




## **Exhibit: RF Exposure – FCC**

FCC ID: ROR00000005

Report File #: 7169004768-MPE-000

Client	<b>Blinq Ind</b>	
Product	<b>FW-300i Intelligent LTE Base Station</b>	
Standard(s)	FCC KDB 447498:2015	

## RF Exposure – FCC

The EUT is a CBSD Transmitter, operating at 10 MHz and 20 MHz (worst case) bandwidths operating under FCC Part 96.

### Radiofrequency Radiation Exposure Evaluation: Mobile and fixed Devices

Mobile devices shall be evaluated for RF radiation exposure according to the provisions of FCC §2.1091 and the MPE guidelines identified in FCC §1.1310.

As per FCC §1.1310 Table 1(B), the limit for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields for General Population/Uncontrolled Exposure in the frequency range of 300 MHz to 1.5 GHz is  $f/1500$  mW/cm<sup>2</sup> and in the frequency range of 1.5GHz to 100GHz is 1.0 mW/cm<sup>2</sup>. Where  $f$  = frequency in MHz.

The power density formula is given by:

$$P_d = (P_{out} * G) / (4 * \pi * R^2)$$

Where,

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = Conducted output power to antenna in mW

$G$  = Numeric Antenna Gain

$\pi$  = 3.1416

$R$  = Separation distance in cm (100cm as specified by client).

### MPE Calculation:

The LTE transmitter has a maximum EIRP output power of 49.02 dBm or 20 W.

For a distance of 100cm, the power density is as per the below table.

FCC Rule part	Frequency	Antenna Gain (dBi)	Power (dBm)	MIMO + Bandwidth correction	EIRP (dBm)	Calculated (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Pass/Fail
96	3550-3700	17	26.02	6 dB	49.02	0.633000	1	Pass

The device passes the requirement.

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