



RF Exposure Evaluation Declaration

FCC ID: 2AWAS-910-00086

APPLICANT: Mavenir Systems, Inc.

Application Type: Certification

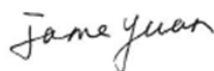
Product: B25 4T4R 160W Radio Unit

Model No.: MR44MA

Trade Mark: 

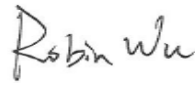
Test Procedure(s): KDB 447498 D01v06

Reviewed By:



Jame Yuan

Approved By:



Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

| Report No. | Version | Description | Issue Date | Note |
|---------------|---------|----------------|------------|-------|
| 2104RSU074-U2 | Rev. 01 | Initial Report | 05-14-2021 | Valid |
| | | | | |

1. Product Information

| | |
|--------------------------------|-----------------------------|
| Product Name | B25 4T4R 160W Radio Unit |
| Model No. | MR44MA |
| Test Device Serial No. | MAV000018 |
| Hardware Version | B0.1 |
| Software Version | MD3.2 |
| Voltage Range | -48VDC |
| LTE Operating Band (s) | FDD Band 25, single carrier |
| T _x Frequency Range | Band 25: 1930 ~ 1995 MHz |
| R _x Frequency Range | Band 25: 1850 ~ 1915 MHz |
| Modulation Type | QPSK, 16QAM, 64QAM, 256QAM |
| Max Antenna Gain | 15dBi |

Note: All information is provided by the manufacturer, test laboratory will not be responsible if any error.

2. RF Exposure Evaluation

2.1. Test Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (Minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| (A) Limits for Occupational/ Control Exposures | | | | |
| 300-1500 | -- | -- | f/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |
| (B) Limits for General Population/ Uncontrolled Exposures | | | | |
| 300-1500 | -- | -- | f/1500 | 6 |
| 1500-100,000 | -- | -- | 1 | 30 |

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result

| | |
|-----------|--------------------------|
| Product | B25 4T4R 160W Radio Unit |
| Test Item | RF Exposure Evaluation |

| Test Mode | Frequency Band (MHz) | Maximum EIRP (dBm) | Safety Distance (cm) | Power Density (mW/cm ²) | Limit of Power Density (mW/cm ²) |
|-------------|----------------------|--------------------|----------------------|-------------------------------------|--|
| LTE Band 25 | 1930 ~ 1995 | 67.02 | 634 | 0.9968 | 1 |

Note 1: Maximum turn-up output power is 46 dBm per each port declared by the manufacturer.

Note 2: The max Power Density at R (634 cm) = 0.9969 mW/cm² < 1 mW/cm².

Therefore, the Min Safety Distance is 634 cm.

————— The End —————

Appendix - EUT Photograph

Refer to "2104RSU074-UE" file.