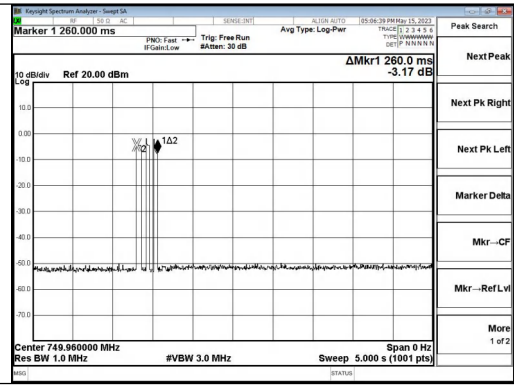
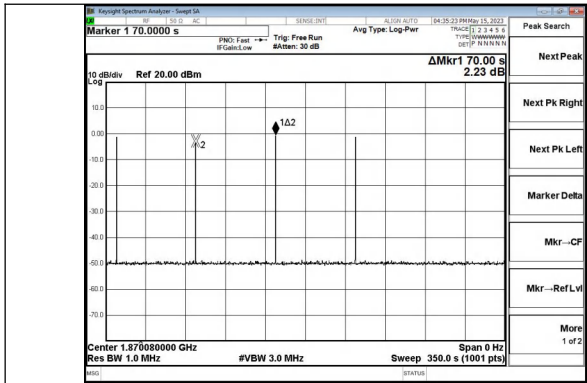


detection time-Upper 700 band UL

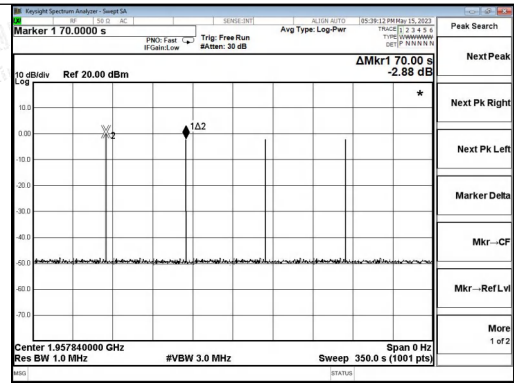


detection time-Upper 700 band DL

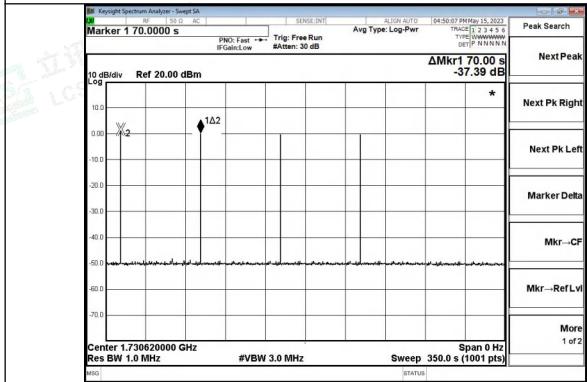
restarting time



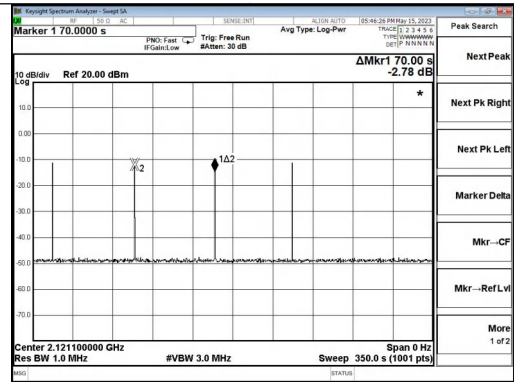
detection time-PCS band UL



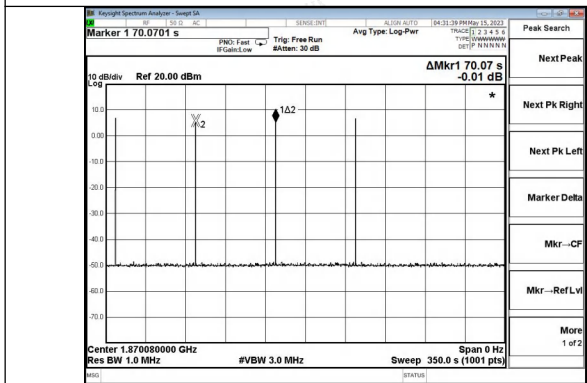
detection time-PCS band DL



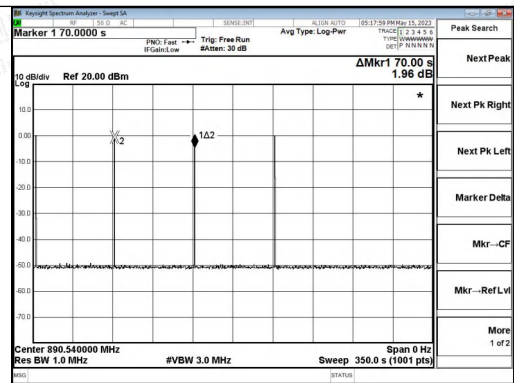
detection time-AWS band UL



detection time-AWS band DL

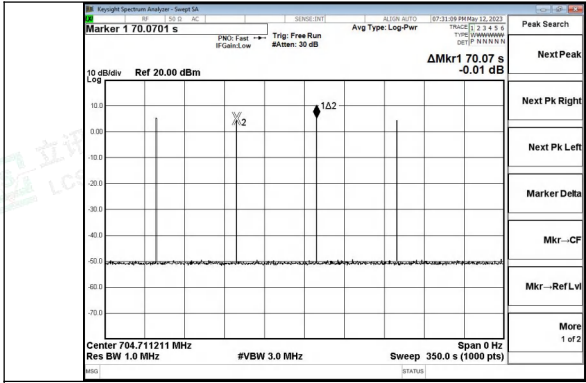
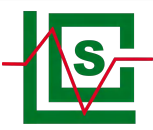


detection time-Cellular band UL

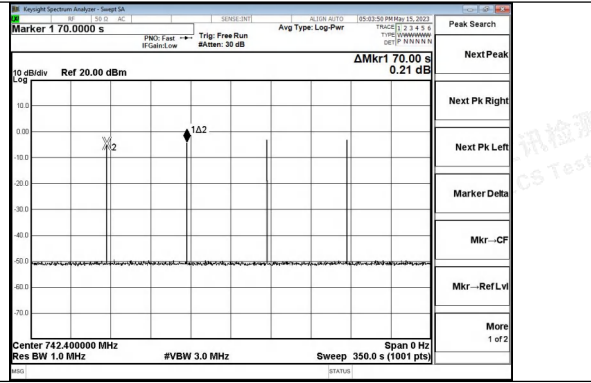


detection time-Cellular band DL

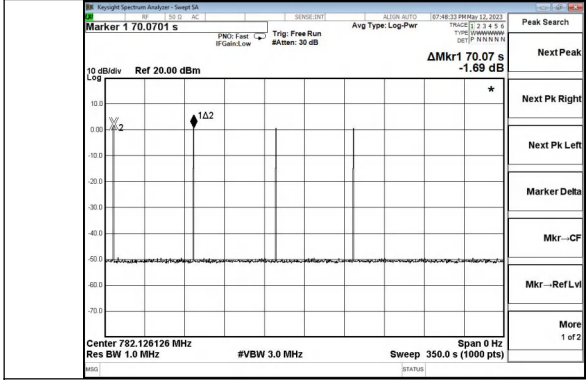




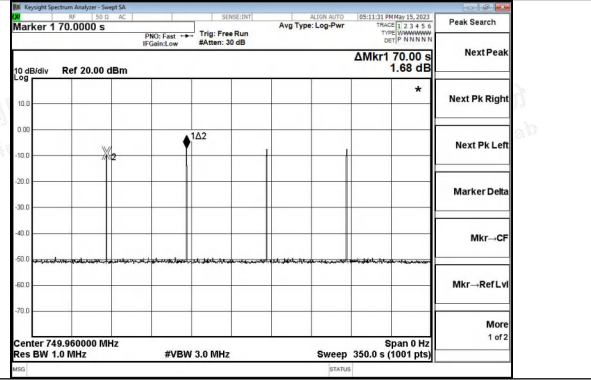
detection time-Lower 700 band UL



detection time-Lower 700 band DL



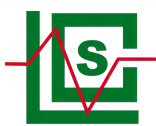
detection time-Upper 700 band UL



detection time-Upper 700 band DL



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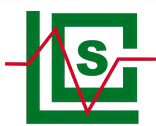
**oscillation mitigation or shutdown:**

| PCS Band | Uplink(1850-1910MHz) | | |
|-------------|----------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 7.32 | <12 | Pass |
| +4 | 8.21 | <12 | Pass |
| +3 | 9.76 | <12 | Pass |
| +2 | 10.28 | <12 | Pass |
| +1 | 11.64 | <12 | Pass |
| 0 | shutdown | | |

| PCS Band | Downlink(1930-1990MHz) | | |
|-------------|------------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 6.34 | <12 | Pass |
| +4 | 8.29 | <12 | Pass |
| +3 | 8.97 | <12 | Pass |
| +2 | 10.36 | <12 | Pass |
| +1 | 11.23 | <12 | Pass |
| 0 | shutdown | | |

| AWS band | Uplink(1710-1755MHz) | | |
|-------------|----------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 6.34 | <12 | Pass |
| +4 | 7.29 | <12 | Pass |
| +3 | 8.32 | <12 | Pass |
| +2 | 9.26 | <12 | Pass |
| +1 | 9.94 | <12 | Pass |
| 0 | 10.86 | <12 | Pass |
| -1 | shutdown | | |



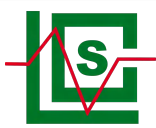


| AWS band | Downlink(2110-2155MHz) | | |
|-------------|------------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 5.28 | <12 | Pass |
| +4 | 7.69 | <12 | Pass |
| +3 | 8.01 | <12 | Pass |
| +2 | 9.67 | <12 | Pass |
| +1 | 10.99 | <12 | Pass |
| 0 | shutdown | | |

| Cellular Band | Uplink(824-849MHz) | | |
|---------------|--------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 8.24 | <12 | Pass |
| +4 | 8.96 | <12 | Pass |
| +3 | 9.24 | <12 | Pass |
| +2 | 11.86 | <12 | Pass |
| +1 | shutdown | | |

| Cellular Band | Downlink(869-894MHz) | | |
|---------------|----------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 4.97 | <12 | Pass |
| +4 | 7.31 | <12 | Pass |
| +3 | 8.26 | <12 | Pass |
| +2 | 9.57 | <12 | Pass |
| +1 | 10.26 | <12 | Pass |
| 0 | shutdown | | |





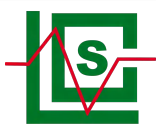
| Lower700MHz band | Uplink(698-716MHz) | | |
|------------------|--------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 4.25 | <12 | Pass |
| +4 | 6.84 | <12 | Pass |
| +3 | 7.39 | <12 | Pass |
| +2 | 8.42 | <12 | Pass |
| +1 | 9.37 | <12 | Pass |
| 0 | 10.68 | <12 | Pass |
| -1 | 11.03 | <12 | Pass |
| -2 | shutdown | | |

| Lower700MHz band | Downlink(728-746MHz) | | |
|------------------|----------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 5.26 | <12 | Pass |
| +4 | 6.73 | <12 | Pass |
| +3 | 7.14 | <12 | Pass |
| +2 | 8.33 | <12 | Pass |
| +1 | 10.25 | <12 | Pass |
| 0 | 11.47 | <12 | Pass |
| -1 | shutdown | | |

| Upper 700Mhz Band | Uplink(776-787MHz) | | |
|-------------------|--------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 4.35 | <12 | Pass |
| +4 | 4.92 | <12 | Pass |
| +3 | 5.26 | <12 | Pass |
| +2 | 6.58 | <12 | Pass |
| +1 | 8.19 | <12 | Pass |
| 0 | 9.67 | <12 | Pass |
| -1 | 10.89 | <12 | Pass |
| -2 | shutdown | | |



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| Upper 700Mhz Band | Downlink(746-757MHz) | | |
|-------------------|----------------------|-------|--------|
| Signal Type | AWGN | | |
| Isolation | Deffrence | Limit | Result |
| dB | dB | dB | |
| +5 | 6.35 | <12 | Pass |
| +4 | 7.46 | <12 | Pass |
| +3 | 7.93 | <12 | Pass |
| +2 | 8.29 | <12 | Pass |
| +1 | 9.58 | <12 | Pass |
| 0 | 10.26 | <12 | Pass |
| -1 | shutdown | | |



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7. RADIATION SPURIOUS EMISSION

Applicable Standard

According to §2.1053 Measurements required: Field strength of spurious radiation.

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.

So the Conducted emissions limit = -13 dBm

Test Procedure

According to section 7.12 of KDB 935210 D03 Signal Booster Measurement v04r04:

This procedure is intended to satisfy the requirements specified in Section 2.1053. The applicable limits are those specified for mobile station emissions in the rule part appropriate to the band of operation (see Appendix A).

Separate compliance requirements are applicable for any digital device circuitry that controls additional functions or capabilities and that is not used only to enable operation of the transmitter in a booster device [i.e., Section 15.3(k) digital device definition]. Separate compliance requirements are applicable for any receiver components/functions that tune within 30 MHz to 960 MHz contained in booster devices [Section 15.101(b)].

- Place the EUT on an OATS or semi-anechoic chamber turntable 3 m from the receiving antenna.
- Connect the EUT to the test equipment as shown in Figure 10 beginning with the uplink output (donor) port.
- Set the signal generator to produce a CW signal with the frequency set to the center of the operational band under test, and the power level set at PIN as determined from measurement results per 7.2.
- Measure the radiated spurious emissions from the EUT from the lowest to the highest frequencies as specified in Section 2.1057. Maximize the radiated emissions by using the procedures described in ANSI C63.26.
- Capture the peak emissions plots using a peak detector with Max-Hold for inclusion in the test report. Tabular data is acceptable in lieu of spectrum analyzer plots.
- Repeat 7.12c) through 7.12e) for all uplink and downlink operational bands.

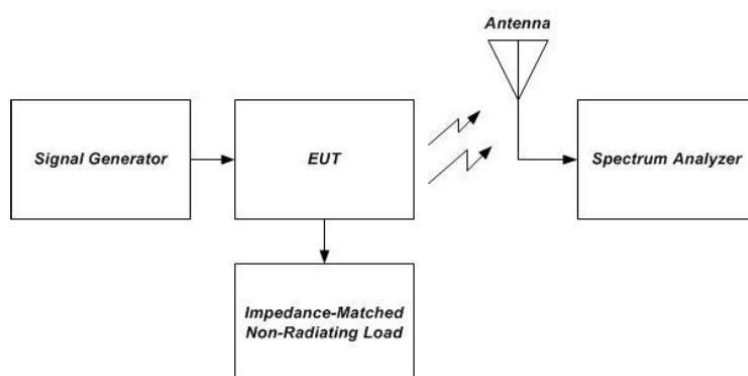
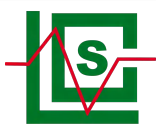


Figure 10 – Radiated spurious emissions test and instrumentation setup



**Test Data**

| | | | |
|---------------|----------|-----------|--------------|
| Temperature | 22.3°C | Humidity | 53.5% |
| Test Engineer | Ling Zhu | Test Mode | Transmitting |

Uplink, Test Frequency 1880MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak EIRP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|-----------------|-------------|--------|--------------|
| 865.34 | -42.62 | 5.26 | 3.00 | 9.88 | -38.00 | -13.00 | -25.00 | H |
| 3761.24 | -48.38 | 6.11 | 3.00 | 11.36 | -43.13 | -13.00 | -30.13 | H |
| 866.27 | -44.78 | 5.26 | 3.00 | 9.88 | -40.16 | -13.00 | -27.16 | V |
| 3760.98 | -50.04 | 6.11 | 3.00 | 11.36 | -44.79 | -13.00 | -31.79 | V |

Uplink, Test Frequency 1732.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak EIRP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|-----------------|-------------|--------|--------------|
| 663.57 | -48.43 | 4.62 | 3.00 | 9.81 | -43.24 | -13.00 | -30.24 | H |
| 3464.28 | -51.98 | 5.94 | 3.00 | 10.86 | -47.06 | -13.00 | -34.06 | H |
| 674.39 | -52.43 | 4.62 | 3.00 | 9.81 | -47.24 | -13.00 | -34.24 | V |
| 3465.04 | -54.91 | 5.94 | 3.00 | 10.86 | -49.99 | -13.00 | -36.99 | V |

Uplink, Test Frequency 836.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 772.84 | -40.77 | 4.74 | 3.00 | 10.45 | -35.06 | -13.00 | -22.06 | H |
| 1670.57 | -46.61 | 5.65 | 3.00 | 12.32 | -39.94 | -13.00 | -26.94 | H |
| 769.31 | -44.35 | 4.74 | 3.00 | 10.45 | -38.64 | -13.00 | -25.64 | V |
| 1670.76 | -49.74 | 5.65 | 3.00 | 12.32 | -43.07 | -13.00 | -30.07 | V |

Uplink, Test Frequency 707.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 334.59 | -40.90 | 4.73 | 3.00 | 10.42 | -35.21 | -13.00 | -22.21 | H |
| 1416.20 | -47.94 | 5.64 | 3.00 | 12.30 | -41.28 | -13.00 | -28.28 | H |
| 340.28 | -43.97 | 4.73 | 3.00 | 10.42 | -38.28 | -13.00 | -25.28 | V |
| 1415.87 | -50.52 | 5.64 | 3.00 | 12.30 | -43.86 | -13.00 | -30.86 | V |



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Uplink, Test Frequency 782MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 452.37 | -39.95 | 5.12 | 3.00 | 9.98 | -35.09 | -13.00 | -22.09 | H |
| 1564.67 | -45.47 | 5.93 | 3.00 | 11.66 | -39.74 | -13.00 | -26.74 | H |
| 456.78 | -43.57 | 5.12 | 3.00 | 9.98 | -38.71 | -13.00 | -25.71 | V |
| 1564.59 | -50.42 | 5.93 | 3.00 | 11.66 | -44.69 | -13.00 | -31.69 | V |

Downlink, Test Frequency1960MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak EIRP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|-----------------|-------------|--------|--------------|
| 841.02 | -42.96 | 5.36 | 3.00 | 9.62 | -38.70 | -13.00 | -25.70 | H |
| 3920.74 | -46.09 | 6.24 | 3.00 | 11.46 | -40.87 | -13.00 | -27.87 | H |
| 843.67 | -46.92 | 5.36 | 3.00 | 9.62 | -42.66 | -13.00 | -29.66 | V |
| 3920.69 | -51.54 | 6.24 | 3.00 | 11.46 | -46.32 | -13.00 | -33.32 | V |

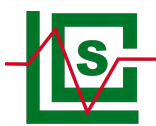
Downlink, Test Frequency2132.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak EIRP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|-----------------|-------------|--------|--------------|
| 885.24 | -52.28 | 4.65 | 3.00 | 9.9 | -47.03 | -13.00 | -34.03 | H |
| 4265.75 | -53.63 | 5.95 | 3.00 | 10.91 | -48.67 | -13.00 | -35.67 | H |
| 849.57 | -55.03 | 4.65 | 3.00 | 9.9 | -49.78 | -13.00 | -36.78 | V |
| 4265.86 | -56.19 | 5.95 | 3.00 | 10.91 | -51.23 | -13.00 | -38.23 | V |

Downlink, Test Frequency 881.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 297.68 | -41.29 | 5.95 | 3.00 | 9.98 | -37.26 | -13.00 | -24.26 | H |
| 1763.39 | -46.77 | 6.63 | 3.00 | 11.66 | -41.74 | -13.00 | -28.74 | H |
| 302.74 | -43.58 | 5.95 | 3.00 | 9.98 | -39.55 | -13.00 | -26.55 | V |
| 1763.77 | -49.37 | 6.63 | 3.00 | 11.66 | -44.34 | -13.00 | -31.34 | V |





Downlink, Test Frequency 737MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 846.37 | -39.32 | 4.77 | 3.00 | 10.45 | -33.64 | -13.00 | -20.64 | H |
| 1474.63 | -44.62 | 5.69 | 3.00 | 12.36 | -37.95 | -13.00 | -24.95 | H |
| 850.11 | -44.53 | 4.77 | 3.00 | 10.45 | -38.85 | -13.00 | -25.85 | V |
| 1474.52 | -50.27 | 5.69 | 3.00 | 12.36 | -43.60 | -13.00 | -30.60 | V |

Downlink, Test Frequency 751.5MHz

| Frequency (MHz) | PMea (dBm) | Pcl (dB) | Diatance | Ga Antenna Gain(dB) | Peak ERP (dBm) | Limit (dBm) | Margin | Polarization |
|-----------------|------------|----------|----------|---------------------|----------------|-------------|--------|--------------|
| 510.26 | -42.23 | 4.92 | 3.00 | 10.45 | -36.70 | -13.00 | -23.70 | H |
| 1503.88 | -47.11 | 5.78 | 3.00 | 12.32 | -40.57 | -13.00 | -27.57 | H |
| 505.368 | -44.89 | 4.92 | 3.00 | 10.45 | -39.36 | -13.00 | -26.36 | V |
| 1503.76 | -50.27 | 5.78 | 3.00 | 12.32 | -43.73 | -13.00 | -30.73 | V |

Remark:

1. We were not recorded other points as values lower than limits.

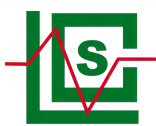
2. $Peak(EIRP) = P_{Mea} + P_{Ag} - P_{cl} + G_a$

3. $Margin = EIRP - Limit$

4. For Outdoor Antenna(PTE-YG-800/1900), Indoor Antenna(PTE-RB-800-2100); Outdoor Antenna (AN-201), Indoor Antenna(AN-101); Outdoor Antenna(PTE-GF-700-2500), Indoor Antenna (PTE-CI-800-2500) were estimated ,the report recorded the worst result of Outdoor Antenna (PTE-YG-800/1900), Indoor Antenna(AN-101).



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8. TEST SETUP PHOTOGRAPHS OF EUT

Please refer to separated files for Test Setup Photos of the EUT.

9. EXTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

10. INTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

-----THE END OF TEST REPORT-----



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