RF EXPOSURE EVALUATION REPORT

FCC ID	: 2AU2O-JT8500D-8500H
Equipment	: LTE-A Pro CAT15 B48 Outdoor CPE
Brand Name	: JATONTECH/BROADBANDEVOLUTION
Model Name	: JT8500D/JT8500H/BE8500D/BE8500H
Applicant	: Jaton Technology Limited FLAT/RM B 5/F GAYLORD COMMERCIAL BUILDING 114-118 LOCKHART ROAD HK
Manufacturer	: Jaton Technology Limited FLAT/RM B 5/F GAYLORD COMMERCIAL BUILDING 114-118 LOCKHART ROAD HK
Standard	: 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part 2.1091 and it complies with applicable limit.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

Cona Huang

Approved by: Cona Huang / Deputy Manager

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FA011544	Rev. 01	Initial issue of report	Aug. 31, 2020

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	LTE-A Pro CAT15 B48 Outdoor CPE
Brand Name	JATONTECH/BROADBANDEVOLUTION
Model Name	JT8500D/JT8500H/BE8500D/BE8500H
FCC ID	2AU2O-JT8500D-8500H
Wireless Technology and Frequency Range	LTE Band 48: 3550 MHz ~ 3700 MHz
Mode	LTE: QPSK, 16QAM, 64QAM
HW Version	V1.0
SW Version	V1.5.0
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Reviewed by: Jason Wang

Report Producer: Wan Liu

2. Maximum RF average output power among production units

Mode		Maximum Average power(dBm)
LTE	Band 48	24

3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 32 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 32cm (mW/cm^2)	Limit (mW/cm^2)
LTE Band 48	17.00	24.00	41.000	12.589	12589.254	0.979	1.000

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.