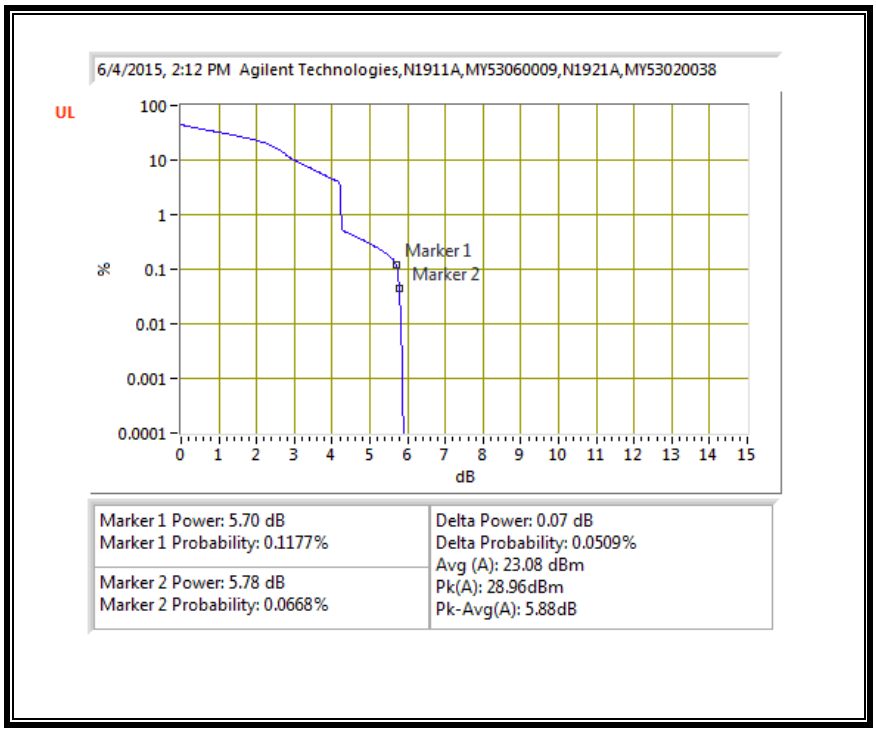
16QAM, (1.4 MHz BAND WIDTH)



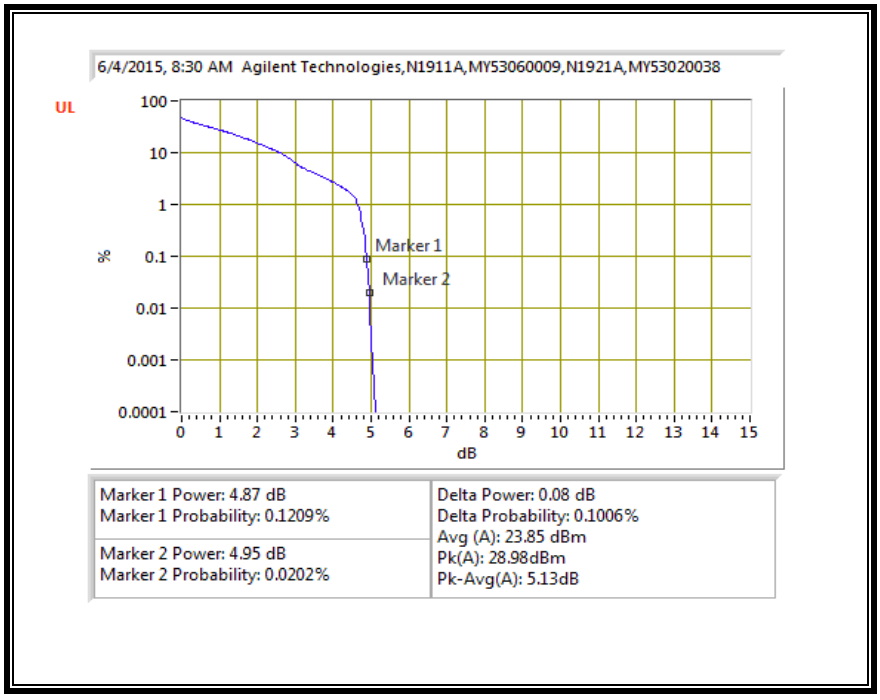
QPSK, (3.0 MHz BAND WIDTH)



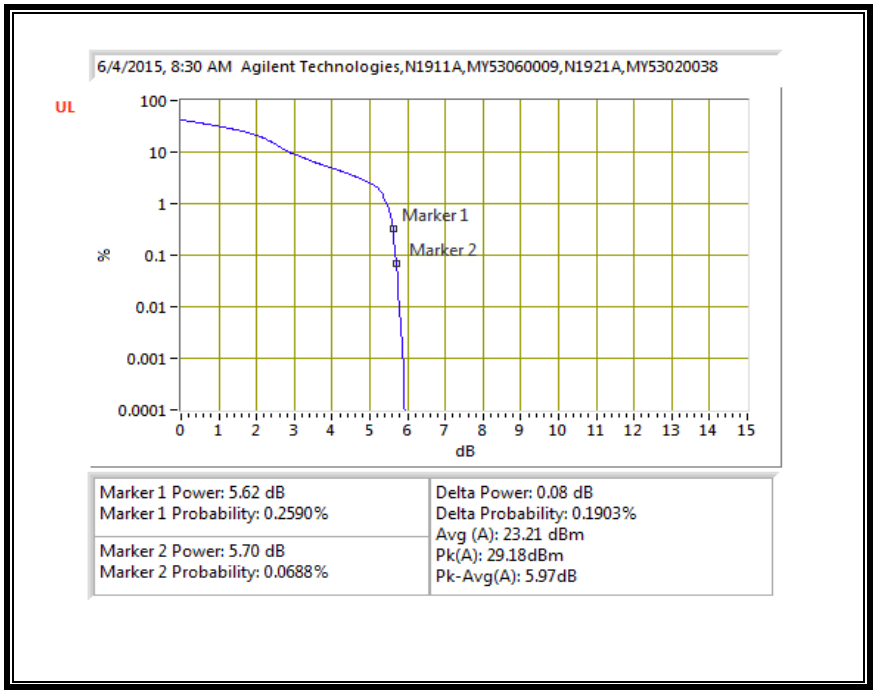
16QAM, (3.0 MHz BAND WIDTH)



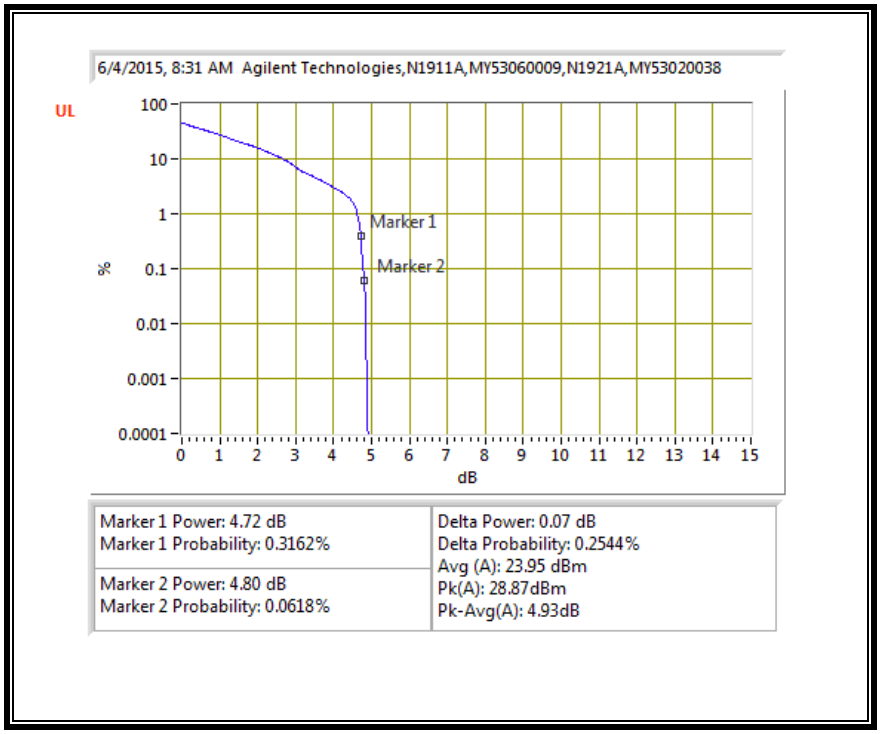
QPSK, (5.0 MHz BAND WIDTH)



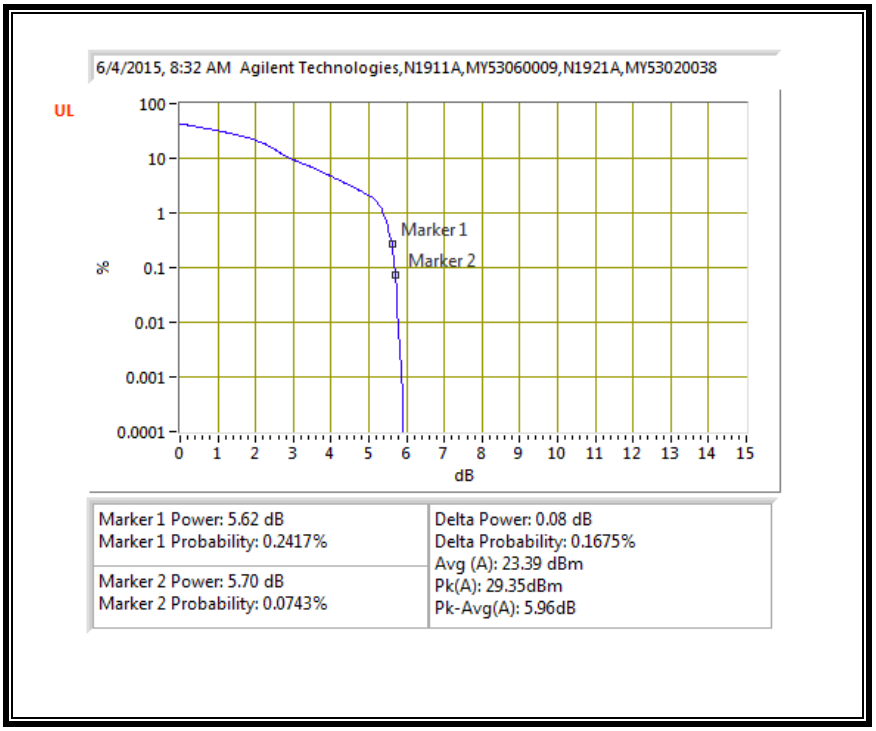
16QAM, (5.0 MHz BAND WIDTH)



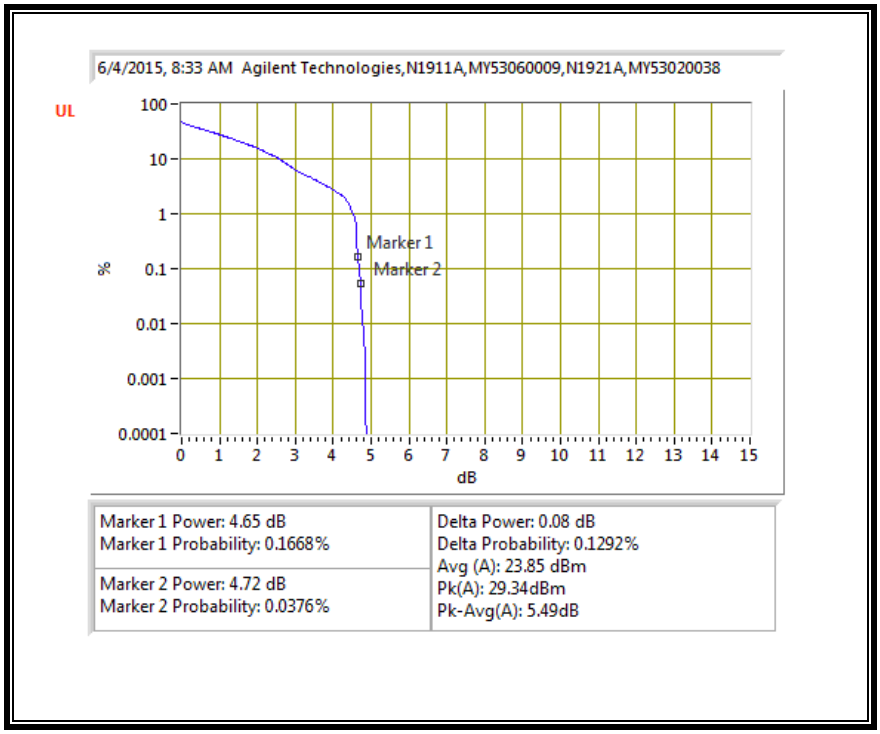
QPSK, (10.0 MHz BAND WIDTH)



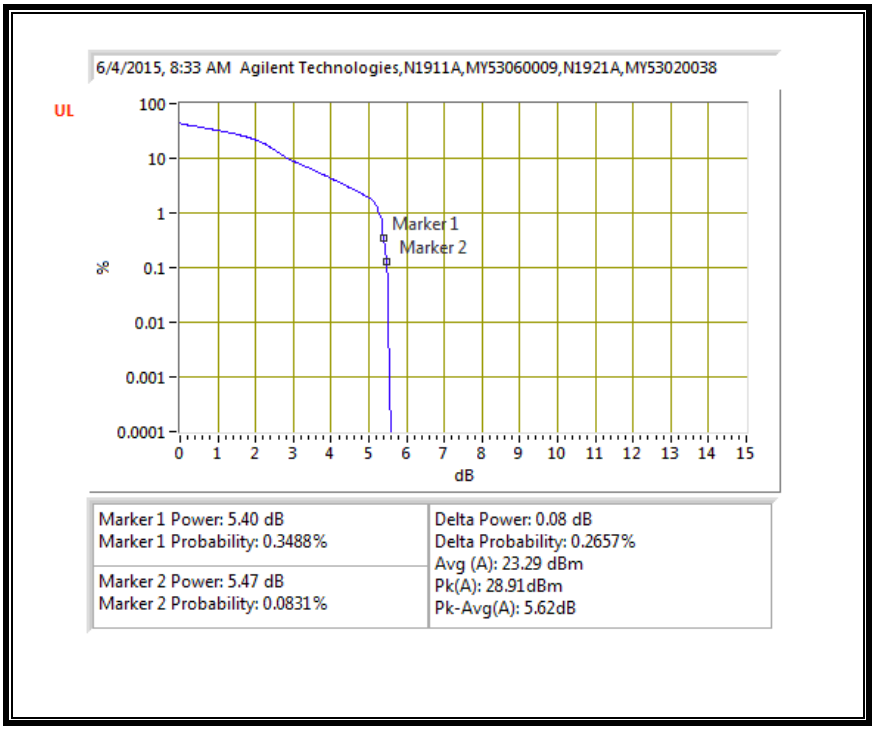
16QAM, (10.0 MHz BAND WIDTH)



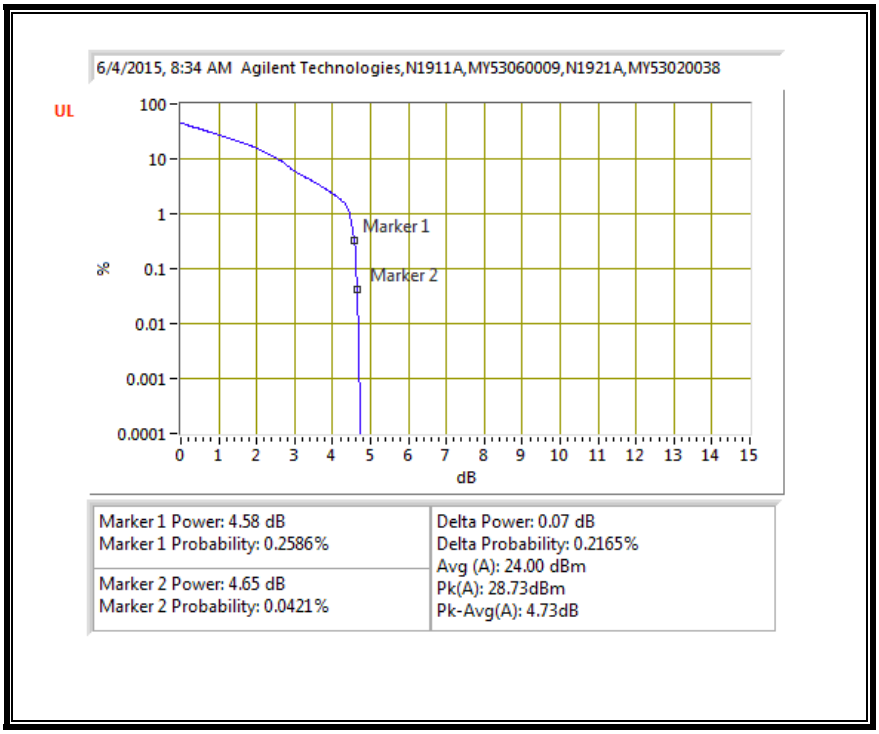
QPSK, (15.0 MHz BAND WIDTH)



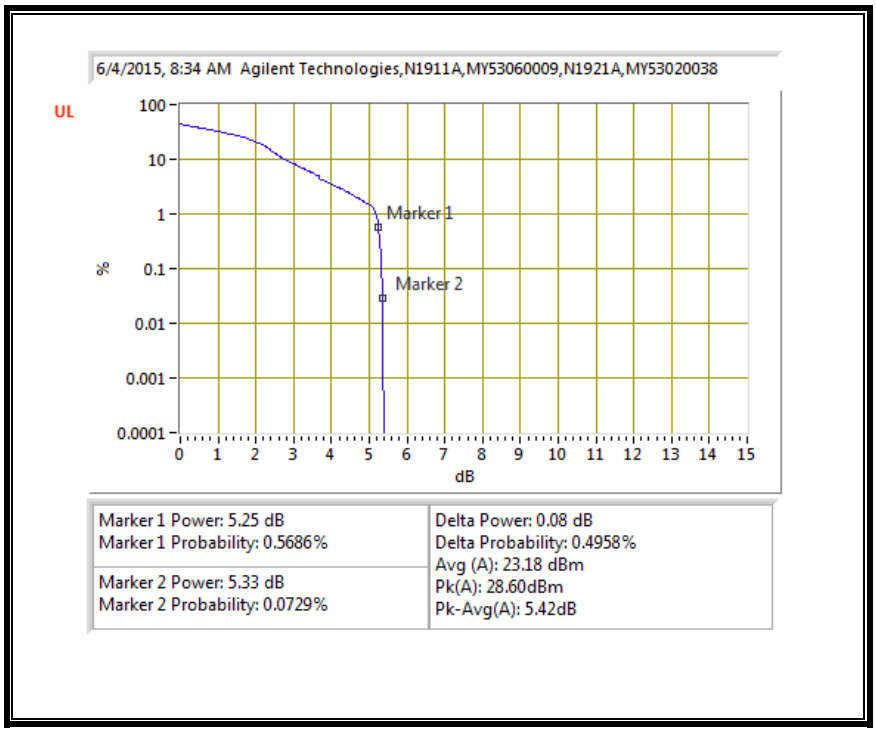
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)



16QAM, (20.0 MHz BAND WIDTH)



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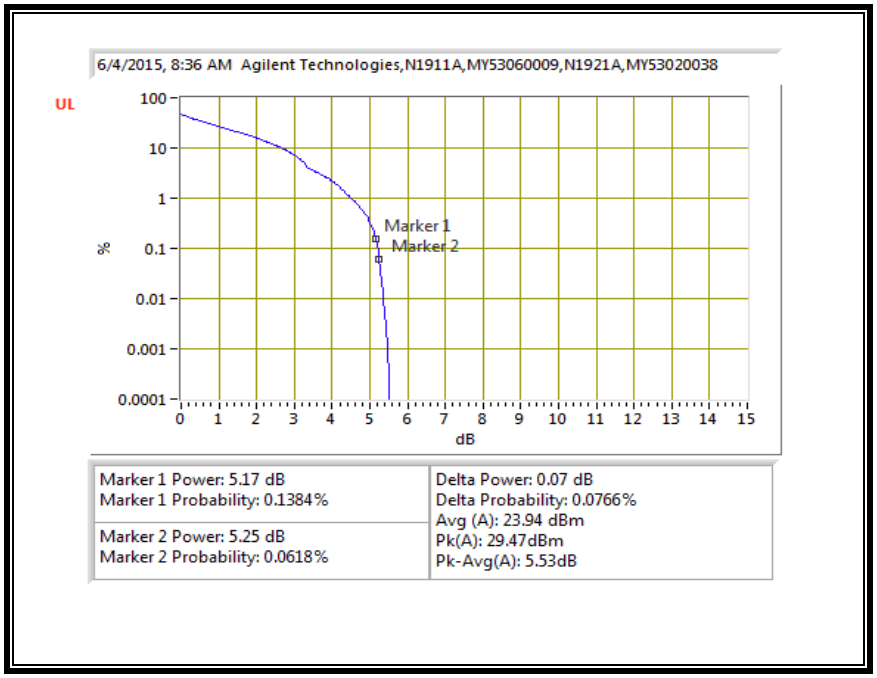
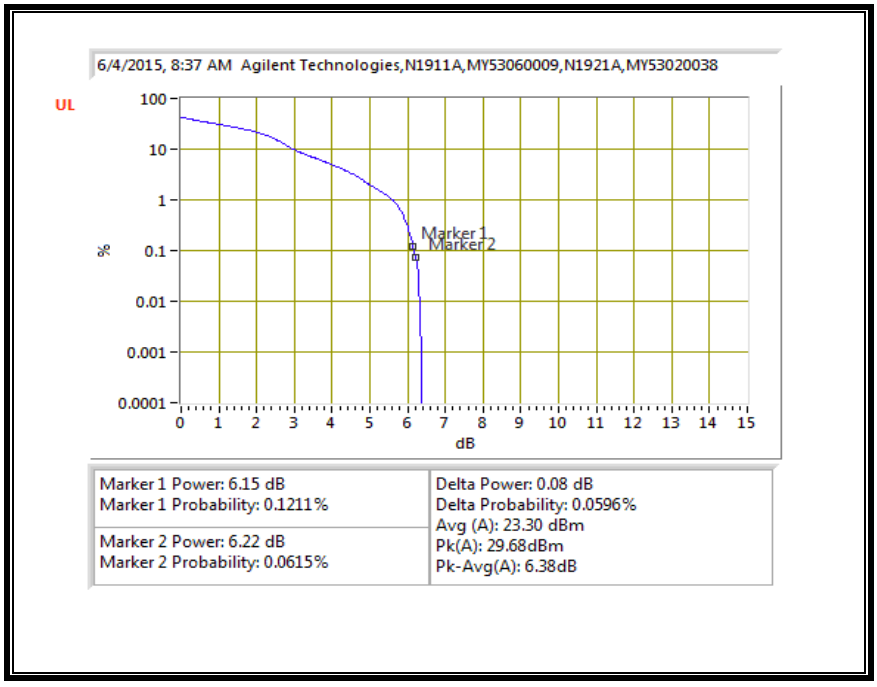
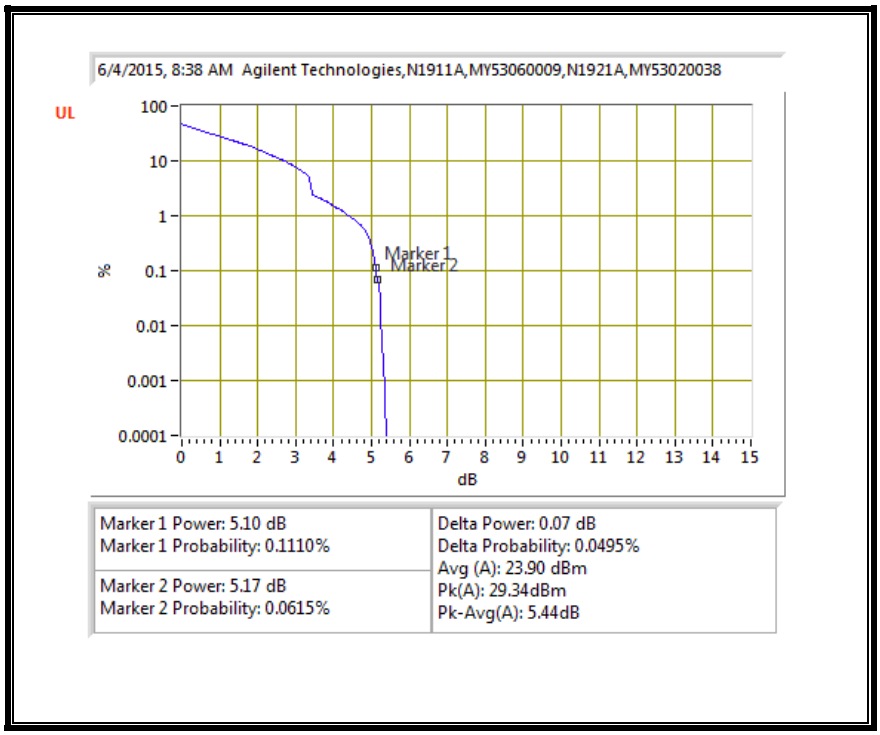
QPSK, (1.4 MHz BAND WIDTH)



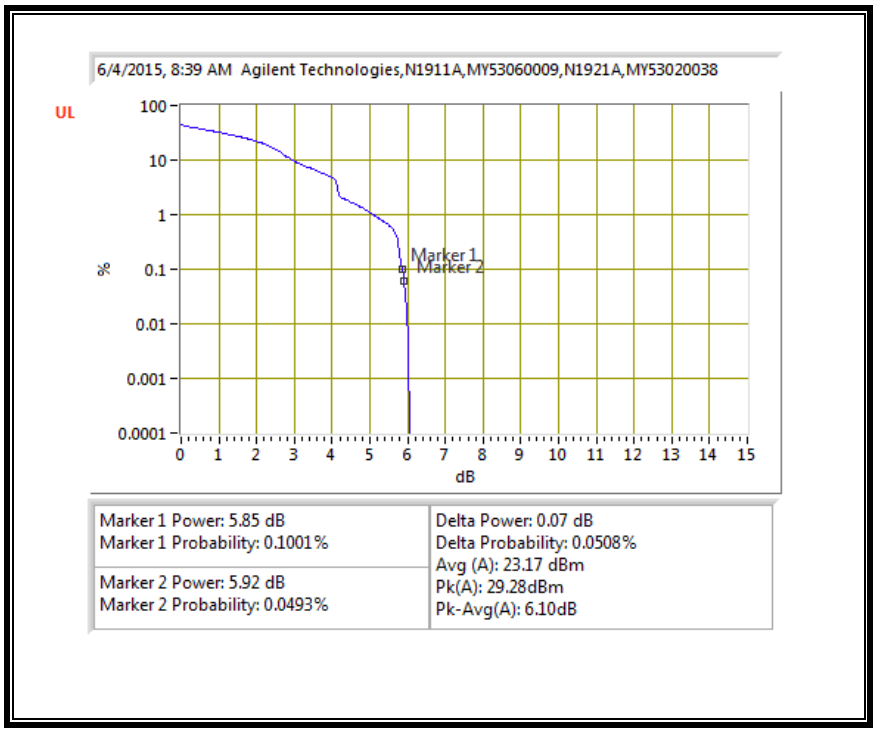
16QAM, (1.4 MHz BAND WIDTH)



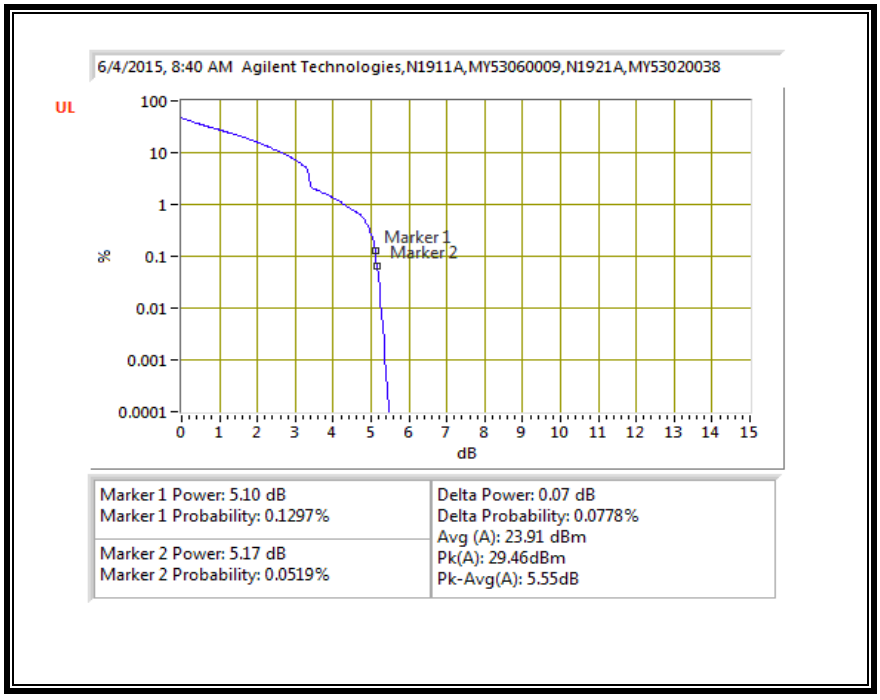
QPSK, (3.0 MHz BAND WIDTH)



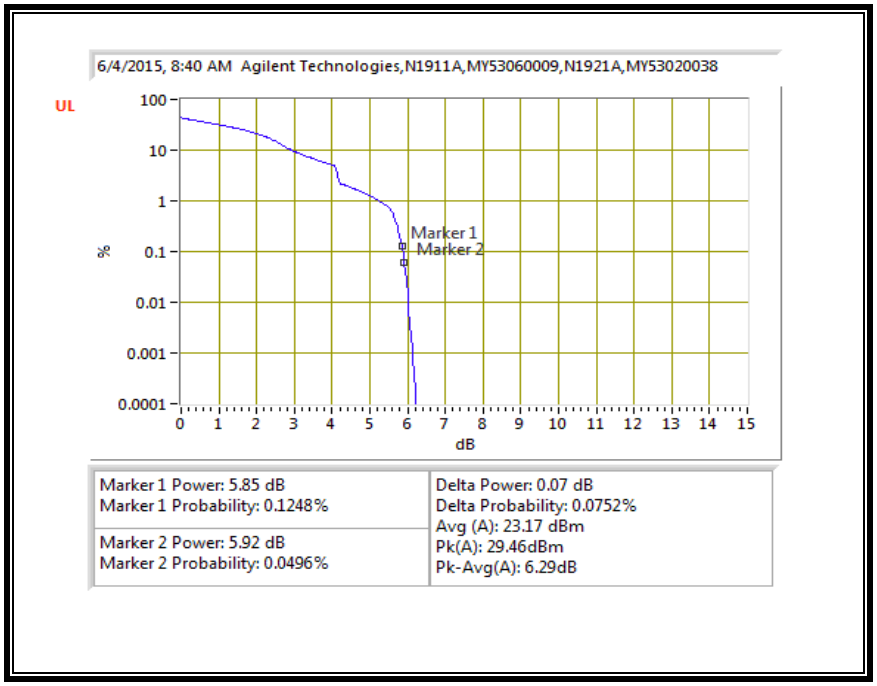
16QAM, (3.0 MHz BAND WIDTH)



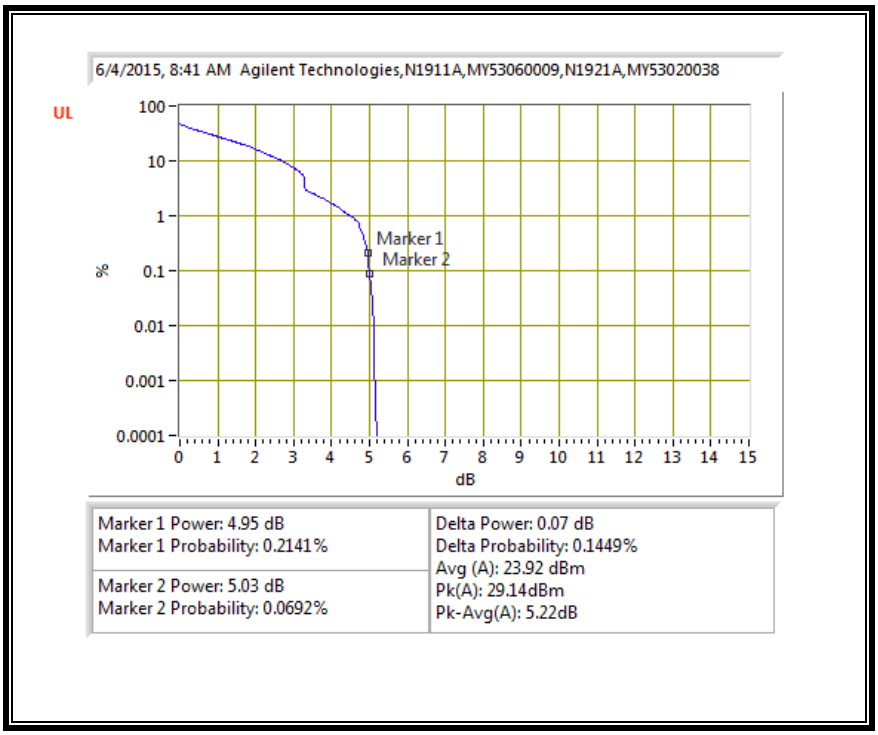
QPSK, (5.0 MHz BAND WIDTH)



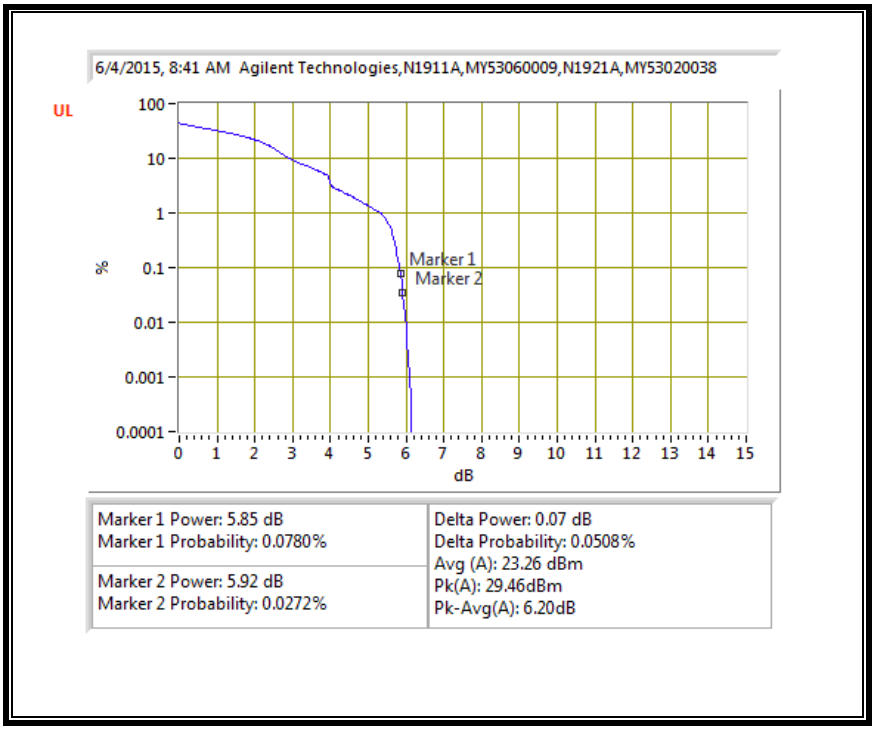
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



10.7. FIELD STRENGTH OF SPURIOUS RADIATION, MODEL: A1633 (LAT)

RULE PART(S)

FCC: §2.1053, §22.917, §24.238 and §27.53

LIMIT

§22.917 (e) and §24.238 (a): Out of band emissions. 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.

§27.53 (g) For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

§27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth in the 1 MHz band immediately outside and adjacent to the channel edge of the equipment. Beyond the 1 MHz band immediately outside the channel edge of the equipment, a resolution bandwidth of 1 MHz shall be employed. A narrower resolution bandwidth is allowed to be used provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz or 1% of the occupied bandwidth as applicable.

The power of any unwanted emissions measured from the channel edge of the equipment shall be attenuated below the transmitter power, P (dBW), as follows:

a. for base station and subscriber equipment, other than mobile subscriber equipment, the attenuation shall not be less than 43 + 10 Log10 (p), dB; and

b. for mobile subscriber equipment, the attenuation shall not be less than 43 + 10 Log10 (p), dB at the channel edges and 55 + 10 Log10 (p) at 5.5 MHz away and beyond the channel edges where p in (a) and (b) is the transmitter power measured in watts.

MODES TESTED

- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41

RESULTS

10.7.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-62.8	H	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
5.580	-64.0	H	3.0	-14.0	35.3	1.0	-48.3	-13.0	-35.3	
7.440	-64.0	H	3.0	-11.9	34.5	1.0	-45.4	-13.0	-32.4	
3.720	-62.3	V	3.0	-13.9	36.2	1.0	-49.1	-13.0	-36.1	
5.580	-63.9	V	3.0	-13.4	35.3	1.0	-47.7	-13.0	-34.7	
7.440	-65.0	V	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
Mid Channel (1880MHz)										
3.760	-62.4	H	3.0	-14.3	36.2	1.0	-49.5	-13.0	-36.5	
5.640	-64.2	H	3.0	-14.1	35.3	1.0	-48.4	-13.0	-35.4	
7.520	-64.7	H	3.0	-12.5	34.5	1.0	-46.0	-13.0	-33.0	
3.760	-63.3	V	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
5.640	-64.1	V	3.0	-13.6	35.3	1.0	-47.8	-13.0	-34.8	
7.520	-64.6	V	3.0	-12.2	34.5	1.0	-45.7	-13.0	-32.7	
High Channel (1900MHz)										
3.800	-62.6	H	3.0	-14.5	36.2	1.0	-49.7	-13.0	-36.7	
5.700	-63.0	H	3.0	-12.8	35.3	1.0	-47.1	-13.0	-34.1	
7.600	-64.5	H	3.0	-12.2	34.4	1.0	-45.6	-13.0	-32.6	
3.800	-62.0	V	3.0	-13.4	36.2	1.0	-48.6	-13.0	-35.6	
5.700	-64.2	V	3.0	-13.6	35.3	1.0	-47.9	-13.0	-34.9	
7.600	-64.6	V	3.0	-12.1	34.4	1.0	-45.6	-13.0	-32.6	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-63.1	H	3.0	-15.1	36.2	1.0	-50.3	-13.0	-37.3	
5.580	-64.2	H	3.0	-14.2	35.3	1.0	-48.5	-13.0	-35.5	
7.440	-64.1	H	3.0	-12.0	34.5	1.0	-45.5	-13.0	-32.5	
3.720	-63.0	V	3.0	-14.6	36.2	1.0	-49.8	-13.0	-36.8	
5.580	-64.3	V	3.0	-13.8	35.3	1.0	-48.1	-13.0	-35.1	
7.440	-65.0	V	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
Mid Channel (1880MHz)										
3.760	-62.8	H	3.0	-14.7	36.2	1.0	-49.9	-13.0	-36.9	
5.640	-64.5	H	3.0	-14.4	35.3	1.0	-48.7	-13.0	-35.7	
7.520	-65.0	H	3.0	-12.8	34.5	1.0	-46.3	-13.0	-33.3	
3.760	-63.7	V	3.0	-15.2	36.2	1.0	-50.4	-13.0	-37.4	
5.640	-64.5	V	3.0	-14.0	35.3	1.0	-48.2	-13.0	-35.2	
7.520	-65.1	V	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
High Channel (1900MHz)										
3.800	-63.0	H	3.0	-14.9	36.2	1.0	-50.1	-13.0	-37.1	
5.700	-63.5	H	3.0	-13.3	35.3	1.0	-47.6	-13.0	-34.6	
7.600	-64.8	H	3.0	-12.5	34.4	1.0	-45.9	-13.0	-32.9	
3.800	-62.6	V	3.0	-14.0	36.2	1.0	-49.2	-13.0	-36.2	
5.700	-64.4	V	3.0	-13.8	35.3	1.0	-48.1	-13.0	-35.1	
7.600	-65.1	V	3.0	-12.6	34.4	1.0	-46.1	-13.0	-33.1	

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10.7.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-57.9	H	3.0	-10.1	36.4	1.0	-45.5	-13.0	-32.5	
5.160	-62.9	H	3.0	-13.4	35.5	1.0	-47.8	-13.0	-34.8	
6.880	-63.7	H	3.0	-12.2	34.7	1.0	-46.0	-13.0	-33.0	
3.440	-55.4	V	3.0	-7.5	36.4	1.0	-42.9	-13.0	-29.9	
5.160	-62.3	V	3.0	-12.2	35.5	1.0	-46.7	-13.0	-33.7	
6.880	-63.6	V	3.0	-11.8	34.7	1.0	-45.6	-13.0	-32.6	
Mid Channel (1732.5MHz)										
3.465	-52.6	H	3.0	-4.7	36.4	1.0	-40.1	-13.0	-27.1	
5.176	-62.8	H	3.0	-13.2	35.5	1.0	-47.7	-13.0	-34.7	
6.930	-65.3	H	3.0	-13.8	34.7	1.0	-47.5	-13.0	-34.5	
3.465	-51.5	V	3.0	-3.5	36.4	1.0	-38.9	-13.0	-25.9	
5.176	-61.4	V	3.0	-11.3	35.5	1.0	-45.8	-13.0	-32.8	
6.930	-63.4	V	3.0	-11.6	34.7	1.0	-45.3	-13.0	-32.3	
High Channel (1745MHz)										
3.490	-56.5	H	3.0	-8.6	36.4	1.0	-44.0	-13.0	-31.0	
5.235	-63.4	H	3.0	-13.8	35.5	1.0	-48.2	-13.0	-35.2	
6.980	-65.0	H	3.0	-13.4	34.7	1.0	-47.1	-13.0	-34.1	
3.490	-59.9	V	3.0	-11.9	36.4	1.0	-47.3	-13.0	-34.3	
5.235	-63.2	V	3.0	-13.0	35.5	1.0	-47.5	-13.0	-34.5	
6.980	-65.1	V	3.0	-13.3	34.7	1.0	-46.9	-13.0	-33.9	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-56.3	H	3.0	-8.5	36.4	1.0	-43.9	-13.0	-30.9	
5.160	-63.1	H	3.0	-13.6	35.5	1.0	-48.1	-13.0	-35.1	
6.880	-63.9	H	3.0	-12.4	34.7	1.0	-46.1	-13.0	-33.1	
3.440	-54.9	V	3.0	-6.9	36.4	1.0	-42.4	-13.0	-29.4	
5.160	-62.4	V	3.0	-12.3	35.5	1.0	-46.8	-13.0	-33.8	
6.880	-64.4	V	3.0	-12.6	34.7	1.0	-46.4	-13.0	-33.4	
Mid Channel (1732.5MHz)										
3.465	-52.2	H	3.0	-4.4	36.4	1.0	-39.8	-13.0	-26.8	
5.198	-64.6	H	3.0	-15.0	35.5	1.0	-49.5	-13.0	-36.5	
6.930	-64.5	H	3.0	-13.0	34.7	1.0	-46.7	-13.0	-33.7	
3.465	-52.3	V	3.0	-4.3	36.4	1.0	-39.7	-13.0	-26.7	
5.198	-62.5	V	3.0	-12.4	35.5	1.0	-46.9	-13.0	-33.9	
6.930	-64.5	V	3.0	-12.7	34.7	1.0	-46.4	-13.0	-33.4	
High Channel (1745MHz)										
3.490	-60.9	H	3.0	-13.0	36.4	1.0	-48.4	-13.0	-35.4	
5.235	-64.5	H	3.0	-14.9	35.5	1.0	-49.3	-13.0	-36.3	
6.980	-65.2	H	3.0	-13.6	34.7	1.0	-47.3	-13.0	-34.3	
3.490	-60.0	V	3.0	-12.0	36.4	1.0	-47.4	-13.0	-34.4	
5.235	-62.4	V	3.0	-12.2	35.5	1.0	-46.7	-13.0	-33.7	
6.980	-64.5	V	3.0	-12.7	34.7	1.0	-46.3	-13.0	-33.3	

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10.7.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/04/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.658	-63.1	H	3.0	-19.0	37.8	1.0	-55.9	-13.0	-42.9	
2.487	-63.3	H	3.0	-16.9	36.4	1.0	-52.3	-13.0	-39.3	
3.816	-61.1	H	3.0	-13.0	36.1	1.0	-48.1	-13.0	-35.1	
4.960	-61.5	H	3.0	-11.8	36.2	1.0	-47.0	-13.0	-34.0	
1.658	-63.2	V	3.0	-18.8	37.8	1.0	-55.7	-13.0	-42.7	
2.487	-62.5	V	3.0	-15.0	36.4	1.0	-50.4	-13.0	-37.4	
3.805	-62.0	V	3.0	-13.4	36.1	1.0	-48.6	-13.0	-35.6	
4.971	-62.6	V	3.0	-12.9	36.2	1.0	-48.2	-13.0	-35.2	
Mid Channel (836.5MHz)										
1.673	-60.1	H	3.0	-16.0	37.8	1.0	-52.8	-13.0	-39.8	
2.510	-64.0	H	3.0	-17.5	36.4	1.0	-52.9	-13.0	-39.9	
3.346	-63.5	H	3.0	-15.8	36.5	1.0	-51.2	-13.0	-38.2	
1.673	-58.5	V	3.0	-14.1	37.8	1.0	-50.9	-13.0	-37.9	
2.510	-61.2	V	3.0	-13.7	36.4	1.0	-49.1	-13.0	-36.1	
3.346	-63.3	V	3.0	-15.5	36.5	1.0	-51.0	-13.0	-38.0	
High Channel (844MHz)										
1.688	-63.3	H	3.0	-19.1	37.8	1.0	-55.9	-13.0	-42.9	
2.532	-62.5	H	3.0	-16.0	36.4	1.0	-51.4	-13.0	-38.4	
3.805	-62.1	H	3.0	-14.0	36.1	1.0	-49.1	-13.0	-36.1	
1.688	-62.5	V	3.0	-18.0	37.8	1.0	-54.9	-13.0	-41.9	
2.532	-63.1	V	3.0	-15.6	36.4	1.0	-51.0	-13.0	-38.0	
3.772	-61.2	V	3.0	-12.7	36.2	1.0	-47.8	-13.0	-34.8	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/04/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.658	-63.7	H	3.0	-19.6	37.8	1.0	-56.5	-13.0	-43.5	
2.487	-63.5	H	3.0	-17.1	36.4	1.0	-52.5	-13.0	-39.5	
3.772	-61.8	H	3.0	-13.7	36.2	1.0	-48.9	-13.0	-35.9	
4.553	-62.6	H	3.0	-13.5	36.1	1.0	-48.6	-13.0	-35.6	
1.658	-63.8	V	3.0	-19.4	37.8	1.0	-56.3	-13.0	-43.3	
2.769	-62.2	V	3.0	-14.9	36.6	1.0	-50.5	-13.0	-37.5	
3.717	-61.8	V	3.0	-13.4	36.2	1.0	-48.6	-13.0	-35.6	
4.454	-62.1	V	3.0	-12.8	36.1	1.0	-47.9	-13.0	-34.9	
Mid Channel (836.5MHz)										
1.673	-64.0	H	3.0	-19.9	37.8	1.0	-56.7	-13.0	-43.7	
2.510	-63.5	H	3.0	-17.0	36.4	1.0	-52.4	-13.0	-39.4	
3.805	-62.1	H	3.0	-14.0	36.1	1.0	-49.1	-13.0	-36.1	
5.884	-62.4	H	3.0	-11.6	35.9	1.0	-46.5	-13.0	-33.5	
1.453	-63.1	V	3.0	-19.4	37.7	1.0	-56.1	-13.0	-43.1	
2.168	-63.2	V	3.0	-17.0	37.3	1.0	-53.3	-13.0	-40.3	
3.794	-61.7	V	3.0	-13.1	36.2	1.0	-48.3	-13.0	-35.3	
High Channel (844MHz)										
1.688	-63.0	H	3.0	-18.8	37.8	1.0	-55.6	-13.0	-42.6	
2.532	-62.6	H	3.0	-16.1	36.4	1.0	-51.5	-13.0	-38.5	
3.805	-62.5	H	3.0	-14.4	36.1	1.0	-49.5	-13.0	-36.5	
1.688	-62.7	V	3.0	-18.2	37.8	1.0	-55.1	-13.0	-42.1	
2.532	-63.4	V	3.0	-15.9	36.4	1.0	-51.3	-13.0	-38.3	
3.772	-62.1	V	3.0	-13.6	36.2	1.0	-48.7	-13.0	-35.7	

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10.7.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-60.7	H	3.0	-14.0	36.5	1.0	-49.4	-25.0	-24.4	
5.020	-62.8	H	3.0	-13.4	35.6	1.0	-48.0	-25.0	-23.0	
7.530	-63.9	H	3.0	-11.7	34.5	1.0	-45.2	-25.0	-20.2	
5.020	-62.4	V	3.0	-12.5	35.6	1.0	-47.0	-25.0	-22.0	
7.530	-64.3	V	3.0	-11.9	34.5	1.0	-45.4	-25.0	-20.4	
10.040	-65.4	V	3.0	-10.6	33.3	1.0	-43.0	-25.0	-18.0	
Mid Channel (2535MHz)										
2.660	-57.3	H	3.0	-10.5	36.5	1.0	-46.0	-25.0	-21.0	
5.507	-63.8	H	3.0	-13.9	35.3	1.0	-48.2	-25.0	-23.2	
7.605	-65.1	H	3.0	-12.8	34.4	1.0	-46.2	-25.0	-21.2	
2.660	-57.7	V	3.0	-10.3	36.5	1.0	-45.8	-25.0	-20.8	
5.507	-63.5	V	3.0	-13.1	35.3	1.0	-47.4	-25.0	-22.4	
7.605	-63.3	V	3.0	-10.8	34.4	1.0	-44.3	-25.0	-19.3	
High Channel (2560MHz)										
2.682	-54.5	H	3.0	-7.7	36.5	1.0	-43.2	-25.0	-18.2	
5.120	-62.8	H	3.0	-13.3	35.5	1.0	-47.8	-25.0	-22.8	
7.680	-64.3	H	3.0	-11.9	34.4	1.0	-45.3	-25.0	-20.3	
2.682	-55.0	V	3.0	-7.6	36.5	1.0	-43.1	-25.0	-18.1	
5.120	-63.2	V	3.0	-13.2	35.5	1.0	-47.7	-25.0	-22.7	
7.680	-63.9	V	3.0	-11.4	34.4	1.0	-44.8	-25.0	-19.8	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-61.5	H	3.0	-14.8	36.5	1.0	-50.2	-25.0	-25.2	
5.020	-63.4	H	3.0	-14.0	35.6	1.0	-48.6	-25.0	-23.6	
7.530	-64.6	H	3.0	-12.4	34.5	1.0	-45.9	-25.0	-20.9	
5.020	-63.1	V	3.0	-13.2	35.6	1.0	-47.7	-25.0	-22.7	
7.530	-64.9	V	3.0	-12.5	34.5	1.0	-46.0	-25.0	-21.0	
10.040	-65.7	V	3.0	-10.9	33.3	1.0	-43.3	-25.0	-18.3	
Mid Channel (2535MHz)										
2.660	-57.9	H	3.0	-11.1	36.5	1.0	-46.6	-25.0	-21.6	
5.507	-64.5	H	3.0	-14.6	35.3	1.0	-48.9	-25.0	-23.9	
7.605	-65.3	H	3.0	-13.0	34.4	1.0	-46.4	-25.0	-21.4	
2.660	-58.5	V	3.0	-11.1	36.5	1.0	-46.6	-25.0	-21.6	
5.507	-64.0	V	3.0	-13.6	35.3	1.0	-47.9	-25.0	-22.9	
7.605	-64.1	V	3.0	-11.6	34.4	1.0	-45.1	-25.0	-20.1	
High Channel (2560MHz)										
2.682	-55.2	H	3.0	-8.4	36.5	1.0	-43.9	-25.0	-18.9	
5.120	-63.6	H	3.0	-14.1	35.5	1.0	-48.6	-25.0	-23.6	
7.680	-65.0	H	3.0	-12.6	34.4	1.0	-46.0	-25.0	-21.0	
2.682	-55.3	V	3.0	-7.9	36.5	1.0	-43.4	-25.0	-18.4	
5.120	-64.0	V	3.0	-14.0	35.5	1.0	-48.5	-25.0	-23.5	
7.680	-64.6	V	3.0	-12.1	34.4	1.0	-45.5	-25.0	-20.5	

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10.7.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-64.7	H	3.0	-21.6	37.5	1.0	-58.2	-13.0	-45.2	
2.1120	-65.1	H	3.0	-19.3	37.6	1.0	-55.8	-13.0	-42.8	
2.8160	-64.9	H	3.0	-18.1	36.2	1.0	-53.3	-13.0	-40.3	
1.4080	-65.0	V	3.0	-21.4	37.5	1.0	-57.9	-13.0	-44.9	
2.1120	-65.6	V	3.0	-19.6	37.6	1.0	-56.2	-13.0	-43.2	
2.8160	-65.4	V	3.0	-17.6	36.2	1.0	-52.8	-13.0	-39.8	
Mid Channel (707.5MHz)										
1.4150	-64.8	H	3.0	-21.7	37.6	1.0	-58.3	-13.0	-45.3	
2.1225	-65.0	H	3.0	-19.1	37.6	1.0	-55.7	-13.0	-42.7	
2.8300	-65.2	H	3.0	-18.4	36.2	1.0	-53.6	-13.0	-40.6	
1.4150	-64.8	V	3.0	-21.2	37.6	1.0	-57.7	-13.0	-44.7	
2.1225	-65.8	V	3.0	-19.8	37.6	1.0	-56.4	-13.0	-43.4	
2.8300	-65.6	V	3.0	-17.8	36.2	1.0	-53.0	-13.0	-40.0	
High Channel (711MHz)										
1.4220	-64.6	H	3.0	-21.5	37.6	1.0	-58.1	-13.0	-45.1	
2.1330	-64.9	H	3.0	-19.0	37.5	1.0	-55.6	-13.0	-42.6	
2.8440	-65.3	H	3.0	-18.5	36.2	1.0	-53.7	-13.0	-40.7	
1.4220	-64.7	V	3.0	-21.1	37.6	1.0	-57.7	-13.0	-44.7	
2.1330	-65.6	V	3.0	-19.6	37.5	1.0	-56.1	-13.0	-43.1	
2.8440	-65.8	V	3.0	-18.0	36.2	1.0	-53.2	-13.0	-40.2	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-64.8	H	3.0	-21.7	37.5	1.0	-58.3	-13.0	-45.3	
2.1120	-65.2	H	3.0	-19.4	37.6	1.0	-55.9	-13.0	-42.9	
2.8160	-65.4	H	3.0	-18.6	36.2	1.0	-53.8	-13.0	-40.8	
1.4080	-65.1	V	3.0	-21.5	37.5	1.0	-58.0	-13.0	-45.0	
2.1120	-65.5	V	3.0	-19.5	37.6	1.0	-56.1	-13.0	-43.1	
2.8160	-65.4	V	3.0	-17.6	36.2	1.0	-52.8	-13.0	-39.8	
Mid Channel (707.5MHz)										
1.4150	-65.0	H	3.0	-21.9	37.6	1.0	-58.5	-13.0	-45.5	
2.1225	-65.2	H	3.0	-19.3	37.6	1.0	-55.9	-13.0	-42.9	
2.8300	-65.4	H	3.0	-18.6	36.2	1.0	-53.8	-13.0	-40.8	
1.4150	-64.9	V	3.0	-21.3	37.6	1.0	-57.8	-13.0	-44.8	
2.1225	-65.6	V	3.0	-19.6	37.6	1.0	-56.2	-13.0	-43.2	
2.8300	-65.7	V	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	
High Channel (711MHz)										
1.4220	-64.8	H	3.0	-21.7	37.6	1.0	-58.3	-13.0	-45.3	
2.1330	-65.1	H	3.0	-19.2	37.5	1.0	-55.8	-13.0	-42.8	
2.8440	-65.4	H	3.0	-18.6	36.2	1.0	-53.8	-13.0	-40.8	
1.4220	-65.0	V	3.0	-21.4	37.6	1.0	-58.0	-13.0	-45.0	
2.1330	-65.7	V	3.0	-19.7	37.5	1.0	-56.2	-13.0	-43.2	
2.8440	-65.7	V	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	

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10.7.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-64.6	H	3.0	-21.0	37.9	1.0	-57.8	-40.0	-17.8	1559-1610MHz
2.346	-65.2	H	3.0	-18.8	37.2	1.0	-55.0	-13.0	-42.0	
3.128	-64.4	H	3.0	-16.8	36.6	1.0	-52.5	-13.0	-39.5	
1.564	-64.9	V	3.0	-20.9	37.9	1.0	-57.7	-40.0	-17.7	1559-1610MHz
2.346	-64.5	V	3.0	-17.7	37.2	1.0	-53.9	-13.0	-40.9	
3.128	-64.8	V	3.0	-17.4	36.6	1.0	-53.1	-13.0	-40.1	

16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-64.9	H	3.0	-21.3	37.8	1.0	-58.1	-40.0	-18.1	1559-1610MHz
2.346	-65.3	H	3.0	-19.3	36.6	1.0	-54.9	-13.0	-41.9	
3.128	-64.6	H	3.0	-17.0	36.6	1.0	-52.7	-13.0	-39.7	
1.564	-65.0	V	3.0	-21.0	37.8	1.0	-57.7	-40.0	-17.7	1559-1610MHz
2.346	-64.7	V	3.0	-17.8	36.6	1.0	-53.4	-13.0	-40.4	
3.128	-65.1	V	3.0	-17.7	36.6	1.0	-53.4	-13.0	-40.4	

10.7.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 17, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-63.8	H	3.0	-20.7	37.6	1.0	-57.3	-13.0	-44.3	
2.113	-60.0	H	3.0	-14.7	36.9	1.0	-50.7	-13.0	-37.7	
1.112	-61.8	H	3.0	-19.7	36.5	1.0	-55.2	-13.0	-42.2	
1.385	-63.6	V	3.0	-20.0	37.5	1.0	-56.5	-13.0	-43.5	
2.113	-56.5	V	3.0	-10.4	36.9	1.0	-46.4	-13.0	-33.4	
4.948	-63.2	V	3.0	-13.3	35.6	1.0	-47.9	-13.0	-34.9	
Mid Channel (710MHz)										
1.427	-62.7	H	3.0	-19.6	37.6	1.0	-56.2	-13.0	-43.2	
2.120	-57.6	H	3.0	-12.3	36.9	1.0	-48.3	-13.0	-35.3	
4.962	-63.0	H	3.0	-13.7	35.6	1.0	-48.3	-13.0	-35.3	
1.420	-63.6	V	3.0	-20.0	37.6	1.0	-56.6	-13.0	-43.6	
2.120	-55.1	V	3.0	-9.0	36.9	1.0	-44.9	-13.0	-31.9	
3.744	-62.9	V	3.0	-14.4	36.2	1.0	-49.6	-13.0	-36.6	
High Channel (711MHz)										
1.427	-62.8	H	3.0	-19.7	37.6	1.0	-56.3	-13.0	-43.3	
2.120	-58.4	H	3.0	-13.1	36.9	1.0	-49.1	-13.0	-36.1	
3.828	-63.0	H	3.0	-14.9	36.1	1.0	-50.0	-13.0	-37.0	
1.756	-60.1	V	3.0	-15.3	37.5	1.0	-51.8	-13.0	-38.8	
2.120	-55.2	V	3.0	-9.1	36.9	1.0	-45.0	-13.0	-32.0	
4.920	-63.2	V	3.0	-13.4	35.6	1.0	-48.0	-13.0	-35.0	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 17, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-64.2	H	3.0	-21.1	37.6	1.0	-57.7	-13.0	-44.7	
2.113	-60.5	H	3.0	-15.2	36.9	1.0	-51.2	-13.0	-38.2	
1.112	-62.4	H	3.0	-20.3	36.5	1.0	-55.8	-13.0	-42.8	
1.385	-64.0	V	3.0	-20.4	37.5	1.0	-56.9	-13.0	-43.9	
2.113	-57.1	V	3.0	-11.0	36.9	1.0	-47.0	-13.0	-34.0	
4.948	-63.7	V	3.0	-13.8	35.6	1.0	-48.4	-13.0	-35.4	
Mid Channel (710MHz)										
1.427	-63.2	H	3.0	-20.1	37.6	1.0	-56.7	-13.0	-43.7	
2.120	-58.1	H	3.0	-12.8	36.9	1.0	-48.8	-13.0	-35.8	
4.962	-63.6	H	3.0	-14.3	35.6	1.0	-48.9	-13.0	-35.9	
1.420	-64.1	V	3.0	-20.5	37.6	1.0	-57.1	-13.0	-44.1	
2.120	-55.8	V	3.0	-9.7	36.9	1.0	-45.6	-13.0	-32.6	
3.744	-63.4	V	3.0	-14.9	36.2	1.0	-50.1	-13.0	-37.1	
High Channel (711MHz)										
1.427	-63.3	H	3.0	-20.2	37.6	1.0	-56.8	-13.0	-43.8	
2.120	-60.0	H	3.0	-14.7	36.9	1.0	-50.7	-13.0	-37.7	
3.828	-63.6	H	3.0	-15.5	36.1	1.0	-50.6	-13.0	-37.6	
1.756	-60.5	V	3.0	-15.7	37.5	1.0	-52.2	-13.0	-39.2	
2.120	-55.9	V	3.0	-9.8	36.9	1.0	-45.7	-13.0	-32.7	
4.920	-63.8	V	3.0	-14.0	35.6	1.0	-48.6	-13.0	-35.6	

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10.7.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 25, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-64.9	H	3.0	-16.8	36.2	1.0	-52.0	-13.0	-39.0	
5.580	-65.5	H	3.0	-15.5	35.3	1.0	-49.8	-13.0	-36.8	
7.440	-64.9	H	3.0	-12.8	34.5	1.0	-46.3	-13.0	-33.3	
3.720	-65.0	V	3.0	-16.6	36.2	1.0	-51.8	-13.0	-38.8	
5.580	-65.5	V	3.0	-15.0	35.3	1.0	-49.3	-13.0	-36.3	
7.440	-65.0	V	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
Mid Channel (1882.5MHz)										
3.765	-63.7	H	3.0	-15.6	36.2	1.0	-50.8	-13.0	-37.8	
5.648	-65.4	H	3.0	-15.3	35.3	1.0	-49.6	-13.0	-36.6	
7.530	-66.3	H	3.0	-14.1	34.5	1.0	-47.6	-13.0	-34.6	
3.765	-64.1	V	3.0	-15.6	36.2	1.0	-50.8	-13.0	-37.8	
5.648	-65.6	V	3.0	-15.0	35.3	1.0	-49.3	-13.0	-36.3	
7.530	-66.2	V	3.0	-13.8	34.5	1.0	-47.3	-13.0	-34.3	
High Channel (1905MHz)										
3.810	-63.4	H	3.0	-15.3	36.1	1.0	-50.4	-13.0	-37.4	
5.715	-65.2	H	3.0	-15.0	35.3	1.0	-49.3	-13.0	-36.3	
7.620	-65.1	H	3.0	-12.8	34.4	1.0	-46.2	-13.0	-33.2	
3.810	-63.0	V	3.0	-14.4	36.1	1.0	-49.5	-13.0	-36.5	
5.715	-66.3	V	3.0	-15.7	35.3	1.0	-49.9	-13.0	-36.9	
7.620	-66.6	V	3.0	-14.1	34.4	1.0	-47.5	-13.0	-34.5	

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16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 04/30/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 25, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-63.5	H	3.0	-15.5	36.2	1.0	-50.7	-13.0	-37.7	
5.580	-65.5	H	3.0	-15.5	35.3	1.0	-49.8	-13.0	-36.8	
7.440	-65.8	H	3.0	-13.7	34.5	1.0	-47.2	-13.0	-34.2	
3.720	-64.8	V	3.0	-16.4	36.2	1.0	-51.6	-13.0	-38.6	
5.580	-65.7	V	3.0	-15.2	35.3	1.0	-49.5	-13.0	-36.5	
7.440	-66.0	V	3.0	-13.7	34.5	1.0	-47.2	-13.0	-34.2	
Mid Channel (1882.5MHz)										
3.765	-63.6	H	3.0	-15.5	36.2	1.0	-50.7	-13.0	-37.7	
5.648	-65.1	H	3.0	-15.0	35.3	1.0	-49.3	-13.0	-36.3	
7.530	-64.8	H	3.0	-12.6	34.5	1.0	-46.1	-13.0	-33.1	
3.765	-63.3	V	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
5.648	-66.0	V	3.0	-15.4	35.3	1.0	-49.7	-13.0	-36.7	
7.530	-64.3	V	3.0	-11.9	34.5	1.0	-45.4	-13.0	-32.4	
High Channel (1905MHz)										
3.810	-63.0	H	3.0	-14.9	36.1	1.0	-50.0	-13.0	-37.0	
5.715	-65.0	H	3.0	-14.8	35.3	1.0	-49.1	-13.0	-36.1	
7.620	-66.1	H	3.0	-13.8	34.4	1.0	-47.2	-13.0	-34.2	
3.810	-63.6	V	3.0	-15.0	36.1	1.0	-50.1	-13.0	-37.1	
5.715	-65.3	V	3.0	-14.7	35.3	1.0	-48.9	-13.0	-35.9	
7.620	-66.1	V	3.0	-13.6	34.4	1.0	-47.0	-13.0	-34.0	

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10.7.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-53.4	H	3.0	-9.4	37.8	1.0	-46.3	-13.0	-33.3	
2.457	-57.7	H	3.0	-11.3	36.7	1.0	-47.0	-13.0	-34.0	
3.276	-56.7	H	3.0	-9.0	36.5	1.0	-44.5	-13.0	-31.5	
3.807	-53.2	H	3.0	-5.1	36.1	1.0	-40.2	-13.0	-27.2	
1.638	-43.6	V	3.0	0.7	37.8	1.0	-36.1	-13.0	-23.1	
2.457	-53.0	V	3.0	-5.7	36.7	1.0	-41.3	-13.0	-28.3	
3.276	-56.4	V	3.0	-8.8	36.5	1.0	-44.3	-13.0	-31.3	
3.843	-53.0	V	3.0	-4.3	36.1	1.0	-39.5	-13.0	-26.5	

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-52.6	H	3.0	-8.6	37.8	1.0	-45.5	-13.0	-32.5	
2.457	-57.7	H	3.0	-11.2	36.7	1.0	-46.9	-13.0	-33.9	
3.276	-57.3	H	3.0	-9.6	36.5	1.0	-45.1	-13.0	-32.1	
1.638	-43.7	V	3.0	0.6	37.8	1.0	-36.2	-13.0	-23.2	
2.457	-53.0	V	3.0	-5.7	36.7	1.0	-41.4	-13.0	-28.4	
3.276	-56.7	V	3.0	-9.1	36.5	1.0	-44.6	-13.0	-31.6	

10.7.10. LTE BAND 30

QPSK EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (2310MHz)										
4.620	-63.4	H	3.0	-14.2	36.2	1.0	-49.3	-40.0	-9.3	
6.930	-63.8	H	3.0	-11.2	35.5	1.0	-45.8	-40.0	-5.8	
9.240	-64.5	H	3.0	-10.1	33.9	1.0	-43.0	-40.0	-3.0	
4.620	-63.8	V	3.0	-14.4	36.2	1.0	-49.5	-40.0	-9.5	
6.930	-63.6	V	3.0	-11.1	35.5	1.0	-45.6	-40.0	-5.6	
9.240	-64.4	V	3.0	-10.2	33.9	1.0	-43.1	-40.0	-3.1	

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16QAM EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (2310MHz)										
4.620	-63.7	H	3.0	-14.5	36.2	1.0	-49.6	-40.0	-9.6	
6.930	-64.0	H	3.0	-11.4	35.5	1.0	-46.0	-40.0	-6.0	
9.240	-64.8	H	3.0	-10.4	33.9	1.0	-43.3	-40.0	-3.3	
4.620	-64.1	V	3.0	-14.7	36.2	1.0	-49.8	-40.0	-9.8	
6.930	-64.2	V	3.0	-11.7	35.5	1.0	-46.2	-40.0	-6.2	
9.240	-64.8	V	3.0	-10.6	33.9	1.0	-43.5	-40.0	-3.5	

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10.7.11. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 41, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-65.6	H	3.0	-16.2	35.6	1.0	-50.8	-25.0	-25.8	
7.518	-64.6	H	3.0	-12.4	34.5	1.0	-45.9	-25.0	-20.9	
10.024	-66.9	H	3.0	-11.9	33.3	1.0	-44.3	-25.0	-19.3	
5.012	-66.0	V	3.0	-16.1	35.6	1.0	-50.6	-25.0	-25.6	
7.518	-65.6	V	3.0	-13.2	34.5	1.0	-46.7	-25.0	-21.7	
10.024	-66.8	V	3.0	-12.0	33.3	1.0	-44.3	-25.0	-19.3	
Mid Channel (2593MHz)										
5.186	-65.0	H	3.0	-15.4	35.5	1.0	-49.9	-25.0	-24.9	
7.779	-66.1	H	3.0	-13.6	34.3	1.0	-47.0	-25.0	-22.0	
10.372	-67.8	H	3.0	-12.8	33.1	1.0	-44.9	-25.0	-19.9	
5.186	-64.3	V	3.0	-14.2	35.5	1.0	-48.7	-25.0	-23.7	
7.779	-65.7	V	3.0	-13.1	34.3	1.0	-46.4	-25.0	-21.4	
10.372	-66.5	V	3.0	-11.7	33.1	1.0	-43.8	-25.0	-18.8	
High Channel (2680MHz)										
5.360	-66.4	H	3.0	-16.6	35.4	1.0	-51.0	-25.0	-26.0	
8.040	-64.5	H	3.0	-11.7	34.2	1.0	-45.0	-25.0	-20.0	
10.720	-67.2	H	3.0	-12.1	32.9	1.0	-44.0	-25.0	-19.0	
5.360	-64.4	V	3.0	-14.1	35.4	1.0	-48.5	-25.0	-23.5	
8.040	-65.3	V	3.0	-12.4	34.2	1.0	-45.6	-25.0	-20.6	
10.720	-66.7	V	3.0	-11.9	32.9	1.0	-43.8	-25.0	-18.8	

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16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 41, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-64.7	H	3.0	-15.3	35.6	1.0	-49.9	-25.0	-24.9	
7.518	-65.6	H	3.0	-13.4	34.5	1.0	-46.9	-25.0	-21.9	
10.024	-67.0	H	3.0	-12.0	33.3	1.0	-44.4	-25.0	-19.4	
5.012	-64.8	V	3.0	-14.9	35.6	1.0	-49.4	-25.0	-24.4	
7.518	-64.7	V	3.0	-12.3	34.5	1.0	-45.8	-25.0	-20.8	
10.024	-64.9	V	3.0	-10.1	33.3	1.0	-42.5	-25.0	-17.5	
Mid Channel (2593MHz)										
5.186	-64.7	H	3.0	-15.1	35.5	1.0	-49.6	-25.0	-24.6	
7.779	-65.5	H	3.0	-13.0	34.3	1.0	-46.4	-25.0	-21.4	
10.372	-66.5	H	3.0	-11.5	33.1	1.0	-43.6	-25.0	-18.6	
5.186	-64.6	V	3.0	-14.5	35.5	1.0	-49.0	-25.0	-24.0	
7.779	-66.0	V	3.0	-13.4	34.3	1.0	-46.7	-25.0	-21.7	
10.372	-66.8	V	3.0	-12.0	33.1	1.0	-44.1	-25.0	-19.1	
High Channel (2680MHz)										
5.360	-65.6	H	3.0	-15.8	35.4	1.0	-50.2	-25.0	-25.2	
8.040	-65.0	H	3.0	-12.2	34.2	1.0	-45.5	-25.0	-20.5	
10.720	-66.8	H	3.0	-11.7	32.9	1.0	-43.6	-25.0	-18.6	
5.360	-64.5	V	3.0	-14.2	35.4	1.0	-48.6	-25.0	-23.6	
8.040	-64.6	V	3.0	-11.7	34.2	1.0	-44.9	-25.0	-19.9	
10.720	-67.0	V	3.0	-12.2	32.9	1.0	-44.1	-25.0	-19.1	

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10.8. FIELD STRENGTH OF SPURIOUS RADIATION,MODEL: A1633 (UAT)

10.8.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 2, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-63.0	H	3.0	-15.0	36.2	1.0	-50.2	-13.0	-37.2	
5.580	-64.5	H	3.0	-14.5	35.3	1.0	-48.8	-13.0	-35.8	
7.440	-64.8	H	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
3.720	-62.6	V	3.0	-14.2	36.2	1.0	-49.4	-13.0	-36.4	
5.580	-64.1	V	3.0	-13.6	35.3	1.0	-47.9	-13.0	-34.9	
7.440	-65.0	V	3.0	-12.7	34.5	1.0	-46.2	-13.0	-33.2	
Mid Channel (1880MHz)										
3.760	-63.1	H	3.0	-15.0	36.2	1.0	-50.2	-13.0	-37.2	
5.640	-65.0	H	3.0	-14.9	35.3	1.0	-49.2	-13.0	-36.2	
7.520	-65.6	H	3.0	-13.4	34.5	1.0	-46.9	-13.0	-33.9	
3.760	-64.1	V	3.0	-15.6	36.2	1.0	-50.8	-13.0	-37.8	
5.640	-65.0	V	3.0	-14.5	35.3	1.0	-48.7	-13.0	-35.7	
7.520	-65.4	V	3.0	-13.0	34.5	1.0	-46.5	-13.0	-33.5	
High Channel (1900MHz)										
3.800	-64.0	H	3.0	-15.9	36.2	1.0	-51.1	-13.0	-38.1	
5.700	-64.6	H	3.0	-14.4	35.3	1.0	-48.7	-13.0	-35.7	
7.600	-65.0	H	3.0	-12.7	34.4	1.0	-46.1	-13.0	-33.1	
3.800	-63.4	V	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
5.700	-65.3	V	3.0	-14.7	35.3	1.0	-49.0	-13.0	-36.0	
7.600	-66.0	V	3.0	-13.5	34.4	1.0	-47.0	-13.0	-34.0	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 2, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-63.5	H	3.0	-15.5	36.2	1.0	-50.7	-13.0	-37.7	
5.580	-65.0	H	3.0	-15.0	35.3	1.0	-49.3	-13.0	-36.3	
7.440	-65.1	H	3.0	-13.0	34.5	1.0	-46.5	-13.0	-33.5	
3.720	-63.5	V	3.0	-15.1	36.2	1.0	-50.3	-13.0	-37.3	
5.580	-65.4	V	3.0	-14.9	35.3	1.0	-49.2	-13.0	-36.2	
7.440	-65.1	V	3.0	-12.8	34.5	1.0	-46.3	-13.0	-33.3	
Mid Channel (1880MHz)										
3.760	-63.0	H	3.0	-14.9	36.2	1.0	-50.1	-13.0	-37.1	
5.640	-65.4	H	3.0	-15.3	35.3	1.0	-49.6	-13.0	-36.6	
7.520	-65.5	H	3.0	-13.3	34.5	1.0	-46.8	-13.0	-33.8	
3.760	-63.4	V	3.0	-14.9	36.2	1.0	-50.1	-13.0	-37.1	
5.640	-65.1	V	3.0	-14.6	35.3	1.0	-48.8	-13.0	-35.8	
7.520	-65.8	V	3.0	-13.4	34.5	1.0	-46.9	-13.0	-33.9	
High Channel (1900MHz)										
3.800	-63.2	H	3.0	-15.1	36.2	1.0	-50.3	-13.0	-37.3	
5.700	-64.6	H	3.0	-14.4	35.3	1.0	-48.7	-13.0	-35.7	
7.600	-64.8	H	3.0	-12.6	34.4	1.0	-46.0	-13.0	-33.0	
3.800	-63.4	V	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
5.700	-64.8	V	3.0	-14.2	35.3	1.0	-48.5	-13.0	-35.5	
7.600	-65.1	V	3.0	-12.6	34.4	1.0	-46.1	-13.0	-33.1	

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10.8.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-65.8	H	3.0	-18.0	36.4	1.0	-53.4	-13.0	-40.4	
5.160	-64.8	H	3.0	-15.3	35.5	1.0	-49.7	-13.0	-36.7	
6.880	-66.1	H	3.0	-14.6	34.7	1.0	-48.4	-13.0	-35.4	
3.440	-62.7	V	3.0	-14.8	36.4	1.0	-50.2	-13.0	-37.2	
5.160	-63.3	V	3.0	-13.2	35.5	1.0	-47.7	-13.0	-34.7	
6.880	-66.3	V	3.0	-14.5	34.7	1.0	-48.3	-13.0	-35.3	
Mid Channel (1732.5MHz)										
3.465	-65.2	H	3.0	-17.4	36.4	1.0	-52.8	-13.0	-39.8	
5.176	-65.0	H	3.0	-15.4	35.5	1.0	-49.9	-13.0	-36.9	
6.930	-64.6	H	3.0	-13.1	34.7	1.0	-46.8	-13.0	-33.8	
3.465	-61.2	V	3.0	-13.2	36.4	1.0	-48.6	-13.0	-35.6	
5.176	-65.1	V	3.0	-15.0	35.5	1.0	-49.5	-13.0	-36.5	
6.930	-65.8	V	3.0	-14.0	34.7	1.0	-47.7	-13.0	-34.7	
High Channel (1745MHz)										
3.490	-63.2	H	3.0	-15.3	36.4	1.0	-50.7	-13.0	-37.7	
5.235	-64.7	H	3.0	-15.1	35.5	1.0	-49.5	-13.0	-36.5	
6.980	-65.5	H	3.0	-13.9	34.7	1.0	-47.6	-13.0	-34.6	
3.490	-62.9	V	3.0	-14.9	36.4	1.0	-50.3	-13.0	-37.3	
5.235	-64.2	V	3.0	-14.0	35.5	1.0	-48.5	-13.0	-35.5	
6.980	-63.5	V	3.0	-11.7	34.7	1.0	-45.3	-13.0	-32.3	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-65.2	H	3.0	-17.4	36.4	1.0	-52.8	-13.0	-39.8	
5.160	-65.3	H	3.0	-15.8	35.5	1.0	-50.2	-13.0	-37.2	
6.880	-66.6	H	3.0	-15.1	34.7	1.0	-48.9	-13.0	-35.9	
3.440	-65.3	V	3.0	-17.4	36.4	1.0	-52.8	-13.0	-39.8	
5.160	-65.4	V	3.0	-15.3	35.5	1.0	-49.8	-13.0	-36.8	
6.880	-66.4	V	3.0	-14.6	34.7	1.0	-48.4	-13.0	-35.4	
Mid Channel (1732.5MHz)										
3.465	-64.2	H	3.0	-16.4	36.4	1.0	-51.8	-13.0	-38.8	
5.198	-64.5	H	3.0	-14.9	35.5	1.0	-49.4	-13.0	-36.4	
6.930	-66.0	H	3.0	-14.5	34.7	1.0	-48.2	-13.0	-35.2	
3.465	-62.5	V	3.0	-14.6	36.4	1.0	-50.0	-13.0	-37.0	
5.198	-65.3	V	3.0	-15.2	35.5	1.0	-49.7	-13.0	-36.7	
6.930	-66.8	V	3.0	-15.0	34.7	1.0	-48.7	-13.0	-35.7	
High Channel (1745MHz)										
3.490	-63.5	H	3.0	-15.6	36.4	1.0	-51.0	-13.0	-38.0	
5.235	-64.4	H	3.0	-14.8	35.5	1.0	-49.2	-13.0	-36.2	
6.980	-66.1	H	3.0	-14.5	34.7	1.0	-48.2	-13.0	-35.2	
3.490	-63.7	V	3.0	-15.7	36.4	1.0	-51.1	-13.0	-38.1	
5.235	-64.6	V	3.0	-14.4	35.5	1.0	-48.9	-13.0	-35.9	
6.980	-65.2	V	3.0	-13.4	34.7	1.0	-47.0	-13.0	-34.0	

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10.8.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.525	-63.5	H	3.0	-20.1	37.8	1.0	-56.9	-13.0	-43.9	
2.477	-59.6	H	3.0	-13.2	36.4	1.0	-48.6	-13.0	-35.6	
3.828	-63.4	H	3.0	-15.3	36.1	1.0	-50.4	-13.0	-37.4	
2.001	-64.0	V	3.0	-18.3	37.1	1.0	-54.5	-13.0	-41.5	
2.477	-51.1	V	3.0	-3.7	36.4	1.0	-39.1	-13.0	-26.1	
4.311	-63.2	V	3.0	-13.9	35.9	1.0	-48.8	-13.0	-35.8	
Mid Channel (836.5MHz)										
1.493	-63.3	H	3.0	-20.0	37.8	1.0	-56.8	-13.0	-43.8	
3.050	-64.0	H	3.0	-16.5	36.7	1.0	-52.2	-13.0	-39.2	
3.922	-64.4	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
2.740	-63.7	V	3.0	-16.4	36.5	1.0	-51.9	-13.0	-38.9	
3.028	-64.0	V	3.0	-16.8	36.7	1.0	-52.5	-13.0	-39.5	
4.132	-64.2	V	3.0	-15.1	35.9	1.0	-50.1	-13.0	-37.1	
High Channel (844MHz)										
2.519	-55.1	H	3.0	-8.6	36.4	1.0	-44.0	-13.0	-31.0	
3.856	-63.7	H	3.0	-15.6	36.1	1.0	-50.7	-13.0	-37.7	
4.423	-64.1	H	3.0	-15.4	35.8	1.0	-50.2	-13.0	-37.2	
2.524	-54.5	V	3.0	-7.0	36.4	1.0	-42.4	-13.0	-29.4	
4.696	-64.3	V	3.0	-14.7	35.7	1.0	-49.4	-13.0	-36.4	
7.228	-65.3	V	3.0	-13.2	34.6	1.0	-46.8	-13.0	-33.8	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.525	-63.8	H	3.0	-20.4	37.8	1.0	-57.2	-13.0	-44.2	
2.477	-60.2	H	3.0	-13.8	36.4	1.0	-49.2	-13.0	-36.2	
3.828	-63.7	H	3.0	-15.6	36.1	1.0	-50.7	-13.0	-37.7	
2.001	-64.2	V	3.0	-18.5	37.1	1.0	-54.7	-13.0	-41.7	
2.477	-52.4	V	3.0	-5.0	36.4	1.0	-40.4	-13.0	-27.4	
4.311	-63.7	V	3.0	-14.4	35.9	1.0	-49.3	-13.0	-36.3	
Mid Channel (836.5MHz)										
1.493	-63.8	H	3.0	-20.5	37.8	1.0	-57.3	-13.0	-44.3	
3.050	-64.2	H	3.0	-16.7	36.7	1.0	-52.4	-13.0	-39.4	
3.922	-64.4	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
2.740	-64.1	V	3.0	-16.8	36.5	1.0	-52.3	-13.0	-39.3	
3.028	-64.2	V	3.0	-17.0	36.7	1.0	-52.7	-13.0	-39.7	
4.132	-64.4	V	3.0	-15.3	35.9	1.0	-50.3	-13.0	-37.3	
High Channel (844MHz)										
2.519	-55.9	H	3.0	-9.4	36.4	1.0	-44.8	-13.0	-31.8	
3.856	-64.3	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
4.423	-64.2	H	3.0	-15.5	35.8	1.0	-50.3	-13.0	-37.3	
2.524	-55.1	V	3.0	-7.6	36.4	1.0	-43.0	-13.0	-30.0	
4.696	-64.5	V	3.0	-14.9	35.7	1.0	-49.6	-13.0	-36.6	
7.228	-65.0	V	3.0	-12.9	34.6	1.0	-46.5	-13.0	-33.5	

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10.8.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-65.6	H	3.0	-18.9	36.5	1.0	-54.3	-25.0	-29.3	
5.020	-67.5	H	3.0	-18.1	35.6	1.0	-52.7	-25.0	-27.7	
7.530	-68.4	H	3.0	-16.2	34.5	1.0	-49.7	-25.0	-24.7	
5.020	-65.8	V	3.0	-15.9	35.6	1.0	-50.4	-25.0	-25.4	
7.530	-67.5	V	3.0	-15.1	34.5	1.0	-48.6	-25.0	-23.6	
10.040	-69.2	V	3.0	-14.4	33.3	1.0	-46.8	-25.0	-21.8	
Mid Channel (2535MHz)										
2.660	-66.3	H	3.0	-19.5	36.5	1.0	-55.0	-25.0	-30.0	
5.507	-68.8	H	3.0	-18.9	35.3	1.0	-53.2	-25.0	-28.2	
7.605	-69.0	H	3.0	-16.7	34.4	1.0	-50.1	-25.0	-25.1	
2.660	-66.5	V	3.0	-19.1	36.5	1.0	-54.6	-25.0	-29.6	
5.507	-67.2	V	3.0	-16.8	35.3	1.0	-51.1	-25.0	-26.1	
7.605	-70.0	V	3.0	-17.5	34.4	1.0	-51.0	-25.0	-26.0	
High Channel (2560MHz)										
2.682	-67.0	H	3.0	-20.2	36.5	1.0	-55.7	-25.0	-30.7	
5.120	-65.6	H	3.0	-16.1	35.5	1.0	-50.6	-25.0	-25.6	
7.680	-67.8	H	3.0	-15.4	34.4	1.0	-48.8	-25.0	-23.8	
2.682	-66.8	V	3.0	-19.4	36.5	1.0	-54.9	-25.0	-29.9	
5.120	-68.0	V	3.0	-18.0	35.5	1.0	-52.5	-25.0	-27.5	
7.680	-70.3	V	3.0	-17.8	34.4	1.0	-51.2	-25.0	-26.2	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/01/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-66.0	H	3.0	-19.3	36.5	1.0	-54.7	-25.0	-29.7	
5.020	-67.4	H	3.0	-18.0	35.6	1.0	-52.6	-25.0	-27.6	
7.530	-68.5	H	3.0	-16.3	34.5	1.0	-49.8	-25.0	-24.8	
5.020	-66.2	V	3.0	-16.3	35.6	1.0	-50.8	-25.0	-25.8	
7.530	-68.1	V	3.0	-15.7	34.5	1.0	-49.2	-25.0	-24.2	
10.040	-70.0	V	3.0	-15.2	33.3	1.0	-47.6	-25.0	-22.6	
Mid Channel (2535MHz)										
2.660	-66.5	H	3.0	-19.7	36.5	1.0	-55.2	-25.0	-30.2	
5.507	-69.0	H	3.0	-19.1	35.3	1.0	-53.4	-25.0	-28.4	
7.605	-69.5	H	3.0	-17.2	34.4	1.0	-50.6	-25.0	-25.6	
2.660	-66.5	V	3.0	-19.1	36.5	1.0	-54.6	-25.0	-29.6	
5.507	-68.2	V	3.0	-17.8	35.3	1.0	-52.1	-25.0	-27.1	
7.605	-69.6	V	3.0	-17.1	34.4	1.0	-50.5	-25.0	-25.5	
High Channel (2560MHz)										
2.682	-66.8	H	3.0	-20.0	36.5	1.0	-55.5	-25.0	-30.5	
5.120	-66.1	H	3.0	-16.6	35.5	1.0	-51.1	-25.0	-26.1	
7.680	-68.2	H	3.0	-15.8	34.4	1.0	-49.2	-25.0	-24.2	
2.682	-67.0	V	3.0	-19.6	36.5	1.0	-55.1	-25.0	-30.1	
5.120	-68.5	V	3.0	-18.5	35.5	1.0	-53.0	-25.0	-28.0	
7.680	-70.4	V	3.0	-17.9	34.4	1.0	-51.3	-25.0	-26.3	

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10.8.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-46.5	H	3.0	-3.4	37.5	1.0	-40.0	-13.0	-27.0	
2.1120	-59.2	H	3.0	-13.4	37.6	1.0	-49.9	-13.0	-36.9	
2.8160	-65.0	H	3.0	-18.2	36.2	1.0	-53.4	-13.0	-40.4	
1.4080	-42.7	V	3.0	0.9	37.5	1.0	-35.6	-13.0	-22.6	
2.1120	-52.2	V	3.0	-6.2	37.6	1.0	-42.8	-13.0	-29.8	
2.8160	-63.4	V	3.0	-15.6	36.2	1.0	-50.8	-13.0	-37.8	
Mid Channel (707.5MHz)										
1.4150	-44.8	H	3.0	-1.8	37.6	1.0	-38.3	-13.0	-25.3	
2.1225	-58.9	H	3.0	-13.0	37.6	1.0	-49.6	-13.0	-36.6	
2.8300	-64.7	H	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	
1.4150	-42.6	V	3.0	1.0	37.6	1.0	-35.5	-13.0	-22.5	
2.1225	-53.8	V	3.0	-7.8	37.6	1.0	-44.4	-13.0	-31.4	
2.8300	-60.2	V	3.0	-12.4	36.2	1.0	-47.6	-13.0	-34.6	
High Channel (711MHz)										
1.4220	-54.5	H	3.0	-11.4	37.6	1.0	-48.0	-13.0	-35.0	
2.1330	-56.6	H	3.0	-10.8	37.5	1.0	-47.3	-13.0	-34.3	
2.8440	-65.0	H	3.0	-18.2	36.2	1.0	-53.4	-13.0	-40.4	
1.4220	-44.6	V	3.0	-1.0	37.6	1.0	-37.6	-13.0	-24.6	
2.1330	-51.2	V	3.0	-5.2	37.5	1.0	-41.7	-13.0	-28.7	
2.8440	-61.2	V	3.0	-13.4	36.2	1.0	-48.6	-13.0	-35.6	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-52.0	H	3.0	-8.9	37.5	1.0	-45.5	-13.0	-32.5	
2.1120	-58.0	H	3.0	-12.2	37.6	1.0	-48.7	-13.0	-35.7	
2.8160	-65.1	H	3.0	-18.3	36.2	1.0	-53.5	-13.0	-40.5	
1.4080	-42.1	V	3.0	1.5	37.5	1.0	-35.1	-13.0	-22.1	
2.1120	-51.9	V	3.0	-5.9	37.6	1.0	-42.5	-13.0	-29.5	
2.8160	-64.9	V	3.0	-17.1	36.2	1.0	-52.3	-13.0	-39.3	
Mid Channel (707.5MHz)										
1.4150	-53.0	H	3.0	-9.9	37.6	1.0	-46.5	-13.0	-33.5	
2.1225	-59.2	H	3.0	-13.3	37.6	1.0	-49.9	-13.0	-36.9	
2.8300	-65.8	H	3.0	-19.0	36.2	1.0	-54.2	-13.0	-41.2	
1.4150	-42.5	V	3.0	1.1	37.6	1.0	-35.5	-13.0	-22.5	
2.1225	-56.2	V	3.0	-10.2	37.6	1.0	-46.8	-13.0	-33.8	
2.8300	-60.9	V	3.0	-13.1	36.2	1.0	-48.3	-13.0	-35.3	
High Channel (711MHz)										
1.4220	-54.2	H	3.0	-11.1	37.6	1.0	-47.7	-13.0	-34.7	
2.1330	-57.5	H	3.0	-11.6	37.5	1.0	-48.1	-13.0	-35.1	
2.8440	-65.1	H	3.0	-18.3	36.2	1.0	-53.5	-13.0	-40.5	
1.4220	-44.2	V	3.0	-0.5	37.6	1.0	-37.1	-13.0	-24.1	
2.1330	-51.6	V	3.0	-5.6	37.5	1.0	-42.1	-13.0	-29.1	
2.8440	-60.6	V	3.0	-12.8	36.2	1.0	-48.0	-13.0	-35.0	

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10.8.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-64.9	H	3.0	-21.3	37.8	1.0	-58.1	-40.0	-18.1	1559-1610MHz
2.346	-65.5	H	3.0	-19.5	36.6	1.0	-55.1	-13.0	-42.1	
3.128	-64.8	H	3.0	-17.2	36.6	1.0	-52.9	-13.0	-39.9	
1.564	-65.1	V	3.0	-21.1	37.8	1.0	-57.8	-40.0	-17.8	1559-1610MHz
2.346	-64.7	V	3.0	-17.8	36.6	1.0	-53.4	-13.0	-40.4	
3.128	-65.0	V	3.0	-17.6	36.6	1.0	-53.3	-13.0	-40.3	

16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.469	-64.8	H	3.0	-21.5	37.8	1.0	-58.3	-40.0	-18.3	1559-1610MHz
2.330	-65.3	H	3.0	-19.4	36.6	1.0	-55.0	-13.0	-42.0	
4.983	-64.6	H	3.0	-15.2	35.6	1.0	-49.8	-13.0	-36.8	
1.749	-64.5	V	3.0	-19.8	37.5	1.0	-56.3	-40.0	-16.3	1559-1610MHz
2.337	-64.7	V	3.0	-17.8	36.6	1.0	-53.4	-13.0	-40.4	
3.793	-64.7	V	3.0	-16.1	36.2	1.0	-51.3	-13.0	-38.3	

10.8.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 17, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-64.1	H	3.0	-21.0	37.6	1.0	-57.6	-13.0	-44.6	
2.113	-60.2	H	3.0	-14.4	37.6	1.0	-50.9	-13.0	-37.9	
1.112	-62.3	H	3.0	-20.2	36.5	1.0	-55.7	-13.0	-42.7	
1.385	-64.0	V	3.0	-20.4	37.5	1.0	-56.9	-13.0	-43.9	
2.113	-56.8	V	3.0	-10.8	37.6	1.0	-47.4	-13.0	-34.4	
4.948	-63.6	V	3.0	-13.9	36.2	1.0	-49.2	-13.0	-36.2	
Mid Channel (710MHz)										
1.427	-63.2	H	3.0	-20.1	37.6	1.0	-56.7	-13.0	-43.7	
2.120	-58.0	H	3.0	-12.2	37.6	1.0	-48.7	-13.0	-35.7	
4.962	-63.3	H	3.0	-13.6	36.2	1.0	-48.8	-13.0	-35.8	
1.420	-64.0	V	3.0	-20.4	37.6	1.0	-57.0	-13.0	-44.0	
2.120	-55.4	V	3.0	-9.4	37.6	1.0	-46.0	-13.0	-33.0	
3.744	-63.3	V	3.0	-14.8	36.2	1.0	-50.0	-13.0	-37.0	
High Channel (711MHz)										
1.427	-63.6	H	3.0	-20.5	37.6	1.0	-57.1	-13.0	-44.1	
2.120	-58.7	H	3.0	-12.9	37.6	1.0	-49.4	-13.0	-36.4	
3.828	-63.4	H	3.0	-15.3	36.1	1.0	-50.4	-13.0	-37.4	
1.756	-60.5	V	3.0	-15.8	37.8	1.0	-52.6	-13.0	-39.6	
2.120	-55.7	V	3.0	-9.7	37.6	1.0	-46.3	-13.0	-33.3	
4.920	-63.6	V	3.0	-14.0	36.2	1.0	-49.2	-13.0	-36.2	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/08/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 17, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.147	-64.1	H	3.0	-21.9	36.6	1.0	-57.5	-13.0	-44.5	
2.113	-59.1	H	3.0	-13.3	37.6	1.0	-49.8	-13.0	-36.8	
2.687	-64.0	H	3.0	-17.2	36.5	1.0	-52.7	-13.0	-39.7	
1.385	-64.1	V	3.0	-20.5	37.5	1.0	-57.0	-13.0	-44.0	
2.113	-56.4	V	3.0	-10.4	37.6	1.0	-47.0	-13.0	-34.0	
4.948	-64.1	V	3.0	-14.4	36.2	1.0	-49.7	-13.0	-36.7	
Mid Channel (710MHz)										
1.427	-63.8	H	3.0	-20.7	37.6	1.0	-57.3	-13.0	-44.3	
2.120	-58.5	H	3.0	-12.7	37.6	1.0	-49.2	-13.0	-36.2	
4.962	-63.7	H	3.0	-14.0	36.2	1.0	-49.2	-13.0	-36.2	
1.420	-63.8	V	3.0	-20.2	37.6	1.0	-56.8	-13.0	-43.8	
2.120	-55.9	V	3.0	-9.9	37.6	1.0	-46.5	-13.0	-33.5	
3.744	-63.6	V	3.0	-15.1	36.2	1.0	-50.3	-13.0	-37.3	
High Channel (711MHz)										
1.427	-64.0	H	3.0	-20.9	37.6	1.0	-57.5	-13.0	-44.5	
2.120	-58.9	H	3.0	-13.1	37.6	1.0	-49.6	-13.0	-36.6	
3.828	-63.7	H	3.0	-15.6	36.1	1.0	-50.7	-13.0	-37.7	
1.756	-61.1	V	3.0	-16.4	37.8	1.0	-53.2	-13.0	-40.2	
2.120	-55.9	V	3.0	-9.9	37.6	1.0	-46.5	-13.0	-33.5	
4.920	-63.8	V	3.0	-14.2	36.2	1.0	-49.4	-13.0	-36.4	

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10.8.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/09/15
Test Engineer: Ali
Configuration: EUT only
Mode: LTE Band 25, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-64.3	H	3.0	-16.2	36.2	1.0	-51.4	-13.0	-38.4	
5.580	-65.7	H	3.0	-15.1	36.1	1.0	-50.2	-13.0	-37.2	
7.440	-65.2	H	3.0	-12.2	35.2	1.0	-46.4	-13.0	-33.4	
3.720	-64.8	V	3.0	-16.3	36.2	1.0	-51.5	-13.0	-38.5	
5.580	-65.8	V	3.0	-15.3	36.1	1.0	-50.5	-13.0	-37.5	
7.440	-66.6	V	3.0	-13.7	35.2	1.0	-47.9	-13.0	-34.9	
Mid Channel (1882.5MHz)										
3.765	-65.7	H	3.0	-17.7	36.2	1.0	-52.8	-13.0	-39.8	
5.648	-66.9	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.530	-67.6	H	3.0	-14.6	35.1	1.0	-48.7	-13.0	-35.7	
3.765	-64.6	V	3.0	-16.1	36.2	1.0	-51.2	-13.0	-38.2	
5.648	-67.0	V	3.0	-16.5	36.1	1.0	-51.6	-13.0	-38.6	
7.530	-67.9	V	3.0	-14.9	35.1	1.0	-49.1	-13.0	-36.1	
High Channel (1905MHz)										
3.810	-64.2	H	3.0	-16.1	36.1	1.0	-51.2	-13.0	-38.2	
5.715	-66.9	H	3.0	-16.1	36.1	1.0	-51.2	-13.0	-38.2	
7.620	-67.1	H	3.0	-13.9	35.1	1.0	-48.0	-13.0	-35.0	
3.810	-64.1	V	3.0	-15.5	36.1	1.0	-50.6	-13.0	-37.6	
5.715	-66.4	V	3.0	-15.7	36.1	1.0	-50.8	-13.0	-37.8	
7.620	-67.2	V	3.0	-14.1	35.1	1.0	-48.2	-13.0	-35.2	

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16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/09/15
Test Engineer: Ali
Configuration: EUT only
Mode: LTE Band 25, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-64.4	H	3.0	-16.3	36.2	1.0	-51.6	-13.0	-38.6	
5.580	-66.1	H	3.0	-15.4	36.1	1.0	-50.5	-13.0	-37.5	
7.440	-67.9	H	3.0	-14.9	35.2	1.0	-49.1	-13.0	-36.1	
3.720	-64.8	V	3.0	-16.4	36.2	1.0	-51.6	-13.0	-38.6	
5.580	-66.8	V	3.0	-16.3	36.1	1.0	-51.5	-13.0	-38.5	
7.440	-67.6	V	3.0	-14.7	35.2	1.0	-48.9	-13.0	-35.9	
Mid Channel (1882.5MHz)										
3.765	-63.4	H	3.0	-15.3	36.2	1.0	-50.5	-13.0	-37.5	
5.648	-66.5	H	3.0	-15.8	36.1	1.0	-50.9	-13.0	-37.9	
7.530	-66.5	H	3.0	-13.5	35.1	1.0	-47.6	-13.0	-34.6	
3.765	-64.6	V	3.0	-16.1	36.2	1.0	-51.3	-13.0	-38.3	
5.648	-67.7	V	3.0	-17.1	36.1	1.0	-52.2	-13.0	-39.2	
7.530	-66.9	V	3.0	-13.9	35.1	1.0	-48.0	-13.0	-35.0	
High Channel (1905MHz)										
3.810	-64.5	H	3.0	-16.4	36.1	1.0	-51.5	-13.0	-38.5	
5.715	-65.7	H	3.0	-14.9	36.1	1.0	-49.9	-13.0	-36.9	
7.620	-66.2	H	3.0	-13.0	35.1	1.0	-47.1	-13.0	-34.1	
3.810	-65.8	V	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
5.715	-66.8	V	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.620	-67.2	V	3.0	-14.1	35.1	1.0	-48.2	-13.0	-35.2	

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10.8.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-58.8	H	3.0	-14.8	37.8	1.0	-51.7	-13.0	-38.7	
2.457	-57.5	H	3.0	-11.0	36.7	1.0	-46.7	-13.0	-33.7	
3.276	-57.1	H	3.0	-9.4	36.5	1.0	-44.9	-13.0	-31.9	
3.807	-54.0	H	3.0	-5.9	36.1	1.0	-41.0	-13.0	-28.0	
1.630	-53.1	V	3.0	-8.8	37.8	1.0	-45.7	-13.0	-32.7	
2.457	-56.7	V	3.0	-9.4	36.7	1.0	-45.1	-13.0	-32.1	
3.276	-57.0	V	3.0	-9.4	36.5	1.0	-44.9	-13.0	-31.9	
3.772	-53.1	V	3.0	-4.6	36.2	1.0	-39.7	-13.0	-26.7	
		V								

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16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-59.1	H	3.0	-15.1	37.8	1.0	-52.0	-13.0	-39.0	
2.457	-58.0	H	3.0	-11.5	36.7	1.0	-47.2	-13.0	-34.2	
3.276	-57.5	H	3.0	-9.8	36.5	1.0	-45.3	-13.0	-32.3	
3.807	-54.4	H	3.0	-6.3	36.1	1.0	-41.4	-13.0	-28.4	
1.630	-53.5	V	3.0	-9.2	37.8	1.0	-46.1	-13.0	-33.1	
2.457	-57.1	V	3.0	-9.8	36.7	1.0	-45.5	-13.0	-32.5	
3.276	-57.4	V	3.0	-9.8	36.5	1.0	-45.3	-13.0	-32.3	
3.772	-53.3	V	3.0	-4.8	36.2	1.0	-39.9	-13.0	-26.9	

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10.8.10. LTE BAND 30

QPSK EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (2310MHz)										
4.620	-64.6	H	3.0	-15.4	36.2	1.0	-50.5	-40.0	-10.5	
6.930	-65.0	H	3.0	-12.4	35.5	1.0	-47.0	-40.0	-7.0	
9.240	-66.4	H	3.0	-12.0	33.9	1.0	-44.9	-40.0	-4.9	
4.620	-64.1	V	3.0	-14.7	36.2	1.0	-49.8	-40.0	-9.8	
6.930	-64.3	V	3.0	-11.8	35.5	1.0	-46.3	-40.0	-6.3	
9.240	-66.1	V	3.0	-11.9	33.9	1.0	-44.8	-40.0	-4.8	

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16QAM EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (2310MHz)										
4.620	-64.7	H	3.0	-15.5	36.2	1.0	-50.6	-40.0	-10.6	
6.930	-65.1	H	3.0	-12.5	35.5	1.0	-47.1	-40.0	-7.1	
9.240	-67.0	H	3.0	-12.6	33.9	1.0	-45.5	-40.0	-5.5	
4.620	-65.4	V	3.0	-16.0	36.2	1.0	-51.1	-40.0	-11.1	
6.930	-65.2	V	3.0	-12.7	35.5	1.0	-47.2	-40.0	-7.2	
9.240	-66.5	V	3.0	-12.3	33.9	1.0	-45.2	-40.0	-5.2	

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10.8.11. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 41, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-66.0	H	3.0	-16.2	36.2	1.0	-51.4	-25.0	-26.4	
7.518	-65.4	H	3.0	-12.4	35.1	1.0	-46.5	-25.0	-21.5	
10.024	-66.8	H	3.0	-11.8	33.3	1.0	-44.2	-25.0	-19.2	
5.012	-66.4	V	3.0	-16.7	36.2	1.0	-51.9	-25.0	-26.9	
7.518	-66.1	V	3.0	-13.1	35.1	1.0	-47.3	-25.0	-22.3	
10.024	-67.0	V	3.0	-12.2	33.3	1.0	-44.6	-25.0	-19.6	
Mid Channel (2593MHz)										
5.186	-66.1	H	3.0	-16.0	36.3	1.0	-51.3	-25.0	-26.3	
7.779	-66.7	H	3.0	-13.5	34.9	1.0	-47.4	-25.0	-22.4	
10.372	-68.3	H	3.0	-13.3	33.1	1.0	-45.4	-25.0	-20.4	
5.186	-65.2	V	3.0	-15.4	36.3	1.0	-50.6	-25.0	-25.6	
7.779	-66.7	V	3.0	-13.5	34.9	1.0	-47.5	-25.0	-22.5	
10.372	-67.4	V	3.0	-12.6	33.1	1.0	-44.7	-25.0	-19.7	
High Channel (2680MHz)										
5.360	-66.8	H	3.0	-16.5	36.2	1.0	-51.7	-25.0	-26.7	
8.040	-65.3	H	3.0	-11.9	34.8	1.0	-45.6	-25.0	-20.6	
10.720	-67.9	H	3.0	-12.8	32.9	1.0	-44.7	-25.0	-19.7	
5.360	-65.8	V	3.0	-15.7	36.2	1.0	-50.9	-25.0	-25.9	
8.040	-66.6	V	3.0	-13.2	34.8	1.0	-47.0	-25.0	-22.0	
10.720	-67.5	V	3.0	-12.7	32.9	1.0	-44.6	-25.0	-19.6	

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16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20164
Date: 05/11/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 41, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-66.7	H	3.0	-16.9	36.2	1.0	-52.1	-25.0	-27.1	
7.518	-65.6	H	3.0	-12.6	35.1	1.0	-46.7	-25.0	-21.7	
10.024	-67.2	H	3.0	-12.2	33.3	1.0	-44.6	-25.0	-19.6	
5.012	-66.6	V	3.0	-16.9	36.2	1.0	-52.1	-25.0	-27.1	
7.518	-66.3	V	3.0	-13.3	35.1	1.0	-47.5	-25.0	-22.5	
10.024	-67.4	V	3.0	-12.6	33.3	1.0	-45.0	-25.0	-20.0	
Mid Channel (2593MHz)										
5.186	-66.8	H	3.0	-16.7	36.3	1.0	-52.0	-25.0	-27.0	
7.779	-67.0	H	3.0	-13.8	34.9	1.0	-47.7	-25.0	-22.7	
10.372	-68.6	H	3.0	-13.6	33.1	1.0	-45.7	-25.0	-20.7	
5.186	-65.4	V	3.0	-15.6	36.3	1.0	-50.8	-25.0	-25.8	
7.779	-67.0	V	3.0	-13.8	34.9	1.0	-47.8	-25.0	-22.8	
10.372	-67.9	V	3.0	-13.1	33.1	1.0	-45.2	-25.0	-20.2	
High Channel (2680MHz)										
5.360	-67.0	H	3.0	-16.7	36.2	1.0	-51.9	-25.0	-26.9	
8.040	-66.2	H	3.0	-12.8	34.8	1.0	-46.5	-25.0	-21.5	
10.720	-68.0	H	3.0	-12.9	32.9	1.0	-44.8	-25.0	-19.8	
5.360	-66.4	V	3.0	-16.3	36.2	1.0	-51.5	-25.0	-26.5	
8.040	-66.8	V	3.0	-13.4	34.8	1.0	-47.2	-25.0	-22.2	
10.720	-68.2	V	3.0	-13.4	32.9	1.0	-45.3	-25.0	-20.3	

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10.9. FIELD STRENGTH OF SPURIOUS RADIATION, MODEL: A1688 (LAT)

10.9.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 2, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-65.2	H	3.0	-17.2	36.2	1.0	-52.4	-13.0	-39.4	
5.580	-65.9	H	3.0	-15.3	36.1	1.0	-50.4	-13.0	-37.4	
7.440	-66.5	H	3.0	-13.6	35.2	1.0	-47.7	-13.0	-34.7	
3.720	-65.3	V	3.0	-16.9	36.2	1.0	-52.1	-13.0	-39.1	
5.580	-66.9	V	3.0	-16.5	36.1	1.0	-51.6	-13.0	-38.6	
7.440	-66.1	V	3.0	-13.2	35.2	1.0	-47.4	-13.0	-34.4	
Mid Channel (1880MHz)										
3.760	-66.1	H	3.0	-18.1	36.2	1.0	-53.2	-13.0	-40.2	
5.640	-65.9	H	3.0	-15.2	36.1	1.0	-50.3	-13.0	-37.3	
7.520	-66.3	H	3.0	-13.3	35.1	1.0	-47.4	-13.0	-34.4	
3.760	-67.0	V	3.0	-18.5	36.2	1.0	-53.7	-13.0	-40.7	
5.640	-67.7	V	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
7.520	-66.8	V	3.0	-13.8	35.1	1.0	-47.9	-13.0	-34.9	
High Channel (1900MHz)										
3.800	-64.9	H	3.0	-16.8	36.2	1.0	-52.0	-13.0	-39.0	
5.700	-68.0	H	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
7.600	-67.7	H	3.0	-14.6	35.1	1.0	-48.7	-13.0	-35.7	
3.800	-64.4	V	3.0	-15.8	36.2	1.0	-51.0	-13.0	-38.0	
5.700	-66.9	V	3.0	-16.3	36.1	1.0	-51.4	-13.0	-38.4	
7.600	-67.3	V	3.0	-14.2	35.1	1.0	-48.3	-13.0	-35.3	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 2, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-65.8	H	3.0	-17.8	36.2	1.0	-53.0	-13.0	-40.0	
5.580	-67.8	H	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
7.440	-65.6	H	3.0	-12.6	35.2	1.0	-46.8	-13.0	-33.8	
3.720	-65.0	V	3.0	-16.6	36.2	1.0	-51.8	-13.0	-38.8	
5.580	-66.6	V	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.440	-66.7	V	3.0	-13.8	35.2	1.0	-48.0	-13.0	-35.0	
Mid Channel (1880MHz)										
3.760	-65.0	H	3.0	-16.9	36.2	1.0	-52.1	-13.0	-39.1	
5.640	-67.2	H	3.0	-16.5	36.1	1.0	-51.6	-13.0	-38.6	
7.520	-66.5	H	3.0	-13.4	35.1	1.0	-47.6	-13.0	-34.6	
3.760	-66.1	V	3.0	-17.5	36.2	1.0	-52.7	-13.0	-39.7	
5.640	-67.1	V	3.0	-16.6	36.1	1.0	-51.7	-13.0	-38.7	
7.520	-67.8	V	3.0	-14.8	35.1	1.0	-48.9	-13.0	-35.9	
High Channel (1900MHz)										
3.800	-65.5	H	3.0	-17.4	36.2	1.0	-52.5	-13.0	-39.5	
5.700	-67.2	H	3.0	-16.4	36.1	1.0	-51.5	-13.0	-38.5	
7.600	-67.7	H	3.0	-14.6	35.1	1.0	-48.7	-13.0	-35.7	
3.800	-64.9	V	3.0	-16.3	36.2	1.0	-51.5	-13.0	-38.5	
5.700	-67.8	V	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
7.600	-67.4	V	3.0	-14.4	35.1	1.0	-48.4	-13.0	-35.4	

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10.9.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-60.0	H	3.0	-12.1	36.4	1.0	-47.6	-13.0	-34.6	
5.160	-65.7	H	3.0	-15.6	36.3	1.0	-50.9	-13.0	-37.9	
6.880	-67.4	H	3.0	-14.9	35.6	1.0	-49.5	-13.0	-36.5	
3.440	-58.0	V	3.0	-10.1	36.4	1.0	-45.5	-13.0	-32.5	
5.160	-66.5	V	3.0	-16.7	36.3	1.0	-52.0	-13.0	-39.0	
6.880	-67.6	V	3.0	-15.2	35.6	1.0	-49.8	-13.0	-36.8	
Mid Channel (1732.5MHz)										
3.465	-58.1	H	3.0	-10.2	36.4	1.0	-45.6	-13.0	-32.6	
5.176	-64.5	H	3.0	-14.4	36.3	1.0	-49.7	-13.0	-36.7	
6.930	-66.8	H	3.0	-14.2	35.5	1.0	-48.8	-13.0	-35.8	
3.465	-56.0	V	3.0	-8.0	36.4	1.0	-43.4	-13.0	-30.4	
5.176	-62.6	V	3.0	-12.8	36.3	1.0	-48.1	-13.0	-35.1	
6.930	-68.1	V	3.0	-15.6	35.5	1.0	-50.1	-13.0	-37.1	
High Channel (1745MHz)										
3.490	-62.8	H	3.0	-14.9	36.4	1.0	-50.3	-13.0	-37.3	
5.235	-67.1	H	3.0	-16.9	36.3	1.0	-52.2	-13.0	-39.2	
6.980	-67.9	H	3.0	-15.3	35.5	1.0	-49.8	-13.0	-36.8	
3.490	-59.9	V	3.0	-11.9	36.4	1.0	-47.3	-13.0	-34.3	
5.235	-63.2	V	3.0	-13.3	36.3	1.0	-48.6	-13.0	-35.6	
6.980	-65.1	V	3.0	-12.5	35.5	1.0	-47.0	-13.0	-34.0	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 4, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.440	-59.1	H	3.0	-11.3	36.4	1.0	-46.7	-13.0	-33.7	
5.160	-65.9	H	3.0	-15.9	36.3	1.0	-51.1	-13.0	-38.1	
6.880	-67.1	H	3.0	-14.6	35.6	1.0	-49.2	-13.0	-36.2	
3.440	-58.8	V	3.0	-10.9	36.4	1.0	-46.3	-13.0	-33.3	
5.160	-64.5	V	3.0	-14.7	36.3	1.0	-50.0	-13.0	-37.0	
6.880	-66.3	V	3.0	-13.9	35.6	1.0	-48.4	-13.0	-35.4	
Mid Channel (1732.5MHz)										
3.465	-57.7	H	3.0	-9.8	36.4	1.0	-45.2	-13.0	-32.2	
5.198	-65.3	H	3.0	-15.2	36.3	1.0	-50.5	-13.0	-37.5	
6.930	-66.5	H	3.0	-13.9	35.5	1.0	-48.5	-13.0	-35.5	
3.465	-55.0	V	3.0	-7.0	36.4	1.0	-42.4	-13.0	-29.4	
5.198	-62.9	V	3.0	-13.1	36.3	1.0	-48.3	-13.0	-35.3	
6.930	-67.1	V	3.0	-14.6	35.5	1.0	-49.1	-13.0	-36.1	
High Channel (1745MHz)										
3.490	-60.3	H	3.0	-12.4	36.4	1.0	-47.8	-13.0	-34.8	
5.235	-65.9	H	3.0	-15.8	36.3	1.0	-51.0	-13.0	-38.0	
6.980	-65.6	H	3.0	-13.0	35.5	1.0	-47.5	-13.0	-34.5	
3.490	-61.4	V	3.0	-13.4	36.4	1.0	-48.8	-13.0	-35.8	
5.235	-65.0	V	3.0	-15.1	36.3	1.0	-50.4	-13.0	-37.4	
6.980	-67.3	V	3.0	-14.7	35.5	1.0	-49.2	-13.0	-36.2	

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10.9.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.658	-63.0	H	3.0	-18.9	37.8	1.0	-55.8	-13.0	-42.8	
2.487	-63.2	H	3.0	-16.7	36.5	1.0	-52.2	-13.0	-39.2	
3.316	-61.3	H	3.0	-13.6	36.5	1.0	-49.1	-13.0	-36.1	
1.658	-63.3	V	3.0	-18.9	37.8	1.0	-55.8	-13.0	-42.8	
2.487	-62.4	V	3.0	-15.0	36.5	1.0	-50.4	-13.0	-37.4	
3.316	-62.5	V	3.0	-14.8	36.5	1.0	-50.3	-13.0	-37.3	
Mid Channel (836.5MHz)										
1.673	-60.2	H	3.0	-16.1	37.8	1.0	-52.9	-13.0	-39.9	
2.510	-64.2	H	3.0	-17.7	36.4	1.0	-53.1	-13.0	-40.1	
3.346	-63.4	H	3.0	-15.7	36.5	1.0	-51.1	-13.0	-38.1	
1.673	-58.8	V	3.0	-14.4	37.8	1.0	-51.2	-13.0	-38.2	
2.510	-61.3	V	3.0	-13.8	36.4	1.0	-49.2	-13.0	-36.2	
3.346	-63.2	V	3.0	-15.4	36.5	1.0	-50.9	-13.0	-37.9	
High Channel (844MHz)										
1.688	-63.1	H	3.0	-18.9	37.8	1.0	-55.7	-13.0	-42.7	
2.532	-62.6	H	3.0	-16.1	36.4	1.0	-51.5	-13.0	-38.5	
3.805	-62.3	H	3.0	-14.2	36.1	1.0	-49.3	-13.0	-36.3	
1.688	-62.3	V	3.0	-17.8	37.8	1.0	-54.7	-13.0	-41.7	
2.532	-63.0	V	3.0	-15.5	36.4	1.0	-50.9	-13.0	-37.9	
3.772	-61.4	V	3.0	-12.9	36.2	1.0	-48.0	-13.0	-35.0	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 5, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.658	-63.4	H	3.0	-15.5	41.9	1.0	-56.3	-13.0	-43.3	
2.487	-63.7	H	3.0	-17.2	36.5	1.0	-52.7	-13.0	-39.7	
3.316	-61.8	H	3.0	-14.1	36.5	1.0	-49.6	-13.0	-36.6	
1.658	-63.7	V	3.0	-15.3	41.9	1.0	-56.1	-13.0	-43.1	
2.487	-63.0	V	3.0	-15.6	36.5	1.0	-51.0	-13.0	-38.0	
3.316	-63.2	V	3.0	-15.5	36.5	1.0	-51.0	-13.0	-38.0	
Mid Channel (836.5MHz)										
1.673	-61.1	H	3.0	-12.7	42.2	1.0	-54.0	-13.0	-41.0	
2.510	-62.7	H	3.0	-16.2	36.4	1.0	-51.6	-13.0	-38.6	
3.346	-63.9	H	3.0	-16.2	36.5	1.0	-51.6	-13.0	-38.6	
1.673	-59.4	V	3.0	-10.5	42.2	1.0	-51.8	-13.0	-38.8	
2.510	-61.8	V	3.0	-14.3	36.4	1.0	-49.7	-13.0	-36.7	
3.346	-63.7	V	3.0	-15.9	36.5	1.0	-51.4	-13.0	-38.4	
High Channel (844MHz)										
1.688	-63.7	H	3.0	-14.9	42.6	1.0	-56.5	-13.0	-43.5	
2.532	-62.9	H	3.0	-16.4	36.4	1.0	-51.8	-13.0	-38.8	
3.805	-63.0	H	3.0	-14.9	36.1	1.0	-50.0	-13.0	-37.0	
1.688	-63.2	V	3.0	-13.9	42.6	1.0	-55.5	-13.0	-42.5	
2.532	-63.6	V	3.0	-16.1	36.4	1.0	-51.5	-13.0	-38.5	
3.772	-62.4	V	3.0	-13.9	36.2	1.0	-49.0	-13.0	-36.0	

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10.9.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-66.4	H	3.0	-19.7	36.5	1.0	-55.1	-25.0	-30.1	
5.020	-68.5	H	3.0	-19.1	35.6	1.0	-53.7	-25.0	-28.7	
7.530	-68.6	H	3.0	-16.4	34.5	1.0	-49.9	-25.0	-24.9	
2.638	-66.2	V	3.0	-18.8	36.5	1.0	-54.3	-25.0	-29.3	
5.020	-68.4	V	3.0	-18.5	35.6	1.0	-53.0	-25.0	-28.0	
7.530	-68.8	V	3.0	-16.4	34.5	1.0	-49.9	-25.0	-24.9	
Mid Channel (2535MHz)										
2.660	-66.8	H	3.0	-20.0	36.5	1.0	-55.5	-25.0	-30.5	
5.070	-67.1	H	3.0	-17.7	35.5	1.0	-52.2	-25.0	-27.2	
7.605	-69.3	H	3.0	-17.0	34.4	1.0	-50.4	-25.0	-25.4	
2.660	-66.3	V	3.0	-18.9	36.5	1.0	-54.4	-25.0	-29.4	
5.070	-66.8	V	3.0	-16.8	35.5	1.0	-51.3	-25.0	-26.3	
7.605	-67.1	V	3.0	-14.6	34.4	1.0	-48.1	-25.0	-23.1	
High Channel (2560MHz)										
2.682	-66.1	H	3.0	-19.3	36.5	1.0	-54.8	-25.0	-29.8	
5.120	-67.6	H	3.0	-18.1	35.5	1.0	-52.6	-25.0	-27.6	
7.680	-68.4	H	3.0	-16.0	34.4	1.0	-49.4	-25.0	-24.4	
2.682	-66.6	V	3.0	-19.2	36.5	1.0	-54.7	-25.0	-29.7	
5.120	-67.2	V	3.0	-17.2	35.5	1.0	-51.7	-25.0	-26.7	
7.680	-68.9	V	3.0	-16.4	34.4	1.0	-49.8	-25.0	-24.8	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
2.638	-66.2	H	3.0	-19.5	36.5	1.0	-54.9	-25.0	-29.9	
5.020	-67.7	H	3.0	-18.3	35.6	1.0	-52.9	-25.0	-27.9	
7.530	-68.8	H	3.0	-16.6	34.5	1.0	-50.1	-25.0	-25.1	
5.020	-66.6	V	3.0	-16.7	35.6	1.0	-51.2	-25.0	-26.2	
7.530	-68.0	V	3.0	-15.6	34.5	1.0	-49.1	-25.0	-24.1	
10.040	-68.6	V	3.0	-13.8	33.3	1.0	-46.2	-25.0	-21.2	
Mid Channel (2535MHz)										
2.660	-66.2	H	3.0	-19.4	36.5	1.0	-54.9	-25.0	-29.9	
5.507	-67.5	H	3.0	-17.6	35.3	1.0	-51.9	-25.0	-26.9	
7.605	-68.7	H	3.0	-16.4	34.4	1.0	-49.8	-25.0	-24.8	
2.660	-66.8	V	3.0	-19.4	36.5	1.0	-54.9	-25.0	-29.9	
5.507	-67.1	V	3.0	-16.7	35.3	1.0	-51.0	-25.0	-26.0	
7.605	-68.5	V	3.0	-16.0	34.4	1.0	-49.5	-25.0	-24.5	
High Channel (2560MHz)										
2.682	-66.5	H	3.0	-19.7	36.5	1.0	-55.2	-25.0	-30.2	
5.120	-67.2	H	3.0	-17.7	35.5	1.0	-52.2	-25.0	-27.2	
7.680	-70.8	H	3.0	-18.4	34.4	1.0	-51.8	-25.0	-26.8	
2.682	-66.6	V	3.0	-19.2	36.5	1.0	-54.7	-25.0	-29.7	
5.120	-67.4	V	3.0	-17.4	35.5	1.0	-51.9	-25.0	-26.9	
7.680	-69.2	V	3.0	-16.7	34.4	1.0	-50.1	-25.0	-25.1	

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10.9.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-64.5	H	3.0	-21.4	37.5	1.0	-58.0	-13.0	-45.0	
2.1120	-65.0	H	3.0	-19.2	37.6	1.0	-55.7	-13.0	-42.7	
2.8160	-64.8	H	3.0	-17.7	36.6	1.0	-53.3	-13.0	-40.3	
1.4080	-64.8	V	3.0	-21.2	37.5	1.0	-57.7	-13.0	-44.7	
2.1120	-65.3	V	3.0	-19.3	37.6	1.0	-55.9	-13.0	-42.9	
2.8160	-65.2	V	3.0	-17.9	36.6	1.0	-53.5	-13.0	-40.5	
Mid Channel (707.5MHz)										
1.4150	-64.6	H	3.0	-21.5	37.6	1.0	-58.1	-13.0	-45.1	
2.1225	-64.8	H	3.0	-18.9	37.6	1.0	-55.5	-13.0	-42.5	
2.8300	-65.2	H	3.0	-18.1	36.6	1.0	-53.7	-13.0	-40.7	
1.4150	-64.6	V	3.0	-21.0	37.6	1.0	-57.5	-13.0	-44.5	
2.1225	-65.5	V	3.0	-19.5	37.6	1.0	-56.1	-13.0	-43.1	
2.8300	-65.2	V	3.0	-17.9	36.6	1.0	-53.5	-13.0	-40.5	
High Channel (711MHz)										
1.4220	-64.5	H	3.0	-21.4	37.6	1.0	-58.0	-13.0	-45.0	
2.1330	-65.0	H	3.0	-19.1	37.5	1.0	-55.7	-13.0	-42.7	
2.8440	-65.1	H	3.0	-17.9	36.6	1.0	-53.6	-13.0	-40.6	
1.4220	-64.5	V	3.0	-20.9	37.6	1.0	-57.5	-13.0	-44.5	
2.1330	-65.3	V	3.0	-19.3	37.5	1.0	-55.8	-13.0	-42.8	
2.8440	-65.5	V	3.0	-18.3	36.6	1.0	-53.9	-13.0	-40.9	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 12, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel 704MHz)										
1.4080	-64.9	H	3.0	-21.8	37.5	1.0	-58.4	-13.0	-45.4	
2.1120	-65.3	H	3.0	-19.5	37.6	1.0	-56.0	-13.0	-43.0	
2.8160	-65.1	H	3.0	-18.0	36.6	1.0	-53.6	-13.0	-40.6	
1.4080	-65.0	V	3.0	-21.4	37.5	1.0	-57.9	-13.0	-44.9	
2.1120	-65.6	V	3.0	-19.6	37.6	1.0	-56.2	-13.0	-43.2	
2.8160	-65.5	V	3.0	-18.2	36.6	1.0	-53.8	-13.0	-40.8	
Mid Channel (707.5MHz)										
1.4150	-64.9	H	3.0	-21.8	37.6	1.0	-58.4	-13.0	-45.4	
2.1225	-65.2	H	3.0	-19.3	37.6	1.0	-55.9	-13.0	-42.9	
2.8300	-65.4	H	3.0	-18.3	36.6	1.0	-53.9	-13.0	-40.9	
1.4150	-65.0	V	3.0	-21.4	37.6	1.0	-57.9	-13.0	-44.9	
2.1225	-65.8	V	3.0	-19.8	37.6	1.0	-56.4	-13.0	-43.4	
2.8300	-65.6	V	3.0	-18.3	36.6	1.0	-53.9	-13.0	-40.9	
High Channel (711MHz)										
1.4220	-64.8	H	3.0	-21.7	37.6	1.0	-58.3	-13.0	-45.3	
2.1330	-65.3	H	3.0	-19.4	37.5	1.0	-56.0	-13.0	-43.0	
2.8440	-65.4	H	3.0	-18.2	36.6	1.0	-53.9	-13.0	-40.9	
1.4220	-65.0	V	3.0	-21.4	37.6	1.0	-58.0	-13.0	-45.0	
2.1330	-65.5	V	3.0	-19.5	37.5	1.0	-56.0	-13.0	-43.0	
2.8440	-65.8	V	3.0	-18.6	36.6	1.0	-54.2	-13.0	-41.2	

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10.9.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/28/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-64.1	H	3.0	-20.5	37.9	1.0	-57.3	-40.0	-17.3	
2.346	-64.8	H	3.0	-18.4	37.2	1.0	-54.6	-13.0	-41.6	
3.128	-63.4	H	3.0	-15.8	36.6	1.0	-51.5	-13.0	-38.5	
1.564	-64.3	V	3.0	-20.3	37.9	1.0	-57.1	-40.0	-17.1	
2.346	-64.2	V	3.0	-17.4	37.2	1.0	-53.6	-13.0	-40.6	
3.128	-63.7	V	3.0	-16.3	36.6	1.0	-52.0	-13.0	-39.0	

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16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/28/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 13, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-64.5	H	3.0	-20.9	37.9	1.0	-57.7	-40.0	-17.7	
2.346	-65.3	H	3.0	-18.9	37.2	1.0	-55.1	-13.0	-42.1	
3.128	-64.1	H	3.0	-16.5	36.6	1.0	-52.2	-13.0	-39.2	
1.564	-64.8	V	3.0	-20.8	37.9	1.0	-57.6	-40.0	-17.6	
2.346	-64.9	V	3.0	-18.1	37.2	1.0	-54.3	-13.0	-41.3	
3.128	-64.5	V	3.0	-17.1	36.6	1.0	-52.8	-13.0	-39.8	

Rev. 09.04.14

10.9.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 17, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-63.8	H	3.0	-20.7	37.6	1.0	-57.3	-13.0	-44.3	
2.127	-61.2	H	3.0	-15.3	37.5	1.0	-51.9	-13.0	-38.9	
2.836	-62.0	H	3.0	-14.9	36.6	1.0	-50.5	-13.0	-37.5	
1.418	-63.5	V	3.0	-19.9	37.6	1.0	-56.4	-13.0	-43.4	
2.127	-64.0	V	3.0	-18.0	37.5	1.0	-54.5	-13.0	-41.5	
2.836	-64.2	V	3.0	-16.9	36.6	1.0	-52.6	-13.0	-39.6	
Mid Channel (710MHz)										
1.420	-63.4	H	3.0	-20.3	37.6	1.0	-56.9	-13.0	-43.9	
2.130	-63.5	H	3.0	-17.6	37.5	1.0	-54.2	-13.0	-41.2	
2.840	-64.2	H	3.0	-17.1	36.6	1.0	-52.7	-13.0	-39.7	
1.420	-62.6	V	3.0	-19.0	37.6	1.0	-55.6	-13.0	-42.6	
2.130	-62.5	V	3.0	-16.5	37.5	1.0	-53.0	-13.0	-40.0	
2.840	-63.1	V	3.0	-15.8	36.6	1.0	-51.5	-13.0	-38.5	
High Channel (711MHz)										
1.422	-62.7	H	3.0	-19.6	37.6	1.0	-56.2	-13.0	-43.2	
2.133	-60.5	H	3.0	-14.6	37.5	1.0	-51.2	-13.0	-38.2	
2.844	-63.8	H	3.0	-16.6	36.6	1.0	-52.3	-13.0	-39.3	
1.422	-61.1	V	3.0	-17.5	37.6	1.0	-54.1	-13.0	-41.1	
2.133	-60.1	V	3.0	-14.1	37.5	1.0	-50.6	-13.0	-37.6	
2.844	-63.2	V	3.0	-16.0	36.6	1.0	-51.6	-13.0	-38.6	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 17, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-64.5	H	3.0	-21.4	37.6	1.0	-58.0	-13.0	-45.0	
2.127	-61.5	H	3.0	-15.6	37.5	1.0	-52.2	-13.0	-39.2	
2.836	-62.5	H	3.0	-15.4	36.6	1.0	-51.0	-13.0	-38.0	
1.418	-65.7	V	3.0	-22.1	37.6	1.0	-58.6	-13.0	-45.6	
2.127	-60.2	V	3.0	-14.2	37.5	1.0	-50.7	-13.0	-37.7	
2.836	-64.5	V	3.0	-17.2	36.6	1.0	-52.9	-13.0	-39.9	
Mid Channel (710MHz)										
1.420	-63.5	H	3.0	-20.4	37.6	1.0	-57.0	-13.0	-44.0	
2.130	-60.1	H	3.0	-14.2	37.5	1.0	-50.8	-13.0	-37.8	
2.840	-63.5	H	3.0	-16.4	36.6	1.0	-52.0	-13.0	-39.0	
1.420	-64.5	V	3.0	-20.9	37.6	1.0	-57.5	-13.0	-44.5	
2.130	-62.5	V	3.0	-16.5	37.5	1.0	-53.0	-13.0	-40.0	
2.840	-60.4	V	3.0	-13.1	36.6	1.0	-48.8	-13.0	-35.8	
High Channel (711MHz)										
1.422	-63.8	H	3.0	-20.7	37.6	1.0	-57.3	-13.0	-44.3	
2.133	-60.2	H	3.0	-14.3	37.5	1.0	-50.9	-13.0	-37.9	
2.844	-63.8	H	3.0	-16.6	36.6	1.0	-52.3	-13.0	-39.3	
1.422	-61.0	V	3.0	-17.4	37.6	1.0	-54.0	-13.0	-41.0	
2.133	-62.5	V	3.0	-16.5	37.5	1.0	-53.0	-13.0	-40.0	
2.844	-64.7	V	3.0	-17.5	36.6	1.0	-53.1	-13.0	-40.1	

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10.9.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 25, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-67.0	H	3.0	-19.0	36.2	1.0	-54.2	-13.0	-41.2	
5.580	-67.4	H	3.0	-17.4	35.3	1.0	-51.7	-13.0	-38.7	
7.440	-67.5	H	3.0	-15.4	34.5	1.0	-48.9	-13.0	-35.9	
3.720	-66.3	V	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	
5.580	-67.8	V	3.0	-17.3	35.3	1.0	-51.6	-13.0	-38.6	
7.440	-67.3	V	3.0	-15.0	34.5	1.0	-48.5	-13.0	-35.5	
Mid Channel (1882.5MHz)										
3.765	-65.5	H	3.0	-17.4	36.2	1.0	-52.6	-13.0	-39.6	
5.648	-67.5	H	3.0	-17.4	35.3	1.0	-51.7	-13.0	-38.7	
7.530	-68.8	H	3.0	-16.6	34.5	1.0	-50.0	-13.0	-37.0	
3.765	-64.8	V	3.0	-16.3	36.2	1.0	-51.5	-13.0	-38.5	
5.648	-67.8	V	3.0	-17.2	35.3	1.0	-51.5	-13.0	-38.5	
7.530	-68.5	V	3.0	-16.1	34.5	1.0	-49.6	-13.0	-36.6	
High Channel (1905MHz)										
3.810	-65.4	H	3.0	-17.3	36.1	1.0	-52.4	-13.0	-39.4	
5.715	-67.5	H	3.0	-17.3	35.3	1.0	-51.6	-13.0	-38.6	
7.620	-67.9	H	3.0	-15.6	34.4	1.0	-49.0	-13.0	-36.0	
3.810	-65.4	V	3.0	-16.8	36.1	1.0	-51.9	-13.0	-38.9	
5.715	-67.5	V	3.0	-16.9	35.3	1.0	-51.1	-13.0	-38.1	
7.620	-67.9	V	3.0	-15.4	34.4	1.0	-48.8	-13.0	-35.8	

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16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 05/19/15
Test Engineer: R.Z
Configuration: EUT only
Mode: LTE Band 25, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-65.8	H	3.0	-17.8	36.2	1.0	-53.0	-13.0	-40.0	
5.580	-66.7	H	3.0	-16.7	35.3	1.0	-51.0	-13.0	-38.0	
7.440	-68.6	H	3.0	-16.5	34.5	1.0	-50.0	-13.0	-37.0	
3.720	-66.5	V	3.0	-18.1	36.2	1.0	-53.3	-13.0	-40.3	
5.580	-67.5	V	3.0	-17.0	35.3	1.0	-51.3	-13.0	-38.3	
7.440	-66.8	V	3.0	-14.5	34.5	1.0	-48.0	-13.0	-35.0	
Mid Channel (1882.5MHz)										
3.765	-66.0	H	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	
5.648	-68.0	H	3.0	-17.9	35.3	1.0	-52.2	-13.0	-39.2	
7.530	-68.2	H	3.0	-16.0	34.5	1.0	-49.5	-13.0	-36.5	
3.765	-65.7	V	3.0	-17.2	36.2	1.0	-52.4	-13.0	-39.4	
5.648	-66.5	V	3.0	-15.9	35.3	1.0	-50.2	-13.0	-37.2	
7.530	-68.3	V	3.0	-15.9	34.5	1.0	-49.4	-13.0	-36.4	
High Channel (1905MHz)										
3.810	-66.3	H	3.0	-18.2	36.1	1.0	-53.3	-13.0	-40.3	
5.715	-68.3	H	3.0	-18.1	35.3	1.0	-52.4	-13.0	-39.4	
7.620	-68.3	H	3.0	-16.0	34.4	1.0	-49.4	-13.0	-36.4	
3.810	-65.8	V	3.0	-17.2	36.1	1.0	-52.3	-13.0	-39.3	
5.715	-67.8	V	3.0	-17.2	35.3	1.0	-51.4	-13.0	-38.4	
7.620	-68.0	V	3.0	-15.5	34.4	1.0	-48.9	-13.0	-35.9	

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10.9.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-63.4	H	3.0	-19.4	37.8	1.0	-56.3	-13.0	-43.3	
2.457	-66.3	H	3.0	-19.9	36.5	1.0	-55.4	-13.0	-42.4	
3.276	-66.5	H	3.0	-18.8	36.5	1.0	-54.3	-13.0	-41.3	
3.807	-65.4	H	3.0	-17.3	36.1	1.0	-52.4	-13.0	-39.4	
1.638	-63.2	V	3.0	-18.9	37.8	1.0	-55.7	-13.0	-42.7	
2.457	-66.1	V	3.0	-18.8	36.5	1.0	-54.2	-13.0	-41.2	
3.276	-66.4	V	3.0	-18.8	36.5	1.0	-54.3	-13.0	-41.3	
3.843	-65.2	V	3.0	-16.5	36.1	1.0	-51.7	-13.0	-38.7	

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 65/2/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 26, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-64.1	H	3.0	-20.1	37.8	1.0	-57.0	-13.0	-44.0	
2.457	-67.0	H	3.0	-20.5	36.7	1.0	-56.2	-13.0	-43.2	
3.276	-66.9	H	3.0	-19.2	36.5	1.0	-54.7	-13.0	-41.7	
3.807	-66.2	H	3.0	-18.1	36.1	1.0	-53.2	-13.0	-40.2	
1.638	-64.5	H	3.0	-20.5	37.8	1.0	-57.4	-13.0	-44.4	
2.457	-66.8	V	3.0	-19.5	36.7	1.0	-55.2	-13.0	-42.2	
3.276	-67.0	V	3.0	-19.4	36.5	1.0	-54.9	-13.0	-41.9	
3.843	-66.1	V	3.0	-17.4	36.1	1.0	-52.6	-13.0	-39.6	

10.9.10. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-63.9	H	3.0	-14.1	36.2	1.0	-49.3	-25.0	-24.3	
7.518	-64.2	H	3.0	-11.2	35.1	1.0	-45.3	-25.0	-20.3	
10.024	-64.7	H	3.0	-9.7	33.3	1.0	-42.1	-25.0	-17.1	
5.012	-64.0	V	3.0	-14.3	36.2	1.0	-49.5	-25.0	-24.5	
7.518	-64.2	V	3.0	-11.2	35.1	1.0	-45.4	-25.0	-20.4	
10.024	-64.6	V	3.0	-9.8	33.3	1.0	-42.2	-25.0	-17.2	
Mid Channel (2593MHz)										
5.186	-64.0	H	3.0	-13.9	36.3	1.0	-49.2	-25.0	-24.2	
7.779	-64.1	H	3.0	-10.9	34.9	1.0	-44.8	-25.0	-19.8	
10.372	-64.6	H	3.0	-9.6	33.1	1.0	-41.7	-25.0	-16.7	
5.186	-64.4	V	3.0	-14.6	36.3	1.0	-49.8	-25.0	-24.8	
7.779	-63.9	V	3.0	-10.7	34.9	1.0	-44.7	-25.0	-19.7	
10.372	-64.6	V	3.0	-9.8	33.1	1.0	-41.9	-25.0	-16.9	
High Channel (2680MHz)										
5.360	-64.3	H	3.0	-14.0	36.2	1.0	-49.2	-25.0	-24.2	
8.040	-64.5	H	3.0	-11.1	34.8	1.0	-44.8	-25.0	-19.8	
10.720	-64.6	H	3.0	-9.5	32.9	1.0	-41.4	-25.0	-16.4	
5.360	-64.4	V	3.0	-14.3	36.2	1.0	-49.5	-25.0	-24.5	
8.040	-64.3	V	3.0	-10.9	34.8	1.0	-44.7	-25.0	-19.7	
10.720	-65.3	V	3.0	-10.5	32.9	1.0	-42.4	-25.0	-17.4	

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16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.012	-64.0	H	3.0	-14.2	36.2	1.0	-49.4	-25.0	-24.4	
7.518	-64.5	H	3.0	-11.5	35.1	1.0	-45.6	-25.0	-20.6	
10.024	-64.9	H	3.0	-9.9	33.3	1.0	-42.3	-25.0	-17.3	
5.012	-64.2	V	3.0	-14.5	36.2	1.0	-49.7	-25.0	-24.7	
7.518	-64.0	V	3.0	-11.0	35.1	1.0	-45.2	-25.0	-20.2	
10.024	-64.7	V	3.0	-9.9	33.3	1.0	-42.3	-25.0	-17.3	
Mid Channel (2593MHz)										
5.186	-64.3	H	3.0	-14.2	36.3	1.0	-49.5	-25.0	-24.5	
7.779	-64.4	H	3.0	-11.2	34.9	1.0	-45.1	-25.0	-20.1	
10.372	-64.6	H	3.0	-9.6	33.1	1.0	-41.7	-25.0	-16.7	
5.186	-64.4	V	3.0	-14.6	36.3	1.0	-49.8	-25.0	-24.8	
7.779	-64.8	V	3.0	-11.6	34.9	1.0	-45.6	-25.0	-20.6	
10.372	-64.7	V	3.0	-9.9	33.1	1.0	-42.0	-25.0	-17.0	
High Channel (2680MHz)										
5.360	-64.4	H	3.0	-14.1	36.2	1.0	-49.3	-25.0	-24.3	
8.040	-64.7	H	3.0	-11.3	34.8	1.0	-45.0	-25.0	-20.0	
10.720	-65.0	H	3.0	-9.9	32.9	1.0	-41.8	-25.0	-16.8	
5.360	-64.5	V	3.0	-14.4	36.2	1.0	-49.6	-25.0	-24.6	
8.040	-64.6	V	3.0	-11.2	34.8	1.0	-45.0	-25.0	-20.0	
10.720	-65.6	V	3.0	-10.8	32.9	1.0	-42.7	-25.0	-17.7	

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10.10. FIELD STRENGTH OF SPURIOUS RADIATION, MODEL: A1688 (UAT)

10.10.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 2, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.72	-67.2	H	3.0	-20.4	36.2	1.0	-55.6	-13.0	-42.6	
5.58	-65.9	H	3.0	-15.5	36.1	1.0	-50.6	-13.0	-37.6	
7.44	-67.0	H	3.0	-13.8	35.2	1.0	-48.0	-13.0	-35.0	
3.72	-67.6	V	3.0	-20.4	36.2	1.0	-55.7	-13.0	-42.7	
5.58	-65.8	V	3.0	-15.6	36.1	1.0	-50.7	-13.0	-37.7	
7.44	-67.2	V	3.0	-14.2	35.2	1.0	-48.3	-13.0	-35.3	
Mid Channel (1880MHz)										
3.76	-66.9	H	3.0	-20.0	36.2	1.0	-55.2	-13.0	-42.2	
5.64	-66.4	H	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.52	-66.7	H	3.0	-13.5	35.1	1.0	-47.6	-13.0	-34.6	
3.76	-66.6	V	3.0	-19.3	36.2	1.0	-54.4	-13.0	-41.4	
5.64	-66.3	V	3.0	-16.0	36.1	1.0	-51.1	-13.0	-38.1	
7.52	-66.4	V	3.0	-13.3	35.1	1.0	-47.4	-13.0	-34.4	
High Channel (1900MHz)										
3.80	-65.8	H	3.0	-18.9	36.2	1.0	-54.0	-13.0	-41.0	
5.70	-66.7	H	3.0	-16.1	36.1	1.0	-51.2	-13.0	-38.2	
7.60	-67.8	H	3.0	-14.6	35.1	1.0	-48.6	-13.0	-35.6	
3.80	-65.5	V	3.0	-18.0	36.2	1.0	-53.2	-13.0	-40.2	
5.70	-66.3	V	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.60	-67.4	V	3.0	-14.2	35.1	1.0	-48.3	-13.0	-35.3	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 2, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.72	-67.3	H	3.0	-20.5	36.2	1.0	-55.7	-13.0	-42.7	
5.58	-65.6	H	3.0	-15.2	36.1	1.0	-50.3	-13.0	-37.3	
7.44	-67.4	H	3.0	-14.3	35.2	1.0	-48.5	-13.0	-35.5	
3.72	-67.3	V	3.0	-20.1	36.2	1.0	-55.3	-13.0	-42.3	
5.58	-65.9	V	3.0	-15.7	36.1	1.0	-50.8	-13.0	-37.8	
7.44	-67.1	V	3.0	-14.1	35.2	1.0	-48.3	-13.0	-35.3	
Mid Channel (1880MHz)										
3.76	-65.8	H	3.0	-18.9	36.2	1.0	-54.1	-13.0	-41.1	
5.64	-66.3	H	3.0	-15.8	36.1	1.0	-50.9	-13.0	-37.9	
7.52	-67.5	H	3.0	-14.3	35.1	1.0	-48.4	-13.0	-35.4	
3.76	-65.5	V	3.0	-18.2	36.2	1.0	-53.3	-13.0	-40.3	
5.64	-66.3	V	3.0	-16.0	36.1	1.0	-51.1	-13.0	-38.1	
7.52	-67.2	V	3.0	-14.1	35.1	1.0	-48.2	-13.0	-35.2	
High Channel (1900MHz)										
3.80	-65.9	H	3.0	-19.0	36.2	1.0	-54.1	-13.0	-41.1	
5.70	-66.0	H	3.0	-15.5	36.1	1.0	-50.5	-13.0	-37.5	
7.60	-67.6	H	3.0	-14.4	35.1	1.0	-48.4	-13.0	-35.4	
3.80	-65.5	V	3.0	-18.0	36.2	1.0	-53.2	-13.0	-40.2	
5.70	-66.3	V	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.60	-67.3	V	3.0	-14.1	35.1	1.0	-48.1	-13.0	-35.1	

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10.10.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 4, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.44	-66.3	H	3.0	-20.1	36.4	1.0	-55.5	-13.0	-42.5	
5.16	-66.6	H	3.0	-16.9	36.3	1.0	-52.2	-13.0	-39.2	
6.88	-65.8	H	3.0	-13.3	35.6	1.0	-47.9	-13.0	-34.9	
3.44	-66.2	V	3.0	-19.8	36.4	1.0	-55.2	-13.0	-42.2	
5.16	-66.9	V	3.0	-17.4	36.3	1.0	-52.7	-13.0	-39.7	
6.88	-65.5	V	3.0	-13.0	35.6	1.0	-47.6	-13.0	-34.6	
Mid Channel (1732.5MHz)										
1.73	-66.3	H	3.0	-24.7	37.8	1.0	-61.5	-13.0	-48.5	
5.20	-65.9	H	3.0	-16.2	36.3	1.0	-51.4	-13.0	-38.4	
6.93	-66.5	H	3.0	-13.9	35.5	1.0	-48.5	-13.0	-35.5	
1.73	-66.4	V	3.0	-24.6	37.8	1.0	-61.4	-13.0	-48.4	
5.20	-65.5	V	3.0	-16.0	36.3	1.0	-51.3	-13.0	-38.3	
6.93	-66.8	V	3.0	-14.3	35.5	1.0	-48.8	-13.0	-35.8	
High Channel (1745MHz)										
3.49	-64.9	H	3.0	-18.5	36.4	1.0	-53.9	-13.0	-40.9	
5.24	-64.9	H	3.0	-15.1	36.3	1.0	-50.3	-13.0	-37.3	
6.98	-66.7	H	3.0	-14.1	35.5	1.0	-48.6	-13.0	-35.6	
3.49	-64.5	V	3.0	-18.0	36.4	1.0	-53.4	-13.0	-40.4	
5.24	-64.3	V	3.0	-14.7	36.3	1.0	-50.0	-13.0	-37.0	
6.98	-66.6	V	3.0	-14.0	35.5	1.0	-48.5	-13.0	-35.5	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U201635
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 4, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1720MHz)										
3.44	-69.7	H	3.0	-23.5	36.4	1.0	-58.9	-13.0	-45.9	
5.16	-65.6	H	3.0	-15.9	36.3	1.0	-51.2	-13.0	-38.2	
6.88	-65.6	H	3.0	-13.1	35.6	1.0	-47.7	-13.0	-34.7	
3.44	-69.5	V	3.0	-23.1	36.4	1.0	-58.6	-13.0	-45.6	
5.16	-65.3	V	3.0	-15.8	36.3	1.0	-51.1	-13.0	-38.1	
6.88	-65.5	V	3.0	-13.0	35.6	1.0	-47.6	-13.0	-34.6	
Mid Channel (1732.5MHz)										
1.73	-65.8	H	3.0	-24.2	37.8	1.0	-61.1	-13.0	-48.1	
5.20	-65.8	H	3.0	-16.1	36.3	1.0	-51.3	-13.0	-38.3	
6.93	-67.4	H	3.0	-14.8	35.5	1.0	-49.3	-13.0	-36.3	
1.73	-65.5	V	3.0	-23.7	37.8	1.0	-60.5	-13.0	-47.5	
5.20	-65.3	V	3.0	-15.8	36.3	1.0	-51.1	-13.0	-38.1	
6.93	-67.9	V	3.0	-15.4	35.5	1.0	-49.9	-13.0	-36.9	
High Channel (1745MHz)										
3.49	-64.0	H	3.0	-17.6	36.4	1.0	-53.0	-13.0	-40.0	
5.24	-65.9	H	3.0	-16.0	36.3	1.0	-51.3	-13.0	-38.3	
6.98	-67.7	H	3.0	-15.0	35.5	1.0	-49.5	-13.0	-36.5	
3.49	-64.2	V	3.0	-17.7	36.4	1.0	-53.0	-13.0	-40.0	
5.24	-65.5	V	3.0	-15.9	36.3	1.0	-51.2	-13.0	-38.2	
6.98	-67.3	V	3.0	-14.7	35.5	1.0	-49.2	-13.0	-36.2	

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10.10.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 5, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (834MHz)										
1.67	-66.3	H	3.0	-24.8	37.8	1.0	-61.7	-13.0	-48.7	
2.50	-66.5	H	3.0	-23.4	36.4	1.0	-58.7	-13.0	-45.7	
3.34	-66.9	H	3.0	-20.9	36.5	1.0	-56.4	-13.0	-43.4	
1.67	-66.6	V	3.0	-24.8	37.8	1.0	-61.6	-13.0	-48.6	
2.50	-66.9	V	3.0	-22.6	36.4	1.0	-58.0	-13.0	-45.0	
3.34	-66.3	V	3.0	-20.3	36.5	1.0	-55.8	-13.0	-42.8	
Mid Channel (836.5MHz)										
1.67	-66.0	H	3.0	-24.5	37.8	1.0	-61.4	-13.0	-48.4	
2.51	-66.3	H	3.0	-23.1	36.4	1.0	-58.5	-13.0	-45.5	
3.35	-66.5	H	3.0	-20.5	36.5	1.0	-56.0	-13.0	-43.0	
1.67	-66.3	V	3.0	-24.5	37.8	1.0	-61.3	-13.0	-48.3	
2.51	-66.5	V	3.0	-22.2	36.4	1.0	-57.6	-13.0	-44.6	
3.35	-66.8	V	3.0	-20.7	36.5	1.0	-56.2	-13.0	-43.2	
High Channel (839MHz)										
1.68	-65.5	H	3.0	-24.0	37.8	1.0	-60.8	-13.0	-47.8	
2.52	-65.6	H	3.0	-22.4	36.4	1.0	-57.8	-13.0	-44.8	
3.36	-66.1	H	3.0	-20.1	36.5	1.0	-55.6	-13.0	-42.6	
1.68	-65.1	V	3.0	-23.3	37.8	1.0	-60.2	-13.0	-47.2	
2.52	-65.3	V	3.0	-21.1	36.4	1.0	-56.5	-13.0	-43.5	
3.36	-66.4	V	3.0	-20.3	36.5	1.0	-55.8	-13.0	-42.8	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 5, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (834MHz)										
1.67	-65.8	H	3.0	-24.3	37.8	1.0	-61.2	-13.0	-48.2	
2.50	-66.1	H	3.0	-23.0	36.4	1.0	-58.3	-13.0	-45.3	
3.34	-66.1	H	3.0	-20.0	36.5	1.0	-55.5	-13.0	-42.5	
1.67	-65.5	V	3.0	-23.7	37.8	1.0	-60.5	-13.0	-47.5	
2.50	-66.3	V	3.0	-22.0	36.4	1.0	-57.4	-13.0	-44.4	
3.34	-66.8	V	3.0	-20.8	36.5	1.0	-56.3	-13.0	-43.3	
Mid Channel (836.5MHz)										
1.67	-65.2	H	3.0	-23.7	37.8	1.0	-60.5	-13.0	-47.5	
2.51	-66.4	H	3.0	-23.2	36.4	1.0	-58.5	-13.0	-45.5	
3.35	-66.8	H	3.0	-20.8	36.5	1.0	-56.3	-13.0	-43.3	
1.67	-65.2	V	3.0	-23.4	37.8	1.0	-60.2	-13.0	-47.2	
2.51	-66.2	V	3.0	-21.9	36.4	1.0	-57.3	-13.0	-44.3	
3.35	-66.5	V	3.0	-20.4	36.5	1.0	-55.9	-13.0	-42.9	
High Channel (839MHz)										
1.68	-65.8	H	3.0	-24.3	37.8	1.0	-61.1	-13.0	-48.1	
2.52	-65.6	H	3.0	-22.4	36.4	1.0	-57.8	-13.0	-44.8	
3.36	-66.5	H	3.0	-20.4	36.5	1.0	-55.9	-13.0	-42.9	
1.68	-65.5	V	3.0	-23.7	37.8	1.0	-60.5	-13.0	-47.5	
2.52	-65.3	V	3.0	-21.0	36.4	1.0	-56.4	-13.0	-43.4	
3.36	-65.2	V	3.0	-19.1	36.5	1.0	-54.6	-13.0	-41.6	

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10.10.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 7, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
5.02	-66.6	H	3.0	-17.2	36.2	1.0	-52.4	-25.0	-27.4	
7.53	-62.2	H	3.0	-9.0	35.1	1.0	-43.2	-25.0	-18.2	
10.04	-69.5	H	3.0	-14.0	33.3	1.0	-46.3	-25.0	-21.3	
5.02	-66.5	V	3.0	-17.2	36.2	1.0	-52.4	-25.0	-27.4	
7.53	-62.4	V	3.0	-9.2	35.1	1.0	-43.3	-25.0	-18.3	
10.04	-69.2	V	3.0	-13.8	33.3	1.0	-46.1	-25.0	-21.1	
Mid Channel (2535MHz)										
5.07	-66.1	H	3.0	-16.6	36.3	1.0	-51.9	-25.0	-26.9	
7.61	-60.4	H	3.0	-7.1	35.1	1.0	-41.2	-25.0	-16.2	
10.14	-68.9	H	3.0	-13.3	33.3	1.0	-45.6	-25.0	-20.6	
5.07	-66.2	V	3.0	-16.8	36.3	1.0	-52.1	-25.0	-27.1	
7.61	-60.3	V	3.0	-7.1	35.1	1.0	-41.2	-25.0	-16.2	
10.14	-68.5	V	3.0	-13.1	33.3	1.0	-45.3	-25.0	-20.3	
High Channel (2560MHz)										
5.12	-65.0	H	3.0	-15.4	36.3	1.0	-50.6	-25.0	-25.6	
7.68	-65.0	H	3.0	-11.6	35.0	1.0	-45.7	-25.0	-20.7	
10.24	-69.6	H	3.0	-14.0	33.2	1.0	-46.2	-25.0	-21.2	
5.12	-65.1	V	3.0	-15.7	36.3	1.0	-51.0	-25.0	-26.0	
7.68	-65.6	V	3.0	-12.4	35.0	1.0	-46.4	-25.0	-21.4	
10.24	-69.5	V	3.0	-14.1	33.2	1.0	-46.3	-25.0	-21.3	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 7, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
5.02	-66.2	H	3.0	-16.8	36.2	1.0	-52.1	-25.0	-27.1	
7.53	-61.3	H	3.0	-8.1	35.1	1.0	-42.2	-25.0	-17.2	
10.04	-68.9	H	3.0	-13.3	33.3	1.0	-45.7	-25.0	-20.7	
5.02	-66.6	V	3.0	-17.4	36.2	1.0	-52.6	-25.0	-27.6	
7.53	-61.5	V	3.0	-8.4	35.1	1.0	-42.5	-25.0	-17.5	
10.04	-68.5	V	3.0	-13.1	33.3	1.0	-45.4	-25.0	-20.4	
Mid Channel (2535MHz)										
5.07	-66.1	H	3.0	-16.6	36.3	1.0	-51.8	-25.0	-26.8	
7.61	-62.0	H	3.0	-8.7	35.1	1.0	-42.8	-25.0	-17.8	
10.14	-69.5	H	3.0	-13.9	33.3	1.0	-46.2	-25.0	-21.2	
5.07	-66.2	V	3.0	-16.9	36.3	1.0	-52.1	-25.0	-27.1	
7.61	-62.2	V	3.0	-9.0	35.1	1.0	-43.1	-25.0	-18.1	
10.14	-69.4	V	3.0	-14.0	33.3	1.0	-46.2	-25.0	-21.2	
High Channel (2560MHz)										
5.12	-66.3	H	3.0	-16.7	36.3	1.0	-51.9	-25.0	-26.9	
7.68	-66.3	H	3.0	-12.9	35.0	1.0	-47.0	-25.0	-22.0	
10.24	-69.6	H	3.0	-13.9	33.2	1.0	-46.2	-25.0	-21.2	
5.12	-66.6	V	3.0	-17.2	36.3	1.0	-52.5	-25.0	-27.5	
7.68	-66.1	V	3.0	-12.9	35.0	1.0	-46.9	-25.0	-21.9	
10.24	-69.4	V	3.0	-14.0	33.2	1.0	-46.2	-25.0	-21.2	

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10.10.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 12, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (704MHz)										
1.408	-65.3	H	3.0	-24.6	37.5	1.0	-61.1	-13.0	-48.1	
2.112	-66.8	H	3.0	-24.5	37.6	1.0	-61.1	-13.0	-48.1	
2.816	-66.3	H	3.0	-21.8	36.6	1.0	-57.4	-13.0	-44.4	
1.408	-64.6	V	3.0	-23.4	37.5	1.0	-59.9	-13.0	-46.9	
2.112	-64.7	V	3.0	-22.3	37.6	1.0	-58.8	-13.0	-45.8	
2.816	-66.5	V	3.0	-21.8	36.6	1.0	-57.4	-13.0	-44.4	
Mid Channel (707.5MHz)										
1.415	-65.3	H	3.0	-24.6	37.6	1.0	-61.1	-13.0	-48.1	
2.123	-66.6	H	3.0	-24.3	37.6	1.0	-60.9	-13.0	-47.9	
2.830	-65.6	H	3.0	-21.0	36.6	1.0	-56.6	-13.0	-43.6	
1.415	-66.0	V	3.0	-24.8	37.6	1.0	-61.3	-13.0	-48.3	
2.123	-66.3	V	3.0	-23.9	37.6	1.0	-60.4	-13.0	-47.4	
2.830	-66.5	V	3.0	-21.7	36.6	1.0	-57.3	-13.0	-44.3	
High Channel (711MHz)										
1.422	-66.2	H	3.0	-25.5	37.6	1.0	-62.1	-13.0	-49.1	
2.133	-67.3	H	3.0	-25.0	37.5	1.0	-61.5	-13.0	-48.5	
2.844	-66.5	H	3.0	-21.8	36.6	1.0	-57.4	-13.0	-44.4	
1.422	-64.8	V	3.0	-23.5	37.6	1.0	-60.1	-13.0	-47.1	
2.133	-66.4	V	3.0	-23.9	37.5	1.0	-60.4	-13.0	-47.4	
2.844	-66.3	V	3.0	-21.5	36.6	1.0	-57.2	-13.0	-44.2	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 12, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (704MHz)										
1.41	-65.4	H	3.0	-24.7	37.5	1.0	-61.3	-13.0	-48.3	
2.11	-66.3	H	3.0	-24.0	37.6	1.0	-60.5	-13.0	-47.5	
2.82	-67.3	H	3.0	-22.8	36.6	1.0	-58.4	-13.0	-45.4	
1.41	-66.0	V	3.0	-24.8	37.5	1.0	-61.3	-13.0	-48.3	
2.11	-65.3	V	3.0	-22.8	37.6	1.0	-59.4	-13.0	-46.4	
2.82	-66.2	V	3.0	-21.5	36.6	1.0	-57.1	-13.0	-44.1	
Mid Channel (707.5MHz)										
1.42	-64.5	H	3.0	-23.8	37.6	1.0	-60.4	-13.0	-47.4	
2.12	-66.3	H	3.0	-23.9	37.6	1.0	-60.5	-13.0	-47.5	
2.83	-66.2	H	3.0	-21.6	36.6	1.0	-57.2	-13.0	-44.2	
1.42	-66.5	V	3.0	-25.3	37.6	1.0	-61.8	-13.0	-48.8	
2.12	-66.2	V	3.0	-23.7	37.6	1.0	-60.3	-13.0	-47.3	
2.83	-66.8	V	3.0	-22.1	36.6	1.0	-57.7	-13.0	-44.7	
High Channel (711MHz)										
1.42	-63.4	H	3.0	-22.6	37.6	1.0	-59.2	-13.0	-46.2	
2.13	-66.3	H	3.0	-23.9	37.5	1.0	-60.4	-13.0	-47.4	
2.84	-66.4	H	3.0	-21.8	36.6	1.0	-57.4	-13.0	-44.4	
1.42	-66.7	V	3.0	-25.4	37.6	1.0	-62.0	-13.0	-49.0	
2.13	-66.1	V	3.0	-23.6	37.5	1.0	-60.2	-13.0	-47.2	
2.84	-66.6	V	3.0	-21.8	36.6	1.0	-57.5	-13.0	-44.5	

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10.10.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 13, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-65.7	H	3.0	-24.4	37.9	1.0	-61.2	-40.0	-21.2	1559-1610MHz
2.346	-66.8	H	3.0	-23.9	37.2	1.0	-60.1	-13.0	-47.1	
3.128	-65.7	H	3.0	-20.1	36.6	1.0	-55.7	-13.0	-42.7	
1.564	-65.5	V	3.0	-23.8	37.9	1.0	-60.6	-40.0	-20.6	1559-1610MHz
2.346	-66.2	V	3.0	-22.9	37.2	1.0	-59.1	-13.0	-46.1	
3.128	-65.5	V	3.0	-20.1	36.6	1.0	-55.7	-13.0	-42.7	

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16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 13, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.564	-65.5	H	3.0	-24.2	37.9	1.0	-61.1	-40.0	-21.1	1559-1610MHz
2.346	-65.1	H	3.0	-22.2	37.2	1.0	-58.4	-13.0	-45.4	
3.128	-66.6	H	3.0	-21.0	36.6	1.0	-56.6	-13.0	-43.6	
1.564	-65.2	V	3.0	-23.4	37.9	1.0	-60.3	-40.0	-20.3	1559-1610MHz
2.346	-65.4	V	3.0	-22.1	37.2	1.0	-58.2	-13.0	-45.2	
3.128	-66.2	V	3.0	-20.8	36.6	1.0	-56.4	-13.0	-43.4	

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10.10.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 17, 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-65.1	H	3.0	-24.4	37.6	1.0	-61.0	-13.0	-48.0	
2.127	-60.5	H	3.0	-18.1	37.5	1.0	-54.7	-13.0	-41.7	
2.836	-66.3	H	3.0	-21.7	36.6	1.0	-57.3	-13.0	-44.3	
1.418	-65.2	V	3.0	-23.9	37.6	1.0	-60.5	-13.0	-47.5	
2.127	-60.4	V	3.0	-17.9	37.5	1.0	-54.4	-13.0	-41.4	
2.836	-66.4	V	3.0	-21.6	36.6	1.0	-57.3	-13.0	-44.3	
Mid Channel (710MHz)										
1.420	-65.2	H	3.0	-24.5	37.6	1.0	-61.1	-13.0	-48.1	
2.130	-64.8	H	3.0	-22.4	37.5	1.0	-59.0	-13.0	-46.0	
2.840	-66.3	H	3.0	-21.7	36.6	1.0	-57.3	-13.0	-44.3	
1.420	-65.2	V	3.0	-23.9	37.6	1.0	-60.5	-13.0	-47.5	
2.130	-64.7	V	3.0	-22.2	37.5	1.0	-58.7	-13.0	-45.7	
2.840	-66.8	V	3.0	-22.1	36.6	1.0	-57.7	-13.0	-44.7	
High Channel (711)										
1.422	-65.2	H	3.0	-24.5	37.6	1.0	-61.1	-13.0	-48.1	
2.133	-66.2	H	3.0	-23.9	37.5	1.0	-60.4	-13.0	-47.4	
2.844	-66.2	H	3.0	-21.5	36.6	1.0	-57.1	-13.0	-44.1	
1.422	-65.5	V	3.0	-24.2	37.6	1.0	-60.8	-13.0	-47.8	
2.133	-66.4	V	3.0	-23.8	37.5	1.0	-60.4	-13.0	-47.4	
2.844	-66.5	V	3.0	-21.7	36.6	1.0	-57.4	-13.0	-44.4	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 17, 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-65.1	H	3.0	-24.4	37.6	1.0	-61.0	-13.0	-48.0	
2.127	-60.3	H	3.0	-18.0	37.5	1.0	-54.5	-13.0	-41.5	
2.836	-66.3	H	3.0	-21.7	36.6	1.0	-57.3	-13.0	-44.3	
1.418	-65.2	V	3.0	-23.9	37.6	1.0	-60.5	-13.0	-47.5	
2.127	-60.5	V	3.0	-18.0	37.5	1.0	-54.5	-13.0	-41.5	
2.836	-66.8	V	3.0	-22.1	36.6	1.0	-57.7	-13.0	-44.7	
Mid Channel (710MHz)										
1.420	-65.4	H	3.0	-24.7	37.6	1.0	-61.3	-13.0	-48.3	
2.130	-66.1	H	3.0	-23.8	37.5	1.0	-60.3	-13.0	-47.3	
2.840	-66.1	H	3.0	-21.5	36.6	1.0	-57.1	-13.0	-44.1	
1.420	-65.4	V	3.0	-24.1	37.6	1.0	-60.7	-13.0	-47.7	
2.130	-66.2	V	3.0	-23.7	37.5	1.0	-60.2	-13.0	-47.2	
2.840	-66.8	V	3.0	-22.0	36.6	1.0	-57.6	-13.0	-44.6	
High Channel (711)										
1.422	-63.8	H	3.0	-23.0	37.6	1.0	-59.6	-13.0	-46.6	
2.133	-66.2	H	3.0	-23.9	37.5	1.0	-60.4	-13.0	-47.4	
2.844	-66.2	H	3.0	-21.5	36.6	1.0	-57.1	-13.0	-44.1	
1.422	-63.5	V	3.0	-22.2	37.6	1.0	-58.8	-13.0	-45.8	
2.133	-66.3	V	3.0	-23.8	37.5	1.0	-60.3	-13.0	-47.3	
2.844	-66.4	V	3.0	-21.6	36.6	1.0	-57.2	-13.0	-44.2	

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10.10.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 25, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.72	-66.8	H	3.0	-20.0	36.2	1.0	-55.2	-13.0	-42.2	
5.58	-66.7	H	3.0	-16.3	36.1	1.0	-51.4	-13.0	-38.4	
7.44	-66.5	H	3.0	-13.4	35.2	1.0	-47.6	-13.0	-34.6	
3.72	-67.3	V	3.0	-20.1	36.2	1.0	-55.3	-13.0	-42.3	
5.58	-66.6	V	3.0	-16.4	36.1	1.0	-51.5	-13.0	-38.5	
7.44	-67.2	V	3.0	-14.2	35.2	1.0	-48.4	-13.0	-35.4	
Mid Channel (1882.5MHz)										
3.77	-66.9	H	3.0	-20.0	36.2	1.0	-55.2	-13.0	-42.2	
5.65	-66.7	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.53	-67.4	H	3.0	-14.2	35.1	1.0	-48.3	-13.0	-35.3	
3.77	-66.5	V	3.0	-19.1	36.2	1.0	-54.3	-13.0	-41.3	
5.65	-66.2	V	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.53	-67.6	V	3.0	-14.5	35.1	1.0	-48.6	-13.0	-35.6	
High Channel (1905MHz)										
3.81	-65.6	H	3.0	-18.6	36.1	1.0	-53.8	-13.0	-40.8	
5.72	-66.4	H	3.0	-15.8	36.1	1.0	-50.9	-13.0	-37.9	
7.62	-66.9	H	3.0	-13.6	35.1	1.0	-47.6	-13.0	-34.6	
3.81	-65.5	V	3.0	-18.0	36.1	1.0	-53.1	-13.0	-40.1	
5.72	-66.2	V	3.0	-15.8	36.1	1.0	-50.9	-13.0	-37.9	
7.62	-66.8	V	3.0	-13.6	35.1	1.0	-47.6	-13.0	-34.6	

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16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 25, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.72	-67.3	H	3.0	-20.5	36.2	1.0	-55.7	-13.0	-42.7	
5.58	-66.6	H	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.44	-67.2	H	3.0	-14.1	35.2	1.0	-48.3	-13.0	-35.3	
3.72	-67.6	V	3.0	-20.4	36.2	1.0	-55.6	-13.0	-42.6	
5.58	-66.5	V	3.0	-16.3	36.1	1.0	-51.4	-13.0	-38.4	
7.44	-67.8	V	3.0	-14.8	35.2	1.0	-49.0	-13.0	-36.0	
Mid Channel (1882.5MHz)										
3.77	-66.9	H	3.0	-20.0	36.2	1.0	-55.2	-13.0	-42.2	
5.65	-66.4	H	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.53	-67.2	H	3.0	-14.0	35.1	1.0	-48.1	-13.0	-35.1	
3.77	-66.2	V	3.0	-18.8	36.2	1.0	-54.0	-13.0	-41.0	
5.65	-66.5	V	3.0	-16.2	36.1	1.0	-51.3	-13.0	-38.3	
7.53	-67.6	V	3.0	-14.5	35.1	1.0	-48.6	-13.0	-35.6	
High Channel (1905MHz)										
3.81	-65.7	H	3.0	-18.7	36.1	1.0	-53.8	-13.0	-40.8	
5.72	-66.4	H	3.0	-15.8	36.1	1.0	-50.9	-13.0	-37.9	
7.62	-67.2	H	3.0	-13.9	35.1	1.0	-48.0	-13.0	-35.0	
3.81	-65.5	V	3.0	-18.0	36.1	1.0	-53.1	-13.0	-40.1	
5.72	-66.3	V	3.0	-15.9	36.1	1.0	-51.0	-13.0	-38.0	
7.62	-67.4	V	3.0	-14.2	35.1	1.0	-48.3	-13.0	-35.3	

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10.10.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 26 (90S), 10MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-65.6	H	3.0	-24.1	37.8	1.0	-61.0	-13.0	-48.0	
2.457	-65.9	H	3.0	-22.7	36.7	1.0	-58.4	-13.0	-45.4	
3.276	-65.8	H	3.0	-19.9	36.5	1.0	-55.4	-13.0	-42.4	
1.638	-65.2	V	3.0	-23.4	37.8	1.0	-60.2	-13.0	-47.2	
2.457	-65.8	V	3.0	-21.9	36.7	1.0	-57.5	-13.0	-44.5	
3.276	-65.7	V	3.0	-19.9	36.5	1.0	-55.4	-13.0	-42.4	

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16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/01/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 26 (90S), 10MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.638	-66.2	H	3.0	-24.8	37.8	1.0	-61.6	-13.0	-48.6	
2.457	-59.9	H	3.0	-16.8	36.7	1.0	-52.5	-13.0	-39.5	
3.276	-66.6	H	3.0	-20.7	36.5	1.0	-56.2	-13.0	-43.2	
1.638	-66.4	V	3.0	-24.6	37.8	1.0	-61.4	-13.0	-48.4	
2.457	-58.2	V	3.0	-14.3	36.7	1.0	-49.9	-13.0	-36.9	
3.276	-66.3	V	3.0	-20.4	36.5	1.0	-56.0	-13.0	-43.0	

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10.10.10. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 41, 20MHz QPSK

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.01	-65.7	H	3.0	-16.3	36.2	1.0	-51.6	-13.0	-38.6	
7.52	-66.5	H	3.0	-13.4	35.1	1.0	-47.5	-13.0	-34.5	
10.02	-63.8	H	3.0	-8.3	33.3	1.0	-40.7	-13.0	-27.7	
5.01	-68.0	V	3.0	-18.7	36.2	1.0	-53.9	-13.0	-40.9	
7.52	-67.9	V	3.0	-14.8	35.1	1.0	-48.9	-13.0	-35.9	
10.02	-68.3	V	3.0	-13.0	33.3	1.0	-45.3	-13.0	-32.3	
Mid Channel (2593MHz)										
5.19	-66.5	H	3.0	-16.7	36.3	1.0	-52.0	-13.0	-39.0	
7.78	-67.8	H	3.0	-14.4	34.9	1.0	-48.3	-13.0	-35.3	
10.37	-64.3	H	3.0	-8.7	33.1	1.0	-40.8	-13.0	-27.8	
5.19	-67.1	V	3.0	-17.6	36.3	1.0	-52.9	-13.0	-39.9	
7.78	-67.8	V	3.0	-14.4	34.9	1.0	-48.4	-13.0	-35.4	
10.37	-64.9	V	3.0	-9.4	33.1	1.0	-41.6	-13.0	-28.6	
High Channel (2680MHz)										
5.36	-65.3	H	3.0	-15.3	36.2	1.0	-50.5	-13.0	-37.5	
8.04	-64.2	H	3.0	-10.5	34.8	1.0	-44.3	-13.0	-31.3	
10.72	-64.0	H	3.0	-8.3	32.9	1.0	-40.2	-13.0	-27.2	
5.36	-67.8	V	3.0	-18.1	36.2	1.0	-53.3	-13.0	-40.3	
8.04	-69.6	V	3.0	-16.0	34.8	1.0	-49.8	-13.0	-36.8	
10.72	-66.5	V	3.0	-11.0	32.9	1.0	-42.9	-13.0	-29.9	

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16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber

Company:
Project #: 15U20165
Date: 06/02/15
Test Engineer: Ali.P
Configuration: EUT only
Mode: LTE Band 41, 20MHz 16QAM

Test Equipment:
Substitution: Horn T59 Substitution, and 8ft SMA Cable

Chamber	Pre-amplifer	Filter	Limit
3m Chamber G	3m Chamber G	Filter	EIRP

Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	EIRP @ TX Ant End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2506MHz)										
5.01	-67.3	H	3.0	-17.9	36.2	1.0	-53.1	-13.0	-40.1	
7.52	-65.8	H	3.0	-12.6	35.1	1.0	-46.7	-13.0	-33.7	
10.02	-64.4	H	3.0	-8.8	33.3	1.0	-41.2	-13.0	-28.2	
5.01	-66.9	V	3.0	-17.6	36.2	1.0	-52.8	-13.0	-39.8	
7.52	-65.9	V	3.0	-12.8	35.1	1.0	-47.0	-13.0	-34.0	
10.02	-66.0	V	3.0	-10.6	33.3	1.0	-43.0	-13.0	-30.0	
Mid Channel (2593MHz)										
5.19	-65.6	H	3.0	-15.9	36.3	1.0	-51.2	-13.0	-38.2	
7.78	-68.1	H	3.0	-14.6	34.9	1.0	-48.6	-13.0	-35.6	
10.37	-64.4	H	3.0	-8.7	33.1	1.0	-40.8	-13.0	-27.8	
5.19	-64.9	V	3.0	-15.4	36.3	1.0	-50.7	-13.0	-37.7	
7.78	-66.5	V	3.0	-13.2	34.9	1.0	-47.1	-13.0	-34.1	
10.37	-68.0	V	3.0	-12.5	33.1	1.0	-44.6	-13.0	-31.6	
High Channel (2680MHz)										
5.36	-68.0	H	3.0	-17.9	36.2	1.0	-53.2	-13.0	-40.2	
8.04	-65.5	H	3.0	-11.8	34.8	1.0	-45.6	-13.0	-32.6	
10.72	-64.8	H	3.0	-9.0	32.9	1.0	-40.9	-13.0	-27.9	
5.36	-61.2	V	3.0	-11.4	36.2	1.0	-46.6	-13.0	-33.6	
8.04	-66.0	V	3.0	-12.4	34.8	1.0	-46.1	-13.0	-33.1	
10.72	-67.0	V	3.0	-11.4	32.9	1.0	-43.4	-13.0	-30.4	

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