

# **FCC RF Exposure Report**

FCC ID : MCLU97B002

Equipment : Femto Cell (AIRAVE 4 LTE)

Model No. : AV100C

Brand Name : Airspan

Applicant : Hon Hai Precision Ind. Co., Ltd.

Address : 5F-1, 5 Hsin-An Road, Hsinchu,

Science-Based Industrial Park, Taiwan, R.O.C

Standard : 47 CFR FCC Part 2.1091

Received Date : Aug. 08, 2018

Tested Date : Aug. 08 ~ Aug. 29, 2018

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: Approved by:

Along Cheid/ Assistant Manager Gary Chang / Manager

Testing Laboratory 2732

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# **Release Record**

Report No.	Version	Description	Issued Date	
FA880701	Rev. 01	Initial issue	Sep. 05, 2018	

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## 1 MPE EVALUATION OF MOBILE DEVICES

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

### 1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

	Frequency Range (MHz)	Power Density (mW /cm²)	Averaging Time (minutes)		
I	300~1500	F/1500	30		
	1500~100000	1.0	30		

### 1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4*Pi*R^2}$$

Where

Pd= Power density in mW/cm<sup>2</sup>

Pt= EIRP in mW Pi= 3.1416

R= Measurement distance

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### 1.3 MPE EVALUATION RESULTS

#### LTE

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm2)
LTE Band 41	19.78	21.00	5.98	20	0.099	1

Note: Directional gain =  $2.97 + 10^* \log(2/1) = 5.98 \text{ dBi}.$ 

#### **CDMA**

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm2)
CDMA2000 BC1	19.21	20.0	2.92	20	0.039	1

#### **MPE Evaluation of Simultaneous Transmission**

The device supports simultaneous transmission as below configurations

1) LTE + CDMA

MPE evaluation is as below formula

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

MPE Evaluation for LTE and CDMA = 0.099 / 1 + 0.039 / 1 = 0.138

#### Conclusion

MPE evaluations of single and simultaneous transmission meet the requirement of standard.

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# 2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <a href="http://www.icertifi.com.tw">http://www.icertifi.com.tw</a>.

#### Linkou

Tel: 886-2-2601-1640 No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.

#### Kwei Shan

Tel: 886-3-271-8666 No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

#### Kwei Shan Site II

Tel: 886-3-271-8640 No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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