

Radiated Power - EIRP / ERP

In accordance with FCC **KDB 412172 D01 Determining ERP and EIRP v01** please find below our calculations for determining the ERP and EIRP for the combination of module and host device covered under the scope of this C2PC filing.

The maximum output powers from the tune-up procedure are:

Mode/band	Max Output power	
GSM 850	33.5 dBm	2.239 W
GSM 1900	30.5 dBm	1.122 W
EDGE 850 (8PSK)	28 dBm	0.631 W
EDGE 1900 (8PSK)	27 dBm	0.501 W
WCDMA Band II	24 dBm	0.251 W
WCDMA Band IV	24 dBm	0.251 W
WCDMA Band V	24 dBm	0.251 W
LTE B2 (1900MHz)	24 dBm	0.251 W
LTE B4 (1700MHz)	24 dBm	0.251 W
LTE B5 (850MHz)	24 dBm	0.251 W
LTE B13 (750MHz)	24 dBm	0.251 W
LTE B17 (700MHz)	24 dBm	0.251 W
LTE B25 (1900MHz)	24 dBm	0.251 W
CDMA2000 BC0	25 dBm	0.316 W
CDMA2000 BC1	25 dBm	0.316 W
CDMA2000 BC10	25 dBm	0.316 W

The Antenna gain of the FZ-M1 host system is as follows;

- * LTE Band 13, (750MHz): -0.39 dBi (-2.54dBd)
- * LTE Band 17, (700MHz): -1.21 dBi (-3.36dBd)
- * GSM850/ EDGE850/ WCDMA Band V
/ LTE Band5/ CDMA2000 BC0, 10 (850MHz): -1.02 dBi (-3.17dBd)
- * GSM1900/ EDGE1900/ LTE Band2, 25
/ WCDMA Band II/ CDMA2000 BC1 (1900MHz): 1.07 dBi
- * LTE Band 4, WCDMA Band IV (1700MHz): 1.1 dBi

The ERP/EIRP values for the module in this host system can be calculated using option 2.1 of the KDB referenced above:

$$\text{ERP/EIRP} = P_T + G_T - L_C \text{ in this host are}$$

Mode/band	ERP/EIRP	Conducted Power	Antenna gain	ERP/EIRP	
GSM 850	ERP	33.5 dBm	-3.17 dBd	30.33 dBm	1.079 W
GSM 1900	EIRP	30.5 dBm	1.07 dBi	31.57 dBm	1.435 W
EDGE 850 (8PSK)	ERP	28 dBm	-3.17 dBd	24.83 dBm	0.304 W
EDGE 1900 (8PSK)	EIRP	27 dBm	2.08 dBi	29.08 dBm	0.809 W
WCDMA Band II (1900)	EIRP	24 dBm	1.07 dBi	25.07 dBm	0.321 W
WCDMA Band IV (1700)	EIRP	24 dBm	1.1 dBi	25.1 dBm	0.324 W
WCDMA Band V (850)	ERP	24 dBm	-3.17 dBd	20.83 dBm	0.121 W
LTE B2 (1900MHz)	EIRP	24 dBm	1.07 dBi	25.07 dBm	0.321 W
LTE B4 (1700MHz)	EIRP	24 dBm	1.1 dBi	25.1 dBm	0.324 W
LTE B5 (850MHz)	ERP	24 dBm	-3.17 dBd	20.83 dBm	0.121 W
LTE B13 (750MHz)	ERP	24 dBm	-2.54 dBd	21.46 dBm	0.140 W
LTE B17 (700MHz)	ERP	24 dBm	-3.36 dBd	20.64 dBm	0.116 W
LTE B25 (1900MHz)	EIRP	24 dBm	1.07 dBi	25.07 dBm	0.321 W
CDMA2000 BC0 (850)	ERP	25 dBm	-3.17 dBd	21.83 dBm	0.152 W
CDMA2000 BC1(1900)	EIRP	25 dBm	1.07 dBi	26.07 dBm	0.405 W
CDMA2000 BC10 (800)	ERP	25 dBm	-1.38 dBd	23.62 dBm	0.230 W