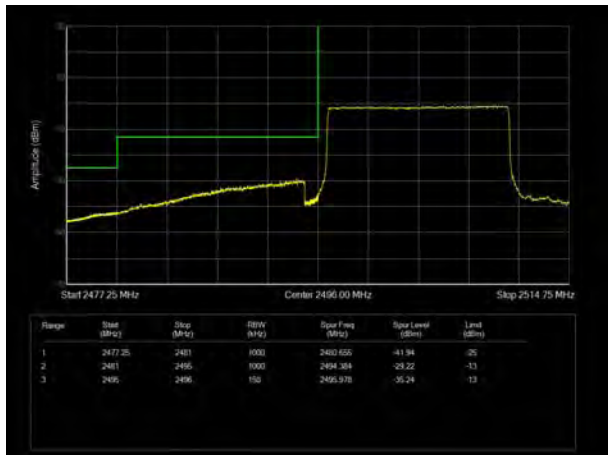
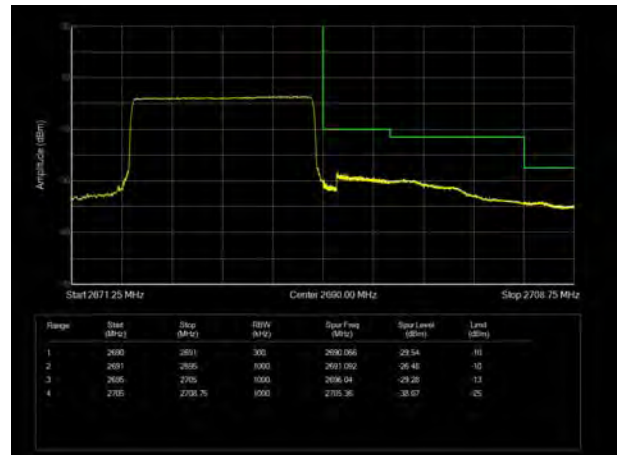


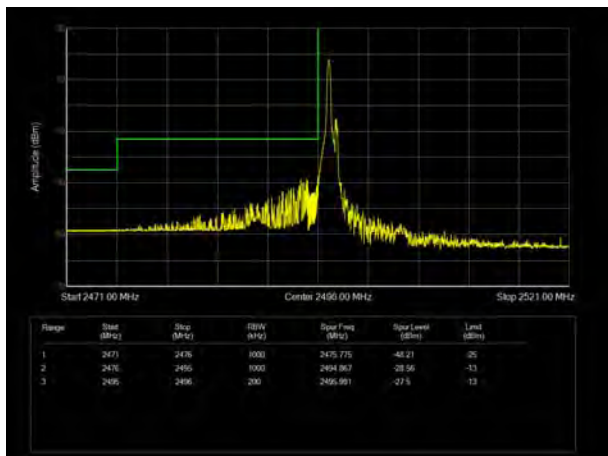
LTE Band 41 64QAM 15MHz CH-Low, 100%RB



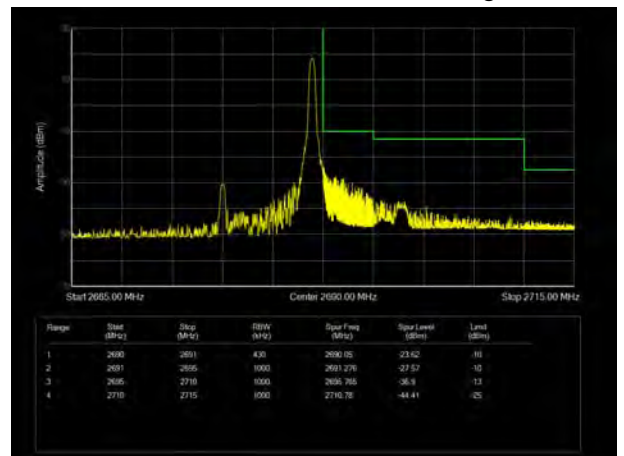
LTE Band 41 64QAM 15MHz CH-High, 100%RB



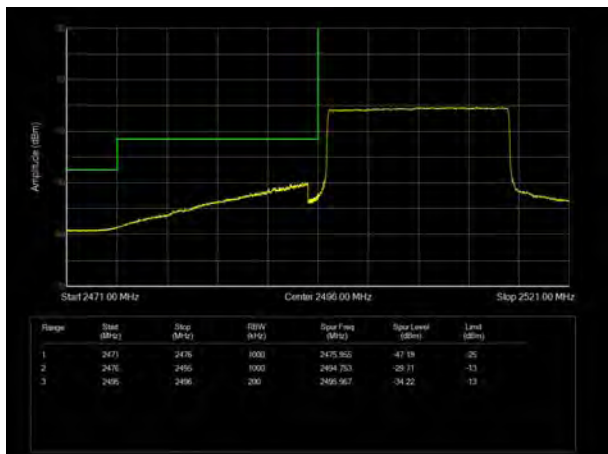
LTE Band 41 64QAM 20MHz CH-Low, 1 RB



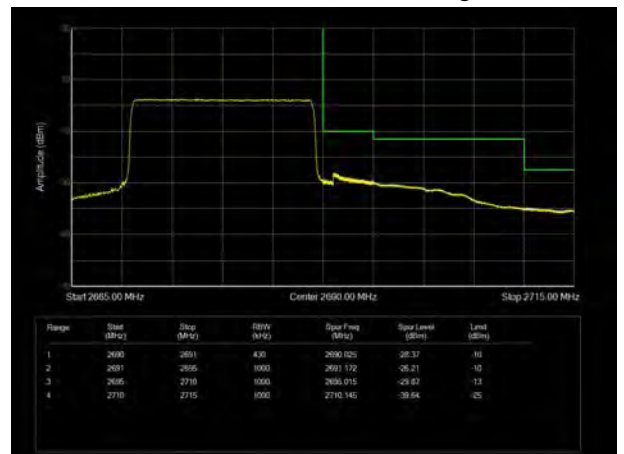
LTE Band 41 64QAM 20MHz CH-High, 1 RB



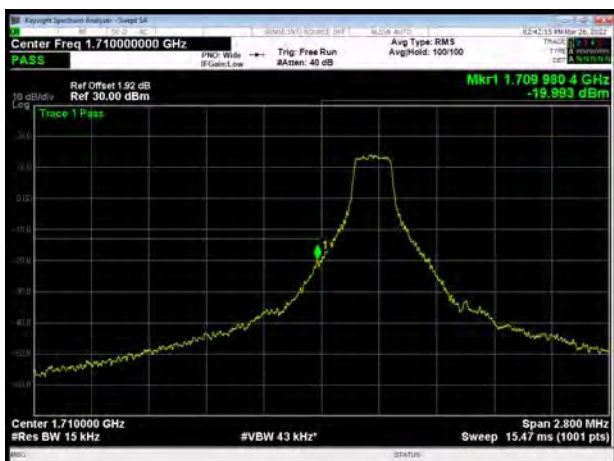
LTE Band 41 64QAM 20MHz CH-Low, 100%RB



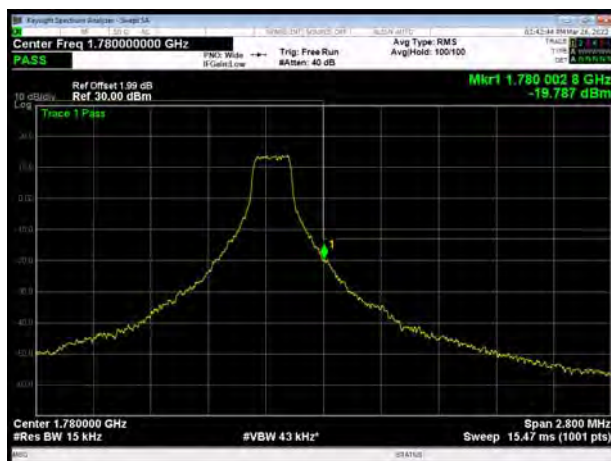
LTE Band 41 64QAM 20MHz CH-High, 100%RB



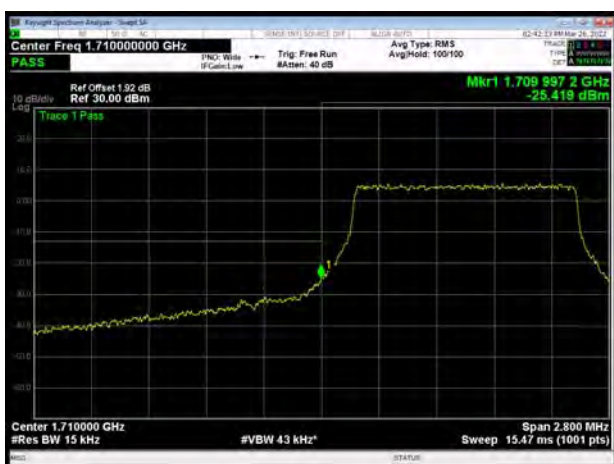
LTE Band 66 QPSK 1.4MHz CH-Low, 1 RB



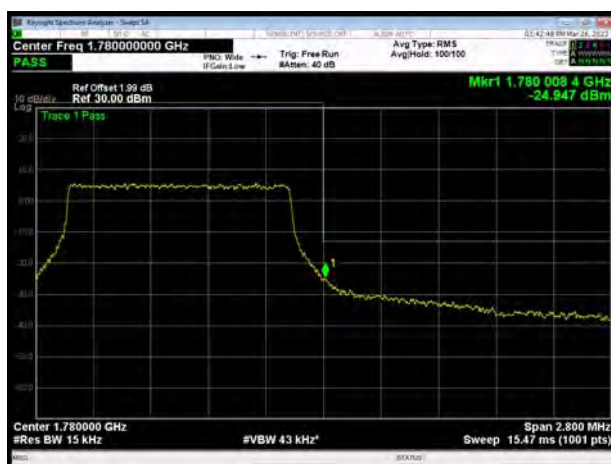
LTE Band 66 QPSK 1.4MHz CH-High, 1 RB



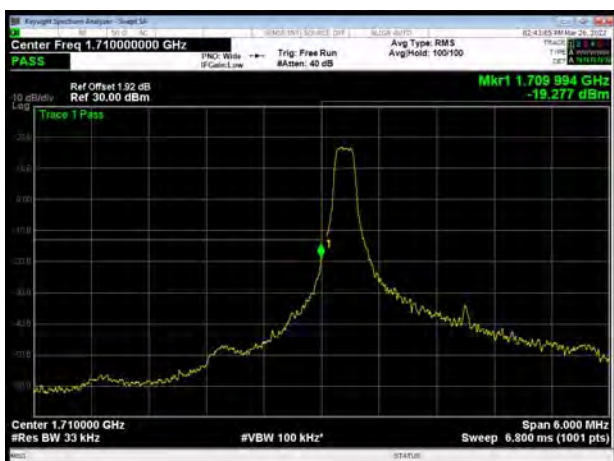
LTE Band 66 QPSK 1.4MHz CH-Low, 100%RB



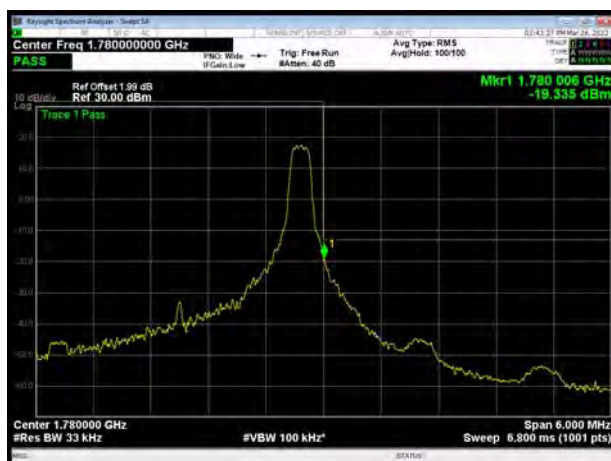
LTE Band 66 QPSK 1.4MHz CH-High, 100%RB



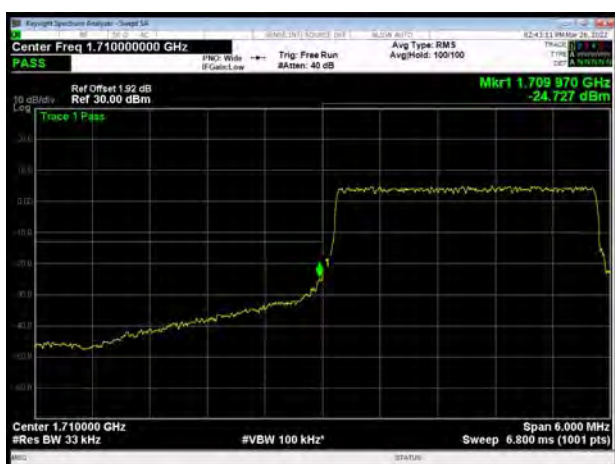
LTE Band 66 QPSK 3MHz CH-Low, 1 RB



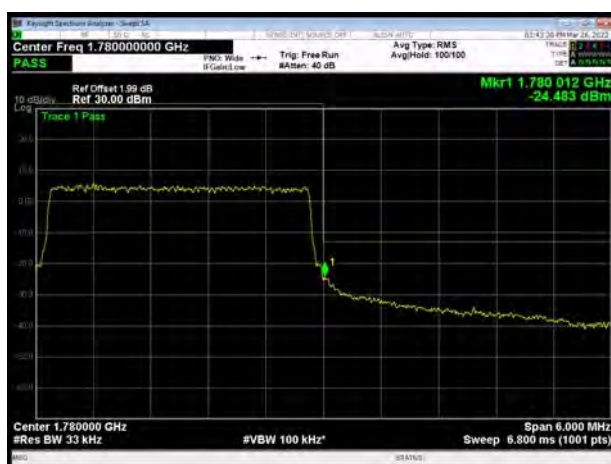
LTE Band 66 QPSK 3MHz CH-High, 1 RB



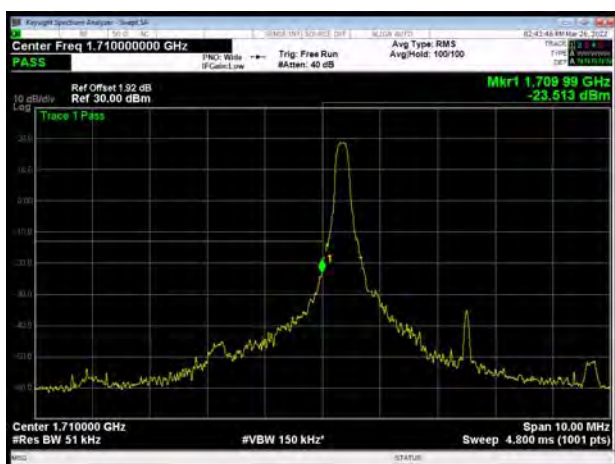
LTE Band 66 QPSK 3MHz CH-Low, 100%RB



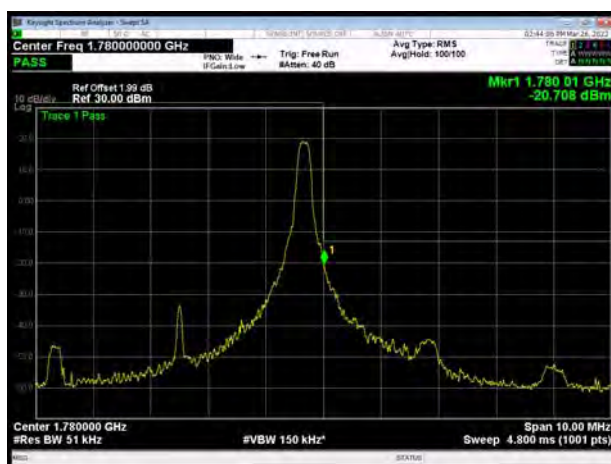
LTE Band 66 QPSK 3MHz CH-High, 100%RB



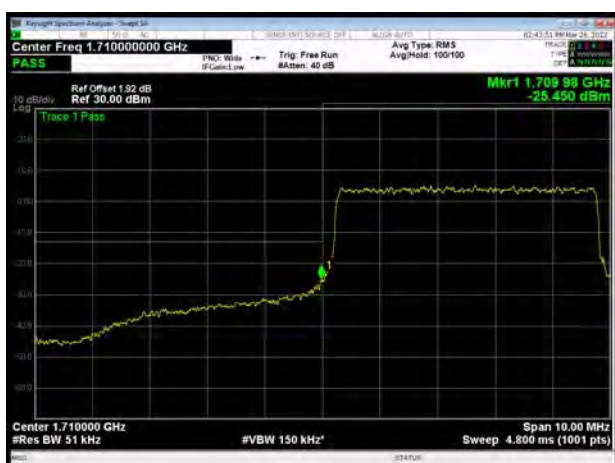
LTE Band 66 QPSK 5MHz CH-Low, 1 RB



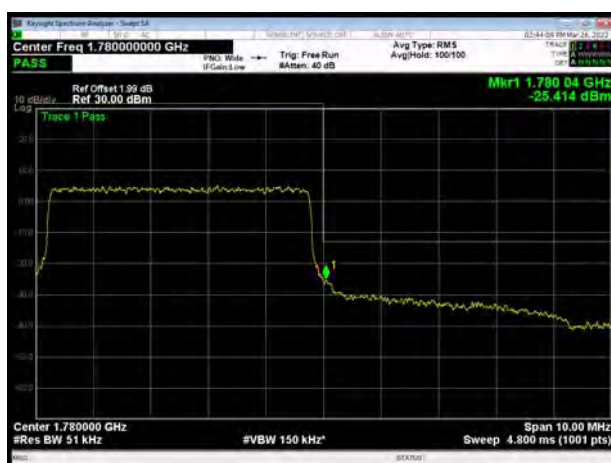
LTE Band 66 QPSK 5MHz CH-High, 1 RB



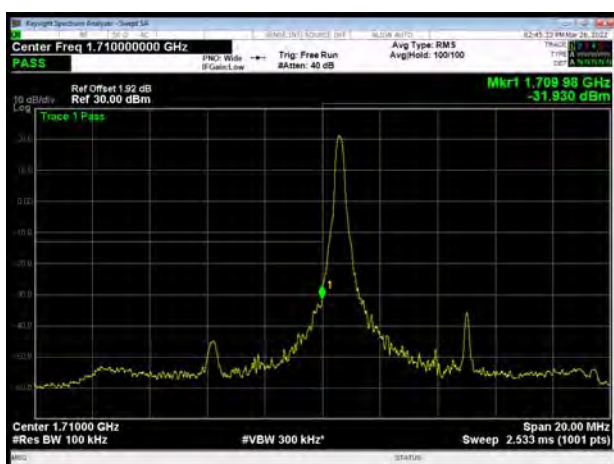
LTE Band 66 QPSK 5MHz CH-Low, 100%RB



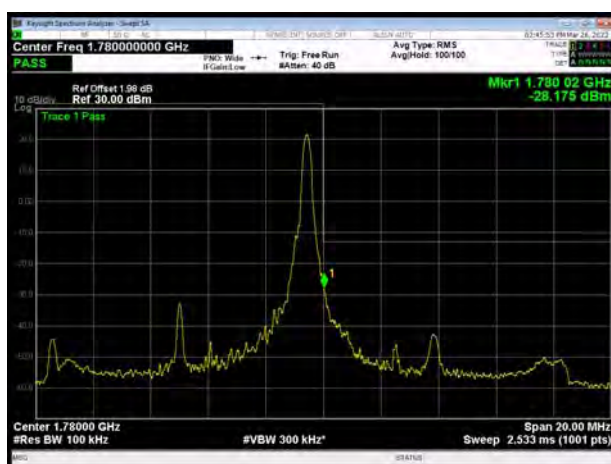
LTE Band 66 QPSK 5MHz CH-High, 100%RB



LTE Band 66 QPSK 10MHz CH-Low, 1 RB



LTE Band 66 QPSK 10MHz CH-High, 1 RB



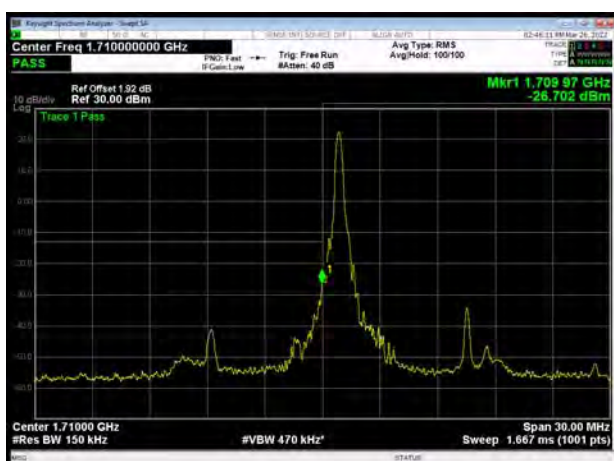
LTE Band 66 QPSK 10MHz CH-Low, 100%RB



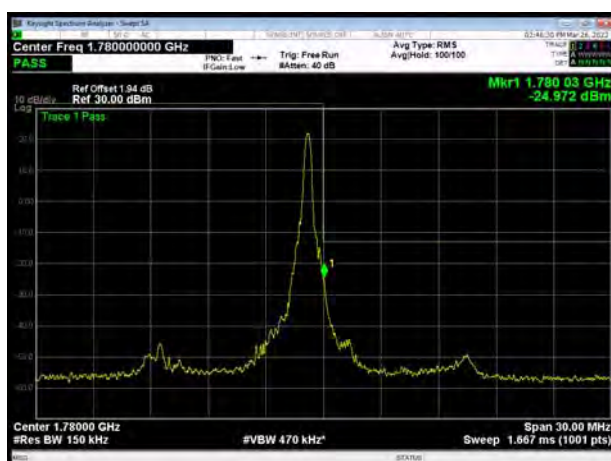
LTE Band 66 QPSK 10MHz CH-High, 100%RB



LTE Band 66 QPSK 15MHz CH-Low, 1 RB



LTE Band 66 QPSK 15MHz CH-High, 1 RB



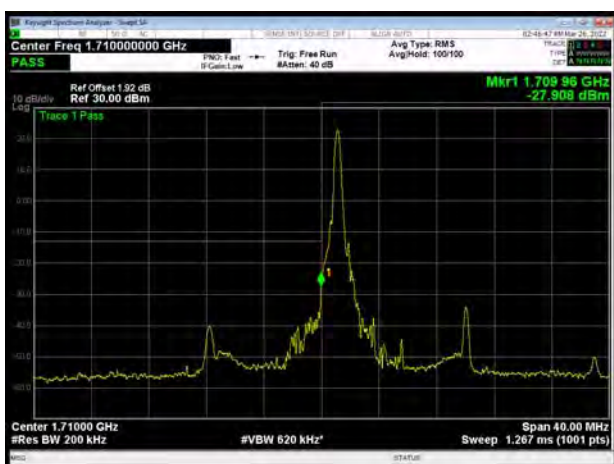
LTE Band 66 QPSK 15MHz CH-Low, 100%RB



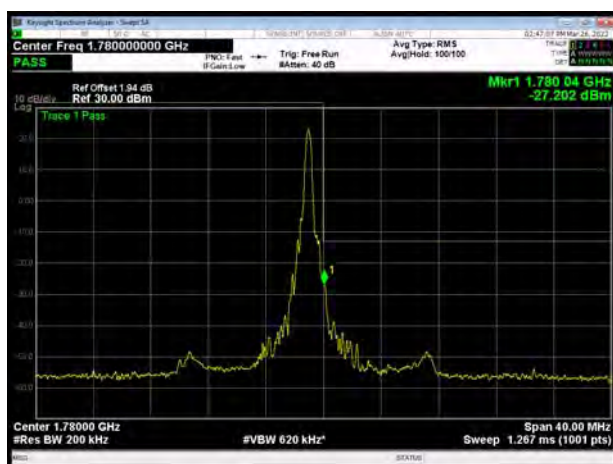
LTE Band 66 QPSK 15MHz CH-High, 100%RB



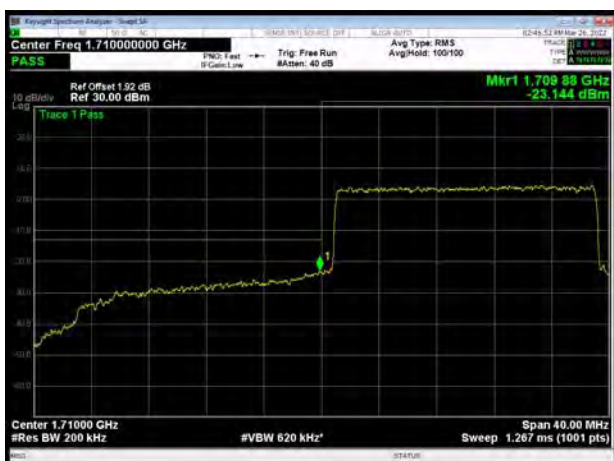
LTE Band 66 QPSK 20MHz CH-Low, 1 RB



LTE Band 66 QPSK 20MHz CH-High, 1 RB



LTE Band 66 QPSK 20MHz CH-Low, 100%RB

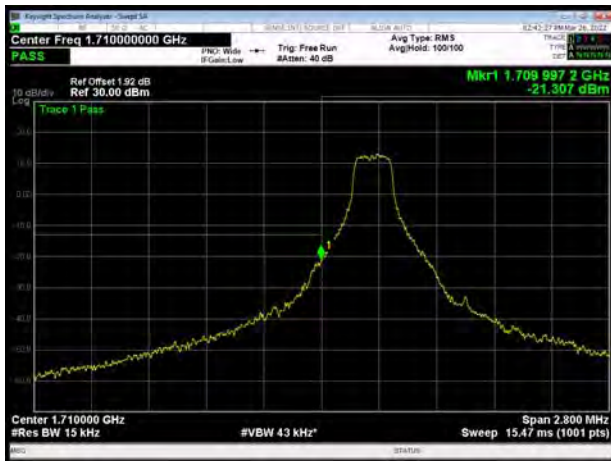


LTE Band 66 QPSK 20MHz CH-High, 100%RB

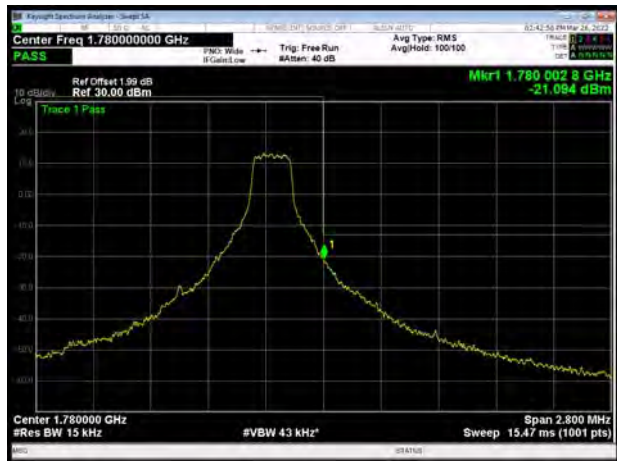




LTE Band 66 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 66 16QAM 1.4MHz CH-High, 1 RB



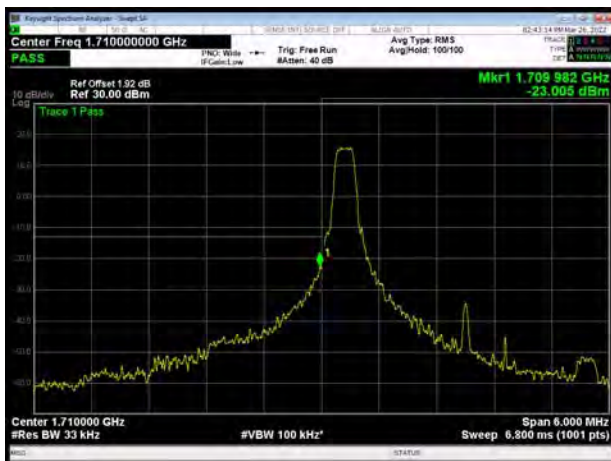
LTE Band 66 16QAM 1.4MHz CH-Low, 100%RB



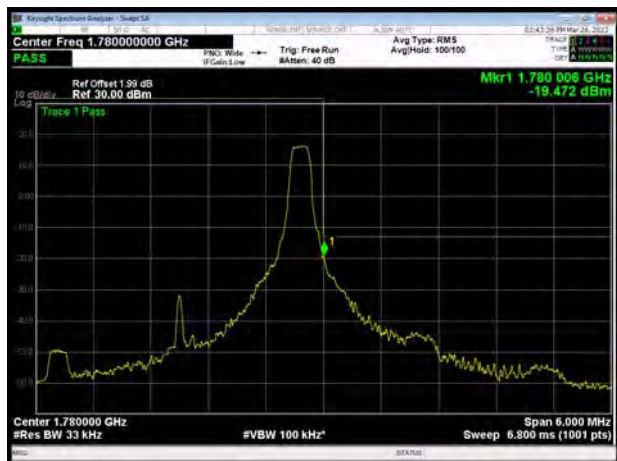
LTE Band 66 16QAM 1.4MHz CH-High, 100%RB



LTE Band 66 16QAM 3MHz CH-Low, 1 RB



LTE Band 66 16QAM 3MHz CH-High, 1 RB



LTE Band 66 16QAM 3MHz CH-Low, 100%RB



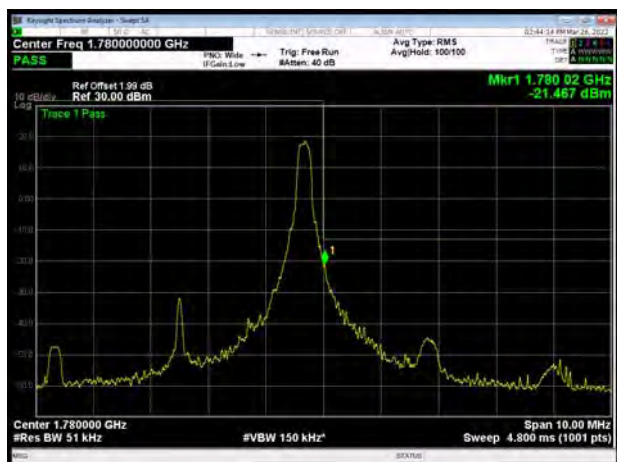
LTE Band 66 16QAM 3MHz CH-High, 100%RB



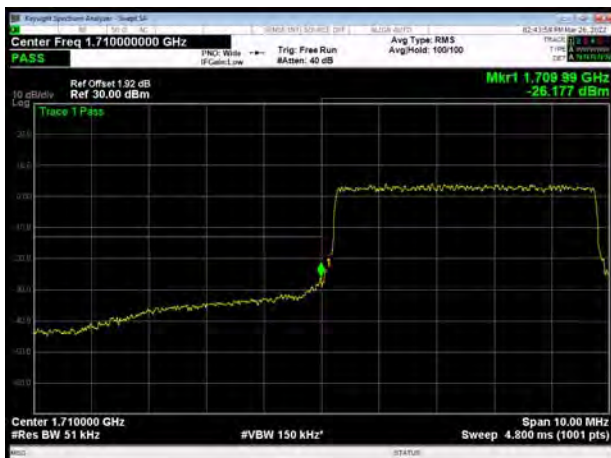
LTE Band 66 16QAM 5MHz CH-Low, 1 RB



LTE Band 66 16QAM 5MHz CH-High, 1 RB



LTE Band 66 16QAM 5MHz CH-Low, 100%RB

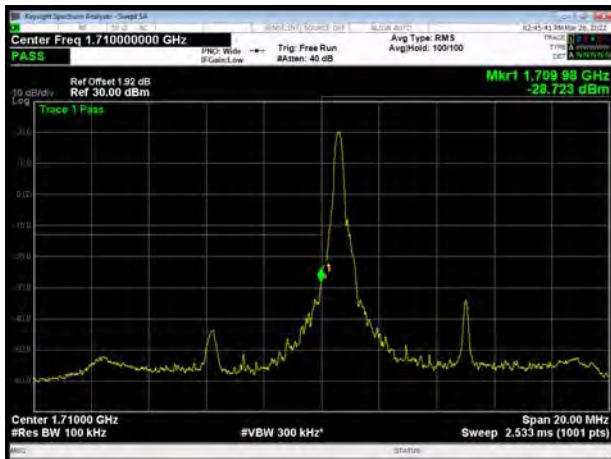


LTE Band 66 16QAM 5MHz CH-High, 100%RB

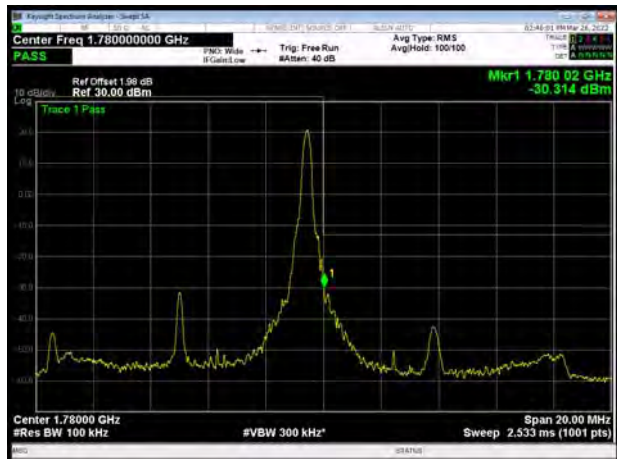




LTE Band 66 16QAM 10MHz CH-Low, 1 RB



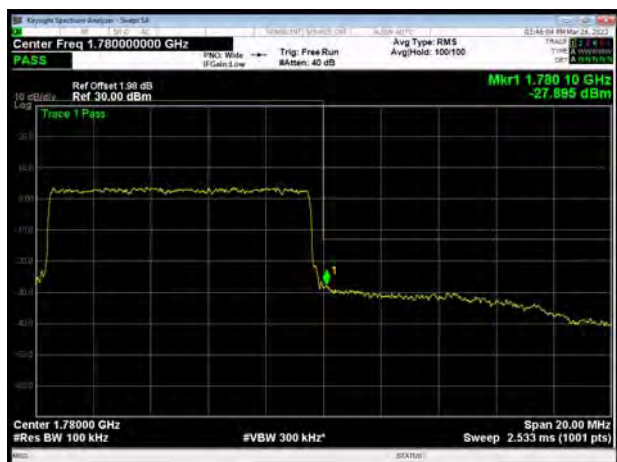
LTE Band 66 16QAM 10MHz CH-High, 1 RB



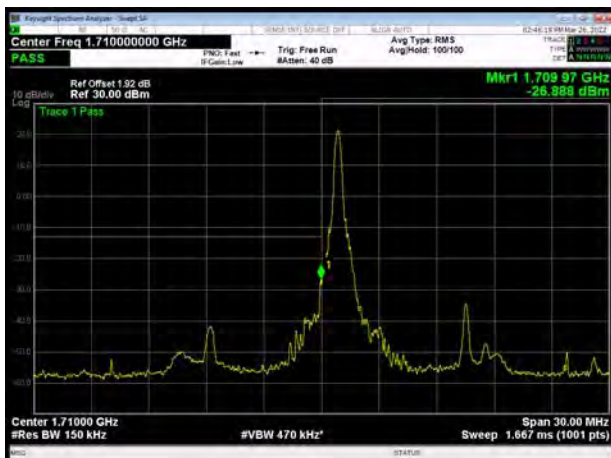
LTE Band 66 16QAM 10MHz CH-Low, 100%RB



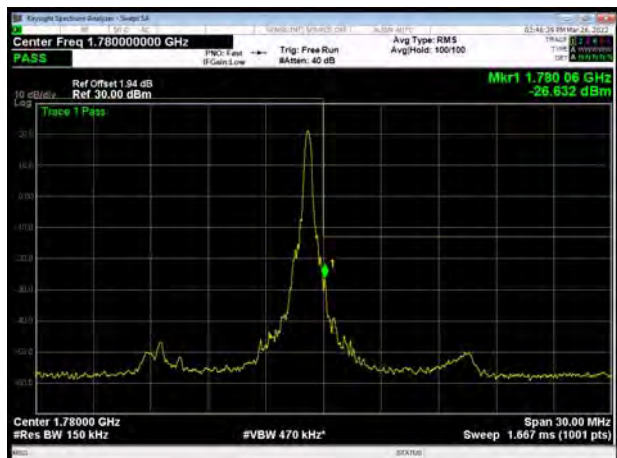
LTE Band 66 16QAM 10MHz CH-High, 100%RB



LTE Band 66 16QAM 15MHz CH-Low, 1 RB



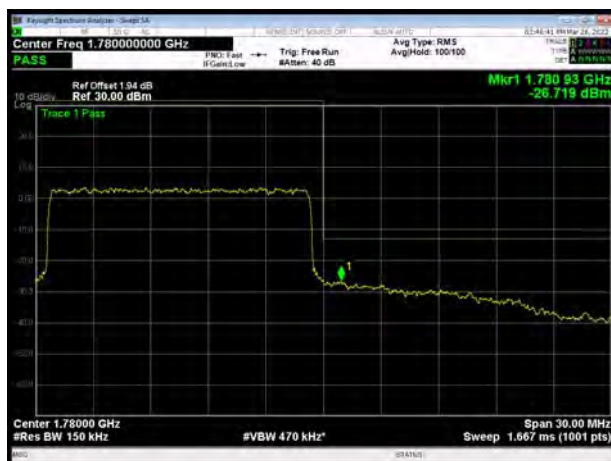
LTE Band 66 16QAM 15MHz CH-High, 1 RB



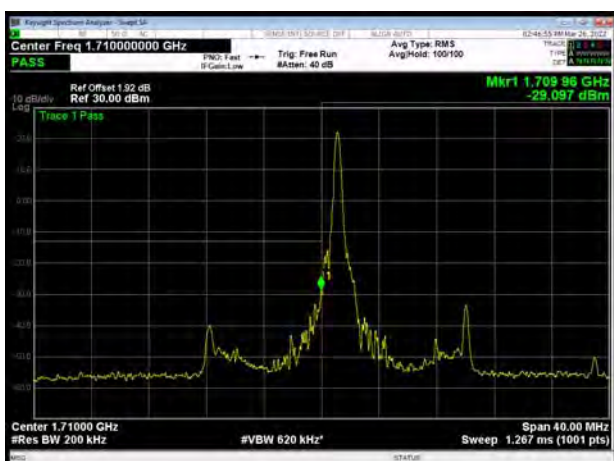
LTE Band 66 16QAM 15MHz CH-Low, 100%RB



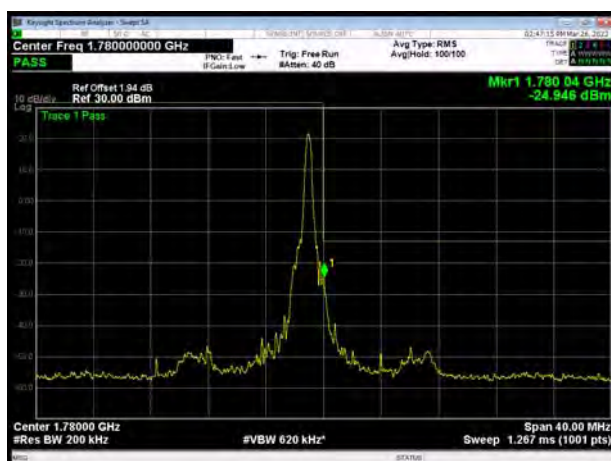
LTE Band 66 16QAM 15MHz CH-High, 100%RB



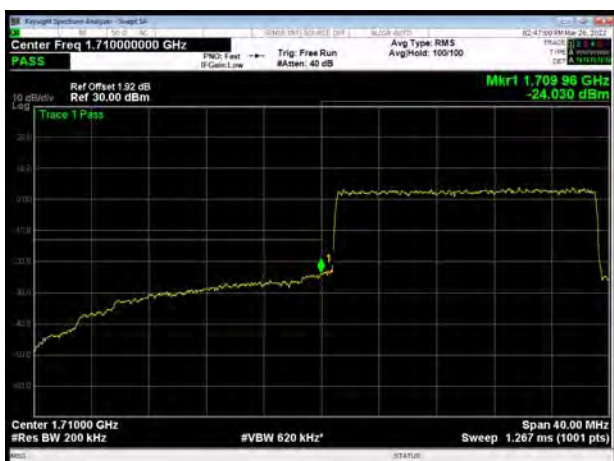
LTE Band 66 16QAM 20MHz CH-Low, 1 RB



LTE Band 66 16QAM 20MHz CH-High, 1 RB



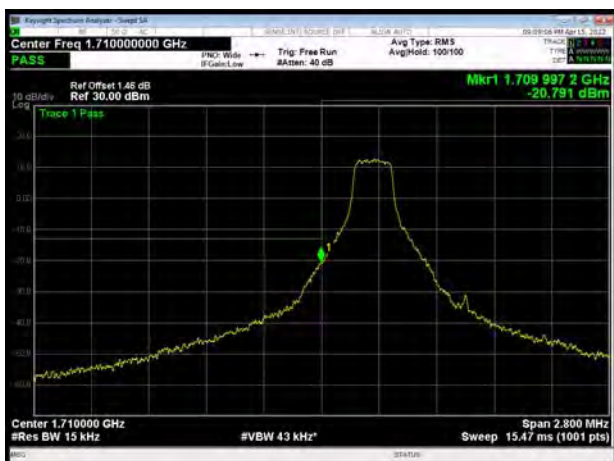
LTE Band 66 16QAM 20MHz CH-Low, 100%RB



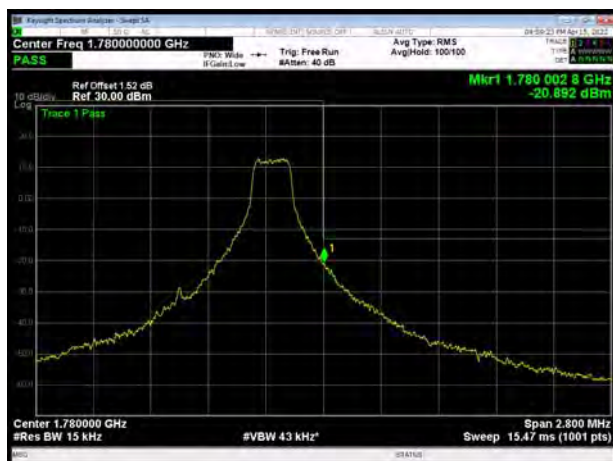
LTE Band 66 16QAM 20MHz CH-High, 100%RB



LTE Band 66 64QAM 1.4MHz CH-Low, 1 RB



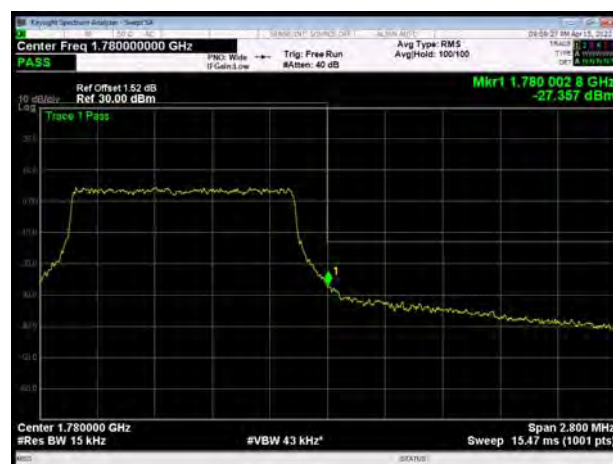
LTE Band 66 64QAM 1.4MHz CH-High, 1 RB



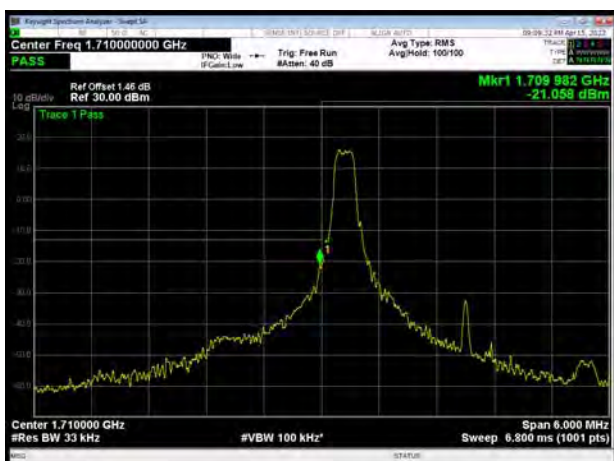
LTE Band 66 64QAM 1.4MHz CH-Low, 100%RB



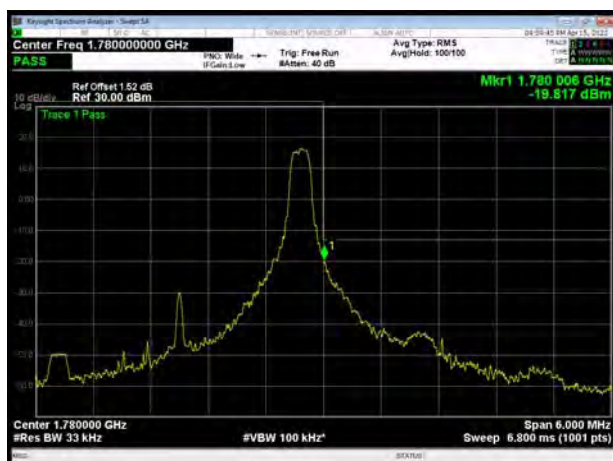
LTE Band 66 64QAM 1.4MHz CH-High, 100%RB



LTE Band 66 64QAM 3MHz CH-Low, 1 RB

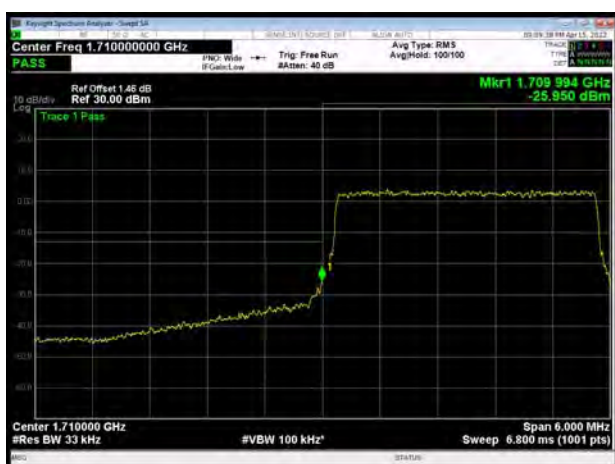


LTE Band 66 64QAM 3MHz CH-High, 1 RB

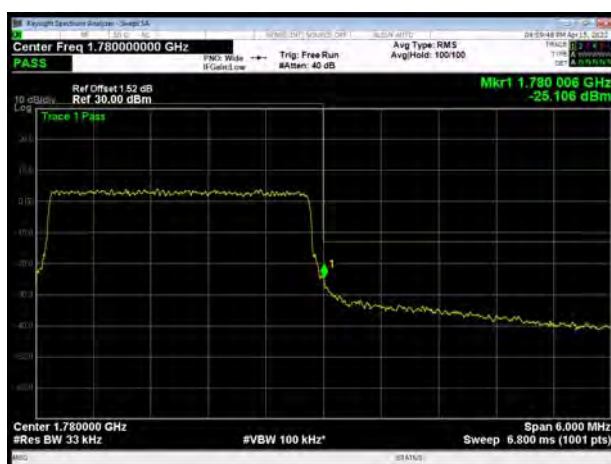




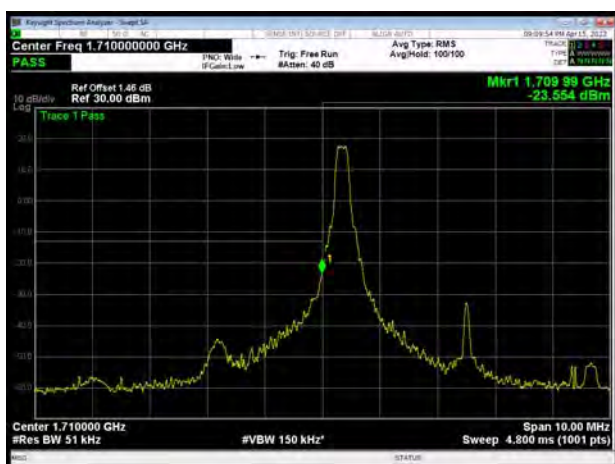
LTE Band 66 64QAM 3MHz CH-Low, 100%RB



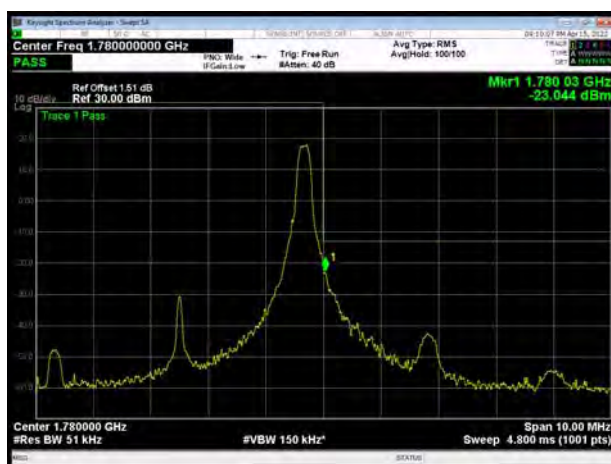
LTE Band 66 64QAM 3MHz CH-High, 100%RB



LTE Band 66 64QAM 5MHz CH-Low, 1 RB



LTE Band 66 64QAM 5MHz CH-High, 1 RB



LTE Band 66 64QAM 5MHz CH-Low, 100%RB

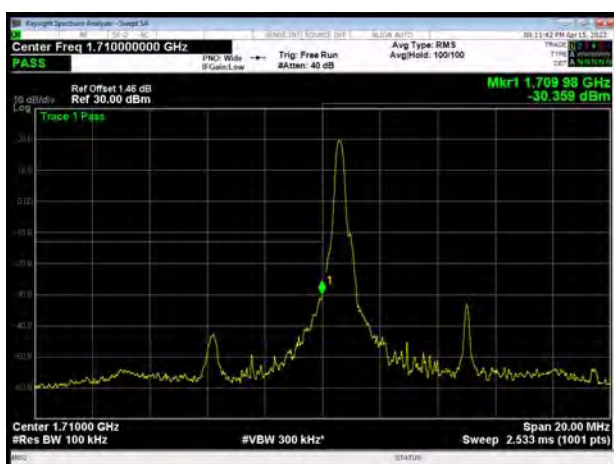


LTE Band 66 64QAM 5MHz CH-High, 100%RB

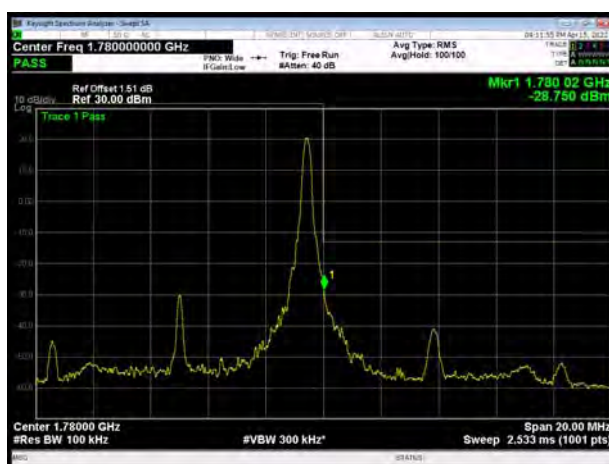




LTE Band 66 64QAM 10MHz CH-Low, 1 RB



LTE Band 66 64QAM 10MHz CH-High, 1 RB



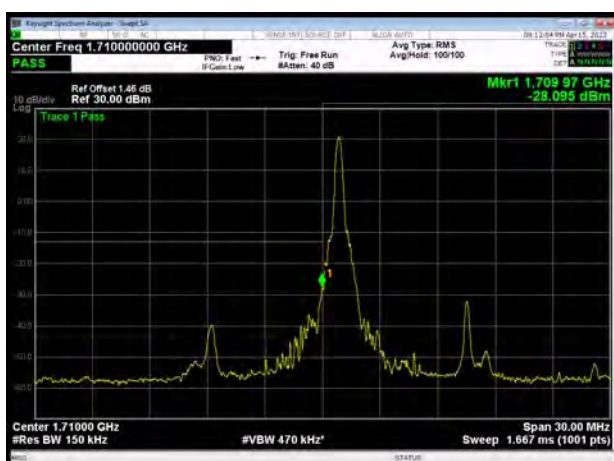
LTE Band 66 64QAM 10MHz CH-Low, 100%RB



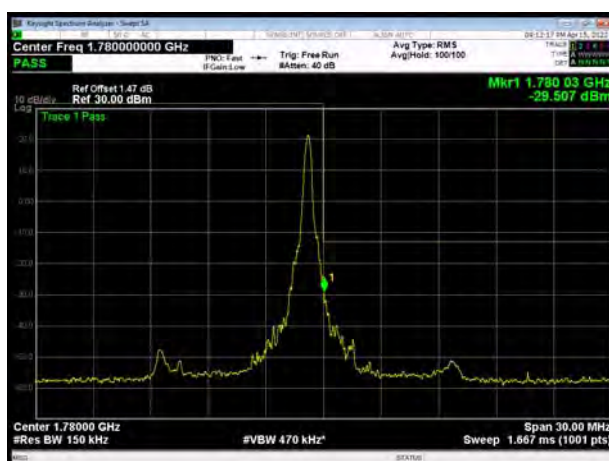
LTE Band 66 64QAM 10MHz CH-High, 100%RB



LTE Band 66 64QAM 15MHz CH-Low, 1 RB



LTE Band 66 64QAM 15MHz CH-High, 1 RB

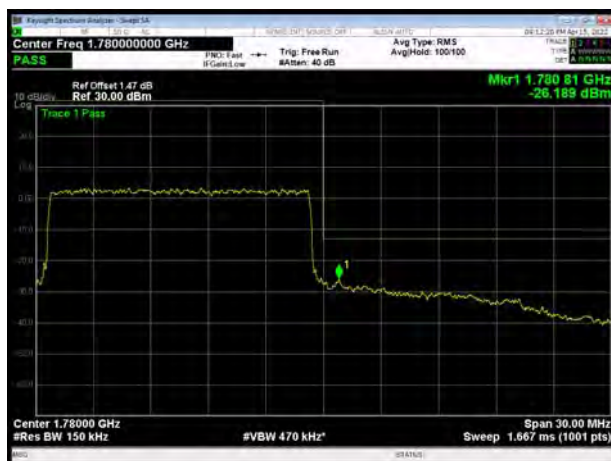




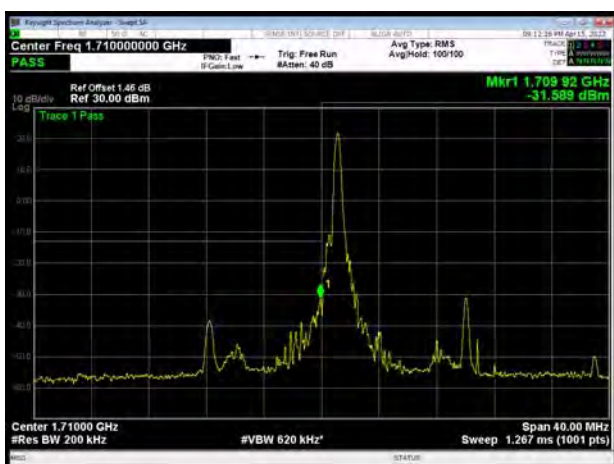
LTE Band 66 64QAM 15MHz CH-Low, 100%RB



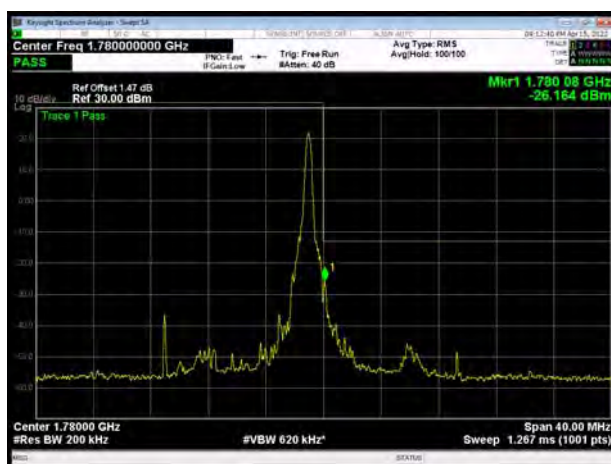
LTE Band 66 64QAM 15MHz CH-High, 100%RB



LTE Band 66 64QAM 20MHz CH-Low, 1 RB



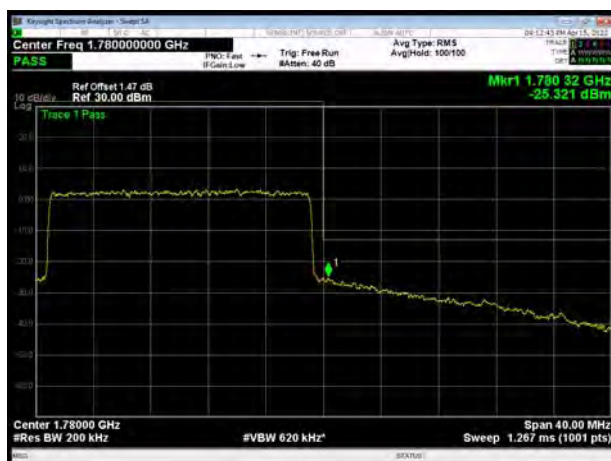
LTE Band 66 64QAM 20MHz CH-High, 1 RB



LTE Band 66 64QAM 20MHz CH-Low, 100%RB



LTE Band 66 64QAM 20MHz CH-High, 100%RB

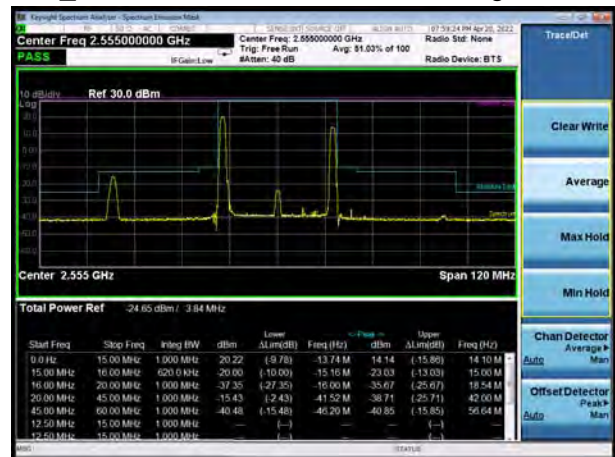




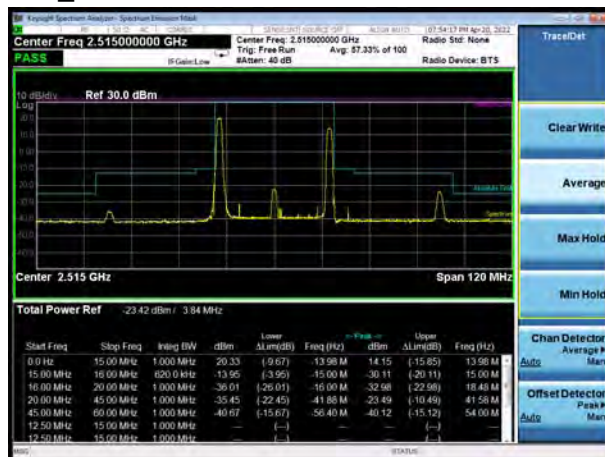
CA_7C QPSK 20MHz+10MHz CH-Low, RB 1



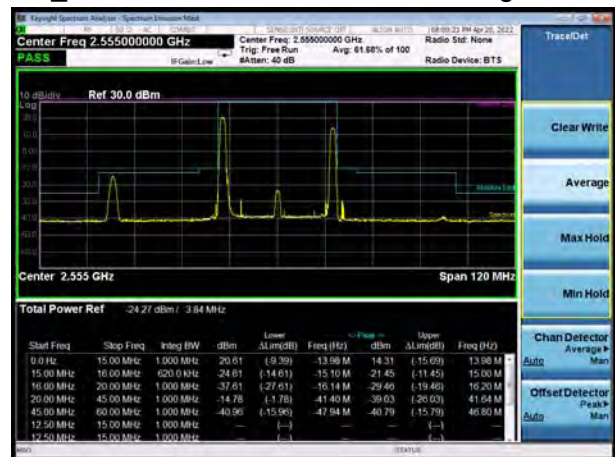
CA_7C QPSK 20MHz+10MHz CH- High, RB 1

CA_7C QPSK 20MHz+10MHz CH-Low,
100%RBCA_7C QPSK 20MHz+10MHz CH- High,
100%RB

CA_7C 16QAM 20MHz+10MHz CH-Low, RB 1

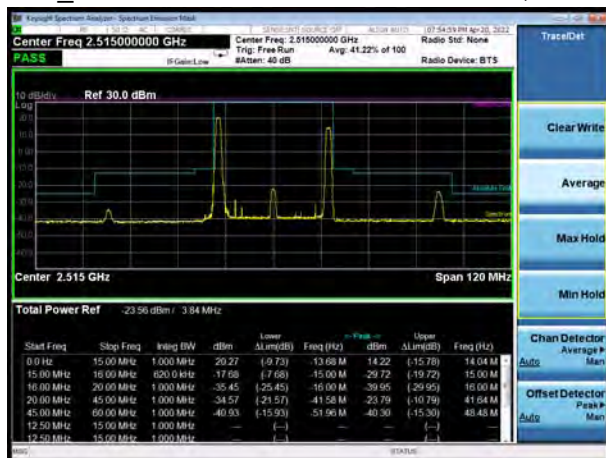


CA_7C 16QAM 20MHz+10MHz CH- High, RB 1

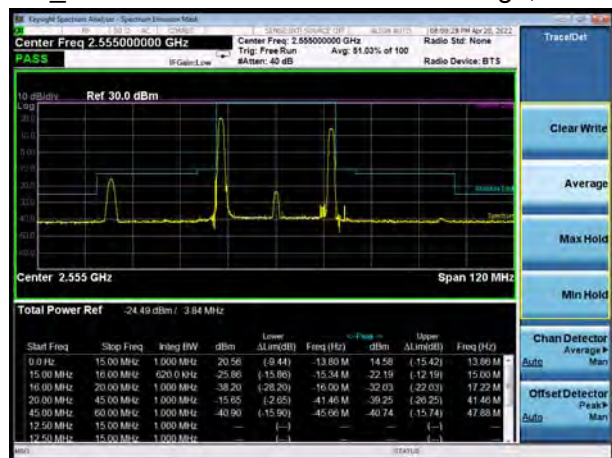


CA_7C 16QAM 20MHz+10MHz CH-Low,
100%RBCA_7C 16QAM 20MHz+10MHz CH- High,
100%RB

CA_7C 64QAM 20MHz+10MHz CH-Low, RB 1



CA_7C 64QAM 20MHz+10MHz CH- High, RB 1

CA_7C 64QAM 20MHz+10MHz CH-Low,
100%RBCA_7C 64QAM 20MHz+10MHz CH- High,
100%RB



CA_7C QPSK 20MHz+20MHz CH-Low, RB 1



CA_7C QPSK 20MHz+20MHz CH- High, RB 1



CA_7C QPSK 20MHz+20MHz CH-Low, 100%RB



CA_7C QPSK 20MHz+20MHz CH- High, 100%RB



CA_7C 16QAM 20MHz+20MHz CH-Low, RB 1



CA_7C 16QAM 20MHz+20MHz CH- High, RB 1

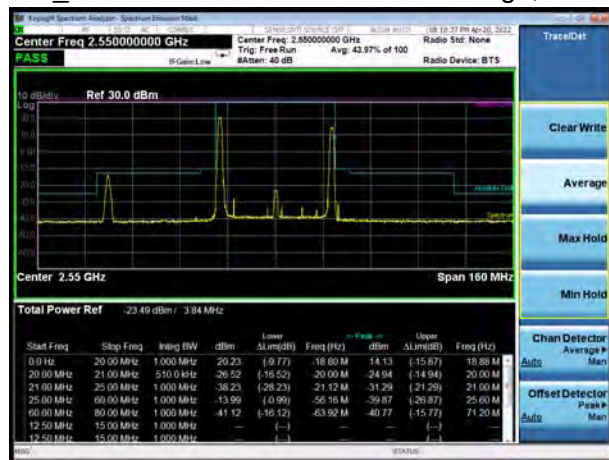


CA_7C 16QAM 20MHz+20MHz CH-Low,
100%RBCA_7C 16QAM 20MHz+20MHz CH- High,
100%RB

CA_7C 64QAM 20MHz+20MHz CH-Low, RB 1

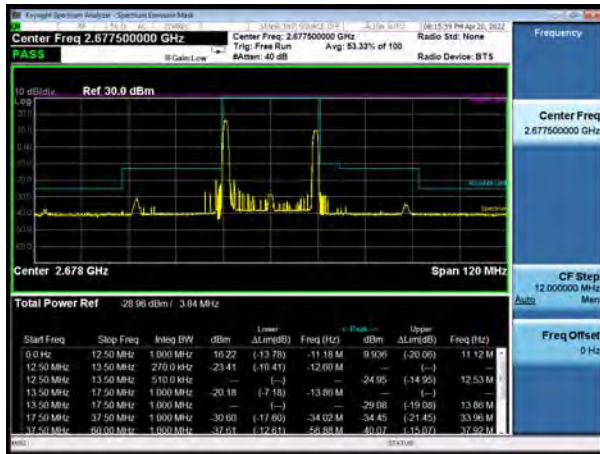


CA_7C 64QAM 20MHz+20MHz CH- High, RB 1

CA_7C 64QAM 20MHz+20MHz CH-Low,
100%RBCA_7C 64QAM 20MHz+20MHz CH- High,
100%RB



CA_41C QPSK 20MHz+5MHz CH-Low, RB 1



CA_41C QPSK 20MHz+5MHz CH- High, RB 1



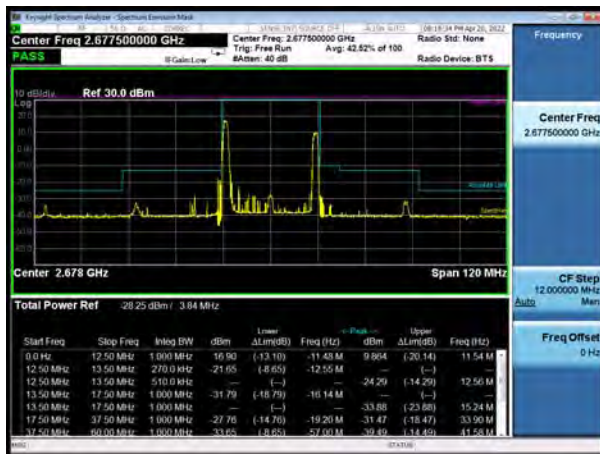
CA_41C QPSK 20MHz+5MHz CH-Low, 100%RB



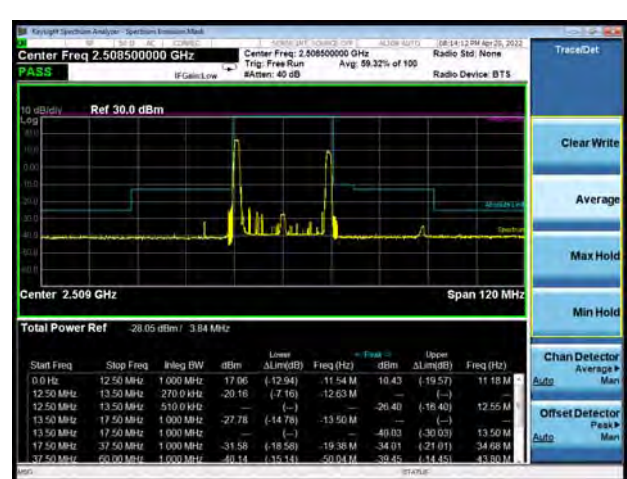
CA_41C QPSK 20MHz+5MHz CH- High, 100%RB



CA_41C 16QAM 20MHz+5MHz CH-Low, RB 1

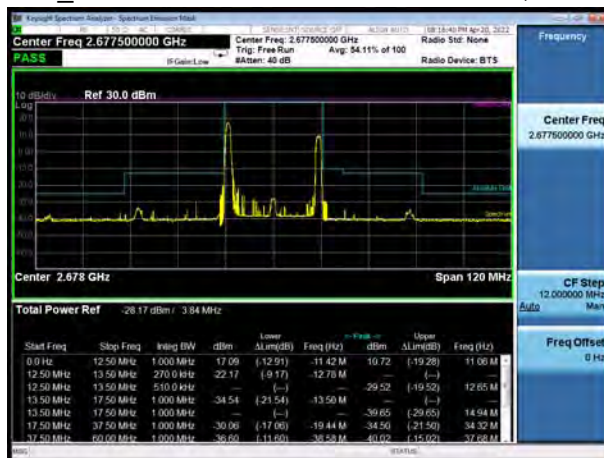


CA_41C 16QAM 20MHz+5MHz CH- High, RB 1



CA_41C 16QAM 20MHz+5MHz CH-Low,
100%RBCA_41C 16QAM 20MHz+5MHz CH- High,
100%RB

CA_41C 64QAM 20MHz+5MHz CH-Low, RB 1

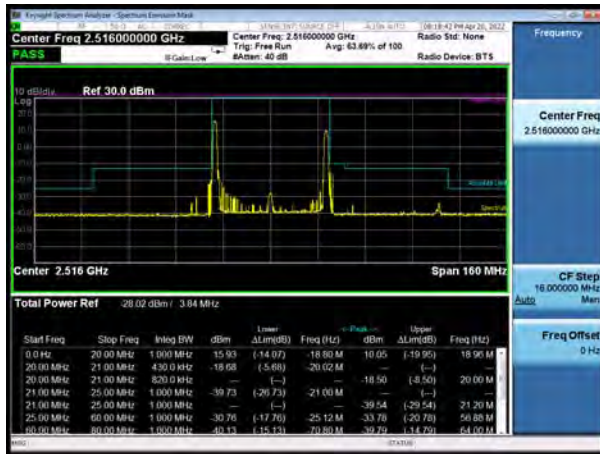


CA_41C 64QAM 20MHz+5MHz CH- High, RB 1

CA_41C 64QAM 20MHz+5MHz CH-Low,
100%RBCA_41C 64QAM 20MHz+5MHz CH- High,
100%RB



CA_41C QPSK 20MHz+20MHz CH-Low, RB 1



CA_41C QPSK 20MHz+20MHz CH- High, RB 1



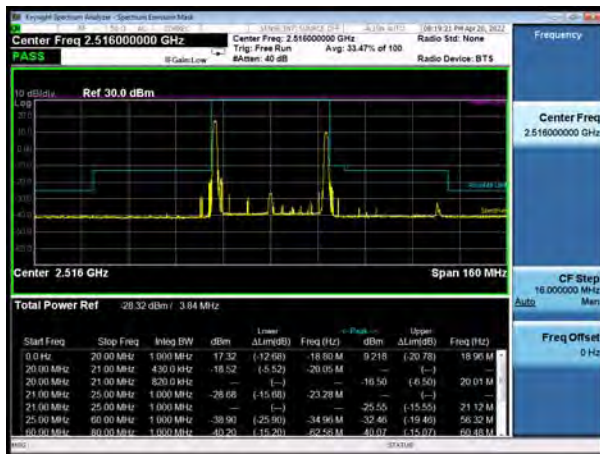
CA_41C QPSK 20MHz+20MHz CH-Low, 100%RB



CA_41C QPSK 20MHz+20MHz CH- High, 100%RB



CA_41C 16QAM 20MHz+20MHz CH-Low, RB 1

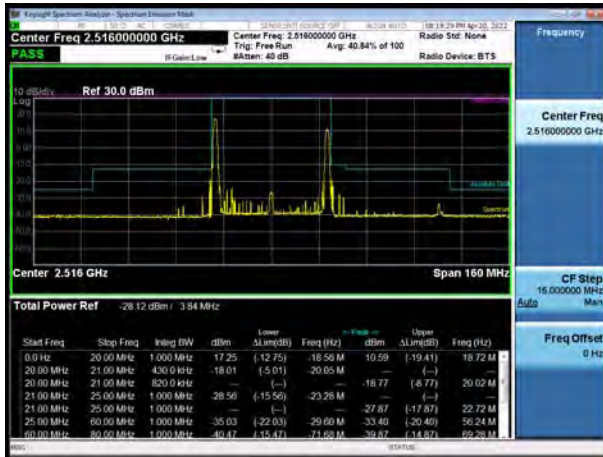


CA_41C 16QAM 20MHz+20MHz CH- High, RB 1

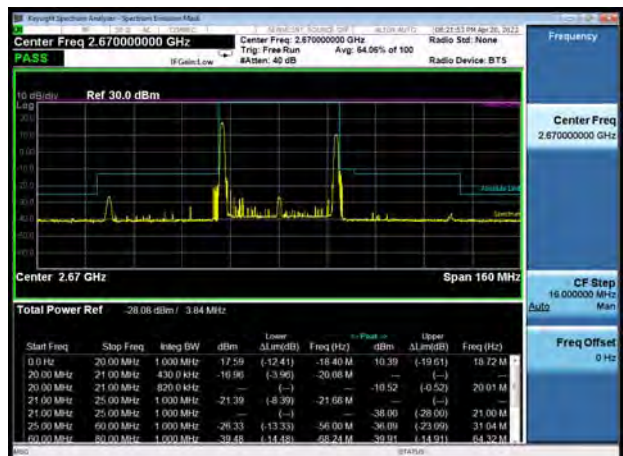


CA_41C 16QAM 20MHz+20MHz CH-Low,
100%RBCA_41C 16QAM 20MHz+20MHz CH- High,
100%RB

CA_41C 64QAM 20MHz+20MHz CH-Low, RB 1



CA_41C 64QAM 20MHz+20MHz CH- High, RB 1

CA_41C 64QAM 20MHz+20MHz CH-Low,
100%RBCA_41C 64QAM 20MHz+20MHz CH- High,
100%RB



NR n7 P1/2 BPSK 20MHz CH-Low 1RB



NR n7 P1/2 BPSK 20MHz CH-High 1RB



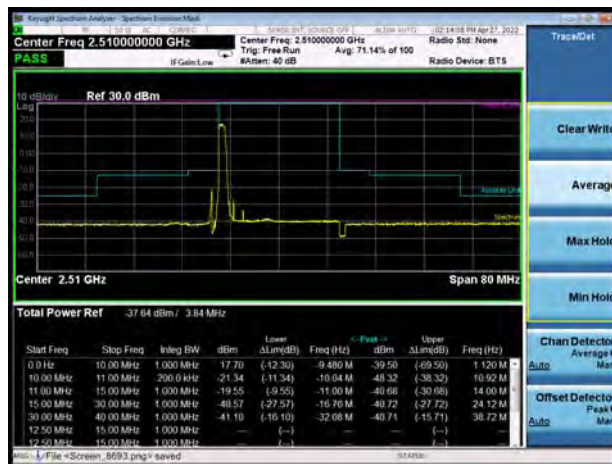
NR n7 P1/2 BPSK 20MHz CH-Low 100%RB



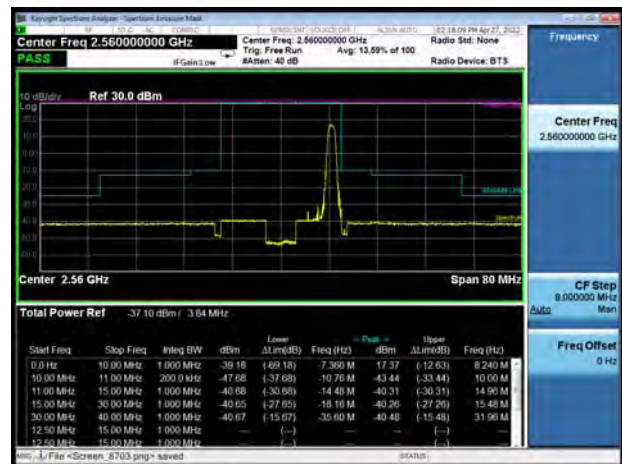
NR n7 P1/2 BPSK 20MHz CH-High 100%RB



NR n7 QPSK 20MHz CH-Low 1RB

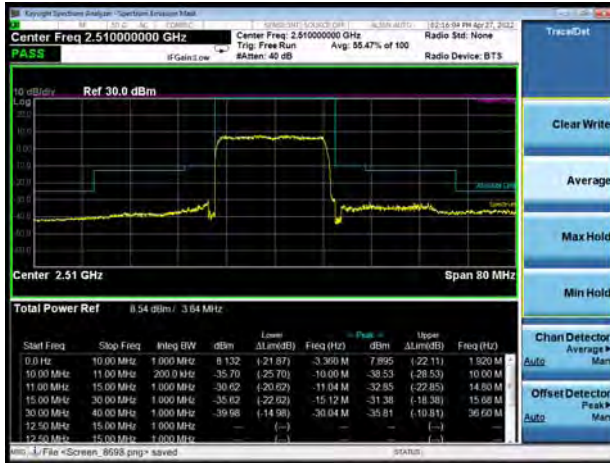


NR n7 QPSK 20MHz CH-High 1RB





NR n7 QPSK 20MHz CH-Low 100%RB



NR n7 QPSK 20MHz CH-High 100%RB



NR n7 16QAM 20MHz CH-Low 1RB



NR n7 16QAM 20MHz CH-High 1RB



NR n7 16QAM 20MHz CH-Low 100%RB



NR n7 16QAM 20MHz CH-High 100%RB





NR n7 64QAM 20MHz CH-Low 1RB



NR n7 64QAM 20MHz CH-High 1RB



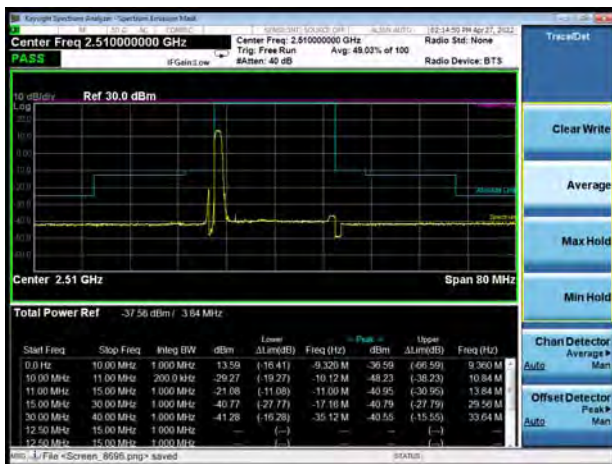
NR n7 64QAM 20MHz CH-Low 100%RB



NR n7 64QAM 20MHz CH-High 100%RB



NR n7 256QAM 20MHz CH-Low 1RB

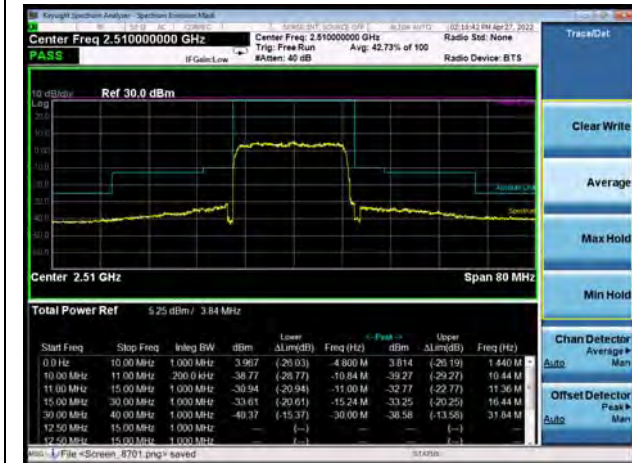


NR n7 256QAM 20MHz CH-High 1RB





NR n7 256QAM 20MHz CH-Low 100%RB



NR n7 256QAM 20MHz CH-High 100%RB





NR n38 P1/2 BPSK 40MHz CH-Low 1RB



NR n38 P1/2 BPSK 40MHz CH-High 1RB



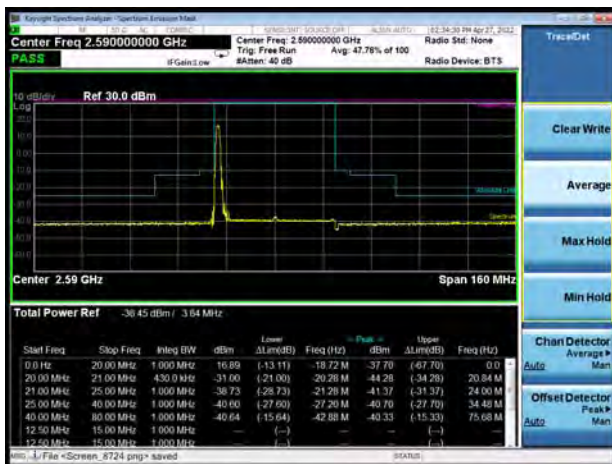
NR n38 P1/2 BPSK 40MHz CH-Low 100%RB



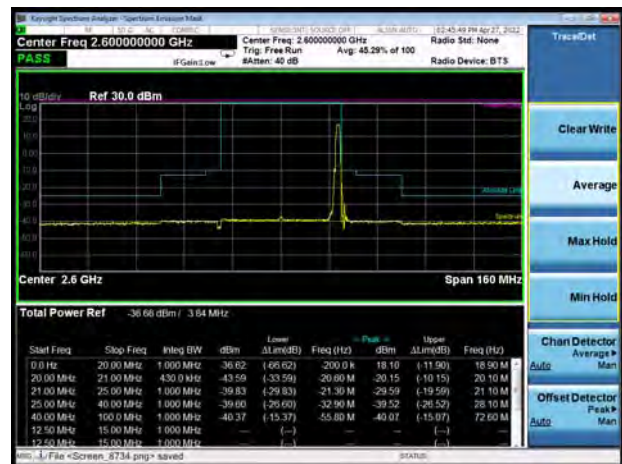
NR n38 P1/2 BPSK 40MHz CH-High 100%RB



NR n38 QPSK 40MHz CH-Low 1RB



NR n38 QPSK 40MHz CH-High 1RB

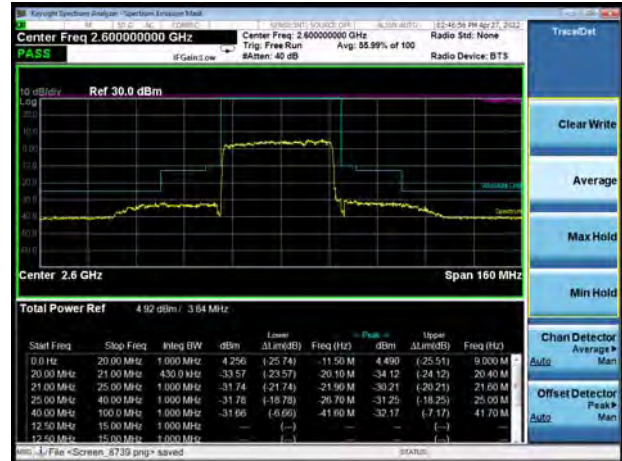




NR n38 QPSK 40MHz CH-Low 100%RB



NR n38 QPSK 40MHz CH-High 100%RB



NR n38 16QAM 40MHz CH-Low 1RB



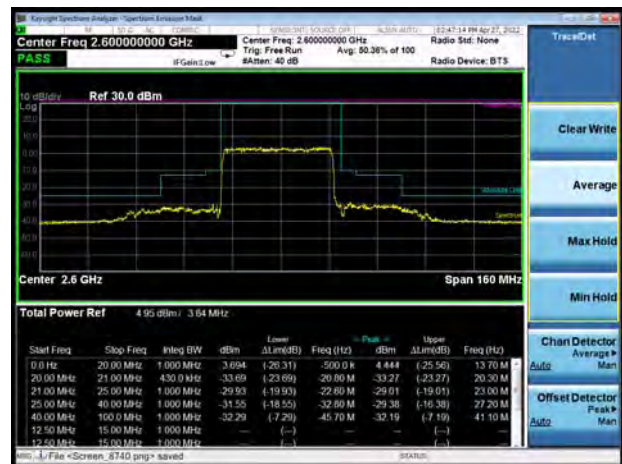
NR n38 16QAM 40MHz CH-High 1RB



NR n38 16QAM 40MHz CH-Low 100%RB



NR n38 16QAM 40MHz CH-High 100%RB





NR n38 64QAM 40MHz CH-Low 1RB



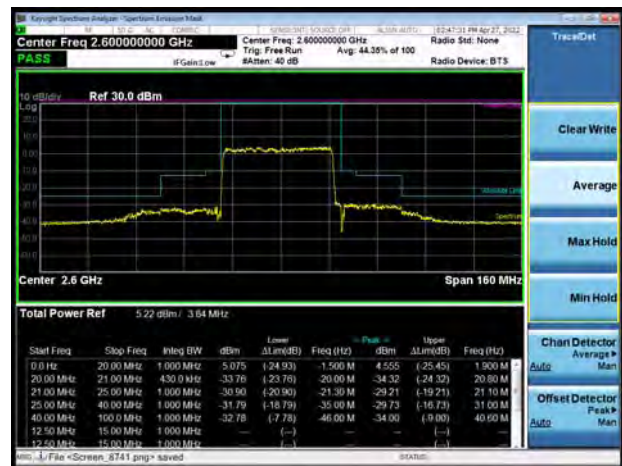
NR n38 64QAM 40MHz CH-High 1RB



NR n38 64QAM 40MHz CH-Low 100%RB



NR n38 64QAM 40MHz CH-High 100%RB



NR n38 256QAM 40MHz CH-Low 1RB



NR n38 256QAM 40MHz CH-High 1RB

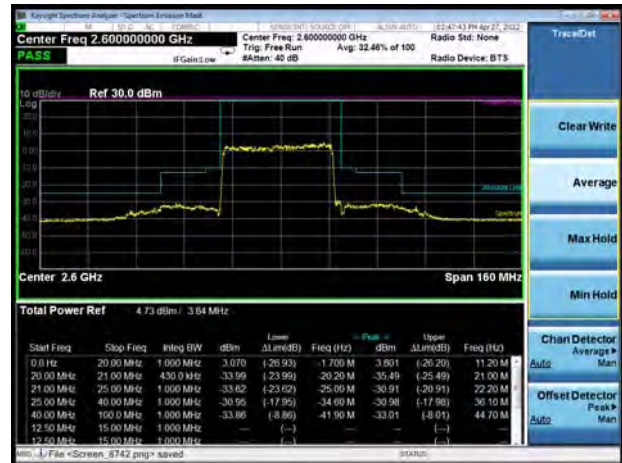




NR n38 256QAM 40MHz CH-Low 100%RB



NR n38 256QAM 40MHz CH-High 100%RB

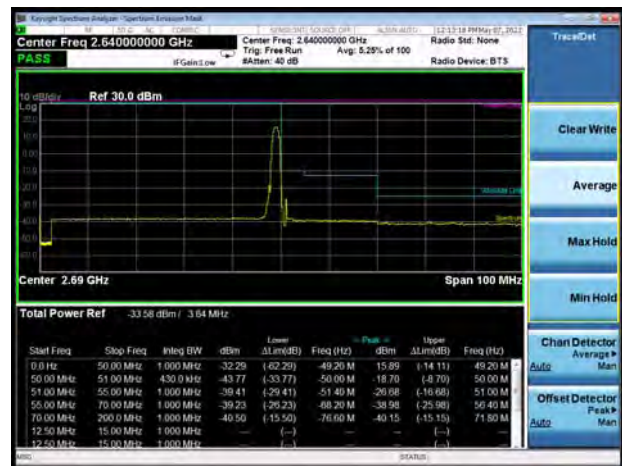




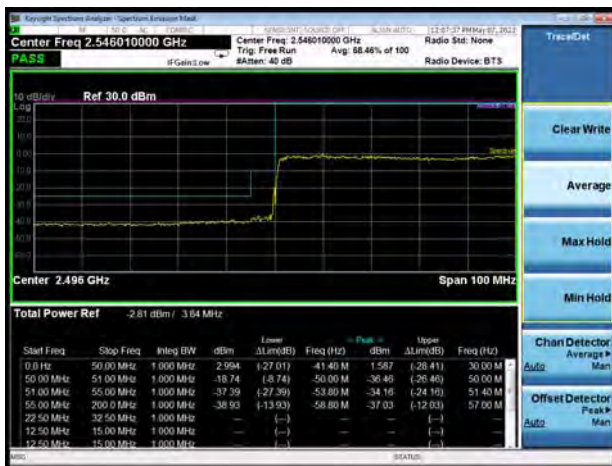
NR n41 P1/2 BPSK 100MHz CH-Low 1RB



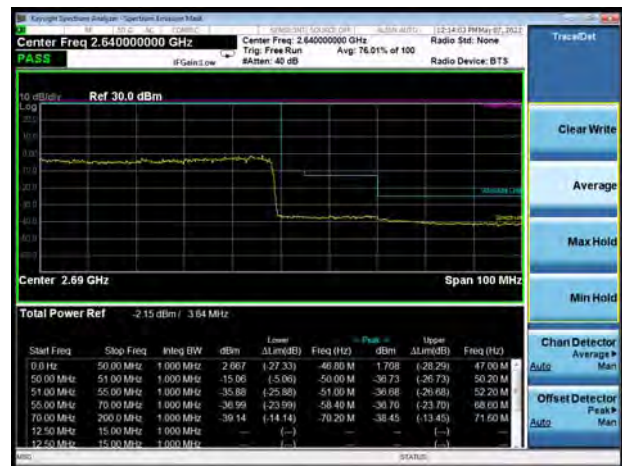
NR n41 P1/2 BPSK 100MHz CH-High 1RB



NR n41 P1/2 BPSK 100MHz CH-Low 100%RB



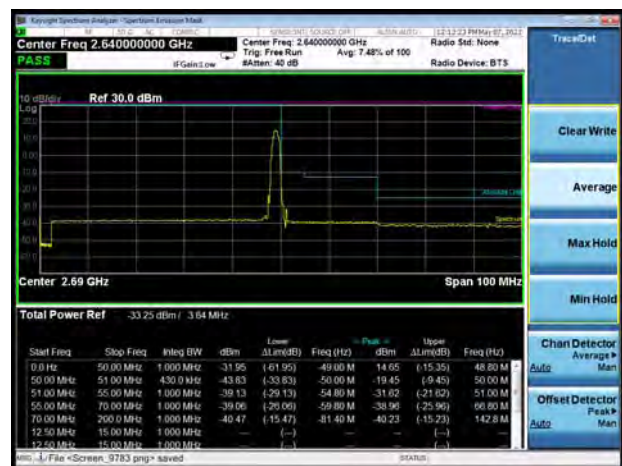
NR n41 P1/2 BPSK 100MHz CH-High 100%RB



NR n41 QPSK 100MHz CH-Low 1RB



NR n41 QPSK 100MHz CH-High 1RB

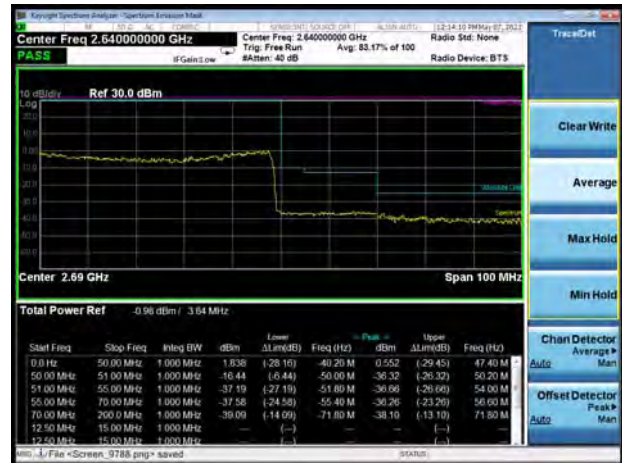




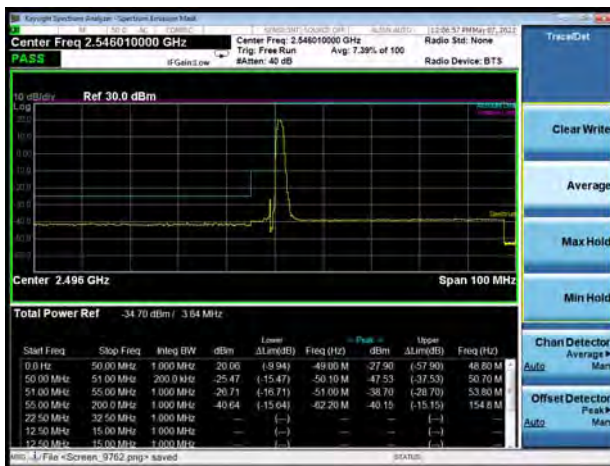
NR n41 QPSK 100MHz CH-Low 100%RB



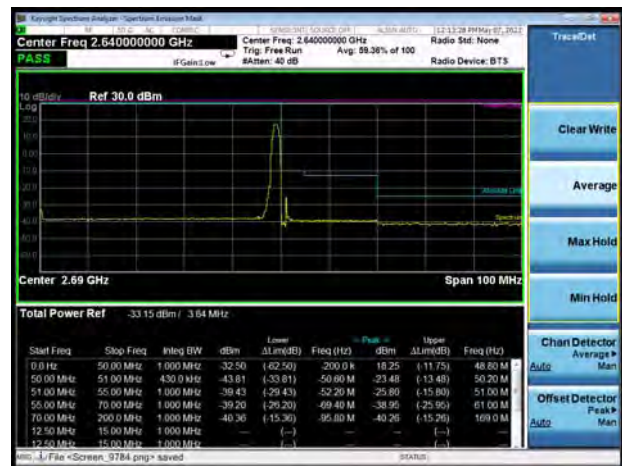
NR n41 QPSK 100MHz CH-High 100%RB



NR n41 16QAM 100MHz CH-Low 1RB



NR n41 16QAM 100MHz CH-High 1RB



NR n41 16QAM 100MHz CH-Low 100%RB

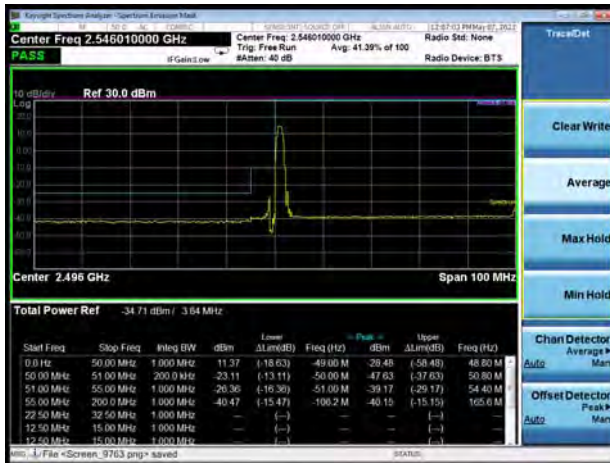


NR n41 16QAM 100MHz CH-High 100%RB





NR n41 64QAM 100MHz CH-Low 1RB



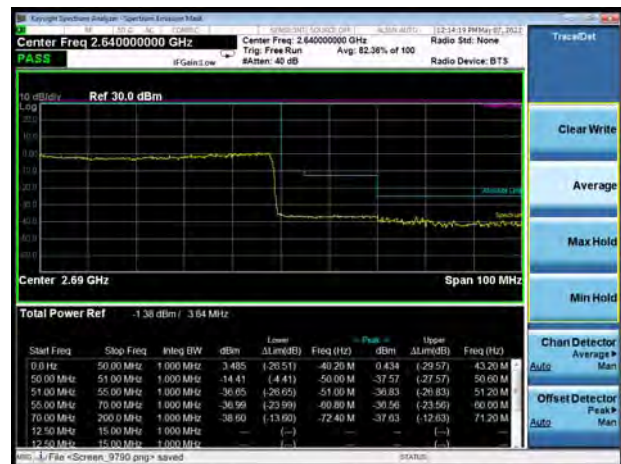
NR n41 64QAM 100MHz CH-High 1RB



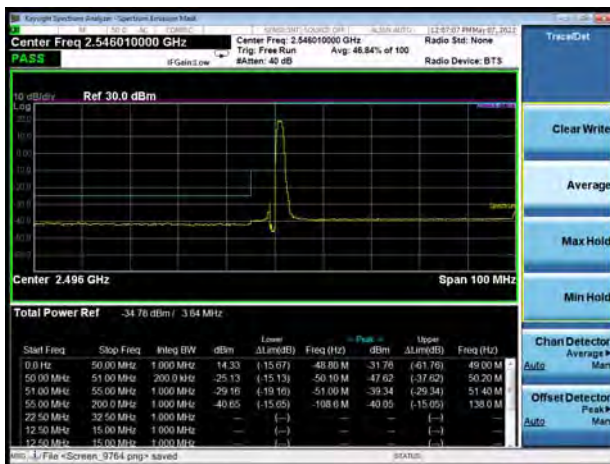
NR n41 64QAM 100MHz CH-Low 100%RB



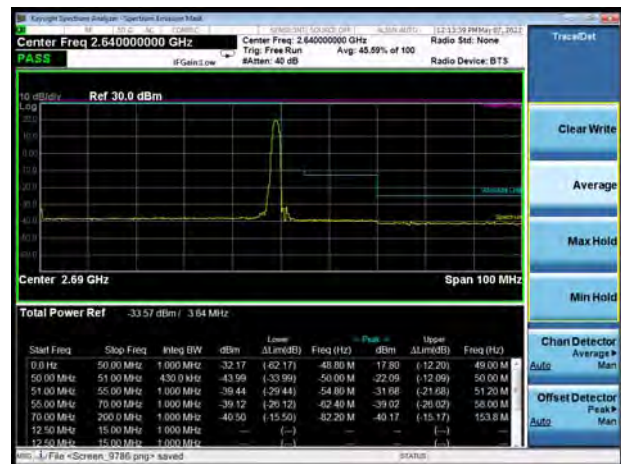
NR n41 64QAM 100MHz CH-High 100%RB



NR n41 256QAM 100MHz CH-Low 1RB



NR n41 256QAM 100MHz CH-High 1RB

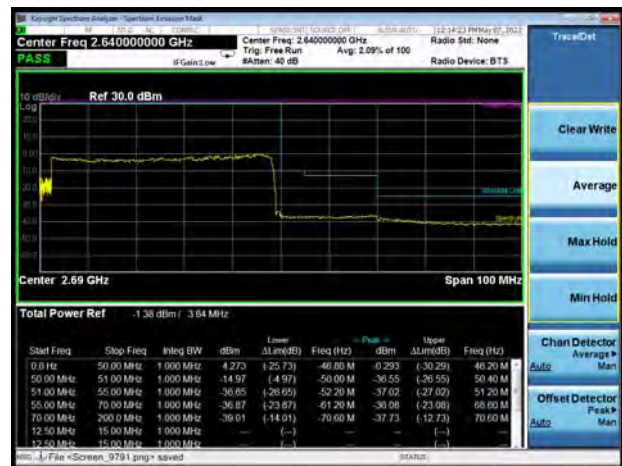


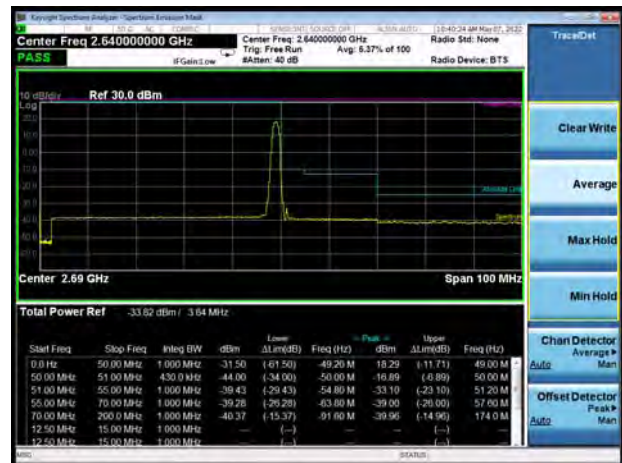
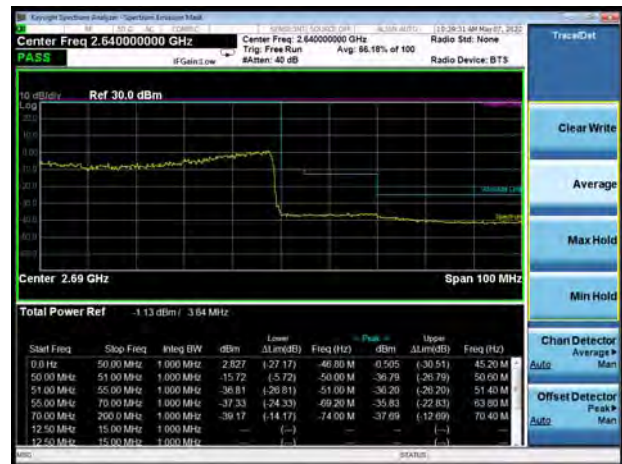
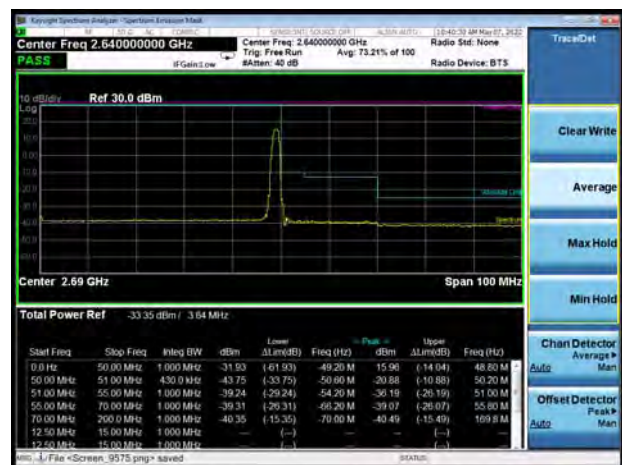


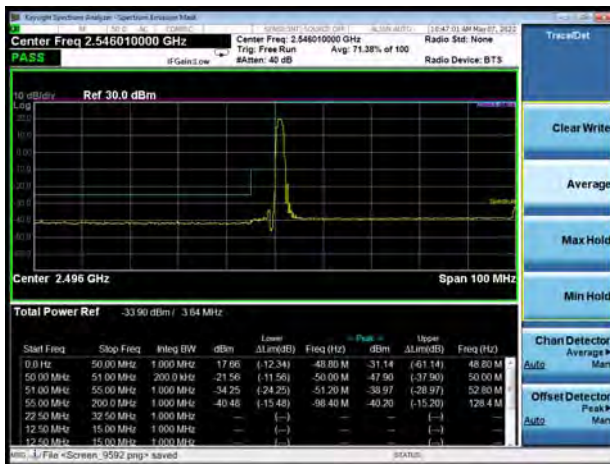
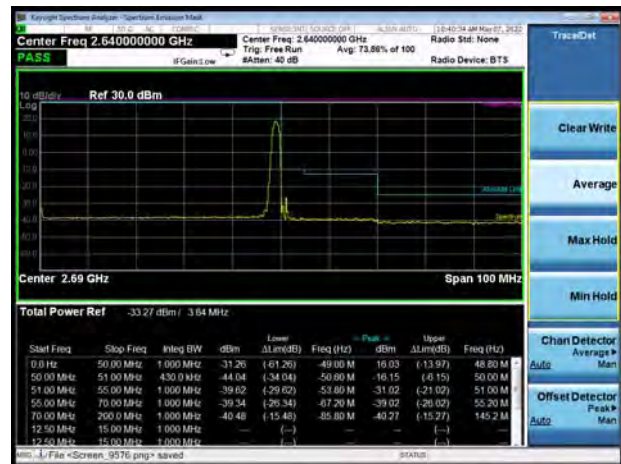
NR n41 256QAM 100MHz CH-Low 100%RB

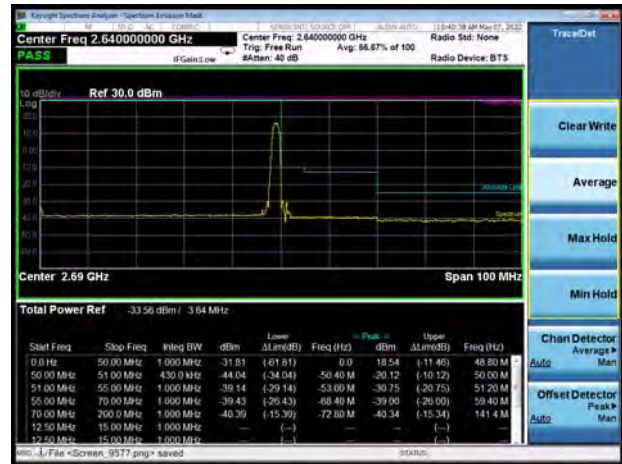
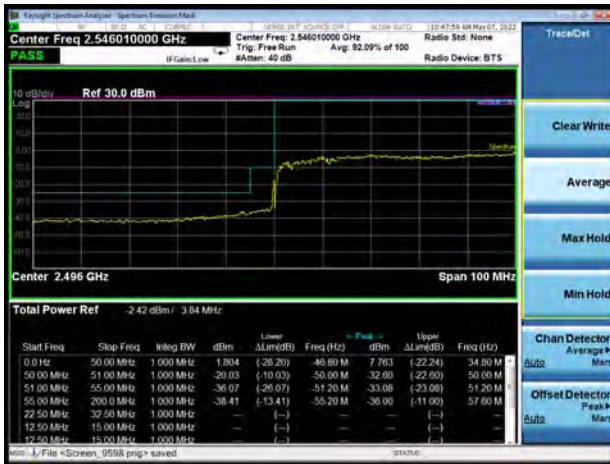
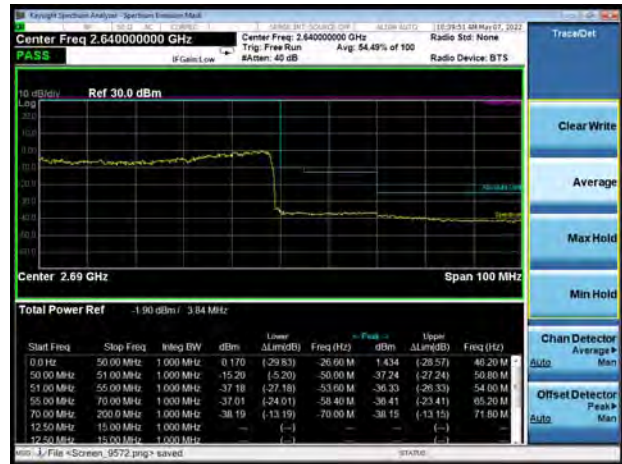
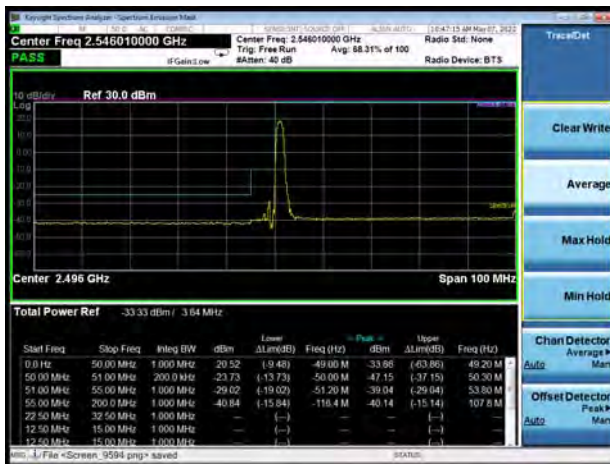
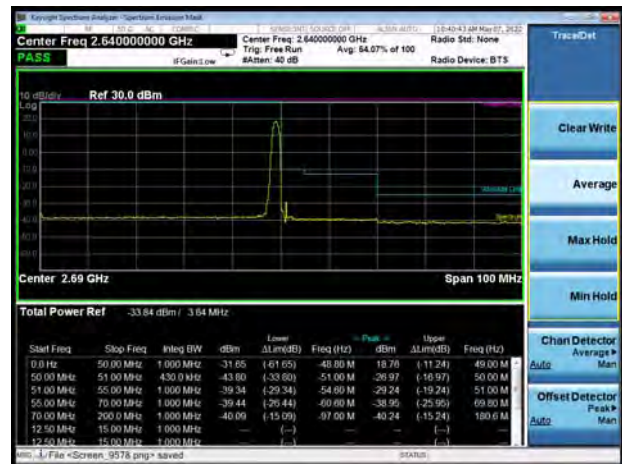


NR n41 256QAM 100MHz CH-High 100%RB



DC_28 A (subset 2)-n41A P1/2 BPSK 100MHz
CH-Low 1RBDC_28 A (subset 2)-n41A P1/2 BPSK 100MHz
CH-High 1RBDC_28 A (subset 2)-n41A P1/2 BPSK 100MHz
CH-Low 100%RBDC_28 A (subset 2)-n41A P1/2 BPSK 100MHz
CH-High 100%RBDC_28 A (subset 2)-n41A QPSK 100MHz
CH-Low 1RBDC_28 A (subset 2)-n41A QPSK 100MHz
CH-High 1RB

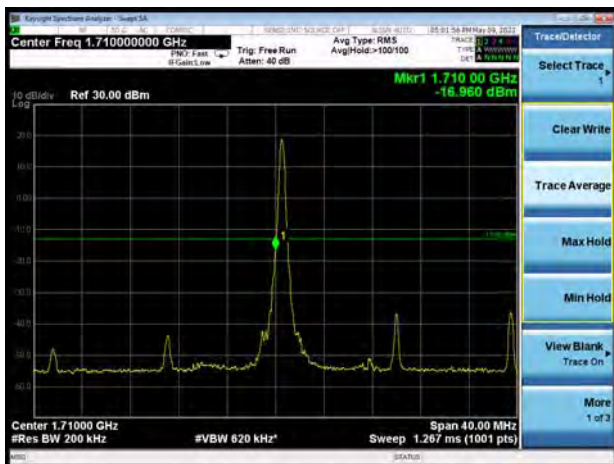
DC_28 A (subset 2)-n41A QPSK 100MHz
CH-Low 100%RBDC_28 A (subset 2)-n41A QPSK 100MHz
CH-High 100%RBDC_28 A (subset 2)-n41A 16QAM 100MHz
CH-Low 1RBDC_28 A (subset 2)-n41A 16QAM 100MHz
CH-High 1RBDC_28 A (subset 2)-n41A 16QAM 100MHz
CH-Low 100%RBDC_28 A (subset 2)-n41A 16QAM 100MHz
CH-High 100%RB

DC_28 A (subset 2)-n41A 64QAM 100MHz
CH-Low 1RBDC_28 A (subset 2)-n41A 64QAM 100MHz
CH-High 1RBDC_28 A (subset 2)-n41A 64QAM 100MHz
CH-Low 100%RBDC_28 A (subset 2)-n41A 64QAM 100MHz
CH-High 100%RBDC_28 A (subset 2)-n41A 256QAM 100MHz
CH-Low 1RBDC_28 A (subset 2)-n41A 256QAM 100MHz
CH-High 1RB

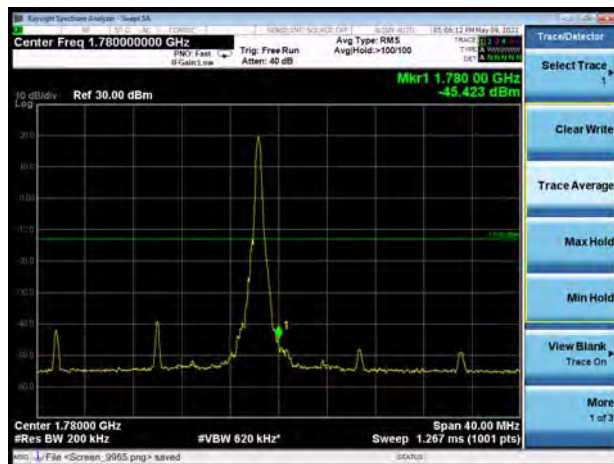
DC_28 A (subset 2)-n41A 256QAM 100MHz
CH-Low 100%RBDC_28 A (subset 2)-n41A 256QAM 100MHz
CH-High 100%RB



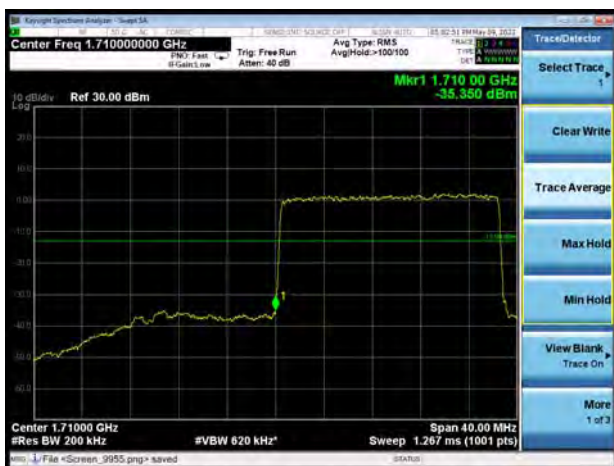
NR n66 P1/2 BPSK 20MHzCH-Low 1RB



NR n66 P1/2 BPSK 20MHzCH-High 1RB



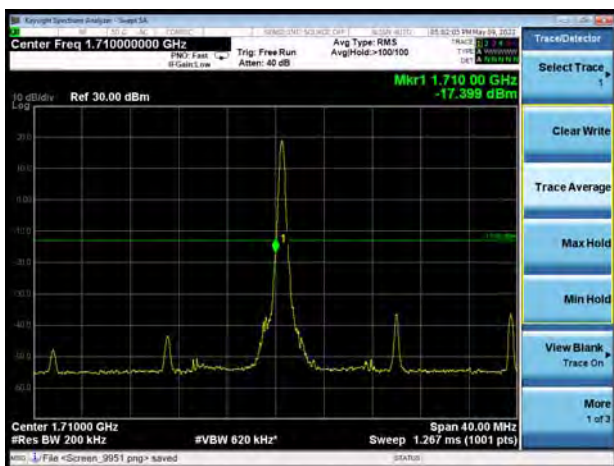
NR n66 P1/2 BPSK 20MHzCH-Low 100%RB



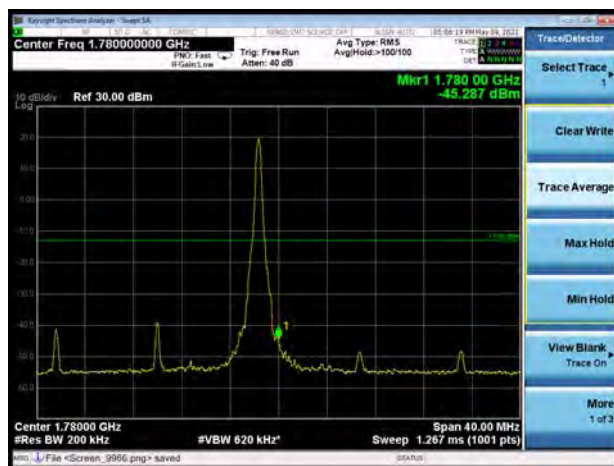
NR n66 P1/2 BPSK 20MHzCH-High 100%RB



NR n66 QPSK 20MHzCH-Low 1RB



NR n66 QPSK 20MHzCH-High 1RB





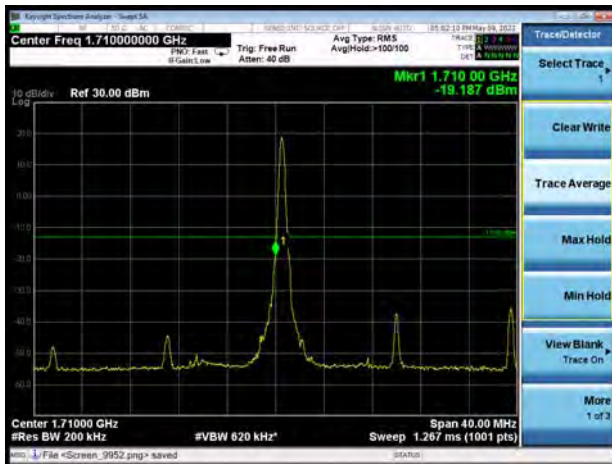
NR n66 QPSK 20MHzCH-Low 100%RB



NR n66 QPSK 20MHzCH-High 100%RB



NR n66 16QAM 20MHzCH-Low 1RB



NR n66 16QAM 20MHzCH-High 1RB



NR n66 16QAM 20MHzCH-Low 100%RB

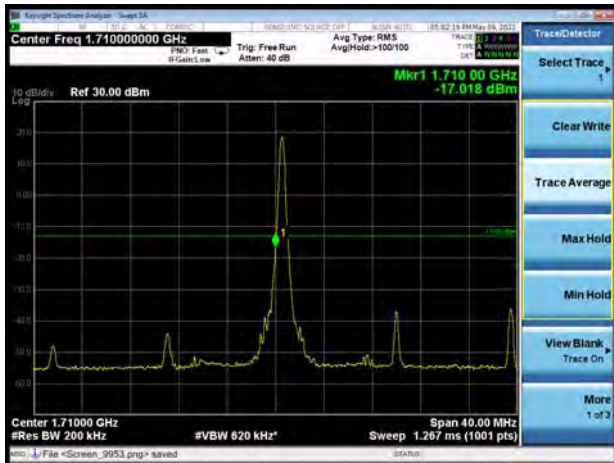


NR n66 16QAM 20MHzCH-High 100%RB

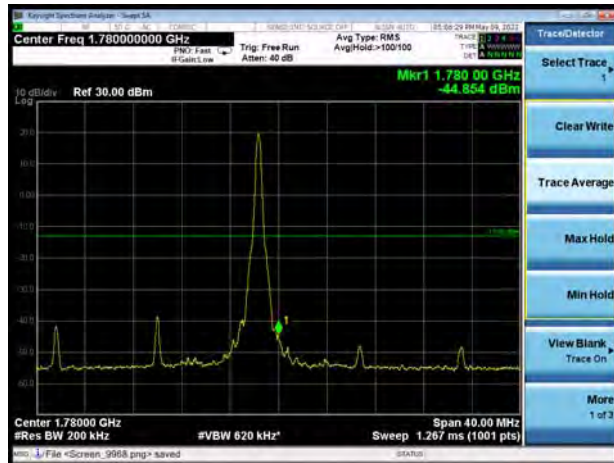




NR n66 64QAM 20MHzCH-Low 1RB



NR n66 64QAM 20MHzCH-High 1RB



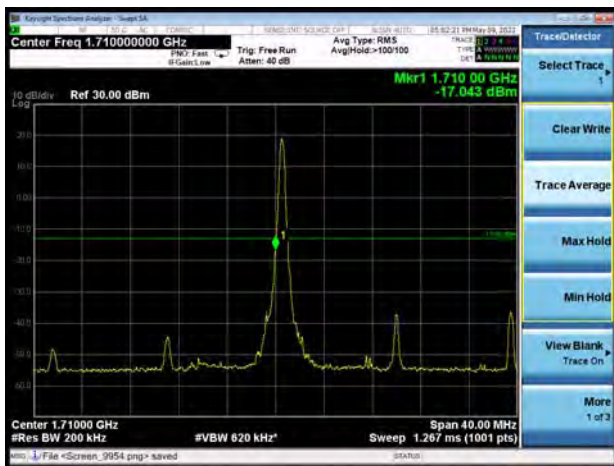
NR n66 64QAM 20MHzCH-Low 100%RB



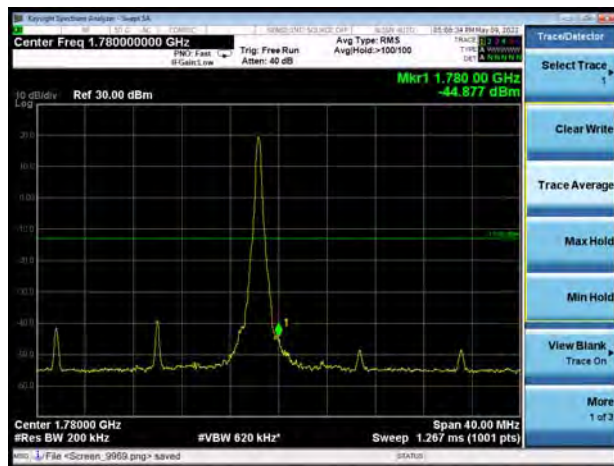
NR n66 64QAM 20MHzCH-High 100%RB



NR n66 256QAM 20MHzCH-Low 1RB



NR n66 256QAM 20MHzCH-High 1RB





NR n66 256QAM 20MHzCH-Low 100%RB

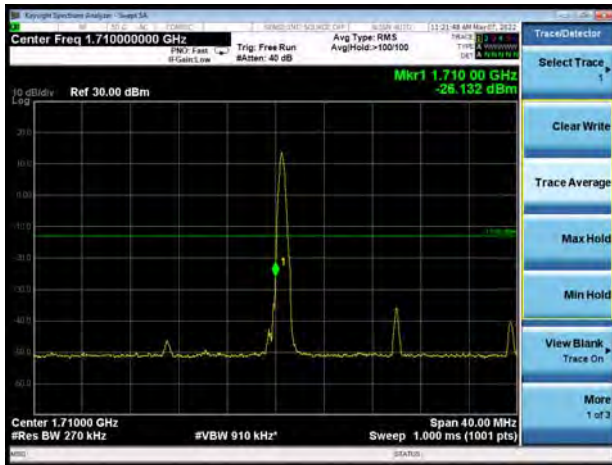


NR n66 256QAM 20MHzCH-High 100%RB

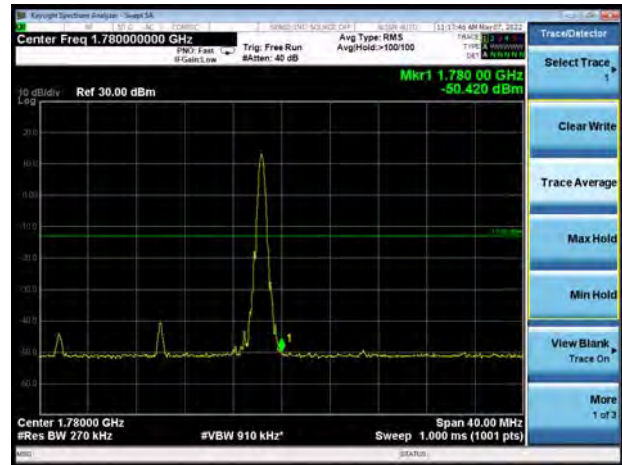
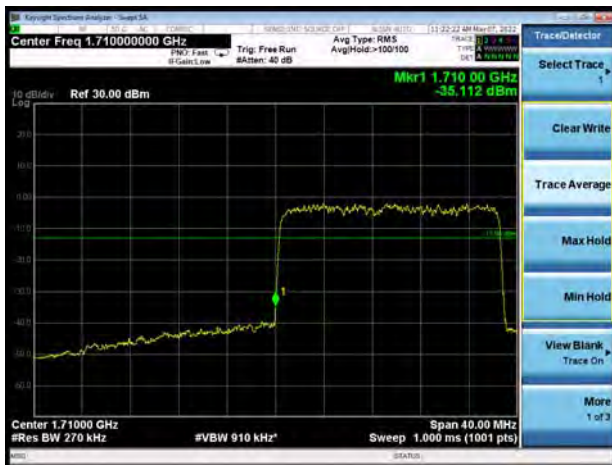




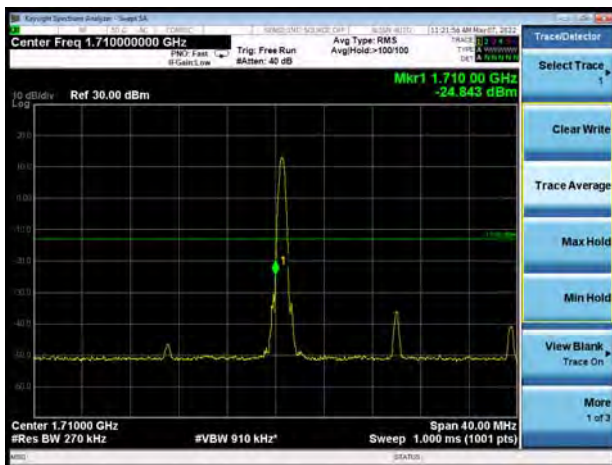
DC_5A-n66A P1/2 BPSK 20MHzCH-Low 1RB



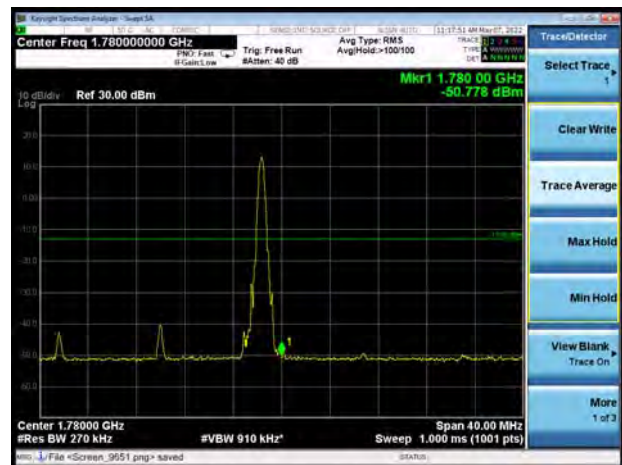
DC_5A-n66A P1/2 BPSK 20MHzCH-High 1RB

DC_5A-n66A P1/2 BPSK 20MHzCH-Low
100%RBDC_5A-n66A P1/2 BPSK 20MHzCH-High
100%RB

DC_5A-n66A QPSK 20MHzCH-Low 1RB



DC_5A-n66A QPSK 20MHzCH-High 1RB





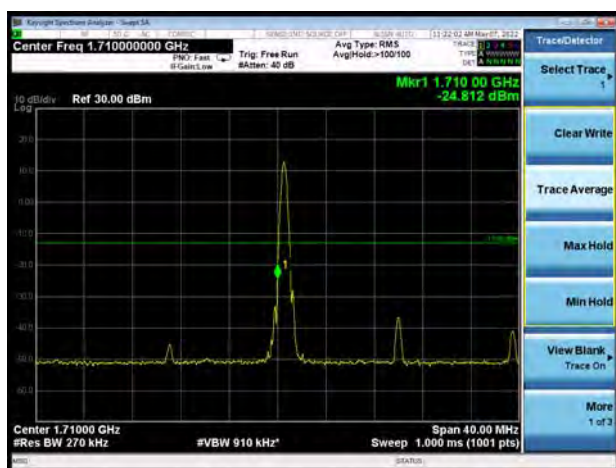
DC_5A-n66A QPSK 20MHzCH-Low 100%RB



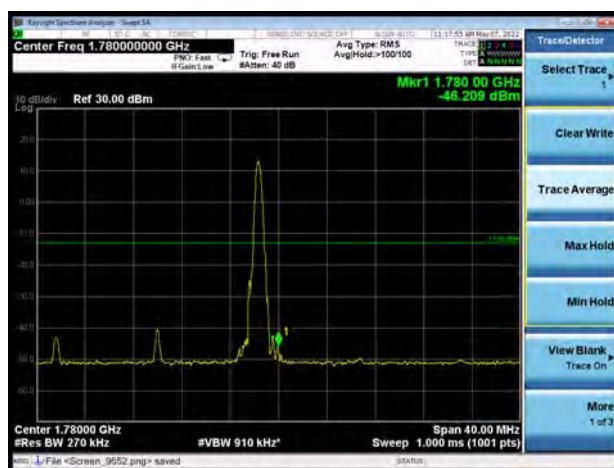
DC_5A-n66A QPSK 20MHzCH-High 100%RB



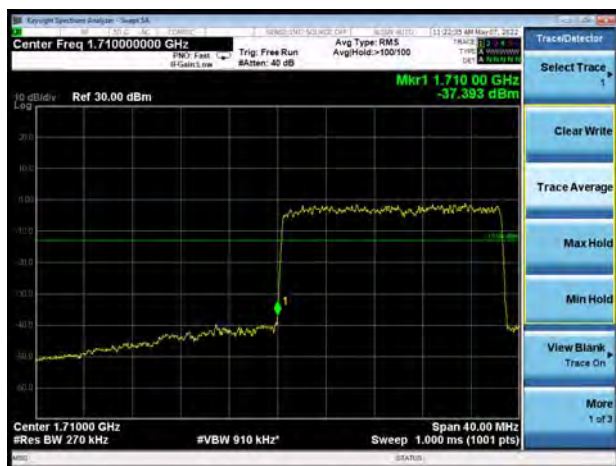
DC_5A-n66A 16QAM 20MHzCH-Low 1RB



DC_5A-n66A 16QAM 20MHzCH-High 1RB



DC_5A-n66A 16QAM 20MHzCH-Low 100%RB

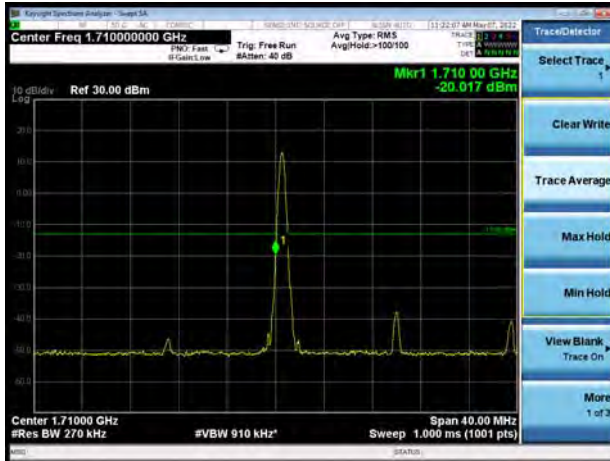


DC_5A-n66A 16QAM 20MHzCH-High 100%RB

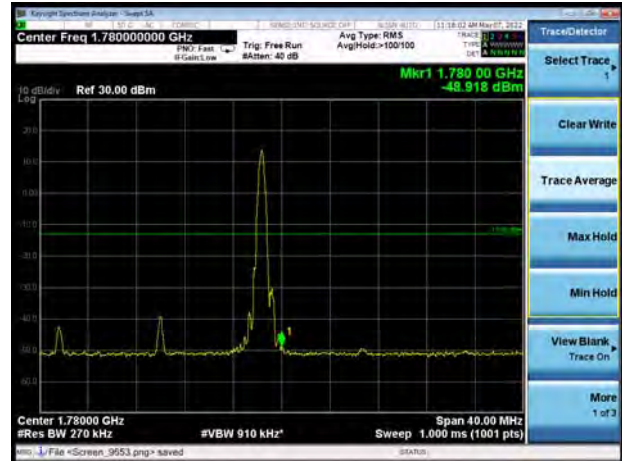




DC_5A-n66A 64QAM 20MHzCH-Low 1RB



DC_5A-n66A 64QAM 20MHzCH-High 1RB



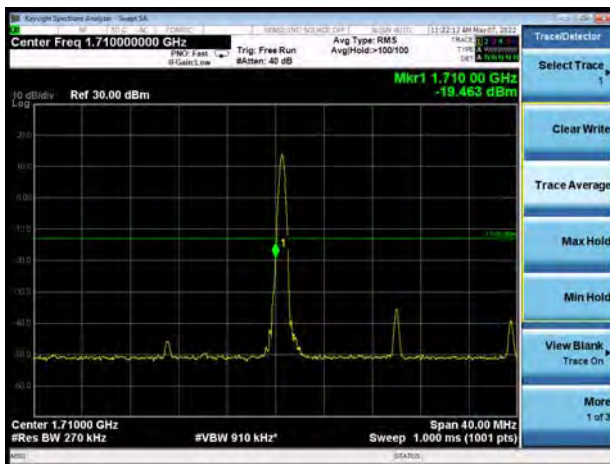
DC_5A-n66A 64QAM 20MHzCH-Low 100%RB



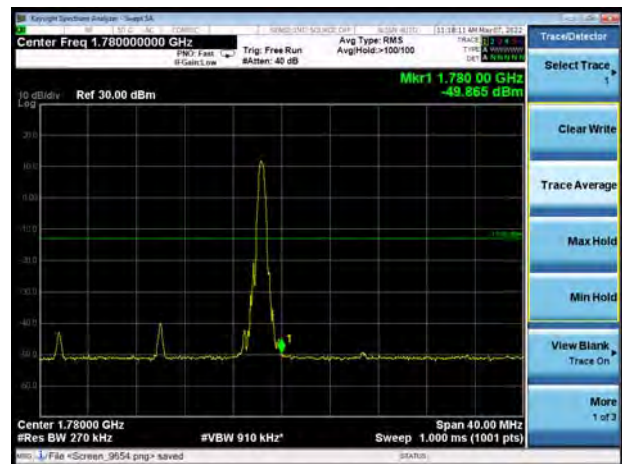
DC_5A-n66A 64QAM 20MHzCH-High 100%RB



DC_5A-n66A 256QAM 20MHzCH-Low 1RB



DC_5A-n66A 256QAM 20MHzCH-High 1RB



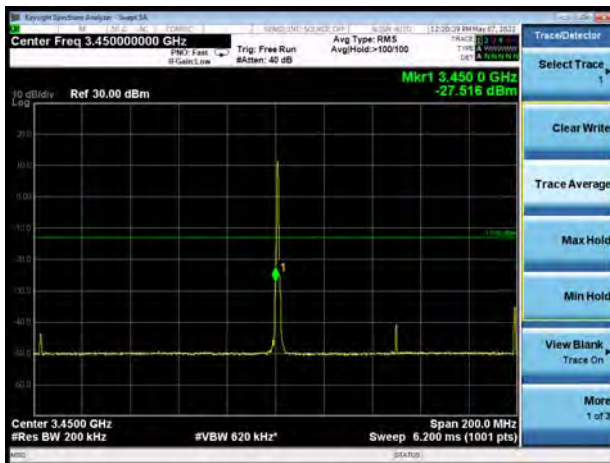
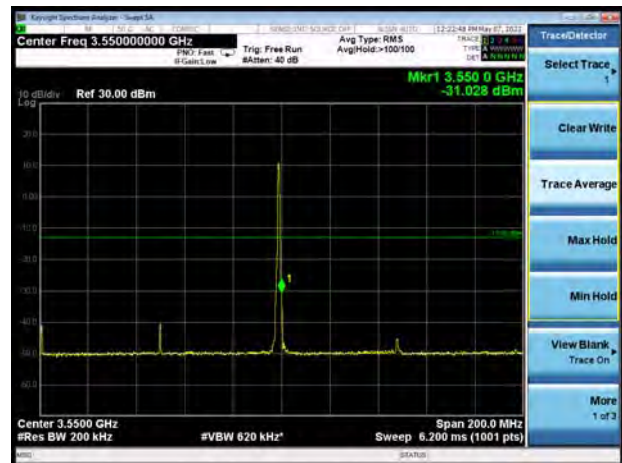


DC_5A-n66A 256QAM 20MHzCH-Low 100%RB

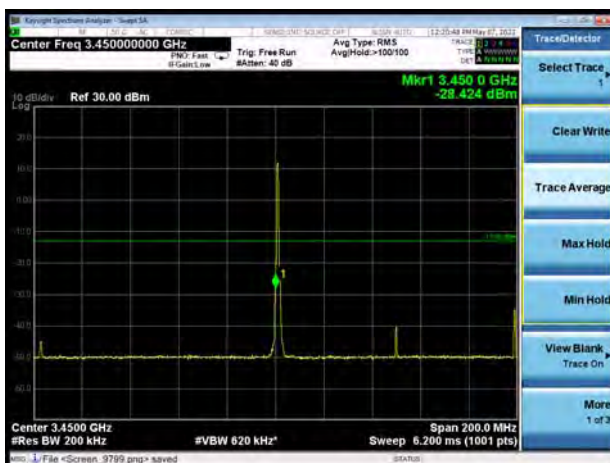


DC_5A-n66A 256QAM 20MHzCH-High 100%RB

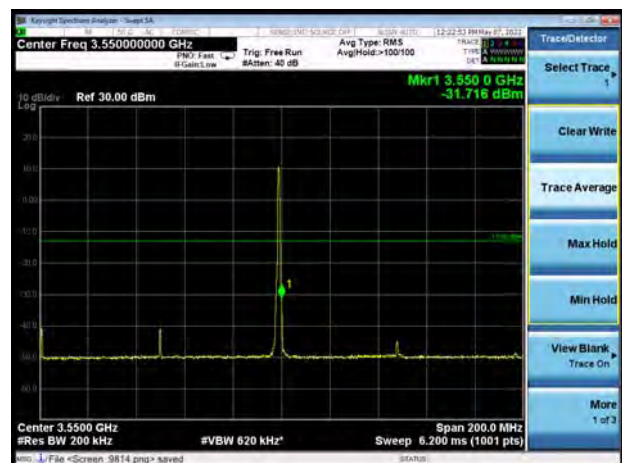


NR n77 subset 1 P1/2 BPSK 100MHz CH-Low
1RBNR n77 subset 1 P1/2 BPSK 100MHz CH-High
1RBNR n77 subset 1 P1/2 BPSK 100MHz CH-Low
100%RBNR n77 subset 1 P1/2 BPSK 100MHz CH-High
100%RB

NR n77 subset 1 QPSK 100MHz CH-Low 1RB



NR n77 subset 1 QPSK 100MHz CH-High 1RB

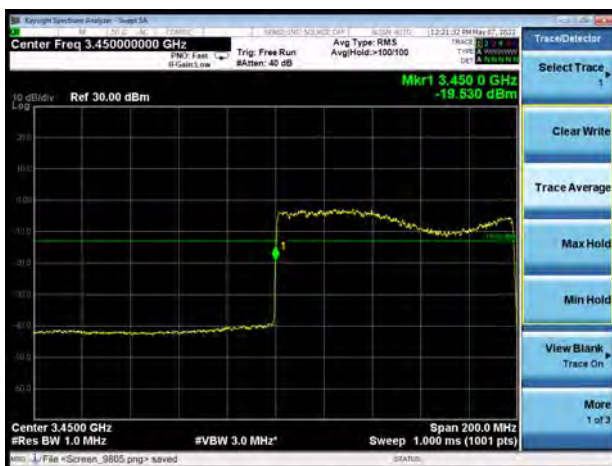
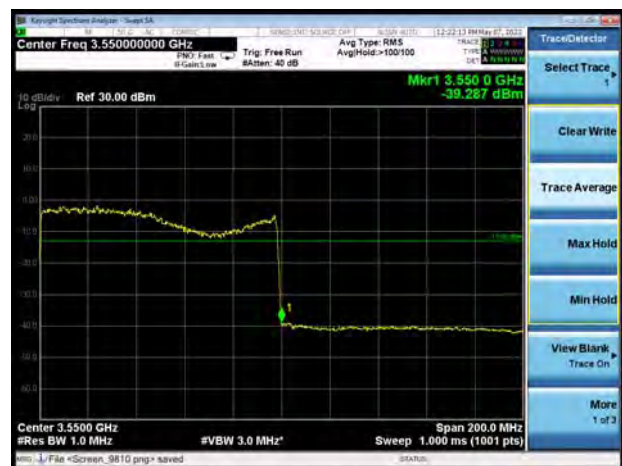


NR n77 subset 1 QPSK 100MHz CH-Low
100%RBNR n77 subset 1 QPSK 100MHz CH-High
100%RB

NR n77 subset 1 16QAM 100MHz CH-Low 1RB



NR n77 subset 1 16QAM 100MHz CH-High 1RB

NR n77 subset 1 16QAM 100MHz CH-Low
100%RBNR n77 subset 1 16QAM 100MHz CH-High
100%RB



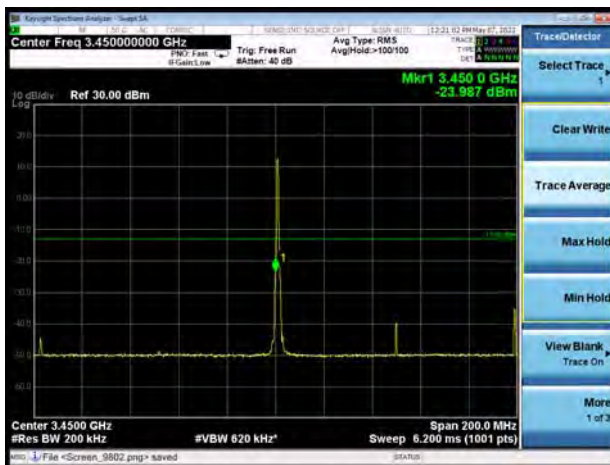
NR n77 subset 1 64QAM 100MHz CH-Low 1RB



NR n77 subset 1 64QAM 100MHz CH-High 1RB

NR n77 subset 1 64QAM 100MHz CH-Low
100%RBNR n77 subset 1 64QAM 100MHz CH-High
100%RB

NR n77 subset 1 256QAM 100MHz CH-Low 1RB



NR n77 subset 1 256QAM 100MHz CH-High 1RB



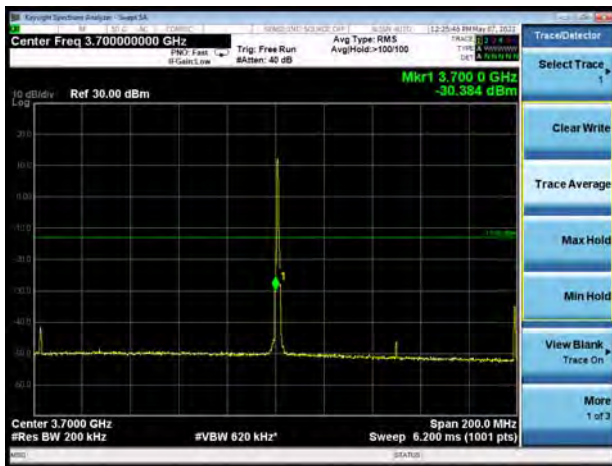
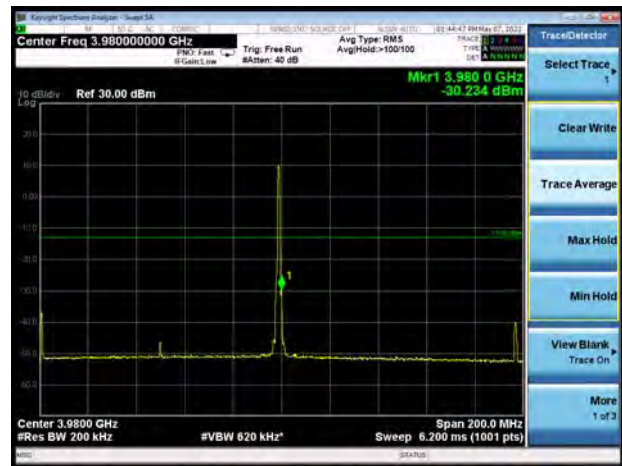


NR n77 subset 1 256QAM 100MHz CH-Low
100%RB

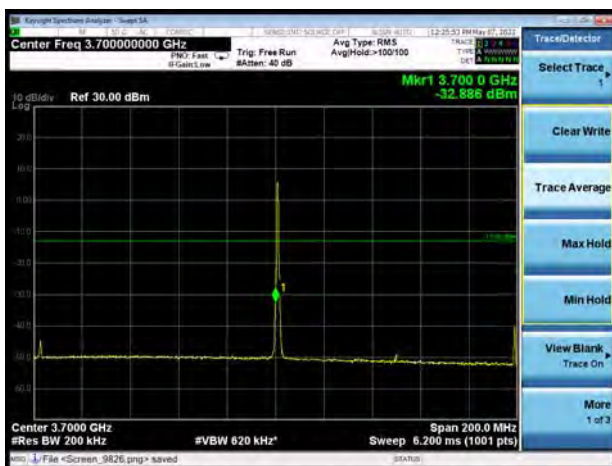


NR n77 subset 1 256QAM 100MHz CH-High
100%RB

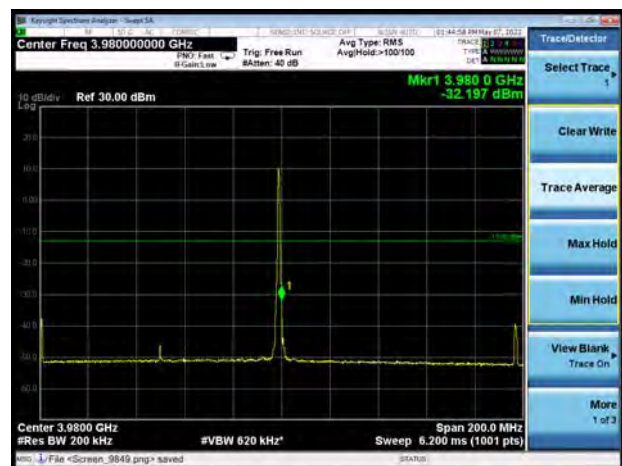


NR n77 subset 2 P1/2 BPSK 100MHz CH-Low
1RBNR n77 subset 2 P1/2 BPSK 100MHz CH-High
1RBNR n77 subset 2 P1/2 BPSK 100MHz CH-Low
100%RBNR n77 subset 2 P1/2 BPSK 100MHz CH-High
100%RB

NR n77 subset 2 QPSK 100MHz CH-Low 1RB



NR n77 subset 2 QPSK 100MHz CH-High 1RB

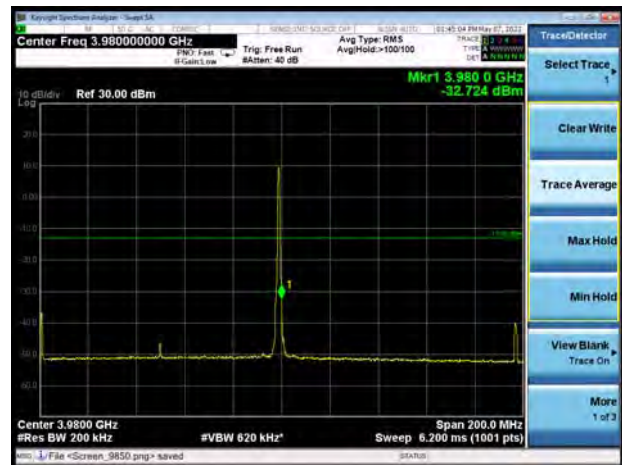
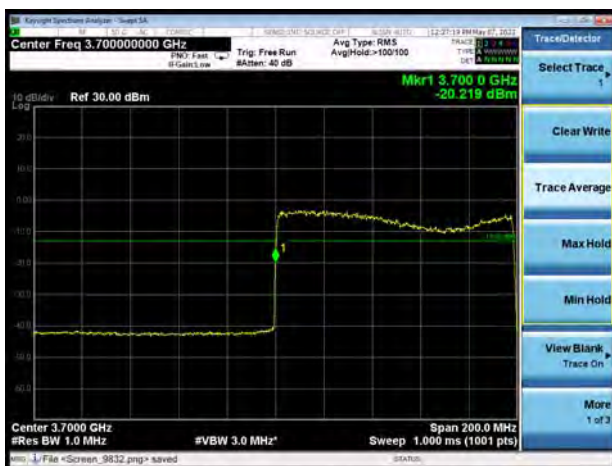


NR n77 subset 2 QPSK 100MHz CH-Low
100%RBNR n77 subset 2 QPSK 100MHz CH-High
100%RB

NR n77 subset 2 16QAM 100MHz CH-Low 1RB

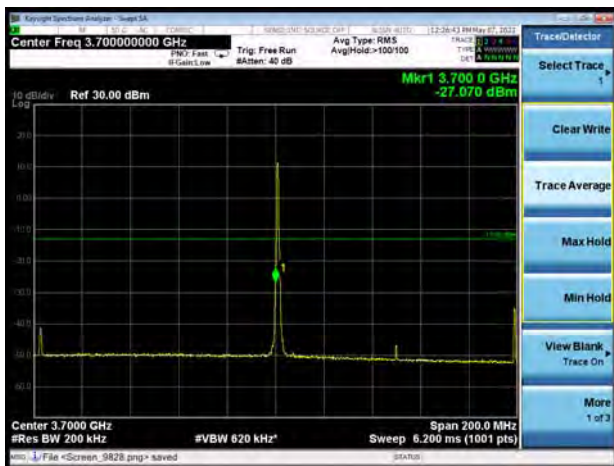


NR n77 subset 2 16QAM 100MHz CH-High 1RB

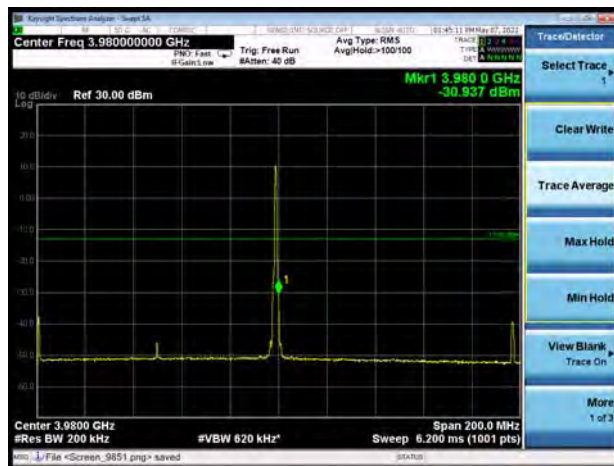
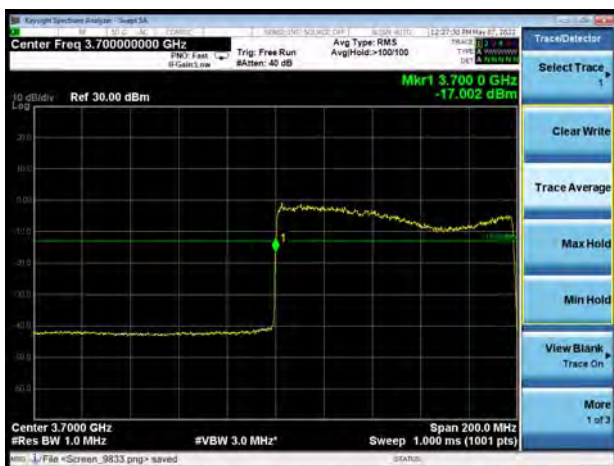
NR n77 subset 2 16QAM 100MHz CH-Low
100%RBNR n77 subset 2 16QAM 100MHz CH-High
100%RB



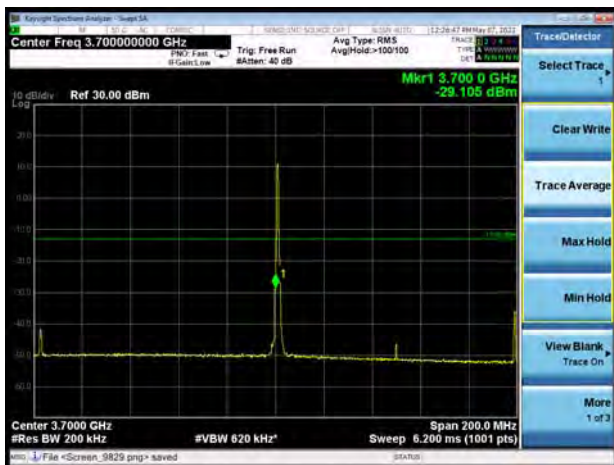
NR n77 subset 2 64QAM 100MHz CH-Low 1RB



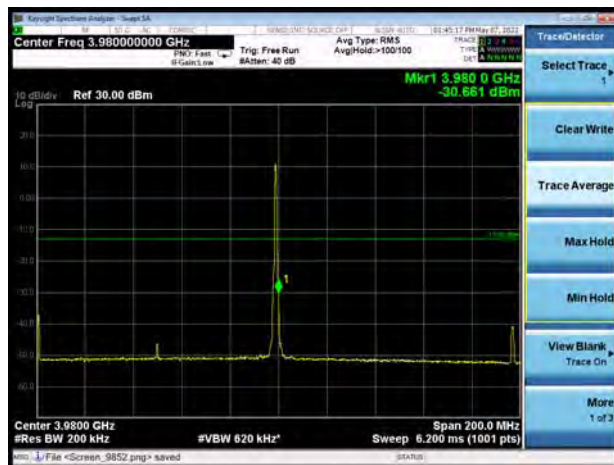
NR n77 subset 2 64QAM 100MHz CH-High 1RB

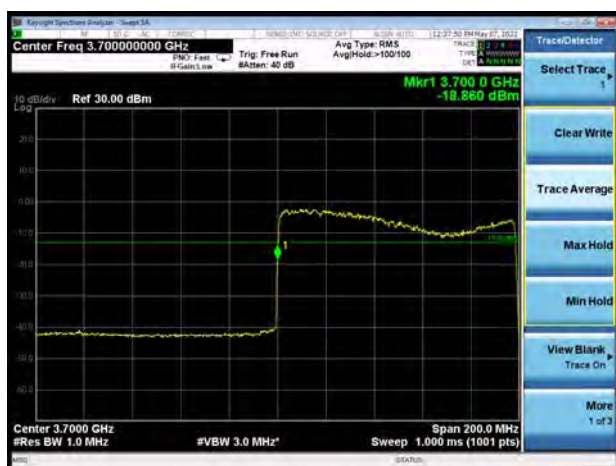
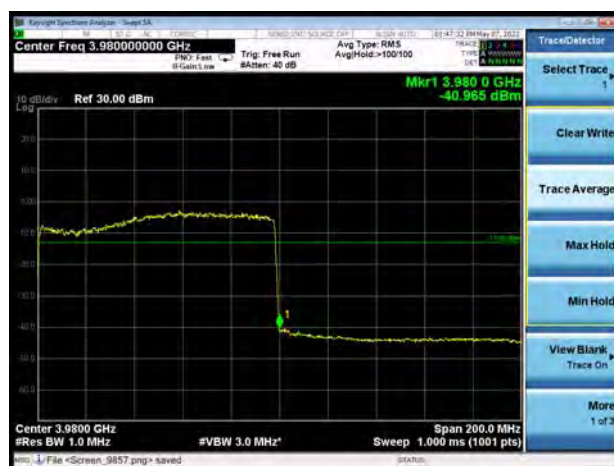
NR n77 subset 2 64QAM 100MHz CH-Low
100%RBNR n77 subset 2 64QAM 100MHz CH-High
100%RB

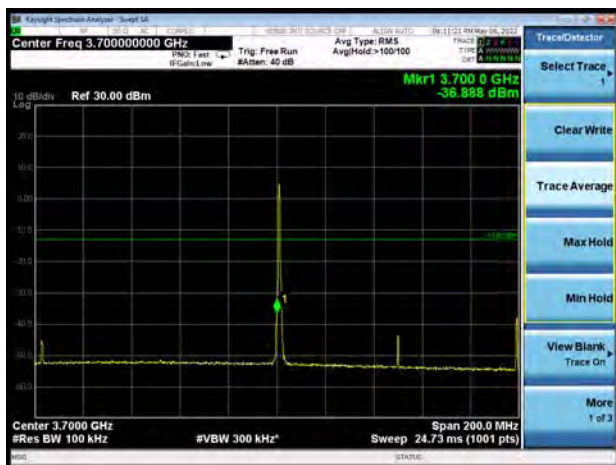
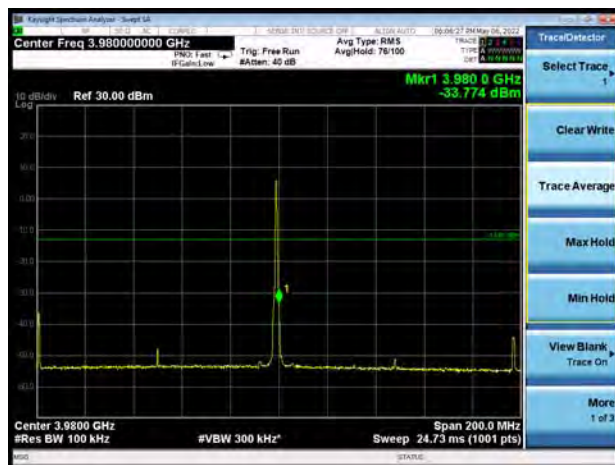
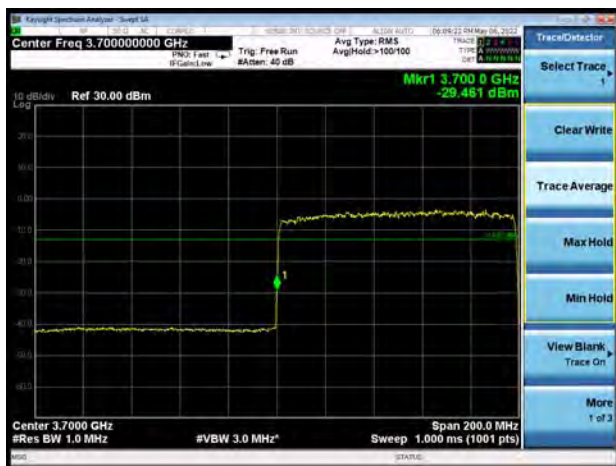
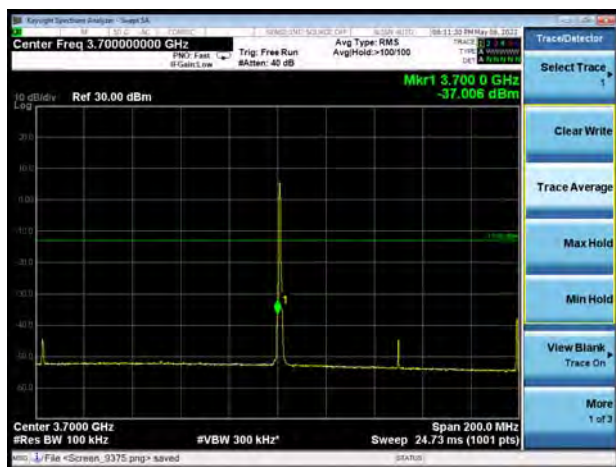
NR n77 subset 2 256QAM 100MHz CH-Low 1RB

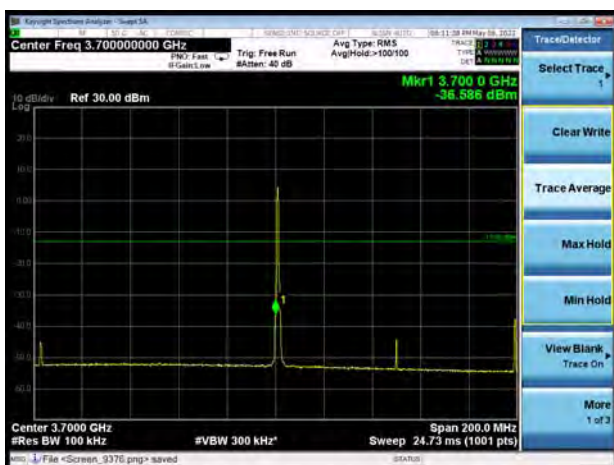


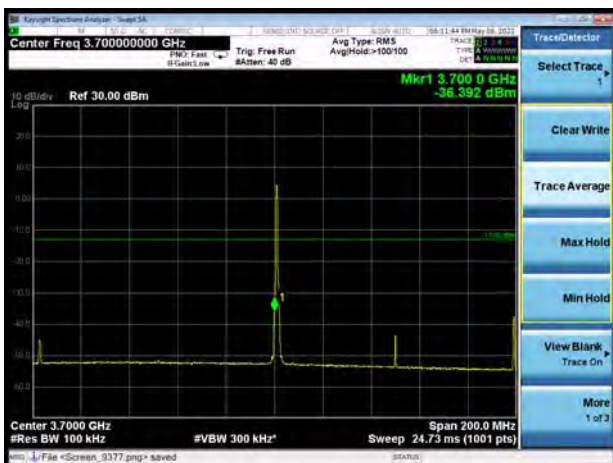
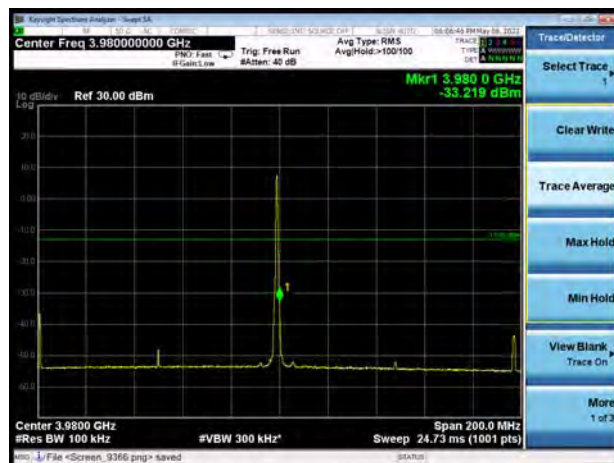
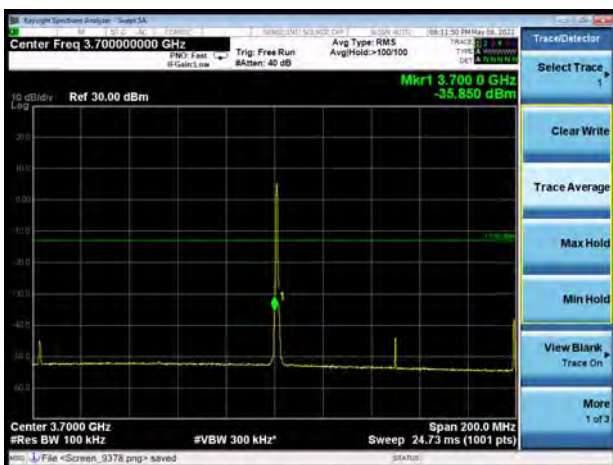
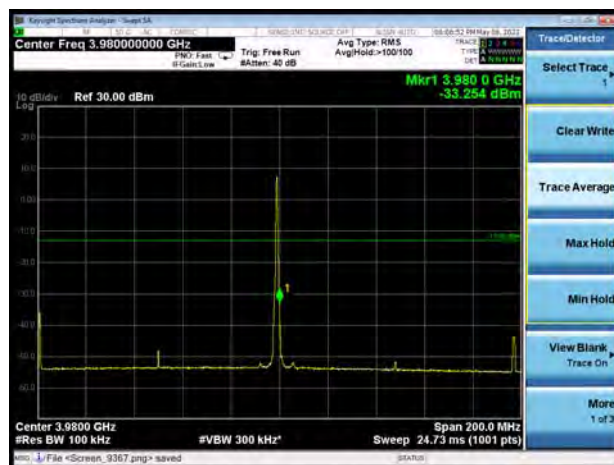
NR n77 subset 2 256QAM 100MHz CH-High 1RB



NR n77 subset 2 256QAM 100MHz CH-Low
100%RBNR n77 subset 2 256QAM 100MHz CH-High
100%RB

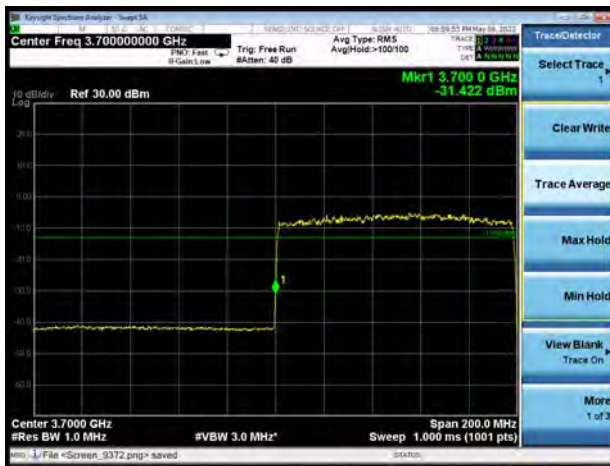
DC_2A-n77(subset 2)AP1/2 BPSK 100MHz
CH-Low 1RBDC_2A-n77(subset 2)AP1/2 BPSK 100MHz
CH-High 1RBDC_2A-n77(subset 2)AP1/2 BPSK 100MHz
CH-Low 100%RBDC_2A-n77(subset 2)AP1/2 BPSK 100MHz
CH-High 100%RBDC_2A-n77(subset 2)AQPSK 100MHz CH-Low
1RBDC_2A-n77(subset 2)AQPSK 100MHz CH-High
1RB

DC_2A-n77(subset 2)AQPSK 100MHz CH-Low
100%RBDC_2A-n77(subset 2)AQPSK 100MHz CH-High
100%RBDC_2A-n77(subset 2)A16QAM 100MHz CH-Low
1RBDC_2A-n77(subset 2)A16QAM 100MHz CH-High
1RBDC_2A-n77(subset 2)A16QAM 100MHz CH-Low
100%RBDC_2A-n77(subset 2)A16QAM 100MHz CH-High
100%RB

DC_2A-n77(subset 2)A64QAM 100MHz CH-Low
1RBDC_2A-n77(subset 2)A64QAM 100MHz CH-High
1RBDC_2A-n77(subset 2)A64QAM 100MHz CH-Low
100%RBDC_2A-n77(subset 2)A64QAM 100MHz CH-High
100%RBDC_2A-n77(subset 2)A256QAM 100MHz
CH-Low 1RBDC_2A-n77(subset 2)A256QAM 100MHz
CH-High 1RB



DC_2A-n77(subset 2)A256QAM 100MHz
CH-Low 100%RB



DC_2A-n77(subset 2)A256QAM 100MHz
CH-High 100%RB





6.4 Peak-to-Average Power Ratio (PAPR)

WCDMA Band IV	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
RMC	1312	1712.4	27.29	24.65	2.64	≤13	PASS
	1413	1732.6	27.71	25.19	2.52	≤13	PASS
	1513	1752.6	28.02	25.53	2.49	≤13	PASS

LTE Band 4								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	19957	1710.7	26.99	22.67	4.32	≤13	PASS
		20175	1732.5	27.16	22.83	4.33	≤13	PASS
		20393	1754.3	27.07	22.77	4.30	≤13	PASS
	3	19965	1711.5	27.05	22.70	4.35	≤13	PASS
		20175	1732.5	27.21	22.77	4.44	≤13	PASS
		20385	1753.5	27.14	22.81	4.33	≤13	PASS
	5	19975	1712.5	27.17	22.77	4.40	≤13	PASS
		20175	1732.5	27.29	22.81	4.48	≤13	PASS
		20375	1752.5	27.09	22.80	4.29	≤13	PASS
	10	20000	1715	27.57	22.91	4.66	≤13	PASS
		20175	1732.5	27.60	22.99	4.61	≤13	PASS
		20350	1750	27.50	23.06	4.44	≤13	PASS
	15	20025	1717.5	27.65	22.84	4.81	≤13	PASS
		20175	1732.5	27.69	22.87	4.82	≤13	PASS
		20325	1747.5	27.61	22.92	4.69	≤13	PASS
	20	20050	1720	27.77	22.92	4.85	≤13	PASS
		20175	1732.5	27.79	22.91	4.88	≤13	PASS
		20300	1745	27.68	22.91	4.77	≤13	PASS
16QAM	1.4	19957	1710.7	26.97	21.63	5.34	≤13	PASS
		20175	1732.5	27.13	21.82	5.31	≤13	PASS
		20393	1754.3	27.04	21.81	5.23	≤13	PASS
	3	19965	1711.5	27.06	21.73	5.33	≤13	PASS
		20175	1732.5	27.17	21.78	5.39	≤13	PASS
		20385	1753.5	27.08	21.82	5.26	≤13	PASS
	5	19975	1712.5	27.19	21.75	5.44	≤13	PASS
		20175	1732.5	27.22	21.81	5.41	≤13	PASS
		20375	1752.5	27.10	21.79	5.31	≤13	PASS
	10	20000	1715	27.52	21.95	5.57	≤13	PASS



		20175	1732.5	27.51	22.00	5.51	≤13	PASS
		20350	1750	27.40	22.03	5.37	≤13	PASS
		20025	1717.5	27.69	21.87	5.82	≤13	PASS
	15	20175	1732.5	27.67	21.88	5.79	≤13	PASS
		20325	1747.5	27.59	21.93	5.66	≤13	PASS
		20050	1720	27.80	21.94	5.86	≤13	PASS
	20	20175	1732.5	27.78	21.92	5.86	≤13	PASS
		20300	1745	27.68	21.91	5.77	≤13	PASS
		20000	1715	26.57	21.07	5.50	≤13	PASS
64QAM	1.4	19957	1710.7	26.22	20.95	5.27	≤13	PASS
		20175	1732.5	26.43	21.17	5.26	≤13	PASS
		20393	1754.3	26.29	21.11	5.18	≤13	PASS
	3	19965	1711.5	26.30	20.99	5.31	≤13	PASS
		20175	1732.5	26.43	21.07	5.36	≤13	PASS
		20385	1753.5	26.33	21.12	5.21	≤13	PASS
	5	19975	1712.5	26.34	21.02	5.32	≤13	PASS
		20175	1732.5	26.48	21.10	5.38	≤13	PASS
		20375	1752.5	26.34	21.11	5.23	≤13	PASS
	10	20000	1715	26.57	21.07	5.50	≤13	PASS
		20175	1732.5	26.63	21.12	5.51	≤13	PASS
		20350	1750	26.55	21.20	5.35	≤13	PASS
	15	20025	1717.5	26.75	20.98	5.77	≤13	PASS
		20175	1732.5	26.81	21.06	5.75	≤13	PASS
		20325	1747.5	26.73	21.09	5.64	≤13	PASS
	20	20050	1720	26.87	21.03	5.84	≤13	PASS
		20175	1732.5	26.89	21.04	5.85	≤13	PASS
		20300	1745	26.79	21.02	5.77	≤13	PASS

LTE Band 7								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	20775	2502.5	26.41	21.98	4.43	≤13	PASS
		21100	2535	26.25	21.81	4.44	≤13	PASS
		21425	2567.5	26.27	21.84	4.43	≤13	PASS
	10	20800	2505	26.54	21.99	4.55	≤13	PASS
		21100	2535	26.39	21.83	4.56	≤13	PASS
		21400	2565	26.46	21.89	4.57	≤13	PASS
	15	20825	2507.5	26.59	21.84	4.75	≤13	PASS
		21100	2535	26.45	21.70	4.75	≤13	PASS



	20	21375	2562.5	26.58	21.80	4.78	≤13	PASS
		20850	2510	26.72	21.87	4.85	≤13	PASS
		21100	2535	26.56	21.76	4.80	≤13	PASS
		21350	2560	26.66	21.87	4.79	≤13	PASS
16QAM	5	20775	2502.5	26.39	20.97	5.42	≤13	PASS
		21100	2535	26.21	20.81	5.40	≤13	PASS
		21425	2567.5	26.27	20.88	5.39	≤13	PASS
	10	20800	2505	26.52	21.02	5.50	≤13	PASS
		21100	2535	26.36	20.86	5.50	≤13	PASS
		21400	2565	26.37	20.87	5.50	≤13	PASS
	15	20825	2507.5	26.60	20.87	5.73	≤13	PASS
		21100	2535	26.43	20.69	5.74	≤13	PASS
		21375	2562.5	26.58	20.83	5.75	≤13	PASS
	20	20850	2510	26.66	20.87	5.79	≤13	PASS
		21100	2535	26.57	20.77	5.80	≤13	PASS
		21350	2560	26.66	20.88	5.78	≤13	PASS
64QAM	5	20775	2502.5	25.44	20.06	5.38	≤13	PASS
		21100	2535	25.49	20.14	5.35	≤13	PASS
		21425	2567.5	25.57	20.20	5.37	≤13	PASS
	10	20800	2505	25.61	20.11	5.50	≤13	PASS
		21100	2535	25.63	20.16	5.47	≤13	PASS
		21400	2565	25.70	20.20	5.50	≤13	PASS
	15	20825	2507.5	25.71	19.97	5.74	≤13	PASS
		21100	2535	25.77	20.04	5.73	≤13	PASS
		21375	2562.5	25.91	20.16	5.75	≤13	PASS
	20	20850	2510	25.82	20.01	5.81	≤13	PASS
		21100	2535	25.84	20.04	5.80	≤13	PASS
		21350	2560	25.96	20.15	5.81	≤13	PASS



LTE Band 12								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	23017	699.7	28.36	23.91	4.45	≤13	PASS
		23095	707.5	28.32	23.85	4.47	≤13	PASS
		23173	715.3	28.34	23.91	4.43	≤13	PASS
	3	23025	700.5	28.40	23.92	4.48	≤13	PASS
		23095	707.5	28.38	23.87	4.51	≤13	PASS
		23165	714.5	28.37	23.88	4.49	≤13	PASS
	5	23035	701.5	28.56	23.97	4.59	≤13	PASS
		23095	707.5	28.49	23.93	4.56	≤13	PASS
		23155	713.5	28.44	23.88	4.56	≤13	PASS
	10	23060	704	28.70	23.99	4.71	≤13	PASS
		23095	707.5	28.61	23.90	4.71	≤13	PASS
		23130	711	28.68	24.00	4.68	≤13	PASS
16QAM	1.4	23017	699.7	28.36	22.93	5.43	≤13	PASS
		23095	707.5	28.26	22.84	5.42	≤13	PASS
		23173	715.3	28.31	22.91	5.40	≤13	PASS
	3	23025	700.5	28.40	22.95	5.45	≤13	PASS
		23095	707.5	28.37	22.90	5.47	≤13	PASS
		23165	714.5	28.34	22.89	5.45	≤13	PASS
	5	23035	701.5	28.52	22.97	5.55	≤13	PASS
		23095	707.5	28.43	22.91	5.52	≤13	PASS
		23155	713.5	28.44	22.92	5.52	≤13	PASS
	10	23060	704	28.62	22.99	5.63	≤13	PASS
		23095	707.5	28.56	22.94	5.62	≤13	PASS
		23130	711	28.65	23.00	5.65	≤13	PASS
64QAM	1.4	23017	699.7	27.66	22.25	5.41	≤13	PASS
		23095	707.5	27.59	22.21	5.38	≤13	PASS
		23173	715.3	27.63	22.28	5.35	≤13	PASS
	3	23025	700.5	27.73	22.29	5.44	≤13	PASS
		23095	707.5	27.67	22.24	5.43	≤13	PASS
		23165	714.5	27.66	22.23	5.43	≤13	PASS
	5	23035	701.5	27.83	22.31	5.52	≤13	PASS
		23095	707.5	27.71	22.26	5.45	≤13	PASS
		23155	713.5	27.71	22.22	5.49	≤13	PASS
	10	23060	704	27.95	22.33	5.62	≤13	PASS
		23095	707.5	27.87	22.29	5.58	≤13	PASS
		23130	711	27.95	22.33	5.62	≤13	PASS



LTE Band 17								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	23755	706.5	28.33	23.83	4.50	≤13	PASS
		23790	710	28.22	23.75	4.47	≤13	PASS
		23825	713.5	28.32	23.81	4.51	≤13	PASS
	10	23780	709	28.39	23.76	4.63	≤13	PASS
		23790	710	28.34	23.74	4.60	≤13	PASS
		23800	711	28.37	23.76	4.61	≤13	PASS
16QAM	5	23755	706.5	28.23	22.81	5.42	≤13	PASS
		23790	710	28.18	22.76	5.42	≤13	PASS
		23825	713.5	28.28	22.81	5.47	≤13	PASS
	10	23780	709	28.31	22.76	5.55	≤13	PASS
		23790	710	28.28	22.74	5.54	≤13	PASS
		23800	711	28.30	22.73	5.57	≤13	PASS
64QAM	5	23755	706.5	27.59	22.19	5.40	≤13	PASS
		23790	710	27.54	22.15	5.39	≤13	PASS
		23825	713.5	27.61	22.17	5.44	≤13	PASS
	10	23780	709	27.64	22.11	5.53	≤13	PASS
		23790	710	27.65	22.12	5.53	≤13	PASS
		23800	711	27.66	22.11	5.55	≤13	PASS

LTE Band 38								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	37775	2572.5	26.92	18.95	7.97	≤13	PASS
		38000	2595	26.83	18.89	7.94	≤13	PASS
		38225	2617.5	27.00	18.72	8.28	≤13	PASS
	10	37800	2575	27.04	16.67	10.37	≤13	PASS
		38000	2595	27.04	18.90	8.14	≤13	PASS
		38200	2615	27.21	18.68	8.53	≤13	PASS
	15	37825	2577.5	27.14	18.95	8.19	≤13	PASS
		38000	2595	27.05	18.38	8.67	≤13	PASS
		38175	2612.5	27.14	18.08	9.06	≤13	PASS



	20	37850	2580	27.08	17.59	9.49	≤13	PASS
		38000	2595	26.98	17.24	9.74	≤13	PASS
		38150	2610	27.18	18.93	8.25	≤13	PASS
16QAM	5	37775	2572.5	26.86	17.73	9.13	≤13	PASS
		38000	2595	26.82	17.30	9.52	≤13	PASS
		38225	2617.5	27.00	17.55	9.45	≤13	PASS
	10	37800	2575	27.03	18.67	8.36	≤13	PASS
		38000	2595	26.94	17.99	8.95	≤13	PASS
		38200	2615	27.16	17.89	9.27	≤13	PASS
	15	37825	2577.5	26.99	16.76	10.23	≤13	PASS
		38000	2595	26.98	18.15	8.83	≤13	PASS
		38175	2612.5	27.07	17.19	9.88	≤13	PASS
	20	37850	2580	27.00	17.45	9.55	≤13	PASS
		38000	2595	26.97	17.51	9.46	≤13	PASS
		38150	2610	27.03	17.23	9.80	≤13	PASS
64QAM	5	37775	2572.5	26.01	15.85	10.16	≤13	PASS
		38000	2595	26.16	17.95	8.21	≤13	PASS
		38225	2617.5	26.16	16.46	9.70	≤13	PASS
	10	37800	2575	26.17	16.50	9.67	≤13	PASS
		38000	2595	26.23	16.61	9.62	≤13	PASS
		38200	2615	26.35	18.02	8.33	≤13	PASS
	15	37825	2577.5	26.24	16.62	9.62	≤13	PASS
		38000	2595	26.30	16.26	10.04	≤13	PASS
		38175	2612.5	26.31	16.51	9.80	≤13	PASS
	20	37850	2580	26.28	16.93	9.35	≤13	PASS
		38000	2595	26.27	16.44	9.83	≤13	PASS
		38150	2610	26.17	14.97	11.20	≤13	PASS



LTE Band 40 Subset 1								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	38725	2307.5	20.51	12.05	8.46	≤13	PASS
		38750	2310	21.77	13.47	8.30	≤13	PASS
		38775	2312.5	22.64	10.88	11.76	≤13	PASS
	10	38750	2310	21.94	13.93	8.01	≤13	PASS
16QAM	5	38725	2307.5	20.51	10.52	9.99	≤13	PASS
		38750	2310	21.70	11.68	10.02	≤13	PASS
		38775	2312.5	22.76	12.60	10.16	≤13	PASS
	10	38750	2310	21.72	12.15	9.57	≤13	PASS
64QAM	5	38725	2307.5	19.67	11.20	8.47	≤13	PASS
		38750	2310	20.80	9.79	11.01	≤13	PASS
		38775	2312.5	21.90	12.87	9.03	≤13	PASS
	10	38750	2310	20.75	10.89	9.86	≤13	PASS

LTE Band 40 Subset 2								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	39175	2352.5	21.83	13.60	8.23	≤13	PASS
		39200	2355	21.56	14.14	7.42	≤13	PASS
		39225	2357.5	21.37	13.79	7.58	≤13	PASS
	10	39200	2355	21.69	13.69	8.00	≤13	PASS
16QAM	5	39175	2352.5	21.91	13.08	8.83	≤13	PASS
		39200	2355	21.75	12.01	9.74	≤13	PASS
		39225	2357.5	21.43	11.26	10.17	≤13	PASS
	10	39200	2355	21.77	13.61	8.16	≤13	PASS
64QAM	5	39175	2352.5	21.86	13.68	8.18	≤13	PASS
		39200	2355	21.48	13.30	8.18	≤13	PASS
		39225	2357.5	21.07	11.00	10.07	≤13	PASS
	10	39200	2355	21.95	13.39	8.56	≤13	PASS



LTE Band 41								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	39675	2498.5	27.62	19.53	8.09	≤13	PASS
		40620	2593	27.56	19.62	7.94	≤13	PASS
		41565	2687.5	27.77	19.98	7.79	≤13	PASS
	10	39700	2501	27.83	19.60	8.23	≤13	PASS
		40620	2593	27.71	19.55	8.16	≤13	PASS
		41540	2685	27.93	18.14	9.79	≤13	PASS
	15	39725	2503.5	27.89	19.39	8.50	≤13	PASS
		40620	2593	27.77	19.42	8.35	≤13	PASS
		41515	2682.5	27.97	19.86	8.11	≤13	PASS
	20	39750	2506	27.89	19.18	8.71	≤13	PASS
		40620	2593	27.74	17.66	10.08	≤13	PASS
		41490	2680	27.94	18.14	9.80	≤13	PASS
16QAM	5	39675	2498.5	28.61	20.07	8.54	≤13	PASS
		40620	2593	28.61	18.45	10.16	≤13	PASS
		41565	2687.5	28.73	20.03	8.70	≤13	PASS
	10	39700	2501	28.68	18.24	10.44	≤13	PASS
		40620	2593	28.66	19.88	8.78	≤13	PASS
		41540	2685	28.87	20.21	8.66	≤13	PASS
	15	39725	2503.5	28.83	19.81	9.02	≤13	PASS
		40620	2593	28.65	18.12	10.53	≤13	PASS
		41515	2682.5	28.80	17.17	11.63	≤13	PASS
	20	39750	2506	28.84	19.50	9.34	≤13	PASS
		40620	2593	28.66	18.92	9.74	≤13	PASS
		41490	2680	28.93	19.66	9.27	≤13	PASS
64QAM	5	39675	2498.5	27.39	19.01	8.38	≤13	PASS
		40620	2593	27.70	17.70	10.00	≤13	PASS
		41565	2687.5	27.53	17.72	9.81	≤13	PASS
	10	39700	2501	27.44	17.40	10.04	≤13	PASS
		40620	2593	27.66	15.94	11.72	≤13	PASS
		41540	2685	27.68	17.91	9.77	≤13	PASS
	15	39725	2503.5	27.55	17.84	9.71	≤13	PASS



		40620	2593	27.75	17.55	10.20	≤13	PASS
		41515	2682.5	27.80	18.89	8.91	≤13	PASS
	20	39750	2506	27.62	18.15	9.47	≤13	PASS
		40620	2593	27.75	17.85	9.90	≤13	PASS
		41490	2680	27.64	17.11	10.53	≤13	PASS

LTE Band 66								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	131979	1710.7	27.24	22.77	4.47	≤13	PASS
		132322	1745	27.20	22.88	4.32	≤13	PASS
		132665	1779.3	27.32	22.94	4.38	≤13	PASS
	3	131987	1711.5	27.24	22.78	4.46	≤13	PASS
		132322	1745	27.12	22.80	4.32	≤13	PASS
		132657	1778.5	27.38	22.95	4.43	≤13	PASS
	5	131997	1712.5	27.23	22.84	4.39	≤13	PASS
		132322	1745	27.17	22.85	4.32	≤13	PASS
		132647	1777.5	27.41	22.99	4.42	≤13	PASS
	10	132022	1715	27.28	22.81	4.47	≤13	PASS
		132322	1745	27.31	22.83	4.48	≤13	PASS
		132622	1775	27.49	22.91	4.58	≤13	PASS
	15	132047	1717.5	27.52	22.71	4.81	≤13	PASS
		132322	1745	27.46	22.71	4.75	≤13	PASS
		132597	1772.5	27.62	22.83	4.79	≤13	PASS
	20	132072	1720	27.65	22.75	4.90	≤13	PASS
		132322	1745	27.64	22.76	4.88	≤13	PASS
		132572	1770	27.61	22.79	4.82	≤13	PASS
16QAM	1.4	131979	1710.7	27.19	21.76	5.43	≤13	PASS
		132322	1745	27.19	21.94	5.25	≤13	PASS
		132665	1779.3	27.29	21.95	5.34	≤13	PASS
	3	131987	1711.5	27.24	21.81	5.43	≤13	PASS
		132322	1745	27.15	21.82	5.33	≤13	PASS
		132657	1778.5	27.37	21.98	5.39	≤13	PASS
	5	131997	1712.5	27.24	21.82	5.42	≤13	PASS
		132322	1745	27.17	21.83	5.34	≤13	PASS
		132647	1777.5	27.45	22.01	5.44	≤13	PASS
	10	132022	1715	27.25	21.81	5.44	≤13	PASS
		132322	1745	27.28	21.85	5.43	≤13	PASS
		132622	1775	27.47	21.94	5.53	≤13	PASS



	15	132047	1717.5	27.53	21.75	5.78	≤13	PASS
		132322	1745	27.45	21.72	5.73	≤13	PASS
		132597	1772.5	27.62	21.85	5.77	≤13	PASS
	20	132072	1720	27.64	21.74	5.90	≤13	PASS
		132322	1745	27.57	21.72	5.85	≤13	PASS
		132572	1770	27.63	21.80	5.83	≤13	PASS
64QAM	1.4	131979	1710.7	26.90	21.41	5.49	≤13	PASS
		132322	1745	26.78	21.54	5.24	≤13	PASS
		132665	1779.3	26.90	21.59	5.31	≤13	PASS
	3	131987	1711.5	26.81	21.41	5.40	≤13	PASS
		132322	1745	26.71	21.42	5.29	≤13	PASS
		132657	1778.5	27.01	21.60	5.41	≤13	PASS
	5	131997	1712.5	26.88	21.45	5.43	≤13	PASS
		132322	1745	26.79	21.47	5.32	≤13	PASS
		132647	1777.5	27.01	21.60	5.41	≤13	PASS
	10	132022	1715	26.89	21.46	5.43	≤13	PASS
		132322	1745	26.88	21.47	5.41	≤13	PASS
		132622	1775	27.07	21.54	5.53	≤13	PASS
	15	132047	1717.5	27.15	21.38	5.77	≤13	PASS
		132322	1745	27.09	21.37	5.72	≤13	PASS
		132597	1772.5	27.21	21.47	5.74	≤13	PASS
	20	132072	1720	27.32	21.41	5.91	≤13	PASS
		132322	1745	27.20	21.37	5.83	≤13	PASS
		132572	1770	27.29	21.41	5.88	≤13	PASS

Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak (dBm)	Avg (dBm)	PAPR (dB)
CA_7C_10MHz+20MHz_QPSK	21006	2525.6	21150	2540	QPSK	32.91	26.84	6.07
CA_7C_10MHz+20MHz_16QAM	21006	2525.6	21150	2540	16QAM	32.70	25.83	6.87
CA_7C_10MHz+20MHz_64QAM	21006	2525.6	21150	2540	64QAM	31.31	25.23	6.08
CA_7C_20MHz+10MHz_QPSK	21051	2530.1	21195	2544.5	QPSK	32.65	25.84	6.81
CA_7C_20MHz+10MHz_16QAM	21051	2530.1	21195	2544.5	16QAM	32.77	25.87	6.90
CA_7C_20MHz+10MHz_64QAM	21051	2530.1	21195	2544.5	64QAM	31.40	25.24	6.16
CA_7C_15MHz+15MHz_QPSK	21025	2527.5	21175	2542.5	QPSK	33.11	26.85	6.26
CA_7C_15MHz+15MHz_16QAM	21025	2527.5	21175	2542.5	16QAM	32.82	25.86	6.96
CA_7C_15MHz+15MHz_64QAM	21025	2527.5	21175	2542.5	64QAM	31.46	25.24	6.22
CA_7C_15MHz+20MHz_QPSK	21003	2525.3	21174	2542.4	QPSK	33.04	26.87	6.17
CA_7C_15MHz+20MHz_16QAM	21003	2525.3	21174	2542.4	16QAM	32.75	25.86	6.89



CA_7C_15MHz+20MHz_64QAM	21003	2525.3	21174	2542.4	64QAM	31.40	25.23	6.17
CA_7C_20MHz+15MHz_QPSK	21026	2527.6	21197	2544.7	QPSK	33.06	26.87	6.19
CA_7C_20MHz+15MHz_16QAM	21026	2527.6	21197	2544.7	16QAM	32.76	25.87	6.89
CA_7C_20MHz+15MHz_64QAM	21026	2527.6	21197	2544.7	64QAM	31.41	25.26	6.15
CA_7C_20MHz+20MHz_QPSK	21001	2525.1	21199	2544.9	QPSK	33.11	26.86	6.25
CA_7C_20MHz+20MHz_16QAM	21001	2525.1	21199	2544.9	16QAM	32.77	25.85	6.92
CA_7C_20MHz+20MHz_64QAM	21001	2525.1	21199	2544.9	64QAM	31.52	25.25	6.27

Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak (dBm)	Avg(dBm)	PAPR (dB)
CA_41C_5MHz+20MHz_QPSK	40528	2583.8	40645	2595.5	QPSK	32.93	22.63	10.30
CA_41C_5MHz+20MHz_16QAM	40528	2583.8	40645	2595.5	16QAM	32.43	21.54	10.89
CA_41C_5MHz+20MHz_64QAM	40528	2583.8	40645	2595.5	64QAM	31.27	21.64	9.63
CA_41C_20MHz+5MHz_QPSK	40595	2590.5	40712	2602.2	QPSK	33.15	23.41	9.74
CA_41C_20MHz+5MHz_16QAM	40595	2590.5	40712	2602.2	16QAM	32.62	22.10	10.52
CA_41C_20MHz+5MHz_64QAM	40595	2590.5	40712	2602.2	64QAM	31.41	21.40	10.01
CA_41C_10MHz+20MHz_QPSK	40526	2583.6	40670	2598	QPSK	32.90	22.40	10.50
CA_41C_10MHz+20MHz_16QAM	40526	2583.6	40670	2598	16QAM	32.51	21.85	10.66
CA_41C_10MHz+20MHz_64QAM	40526	2583.6	40670	2598	64QAM	31.14	20.67	10.47
CA_41C_20MHz+10MHz_QPSK	40571	2588.1	40715	2602.5	QPSK	33.13	23.29	9.84
CA_41C_20MHz+10MHz_16QAM	40571	2588.1	40715	2602.5	16QAM	32.59	22.01	10.58
CA_41C_20MHz+10MHz_64QAM	40571	2588.1	40715	2602.5	64QAM	31.40	21.37	10.03
CA_41C_15MHz+15MHz_QPSK	40545	2585.5	40695	2600.5	QPSK	33.17	22.28	10.89
CA_41C_15MHz+15MHz_16QAM	40545	2585.5	40695	2600.5	16QAM	32.63	21.92	10.71
CA_41C_15MHz+15MHz_64QAM	40545	2585.5	40695	2600.5	64QAM	31.59	21.65	9.94
CA_41C_15MHz+20MHz_QPSK	40523	2583.3	40694	2600.4	QPSK	33.04	23.11	9.93
CA_41C_15MHz+20MHz_16QAM	40523	2583.3	40694	2600.4	16QAM	32.50	21.75	10.75
CA_41C_15MHz+20MHz_64QAM	40523	2583.3	40694	2600.4	64QAM	31.29	20.98	10.31
CA_41C_20MHz+15MHz_QPSK	40546	2585.6	40717	2602.7	QPSK	33.08	23.20	9.88
CA_41C_20MHz+15MHz_16QAM	40546	2585.6	40717	2602.7	16QAM	32.63	22.43	10.20
CA_41C_20MHz+15MHz_64QAM	40546	2585.6	40717	2602.7	64QAM	31.35	21.43	9.92
CA_41C_20MHz+20MHz_QPSK	40521	2583.1	40719	2602.9	QPSK	33.07	22.73	10.34
CA_41C_20MHz+20MHz_16QAM	40521	2583.1	40719	2602.9	16QAM	32.51	21.72	10.79
CA_41C_20MHz+20MHz_64QAM	40521	2583.1	40719	2602.9	64QAM	31.42	21.32	10.10



NR n7								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20M	P1/2 BPSK	502000	2510	28.39	17.00	11.39	≤13	PASS
		507000	2535	28.03	16.69	11.34	≤13	PASS
		512000	2560	27.54	16.15	11.39	≤13	PASS
	QPSK	502000	2510	28.18	15.57	12.61	≤13	PASS
		507000	2535	27.95	16.04	11.91	≤13	PASS
		512000	2560	27.41	15.49	11.92	≤13	PASS
	16QAM	502000	2510	27.50	14.58	12.92	≤13	PASS
		507000	2535	27.56	14.68	12.88	≤13	PASS
		512000	2560	27.20	15.51	11.69	≤13	PASS
	64QAM	502000	2510	27.72	15.62	12.10	≤13	PASS
		507000	2535	27.25	14.36	12.89	≤13	PASS
		512000	2560	26.84	14.62	12.22	≤13	PASS
	256QAM	502000	2510	25.57	12.84	12.73	≤13	PASS
		507000	2535	25.26	12.41	12.85	≤13	PASS
		512000	2560	24.73	12.83	11.90	≤13	PASS

NR n38								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
40M	P1/2 BPSK	518000	2590	26.78	14.46	12.32	≤13	PASS
		519000	2595	26.93	15.12	11.81	≤13	PASS
		520000	2600	27.02	15.63	11.39	≤13	PASS
	QPSK	518000	2590	26.88	16.07	10.81	≤13	PASS
		519000	2595	26.98	16.01	10.97	≤13	PASS
		520000	2600	27.03	16.03	11.00	≤13	PASS
	16QAM	518000	2590	27.68	15.12	12.56	≤13	PASS
		519000	2595	27.83	16.00	11.83	≤13	PASS
		520000	2600	28.00	17.37	10.63	≤13	PASS
	64QAM	518000	2590	28.04	15.82	12.22	≤13	PASS
		519000	2595	28.19	16.39	11.80	≤13	PASS
		520000	2600	28.08	15.03	13.05	≤13	PASS
	256QAM	518000	2590	27.54	15.15	12.39	≤13	PASS
		519000	2595	27.74	15.89	11.85	≤13	PASS
		520000	2600	27.93	16.19	11.74	≤13	PASS



NR n41								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
100M	P1/2 BPSK	509202	2546.01	30.01	25.11	4.90	≤13	PASS
		518598	2592.99	27.66	22.36	5.30	≤13	PASS
		528000	2640	28.07	22.48	5.59	≤13	PASS
	QPSK	509202	2546.01	30.39	25.17	5.22	≤13	PASS
		518598	2592.99	27.62	22.32	5.30	≤13	PASS
		528000	2640	28.06	22.47	5.59	≤13	PASS
	16QAM	509202	2546.01	29.29	23.23	6.06	≤13	PASS
		518598	2592.99	28.55	22.41	6.14	≤13	PASS
		528000	2640	28.81	22.73	6.08	≤13	PASS
	64QAM	509202	2546.01	29.71	23.40	6.31	≤13	PASS
		518598	2592.99	28.64	22.42	6.22	≤13	PASS
		528000	2640	29.01	22.51	6.50	≤13	PASS
	256QAM	509202	2546.01	28.49	21.87	6.62	≤13	PASS
		518598	2592.99	27.32	20.85	6.47	≤13	PASS
		528000	2640	27.60	20.93	6.67	≤13	PASS

DC_28 A (subset 2)-n41A									
Bandwidth (MHz)	Modulation (LTE)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
100M	LTE B28-QPSK-5MHz-737MHz	P1/2 BPSK	509202	2546.01	28.77	23.40	5.37	≤13	PASS
			518598	2592.99	27.53	22.65	4.88	≤13	PASS
			528000	2640	28.35	22.60	5.75	≤13	PASS
		QPSK	509202	2546.01	28.61	23.31	5.30	≤13	PASS
			518598	2592.99	27.54	22.65	4.89	≤13	PASS
			528000	2640	28.49	22.79	5.70	≤13	PASS
		16QAM	509202	2546.01	29.17	23.23	5.94	≤13	PASS
			518598	2592.99	28.51	22.71	5.80	≤13	PASS
			528000	2640	29.09	22.98	6.11	≤13	PASS
		64QAM	509202	2546.01	29.38	23.33	6.05	≤13	PASS
			518598	2592.99	29.02	22.77	6.25	≤13	PASS
			528000	2640	29.16	22.96	6.20	≤13	PASS
		256QAM	509202	2546.01	28.44	22.00	6.44	≤13	PASS
			518598	2592.99	27.74	21.24	6.50	≤13	PASS
			528000	2640	27.71	21.12	6.59	≤13	PASS



NR n66								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20M	P1/2 BPSK	344000	1720	28.83	17.08	11.75	≤13	PASS
		349000	1745	28.36	16.62	11.74	≤13	PASS
		354000	1770	27.12	15.32	11.80	≤13	PASS
	QPSK	344000	1720	28.28	16.39	11.89	≤13	PASS
		349000	1745	28.18	15.88	12.30	≤13	PASS
		354000	1770	28.24	16.48	11.76	≤13	PASS
	16QAM	344000	1720	28.11	16.15	11.96	≤13	PASS
		349000	1745	28.02	15.93	12.09	≤13	PASS
		354000	1770	28.00	15.59	12.41	≤13	PASS
	64QAM	344000	1720	27.90	15.80	12.10	≤13	PASS
		349000	1745	27.70	15.48	12.22	≤13	PASS
		354000	1770	27.76	15.84	11.92	≤13	PASS
	256QAM	344000	1720	25.89	14.04	11.85	≤13	PASS
		349000	1745	25.79	13.88	11.91	≤13	PASS
		354000	1770	25.79	13.55	12.24	≤13	PASS

DC_5A-n66A									
Bandwidth (MHz)	Modulation (LTE)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20M	Band5-10MHz-836.5 MHz-QPSK-1#0	P1/2 BPSK	344000	1720	28.79	17.03	11.76	≤13	PASS
			349000	1745	28.55	16.44	12.11	≤13	PASS
			354000	1770	27.44	15.56	11.88	≤13	PASS
		QPSK	344000	1720	28.71	17.30	11.41	≤13	PASS
			349000	1745	28.57	16.67	11.90	≤13	PASS
			354000	1770	27.41	15.31	12.10	≤13	PASS
		16QAM	344000	1720	28.43	16.59	11.84	≤13	PASS
			349000	1745	28.04	15.59	12.45	≤13	PASS
			354000	1770	27.05	14.46	12.59	≤13	PASS
		64QAM	344000	1720	28.04	15.62	12.42	≤13	PASS
			349000	1745	27.96	15.46	12.50	≤13	PASS
			354000	1770	26.82	14.63	12.19	≤13	PASS
		256QAM	344000	1720	26.35	14.08	12.27	≤13	PASS
			349000	1745	25.93	13.92	12.01	≤13	PASS
			354000	1770	24.88	13.03	11.85	≤13	PASS



NR n77 subset 1								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
100M	P1/2 BPSK	/	/	/	/	/	≤13	PASS
		633334	3500	27.47	22.75	4.72	≤13	PASS
		/	/	/			≤13	PASS
	QPSK	/	/	/	/	/	≤13	PASS
		633334	3500	27.50	22.77	4.73	≤13	PASS
		/	/	/	/	/	≤13	PASS
	16QAM	/	/	/	/	/	≤13	PASS
		633334	3500	28.44	22.79	5.65	≤13	PASS
		/	/	/	/	/	≤13	PASS
	64QAM	/	/	/	/	/	≤13	PASS
		633334	3500	28.97	22.82	6.15	≤13	PASS
		/	/	/	/	/	≤13	PASS
	256QAM	/	/	/	/	/	≤13	PASS
		633334	3500	28.00	21.28	6.72	≤13	PASS
		/	/	/			≤13	PASS

NR n77 subset 2								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
100M	P1/2 BPSK	650000	3750	27.25	22.35	4.90	≤13	PASS
		656000	3840	26.59	21.81	4.78	≤13	PASS
		662000	3930	26.82	22.01	4.81	≤13	PASS
	QPSK	650000	3750	27.17	22.28	4.89	≤13	PASS
		656000	3840	26.62	21.85	4.77	≤13	PASS
		662000	3930	26.76	21.94	4.82	≤13	PASS
	16QAM	650000	3750	28.07	22.31	5.76	≤13	PASS
		656000	3840	27.47	21.80	5.67	≤13	PASS
		662000	3930	27.65	21.91	5.74	≤13	PASS
	64QAM	650000	3750	28.41	22.26	6.15	≤13	PASS
		656000	3840	27.93	21.83	6.10	≤13	PASS
		662000	3930	28.09	21.97	6.12	≤13	PASS
	256QAM	650000	3750	27.53	20.83	6.70	≤13	PASS
		656000	3840	26.89	20.25	6.64	≤13	PASS
		662000	3930	27.00	20.41	6.59	≤13	PASS



DC_2A-n77A subset 2									
Bandwidth (MHz)	Modulation (LTE)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
100M	Band2-5MHz-1880M Hz-QPSK-1#0	P1/2 BPSK	650000	3750	24.78	19.90	4.88	≤13	PASS
			656000	3840	24.20	19.56	4.64	≤13	PASS
			662000	3930	24.61	19.91	4.70	≤13	PASS
		QPSK	650000	3750	24.86	19.95	4.91	≤13	PASS
			656000	3840	24.20	19.58	4.62	≤13	PASS
			662000	3930	24.71	20.01	4.70	≤13	PASS
		16QAM	650000	3750	25.73	20.01	5.72	≤13	PASS
			656000	3840	25.18	19.59	5.59	≤13	PASS
			662000	3930	25.59	19.99	5.60	≤13	PASS
		64QAM	650000	3750	25.13	18.48	6.65	≤13	PASS
			656000	3840	24.65	18.09	6.56	≤13	PASS
			662000	3930	24.97	18.47	6.50	≤13	PASS
		256QAM	650000	3750	25.19	18.51	6.68	≤13	PASS
			656000	3840	24.55	18.04	6.51	≤13	PASS
			662000	3930	25.03	18.51	6.52	≤13	PASS



6.5 Frequency Stability

WCDMA Band IV						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25℃)	Normal	1.15	10.81	0.00067	0.00624	PASS
Extreme (50℃)		14.64	10.46	0.00845	0.00604	PASS
Extreme (40℃)		11.12	2.38	0.00642	0.00137	PASS
Extreme (30℃)		15.56	12.00	0.00898	0.00692	PASS
Extreme (20℃)		8.30	16.46	0.00479	0.00950	PASS
Extreme (10℃)		9.01	16.51	0.00520	0.00953	PASS
Extreme (0℃)		11.16	10.72	0.00644	0.00619	PASS
Extreme (-10℃)		15.19	1.42	0.00877	0.00082	PASS
Extreme (-20℃)		14.92	1.92	0.00861	0.00111	PASS
Extreme (-30℃)		6.70	11.92	0.00387	0.00688	PASS
25℃	LV	9.06	3.94	0.00523	0.00227	PASS
	HV	13.09	1.03	0.00756	0.00059	PASS

LTE Band 4								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.64	3.23	15.09	0.00268	0.00186	0.00871	PASS
Extreme (50℃)		17.86	13.73	13.61	0.01031	0.00793	0.00786	PASS
Extreme (40℃)		3.96	2.52	15.58	0.00228	0.00145	0.00900	PASS
Extreme (30℃)		7.00	13.06	16.19	0.00404	0.00754	0.00934	PASS
Extreme (20℃)		7.04	17.49	13.02	0.00406	0.01010	0.00752	PASS
Extreme (10℃)		15.88	17.13	1.87	0.00916	0.00989	0.00108	PASS
Extreme (0℃)		4.44	11.69	14.92	0.00256	0.00675	0.00861	PASS
Extreme (-10℃)		16.64	7.44	2.92	0.00960	0.00429	0.00169	PASS
Extreme (-20℃)		1.21	4.09	14.52	0.00070	0.00236	0.00838	PASS
Extreme (-30℃)	2.48	14.66	5.58	0.00143	0.00846	0.00322	PASS	
25℃	LV	15.94	17.46	5.89	0.00920	0.01008	0.00340	PASS
	HV	1.20	15.20	9.48	0.00069	0.00877	0.00547	PASS



Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	5.19	2.08	3.32	0.00299	0.00120	0.00192	PASS
Extreme (50℃)		9.83	3.39	14.61	0.00567	0.00196	0.00843	PASS
Extreme (40℃)		4.55	7.56	8.41	0.00263	0.00436	0.00485	PASS
Extreme (30℃)		17.33	17.25	16.00	0.01000	0.00996	0.00923	PASS
Extreme (20℃)		6.41	13.31	16.36	0.00370	0.00768	0.00944	PASS
Extreme (10℃)		6.19	3.55	12.94	0.00357	0.00205	0.00747	PASS
Extreme (0℃)		11.76	6.05	17.17	0.00679	0.00349	0.00991	PASS
Extreme (-10℃)		14.22	14.74	10.98	0.00821	0.00851	0.00634	PASS
Extreme (-20℃)		9.62	4.78	2.28	0.00555	0.00276	0.00131	PASS
Extreme (-30℃)		6.60	16.80	17.45	0.00381	0.00970	0.01007	PASS
25℃	LV	3.06	6.01	6.46	0.00177	0.00347	0.00373	PASS
	HV	9.81	6.71	11.17	0.00566	0.00387	0.00645	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.78	4.43	12.53	0.00968	0.00256	0.00723	PASS
Extreme (50℃)		15.90	17.76	16.49	0.00918	0.01025	0.00952	PASS
Extreme (40℃)		4.09	12.13	11.20	0.00236	0.00700	0.00647	PASS
Extreme (30℃)		16.15	8.18	14.87	0.00932	0.00472	0.00858	PASS
Extreme (20℃)		3.22	12.89	16.76	0.00186	0.00744	0.00968	PASS
Extreme (10℃)		14.91	4.85	6.47	0.00861	0.00280	0.00374	PASS
Extreme (0℃)		2.02	10.83	17.49	0.00116	0.00625	0.01009	PASS
Extreme (-10℃)		13.64	10.25	10.60	0.00788	0.00592	0.00612	PASS
Extreme (-20℃)		2.24	7.00	4.29	0.00129	0.00404	0.00248	PASS
Extreme (-30℃)		11.44	7.32	10.19	0.00660	0.00423	0.00588	PASS
25℃	LV	14.28	9.20	5.43	0.00824	0.00531	0.00313	PASS
	HV	15.79	16.20	16.86	0.00911	0.00935	0.00973	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.46	17.58	15.86	0.00546	0.01015	0.00916	PASS
Extreme (50℃)		2.02	5.24	8.36	0.00117	0.00303	0.00482	PASS
Extreme (40℃)		7.41	2.83	13.28	0.00427	0.00163	0.00767	PASS
Extreme (30℃)		15.79	1.09	1.75	0.00911	0.00063	0.00101	PASS
Extreme (20℃)		5.27	6.47	8.54	0.00304	0.00374	0.00493	PASS



Extreme (10℃)		10.97	11.56	7.36	0.00633	0.00667	0.00425	PASS
Extreme (0℃)		2.10	12.37	13.61	0.00121	0.00714	0.00786	PASS
Extreme (-10℃)		2.28	9.95	9.59	0.00132	0.00574	0.00554	PASS
Extreme (-20℃)		4.52	17.24	16.66	0.00261	0.00995	0.00962	PASS
Extreme (-30℃)		7.88	11.96	17.79	0.00455	0.00690	0.01027	PASS
25℃	LV	9.94	11.70	8.20	0.00574	0.00675	0.00473	PASS
	HV	9.21	17.29	1.46	0.00531	0.00998	0.00084	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	5.55	16.43	14.18	0.00321	0.00948	0.00819	PASS
Extreme (50℃)		16.16	9.96	7.35	0.00933	0.00575	0.00424	PASS
Extreme (40℃)		5.99	10.14	6.88	0.00346	0.00585	0.00397	PASS
Extreme (30℃)		6.02	4.44	5.33	0.00348	0.00256	0.00308	PASS
Extreme (20℃)		4.94	2.82	11.20	0.00285	0.00163	0.00647	PASS
Extreme (10℃)		6.55	6.87	12.70	0.00378	0.00396	0.00733	PASS
Extreme (0℃)		16.23	8.63	6.67	0.00937	0.00498	0.00385	PASS
Extreme (-10℃)		13.46	14.69	12.83	0.00777	0.00848	0.00741	PASS
Extreme (-20℃)		12.28	7.42	1.27	0.00709	0.00428	0.00073	PASS
Extreme (-30℃)		5.06	16.44	10.19	0.00292	0.00949	0.00588	PASS
25℃	LV	4.22	4.73	2.64	0.00244	0.00273	0.00152	PASS
	HV	7.42	16.95	13.65	0.00428	0.00979	0.00788	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	13.08	14.38	1.69	0.00755	0.00830	0.00098	PASS
Extreme (50℃)		8.72	4.27	7.39	0.00503	0.00247	0.00427	PASS
Extreme (40℃)		1.69	3.45	14.06	0.00097	0.00199	0.00811	PASS
Extreme (30℃)		10.35	5.78	16.15	0.00598	0.00333	0.00932	PASS
Extreme (20℃)		12.77	11.07	12.28	0.00737	0.00639	0.00709	PASS
Extreme (10℃)		3.00	16.89	15.98	0.00173	0.00975	0.00922	PASS
Extreme (0℃)		9.79	3.79	4.83	0.00565	0.00219	0.00279	PASS
Extreme (-10℃)		5.08	10.10	7.36	0.00293	0.00583	0.00425	PASS
Extreme (-20℃)		15.31	7.84	13.76	0.00883	0.00452	0.00794	PASS
Extreme (-30℃)		17.50	16.75	12.58	0.01010	0.00967	0.00726	PASS
25℃	LV	13.67	7.23	12.80	0.00789	0.00417	0.00739	PASS
	HV	7.82	14.69	1.88	0.00451	0.00848	0.00108	PASS



LTE Band 7								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.34	11.45	5.21	0.00447	0.00452	0.00205	PASS
Extreme (50℃)		16.58	2.92	5.50	0.00654	0.00115	0.00217	PASS
Extreme (40℃)		6.61	11.06	7.41	0.00261	0.00436	0.00292	PASS
Extreme (30℃)		15.91	13.77	9.43	0.00627	0.00543	0.00372	PASS
Extreme (20℃)		10.44	14.08	4.80	0.00412	0.00555	0.00189	PASS
Extreme (10℃)		9.81	10.31	16.67	0.00387	0.00407	0.00658	PASS
Extreme (0℃)		7.35	12.28	5.55	0.00290	0.00485	0.00219	PASS
Extreme (-10℃)		2.43	11.72	2.90	0.00096	0.00462	0.00114	PASS
Extreme (-20℃)		3.02	3.52	11.15	0.00119	0.00139	0.00440	PASS
Extreme (-30℃)		13.49	15.71	13.13	0.00532	0.00620	0.00518	PASS
25℃	LV	1.73	11.76	17.13	0.00068	0.00464	0.00676	PASS
	HV	15.08	10.80	7.91	0.00595	0.00426	0.00312	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.20	10.49	1.16	0.00323	0.00414	0.00046	PASS
Extreme (50℃)		2.06	12.45	4.46	0.00081	0.00491	0.00176	PASS
Extreme (40℃)		17.23	7.88	1.74	0.00680	0.00311	0.00069	PASS
Extreme (30℃)		9.07	15.26	3.99	0.00358	0.00602	0.00157	PASS
Extreme (20℃)		11.81	11.79	13.44	0.00466	0.00465	0.00530	PASS
Extreme (10℃)		14.95	13.56	8.40	0.00590	0.00535	0.00332	PASS
Extreme (0℃)		13.70	4.82	2.59	0.00540	0.00190	0.00102	PASS
Extreme (-10℃)		12.67	7.14	4.92	0.00500	0.00282	0.00194	PASS
Extreme (-20℃)		3.40	11.07	7.73	0.00134	0.00437	0.00305	PASS
Extreme (-30℃)		8.06	1.04	1.49	0.00318	0.00041	0.00059	PASS
25℃	LV	2.15	5.44	3.01	0.00085	0.00215	0.00119	PASS
	HV	13.08	14.49	9.97	0.00516	0.00571	0.00393	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.99	9.59	15.88	0.00078	0.00378	0.00626	PASS
Extreme (50℃)		3.44	16.79	1.25	0.00136	0.00662	0.00049	PASS
Extreme (40℃)		10.56	1.21	3.73	0.00416	0.00048	0.00147	PASS



Extreme (30℃)		8.26	3.31	14.07	0.00326	0.00130	0.00555	PASS
Extreme (20℃)		8.46	11.30	1.64	0.00334	0.00446	0.00065	PASS
Extreme (10℃)		3.82	3.29	2.77	0.00151	0.00130	0.00109	PASS
Extreme (0℃)		14.18	5.11	10.08	0.00560	0.00201	0.00398	PASS
Extreme (-10℃)		17.57	14.16	5.76	0.00693	0.00559	0.00227	PASS
Extreme (-20℃)		11.02	1.25	3.43	0.00435	0.00049	0.00135	PASS
Extreme (-30℃)		8.35	17.72	15.00	0.00329	0.00699	0.00592	PASS
25℃	LV	2.41	11.36	5.70	0.00095	0.00448	0.00225	PASS
	HV	6.31	16.12	10.97	0.00249	0.00636	0.00433	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.59	12.92	12.37	0.00418	0.00510	0.00488	PASS
Extreme (50℃)		8.67	8.52	14.20	0.00342	0.00336	0.00560	PASS
Extreme (40℃)		12.89	11.18	17.88	0.00509	0.00441	0.00705	PASS
Extreme (30℃)		14.04	14.48	6.68	0.00554	0.00571	0.00264	PASS
Extreme (20℃)		14.14	15.23	1.70	0.00558	0.00601	0.00067	PASS
Extreme (10℃)		4.97	17.08	5.02	0.00196	0.00674	0.00198	PASS
Extreme (0℃)		11.06	1.81	14.64	0.00436	0.00071	0.00578	PASS
Extreme (-10℃)		8.03	2.94	6.29	0.00317	0.00116	0.00248	PASS
Extreme (-20℃)		8.93	7.68	15.10	0.00352	0.00303	0.00596	PASS
Extreme (-30℃)		11.13	14.65	11.29	0.00439	0.00578	0.00445	PASS
25℃	LV	15.50	4.75	1.54	0.00612	0.00187	0.00061	PASS
	HV	6.89	11.74	11.64	0.00272	0.00463	0.00459	PASS

LTE Band 12								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.59	13.64	4.16	0.01780	0.01927	0.00588	PASS
Extreme (50℃)		15.52	16.56	12.86	0.02193	0.02340	0.01818	PASS
Extreme (40℃)		5.06	10.67	1.61	0.00715	0.01509	0.00228	PASS
Extreme (30℃)		8.86	13.03	7.86	0.01253	0.01842	0.01111	PASS
Extreme (20℃)		2.60	3.98	12.95	0.00368	0.00562	0.01831	PASS
Extreme (10℃)		9.09	17.90	9.83	0.01284	0.02531	0.01389	PASS
Extreme (0℃)		8.98	12.18	14.40	0.01269	0.01722	0.02035	PASS
Extreme (-10℃)		11.33	4.36	5.57	0.01601	0.00617	0.00788	PASS
Extreme (-20℃)		5.20	9.19	17.99	0.00735	0.01299	0.02542	PASS



Extreme (-30℃)		3.70	11.97	8.46	0.00524	0.01692	0.01195	PASS
25℃	LV	11.12	7.66	17.50	0.01572	0.01082	0.02474	PASS
	HV	17.14	12.16	15.33	0.02422	0.01719	0.02167	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	15.13	2.15	2.53	0.02138	0.00304	0.00358	PASS
Extreme (50℃)		5.19	4.19	9.25	0.00733	0.00592	0.01308	PASS
Extreme (40℃)		9.85	6.88	9.45	0.01393	0.00973	0.01335	PASS
Extreme (30℃)		10.71	4.50	12.26	0.01514	0.00636	0.01733	PASS
Extreme (20℃)		15.88	5.59	9.67	0.02244	0.00790	0.01367	PASS
Extreme (10℃)		9.38	17.39	15.05	0.01326	0.02458	0.02127	PASS
Extreme (0℃)		8.29	17.98	6.29	0.01172	0.02542	0.00889	PASS
Extreme (-10℃)		17.88	1.92	7.22	0.02527	0.00271	0.01020	PASS
Extreme (-20℃)		5.43	13.72	12.08	0.00767	0.01939	0.01708	PASS
Extreme (-30℃)		2.27	5.66	12.28	0.00321	0.00800	0.01735	PASS
25℃	LV	8.73	8.43	5.23	0.01234	0.01192	0.00740	PASS
	HV	2.55	6.50	14.92	0.00360	0.00919	0.02109	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	7.81	8.68	8.23	0.01104	0.01227	0.01163	PASS
Extreme (50℃)		10.83	12.23	2.69	0.01530	0.01729	0.00380	PASS
Extreme (40℃)		13.05	7.21	11.53	0.01844	0.01019	0.01629	PASS
Extreme (30℃)		10.30	17.73	17.18	0.01456	0.02506	0.02429	PASS
Extreme (20℃)		16.24	5.40	17.65	0.02296	0.00763	0.02495	PASS
Extreme (10℃)		6.35	6.40	6.70	0.00897	0.00905	0.00947	PASS
Extreme (0℃)		11.31	3.69	15.17	0.01598	0.00521	0.02144	PASS
Extreme (-10℃)		5.34	3.50	11.07	0.00755	0.00495	0.01564	PASS
Extreme (-20℃)		16.04	8.51	7.62	0.02268	0.01203	0.01077	PASS
Extreme (-30℃)		12.42	1.87	8.64	0.01755	0.00265	0.01221	PASS
25℃	LV	6.31	10.67	17.05	0.00892	0.01508	0.02410	PASS
	HV	13.08	7.97	4.76	0.01849	0.01126	0.00673	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.53	11.68	7.36	0.00640	0.01650	0.01040	PASS
Extreme (50℃)		7.66	13.93	15.86	0.01083	0.01969	0.02242	PASS



Extreme (40℃)		12.69	1.67	17.65	0.01794	0.00236	0.02494	PASS
Extreme (30℃)		7.89	13.61	1.99	0.01116	0.01924	0.00281	PASS
Extreme (20℃)		15.19	10.48	17.91	0.02147	0.01481	0.02531	PASS
Extreme (10℃)		13.89	6.79	15.48	0.01964	0.00960	0.02187	PASS
Extreme (0℃)		17.88	15.24	1.16	0.02527	0.02155	0.00164	PASS
Extreme (-10℃)		7.87	6.51	14.71	0.01112	0.00920	0.02079	PASS
Extreme (-20℃)		15.29	16.68	7.71	0.02161	0.02357	0.01090	PASS
Extreme (-30℃)		17.56	7.97	16.41	0.02482	0.01126	0.02320	PASS
25℃	LV	7.00	3.12	3.46	0.00989	0.00440	0.00489	PASS
	HV	8.59	9.85	2.45	0.01214	0.01392	0.00346	PASS

LTE Band 17								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.05	2.28	16.09	0.00570	0.00321	0.02267	PASS
Extreme (50℃)		5.26	3.38	2.83	0.00741	0.00476	0.00399	PASS
Extreme (40℃)		7.10	12.82	4.39	0.01000	0.01805	0.00618	PASS
Extreme (30℃)		13.92	12.43	12.18	0.01960	0.01750	0.01715	PASS
Extreme (20℃)		17.03	11.40	15.57	0.02398	0.01605	0.02194	PASS
Extreme (10℃)		2.25	1.86	13.05	0.00317	0.00262	0.01838	PASS
Extreme (0℃)		2.55	1.52	4.89	0.00359	0.00214	0.00689	PASS
Extreme (-10℃)		1.69	13.80	4.81	0.00239	0.01943	0.00678	PASS
Extreme (-20℃)		6.82	16.08	4.74	0.00961	0.02265	0.00667	PASS
Extreme (-30℃)		14.60	7.47	1.02	0.02057	0.01052	0.00143	PASS
25℃	LV	3.56	10.17	8.87	0.00502	0.01432	0.01250	PASS
	HV	16.30	16.61	11.29	0.02295	0.02340	0.01590	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.60	8.84	1.52	0.01211	0.01245	0.00214	PASS
Extreme (50℃)		1.19	5.81	10.42	0.00168	0.00819	0.01467	PASS
Extreme (40℃)		10.91	8.79	14.82	0.01536	0.01238	0.02087	PASS
Extreme (30℃)		12.30	8.77	10.44	0.01733	0.01236	0.01470	PASS
Extreme (20℃)		6.90	13.18	4.16	0.00971	0.01856	0.00585	PASS
Extreme (10℃)		1.70	8.43	3.70	0.00240	0.01188	0.00521	PASS
Extreme (0℃)		13.03	10.88	11.90	0.01835	0.01532	0.01677	PASS
Extreme (-10℃)		5.76	1.82	2.74	0.00811	0.00257	0.00386	PASS



Extreme (-20℃)		9.16	17.33	7.58	0.01290	0.02441	0.01068	PASS
Extreme (-30℃)		4.94	9.89	10.22	0.00696	0.01393	0.01440	PASS
25℃	LV	10.51	15.59	9.02	0.01481	0.02196	0.01270	PASS
	HV	2.93	14.03	12.00	0.00413	0.01976	0.01690	PASS

LTE Band 38								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	6.66	12.00	5.90	0.00257	0.00462	0.00228	PASS
Extreme (50℃)		12.48	13.72	17.36	0.00481	0.00529	0.00669	PASS
Extreme (40℃)		16.72	2.63	3.93	0.00644	0.00102	0.00152	PASS
Extreme (30℃)		10.97	4.40	2.83	0.00423	0.00170	0.00109	PASS
Extreme (20℃)		1.36	15.39	12.28	0.00052	0.00593	0.00473	PASS
Extreme (10℃)		3.95	9.91	16.46	0.00152	0.00382	0.00634	PASS
Extreme (0℃)		1.74	5.02	14.34	0.00067	0.00194	0.00553	PASS
Extreme (-10℃)		12.86	15.95	16.67	0.00496	0.00615	0.00642	PASS
Extreme (-20℃)		2.86	3.35	2.33	0.00110	0.00129	0.00090	PASS
Extreme (-30℃)		12.31	8.51	9.85	0.00474	0.00328	0.00380	PASS
25℃	LV	13.32	17.10	4.86	0.00513	0.00659	0.00187	PASS
	HV	1.86	17.67	11.28	0.00072	0.00681	0.00435	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.63	1.09	11.90	0.00409	0.00042	0.00459	PASS
Extreme (50℃)		11.12	7.33	17.63	0.00428	0.00282	0.00679	PASS
Extreme (40℃)		17.28	9.98	16.78	0.00666	0.00385	0.00647	PASS
Extreme (30℃)		4.03	15.31	16.57	0.00155	0.00590	0.00639	PASS
Extreme (20℃)		6.35	9.72	9.00	0.00245	0.00374	0.00347	PASS
Extreme (10℃)		15.62	3.52	3.49	0.00602	0.00136	0.00134	PASS
Extreme (0℃)		11.69	14.68	9.21	0.00450	0.00566	0.00355	PASS
Extreme (-10℃)		5.80	14.81	15.61	0.00224	0.00571	0.00602	PASS
Extreme (-20℃)		15.30	5.61	7.05	0.00590	0.00216	0.00272	PASS
Extreme (-30℃)		8.62	7.22	7.21	0.00332	0.00278	0.00278	PASS
25℃	LV	15.88	5.47	12.20	0.00612	0.00211	0.00470	PASS
	HV	17.38	5.66	12.58	0.00670	0.00218	0.00485	PASS



Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.00	10.00	8.00	0.00308	0.00385	0.00308	PASS
Extreme (50℃)		11.00	1.00	3.00	0.00424	0.00039	0.00116	PASS
Extreme (40℃)		10.00	6.00	4.00	0.00385	0.00231	0.00154	PASS
Extreme (30℃)		12.00	4.00	8.00	0.00462	0.00154	0.00308	PASS
Extreme (20℃)		4.00	5.00	8.00	0.00154	0.00193	0.00308	PASS
Extreme (10℃)		10.00	5.00	8.00	0.00385	0.00193	0.00308	PASS
Extreme (0℃)		6.00	16.00	9.00	0.00231	0.00617	0.00347	PASS
Extreme (-10℃)		13.00	3.00	16.00	0.00501	0.00116	0.00617	PASS
Extreme (-20℃)		11.00	5.00	5.00	0.00424	0.00193	0.00193	PASS
Extreme (-30℃)		13.00	6.00	8.00	0.00501	0.00231	0.00308	PASS
25℃	LV	17.00	15.00	15.00	0.00655	0.00578	0.00578	PASS
	HV	6.00	13.00	1.00	0.00231	0.00501	0.00039	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.00	1.00	12.00	0.00424	0.00039	0.00462	PASS
Extreme (50℃)		3.00	4.00	7.00	0.00116	0.00154	0.00270	PASS
Extreme (40℃)		6.00	3.00	11.00	0.00231	0.00116	0.00424	PASS
Extreme (30℃)		1.00	10.00	12.00	0.00039	0.00385	0.00462	PASS
Extreme (20℃)		12.00	3.00	2.00	0.00462	0.00116	0.00077	PASS
Extreme (10℃)		15.00	15.00	8.00	0.00578	0.00578	0.00308	PASS
Extreme (0℃)		8.00	8.00	7.00	0.00308	0.00308	0.00270	PASS
Extreme (-10℃)		12.00	12.00	3.00	0.00462	0.00462	0.00116	PASS
Extreme (-20℃)		10.00	5.00	13.00	0.00385	0.00193	0.00501	PASS
Extreme (-30℃)		12.00	9.00	14.00	0.00462	0.00347	0.00539	PASS
25℃	LV	5.00	12.00	14.00	0.00193	0.00462	0.00539	PASS
	HV	15.00	1.00	7.00	0.00578	0.00039	0.00270	PASS



LTE Band 40 Subset 1								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.57	7.50	5.86	0.00501	0.00324	0.00254	PASS
Extreme (50℃)		14.34	9.10	17.23	0.00621	0.00394	0.00746	PASS
Extreme (40℃)		11.33	10.16	1.87	0.00491	0.00440	0.00081	PASS
Extreme (30℃)		17.41	3.77	11.36	0.00754	0.00163	0.00492	PASS
Extreme (20℃)		16.66	16.84	9.75	0.00721	0.00729	0.00422	PASS
Extreme (10℃)		9.09	6.67	10.66	0.00393	0.00289	0.00461	PASS
Extreme (0℃)		10.46	12.62	13.96	0.00453	0.00546	0.00604	PASS
Extreme (-10℃)		12.54	16.66	5.40	0.00543	0.00721	0.00234	PASS
Extreme (-20℃)		12.45	16.87	12.07	0.00539	0.00730	0.00522	PASS
Extreme (-30℃)		3.37	17.50	16.63	0.00146	0.00757	0.00720	PASS
25℃	LV	1.90	16.63	4.18	0.00082	0.00720	0.00181	PASS
	HV	6.23	12.47	13.82	0.00270	0.00540	0.00598	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.40	5.44	4.85	0.00407	0.00235	0.00210	PASS
Extreme (50℃)		9.59	2.10	8.32	0.00415	0.00091	0.00360	PASS
Extreme (40℃)		4.59	14.38	8.40	0.00198	0.00623	0.00364	PASS
Extreme (30℃)		17.77	10.30	3.28	0.00769	0.00446	0.00142	PASS
Extreme (20℃)		8.41	1.51	3.95	0.00364	0.00065	0.00171	PASS
Extreme (10℃)		11.10	1.22	17.36	0.00481	0.00053	0.00751	PASS
Extreme (0℃)		10.10	12.79	10.42	0.00437	0.00554	0.00451	PASS
Extreme (-10℃)		6.84	7.38	17.18	0.00296	0.00319	0.00744	PASS
Extreme (-20℃)		8.39	3.28	8.05	0.00363	0.00142	0.00348	PASS
Extreme (-30℃)		3.01	6.40	1.00	0.00130	0.00277	0.00043	PASS
25℃	LV	17.26	9.85	10.84	0.00747	0.00426	0.00469	PASS
	HV	8.22	16.63	6.70	0.00356	0.00720	0.00290	PASS



LTE Band 40 Subset 2								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.66	9.00	11.90	0.00495	0.00382	0.00505	PASS
Extreme (50℃)		9.48	3.00	3.36	0.00402	0.00127	0.00143	PASS
Extreme (40℃)		1.72	5.00	4.93	0.00073	0.00212	0.00209	PASS
Extreme (30℃)		12.97	6.00	2.83	0.00551	0.00255	0.00120	PASS
Extreme (20℃)		13.36	10.00	11.28	0.00567	0.00425	0.00479	PASS
Extreme (10℃)		1.95	7.00	8.46	0.00083	0.00297	0.00359	PASS
Extreme (0℃)		12.74	13.00	13.34	0.00541	0.00552	0.00566	PASS
Extreme (-10℃)		4.86	1.00	12.67	0.00206	0.00042	0.00538	PASS
Extreme (-20℃)		8.86	14.00	10.33	0.00376	0.00594	0.00439	PASS
Extreme (-30℃)		5.31	17.00	17.85	0.00225	0.00722	0.00758	PASS
25℃	LV	11.32	14.00	6.86	0.00481	0.00594	0.00291	PASS
	HV	15.86	11.00	1.28	0.00673	0.00467	0.00054	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.63	6.00	11.90	0.00069	0.00845	0.01676	PASS
Extreme (50℃)		14.12	3.00	16.63	0.01988	0.00423	0.02342	PASS
Extreme (40℃)		3.28	3.00	4.78	0.00462	0.00423	0.00674	PASS
Extreme (30℃)		3.03	12.00	13.57	0.00426	0.01690	0.01911	PASS
Extreme (20℃)		14.35	2.00	17.00	0.02021	0.00282	0.02394	PASS
Extreme (10℃)		3.62	2.00	8.49	0.00510	0.00282	0.01195	PASS
Extreme (0℃)		14.69	11.00	4.21	0.02069	0.01549	0.00593	PASS
Extreme (-10℃)		13.80	11.00	7.61	0.01944	0.01549	0.01072	PASS
Extreme (-20℃)		13.30	14.00	17.05	0.01873	0.01972	0.02402	PASS
Extreme (-30℃)		3.62	8.00	1.21	0.00510	0.01127	0.00170	PASS
25℃	LV	2.88	13.00	14.20	0.00405	0.01831	0.02000	PASS
	HV	11.38	4.00	5.58	0.01602	0.00563	0.00785	PASS



LTE Band 41								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.32	3.07	12.31	0.00051	0.00118	0.00475	PASS
Extreme (50℃)		9.26	8.60	2.25	0.00357	0.00331	0.00087	PASS
Extreme (40℃)		11.39	5.26	1.03	0.00439	0.00203	0.00040	PASS
Extreme (30℃)		15.31	14.01	13.01	0.00590	0.00540	0.00501	PASS
Extreme (20℃)		12.91	12.12	6.95	0.00497	0.00467	0.00268	PASS
Extreme (10℃)		5.84	2.26	7.47	0.00225	0.00087	0.00288	PASS
Extreme (0℃)		8.30	15.04	6.98	0.00320	0.00580	0.00269	PASS
Extreme (-10℃)		8.44	8.48	16.77	0.00325	0.00327	0.00646	PASS
Extreme (-20℃)		17.31	13.27	1.22	0.00667	0.00511	0.00047	PASS
Extreme (-30℃)		5.80	8.24	13.84	0.00223	0.00317	0.00533	PASS
25℃	LV	15.11	5.84	13.57	0.00582	0.00225	0.00523	PASS
	HV	3.79	6.03	14.70	0.00146	0.00233	0.00567	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.53	12.37	11.37	0.00483	0.00477	0.00438	PASS
Extreme (50℃)		3.23	5.24	6.04	0.00124	0.00202	0.00233	PASS
Extreme (40℃)		8.34	13.93	2.01	0.00321	0.00537	0.00078	PASS
Extreme (30℃)		3.35	4.80	4.75	0.00129	0.00185	0.00183	PASS
Extreme (20℃)		8.34	4.73	14.26	0.00321	0.00182	0.00550	PASS
Extreme (10℃)		3.10	11.42	12.35	0.00119	0.00440	0.00476	PASS
Extreme (0℃)		9.94	16.44	9.87	0.00383	0.00634	0.00380	PASS
Extreme (-10℃)		8.54	4.81	11.74	0.00329	0.00185	0.00453	PASS
Extreme (-20℃)		1.56	12.51	10.83	0.00060	0.00482	0.00417	PASS
Extreme (-30℃)		14.93	5.53	14.06	0.00575	0.00213	0.00542	PASS
25℃	LV	12.55	4.46	7.00	0.00483	0.00172	0.00270	PASS
	HV	3.82	2.54	14.18	0.00147	0.00098	0.00546	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.00	9.00	4.00	0.00424	0.00347	0.00154	PASS
Extreme (50℃)		2.00	5.00	17.00	0.00077	0.00193	0.00655	PASS
Extreme (40℃)		1.00	7.00	10.00	0.00039	0.00270	0.00385	PASS



Extreme (30℃)		1.00	17.00	6.00	0.00039	0.00655	0.00231	PASS
Extreme (20℃)		1.00	14.00	4.00	0.00039	0.00539	0.00154	PASS
Extreme (10℃)		14.00	4.00	1.00	0.00539	0.00154	0.00039	PASS
Extreme (0℃)		3.00	7.00	1.00	0.00116	0.00270	0.00039	PASS
Extreme (-10℃)		15.00	8.00	7.00	0.00578	0.00308	0.00270	PASS
Extreme (-20℃)		1.00	16.00	5.00	0.00039	0.00617	0.00193	PASS
Extreme (-30℃)		12.00	9.00	16.00	0.00462	0.00347	0.00617	PASS
25℃	LV	1.00	5.00	15.00	0.00039	0.00193	0.00578	PASS
	HV	7.00	17.00	10.00	0.00270	0.00655	0.00385	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	6.00	6.00	15.00	0.00231	0.00231	0.00578	PASS
Extreme (50℃)		1.00	17.00	14.00	0.00039	0.00655	0.00539	PASS
Extreme (40℃)		7.00	9.00	7.00	0.00270	0.00347	0.00270	PASS
Extreme (30℃)		16.00	16.00	9.00	0.00617	0.00617	0.00347	PASS
Extreme (20℃)		5.00	2.00	3.00	0.00193	0.00077	0.00116	PASS
Extreme (10℃)		11.00	13.00	17.00	0.00424	0.00501	0.00655	PASS
Extreme (0℃)		5.00	7.00	12.00	0.00193	0.00270	0.00462	PASS
Extreme (-10℃)		1.00	4.00	1.00	0.00039	0.00154	0.00039	PASS
Extreme (-20℃)		12.00	14.00	8.00	0.00462	0.00539	0.00308	PASS
Extreme (-30℃)		17.00	3.00	1.00	0.00655	0.00116	0.00039	PASS
25℃	LV	15.00	3.00	14.00	0.00578	0.00116	0.00539	PASS
	HV	16.00	14.00	5.00	0.00617	0.00539	0.00193	PASS

LTE Band 66								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	3.00	6.00	15.00	0.00172	0.00344	0.00860	PASS
Extreme (50℃)		8.00	1.00	4.00	0.00458	0.00057	0.00229	PASS
Extreme (40℃)		8.00	9.00	11.00	0.00458	0.00516	0.00630	PASS
Extreme (30℃)		11.00	8.00	5.00	0.00630	0.00458	0.00287	PASS
Extreme (20℃)		16.00	3.00	7.00	0.00917	0.00172	0.00401	PASS
Extreme (10℃)		2.00	8.00	4.00	0.00115	0.00458	0.00229	PASS
Extreme (0℃)		1.00	3.00	2.00	0.00057	0.00172	0.00115	PASS
Extreme (-10℃)		8.00	5.00	1.00	0.00458	0.00287	0.00057	PASS
Extreme (-20℃)		7.00	15.00	2.00	0.00401	0.00860	0.00115	PASS



Extreme (-30℃)		16.00	16.00	8.00	0.00917	0.00917	0.00458	PASS
25℃	LV	1.00	17.00	6.00	0.00057	0.00974	0.00344	PASS
	HV	16.00	12.00	1.00	0.00917	0.00688	0.00057	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.00	11.00	15.00	0.00573	0.00630	0.00860	PASS
Extreme (50℃)		10.00	13.00	10.00	0.00573	0.00745	0.00573	PASS
Extreme (40℃)		10.00	8.00	8.00	0.00573	0.00458	0.00458	PASS
Extreme (30℃)		11.00	13.00	8.00	0.00630	0.00745	0.00458	PASS
Extreme (20℃)		9.00	10.00	11.00	0.00516	0.00573	0.00630	PASS
Extreme (10℃)		9.00	11.00	8.00	0.00516	0.00630	0.00458	PASS
Extreme (0℃)		16.00	17.00	5.00	0.00917	0.00974	0.00287	PASS
Extreme (-10℃)		15.00	1.00	17.00	0.00860	0.00057	0.00974	PASS
Extreme (-20℃)		5.00	6.00	17.00	0.00287	0.00344	0.00974	PASS
Extreme (-30℃)		11.00	15.00	6.00	0.00630	0.00860	0.00344	PASS
25℃	LV	10.00	10.00	5.00	0.00573	0.00573	0.00287	PASS
	HV	11.00	2.00	17.00	0.00630	0.00115	0.00974	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.00	12.00	13.00	0.00917	0.00688	0.00745	PASS
Extreme (50℃)		13.00	1.00	2.00	0.00745	0.00057	0.00115	PASS
Extreme (40℃)		6.00	11.00	8.00	0.00344	0.00630	0.00458	PASS
Extreme (30℃)		8.00	17.00	7.00	0.00458	0.00974	0.00401	PASS
Extreme (20℃)		12.00	16.00	7.00	0.00688	0.00917	0.00401	PASS
Extreme (10℃)		15.00	9.00	1.00	0.00860	0.00516	0.00057	PASS
Extreme (0℃)		8.00	4.00	16.00	0.00458	0.00229	0.00917	PASS
Extreme (-10℃)		16.00	9.00	15.00	0.00917	0.00516	0.00860	PASS
Extreme (-20℃)		9.00	2.00	2.00	0.00516	0.00115	0.00115	PASS
Extreme (-30℃)		7.00	17.00	9.00	0.00401	0.00974	0.00516	PASS
25℃	LV	17.00	8.00	1.00	0.00974	0.00458	0.00057	PASS
	HV	2.00	17.00	6.00	0.00115	0.00974	0.00344	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	15.00	17.00	3.00	0.00860	0.00974	0.00172	PASS
Extreme (50℃)		9.00	11.00	10.00	0.00516	0.00630	0.00573	PASS



Extreme (40℃)		8.00	13.00	12.00	0.00458	0.00745	0.00688	PASS
Extreme (30℃)		14.00	3.00	15.00	0.00802	0.00172	0.00860	PASS
Extreme (20℃)		14.00	2.00	6.00	0.00802	0.00115	0.00344	PASS
Extreme (10℃)		5.00	5.00	7.00	0.00287	0.00287	0.00401	PASS
Extreme (0℃)		2.00	12.00	11.00	0.00115	0.00688	0.00630	PASS
Extreme (-10℃)		3.00	8.00	9.00	0.00172	0.00458	0.00516	PASS
Extreme (-20℃)		8.00	14.00	13.00	0.00458	0.00802	0.00745	PASS
Extreme (-30℃)		8.00	15.00	9.00	0.00458	0.00860	0.00516	PASS
25℃	LV	17.00	13.00	1.00	0.00974	0.00745	0.00057	PASS
	HV	16.00	6.00	12.00	0.00917	0.00344	0.00688	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.00	7.00	17.00	0.00974	0.00401	0.00974	PASS
Extreme (50℃)		3.00	11.00	2.00	0.00172	0.00630	0.00115	PASS
Extreme (40℃)		13.00	11.00	2.00	0.00745	0.00630	0.00115	PASS
Extreme (30℃)		16.00	13.00	4.00	0.00917	0.00745	0.00229	PASS
Extreme (20℃)		12.00	9.00	12.00	0.00688	0.00516	0.00688	PASS
Extreme (10℃)		5.00	2.00	17.00	0.00287	0.00115	0.00974	PASS
Extreme (0℃)		2.00	2.00	6.00	0.00115	0.00115	0.00344	PASS
Extreme (-10℃)		1.00	10.00	3.00	0.00057	0.00573	0.00172	PASS
Extreme (-20℃)		16.00	16.00	13.00	0.00917	0.00917	0.00745	PASS
Extreme (-30℃)		17.00	11.00	8.00	0.00974	0.00630	0.00458	PASS
25℃	LV	17.00	1.00	16.00	0.00974	0.00057	0.00917	PASS
	HV	12.00	6.00	17.00	0.00688	0.00344	0.00974	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	3.00	6.00	16.00	0.00172	0.00344	0.00917	PASS
Extreme (50℃)		13.00	5.00	10.00	0.00745	0.00287	0.00573	PASS
Extreme (40℃)		11.00	12.00	10.00	0.00630	0.00688	0.00573	PASS
Extreme (30℃)		13.00	3.00	2.00	0.00745	0.00172	0.00115	PASS
Extreme (20℃)		8.00	7.00	5.00	0.00458	0.00401	0.00287	PASS
Extreme (10℃)		16.00	13.00	15.00	0.00917	0.00745	0.00860	PASS
Extreme (0℃)		7.00	1.00	1.00	0.00401	0.00057	0.00057	PASS
Extreme (-10℃)		8.00	11.00	13.00	0.00458	0.00630	0.00745	PASS
Extreme (-20℃)		1.00	12.00	6.00	0.00057	0.00688	0.00344	PASS
Extreme (-30℃)		16.00	13.00	13.00	0.00917	0.00745	0.00745	PASS
25℃	LV	3.00	12.00	6.00	0.00172	0.00688	0.00344	PASS



	HV	3.00	5.00	17.00	0.00172	0.00287	0.00974	PASS
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CA_7C_QPSK		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal (25℃)	Normal	17.07	0.00908	3.78	0.00201	PASS
Extreme (50℃)		15.11	0.00804	4.57	0.00243	PASS
Extreme (40℃)		4.90	0.00261	15.83	0.00842	PASS
Extreme (30℃)		17.38	0.00925	15.44	0.00821	PASS
Extreme (20℃)		8.89	0.00473	4.81	0.00256	PASS
Extreme (10℃)		6.80	0.00362	3.02	0.00161	PASS
Extreme (0℃)		12.90	0.00686	5.75	0.00306	PASS
Extreme (-10℃)		2.70	0.00144	2.16	0.00115	PASS
Extreme (-20℃)		2.93	0.00156	15.81	0.00841	PASS
Extreme (-30℃)		1.49	0.00079	4.71	0.00251	PASS
25℃	LV	16.46	0.00876	12.48	0.00664	PASS
	HV	13.52	0.00719	3.97	0.00211	PASS
CA_7C_16QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal (25℃)	Normal	16.28	0.00866	12.95	0.00689	PASS
Extreme (50℃)		17.27	0.00918	2.61	0.00139	PASS
Extreme (40℃)		9.81	0.00522	10.11	0.00538	PASS
Extreme (30℃)		9.28	0.00494	7.75	0.00412	PASS
Extreme (20℃)		1.54	0.00082	12.41	0.00660	PASS
Extreme (10℃)		10.50	0.00558	5.18	0.00276	PASS
Extreme (0℃)		16.24	0.00864	16.41	0.00873	PASS
Extreme (-10℃)		10.03	0.00533	14.81	0.00788	PASS
Extreme (-20℃)		11.00	0.00585	15.39	0.00819	PASS
Extreme (-30℃)		9.24	0.00491	10.70	0.00569	PASS
25℃	LV	3.50	0.00186	10.93	0.00581	PASS
	HV	2.09	0.00111	1.18	0.00063	PASS
CA_7C_64QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal (25℃)	Normal	15.54	0.00826	6.55	0.00348	PASS



Extreme (50℃)		6.85	0.00364	14.25	0.00758	PASS
Extreme (40℃)		5.52	0.00294	16.15	0.00859	PASS
Extreme (30℃)		7.53	0.00400	8.02	0.00427	PASS
Extreme (20℃)		7.92	0.00421	16.25	0.00864	PASS
Extreme (10℃)		17.47	0.00929	11.89	0.00633	PASS
Extreme (0℃)		13.61	0.00724	1.61	0.00086	PASS
Extreme (-10℃)		4.98	0.00265	13.53	0.00720	PASS
Extreme (-20℃)		4.56	0.00242	14.90	0.00792	PASS
Extreme (-30℃)		1.15	0.00061	16.61	0.00884	PASS
25℃	LV	2.32	0.00124	15.42	0.00820	PASS
	HV	15.42	0.00820	1.38	0.00073	PASS

CA_41C_QPSK		20MHz+5MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal (25℃)	Normal	12.53	0.00667	1.71	0.00091	PASS
Extreme (50℃)		12.65	0.00673	17.22	0.00916	PASS
Extreme (40℃)		4.13	0.00220	11.14	0.00592	PASS
Extreme (30℃)		11.81	0.00628	14.64	0.00779	PASS
Extreme (20℃)		4.81	0.00256	14.64	0.00779	PASS
Extreme (10℃)		6.31	0.00336	10.72	0.00570	PASS
Extreme (0℃)		5.46	0.00290	16.45	0.00875	PASS
Extreme (-10℃)		1.03	0.00055	13.69	0.00728	PASS
Extreme (-20℃)		2.70	0.00143	13.32	0.00708	PASS
Extreme (-30℃)		17.93	0.00954	10.91	0.00580	PASS
25℃	LV	9.64	0.00513	14.45	0.00768	PASS
	HV	11.17	0.00594	9.51	0.00506	PASS
CA_41C_16QAM		20MHz+5MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal (25℃)	Normal	3.99	0.00212	9.81	0.00522	PASS
Extreme (50℃)		8.59	0.00457	7.11	0.00378	PASS
Extreme (40℃)		12.84	0.00683	14.31	0.00761	PASS
Extreme (30℃)		17.19	0.00915	14.58	0.00775	PASS
Extreme (20℃)		9.01	0.00479	2.04	0.00109	PASS
Extreme (10℃)		13.95	0.00742	17.63	0.00938	PASS
Extreme (0℃)		1.46	0.00078	17.90	0.00952	PASS
Extreme (-10℃)		11.09	0.00590	7.18	0.00382	PASS



Extreme (-20℃)			1.93	0.00103	9.60	0.00511	PASS
Extreme (-30℃)			2.02	0.00107	12.54	0.00667	PASS
25℃		LV	17.04	0.00906	14.15	0.00752	PASS
		HV	9.75	0.00519	2.10	0.00112	PASS
CA_41C_64QAM			20MHz+5MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)		
Temperature	Voltage						
Normal (25℃)		Normal	3.39	0.00180	14.71	0.00783	PASS
Extreme (50℃)			15.84	0.00842	12.14	0.00646	PASS
Extreme (40℃)			15.96	0.00849	12.76	0.00679	PASS
Extreme (30℃)			2.30	0.00122	5.19	0.00276	PASS
Extreme (20℃)			7.42	0.00395	5.20	0.00276	PASS
Extreme (10℃)			9.48	0.00504	5.99	0.00319	PASS
Extreme (0℃)			7.35	0.00391	12.60	0.00670	PASS
Extreme (-10℃)			7.87	0.00419	9.12	0.00485	PASS
Extreme (-20℃)			3.49	0.00186	14.23	0.00757	PASS
Extreme (-30℃)			12.79	0.00680	3.70	0.00197	PASS
25℃		LV	15.69	0.00835	7.20	0.00383	PASS
		HV	5.07	0.00270	17.98	0.00957	PASS

NR n7												
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	5MHz						Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.31	16.91	2.31	17.31	1.91	0.00229	0.00899	0.00123	0.00921	0.00101	PASS
Extreme (50℃)		5.96	9.16	17.60	6.96	7.16	0.00317	0.00487	0.00936	0.00370	0.00381	PASS
Extreme (40℃)		14.68	12.92	12.26	14.68	3.92	0.00781	0.00687	0.00652	0.00781	0.00208	PASS
Extreme (30℃)		5.28	14.39	11.00	12.28	16.39	0.00281	0.00766	0.00585	0.00653	0.00872	PASS
Extreme (20℃)		2.53	15.00	3.95	1.53	14.00	0.00135	0.00798	0.00210	0.00082	0.00745	PASS
Extreme (10℃)		2.37	14.83	9.01	7.37	16.83	0.00126	0.00789	0.00479	0.00392	0.00895	PASS
Extreme (0℃)		17.11	12.45	2.76	1.11	11.45	0.00910	0.00662	0.00147	0.00059	0.00609	PASS
Extreme (-10℃)		17.90	7.55	13.67	15.90	6.55	0.00952	0.00401	0.00727	0.00846	0.00348	PASS
Extreme (-20℃)		14.98	17.82	13.07	13.98	3.82	0.00797	0.00948	0.00695	0.00744	0.00203	PASS
Extreme (-30℃)		6.09	4.30	13.86	16.09	12.30	0.00324	0.00229	0.00737	0.00856	0.00654	PASS
25℃	LV	9.10	12.94	2.89	9.10	4.94	0.00484	0.00688	0.00154	0.00484	0.00263	PASS
	HV	8.27	7.25	10.06	11.27	17.25	0.00440	0.00385	0.00535	0.00600	0.00917	PASS



Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	10MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	1.12	11.34	8.62	12.12	12.34	0.00059	0.00603	0.00459	0.00645	0.00657	
Extreme (50℃)		11.75	13.87	16.17	15.75	9.87	0.00625	0.00738	0.00860	0.00838	0.00525	PASS
Extreme (40℃)		4.65	13.21	11.15	10.65	11.21	0.00248	0.00702	0.00593	0.00567	0.00596	PASS
Extreme (30℃)		11.87	16.53	12.35	13.87	17.53	0.00632	0.00879	0.00657	0.00738	0.00932	PASS
Extreme (20℃)		11.50	15.82	7.01	7.50	8.82	0.00611	0.00842	0.00373	0.00399	0.00469	PASS
Extreme (10℃)		16.27	5.95	6.30	7.27	8.95	0.00866	0.00317	0.00335	0.00387	0.00476	PASS
Extreme (0℃)		12.95	17.17	12.19	6.95	1.17	0.00689	0.00913	0.00648	0.00370	0.00062	PASS
Extreme (-10℃)		12.17	10.50	1.10	2.17	3.50	0.00647	0.00558	0.00059	0.00115	0.00186	PASS
Extreme (-20℃)		15.92	16.47	2.45	14.92	10.47	0.00847	0.00876	0.00131	0.00794	0.00557	PASS
Extreme (-30℃)		9.43	15.04	16.92	7.43	7.04	0.00502	0.00800	0.00900	0.00395	0.00375	PASS
25℃	LV	3.75	12.37	15.14	7.75	4.37	0.00199	0.00658	0.00805	0.00412	0.00232	PASS
	HV	15.28	1.61	17.35	9.28	7.61	0.00813	0.00085	0.00923	0.00494	0.00405	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	13.19	9.52	15.82	17.19	4.52	0.00702	0.00506	0.00841	0.00915	0.00240	
Extreme (50℃)		7.63	3.10	10.63	15.63	3.10	0.00406	0.00165	0.00566	0.00831	0.00165	PASS
Extreme (40℃)		11.75	8.38	4.61	12.75	4.38	0.00625	0.00446	0.00245	0.00678	0.00233	PASS
Extreme (30℃)		1.98	13.93	7.27	15.98	3.93	0.00106	0.00741	0.00387	0.00850	0.00209	PASS
Extreme (20℃)		8.73	4.84	8.23	14.73	2.84	0.00464	0.00257	0.00438	0.00783	0.00151	PASS
Extreme (10℃)		17.83	14.69	10.20	2.83	16.69	0.00948	0.00781	0.00543	0.00150	0.00888	PASS
Extreme (0℃)		5.24	14.33	17.16	6.24	3.33	0.00279	0.00762	0.00913	0.00332	0.00177	PASS
Extreme (-10℃)		14.52	7.63	13.91	14.52	5.63	0.00772	0.00406	0.00740	0.00772	0.00299	PASS
Extreme (-20℃)		14.50	6.42	6.38	12.50	13.42	0.00771	0.00341	0.00340	0.00665	0.00714	PASS
Extreme (-30℃)		6.05	9.51	7.43	2.05	11.51	0.00322	0.00506	0.00395	0.00109	0.00612	PASS
25℃	LV	9.74	7.86	1.60	17.74	15.86	0.00518	0.00418	0.00085	0.00944	0.00844	PASS
	HV	14.44	4.43	1.65	7.44	9.43	0.00768	0.00236	0.00088	0.00396	0.00502	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	5.51	6.24	4.72	3.51	15.24	0.00293	0.00332	0.00251	0.00187	0.00811	
Extreme (50℃)		15.04	14.36	9.33	14.04	13.36	0.00800	0.00764	0.00496	0.00747	0.00711	PASS



Extreme (40℃)		6.62	1.20	2.38	1.62	8.20	0.00352	0.00064	0.00127	0.00086	0.00436	PASS
Extreme (30℃)		9.74	9.76	8.48	7.74	17.76	0.00518	0.00519	0.00451	0.00412	0.00945	PASS
Extreme (20℃)		6.91	5.88	16.76	7.91	2.88	0.00367	0.00313	0.00892	0.00421	0.00153	PASS
Extreme (10℃)		3.29	2.48	5.28	12.29	6.48	0.00175	0.00132	0.00281	0.00654	0.00345	PASS
Extreme (0℃)		6.08	13.23	13.25	12.08	12.23	0.00323	0.00703	0.00705	0.00642	0.00650	PASS
Extreme (-10℃)		16.98	3.96	6.46	1.98	15.96	0.00903	0.00211	0.00344	0.00106	0.00849	PASS
Extreme (-20℃)		11.66	5.02	4.36	3.66	6.02	0.00620	0.00267	0.00232	0.00195	0.00320	PASS
Extreme (-30℃)		1.69	7.51	12.42	7.69	1.51	0.00090	0.00399	0.00661	0.00409	0.00080	PASS
25℃	LV	3.50	13.86	17.17	4.50	5.86	0.00186	0.00737	0.00913	0.00240	0.00312	PASS
	HV	7.50	14.41	3.91	8.50	5.41	0.00399	0.00766	0.00208	0.00452	0.00288	PASS

NR n38												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.45	14.46	5.16	5.45	9.46	0.00662	0.00769	0.00275	0.00290	0.00503	PASS
Extreme (50℃)		11.03	17.48	6.55	3.03	7.48	0.00587	0.00930	0.00349	0.00161	0.00398	PASS
Extreme (40℃)		10.48	9.83	8.58	2.48	11.83	0.00558	0.00523	0.00456	0.00132	0.00629	PASS
Extreme (30℃)		4.19	2.21	12.18	4.19	10.21	0.00223	0.00118	0.00648	0.00223	0.00543	PASS
Extreme (20℃)		3.26	8.71	4.74	8.26	1.71	0.00174	0.00464	0.00252	0.00439	0.00091	PASS
Extreme (10℃)		16.86	14.93	10.13	6.86	17.93	0.00897	0.00794	0.00539	0.00365	0.00954	PASS
Extreme (0℃)		14.60	14.91	6.10	1.60	12.91	0.00776	0.00793	0.00324	0.00085	0.00687	PASS
Extreme (-10℃)		4.18	10.38	10.20	6.18	8.38	0.00222	0.00552	0.00542	0.00329	0.00446	PASS
Extreme (-20℃)		11.34	6.13	13.73	4.34	14.13	0.00603	0.00326	0.00730	0.00231	0.00752	PASS
Extreme (-30℃)		6.53	3.94	10.99	9.53	2.94	0.00347	0.00210	0.00584	0.00507	0.00157	PASS
25℃	LV	6.51	3.64	12.02	17.51	13.64	0.00347	0.00194	0.00639	0.00932	0.00726	PASS
	HV	17.74	3.05	5.82	17.74	10.05	0.00944	0.00162	0.00309	0.00944	0.00535	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	40MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	2.49	1.31	2.09	1.49	10.31	0.00132	0.00070	0.00111	0.00079	0.00549	PASS
Extreme (50℃)		4.64	5.41	2.11	16.64	16.41	0.00247	0.00288	0.00112	0.00885	0.00873	PASS
Extreme (40℃)		11.36	11.90	15.76	15.36	8.90	0.00604	0.00633	0.00838	0.00817	0.00473	PASS
Extreme (30℃)		14.38	7.25	13.74	2.38	9.25	0.00765	0.00386	0.00731	0.00127	0.00492	PASS
Extreme (20℃)		3.65	16.10	7.70	10.65	8.10	0.00194	0.00856	0.00409	0.00566	0.00431	PASS
Extreme (10℃)		7.65	16.65	12.57	7.65	7.65	0.00407	0.00886	0.00669	0.00407	0.00407	PASS
Extreme (0℃)		11.57	14.51	11.92	11.57	12.51	0.00615	0.00772	0.00634	0.00615	0.00666	PASS



Extreme (-10℃)		12.80	5.99	2.57	13.80	15.99	0.00681	0.00319	0.00137	0.00734	0.00851	PASS
Extreme (-20℃)		1.50	16.66	9.27	17.50	5.66	0.00080	0.00886	0.00493	0.00931	0.00301	PASS
Extreme (-30℃)		12.31	15.70	3.50	16.31	17.70	0.00655	0.00835	0.00186	0.00867	0.00942	PASS
25℃	LV	2.34	12.12	10.10	16.34	17.12	0.00125	0.00645	0.00537	0.00869	0.00911	PASS
	HV	9.08	6.13	15.96	16.08	15.13	0.00483	0.00326	0.00849	0.00856	0.00805	PASS

NR n41												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	6.03	12.20	16.66	7.03	14.20	0.00321	0.00649	0.00886	0.00374	0.00755	PASS
Extreme (50℃)		11.05	2.90	11.40	2.05	15.90	0.00588	0.00154	0.00607	0.00109	0.00846	PASS
Extreme (40℃)		6.53	10.58	12.14	7.53	3.58	0.00347	0.00563	0.00646	0.00400	0.00191	PASS
Extreme (30℃)		7.80	11.45	2.50	2.80	17.45	0.00415	0.00609	0.00133	0.00149	0.00928	PASS
Extreme (20℃)		5.73	9.74	1.11	7.73	10.74	0.00305	0.00518	0.00059	0.00411	0.00571	PASS
Extreme (10℃)		6.61	14.48	7.13	1.61	7.48	0.00351	0.00770	0.00379	0.00085	0.00398	PASS
Extreme (0℃)		11.08	16.29	13.19	16.08	3.29	0.00589	0.00867	0.00701	0.00855	0.00175	PASS
Extreme (-10℃)		3.60	3.35	14.89	5.60	8.35	0.00191	0.00178	0.00792	0.00298	0.00444	PASS
Extreme (-20℃)		14.99	15.82	15.00	13.99	6.82	0.00797	0.00842	0.00798	0.00744	0.00363	PASS
Extreme (-30℃)		11.46	7.32	3.95	13.46	12.32	0.00609	0.00389	0.00210	0.00716	0.00655	PASS
25℃	LV	12.04	10.66	16.23	9.04	6.66	0.00640	0.00567	0.00863	0.00481	0.00354	PASS
	HV	9.41	3.81	7.51	5.41	1.81	0.00500	0.00203	0.00400	0.00288	0.00096	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	40MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.17	12.15	6.98	6.17	8.15	0.00222	0.00646	0.00371	0.00328	0.00434	PASS
Extreme (50℃)		17.81	5.72	6.16	13.81	12.72	0.00947	0.00304	0.00328	0.00734	0.00676	PASS
Extreme (40℃)		13.25	6.42	6.35	2.25	3.42	0.00705	0.00342	0.00338	0.00120	0.00182	PASS
Extreme (30℃)		3.43	3.91	3.52	8.43	4.91	0.00182	0.00208	0.00187	0.00448	0.00261	PASS
Extreme (20℃)		17.69	9.99	3.40	10.69	14.99	0.00941	0.00531	0.00181	0.00569	0.00797	PASS
Extreme (10℃)		15.97	2.75	4.47	12.97	6.75	0.00850	0.00146	0.00238	0.00690	0.00359	PASS
Extreme (0℃)		12.76	14.54	12.78	12.76	5.54	0.00679	0.00773	0.00680	0.00679	0.00295	PASS
Extreme (-10℃)		5.00	1.63	7.63	11.00	13.63	0.00266	0.00087	0.00406	0.00585	0.00725	PASS
Extreme (-20℃)		12.40	7.64	16.39	4.40	17.64	0.00660	0.00406	0.00872	0.00234	0.00938	PASS
Extreme (-30℃)		1.41	15.87	2.59	9.41	17.87	0.00075	0.00844	0.00138	0.00501	0.00951	PASS
25℃	LV	11.87	5.04	10.80	10.87	11.04	0.00631	0.00268	0.00575	0.00578	0.00587	PASS
	HV	14.00	11.01	17.25	15.00	10.01	0.00744	0.00586	0.00918	0.00798	0.00533	PASS



Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	60MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	13.44	9.94	16.71	12.44	9.94	0.00715	0.00529	0.00889	0.00662	0.00529	PASS
Extreme (50℃)		5.12	1.47	12.01	4.12	6.47	0.00272	0.00078	0.00639	0.00219	0.00344	PASS
Extreme (40℃)		3.06	9.87	15.36	7.06	3.87	0.00163	0.00525	0.00817	0.00376	0.00206	PASS
Extreme (30℃)		15.14	1.09	4.88	2.14	6.09	0.00805	0.00058	0.00260	0.00114	0.00324	PASS
Extreme (20℃)		4.32	7.67	11.23	14.32	16.67	0.00230	0.00408	0.00597	0.00762	0.00887	PASS
Extreme (10℃)		9.68	14.71	3.07	13.68	14.71	0.00515	0.00782	0.00163	0.00728	0.00782	PASS
Extreme (0℃)		8.86	1.83	1.35	16.86	2.83	0.00471	0.00097	0.00072	0.00897	0.00151	PASS
Extreme (-10℃)		10.62	10.03	2.66	13.62	5.03	0.00565	0.00534	0.00142	0.00724	0.00268	PASS
Extreme (-20℃)		1.07	13.83	1.66	13.07	11.83	0.00057	0.00735	0.00088	0.00695	0.00629	PASS
Extreme (-30℃)		9.23	10.87	1.11	5.23	3.87	0.00491	0.00578	0.00059	0.00278	0.00206	PASS
25℃	LV	6.03	7.43	12.04	17.03	14.43	0.00321	0.00395	0.00641	0.00906	0.00767	PASS
	HV	4.05	7.58	8.06	6.05	14.58	0.00215	0.00403	0.00429	0.00322	0.00775	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	80MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	5.26	10.01	9.22	17.26	1.01	0.00280	0.00533	0.00490	0.00918	0.00054	PASS
Extreme (50℃)		13.64	16.34	6.72	11.64	13.34	0.00725	0.00869	0.00358	0.00619	0.00710	PASS
Extreme (40℃)		16.56	7.73	16.89	5.56	15.73	0.00881	0.00411	0.00898	0.00296	0.00837	PASS
Extreme (30℃)		5.96	17.01	12.60	4.96	11.01	0.00317	0.00905	0.00670	0.00264	0.00585	PASS
Extreme (20℃)		13.82	11.52	7.55	5.82	10.52	0.00735	0.00613	0.00402	0.00309	0.00559	PASS
Extreme (10℃)		7.85	16.31	11.61	17.85	1.31	0.00418	0.00867	0.00618	0.00950	0.00070	PASS
Extreme (0℃)		10.95	5.33	2.67	3.95	12.33	0.00582	0.00283	0.00142	0.00210	0.00656	PASS
Extreme (-10℃)		4.02	9.82	11.78	7.02	11.82	0.00214	0.00522	0.00626	0.00373	0.00629	PASS
Extreme (-20℃)		5.79	12.79	9.11	1.79	3.79	0.00308	0.00681	0.00484	0.00095	0.00202	PASS
Extreme (-30℃)		16.60	10.56	2.57	17.60	4.56	0.00883	0.00562	0.00137	0.00936	0.00242	PASS
25℃	LV	11.07	15.65	7.80	13.07	8.65	0.00589	0.00833	0.00415	0.00695	0.00460	PASS
	HV	16.44	15.60	1.48	17.44	13.60	0.00874	0.00830	0.00079	0.00927	0.00724	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	100MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	Verdict
Normal (25℃)	Normal	14.21	6.74	7.99	7.21	14.74	0.00756	0.00358	0.00425	0.00383	0.00784	PASS
Extreme (50℃)		1.45	16.41	15.60	3.45	11.41	0.00077	0.00873	0.00830	0.00183	0.00607	PASS



Extreme (40℃)		14.23	3.22	17.23	8.23	7.22	0.00757	0.00171	0.00916	0.00438	0.00384	PASS
Extreme (30℃)		3.68	4.29	9.99	7.68	15.29	0.00196	0.00228	0.00531	0.00408	0.00814	PASS
Extreme (20℃)		15.47	10.60	16.57	3.47	17.60	0.00823	0.00564	0.00881	0.00185	0.00936	PASS
Extreme (10℃)		17.65	4.97	11.19	2.65	12.97	0.00939	0.00265	0.00595	0.00141	0.00690	PASS
Extreme (0℃)		5.46	13.29	10.74	4.46	4.29	0.00290	0.00707	0.00571	0.00237	0.00228	PASS
Extreme (-10℃)		1.34	7.48	1.63	12.34	6.48	0.00071	0.00398	0.00087	0.00657	0.00345	PASS
Extreme (-20℃)		14.01	16.70	1.91	12.01	8.70	0.00745	0.00889	0.00102	0.00639	0.00463	PASS
Extreme (-30℃)		3.18	6.02	17.00	9.18	5.02	0.00169	0.00320	0.00904	0.00488	0.00267	PASS
25℃	LV	13.92	6.51	10.02	10.92	14.51	0.00740	0.00346	0.00533	0.00581	0.00772	PASS
	HV	4.03	16.30	11.35	8.03	7.30	0.00214	0.00867	0.00604	0.00427	0.00388	PASS

DC_28 A (subset 2)-n41A												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.59	7.49	13.84	9.59	6.49	0.00563	0.00398	0.00736	0.00510	0.00345	PASS
Extreme (50℃)		1.31	16.87	2.31	1.31	2.87	0.00069	0.00897	0.00123	0.00069	0.00153	PASS
Extreme (40℃)		1.43	6.58	14.22	3.43	11.58	0.00076	0.00350	0.00756	0.00183	0.00616	PASS
Extreme (30℃)		5.64	10.14	4.93	1.64	5.14	0.00300	0.00539	0.00262	0.00087	0.00273	PASS
Extreme (20℃)		17.27	11.27	4.98	6.27	8.27	0.00919	0.00600	0.00265	0.00334	0.00440	PASS
Extreme (10℃)		7.67	5.63	3.93	10.67	2.63	0.00408	0.00300	0.00209	0.00567	0.00140	PASS
Extreme (0℃)		16.08	8.60	11.94	2.08	2.60	0.00855	0.00458	0.00635	0.00111	0.00138	PASS
Extreme (-10℃)		16.75	3.27	6.67	1.75	2.27	0.00891	0.00174	0.00355	0.00093	0.00121	PASS
Extreme (-20℃)		13.10	6.35	3.13	7.10	14.35	0.00697	0.00338	0.00167	0.00377	0.00763	PASS
Extreme (-30℃)		14.17	14.80	5.38	7.17	5.80	0.00754	0.00787	0.00286	0.00381	0.00308	PASS
25℃	LV	5.22	1.77	6.10	7.22	13.77	0.00278	0.00094	0.00325	0.00384	0.00733	PASS
	HV	5.22	8.03	5.02	5.22	4.03	0.00277	0.00427	0.00267	0.00277	0.00214	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	40MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	13.91	12.78	4.95	12.91	3.78	0.00740	0.00680	0.00263	0.00687	0.00201	PASS
Extreme (50℃)		17.43	17.02	11.05	10.43	8.02	0.00927	0.00905	0.00588	0.00555	0.00427	PASS
Extreme (40℃)		11.77	7.25	9.92	11.77	2.25	0.00626	0.00386	0.00528	0.00626	0.00120	PASS
Extreme (30℃)		16.79	16.76	9.31	12.79	6.76	0.00893	0.00892	0.00495	0.00680	0.00360	PASS
Extreme (20℃)		7.53	10.14	14.57	10.53	13.14	0.00400	0.00539	0.00775	0.00560	0.00699	PASS
Extreme (10℃)		3.80	4.32	13.42	4.80	5.32	0.00202	0.00230	0.00714	0.00255	0.00283	PASS
Extreme (0℃)		8.13	9.53	14.03	4.13	12.53	0.00432	0.00507	0.00746	0.00219	0.00666	PASS



Extreme (-10℃)		17.70	2.51	17.24	11.70	17.51	0.00942	0.00134	0.00917	0.00623	0.00931	PASS
Extreme (-20℃)		12.00	15.05	1.59	10.00	3.05	0.00639	0.00801	0.00084	0.00532	0.00162	PASS
Extreme (-30℃)		3.03	7.74	8.62	11.03	15.74	0.00161	0.00412	0.00459	0.00587	0.00837	PASS
25℃	LV	17.51	13.09	15.69	10.51	10.09	0.00931	0.00696	0.00835	0.00559	0.00537	PASS
	HV	11.79	9.71	6.43	8.79	8.71	0.00627	0.00516	0.00342	0.00468	0.00463	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	60MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.61	16.54	17.44	8.61	11.54	0.00086	0.00880	0.00928	0.00458	0.00614	PASS
Extreme (50℃)		3.84	8.15	17.93	9.84	11.15	0.00204	0.00434	0.00954	0.00524	0.00593	PASS
Extreme (40℃)		1.51	16.35	13.25	8.51	10.35	0.00080	0.00870	0.00705	0.00452	0.00550	PASS
Extreme (30℃)		12.99	8.40	14.78	13.99	14.40	0.00691	0.00447	0.00786	0.00744	0.00766	PASS
Extreme (20℃)		2.87	9.41	6.47	3.87	14.41	0.00153	0.00500	0.00344	0.00206	0.00766	PASS
Extreme (10℃)		12.83	16.83	13.92	14.83	17.83	0.00682	0.00895	0.00740	0.00789	0.00948	PASS
Extreme (0℃)		11.77	3.10	7.47	11.77	3.10	0.00626	0.00165	0.00398	0.00626	0.00165	PASS
Extreme (-10℃)		13.92	12.53	4.86	6.92	4.53	0.00740	0.00666	0.00259	0.00368	0.00241	PASS
Extreme (-20℃)		11.59	13.87	6.66	13.59	8.87	0.00617	0.00738	0.00354	0.00723	0.00472	PASS
Extreme (-30℃)		16.12	17.32	12.41	15.12	12.32	0.00857	0.00921	0.00660	0.00804	0.00655	PASS
25℃	LV	15.74	10.51	15.73	3.74	15.51	0.00837	0.00559	0.00837	0.00199	0.00825	PASS
	HV	10.63	7.89	12.53	7.63	3.89	0.00566	0.00419	0.00666	0.00406	0.00207	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	80MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.02	9.68	4.89	12.02	10.68	0.00639	0.00515	0.00260	0.00639	0.00568	PASS
Extreme (50℃)		1.14	12.00	8.12	4.14	2.00	0.00060	0.00638	0.00432	0.00220	0.00106	PASS
Extreme (40℃)		12.20	6.12	8.42	12.20	9.12	0.00649	0.00325	0.00448	0.00649	0.00485	PASS
Extreme (30℃)		11.48	1.79	13.57	8.48	1.79	0.00611	0.00095	0.00722	0.00451	0.00095	PASS
Extreme (20℃)		9.81	15.32	6.91	11.81	8.32	0.00522	0.00815	0.00367	0.00628	0.00442	PASS
Extreme (10℃)		2.39	17.47	1.37	8.39	1.47	0.00127	0.00929	0.00073	0.00446	0.00078	PASS
Extreme (0℃)		5.47	13.10	1.56	15.47	16.10	0.00291	0.00697	0.00083	0.00823	0.00856	PASS
Extreme (-10℃)		5.82	2.60	12.83	10.82	17.60	0.00309	0.00138	0.00682	0.00575	0.00936	PASS
Extreme (-20℃)		7.29	12.69	7.96	14.29	9.69	0.00388	0.00675	0.00423	0.00760	0.00516	PASS
Extreme (-30℃)		11.84	15.56	15.34	10.84	3.56	0.00630	0.00827	0.00816	0.00577	0.00189	PASS
25℃	LV	13.87	8.46	10.13	17.87	3.46	0.00738	0.00450	0.00539	0.00950	0.00184	PASS
	HV	10.16	9.73	14.22	8.16	9.73	0.00540	0.00518	0.00757	0.00434	0.00518	PASS



Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	100MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.83	14.75	1.73	15.83	6.75	0.00257	0.00785	0.00092	0.00842	0.00359	PASS
Extreme (50℃)		2.14	10.91	5.34	1.14	17.91	0.00114	0.00580	0.00284	0.00061	0.00953	PASS
Extreme (40℃)		1.33	4.27	8.12	8.33	6.27	0.00071	0.00227	0.00432	0.00443	0.00333	PASS
Extreme (30℃)		7.84	6.43	3.38	7.84	5.43	0.00417	0.00342	0.00180	0.00417	0.00289	PASS
Extreme (20℃)		13.07	4.37	9.28	8.07	13.37	0.00695	0.00232	0.00493	0.00429	0.00711	PASS
Extreme (10℃)		14.60	12.98	5.37	4.60	13.98	0.00776	0.00690	0.00286	0.00244	0.00743	PASS
Extreme (0℃)		6.34	7.41	1.51	9.34	16.41	0.00337	0.00394	0.00080	0.00497	0.00873	PASS
Extreme (-10℃)		2.56	5.54	15.53	8.56	17.54	0.00136	0.00295	0.00826	0.00456	0.00933	PASS
Extreme (-20℃)		1.56	4.47	8.19	17.56	8.47	0.00083	0.00238	0.00435	0.00934	0.00451	PASS
Extreme (-30℃)		7.70	7.25	15.93	9.70	6.25	0.00409	0.00386	0.00847	0.00516	0.00332	PASS
25℃	LV	1.41	7.82	15.83	14.41	3.82	0.00075	0.00416	0.00842	0.00767	0.00203	PASS
	HV	7.72	1.54	17.12	9.72	9.54	0.00411	0.00082	0.00911	0.00517	0.00507	PASS

NR n66												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	5MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	7.36	17.11	7.75	7.36	13.11	0.00391	0.00910	0.00412	0.00391	0.00697	PASS
Extreme (50℃)		17.36	12.81	15.17	7.36	17.81	0.00924	0.00681	0.00807	0.00392	0.00947	PASS
Extreme (40℃)		12.51	2.94	14.95	3.51	12.94	0.00665	0.00157	0.00795	0.00186	0.00689	PASS
Extreme (30℃)		10.55	1.32	3.95	6.55	1.32	0.00561	0.00070	0.00210	0.00348	0.00070	PASS
Extreme (20℃)		16.31	8.39	9.65	15.31	12.39	0.00868	0.00446	0.00513	0.00815	0.00659	PASS
Extreme (10℃)		7.70	14.31	3.53	1.70	7.31	0.00410	0.00761	0.00188	0.00090	0.00389	PASS
Extreme (0℃)		15.16	16.03	17.07	8.16	5.03	0.00807	0.00853	0.00908	0.00434	0.00268	PASS
Extreme (-10℃)		7.01	11.38	16.31	1.01	17.38	0.00373	0.00605	0.00868	0.00054	0.00924	PASS
Extreme (-20℃)		2.58	5.94	2.61	11.58	2.94	0.00137	0.00316	0.00139	0.00616	0.00156	PASS
Extreme (-30℃)		15.22	3.19	5.11	6.22	9.19	0.00810	0.00170	0.00272	0.00331	0.00489	PASS
25℃	LV	7.66	7.55	11.65	15.66	4.55	0.00407	0.00402	0.00620	0.00833	0.00242	PASS
	HV	13.38	5.58	5.64	7.38	8.58	0.00712	0.00297	0.00300	0.00393	0.00456	PASS



Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	10MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.77	12.79	4.41	2.77	10.79	0.00254	0.00680	0.00235	0.00147	0.00574	PASS
Extreme (50℃)		1.21	3.36	14.94	11.21	8.36	0.00065	0.00179	0.00795	0.00596	0.00444	PASS
Extreme (40℃)		7.96	16.86	6.49	8.96	12.86	0.00424	0.00897	0.00345	0.00477	0.00684	PASS
Extreme (30℃)		6.20	16.75	4.32	7.20	4.75	0.00330	0.00891	0.00230	0.00383	0.00253	PASS
Extreme (20℃)		1.52	5.42	7.90	9.52	6.42	0.00081	0.00288	0.00420	0.00506	0.00342	PASS
Extreme (10℃)		3.24	9.79	14.56	15.24	7.79	0.00172	0.00521	0.00774	0.00810	0.00414	PASS
Extreme (0℃)		1.89	10.77	4.42	9.89	4.77	0.00100	0.00573	0.00235	0.00526	0.00253	PASS
Extreme (-10℃)		9.82	10.98	2.36	16.82	2.98	0.00523	0.00584	0.00125	0.00895	0.00158	PASS
Extreme (-20℃)		15.39	15.08	3.23	7.39	1.08	0.00819	0.00802	0.00172	0.00393	0.00058	PASS
Extreme (-30℃)		15.85	17.13	14.21	9.85	17.13	0.00843	0.00911	0.00756	0.00524	0.00911	PASS
25℃	LV	4.62	12.26	8.77	3.62	13.26	0.00246	0.00652	0.00466	0.00192	0.00705	PASS
	HV	7.34	2.50	10.11	15.34	4.50	0.00390	0.00133	0.00538	0.00816	0.00239	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.52	16.07	5.78	9.52	17.07	0.00879	0.00855	0.00307	0.00506	0.00908	PASS
Extreme (50℃)		3.13	17.95	7.01	7.13	16.95	0.00166	0.00955	0.00373	0.00379	0.00901	PASS
Extreme (40℃)		7.27	14.70	15.81	16.27	11.70	0.00386	0.00782	0.00841	0.00865	0.00622	PASS
Extreme (30℃)		13.35	4.07	17.81	2.35	12.07	0.00710	0.00217	0.00947	0.00125	0.00642	PASS
Extreme (20℃)		12.88	7.16	16.42	7.88	15.16	0.00685	0.00381	0.00874	0.00419	0.00806	PASS
Extreme (10℃)		16.02	3.14	6.79	8.02	17.14	0.00852	0.00167	0.00361	0.00427	0.00912	PASS
Extreme (0℃)		14.55	15.83	13.14	3.55	11.83	0.00774	0.00842	0.00699	0.00189	0.00629	PASS
Extreme (-10℃)		4.64	14.25	11.94	6.64	12.25	0.00247	0.00758	0.00635	0.00353	0.00652	PASS
Extreme (-20℃)		12.78	7.96	5.08	15.78	1.96	0.00680	0.00423	0.00270	0.00840	0.00104	PASS
Extreme (-30℃)		4.28	5.74	8.36	12.28	8.74	0.00227	0.00305	0.00445	0.00653	0.00465	PASS
25℃	LV	8.81	17.15	9.22	5.81	14.15	0.00469	0.00912	0.00490	0.00309	0.00752	PASS
	HV	5.32	1.73	10.85	4.32	8.73	0.00283	0.00092	0.00577	0.00230	0.00464	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	5.93	8.02	6.38	12.93	17.02	0.00316	0.00427	0.00340	0.00688	0.00906	PASS
Extreme (50℃)		8.13	17.47	3.68	11.13	4.47	0.00433	0.00929	0.00196	0.00592	0.00238	PASS



Extreme (40℃)		6.83	4.77	15.41	16.83	10.77	0.00363	0.00254	0.00820	0.00895	0.00573	PASS
Extreme (30℃)		17.33	6.63	7.22	4.33	2.63	0.00922	0.00353	0.00384	0.00230	0.00140	PASS
Extreme (20℃)		6.03	9.69	8.05	3.03	6.69	0.00321	0.00516	0.00428	0.00161	0.00356	PASS
Extreme (10℃)		7.36	1.80	8.65	3.36	16.80	0.00391	0.00096	0.00460	0.00179	0.00894	PASS
Extreme (0℃)		9.79	11.24	5.76	1.79	3.24	0.00521	0.00598	0.00307	0.00095	0.00173	PASS
Extreme (-10℃)		12.73	7.58	14.13	6.73	4.58	0.00677	0.00403	0.00752	0.00358	0.00244	PASS
Extreme (-20℃)		16.91	11.07	14.81	5.91	11.07	0.00900	0.00589	0.00788	0.00315	0.00589	PASS
Extreme (-30℃)		11.00	10.19	12.45	1.00	7.19	0.00585	0.00542	0.00662	0.00053	0.00383	PASS
25℃	LV	7.80	6.28	15.91	8.80	1.28	0.00415	0.00334	0.00846	0.00468	0.00068	PASS
	HV	11.87	14.84	8.21	17.87	15.84	0.00632	0.00790	0.00437	0.00951	0.00843	PASS

DC_5A-n66A												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	5MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.94	5.47	9.95	7.94	15.47	0.00475	0.00291	0.00529	0.00422	0.00823	PASS
Extreme (50℃)		7.70	8.43	1.86	14.70	3.43	0.00410	0.00448	0.00099	0.00782	0.00182	PASS
Extreme (40℃)		5.91	9.13	16.04	12.91	11.13	0.00315	0.00486	0.00853	0.00687	0.00592	PASS
Extreme (30℃)		14.32	1.32	9.62	13.32	4.32	0.00762	0.00070	0.00512	0.00708	0.00230	PASS
Extreme (20℃)		6.02	17.57	16.41	16.02	16.57	0.00320	0.00935	0.00873	0.00852	0.00882	PASS
Extreme (10℃)		7.65	7.75	8.06	3.65	17.75	0.00407	0.00412	0.00428	0.00194	0.00944	PASS
Extreme (0℃)		15.29	13.52	9.40	3.29	3.52	0.00813	0.00719	0.00500	0.00175	0.00187	PASS
Extreme (-10℃)		11.35	3.66	2.39	15.35	8.66	0.00604	0.00195	0.00127	0.00817	0.00461	PASS
Extreme (-20℃)		4.58	4.72	1.70	11.58	13.72	0.00244	0.00251	0.00090	0.00616	0.00730	PASS
Extreme (-30℃)		11.76	12.50	3.43	5.76	6.50	0.00626	0.00665	0.00182	0.00307	0.00346	PASS
25℃	LV	14.45	14.54	7.72	14.45	9.54	0.00768	0.00773	0.00411	0.00768	0.00507	PASS
	HV	12.21	16.70	10.81	4.21	11.70	0.00649	0.00888	0.00575	0.00224	0.00622	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	10MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.11	17.73	1.42	12.11	4.73	0.00910	0.00943	0.00076	0.00644	0.00252	PASS
Extreme (50℃)		2.30	13.44	10.90	12.30	9.44	0.00123	0.00715	0.00580	0.00654	0.00502	PASS
Extreme (40℃)		3.54	7.35	17.65	16.54	12.35	0.00188	0.00391	0.00939	0.00880	0.00657	PASS
Extreme (30℃)		6.15	14.10	16.24	10.15	5.10	0.00327	0.00750	0.00864	0.00540	0.00272	PASS
Extreme (20℃)		16.49	8.31	5.09	17.49	5.31	0.00877	0.00442	0.00271	0.00930	0.00282	PASS
Extreme (10℃)		15.50	14.28	11.77	1.50	9.28	0.00824	0.00759	0.00626	0.00080	0.00493	PASS
Extreme (0℃)		7.77	3.75	6.23	4.77	9.75	0.00413	0.00199	0.00331	0.00253	0.00518	PASS



Extreme (-10℃)		11.73	12.37	8.41	5.73	15.37	0.00624	0.00658	0.00447	0.00305	0.00818	PASS
Extreme (-20℃)		17.98	7.69	12.02	5.98	3.69	0.00956	0.00409	0.00639	0.00318	0.00196	PASS
Extreme (-30℃)		7.59	13.64	9.50	7.59	17.64	0.00404	0.00726	0.00505	0.00404	0.00938	PASS
25℃	LV	12.67	17.99	15.98	9.67	7.99	0.00674	0.00957	0.00850	0.00514	0.00425	PASS
	HV	11.16	13.01	4.19	6.16	1.01	0.00593	0.00692	0.00223	0.00327	0.00054	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	15.34	10.94	5.08	1.34	1.94	0.00816	0.00582	0.00270	0.00071	0.00103	PASS
Extreme (50℃)		4.49	4.09	12.37	9.49	17.09	0.00239	0.00217	0.00658	0.00505	0.00909	PASS
Extreme (40℃)		7.21	10.22	2.93	17.21	17.22	0.00384	0.00544	0.00156	0.00916	0.00916	PASS
Extreme (30℃)		15.15	8.82	3.00	17.15	8.82	0.00806	0.00469	0.00160	0.00912	0.00469	PASS
Extreme (20℃)		4.75	16.33	3.06	10.75	11.33	0.00253	0.00869	0.00163	0.00572	0.00603	PASS
Extreme (10℃)		5.33	6.08	11.28	6.33	11.08	0.00283	0.00324	0.00600	0.00337	0.00589	PASS
Extreme (0℃)		4.97	1.69	8.20	12.97	1.69	0.00264	0.00090	0.00436	0.00690	0.00090	PASS
Extreme (-10℃)		12.83	11.79	17.65	13.83	14.79	0.00682	0.00627	0.00939	0.00736	0.00787	PASS
Extreme (-20℃)		9.22	10.99	4.10	9.22	15.99	0.00490	0.00585	0.00218	0.00490	0.00851	PASS
Extreme (-30℃)		11.26	16.00	1.51	6.26	16.00	0.00599	0.00851	0.00081	0.00333	0.00851	PASS
25℃	LV	17.29	6.86	1.88	12.29	2.86	0.00920	0.00365	0.00100	0.00654	0.00152	PASS
	HV	12.46	12.81	14.36	1.46	7.81	0.00663	0.00682	0.00764	0.00078	0.00416	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	7.19	10.01	11.74	1.19	15.01	0.00382	0.00533	0.00625	0.00063	0.00799	PASS
Extreme (50℃)		4.19	11.67	16.29	15.19	11.67	0.00223	0.00621	0.00866	0.00808	0.00621	PASS
Extreme (40℃)		2.41	5.54	1.29	6.41	10.54	0.00128	0.00295	0.00068	0.00341	0.00561	PASS
Extreme (30℃)		15.15	17.22	16.32	3.15	8.22	0.00806	0.00916	0.00868	0.00167	0.00437	PASS
Extreme (20℃)		1.52	11.72	1.12	4.52	9.72	0.00081	0.00623	0.00059	0.00240	0.00517	PASS
Extreme (10℃)		11.27	14.68	5.08	14.27	9.68	0.00600	0.00781	0.00270	0.00759	0.00515	PASS
Extreme (0℃)		9.02	15.26	14.64	16.02	2.26	0.00480	0.00812	0.00779	0.00852	0.00120	PASS
Extreme (-10℃)		3.59	10.10	1.67	7.59	3.10	0.00191	0.00537	0.00089	0.00404	0.00165	PASS
Extreme (-20℃)		5.65	4.25	14.56	5.65	7.25	0.00301	0.00226	0.00775	0.00301	0.00386	PASS
Extreme (-30℃)		1.88	4.50	7.97	5.88	13.50	0.00100	0.00240	0.00424	0.00313	0.00718	PASS
25℃	LV	12.52	10.29	17.31	6.52	14.29	0.00666	0.00548	0.00921	0.00347	0.00760	PASS
	HV	16.01	16.03	5.02	6.01	2.03	0.00852	0.00853	0.00267	0.00320	0.00108	PASS



NR n77 subset 1												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	PASS
Normal (25℃)	Normal	13.86	3.58	8.44	9.86	7.58	0.00737	0.00191	0.00449	0.00525	0.00403	
Extreme (50℃)		8.85	1.56	17.65	2.85	13.56	0.00470	0.00083	0.00939	0.00151	0.00721	
Extreme (40℃)		15.78	16.42	2.15	12.78	6.42	0.00840	0.00873	0.00114	0.00680	0.00341	
Extreme (30℃)		5.56	11.70	13.78	9.56	5.70	0.00296	0.00622	0.00733	0.00508	0.00303	
Extreme (20℃)		2.38	16.35	3.91	5.38	15.35	0.00127	0.00870	0.00208	0.00286	0.00817	
Extreme (10℃)		10.04	13.11	3.70	1.04	10.11	0.00534	0.00697	0.00197	0.00055	0.00538	
Extreme (0℃)		10.04	4.13	13.80	17.04	8.13	0.00534	0.00220	0.00734	0.00906	0.00433	
Extreme (-10℃)		8.89	17.66	3.94	12.89	11.66	0.00473	0.00939	0.00209	0.00686	0.00620	
Extreme (-20℃)		11.53	3.57	6.35	1.53	1.57	0.00613	0.00190	0.00338	0.00082	0.00084	
Extreme (-30℃)		4.92	11.58	4.60	17.92	17.58	0.00262	0.00616	0.00245	0.00953	0.00935	
25℃	LV	14.04	2.18	16.59	4.04	9.18	0.00747	0.00116	0.00882	0.00215	0.00488	PASS
	HV	4.70	13.85	15.61	11.70	7.85	0.00250	0.00736	0.00830	0.00622	0.00417	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	40MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	PASS
Normal (25℃)	Normal	4.79	7.28	1.81	4.79	1.28	0.00255	0.00387	0.00096	0.00255	0.00068	
Extreme (50℃)		5.23	2.85	9.75	8.23	1.85	0.00278	0.00152	0.00519	0.00438	0.00098	
Extreme (40℃)		13.11	5.54	9.81	10.11	14.54	0.00697	0.00295	0.00522	0.00538	0.00773	
Extreme (30℃)		11.28	9.37	11.65	17.28	4.37	0.00600	0.00499	0.00620	0.00919	0.00233	
Extreme (20℃)		6.39	15.78	5.37	1.39	3.78	0.00340	0.00840	0.00286	0.00074	0.00201	
Extreme (10℃)		2.13	3.62	3.20	11.13	5.62	0.00113	0.00192	0.00170	0.00592	0.00299	
Extreme (0℃)		6.70	11.70	2.59	5.70	16.70	0.00356	0.00623	0.00138	0.00303	0.00888	
Extreme (-10℃)		10.33	6.97	16.76	3.33	8.97	0.00550	0.00371	0.00892	0.00177	0.00477	
Extreme (-20℃)		7.00	5.56	17.65	9.00	8.56	0.00372	0.00296	0.00939	0.00479	0.00455	
Extreme (-30℃)		12.32	9.43	15.40	14.32	7.43	0.00655	0.00502	0.00819	0.00762	0.00395	
25℃	LV	16.72	16.68	12.96	13.72	10.68	0.00889	0.00887	0.00689	0.00730	0.00568	PASS
	HV	13.82	11.54	16.44	16.82	16.54	0.00735	0.00614	0.00874	0.00895	0.00880	PASS



Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	60MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.75	14.54	9.29	14.75	10.54	0.00678	0.00773	0.00494	0.00784	0.00561	PASS
Extreme (50℃)		12.84	7.80	8.71	5.84	15.80	0.00683	0.00415	0.00463	0.00311	0.00840	PASS
Extreme (40℃)		8.91	6.65	14.99	1.91	6.65	0.00474	0.00354	0.00797	0.00102	0.00354	PASS
Extreme (30℃)		10.14	8.78	17.42	1.14	11.78	0.00539	0.00467	0.00927	0.00061	0.00627	PASS
Extreme (20℃)		3.33	9.15	12.09	4.33	3.15	0.00177	0.00487	0.00643	0.00231	0.00168	PASS
Extreme (10℃)		7.16	15.56	1.34	12.16	10.56	0.00381	0.00828	0.00071	0.00647	0.00562	PASS
Extreme (0℃)		7.95	2.42	12.10	4.95	3.42	0.00423	0.00129	0.00644	0.00263	0.00182	PASS
Extreme (-10℃)		15.71	3.54	15.61	6.71	16.54	0.00835	0.00188	0.00830	0.00357	0.00880	PASS
Extreme (-20℃)		9.54	11.29	12.50	6.54	4.29	0.00508	0.00601	0.00665	0.00348	0.00228	PASS
Extreme (-30℃)		8.39	5.67	17.41	8.39	17.67	0.00446	0.00302	0.00926	0.00446	0.00940	PASS
25℃	LV	13.00	4.35	13.78	9.00	8.35	0.00691	0.00231	0.00733	0.00479	0.00444	PASS
	HV	4.19	13.54	12.15	12.19	11.54	0.00223	0.00720	0.00646	0.00648	0.00614	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	80MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.11	11.71	15.31	5.11	17.71	0.00484	0.00623	0.00814	0.00272	0.00942	PASS
Extreme (50℃)		1.43	5.78	5.74	1.43	2.78	0.00076	0.00308	0.00305	0.00076	0.00148	PASS
Extreme (40℃)		16.16	1.29	4.33	12.16	3.29	0.00860	0.00069	0.00230	0.00647	0.00175	PASS
Extreme (30℃)		13.95	7.51	10.36	1.95	11.51	0.00742	0.00400	0.00551	0.00104	0.00612	PASS
Extreme (20℃)		9.51	3.49	17.34	17.51	10.49	0.00506	0.00185	0.00922	0.00932	0.00558	PASS
Extreme (10℃)		14.52	11.92	7.30	13.52	2.92	0.00773	0.00634	0.00388	0.00719	0.00156	PASS
Extreme (0℃)		10.11	9.37	5.43	11.11	1.37	0.00538	0.00498	0.00289	0.00591	0.00073	PASS
Extreme (-10℃)		5.42	17.53	9.31	17.42	13.53	0.00288	0.00932	0.00495	0.00927	0.00720	PASS
Extreme (-20℃)		16.64	4.34	3.72	13.64	4.34	0.00885	0.00231	0.00198	0.00726	0.00231	PASS
Extreme (-30℃)		8.77	8.11	11.65	11.77	16.11	0.00466	0.00431	0.00620	0.00626	0.00857	PASS
25℃	LV	5.59	3.37	4.49	2.59	8.37	0.00297	0.00179	0.00239	0.00138	0.00445	PASS
	HV	17.55	12.49	5.01	7.55	13.49	0.00934	0.00664	0.00266	0.00402	0.00717	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	100MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.86	17.77	7.15	16.86	12.77	0.00259	0.00945	0.00380	0.00897	0.00679	PASS
Extreme (50℃)		10.66	3.27	6.40	1.66	2.27	0.00567	0.00174	0.00340	0.00089	0.00121	PASS



Extreme (40℃)		8.67	16.00	17.47	2.67	17.00	0.00461	0.00851	0.00929	0.00142	0.00904	PASS
Extreme (30℃)		4.06	10.17	11.98	14.06	1.17	0.00216	0.00541	0.00637	0.00748	0.00062	PASS
Extreme (20℃)		12.66	11.71	7.94	14.66	15.71	0.00673	0.00623	0.00422	0.00780	0.00836	PASS
Extreme (10℃)		16.97	14.95	6.79	3.97	12.95	0.00902	0.00795	0.00361	0.00211	0.00689	PASS
Extreme (0℃)		16.65	3.93	9.94	13.65	4.93	0.00886	0.00209	0.00529	0.00726	0.00262	PASS
Extreme (-10℃)		3.41	13.76	11.72	17.41	14.76	0.00181	0.00732	0.00624	0.00926	0.00785	PASS
Extreme (-20℃)		3.20	16.46	17.96	4.20	10.46	0.00170	0.00876	0.00955	0.00224	0.00557	PASS
Extreme (-30℃)		3.11	2.81	11.91	10.11	15.81	0.00165	0.00149	0.00633	0.00538	0.00841	PASS
25℃	LV	11.17	9.49	7.21	14.17	2.49	0.00594	0.00505	0.00384	0.00754	0.00132	PASS
	HV	4.91	5.93	5.16	5.91	17.93	0.00261	0.00315	0.00275	0.00315	0.00954	PASS

NR n77 subset 2												
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.40	13.81	14.43	8.40	13.81	0.00872	0.00735	0.00768	0.00447	0.00735	PASS
Extreme (50℃)		11.00	9.92	15.41	16.00	4.92	0.00585	0.00528	0.00820	0.00851	0.00262	PASS
Extreme (40℃)		7.78	9.03	7.85	4.78	1.03	0.00414	0.00481	0.00417	0.00254	0.00055	PASS
Extreme (30℃)		6.52	16.52	16.61	10.52	16.52	0.00347	0.00879	0.00884	0.00560	0.00879	PASS
Extreme (20℃)		11.25	14.08	16.23	7.25	5.08	0.00598	0.00749	0.00863	0.00386	0.00270	PASS
Extreme (10℃)		3.05	14.93	10.89	3.05	2.93	0.00162	0.00794	0.00579	0.00162	0.00156	PASS
Extreme (0℃)		11.12	8.32	15.11	6.12	4.32	0.00592	0.00443	0.00804	0.00326	0.00230	PASS
Extreme (-10℃)		9.71	17.25	9.33	8.71	3.25	0.00517	0.00918	0.00496	0.00464	0.00173	PASS
Extreme (-20℃)		5.18	1.86	1.78	6.18	4.86	0.00275	0.00099	0.00094	0.00329	0.00259	PASS
Extreme (-30℃)		10.00	4.70	3.14	7.00	11.70	0.00532	0.00250	0.00167	0.00372	0.00622	PASS
25℃	LV	8.85	6.45	4.70	4.85	3.45	0.00471	0.00343	0.00250	0.00258	0.00184	PASS
	HV	12.03	2.45	16.47	11.03	4.45	0.00640	0.00131	0.00876	0.00587	0.00237	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	40MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.99	9.09	6.79	6.99	9.09	0.00957	0.00483	0.00361	0.00372	0.00483	PASS
Extreme (50℃)		17.02	3.67	4.79	7.02	17.67	0.00906	0.00195	0.00255	0.00374	0.00940	PASS
Extreme (40℃)		3.79	1.67	5.61	1.79	2.67	0.00202	0.00089	0.00298	0.00095	0.00142	PASS
Extreme (30℃)		2.87	3.03	16.06	5.87	2.03	0.00153	0.00161	0.00854	0.00312	0.00108	PASS
Extreme (20℃)		8.72	10.10	4.73	12.72	9.10	0.00464	0.00537	0.00251	0.00677	0.00484	PASS
Extreme (10℃)		9.69	10.55	8.03	6.69	8.55	0.00516	0.00561	0.00427	0.00356	0.00455	PASS
Extreme (0℃)		11.77	13.22	2.17	5.77	2.22	0.00626	0.00703	0.00115	0.00307	0.00118	PASS



Extreme (-10℃)		1.94	1.63	8.75	15.94	11.63	0.00103	0.00087	0.00466	0.00848	0.00619	PASS
Extreme (-20℃)		10.57	13.91	8.69	13.57	9.91	0.00562	0.00740	0.00462	0.00722	0.00527	PASS
Extreme (-30℃)		17.09	5.87	7.89	8.09	17.87	0.00909	0.00312	0.00420	0.00430	0.00950	PASS
25℃	LV	6.58	8.61	5.71	13.58	13.61	0.00350	0.00458	0.00304	0.00722	0.00724	PASS
	HV	7.89	1.10	16.62	16.89	1.10	0.00420	0.00059	0.00884	0.00898	0.00059	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	60MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	5.18	8.72	5.44	13.18	4.72	0.00275	0.00464	0.00289	0.00701	0.00251	PASS
Extreme (50℃)		16.45	13.53	12.18	1.45	8.53	0.00875	0.00720	0.00648	0.00077	0.00454	PASS
Extreme (40℃)		8.32	2.31	17.63	15.32	16.31	0.00443	0.00123	0.00938	0.00815	0.00867	PASS
Extreme (30℃)		12.72	3.56	14.14	7.72	8.56	0.00677	0.00189	0.00752	0.00411	0.00455	PASS
Extreme (20℃)		7.93	14.56	17.92	7.93	5.56	0.00422	0.00774	0.00953	0.00422	0.00296	PASS
Extreme (10℃)		13.37	9.81	9.30	16.37	2.81	0.00711	0.00522	0.00495	0.00871	0.00150	PASS
Extreme (0℃)		7.08	16.89	9.61	6.08	17.89	0.00377	0.00899	0.00511	0.00324	0.00952	PASS
Extreme (-10℃)		6.23	10.35	8.27	14.23	6.35	0.00331	0.00550	0.00440	0.00757	0.00338	PASS
Extreme (-20℃)		13.20	6.31	7.90	1.20	2.31	0.00702	0.00336	0.00420	0.00064	0.00123	PASS
Extreme (-30℃)		15.19	5.43	4.18	7.19	2.43	0.00808	0.00289	0.00222	0.00382	0.00129	PASS
25℃	LV	8.85	7.64	7.92	6.85	16.64	0.00471	0.00406	0.00421	0.00364	0.00885	PASS
	HV	10.84	3.90	7.43	13.84	7.90	0.00577	0.00207	0.00395	0.00736	0.00420	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	80MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	5.10	11.98	5.94	2.10	1.98	0.00271	0.00637	0.00316	0.00112	0.00106	PASS
Extreme (50℃)		16.81	9.44	10.17	15.81	10.44	0.00894	0.00502	0.00541	0.00841	0.00556	PASS
Extreme (40℃)		16.36	1.54	1.64	15.36	12.54	0.00870	0.00082	0.00087	0.00817	0.00667	PASS
Extreme (30℃)		8.54	12.32	7.19	2.54	16.32	0.00455	0.00655	0.00383	0.00135	0.00868	PASS
Extreme (20℃)		11.74	3.01	17.67	14.74	17.01	0.00625	0.00160	0.00940	0.00784	0.00905	PASS
Extreme (10℃)		11.94	8.30	17.38	2.94	2.30	0.00635	0.00442	0.00925	0.00156	0.00122	PASS
Extreme (0℃)		14.47	6.46	12.98	10.47	4.46	0.00770	0.00344	0.00691	0.00557	0.00237	PASS
Extreme (-10℃)		15.81	15.73	12.75	10.81	6.73	0.00841	0.00837	0.00678	0.00575	0.00358	PASS
Extreme (-20℃)		10.01	16.46	2.99	7.01	2.46	0.00533	0.00876	0.00159	0.00373	0.00131	PASS
Extreme (-30℃)		5.11	5.12	1.81	10.11	17.12	0.00272	0.00272	0.00096	0.00538	0.00911	PASS
25℃	LV	9.27	14.18	17.46	2.27	10.18	0.00493	0.00754	0.00929	0.00121	0.00542	PASS
	HV	2.63	3.46	16.18	14.63	3.46	0.00140	0.00184	0.00861	0.00778	0.00184	PASS