

**TEST REPORT**

No.	Auxiliary Equipment	Product Number / Model Type	Version
1	Test computer	DELL PowerEdge R220	-
2	Baseband 6630	E23B110222	R2B
3	GNSS Rubidium clock	HJ5418A-V1	-
4	AC Power Supply	ITECH 3000VA	-
5	DC Power Supply	XANTREX XFR 60-46	-
6	Attenuator	WDTS100-40dB-6G-C	-
7	Terminator	WTF50-6G-A	-

**TEST REPORT****2.5 Test environment condition:**

Test items	Temperature	Humidity
Max Output Power and Peak to Average Power Ratio and EIRP	20°C to 24°C	45%RH to 55%RH
Occupied Bandwidth		
Unwanted Emissions at Band Edge		
Conducted Unwanted Emission		
Radiated Unwanted Emissions	21°C	51% RH
Frequency Stability	Please refer to clause 8	

## 2.6 Instrument list

Intertek Testing Services Shanghai					
Used	Equipment	Manufacturer	Type	S/N	Due date
<input checked="" type="checkbox"/>	PXA Signal Analyzer	Keysight	N9030A	MY54490394	2023.4.7
<input checked="" type="checkbox"/>	Signal Generator	R&S	SMU200A	103457	2022.8.14
<input checked="" type="checkbox"/>	Multi-meter	Fluke	117	93990470	2023.1.9
<input checked="" type="checkbox"/>	Climatic Chamber	赛宝	CEEC-WR16H-50W	15-095	2022.9.20
<input checked="" type="checkbox"/>	Humiture meter	托普	TPJ-20	TP161108085	2023.2.21
<input checked="" type="checkbox"/>	Power sensor	R&S	NRP-Z11	120458	2022. 8.9
<input checked="" type="checkbox"/>	Power sensor	R&S	NRP-Z21	104407	2022. 8.9
<input checked="" type="checkbox"/>	Power meter	R&S	NRX	101173_BAMS-1001958119	2022. 8.9

BEIJING BOOMWAVE TEST SERVICE CO. LTD.					
Used	Equipment	Manufacturer	Type	S/N	Due date
<input checked="" type="checkbox"/>	EMI TEST RECERVER	R&S	ESR26	101320	2023/01/11
<input checked="" type="checkbox"/>	EMI TEST RECERVER	R&S	ESR3	102391	2023/01/11
<input checked="" type="checkbox"/>	Wireless comprehensive test instrument	R&S	CMW500	115895	2023/01/11
<input checked="" type="checkbox"/>	Spectrum Analyzer	R&S	FSV40	101403	2023/01/11
<input checked="" type="checkbox"/>	Spectrum Analyzer	R&S	FSU26	200449	2023/01/11
<input checked="" type="checkbox"/>	Hybrid antenna	SCHWARZBEC K	VULB9163	01266	2023/07/03
<input checked="" type="checkbox"/>	Hybrid antenna	SCHWARZBEC K	VULB9163	01292	2023/07/03
<input checked="" type="checkbox"/>	Double-Ridged Waveguide Horn Antenna	R&S	HF907	100096	2023/05/27
<input checked="" type="checkbox"/>	Double Ridged Broadband Horn Antenna	SCHWARZBEC K	BBHA 9120D	1276	2023/05/27
<input checked="" type="checkbox"/>	Active Loop Antenna	R&S	HFH2-Z2	100533	2023/06/08
<input checked="" type="checkbox"/>	Broad-Band Horn Antenna	SCHWARZBEC K	BBHA9170	797	2023/05/27
<input checked="" type="checkbox"/>	Broad-Band Horn Antenna	SCHWARZBEC K	BBHA9170	798	2023/05/27
<input checked="" type="checkbox"/>	Broad-Band Horn Antenna	SCHWARZBEC K	BBHA9120LF	408	2023/05/27
<input checked="" type="checkbox"/>	Pre-amplifier	R&S	SCU40	2046336	2023/01/11
<input checked="" type="checkbox"/>	Power amplifier	TONSCEND	TAP-011858	AP19L806047	2023/04/01

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<input checked="" type="checkbox"/>	Pre-amplifier	Qualwave	QLAS-1000-18000-45-30	20255003	2023/01/11
<input checked="" type="checkbox"/>	Pre-amplifier	Qualwave	QLAS-1000-6000-55-25	20395056	2023/01/11
<input checked="" type="checkbox"/>	Pre-amplifier	Pasternack Enterprises	PE15A1009	V00140120180 301D338	2023/01/11
<input checked="" type="checkbox"/>	Pre-amplifier	Pasternack Enterprises	PE15A1009	V00140120181 115E822	2023/01/11
<input checked="" type="checkbox"/>	Digital display temperature and humidity recorder	DICKSON	TM320	015079	2023/05/09
<input checked="" type="checkbox"/>	Digital display temperature and humidity recorder	DICKSON	TM320	015080	2023/05/09
<input checked="" type="checkbox"/>	SAC10	TDK	SAC10	SAC10	2023/07/11

## 2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Maximum output power	0.73dB
Occupied Bandwidth	0.88%
Unwanted Emissions at Band Edge	3.03dB
Conducted Unwanted Emission	3.03dB
Radiated Unwanted Emissions below 1GHz	4.90dB
Radiated Unwanted Emissions above 1GHz	5.02dB
Frequency stability	0.77 x 10 <sup>-7</sup>

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### 3 Maximum Output Power and Peak to Average Power Ratio and EIRP

Test result: Pass

#### 3.1 Limit

FCC 27.50 & 27.1507 & 27.1508

#### 3.2 Measurement Procedure

The EUT was configured to transmit on maximum power and proper modulation. The transmitter power shall be measured in terms of a root-mean-square (RMS) average value. In case of the EUT was configured to MIMO mode, since the EUT transmits on all antennas simultaneously in the same frequency range, using the Measure-and-Sum approach, the output power at all antennas were tested, and the total output power were then summed mathematically in linear power units according to FCC KDB 662911 D01.

A peak to average ratio measurement is performed at the conducted ports of the EUT for single carrier for single RAT mode. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) was used and 0.1% probability value recorded.