

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	
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 B7 (2500MHz)	22 dBm	0.158 W
LTE B12 (700MHz)	24 dBm	0.251 W
LTE B13 (750MHz)	24 dBm	0.251 W
LTE B25 (1900MHz)	24 dBm	0.251 W
LTE B26 (850MHz)	24 dBm	0.251 W
LTE B41 (2500MHz)	23 dBm	0.200 W

The Antenna gain of the CF-33 host system is as follows;

- * LTE Band 12 (700MHz) : -1.60 dBi (-3.75 dBd)
- * LTE Band 13 (750MHz) : 0.87 dBi (-1.28 dBd)
- * WCDMA Band V / LTE Band5, 26 (850MHz) : 2.02 dBi (-0.13 dBd)
- * WCDMA Band IV / LTE Band 4 (1700MHz) : 2.35 dBi
- * WCDMA Band II /LTE Band2, 25 (1900MHz) : 1.65 dBi
- * LTE Band7, 41 (2500MHz) : 1.84 dBi

Note: LTE Band30 is disabled when the module is installed in the CF-33 host system at the factory.

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

ERP/EIRP = $P_T + G_T - L_C$ in this host are

Mode/band	ERP/EIRP	Conducted Power	Antenna gain	ERP/EIRP	
WCDMA Band II (1900)	EIRP	24 dBm	1.65 dBi	25.65 dBm	0.367 W
WCDMA Band IV (1700)	EIRP	24 dBm	2.35 dBi	26.35 dBm	0.432 W
WCDMA Band V (850)	ERP	24 dBm	-0.13 dBd	23.87 dBm	0.244 W
LTE B2 (1900MHz)	EIRP	24 dBm	1.65 dBi	25.65 dBm	0.367 W
LTE B4 (1700MHz)	EIRP	24 dBm	2.35 dBi	26.35 dBm	0.432 W
LTE B5 (850MHz)	ERP	24 dBm	-0.13 dBd	23.87 dBm	0.244 W
LTE B7 (2500MHz)	EIRP	22 dBm	1.84 dBi	23.84 dBm	0.242 W
LTE B12 (700MHz)	ERP	24 dBm	-3.75 dBd	20.25 dBm	0.106 W
LTE B13 (750MHz)	ERP	24 dBm	-1.28 dBd	22.72 dBm	0.187 W
LTE B25 (1900MHz)	EIRP	24 dBm	1.65 dBi	25.65 dBm	0.367 W
LTE B26 (850MHz)	ERP	24 dBm	-0.13 dBd	23.87 dBm	0.244 W
LTE B41 (2500MHz)	EIRP	23 dBm	1.84 dBi	24.84 dBm	0.305 W