§ 27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any

emission outside a licensee's frequency block shall be attenuated below the transmitter power

(P) by at least $43 + 10 \log 10(P) dB$.

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

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

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

4.5.3.Test Procedure

- 1. Connect the equipment as shown in the above diagram with the EUT's antenna in a horizontal orientation.
- 2. Adjust the settings of the Universal Radio Communication Tester (CMU) to set the EUT to its maximum power at the required channel.
- 3. Set the spectrum analyzer to measure peak hold with the required settings.
- 4. Place the measurement antenna in a horizontal orientation. Rotate the EUT 360 .

Raise the measurement antenna at 1.5 meters increments and rotate the EUT 360 at maximize all emissions. Measure and record all spurious emissions (LVL) up to the tenth harmonic of the carrier frequency.

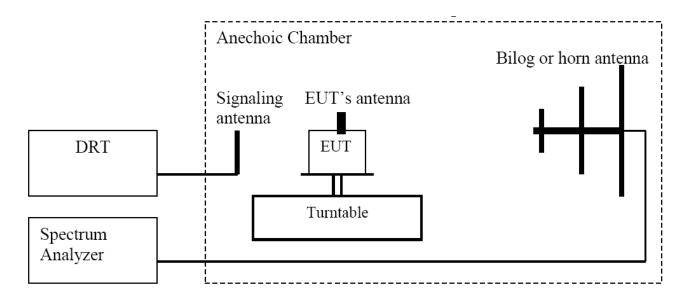
- 5. Replace the EUT with a horizontally polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.
- 6. Connect the antenna to a signal generator with known output power and record the path loss in dB (LOSS). LOSS = Generator Output Power (dBm) Analyzer reading (dBm).
- 7. Determine the level of spurious emissions using the following equation: Spurious (dBm) = LVL (dBm) + LOSS (dB):
- 8. Repeat steps 4, 5 and 6 with all antennas vertically polarized.
- 9. Determine the level of spurious emissions using the following equation: Spurious (dBm) = LVL (dBm) + LOSS (dB):
- 10. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

(Note: Steps 5 and 6 above are performed prior to testing and LOSS is recorded by test software. Steps 3, 4 and 7 above are performed with test software.)

Spectrum analyzer settings: RBW=VBW=1MHz

Report No.: WT168003432 Page 401 of465

4.5.4.Test Setup



Report No.: WT168003432 Page 402 of465

4.5.5.Test Data

Test Band = GSM850 Test Mode = GPRS /TM1 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1648.4	0.57	0.9	6.77	40.6	-34.16	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850 Test Mode = GPRS /TM1 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1673.2	-0.89	0.9	6.77	40.6	-35.62	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850 Test Mode = GPRS /TM1 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1697.6	0.02	0.9	6.77	40.6	-34.71	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 403 of465

Test Band = GSM850 Test Mode = EDGE /TM2 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1648.4	-2.7	0.9	6.77	40.6	-37.43	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850 Test Mode = EDGE /TM2 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1673.2	-2.16	0.9	6.77	40.6	-36.89	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM850 Test Mode = EDGE /TM2 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1697.6	-3.32	0.9	6.77	40.6	-38.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 404 of465

Test Band = WCDMA850 Test Mode = UMTS/TM3 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1652.8	-10.36	0.9	6.77	40.6	-45.09	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA850 Test Mode = UMTS/TM3 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1672.8	-11.48	0.9	6.77	40.6	-46.21	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA850 Test Mode = UMTS/TM3 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBd]	dB	Level (ERP) [dBm]		[dBm]
1693.2	-10.99	0.9	6.77	40.6	-45.72	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 405 of465

Test Band = GSM1900 Test Mode = GPRS /TM1 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3700.4	-4.67	4.6	9.53	39	-38.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900 Test Mode = GPRS /TM1 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-2.46	4.6	9.53	39	-36.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900 Test Mode = GPRS /TM1 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3819.6	-2.96	4.6	9.53	39	-37.03	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 406 of465

Test Band = GSM1900 Test Mode = EDGE /TM2 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3700.4	-1.74	4.6	9.53	39	-35.81	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900 Test Mode = EDGE /TM2 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-3.24	4.6	9.53	39	-37.31	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = GSM1900 Test Mode = EDGE /TM2 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3819.6	-5.58	4.6	9.53	39	-39.65	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 407 of465

Test Band = WCDMA1900 Test Mode = UMTS /TM3 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3705	-11.21	4.6	9.53	39	-45.28	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1900 Test Mode = UMTS /TM3 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-10.01	4.6	9.53	39	-44.08	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1900 Test Mode = UMTS /TM3 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3815.2	-12.35	4.6	9.53	39	-46.42	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 408 of465

Test Band = WCDMA1700 Test Mode = UMTS /TM3 Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3724.8	-11.08	4.1	9.41	39	-44.77	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1700 Test Mode = UMTS /TM3 Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465.2	-12.36	4.1	9.41	39	-46.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = WCDMA1700 Test Mode = UMTS /TM3 Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3505.2	-12.65	4.1	9.41	39	-46.34	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 409 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3701.4	-8.11	4.6	9.53	39	-42.18	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7	4.6	9.53	39	-41.07	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3818.6	-8.28	4.6	9.53	39	-42.35	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 410 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=1.4MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3701.4	-7.72	4.6	9.53	39	-41.79	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=1.4MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-6.89	4.6	9.53	39	-40.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=1.4MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3818.6	-7.96	4.6	9.53	39	-42.03	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 411 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3703	-8.46	4.6	9.53	39	-42.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7.55	4.6	9.53	39	-41.62	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3817	-6.79	4.6	9.53	39	-40.86	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 412 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3703	-8.67	4.6	9.53	39	-42.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7.68	4.6	9.53	39	-41.75	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3817	-6.01	4.6	9.53	39	-40.08	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 413 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3705	-7.4	4.6	9.53	39	-41.47	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-8.36	4.6	9.53	39	-42.43	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3815	-6.89	4.6	9.53	39	-40.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 414 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=5MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3705	-8.98	4.6	9.53	39	-43.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=5MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7.42	4.6	9.53	39	-41.49	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=5MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3815	-8.67	4.6	9.53	39	-42.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 415 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3710	-10.46	4.6	9.53	39	-44.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-6.78	4.6	9.53	39	-40.85	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3810	-8.57	4.6	9.53	39	-42.64	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 416 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3710	-6.76	4.6	9.53	39	-40.83	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7.67	4.6	9.53	39	-41.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3810	-9.22	4.6	9.53	39	-43.29	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 417 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3715	-7.19	4.6	9.53	39	-41.26	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-9.45	4.6	9.53	39	-43.52	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3805	-6.89	4.6	9.53	39	-40.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 418 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=15MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3715	-8.01	4.6	9.53	39	-42.08	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=15MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-6.44	4.6	9.53	39	-40.51	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=15MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3805	-8.56	4.6	9.53	39	-42.63	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 419 of465

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3720	-5.41	4.6	9.53	39	-39.48	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-7.75	4.6	9.53	39	-41.82	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3800	-9	4.6	9.53	39	-43.07	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 420 of465

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=20MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3720	-7.16	4.6	9.53	39	-41.23	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=20MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3760	-9.17	4.6	9.53	39	-43.24	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 2
Test Mode = 16QAM /TM5
Bandwidth=20MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3800	-6.89	4.6	9.53	39	-40.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 421 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3421.4	-9.23	4.1	9.41	39	-42.92	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-7.73	4.1	9.41	39	-41.42	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=1.4MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3508.6	-7.94	4.1	9.41	39	-41.63	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 422 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=1.4MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3421.4	-9.37	4.1	9.41	39	-43.06	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=1.4MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-9.04	4.1	9.41	39	-42.73	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=1.4MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3508.6	-6.87	4.1	9.41	39	-40.56	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 423 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3423	-7.96	4.1	9.41	39	-41.65	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-6.4	4.1	9.41	39	-40.09	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=3MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3507	-8.84	4.1	9.41	39	-42.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 424 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3423	-7.17	4.1	9.41	39	-40.86	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-8.82	4.1	9.41	39	-42.51	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=3MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3507	-7.36	4.1	9.41	39	-41.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 425 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3425	-6.24	4.1	9.41	39	-39.93	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-7.88	4.1	9.41	39	-41.57	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=5MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3505	-9.16	4.1	9.41	39	-42.85	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 426 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=5MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3425	-8.05	4.1	9.41	39	-41.74	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=5MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-9.58	4.1	9.41	39	-43.27	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=5MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3505	-8.07	4.1	9.41	39	-41.76	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 427 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3430	-9.52	4.1	9.41	39	-43.21	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-8.25	4.1	9.41	39	-41.94	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=10MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3500	-9.57	4.1	9.41	39	-43.26	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 428 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3430	-6.82	4.1	9.41	39	-40.51	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-9.15	4.1	9.41	39	-42.84	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=10MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3500	-7.58	4.1	9.41	39	-41.27	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 429 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3435	-9.5	4.1	9.41	39	-43.19	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-8.67	4.1	9.41	39	-42.36	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=15MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3495	-7.14	4.1	9.41	39	-40.83	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 430 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=15MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3435	-7.39	4.1	9.41	39	-41.08	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=15MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-9.82	4.1	9.41	39	-43.51	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=15MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3495	-9.26	4.1	9.41	39	-42.95	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 431 of465

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3440	-6.84	4.1	9.41	39	-40.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3465	-4.93	4.1	9.41	39	-38.62	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = QPSK /TM4
Bandwidth=20MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
3490	-8.06	4.1	9.41	39	-41.75	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 432 of465

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=20MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (ERP) [dBm]		[dBm]
3440	-8.51	4.1	9.41	39	-42.2	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = 16QAM /TM5
Bandwidth=20MHz
Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (ERP) [dBm]		[dBm]
3465	-6.92	4.1	9.41	39	-40.61	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 4
Test Mode = Q16QAM /TM5
Bandwidth=20MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (ERP) [dBm]		[dBm]
3490	-7.65	4.1	9.41	39	-41.34	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 433 of465

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=1.4MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1399.4	-5.57	0.9	6.49	40.6	-40.76	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=1.4MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-7.52	0.9	6.49	40.6	-42.53	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=1.4MHz Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1430.6	-6.08	0.9	6.49	40.6	-41.09	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 434 of465

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=1.4MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1399.4	-8.28	0.9	6.49	40.6	-43.29	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=1.4MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-6.26	0.9	6.49	40.6	-41.27	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12
Test Mode = Q16QAM /TM5
Bandwidth=1.4MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1430.6	-8.03	0.9	6.49	40.6	-43.04	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 435 of465

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=3MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1401	-6.32	0.9	6.49	40.6	-41.33	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=3MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-7.55	0.9	6.49	40.6	-42.56	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=3MHz Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1429	-5.71	0.9	6.49	40.6	-40.72	Vertical I	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 436 of465

Test Band = LTE Band 12
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1401	-8.01	0.9	6.49	40.6	-43.02	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=3MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-6.24	0.9	6.49	40.6	-41.25	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12
Test Mode = 16QAM /TM5
Bandwidth=3MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1429	-5.85	0.9	6.49	40.6	-40.86	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 437 of465

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=5MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1403	-7.36	0.9	6.49	40.6	-42.37	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=5MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-8.04	0.9	6.49	40.6	-43.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=5MHz Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1427	-6.31	0.9	6.49	40.6	-41.32	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 438 of465

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=5MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1403	-5.95	0.9	6.49	40.6	-40.96	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=5MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-6.41	0.9	6.49	40.6	-41.42	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12
Test Mode = Q16QAM /TM5
Bandwidth=5MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1427	-8.04	0.9	6.49	40.6	-43.05	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 439 of465

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=10MHz Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1408	-6.85	0.9	6.49	40.6	-41.86	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=10MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-5.44	0.9	6.49	40.6	-40.45	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = QPSK /TM4 Bandwidth=10MHz Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1422	-8.25	0.9	6.49	40.6	-43.26	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 440 of465

Test Band = LTE Band 12
Test Mode = 16QAM /TM5
Bandwidth=10MHz
Test Channel = LCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Pream p	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1408	-6.47	0.9	6.49	40.6	-41.48	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12 Test Mode = 16QAM /TM5 Bandwidth=10MHz Test Channel = MCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1415	-8.51	0.9	6.49	40.6	-43.52	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Test Band = LTE Band 12
Test Mode = Q16QAM /TM5
Bandwidth=10MHz
Test Channel = HCH

Freq.	SG. Level	Cable Loss	Antenna Gain	Preamp	Substitution	polarization	Limit
[MHz]	[dBm]	[dB]	[dBi]	dB	Level (EIRP) [dBm]		[dBm]
1422	-6.64	0.9	6.49	40.6	-41.65	Vertical	-13

The emissions don't show in above result tables are more than 20dB below the limits Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Report No.: WT168003432 Page 441 of465

4.6. Frequency Stability

CFR 47 (FCC) part 2.1055, 22.355, 24.235 and 27.54

4.6.1.Test Limit

According to part 22.355, from 821MHz to 896MHz, for mobile device, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances 2.5ppm.

4.6.2.Test Procedure

GSM/WCDMA

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMU 200 Universal Radio Communication Tester.

- 1. Measure the carrier frequency at room temperature.
- 2. Subject the EUT to overnight soak at -30°C.
- 3. With the EUT, powered via nominal voltage, connected to the CMU 200 and in a simulated call on mid channel (190 for GSM 850 & 4183 for WCDMA 850 & 661 for PCS1900 & 9400 for WCDMA 1900& 1413 for WCDMA 1700), measure the carrier frequency. These measurements should be made within 2 minutes of powering up the EUT, to prevent significant self-warming.
- 4. Repeat the above measurements at 10 C increments from -30 $^{\circ}$ C to +50 $^{\circ}$ C. Allow at least 1 1/2 hours at each temperature, un-powered, before making measurements.
- 5. Re-measure carrier frequency at room temperature with nominal voltage. Re-measure carrier frequency at low and high voltage. Pause at nominal voltage for 1 1/2 hours un-powered, to allow any self-heating to stabilize, before continuing.
- 6. Subject the EUT to overnight soak at +50 $^{\circ}$ C.
- 7. With the EUT, powered via nominal voltage, connected to the CMU 200 and in a simulated call on mid channel (190 for GSM 850 & 4183 for WCDMA 850 & 661 for PCS1900 & 9400 for WCDMA 1900 & 1413 for WCDMA 1700), measure the carrier frequency. These measurements should be made within 2 minutes of powering up the EUT, to prevent significant self-warming.
- 8. Repeat the above measurements at 10 $^{\circ}\mathrm{C}$ increments from +50 $^{\circ}\mathrm{C}$ to -30 $^{\circ}\mathrm{C}$. Allow at least 1 1/2 hours at each temperature, un-powered, before making measurements.
- 9. At all temperature levels hold the temperature to +/- 0.5 $\,^{\circ}$ C during the measurement procedure.

LTE

- 1. The transmitter output (antenna port) was connected to the BS Simulator.
- 2. The BS simulator was used to set the TX channel and power level and modulate the TX signal with different bit patterns.
- 3. BS simulator used the frequency error function and measured the peak frequency error. Power must be removed when changingfrom one temperature to another or one voltage to another voltage. Power warm up is at least 15 min and power applied should perform before recording frequency error. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
- 4. EUT is connected the external power supply to control the DC input power. The various Volts from the minimum 3.5 Volts to 4.2 Volts. Each step shall be record the frequency error rate.

Report No.: WT168003432 Page 442 of465

- 5. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- 6. Extreme temperature rule is-30°C~50°C.

4.6.3.Test Setup

Connect the EUT to the Wireless Communication test set CMU200 or CMW 500 via the connector. Then measure the frequency error by the Wireless Communication test set CMU200/CMW 500. The EUT's output is matched with a 50 Ω load.

4.6.4.Test Data

Measurement Results vs. Variation of Temperature—GPRS850

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	836.6	10.72	Pass
-20 °C	836.6	8.98	Pass
-10 °C	836.6	9.81	Pass
0 °C	836.6	8.85	Pass
+10 °C	836.6	8.72	Pass
+20 °C	836.6	8.98	Pass
+30 °C	836.6	8.72	Pass
+40 °C	836.6	11.30	Pass
+50 °C	836.6	10.65	Pass

Measurement Results vs. Variation of Voltage—GPRS850

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
3.5 V	836.6	10.85	Pass
3.7 V	836.6	8.01	Pass
4.2 V	836.6	9.88	Pass

Report No.: WT168003432 Page 443 of465

Measurement Results vs. Variation of Temperature—EDGE850

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	836.6	13.88	Pass
-20 °C	836.6	13.85	Pass
-10 °C	836.6	12.49	Pass
0 °C	836.6	12.07	Pass
+10 °C	836.6	11.04	Pass
+20 °C	836.6	13.40	Pass
+30 °C	836.6	13.04	Pass
+40 °C	836.6	12.04	Pass
+50 °C	836.6	11.85	Pass

Measurement Results vs. Variation of Voltage-EDGE850

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
3.5 V	836.6	12.53	Pass
3.7 V	836.6	13.27	Pass
4.2 V	836.6	13.04	Pass

Report No.: WT168003432 Page 444 of465

Measurement Results vs. Variation of Temperature—WCDMA850

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	836.6	2.94	Pass
-20 °C	836.6	-4.71	Pass
-10 °C	836.6	-1.42	Pass
0 °C	836.6	1.31	Pass
+10 °C	836.6	-8.79	Pass
+20 °C	836.6	-2.15	Pass
+30 °C	836.6	-2.08	Pass
+40 °C	836.6	-1.39	Pass
+50 °C	836.6	-0.44	Pass

Measurement Results vs. Variation of Voltage—WCDMA850

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
3.5 V	836.6	-4.64	Pass
3.7 V	836.6	-2.84	Pass
4.2 V	836.6	-5.77	Pass

Report No.: WT168003432 Page 445 of465

Measurement Results vs. Variation of Temperature - GPRS1900

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	1880.0	6.68	Pass
-20 °C	1880.0	8.65	Pass
-10 °C	1880.0	11.01	Pass
0 °C	1880.0	9.59	Pass
+10 °C	1880.0	8.52	Pass
+20 °C	1880.0	4.13	Pass
+30 °C	1880.0	7.59	Pass
+40 °C	1880.0	12.27	Pass
+50 °C	1880.0	10.72	Pass

Measurement Results vs. Variation of Voltage—GPRS1900

Voltage	Nominal Frequency (MHz)	Measured Frequency	Result
		Error(Hz)	
3.5 V	1880.0	6.62	Pass
3.7 V	1880.0	6.65	Pass
4.2 V	1880.0	7.14	Pass

Report No.: WT168003432 Page 446 of465

Measurement Results vs. Variation of Temperature - EDGE1900

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	1880.0	6.68	Pass
-20 °C	1880.0	8.65	Pass
-10 °C	1880.0	11.01	Pass
0 °C	1880.0	9.59	Pass
+10 °C	1880.0	8.52	Pass
+20 °C	1880.0	4.13	Pass
+30 °C	1880.0	7.59	Pass
+40 °C	1880.0	12.27	Pass
+50 °C	1880.0	10.72	Pass

Measurement Results vs. Variation of Voltage-EDGE1900

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
3.5 V	1880.0	6.62	Pass
3.7 V	1880.0	6.65	Pass
4.2 V	1880.0	7.14	Pass

Report No.: WT168003432 Page 447 of465

Measurement Results vs. Variation of Temperature – WCDMA1900

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	1880.0	0.50	Pass
-20 °C	1880.0	1.85	Pass
-10 °C	1880.0	-4.10	Pass
0 °C	1880.0	-4.85	Pass
+10 °C	1880.0	-3.19	Pass
+20 °C	1880.0	-0.60	Pass
+30 °C	1880.0	5.22	Pass
+40 °C	1880.0	-5.26	Pass
+50 °C	1880.0	-2.33	Pass

Measurement Results vs. Variation of Voltage—WCDMA1900

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
3.5 V	1880.0	-3.14	Pass
3.7 V	1880.0	-0.35	Pass
4.2 V	1880.0	-6.62	Pass

Report No.: WT168003432 Page 448 of465

Measurement Results vs. Variation of Temperature – WCDMA1700

Temperature	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result
-30 °C	1732.6	0.40	Pass
-20 °C	1732.6	-0.70	Pass
-10 °C	1732.6	-4.36	Pass
0 °C	1732.6	-1.62	Pass
+10 °C	1732.6	-1.80	Pass
+20 °C	1732.6	-2.12	Pass
+30 °C	1732.6	-5.10	Pass
+40 °C	1732.6	-0.61	Pass
+50 °C	1732.6	-0.41	Pass

Measurement Results vs. Variation of Voltage—WCDMA1700

Voltage	Nominal Frequency (MHz)	Measured Frequency Error(Hz)	Result	
3.5 V	1732.6	-0.69	Pass	
3.7 V	1732.6	-1.14	Pass	
4.2V	1732.6	-1.42	Pass	

Report No.: WT168003432 Page 449 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(1.4MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-1.75	PASS
QPSK	1880	3.7	-3.66	PASS
		4.2	0.76	PASS
		3.5	-3.00	PASS
16QAM	1880	3.7	-3.66	PASS
		4.2	-0.50	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(1.4MHZ)

		to vo. variation of	Temperature LTL ba	114 2(1:1111112)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	,	-30 °C	0.09	PASS
		-20 °C	-1.30	PASS
		-10 °C	-0.73	PASS
		0 °C	-0.92	PASS
QPSK	1880	+10 °C	-2.30	PASS
		+20 °C	-3.25	PASS
		+30 °C	-2.76	PASS
		+40 °C	-3.06	PASS
		+50 °C	0.23	PASS
		-30 °C	-2.79	PASS
		-20 °C	-1.76	PASS
		-10 °C	-2.53	PASS
		0 °C	-2.70	PASS
16QAM	1880	+10 °C	-5.11	PASS
		+20 °C	-2.43	PASS
		+30 °C	-3.38	PASS
		+40 °C	-4.56	PASS
		+50 °C	-0.77	PASS

Report No.: WT168003432 Page 450 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(3MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-2.63	PASS
QPSK	1880	3.7	-4.26	PASS
		4.2	0.06	PASS
		3.5	-1.10	PASS
16QAM	1880	3.7	-1.34	PASS
		4.2	0.72	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(3MHZ)

Measurement Results vs. Variation of Temperature—LTE Band 2(3MHZ)				
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	(1411 12)	-30 °C	-2.19	PASS
		-20 °C	-0.84	PASS
		-10 °C	-1.85	PASS
		0 °C	-0.96	PASS
QPSK	1880	+10 °C	-5.04	PASS
		+20 °C	-4.84	PASS
		+30 °C	-4.18	PASS
		+40 °C	-2.46	PASS
		+50 °C	-0.53	PASS
		-30 °C	-2.49	PASS
		-20 °C	-3.49	PASS
		-10 °C	-1.59	PASS
		0 °C	-2.35	PASS
16QAM	1880	+10 °C	-2.60	PASS
		+20 °C	-3.30	PASS
		+30 °C	-4.09	PASS
		+40 °C	-3.46	PASS
		+50 °C	0.44	PASS

Report No.: WT168003432 Page 451 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(5MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-2.79	PASS
QPSK	1880	3.7	-2.36	PASS
		4.2	2.32	PASS
		3.5	-1.34	PASS
16QAM	1880	3.7	-2.82	PASS
		4.2	-1.06	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(5MHZ)

IVI	easurement ives	suits vs. variation	or remperature	LTE Ballu Z(SIVINZ)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	(****:=/	-30 °C	-1.97	PASS
		-20 °C	-1.52	PASS
		-10 °C	-0.49	PASS
		0 °C	-1.73	PASS
QPSK	1880	+10 °C	-2.36	PASS
		+20 °C	-2.03	PASS
		+30 °C	-2.26	PASS
		+40 °C	-0.99	PASS
		+50 °C	1.12	PASS
		-30 °C	-1.97	PASS
		-20 °C	-2.35	PASS
		-10 °C	-1.49	PASS
		0 °C	-1.17	PASS
16QAM	1880	+10 °C	-1.80	PASS
		+20 °C	-3.76	PASS
		+30 °C	-3.53	PASS
		+40 °C	-2.59	PASS
		+50 °C	0.21	PASS

Report No.: WT168003432 Page 452 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(10MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-3.55	PASS
QPSK	1880	3.7	-3.33	PASS
		4.2	0.89	PASS
		3.5	-2.46	PASS
16QAM	1880	3.7	-3.25	PASS
		4.2	0.49	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(10MHZ)

	Wedsdreffield Nesdats vs. Validation of Temperature ETE Band 2(Town 12)				
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict	
	, ,	-30 °C	-2.39	PASS	
		-20 °C	-1.37	PASS	
		-10 °C	-2.50	PASS	
		0 °C	-1.43	PASS	
QPSK	1880	+10 °C	-4.06	PASS	
		+20 °C	-5.02	PASS	
		+30 °C	-3.32	PASS	
		+40 °C	-3.32	PASS	
		+50 °C	0.90	PASS	
		-30 °C	-1.56	PASS	
		-20 °C	-3.78	PASS	
		-10 °C	-2.49	PASS	
		0 °C	-3.92	PASS	
16QAM	1880	+10 °C	-3.32	PASS	
		+20 °C	-2.02	PASS	
		+30 °C	-3.78	PASS	
		+40 °C	-4.03	PASS	
		+50 °C	1.27	PASS	

Report No.: WT168003432 Page 453 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(15MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-3.28	PASS
QPSK	1880	3.7	-5.09	PASS
		4.2	-3.95	PASS
		3.5	-2.57	PASS
16QAM	1880	3.7	-5.79	PASS
		4.2	-2.83	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(15MHZ)

==:				= 1 = Dana = (101111 1=)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
		-30 °C	-3.83	PASS
		-20 °C	-2.75	PASS
		-10 °C	-4.12	PASS
		0 °C	-3.95	PASS
QPSK	1880	+10 °C	-5.12	PASS
		+20 °C	-4.42	PASS
		+30 °C	-4.23	PASS
		+40 °C	-3.52	PASS
		+50 °C	-2.19	PASS
		-30 °C	-4.01	PASS
		-20 °C	-4.18	PASS
		-10 °C	-4.38	PASS
		0 °C	-4.13	PASS
16QAM	1880	+10 °C	-5.55	PASS
		+20 °C	-6.84	PASS
		+30 °C	-5.31	PASS
		+40 °C	-5.44	PASS
		+50 °C	-2.92	PASS

Report No.: WT168003432 Page 454 of465

Measurement Results vs. Variation of Voltage—LTE Band 2(20MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	1.27	PASS
QPSK	1880	3.7	-3.58	PASS
		4.2	-2.13	PASS
		3.5	-2.93	PASS
16QAM	1880	3.7	-3.83	PASS
		4.2	-2.30	PASS

Measurement Results vs. Variation of Temperature—LTE Band 2(20MHZ)

				ETE Bana Z(ZominZ)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	,	-30 °C	0.09	PASS
		-20 °C	0.50	PASS
		-10 °C	2.96	PASS
		0 °C	-7.22	PASS
QPSK	1880	+10 °C	-3.76	PASS
		+20 °C	-3.76	PASS
		+30 °C	-3.28	PASS
		+40 °C	-4.43	PASS
		+50 °C	-2.72	PASS
		-30 °C	-2.46	PASS
		-20 °C	1.95	PASS
		-10 °C	0.14	PASS
		0 °C	11.20	PASS
16QAM	1880	+10 °C	-4.38	PASS
		+20 °C	-3.63	PASS
		+30 °C	-3.83	PASS
		+40 °C	-3.95	PASS
		+50 °C	-4.62	PASS

Report No.: WT168003432 Page 455 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(1.4MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	2.93	PASS
QPSK	1732.5	3.7	0.80	PASS
		4.2	-1.89	PASS
		3.5	0.06	PASS
16QAM	1732.5	3.7	0.79	PASS
		4.2	-3.06	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(1.4MHZ)

17100	weastrement results vs. variation of reinperature LTL band +(1.4min2)			
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
		-30 °C	1.40	PASS
		-20 °C	0.94	PASS
		-10 °C	0.93	PASS
		0 °C	2.12	PASS
QPSK	1732.5	+10 °C	0.07	PASS
		+20 °C	1.27	PASS
		+30 °C	1.95	PASS
		+40 °C	1.50	PASS
		+50 °C	-3.25	PASS
		-30 °C	0.37	PASS
		-20 °C	0.01	PASS
		-10 °C	1.34	PASS
		0 °C	2.15	PASS
16QAM	1732.5	+10 °C	0.00	PASS
		+20 °C	0.39	PASS
		+30 °C	-0.19	PASS
		+40 °C	-0.03	PASS
		+50 °C	-4.13	PASS

Report No.: WT168003432 Page 456 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(3MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-0.10	PASS
QPSK	1732.5	3.7	-0.01	PASS
		4.2	0.79	PASS
		3.5	0.49	PASS
16QAM	1732.5	3.7	2.46	PASS
		4.2	0.26	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(3MHZ)

1410	ividastrement results vs. variation of remperature LTL band 4(SWI12)				
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict	
	, ,	-30 °C	2.02	PASS	
		-20 °C	1.03	PASS	
		-10 °C	-1.42	PASS	
		0 °C	1.00	PASS	
QPSK	1732.5	+10 °C	0.70	PASS	
		+20 °C	0.24	PASS	
		+30 °C	0.39	PASS	
		+40 °C	0.70	PASS	
		+50 °C	0.23	PASS	
		-30 °C	0.66	PASS	
		-20 °C	1.10	PASS	
		-10 °C	2.22	PASS	
		0 °C	1.93	PASS	
16QAM	1732.5	+10 °C	0.86	PASS	
		+20 °C	-0.30	PASS	
		+30 °C	0.53	PASS	
		+40 °C	0.97	PASS	
		+50 °C	1.29	PASS	

Report No.: WT168003432 Page 457 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(5MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	1.36	PASS
QPSK	1732.5	3.7	0.66	PASS
		4.2	-1.96	PASS
		3.5	3.13	PASS
16QAM	1732.5	3.7	0.82	PASS
		4.2	-3.20	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(5MHZ)

ineastrement results vs. variation of remperature ETE band 4(300112)				
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
		-30 °C	1.03	PASS
		-20 °C	1.57	PASS
		-10 °C	4.39	PASS
		0 °C	1.92	PASS
QPSK	1732.5	+10 °C	0.80	PASS
		+20 °C	0.54	PASS
		+30 °C	1.14	PASS
		+40 °C	2.19	PASS
		+50 °C	-3.76	PASS
		-30 °C	2.83	PASS
		-20 °C	2.99	PASS
		-10 °C	1.86	PASS
		0 °C	1.57	PASS
16QAM	1732.5	+10 °C	-0.01	PASS
		+20 °C	0.39	PASS
		+30 °C	0.96	PASS
		+40 °C	0.73	PASS
		+50 °C	-3.66	PASS

Report No.: WT168003432 Page 458 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(10MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-3.02	PASS
QPSK	1732.5	3.7	0.44	PASS
		4.2	3.50	PASS
		3.5	-1.62	PASS
16QAM	1732.5	3.7	-1.03	PASS
		4.2	1.42	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(10MHZ)

IVI	easurement ives	suits vs. variation	or remperature	LTE Band 4(TUMINE)
Modulation	Nominal Frequency	Temperature	Measured Frequency	Verdict
	(MHz)	22.00	Error(Hz)	
		-30 °C	-2.79	PASS
		-20 °C	-2.88	PASS
		-10 °C	-3.56	PASS
		0 °C	- 2.88	PASS
QPSK	1732.5	+10 °C	-0.90	PASS
		+20 °C	-0.51	PASS
		+30 °C	0.40	PASS
		+40 °C	1.37	PASS
		+50 °C	1.86	PASS
		-30 °C	-4.03	PASS
		-20 °C	-2.79	PASS
		-10 °C	-3.59	PASS
		0 °C	-1.83	PASS
16QAM	1732.5	+10 °C	-0.90	PASS
		+20 °C	-1.63	PASS
		+30 °C	0.26	PASS
		+40 °C	-0.74	PASS
		+50 °C	2.10	PASS

Report No.: WT168003432 Page 459 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(15MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	0.96	PASS
QPSK	1732.5	3.7	1.62	PASS
		4.2	0.37	PASS
		3.5	-0.40	PASS
16QAM	1732.5	3.7	1.44	PASS
		4.2	0.13	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(15MHZ)

		dito vo. variation	or romporataro	LIL Dand +(151VIII2)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	, ,	-30 °C	-0.23	PASS
		-20 °C	-0.36	PASS
		-10 °C	-0.29	PASS
		0 °C	0.63	PASS
QPSK	1732.5	+10 °C	0.84	PASS
		+20 °C	0.26	PASS
		+30 °C	-0.24	PASS
		+40 °C	0.77	PASS
		+50 °C	2.19	PASS
		-30 °C	-0.87	PASS
		-20 °C	0.93	PASS
		-10 °C	0.09	PASS
		0 °C	-0.06	PASS
16QAM	1732.5	+10 °C	1.77	PASS
		+20 °C	0.13	PASS
		+30 °C	0.69	PASS
		+40 °C	1.07	PASS
		+50 °C	1.43	PASS

Report No.: WT168003432 Page 460 of465

Measurement Results vs. Variation of Voltage—LTE Band 4(20MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	0.17	PASS
QPSK	1732.5	3.7	0.56	PASS
		4.2	-1.67	PASS
		3.5	2.00	PASS
16QAM	1732.5	3.7	-0.37	PASS
		4.2	-2.00	PASS

Measurement Results vs. Variation of Temperature—LTE Band 4(20MHZ)

	icasarcinent rec	dito vo. variation	or romporataro i	TE Dana +(2011112)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	,	-30 °C	1.50	PASS
		-20 °C	0.47	PASS
		-10 °C	1.97	PASS
		0 °C	2.56	PASS
QPSK	1732.5	+10 °C	0.73	PASS
		+20 °C	0.94	PASS
		+30 °C	-0.10	PASS
		+40 °C	-0.57	PASS
		+50 °C	-2.88	PASS
		-30 °C	1.57	PASS
		-20 °C	2.52	PASS
		-10 °C	2.55	PASS
		0 °C	2.42	PASS
16QAM	1732.5	+10 °C	0.54	PASS
		+20 °C	1.22	PASS
		+30 °C	0.31	PASS
		+40 °C	0.04	PASS
		+50 °C	-3.05	PASS

Report No.: WT168003432 Page 461 of465

Measurement Results vs. Variation of Voltage—LTE Band 12(1.4MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	0.86	PASS
QPSK	707.5	3.7	-0.60	PASS
		4.2	-0.86	PASS
		3.5	0.47	PASS
16QAM	707.5	3.7	-0.06	PASS
		4.2	-0.11	PASS

Measurement Results vs. Variation of Temperature-LTE Band 12(1.4MHZ)

Medicinent results vs. variation of Temperature ETE Band 12(1.41/11/12)				
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	, , ,	-30 °C	-0.10	PASS
		-20 °C	0.34	PASS
		-10 °C	0.49	PASS
		0 °C	0.46	PASS
QPSK	707.5	+10 °C	0.13	PASS
		+20 °C	-1.43	PASS
		+30 °C	-0.27	PASS
		+40 °C	-0.87	PASS
		+50 °C	-1.36	PASS
		-30 °C	0.01	PASS
		-20 °C	1.34	PASS
		-10 °C	-0.69	PASS
		0 °C	0.20	PASS
16QAM	707.5	+10 °C	-0.70	PASS
		+20 °C	-0.67	PASS
		+30 °C	-1.59	PASS
		+40 °C	-0.73	PASS
		+50 °C	-1.17	PASS

Report No.: WT168003432 Page 462 of465

Measurement Results vs. Variation of Voltage—LTE Band 12(3MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-1.63	PASS
QPSK	707.5	3.7	0.62	PASS
		4.2	0.04	PASS
		3.5	-1.39	PASS
16QAM	707.5	3.7	-0.30	PASS
		4.2	0.03	PASS

Measurement Results vs. Variation of Temperature—LTE Band 12(3MHZ)

	icasurement ives	dits vs. variation	or remperature—LTE	Janu 12(Jivii 12)
Modulation	Nominal Frequency	Temperature	Measured Frequency	Verdict
	(MHz)	22.22	Error(Hz)	
		-30 °C	-1.80	PASS
		-20 °C	-1.47	PASS
		-10 °C	-1.69	PASS
		0 °C	-1.13	PASS
QPSK	707.5	+10 °C	-0.56	PASS
		+20 °C	-0.62	PASS
		+30 °C	-1.10	PASS
		+40 °C	-1.19	PASS
		+50 °C	-1.09	PASS
		-30 °C	-1.73	PASS
		-20 °C	-1.47	PASS
		-10 °C	-1.30	PASS
		0 °C	-1.32	PASS
16QAM	707.5	+10 °C	-0.63	PASS
		+20 °C	0.17	PASS
		+30 °C	-0.90	PASS
		+40 °C	-1.36	PASS
		+50 °C	-0.84	PASS

Report No.: WT168003432 Page 463 of465

Measurement Results vs. Variation of Voltage—LTE Band 12(5MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	0.40	PASS
QPSK	707.5	3.7	-0.63	PASS
		4.2	-0.73	PASS
		3.5	-1.19	PASS
16QAM	707.5	3.7	0.63	PASS
		4.2	-0.63	PASS

Measurement Results vs. Variation of Temperature—LTE Band 12(5MHZ)

101	icasarcinent ixea	dita va. variation	or remperature	
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
	()	-30 °C	-0.39	PASS
		-20 °C	-1.42	PASS
		-10 °C	-0.31	PASS
		0 °C	-0.92	PASS
QPSK	707.5	+10 °C	-0.49	PASS
		+20 °C	-1.76	PASS
		+30 °C	-0.72	PASS
		+40 °C	-0.90	PASS
		+50 °C	-1.76	PASS
		-30 °C	-1.66	PASS
		-20 °C	0.46	PASS
		-10 °C	0.41	PASS
		0 °C	0.10	PASS
16QAM	707.5	+10 °C	-0.13	PASS
		+20 °C	-1.34	PASS
		+30 °C	-0.50	PASS
		+40 °C	-0.27	PASS
		+50 °C	1.37	PASS

Report No.: WT168003432 Page 464 of465

Measurement Results vs. Variation of Voltage—LTE Band 12(10MHZ)

Modulation	Nominal Frequency (MHz)	Voltage [Vdc]	Measured Frequency Error(Hz)	Verdict
		3.5	-0.36	PASS
QPSK	707.5	3.7	-0.09	PASS
		4.2	-0.99	PASS
		3.5	-0.31	PASS
16QAM	707.5	3.7	-0.82	PASS
		4.2	-1.16	PASS

Measurement Results vs. Variation of Temperature—LTE Band 12(10MHZ)

171	casarement res	dits vs. variation	or remperature	LTE Ballu 12(10MHZ)
Modulation	Nominal Frequency (MHz)	Temperature	Measured Frequency Error(Hz)	Verdict
QPSK	707.5	-30 °C	0.47	PASS
		-20 °C	-0.93	PASS
		-10 °C	-0.41	PASS
		0 °C	-0.20	PASS
		+10 °C	-0.43	PASS
		+20 °C	-0.37	PASS
		+30 °C	-0.70	PASS
		+40 °C	0.03	PASS
		+50 °C	-2.55	PASS
16QAM	707.5	-30 °C	-0.73	PASS
		-20 °C	-0.90	PASS
		-10 °C	-0.83	PASS
		0 °C	-0.36	PASS
		+10 °C	0.26	PASS
		+20 °C	-0.67	PASS
		+30 °C	-0.41	PASS
		+40 °C	-0.34	PASS
		+50 °C	-1.52	PASS

Report No.: WT168003432 Page 465 of465