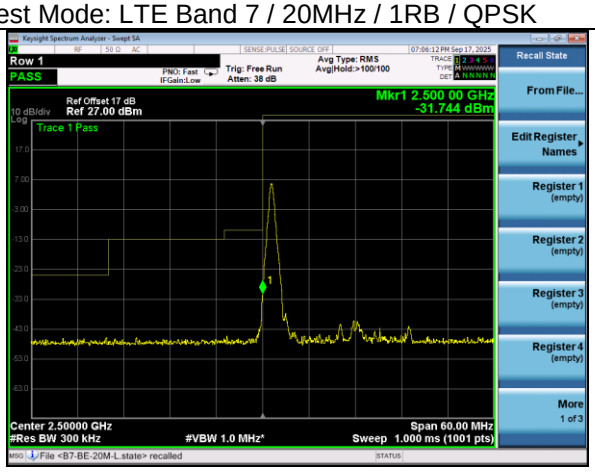
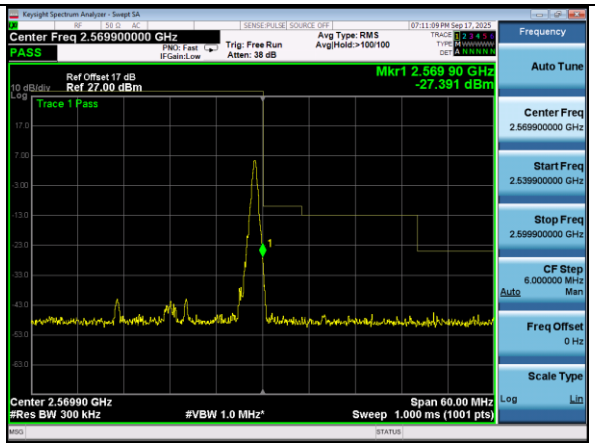
Test Mode: LTE Band 7 / 20MHz / 1RB / QPSK

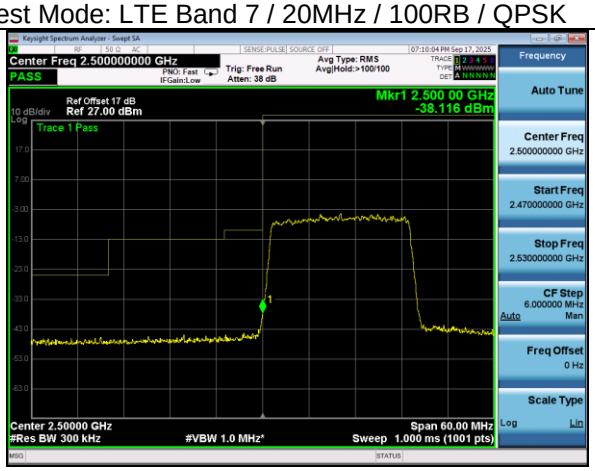



Lowest channel




Highest channel

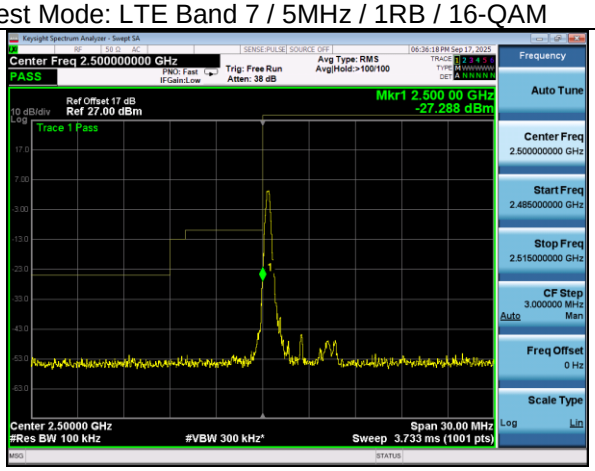
Test Mode: LTE Band 7 / 20MHz / 100RB / QPSK



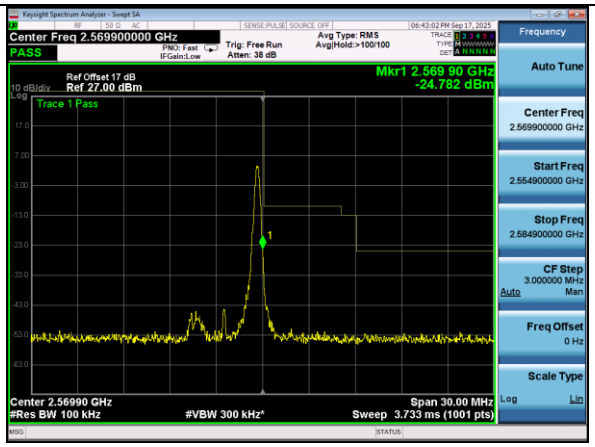

Lowest channel


Highest channel

Test Mode: LTE Band 7 / 5MHz / 1RB / 16-QAM




Lowest channel



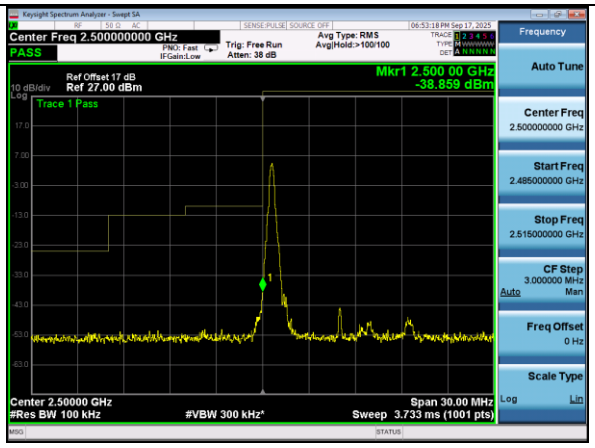

Highest channel

Test Mode: LTE Band 7 / 5MHz / 25RB / 16-QAM

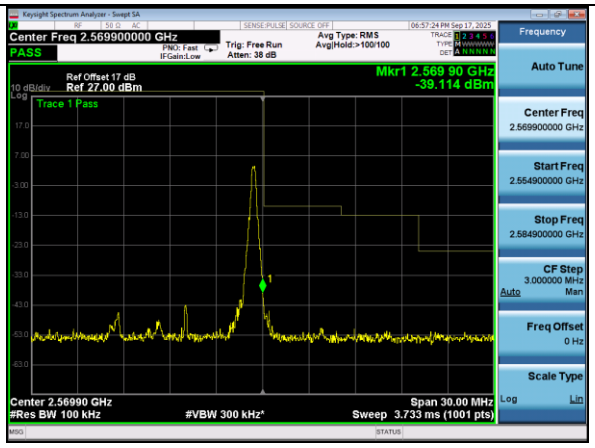

Lowest channel


Highest channel

Test Mode: LTE Band 7 / 10MHz / 1RB / 16-QAM




Lowest channel



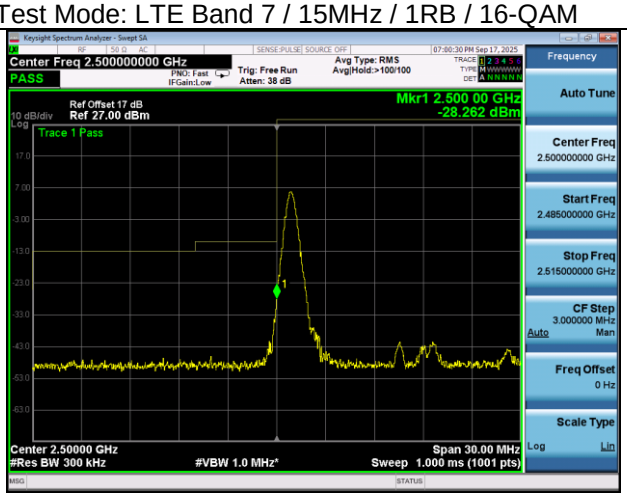

Highest channel

Test Mode: LTE Band 7 / 10MHz / 50RB / 16-QAM

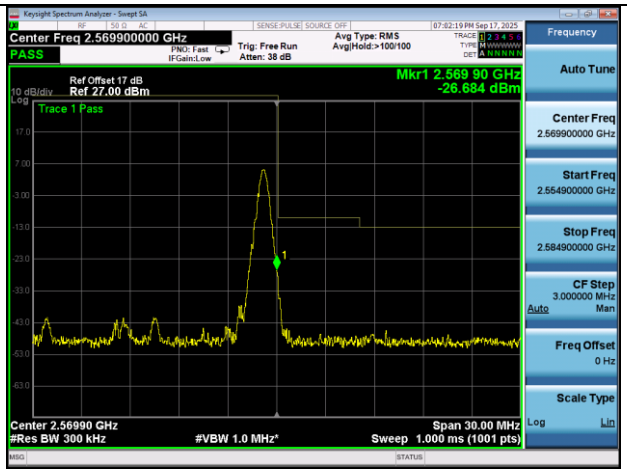

Lowest channel


Highest channel

Test Mode: LTE Band 7 / 15MHz / 1RB / 16-QAM

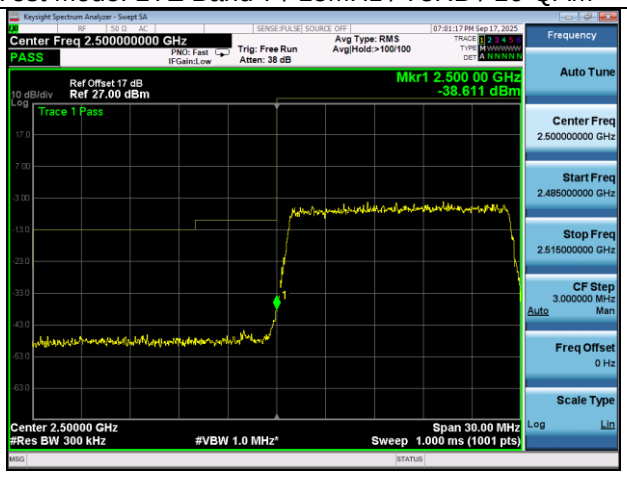



Lowest channel




Highest channel

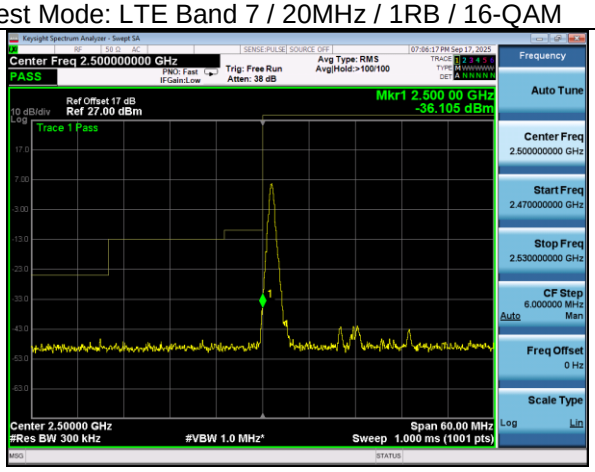
Test Mode: LTE Band 7 / 15MHz / 75RB / 16-QAM



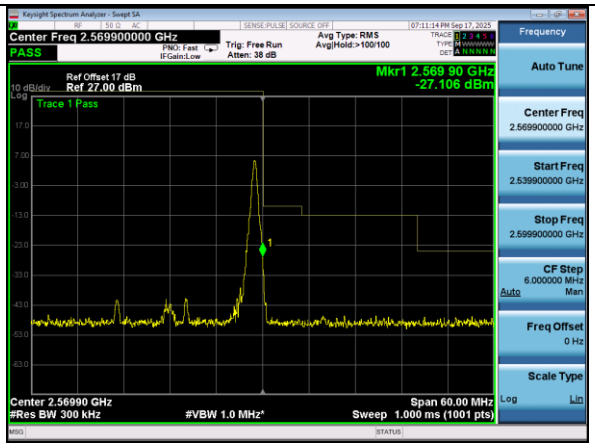

Lowest channel


Highest channel

Test Mode: LTE Band 7 / 20MHz / 1RB / 16-QAM

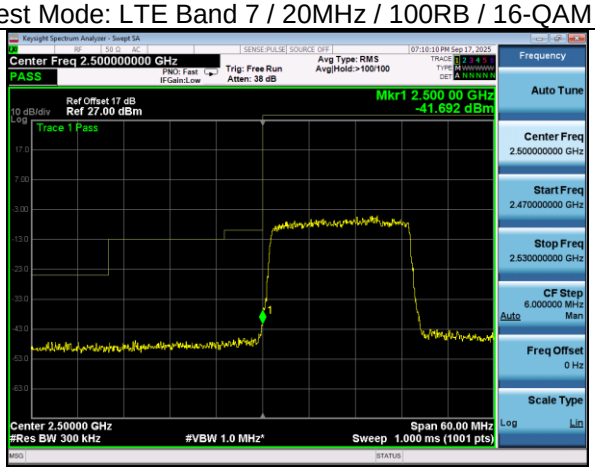



Lowest channel

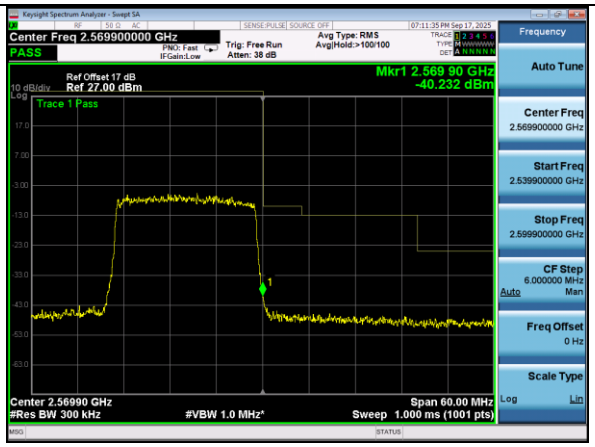



Highest channel

Test Mode: LTE Band 7 / 20MHz / 100RB / 16-QAM




Lowest channel



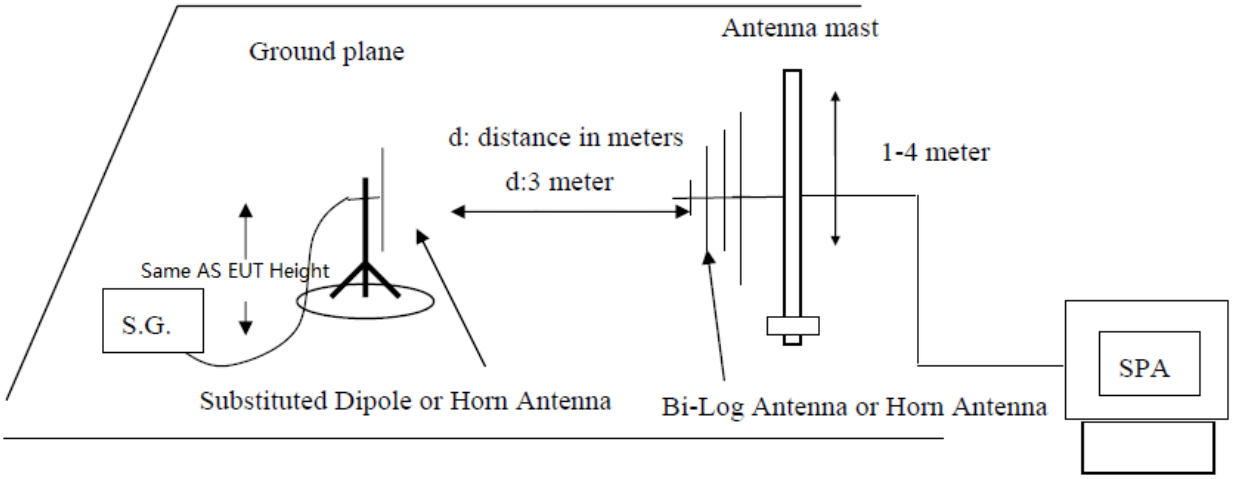

Highest channel

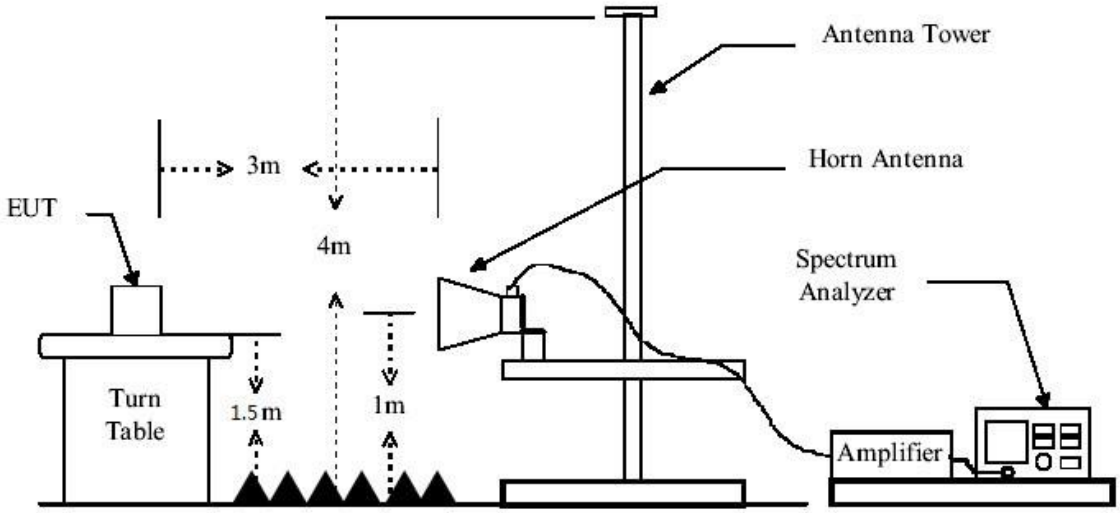
# 8. ERP, EIRP Measurement

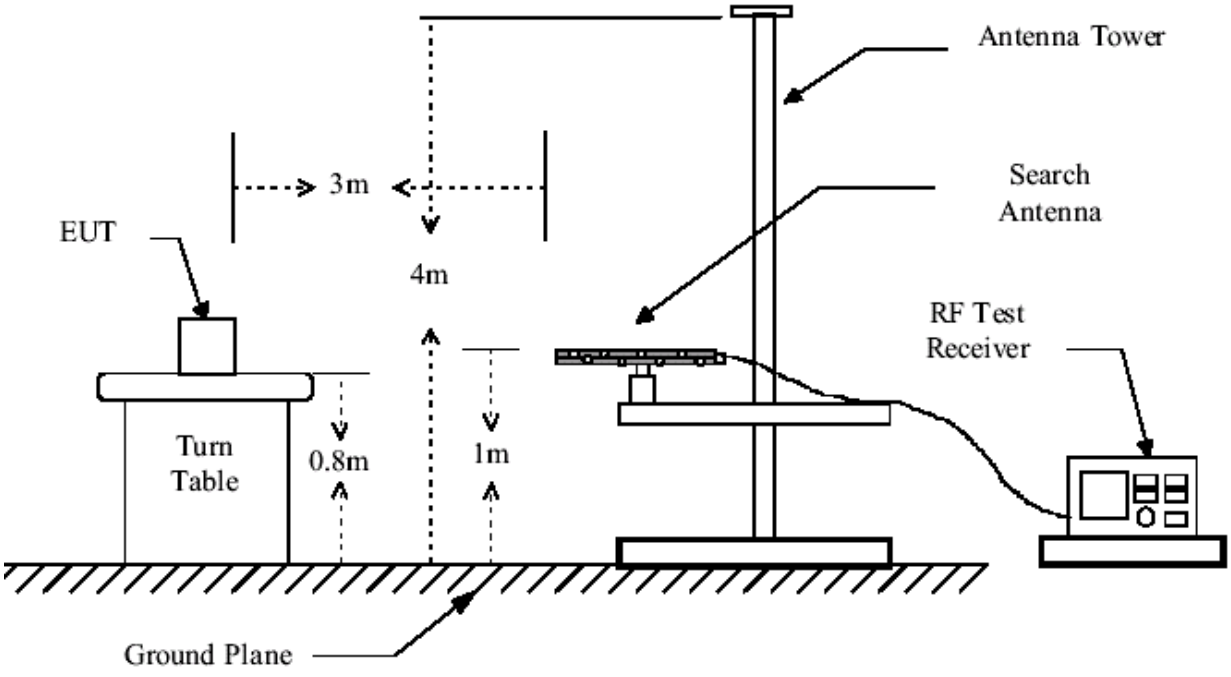
## 8.1. Test equipment

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal Due To |
|---|---|---|---|---|---|
| CMW500 | ROHDE&SCHWARZ | CMW500 | Ab-EE010 | 2025/08/04 | 2026/08/03 |
| Spectrum analyzer | Keysight | N9020A | Aa-EE104 | 2025/08/04 | 2026/08/03 |

## 8.2. Block diagram of test setup






## 8.3. Limits

LTE Band 5(Upper Band): [7W (ERP) for FCC], [3W(ERP) for IC]
LTE Band 7: 2W (EIRP)

## 8.4. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | Description | other |
|---|---|---|---|---|
| / | / | / | / | / |

## 8.5. Test procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.
ERP were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated asfollows:
ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)
EIRP were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)

Refer to ANSI C63.26:2015 for details

## 8.6. Test result

| | |
|---|---|
| Test Site: RF Laboratory | Test Date: 2025/09/17--2025/10/23 |
| Condition: 24.3°C,56%RH,101kPa | Test Engineer: Yannis Wen |
| Memo: / | |

| EUT Name: Remote Controller | EUT Model: R100 |
|---|---|
| Sample No.: A2507399-S0001 | Test Mode: All modes |
| Power supply: DC 3.7V from battery | Memo: / |

/

## 8.7. Test data

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (1.4MHz) QPSK | Lowest | 6 | 0 | H | V | 22.51 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.22 | | | |
| | | | | E1 | V | 23.32 | | | |
| | | | | | H | 22.76 | | | |
| | | | | E2 | V | 23.04 | | | |
| | | | | | H | 23.10 | | | |
| | Middle | 6 | 0 | H | V | 22.73 | 38.45 | 34.77 | Pass |
| | | | | | H | 21.69 | | | |
| | | | | E1 | V | 22.78 | | | |
| | | | | | H | 21.54 | | | |
| | | | | E2 | V | 22.22 | | | |
| | | | | | H | 22.87 | | | |
| | Highest | 6 | 0 | H | V | 23.36 | 38.45 | 34.77 | Pass |
| | | | | | H | 23.97 | | | |
| | | | | E1 | V | 23.63 | | | |
| | | | | | H | 23.79 | | | |
| | | | | E2 | V | 23.54 | | | |
| | | | | | H | 21.74 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (3MHz) QPSK | Lowest | 15 | 0 | H | V | 23.06 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.85 | | | |
| | | | | E1 | V | 23.45 | | | |
| | | | | | H | 22.69 | | | |
| | | | | E2 | V | 23.07 | | | |
| | | | | | H | 23.71 | | | |
| | Middle | 15 | 0 | H | V | 22.48 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.89 | | | |
| | | | | E1 | V | 22.52 | | | |
| | | | | | H | 23.34 | | | |
| | | | | E2 | V | 22.40 | | | |
| | | | | | H | 22.99 | | | |
| | Highest | 15 | 0 | H | V | 22.07 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.22 | | | |
| | | | | E1 | V | 23.19 | | | |
| | | | | | H | 23.29 | | | |
| | | | | E2 | V | 22.88 | | | |
| | | | | | H | 23.37 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (5MHz) QPSK | Lowest | 25 | 0 | H | V | 23.72 | 38.45 | 34.77 | Pass |
| | | | | | H | 23.03 | | | |
| | | | | E1 | V | 23.21 | | | |
| | | | | | H | 23.45 | | | |
| | | | | E2 | V | 23.76 | | | |
| | | | | | H | 23.27 | | | |
| | Middle | 25 | 0 | H | V | 22.77 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.90 | | | |
| | | | | E1 | V | 22.71 | | | |
| | | | | | H | 22.91 | | | |
| | | | | E2 | V | 22.44 | | | |
| | | | | | H | 23.51 | | | |
| | Highest | 25 | 0 | H | V | 23.33 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.03 | | | |
| | | | | E1 | V | 22.66 | | | |
| | | | | | H | 23.46 | | | |
| | | | | E2 | V | 23.30 | | | |
| | | | | | H | 21.64 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (10MHz) QPSK | Lowest | 50 | 0 | H | V | 22.23 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.37 | | | |
| | | | | E1 | V | 23.78 | | | |
| | | | | | H | 23.40 | | | |
| | | | | E2 | V | 23.28 | | | |
| | | | | | H | 23.64 | | | |
| | Middle | 50 | 0 | H | V | 22.43 | 38.45 | 34.77 | Pass |
| | | | | | H | 21.74 | | | |
| | | | | E1 | V | 22.20 | | | |
| | | | | | H | 22.35 | | | |
| | | | | E2 | V | 22.55 | | | |
| | | | | | H | 22.30 | | | |
| | Highest | 50 | 0 | H | V | 22.99 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.88 | | | |
| | | | | E1 | V | 23.62 | | | |
| | | | | | H | 22.80 | | | |
| | | | | E2 | V | 22.42 | | | |
| | | | | | H | 22.47 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (1.4MHz) 16 QAM | Lowest | 6 | 0 | H | V | 22.50 | 38.45 | 34.77 | Pass |
| | | | | | H | 21.81 | | | |
| | | | | E1 | V | 23.33 | | | |
| | | | | | H | 22.43 | | | |
| | | | | E2 | V | 23.57 | | | |
| | | | | | H | 22.78 | | | |
| | Middle | 6 | 0 | H | V | 23.15 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.46 | | | |
| | | | | E1 | V | 23.24 | | | |
| | | | | | H | 22.66 | | | |
| | | | | E2 | V | 22.56 | | | |
| | | | | | H | 21.72 | | | |
| | Highest | 6 | 0 | H | V | 23.75 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.10 | | | |
| | | | | E1 | V | 23.14 | | | |
| | | | | | H | 23.68 | | | |
| | | | | E2 | V | 23.03 | | | |
| | | | | | H | 21.63 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (3MHz) 16 QAM | Lowest | 15 | 0 | H | V | 23.21 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.78 | | | |
| | | | | E1 | V | 23.44 | | | |
| | | | | | H | 23.74 | | | |
| | | | | E2 | V | 22.68 | | | |
| | | | | | H | 22.71 | | | |
| | Middle | 15 | 0 | H | V | 22.04 | 38.45 | 34.77 | Pass |
| | | | | | H | 21.69 | | | |
| | | | | E1 | V | 22.37 | | | |
| | | | | | H | 22.30 | | | |
| | | | | E2 | V | 23.08 | | | |
| | | | | | H | 22.53 | | | |
| | Highest | 15 | 0 | H | V | 23.73 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.53 | | | |
| | | | | E1 | V | 23.63 | | | |
| | | | | | H | 22.31 | | | |
| | | | | E2 | V | 23.50 | | | |
| | | | | | H | 22.40 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (5MHz) 16 QAM | Lowest | 25 | 0 | H | V | 23.04 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.42 | | | |
| | | | | E1 | V | 22.35 | | | |
| | | | | | H | 23.24 | | | |
| | | | | E2 | V | 22.05 | | | |
| | | | | | H | 23.42 | | | |
| | Middle | 25 | 0 | H | V | 22.83 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.03 | | | |
| | | | | E1 | V | 21.99 | | | |
| | | | | | H | 22.59 | | | |
| | | | | E2 | V | 22.70 | | | |
| | | | | | H | 22.17 | | | |
| | Highest | 25 | 0 | H | V | 23.77 | 38.45 | 34.77 | Pass |
| | | | | | H | 22.69 | | | |
| | | | | E1 | V | 23.36 | | | |
| | | | | | H | 23.87 | | | |
| | | | | E2 | V | 21.86 | | | |
| | | | | | H | 21.24 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | ERP(dBm) | FCC Limit (dBm) | IC Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|---|
| LTE Band 5 (10MHz) 16 QAM | Lowest | 50 | 0 | H | V | 22.73 | 38.45 | 34.77 | Pass |
| | | | | | H | 21.74 | | | |
| | | | | E1 | V | 22.30 | | | |
| | | | | | H | 23.16 | | | |
| | | | | E2 | V | 22.16 | | | |
| | | | | | H | 23.34 | | | |
| | Middle | 50 | 0 | H | V | 21.85 | 38.45 | 34.77 | Pass |
| | | | | | H | 23.32 | | | |
| | | | | E1 | V | 23.34 | | | |
| | | | | | H | 22.57 | | | |
| | | | | E2 | V | 23.02 | | | |
| | | | | | H | 23.41 | | | |
| | Highest | 50 | 0 | H | V | 22.29 | 38.45 | 34.77 | Pass |
| | | | | | H | 23.75 | | | |
| | | | | E1 | V | 22.96 | | | |
| | | | | | H | 23.41 | | | |
| | | | | E2 | V | 22.43 | | | |
| | | | | | H | 22.69 | | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (5MHz) QPSK | Lowest | 25 | 0 | H | V | 23.26 | 33.00 | Pass |
| | | | | | H | 23.07 | | |
| | | | | E1 | V | 22.47 | | |
| | | | | | H | 23.29 | | |
| | | | | E2 | V | 23.09 | | |
| | | | | | H | 22.06 | | |
| | Middle | 25 | 0 | H | V | 23.40 | 33.00 | Pass |
| | | | | | H | 23.21 | | |
| | | | | E1 | V | 22.82 | | |
| | | | | | H | 22.67 | | |
| | | | | E2 | V | 23.25 | | |
| | | | | | H | 22.65 | | |
| | Highest | 25 | 0 | H | V | 22.27 | 33.00 | Pass |
| | | | | | H | 23.76 | | |
| | | | | E1 | V | 23.67 | | |
| | | | | | H | 23.49 | | |
| | | | | E2 | V | 21.92 | | |
| | | | | | H | 22.33 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (10MHz) QPSK | Lowest | 50 | 0 | H | V | 23.30 | 33.00 | Pass |
| | | | | | H | 21.72 | | |
| | | | | E1 | V | 23.68 | | |
| | | | | | H | 23.74 | | |
| | | | | E2 | V | 22.99 | | |
| | | | | | H | 23.18 | | |
| | Middle | 50 | 0 | H | V | 23.57 | 33.00 | Pass |
| | | | | | H | 22.41 | | |
| | | | | E1 | V | 22.88 | | |
| | | | | | H | 22.24 | | |
| | | | | E2 | V | 23.24 | | |
| | | | | | H | 22.44 | | |
| | Highest | 50 | 0 | H | V | 23.97 | 33.00 | Pass |
| | | | | | H | 23.52 | | |
| | | | | E1 | V | 22.94 | | |
| | | | | | H | 23.73 | | |
| | | | | E2 | V | 22.66 | | |
| | | | | | H | 23.28 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (15MHz) QPSK | Lowest | 75 | 0 | H | V | 22.56 | 33.00 | Pass |
| | | | | | H | 22.29 | | |
| | | | | E1 | V | 23.00 | | |
| | | | | | H | 22.18 | | |
| | | | | E2 | V | 23.75 | | |
| | | | | | H | 23.71 | | |
| | Middle | 75 | 0 | H | V | 21.90 | 33.00 | Pass |
| | | | | | H | 21.81 | | |
| | | | | E1 | V | 22.30 | | |
| | | | | | H | 23.07 | | |
| | | | | E2 | V | 22.34 | | |
| | | | | | H | 23.53 | | |
| | Highest | 75 | 0 | H | V | 23.28 | 33.00 | Pass |
| | | | | | H | 22.72 | | |
| | | | | E1 | V | 22.38 | | |
| | | | | | H | 22.02 | | |
| | | | | E2 | V | 21.86 | | |
| | | | | | H | 22.62 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (20MHz) QPSK | Lowest | 100 | 0 | H | V | 22.69 | 33.00 | Pass |
| | | | | | H | 23.26 | | |
| | | | | E1 | V | 23.83 | | |
| | | | | | H | 23.65 | | |
| | | | | E2 | V | 23.36 | | |
| | | | | | H | 23.79 | | |
| | Middle | 100 | 0 | H | V | 23.02 | 33.00 | Pass |
| | | | | | H | 22.38 | | |
| | | | | E1 | V | 21.76 | | |
| | | | | | H | 22.24 | | |
| | | | | E2 | V | 23.69 | | |
| | | | | | H | 22.87 | | |
| | Highest | 100 | 0 | H | V | 23.14 | 33.00 | Pass |
| | | | | | H | 22.52 | | |
| | | | | E1 | V | 22.02 | | |
| | | | | | H | 23.10 | | |
| | | | | E2 | V | 23.34 | | |
| | | | | | H | 22.59 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (5MHz) 16 QAM | Lowest | 25 | 0 | H | V | 22.23 | 33.00 | Pass |
| | | | | | H | 22.49 | | |
| | | | | E1 | V | 23.74 | | |
| | | | | | H | 23.24 | | |
| | | | | E2 | V | 22.22 | | |
| | | | | | H | 23.84 | | |
| | Middle | 25 | 0 | H | V | 23.39 | 33.00 | Pass |
| | | | | | H | 23.26 | | |
| | | | | E1 | V | 23.29 | | |
| | | | | | H | 22.84 | | |
| | | | | E2 | V | 22.82 | | |
| | | | | | H | 23.10 | | |
| | Highest | 25 | 0 | H | V | 23.85 | 33.00 | Pass |
| | | | | | H | 23.22 | | |
| | | | | E1 | V | 22.49 | | |
| | | | | | H | 22.87 | | |
| | | | | E2 | V | 22.50 | | |
| | | | | | H | 23.44 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (10MHz) 16 QAM | Lowest | 50 | 0 | H | V | 23.35 | 33.00 | Pass |
| | | | | | H | 23.24 | | |
| | | | | E1 | V | 22.18 | | |
| | | | | | H | 22.71 | | |
| | | | | E2 | V | 23.01 | | |
| | | | | | H | 23.88 | | |
| | Middle | 50 | 0 | H | V | 23.00 | 33.00 | Pass |
| | | | | | H | 21.51 | | |
| | | | | E1 | V | 21.86 | | |
| | | | | | H | 21.79 | | |
| | | | | E2 | V | 22.15 | | |
| | | | | | H | 22.24 | | |
| | Highest | 50 | 0 | H | V | 23.09 | 33.00 | Pass |
| | | | | | H | 22.40 | | |
| | | | | E1 | V | 21.91 | | |
| | | | | | H | 22.08 | | |
| | | | | E2 | V | 21.81 | | |
| | | | | | H | 22.23 | | |

| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (15MHz) 16 QAM | Lowest | 75 | 0 | H | V | 22.92 | 33.00 | Pass |
| | | | | | H | 23.08 | | |
| | | | | E1 | V | 22.86 | | |
| | | | | | H | 22.70 | | |
| | | | | E2 | V | 22.75 | | |
| | | | | | H | 22.58 | | |
| | Middle | 75 | 0 | H | V | 22.33 | 33.00 | Pass |
| | | | | | H | 23.13 | | |
| | | | | E1 | V | 22.87 | | |
| | | | | | H | 22.32 | | |
| | | | | E2 | V | 23.09 | | |
| | | | | | H | 22.47 | | |
| | Highest | 75 | 0 | H | V | 22.10 | 33.00 | Pass |
| | | | | | H | 22.69 | | |
| | | | | E1 | V | 23.51 | | |
| | | | | | H | 23.26 | | |
| | | | | E2 | V | 23.59 | | |
| | | | | | H | 21.45 | | |

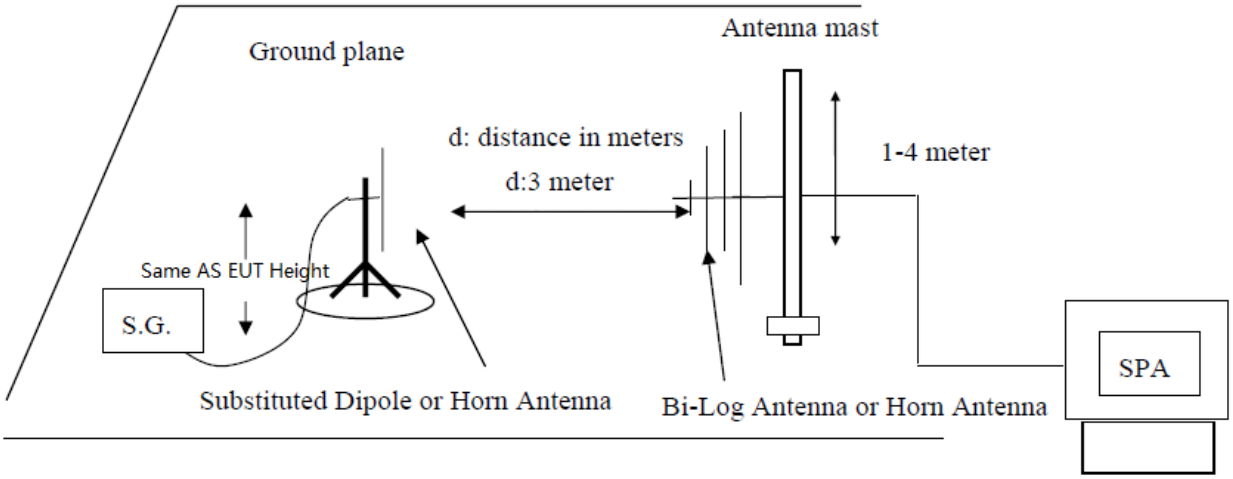
| EUT mode | Channel | RB Size | RB Offset | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| LTE Band 7 (20MHz) 16 QAM | Lowest | 100 | 0 | H | V | 23.00 | 33.00 | Pass |
| | | | | | H | 21.75 | | |
| | | | | E1 | V | 23.18 | | |
| | | | | | H | 23.73 | | |
| | | | | E2 | V | 23.54 | | |
| | | | | | H | 22.14 | | |
| | Middle | 100 | 0 | H | V | 23.25 | 33.00 | Pass |
| | | | | | H | 23.01 | | |
| | | | | E1 | V | 23.43 | | |
| | | | | | H | 23.01 | | |
| | | | | E2 | V | 23.09 | | |
| | | | | | H | 23.45 | | |
| | Highest | 100 | 0 | H | V | 23.28 | 33.00 | Pass |
| | | | | | H | 23.79 | | |
| | | | | E1 | V | 23.67 | | |
| | | | | | H | 22.70 | | |
| | | | | E2 | V | 22.58 | | |
| | | | | | H | 22.84 | | |

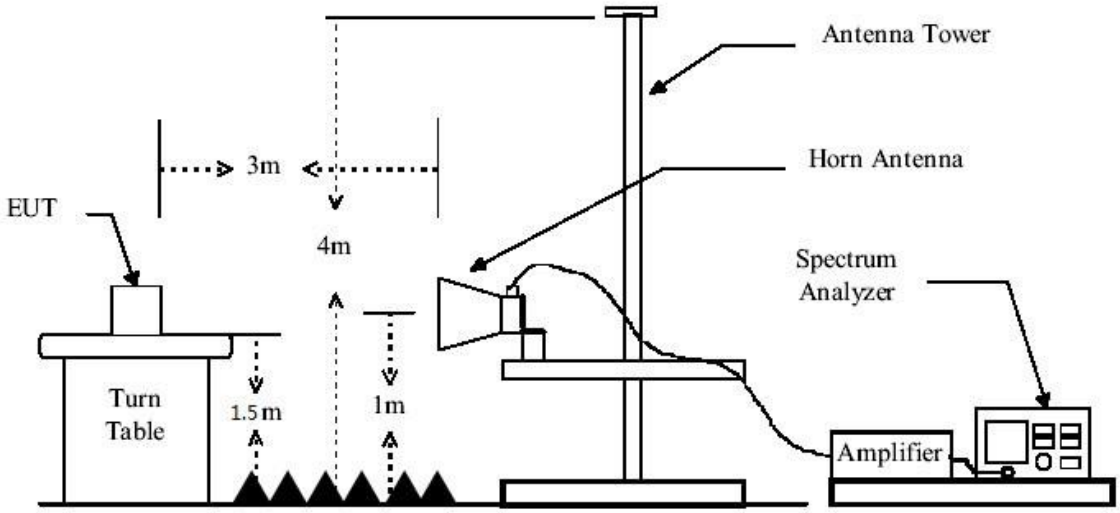
# 9. Field Strength of Spurious Radiation

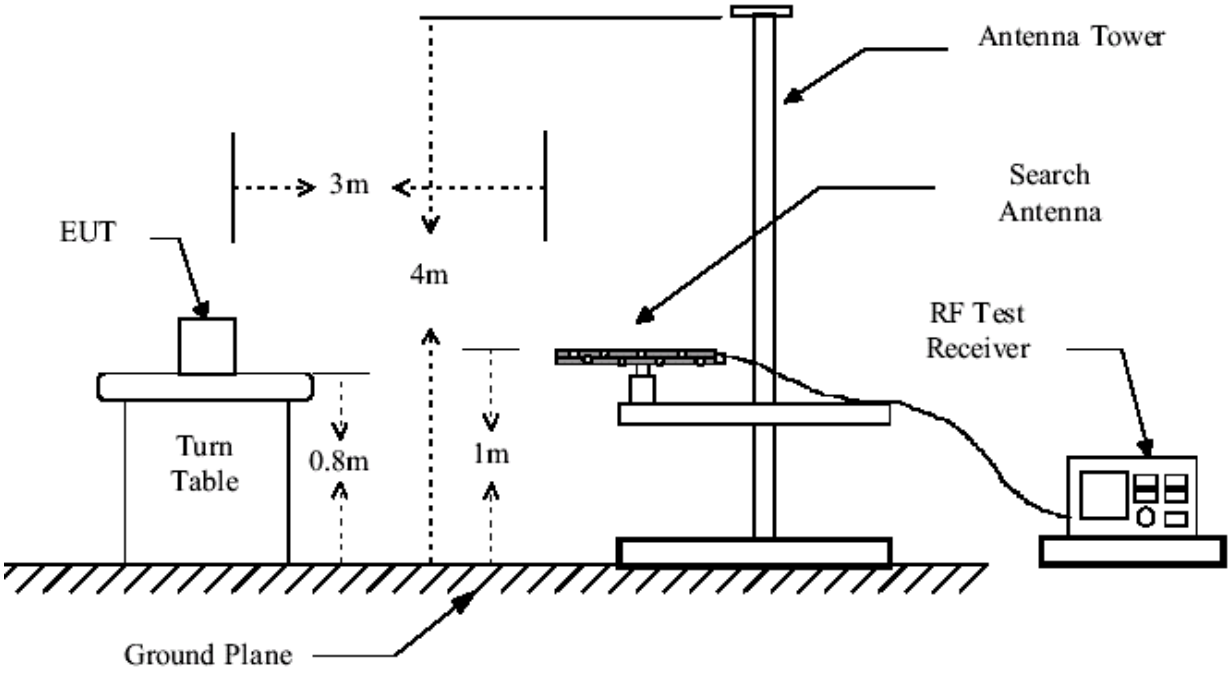
## 9.1. Test equipment

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal Due To |
|---|---|---|---|---|---|
| CMW500 | ROHDE&SCHWARZ | CMW500 | Ab-EE010 | 2025/08/04 | 2026/08/03 |
| Spectrum analyzer | Keysight | N9020A | Aa-EE104 | 2025/08/04 | 2026/08/03 |

## 9.2. Block diagram of test setup






## 9.3. Limits

Band 2/4/5/12/17/26/66:-13dBm
Band 7/41:-25dBm

## 9.4. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | Description | other |
|---|---|---|---|---|
| / | / | / | / | / |

## 9.5. Test procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.
The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.
The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.
ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) –
Cable Loss (dB)
Compliance with the provisions of part 27 paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

Refer to ANSI C63.26:2015 for details

## 9.6. Test result

| | |
|---|---|
| Test Site: Chamber 1#(RSE) | Test Date: 2025/09/26--2025/10/14 |
| Condition: 24.2°C,56%RH,101kPa | Test Engineer: Yannis Wen |
| Memo: / | |

| | |
|---|---|
| EUT Name: Remote Controller | EUT Model: R100 |
| Sample No.: A2507399-S0001 | Test Mode: All modes |
| Power supply: DC 3.7V from battery | Memo: / |

/

## 9.7. Test data

Measurement Data:

**QPSK Mode:**

| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Lowest** |
|---|---|---|---|---|
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1647.97 | V | -38.49 | -13.00 | Pass |
| 2471.67 | V | -34.89 | | |
| 3296.01 | V | -32.78 | | |
| 4120.06 | V | -32.39 | | |
| 4943.72 | V | -30.46 | | |
| 1647.90 | H | -37.86 | -13.00 | Pass |
| 2472.15 | H | -33.66 | | |
| 3295.70 | H | -32.36 | | |
| 4120.18 | H | -31.93 | | |
| 4944.04 | H | -29.50 | | |
| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Middle** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1672.60 | V | -38.25 | -13.00 | Pass |
| 2509.18 | V | -34.67 | | |
| 3345.75 | V | -32.87 | | |
| 4182.54 | V | -32.31 | | |
| 5019.16 | V | -30.22 | | |
| 1672.82 | H | -37.84 | -13.00 | Pass |
| 2509.33 | H | -33.87 | | |
| 3345.96 | H | -32.17 | | |
| 4182.24 | H | -32.31 | | |
| 5019.11 | H | -29.92 | | |
| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Highest** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1697.64 | V | -38.17 | -13.00 | Pass |
| 2546.88 | V | -35.89 | | |
| 3395.44 | V | -35.33 | | |
| 4244.52 | V | -32.24 | | |
| 5093.08 | V | -29.56 | | |
| 1697.64 | H | -38.89 | -13.00 | Pass |
| 2546.49 | H | -37.32 | | |

| | | | | |
|---|---|---|---|---|
| 3395.66 | H | -34.55 | | |
| 4244.55 | H | -33.13 | | |
| 5093.27 | H | -29.59 | | |

Remark :

1. The emission behaviour belongs to narrowband spurious emission, all modes investigated and only worst case is reported.
2. Remark"---" means that the emission level is too low (20dB lower than the limit) to be measured
3. The emission levels of below 1 GHz are very lower (20dB lower than the limit) than the limit and not show in test report.

| Test mode: | LTE Band 7(5MHz) | | Test channel: | Lowest |
|---|---|---|---|---|
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 4999.75 | V | -38.23 | -25.00 | Pass |
| 7500.11 | V | -34.99 | | |
| 9999.67 | V | -32.38 | | |
| 12499.89 | V | -32.23 | | |
| 14999.86 | V | -30.20 | | |
| 4999.78 | H | -37.95 | -25.00 | Pass |
| 7499.78 | H | -33.49 | | |
| 10000.18 | H | -32.55 | | |
| 12499.91 | H | -31.73 | | |
| 15000.08 | H | -29.36 | | |
| **Test mode:** | **LTE Band 7(5MHz)** | | **Test channel:** | **Middle** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 5070.11 | V | -38.31 | -25.00 | Pass |
| 7604.71 | V | -35.03 | | |
| 10140.08 | V | -32.83 | | |
| 12675.09 | V | -32.05 | | |
| 15209.99 | V | -30.35 | | |
| 5070.08 | H | -37.98 | -25.00 | Pass |
| 7604.88 | H | -34.26 | | |
| 10139.80 | H | -32.44 | | |
| 12675.05 | H | -32.35 | | |
| 15209.69 | H | -29.78 | | |
| **Test mode:** | **LTE Band 7(5MHz)** | | **Test channel:** | **Highest** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 5139.68 | V | -38.57 | -25.00 | Pass |
| 7709.52 | V | -35.83 | | |
| 10279.54 | V | -35.23 | | |
| 12849.57 | V | -32.35 | | |
| 15419.46 | V | -29.58 | | |
| 5139.73 | H | -38.77 | -25.00 | Pass |
| 7709.77 | H | -37.30 | | |
| 10279.23 | H | -34.88 | | |
| 12849.50 | H | -32.75 | | |
| 15419.24 | H | -29.60 | | |

Remark：

1. The emission behaviour belongs to narrowband spurious emission, all modes investigated and only worst case is reported.
2. Remark"---" means that the emission level is too low (20dB lower than the limit) to be measured
3. The emission levels of below 1 GHz are very lower (20dB lower than the limit) than the limit and not show in test report.

**16 QAM Mode:**

| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Lowest** |
|---|---|---|---|---|
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1648.04 | V | -38.38 | -13.00 | Pass |
| 2471.60 | V | -34.88 | | |
| 3296.19 | V | -32.42 | | |
| 4119.80 | V | -32.39 | | |
| 4943.83 | V | -30.20 | | |
| 1648.11 | H | -38.00 | -13.00 | Pass |
| 2472.06 | H | -33.49 | | |
| 3296.10 | H | -32.25 | | |
| 4119.82 | H | -32.13 | | |
| 4944.12 | H | -29.50 | | |
| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Middle** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1672.86 | V | -38.02 | -13.00 | Pass |
| 2509.50 | V | -35.03 | | |
| 3345.87 | V | -32.49 | | |
| 4182.15 | V | -32.28 | | |
| 5019.19 | V | -30.13 | | |
| 1672.81 | H | -38.28 | -13.00 | Pass |
| 2509.33 | H | -33.93 | | |
| 3345.88 | H | -32.12 | | |
| 4182.18 | H | -31.91 | | |
| 5018.96 | H | -30.19 | | |
| **Test mode:** | **LTE Band 5(1.4MHz)** | | **Test channel:** | **Highest** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1697.58 | V | -38.15 | -13.00 | Pass |
| 2546.69 | V | -35.77 | | |
| 3395.22 | V | -35.61 | | |
| 4244.30 | V | -32.29 | | |
| 5093.21 | V | -29.60 | | |
| 1697.71 | H | -39.10 | -13.00 | Pass |
| 2546.66 | H | -37.20 | | |
| 3395.54 | H | -34.82 | | |
| 4244.25 | H | -32.94 | | |
| 5093.49 | H | -29.67 | | |

Remark :

1 The emission behaviour belongs to narrowband spurious emission, all modes investigated and only worst case is reported.
2 Remark"---" means that the emission level is too low (20dB lower than the limit) to be measured
3 The emission levels of below 1 GHz are very lower (20dB lower than the limit) than the limit and not show in test report.

| Test mode: | LTE Band 7(5MHz) | | Test channel: | Lowest |
|---|---|---|---|---|
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 4999.62 | V | -38.36 | -25.00 | Pass |
| 7499.77 | V | -35.06 | | |
| 9999.92 | V | -32.70 | | |
| 12499.84 | V | -32.41 | | |
| 15000.19 | V | -30.57 | | |
| 4999.65 | H | -38.17 | -25.00 | Pass |
| 7500.09 | H | -33.83 | | |
| 10000.02 | H | -32.52 | | |
| 12499.96 | H | -31.90 | | |
| 15000.10 | H | -29.32 | | |
| **Test mode:** | **LTE Band 7(5MHz)** | | **Test channel:** | **Middle** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 5069.75 | V | -38.08 | -25.00 | Pass |
| 7604.89 | V | -34.86 | | |
| 10139.76 | V | -32.53 | | |
| 12674.64 | V | -32.28 | | |
| 15209.66 | V | -29.93 | | |
| 5070.01 | H | -38.03 | -25.00 | Pass |
| 7605.18 | H | -33.91 | | |
| 10139.91 | H | -32.37 | | |
| 12675.08 | H | -32.24 | | |
| 15209.61 | H | -29.95 | | |
| **Test mode:** | **LTE Band 7(5MHz)** | | **Test channel:** | **Highest** |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 5139.51 | V | -38.33 | -25.00 | Pass |
| 7709.72 | V | -35.71 | | |
| 10279.26 | V | -35.30 | | |
| 12849.16 | V | -32.52 | | |
| 15419.28 | V | -29.93 | | |
| 5139.81 | H | -38.87 | -25.00 | Pass |
| 7709.71 | H | -37.19 | | |
| 10279.34 | H | -34.75 | | |
| 12849.67 | H | -33.15 | | |
| 15419.21 | H | -29.45 | | |

Remark：

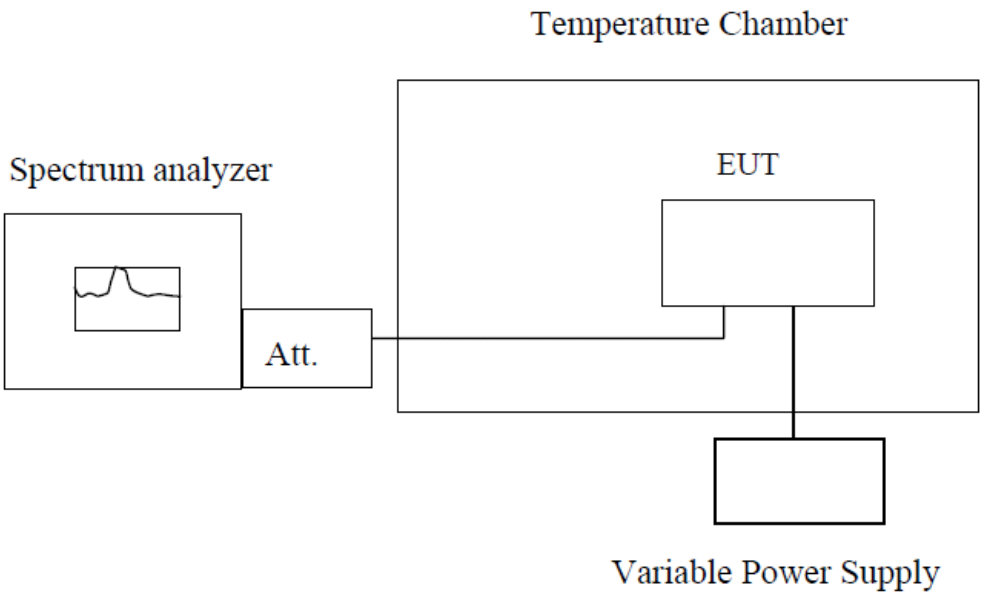
1 The emission behaviour belongs to narrowband spurious emission, all modes investigated and only worst case is reported.
2 Remark"---" means that the emission level is too low (20dB lower than the limit) to be measured
3 The emission levels of below 1 GHz are very lower (20dB lower than the limit) than the limit and not show in test report.

# 10.Frequency stability vs. temperature

## 10.1. Test equipment

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal Due To |
|---|---|---|---|---|---|
| CMW500 | ROHDE&SCHWARZ | CMW500 | Ab-EE010 | 2025/08/04 | 2026/08/03 |
| Spectrum analyzer | Keysight | N9020A | Aa-EE104 | 2025/08/04 | 2026/08/03 |
| Temp. & Humid. Chamber | Teelong | TL-HW408S | Aa-SE338 | 2025/07/14 | 2026/07/13 |

## 10.2. Block diagram of test setup




**Note :** Measurement setup for testing on Antenna connector

## 10.3. Limits

2.5ppm(Part 22)
Within the authorized bands of operation(Part 24, Part 27)

## 10.4. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | Description | other |
|---|---|---|---|---|
| / | / | / | / | / |

## 10.5. Test procedure

The equipment under test was connected to an external DC power supply and input rated voltage.
RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
The EUT was placed inside the temperature chamber.
Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.

Turn EUT off and set the chamber temperature to –20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.

Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Refer to ANSI C63.26:2015 for details

## 10.6. Test result

| | |
|---|---|
| Test Site: RF Laboratory | Test Date: 2025/09/17--2025/10/23 |
| Condition: 24.3°C,56%RH,101kPa | Test Engineer: Yannis Wen |
| Memo: / | |

| | |
|---|---|
| EUT Name: Remote Controller | EUT Model: R100 |
| Sample No.: A2507399-S0001 | Test Mode: All modes |
| Power supply: DC 3.7V from battery | Memo: / |

/

## 10.7. Test data

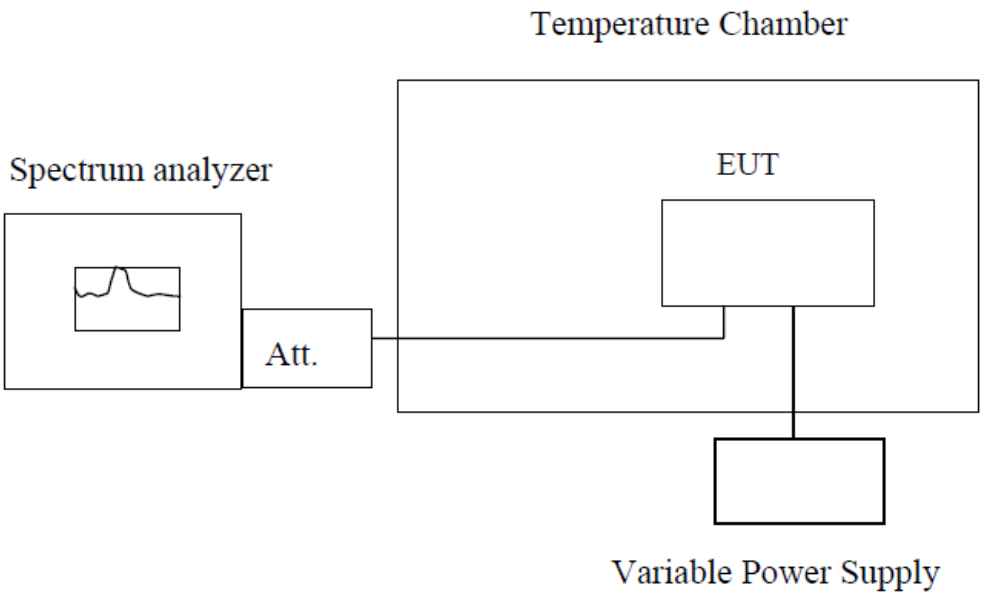
| Reference Frequency: LTE Band 5 Middle channel=20175 channel=836.5MHz | | | | | |
|---|---|---|---|---|---|
| Power supplied (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.7 | -20 | 20 | 0.0239 | 2.5 | Pass |
| | -10 | 25 | 0.0299 | | |
| | 0 | 24 | 0.0287 | | |
| | 10 | 2 | 0.0024 | | |
| | 20 | 17 | 0.0203 | | |
| | 30 | 10 | 0.0120 | | |
| | 40 | 3 | 0.0036 | | |
| | 50 | 3 | 0.0036 | | |
| | 60 | 10 | 0.0120 | | |
| **Reference Frequency: LTE Band 7 Middle channel=21100 channel=2535MHz** | | | | | |
| Power supplied (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.7 | -20 | 15 | 0.0059 | Within the authorized bands | Pass |
| | -10 | 18 | 0.0071 | | |
| | 0 | 24 | 0.0095 | | |
| | 10 | -31 | -0.0122 | | |
| | 20 | 13 | 0.0051 | | |
| | 30 | 14 | 0.0055 | | |
| | 40 | -8 | -0.0032 | | |
| | 50 | 1 | 0.0004 | | |
| | 60 | 10 | 0.0039 | | |

# 11.Frequency stability vs. voltage

## 11.1. Test equipment

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal Due To |
|---|---|---|---|---|---|
| CMW500 | ROHDE&SCHWARZ | CMW500 | Ab-EE010 | 2025/08/04 | 2026/08/03 |
| Spectrum analyzer | Keysight | N9020A | Aa-EE104 | 2025/08/04 | 2026/08/03 |
| Temp. & Humid. Chamber | Teelong | TL-HW408S | Aa-SE338 | 2025/07/14 | 2026/07/13 |

## 11.2. Block diagram of test setup




**Note :** Measurement setup for testing on Antenna connector

## 11.3. Limits

2.5ppm
Band II & Band VII should be within authorized band.

## 11.4. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | Description | other |
|---|---|---|---|---|
| / | / | / | / | / |

## 11.5. Test procedure

Set chamber temperature to 20°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.
Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.

Refer to ANSI C63.26:2015 for details

## 11.6. Test result

| | |
|---|---|
| Test Site: RF Laboratory | Test Date: 2025/09/17--2025/10/23 |
| Condition: 24.3°C,56%RH,101kPa | Test Engineer: Yannis Wen |
| Memo: / | |

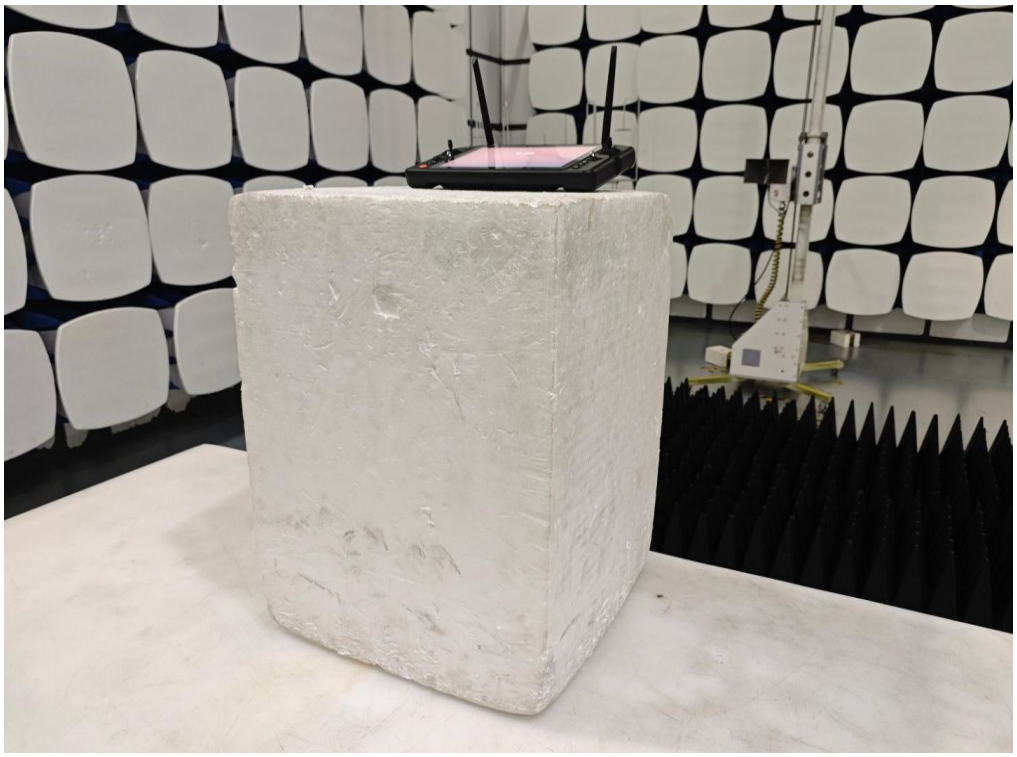
| | |
|---|---|
| EUT Name: Remote Controller | EUT Model: R100 |
| Sample No.: A2507399-S0001 | Test Mode: All modes |
| Power supply: DC 3.7V from battery | Memo: / |

/

## 11.7. Test data

| **Reference Frequency: LTE Band 5 Middle channel=20175 channel=836.5MHz** | | | | | |
|---|---|---|---|---|---|
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 4.25 | 22 | 0.0263 | 2.5 | Pass |
| | 3.7 | 25 | 0.0299 | | |
| | 3.14 | 23 | 0.0275 | | |
| **Reference Frequency: LTE Band 7 Middle channel=21100 channel=2535MHz** | | | | | |
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 4.25 | 14 | 0.0055 | within authorized band | Pass |
| | 3.7 | 21 | 0.0083 | | |
| | 3.14 | 25 | 0.0099 | | |

## 12. Test Setup Photograph



## 13. Photos of the EUT

Please refer to the report A2507399-C03-R01.

**----------End Report----------**