

**Evaluation of the CSI Model
CSI-DRACELA-PR-AW Repeater
For
Compliance with FCC Guidelines
For Human Exposure to Radio Frequency
Electromagnetic Fields**

25 April 2013

General

The CSI Model CSI-DRACELA-PR-AW Repeater is considered to be a “mobile” device operating in the Cellular Service authorized under part 27. As such, the equipment is required to be evaluated for RF exposure if operated below 1.5 GHz with an effective radiated power (ERP) of 1.5 watts or more or if operated above 1.5 GHz with an effective radiated power (ERP) of 3.0 watts or more, as defined in 2.1091 of FCC rules.

Downlink

For the downlink portion of the Model CSI-DRACELA-PR-AW, the maximum rated output power is +30.26dBm (1062 mW) in the 2100 MHz band (>1.5 GHz). As stated in the Model CSI-DRACELA-PR-AW Manual, the maximum authorized indoor antenna gain is 3 dBi, corresponding to a typical Multi-Band Omni-Directional antenna. The Table below shows the results of the calculated ERP, neglecting cable losses.

Frequency	Power Out	Ant Gain	EIRP	ERP	Limit
2110-2155 MHz	30.26dBm	3dBi	33.26dBm	1292mW	3.0 W

As shown in the above table, the level is below the allowable limit excluding the downlink from routine evaluation.

Uplink

For the uplink portion of the Model CSI-DRACELA-PR-AW, the maximum rated output power as limited by AGC is +32dBm (1585mW) in the 1700 MHz Band (>1.5 GHz). As stated in the Model CSI-DRACELA-PR-AW Manual, the maximum authorized outdoor antenna gain including cable losses is -2 dBi, corresponding to a typical Omni-Directional antenna. The Table below shows the results of the calculated ERP for this case.

Frequency	Power Out	Ant Gain	EIRP	ERP	Limit
1710-1755MHz	32dBm	-2 dBi	30dBm	610mW	3.0 W

As shown in the above table, the level is below the allowable limit excluding the uplink from routine evaluation.