



5.5 99%&26DB BANDWIDTH

Test Requirement: FCC 47 CFR Part 2.1049(h),
GSM 850 & WCDMA Band V & LTE Band 5: FCC 47 CFR Part 22.917(b),
GSM 1900 & WCDMA Band II & LTE Band 2: FCC 47 CFR Part 24.238(b),
WCDMA Band IV & LTE Band 4: FCC 47 CFR Part 27.53(h),
LTE Band 12 & Band 17: FCC 47 CFR Part 27.53(g)

Test Method: ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01

Limit: No Limit

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

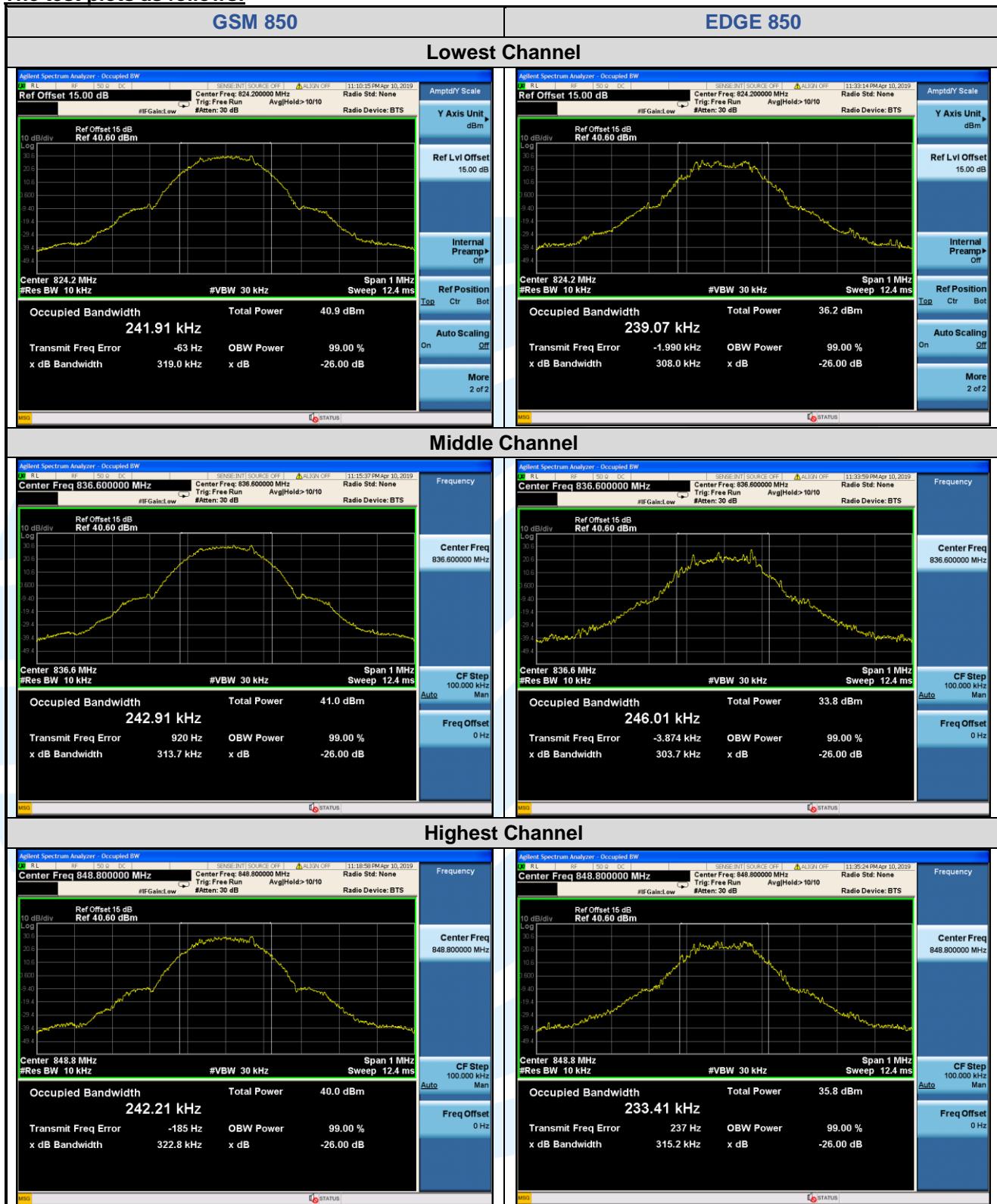
Test Results: Pass

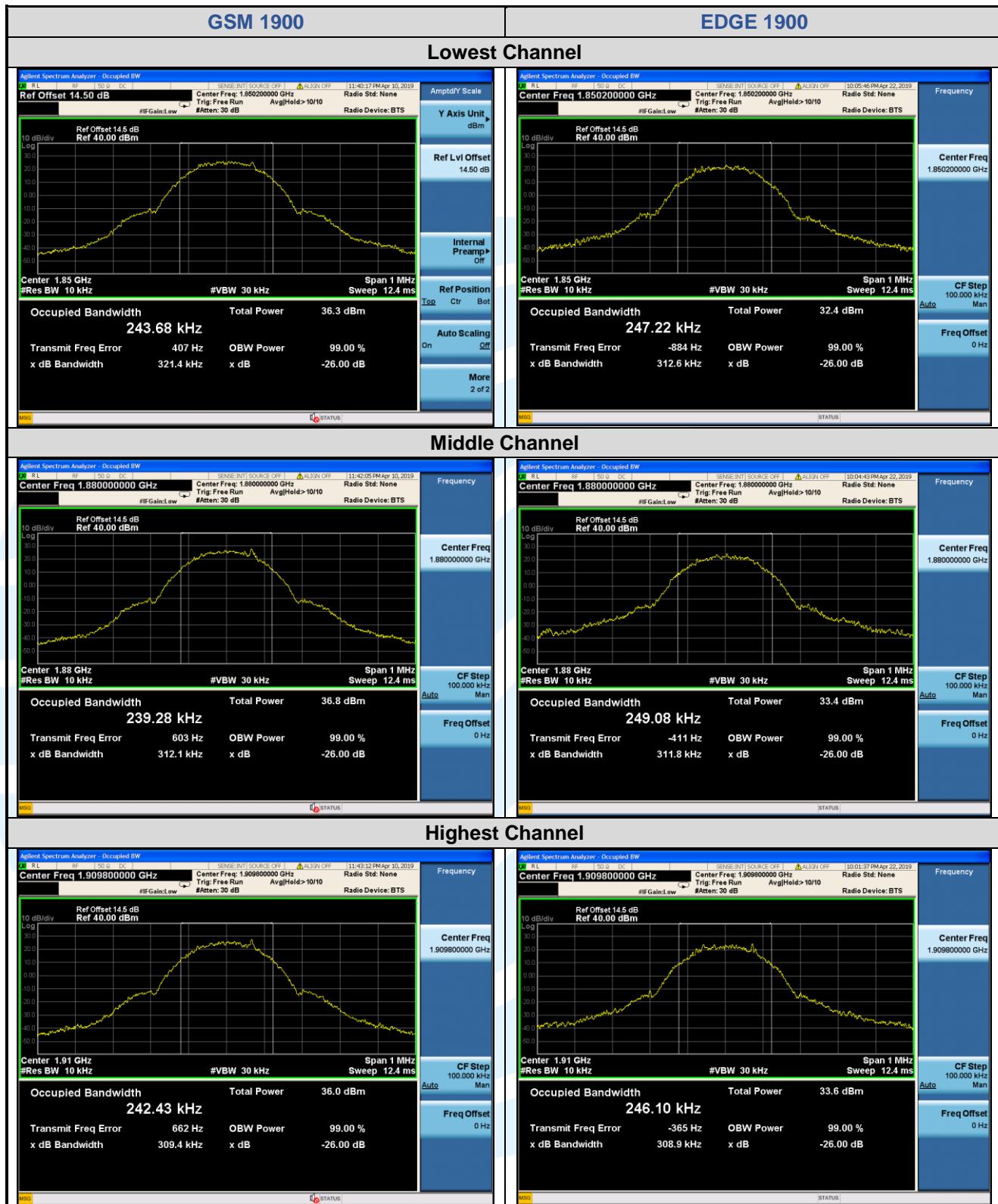
Test Data: See table below

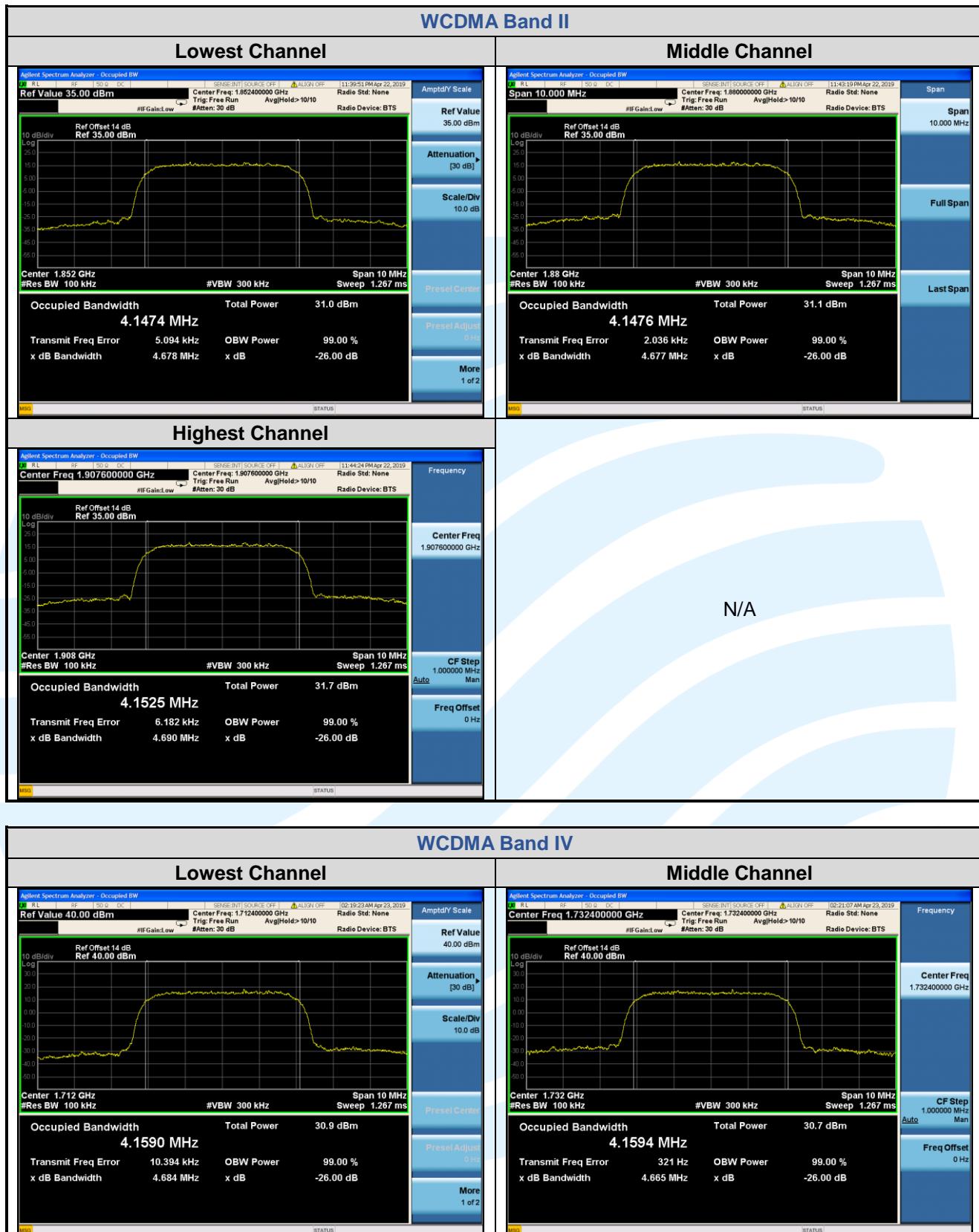
99% & 26 dB Bandwidth				
Test Mode	Channel	Frequency (MHz)	26 dB BW (kHz)	99% BW (kHz)
GSM 850 1Tx-slot	128	824.2	319.0	241.91
	190	836.6	313.7	242.91
	251	848.8	322.8	242.21
EDGE 850 1Tx-slot	128	824.2	308.0	239.07
	190	836.6	303.7	246.01
	251	848.8	315.2	233.41
GSM 1900 1Tx-slot	512	1850.2	321.4	243.68
	661	1880.0	312.1	239.28
	810	1909.8	309.4	242.43
EDGE 1900 1Tx-slot	512	1850.2	312.6	247.22
	661	1880.0	311.8	249.08
	810	1909.8	308.9	246.10

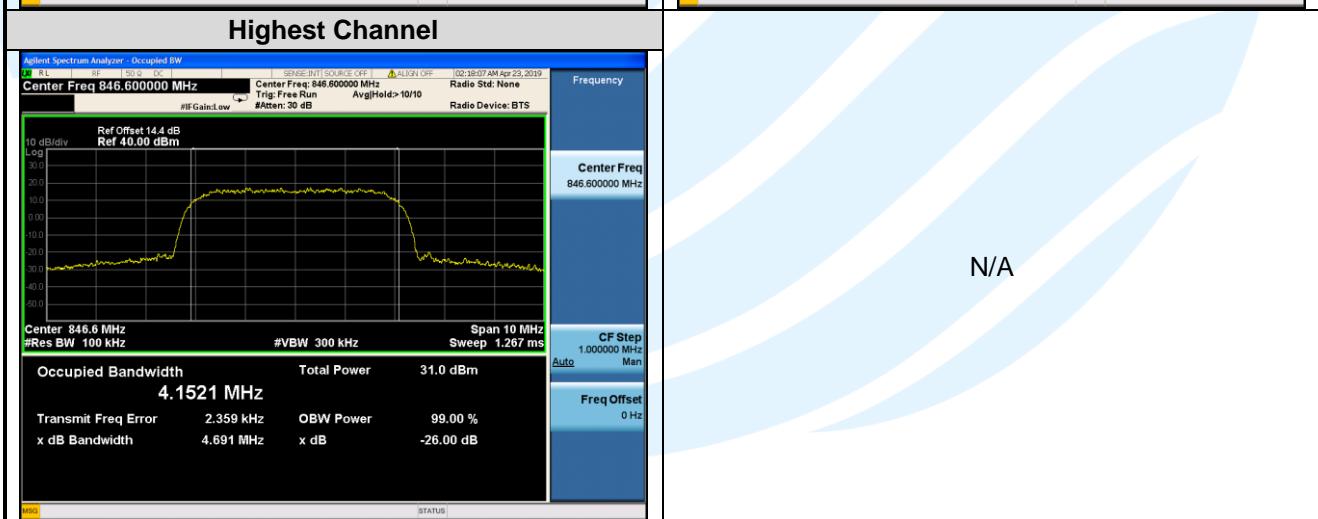
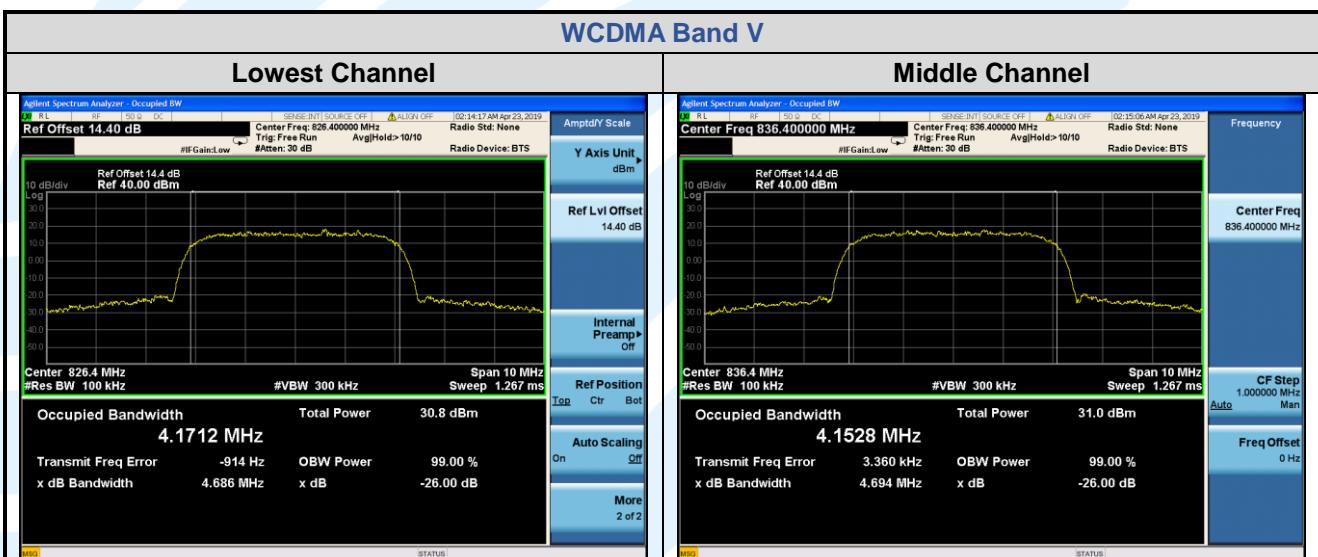
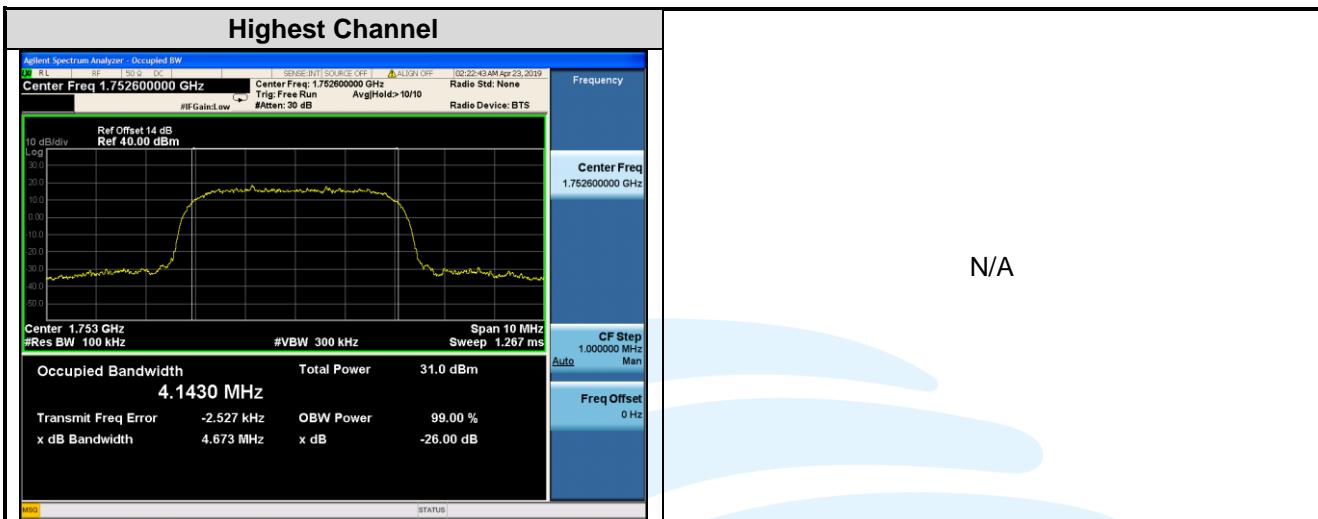
99% & 26 dB Bandwidth				
Test Mode	Channel	Frequency (MHz)	26 dB BW (MHz)	99% BW (MHz)
WCDMA Band II RMC 12.2Kbps	9262	1852.4	4.678	4.1474
	9400	1880.0	4.677	4.1476
	9538	1907.6	4.690	4.1525
WCDMA Band IV RMC 12.2Kbps	1312	1712.4	4.684	4.1590
	1412	1732.4	4.665	4.1594
	1513	1752.6	4.673	4.1430
WCDMA Band V RMC 12.2Kbps	4132	826.4	4.686	4.1712
	4182	836.4	4.694	4.1528
	4233	846.6	4.691	4.1521

The test plots as follows:









Band 2

LTE Band 2								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 1.4 MHz								
Lowest	6	0	1.361	1.342	N/A	1.1036	1.1023	N/A
Middle	6	0	1.351	1.360	N/A	1.1034	1.1035	N/A
Highest	6	0	1.348	1.347	N/A	1.1035	1.1037	N/A
Channel Bandwidth: 3 MHz								
Lowest	15	0	3.094	3.097	N/A	2.6957	2.6939	N/A
Middle	15	0	3.096	3.092	N/A	2.6954	2.6944	N/A
Highest	15	0	3.099	3.101	N/A	2.6954	2.6959	N/A
Channel Bandwidth: 5 MHz								
Lowest	25	0	4.947	4.952	N/A	4.4685	4.4705	N/A
Middle	25	0	4.966	4.960	N/A	4.4718	4.4716	N/A
Highest	25	0	4.952	4.948	N/A	4.4705	4.4706	N/A
Channel Bandwidth: 10 MHz								
Lowest	50	0	9.594	9.568	N/A	8.9254	8.9214	N/A
Middle	50	0	9.604	9.578	N/A	8.9291	8.9274	N/A
Highest	50	0	9.606	9.601	N/A	8.9274	8.9269	N/A
Channel Bandwidth: 15 MHz								
Lowest	75	0	14.16	14.14	N/A	13.399	13.407	N/A
Middle	75	0	14.17	14.16	N/A	13.400	13.404	N/A
Highest	75	0	14.12	14.13	N/A	13.405	13.401	N/A
Channel Bandwidth: 20 MHz								
Lowest	100	0	18.69	18.69	N/A	17.835	17.837	N/A
Middle	100	0	18.67	18.67	N/A	17.852	17.848	N/A
Highest	100	0	18.68	18.67	N/A	17.835	17.826	N/A

