

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 conducted power from this C2pc filing per band are:

CDMA:

824.7 - 848.31: 25.32dBm / 0.34W
1851.25 - 1908.75: 25.3dBm / 0.339W

LTE

Band 13: 23.76dBm / 0.238W

The gain of Permanently-attached antenna and external antenna of the CF-19 host system is as follows;

Permanently-attached antenna:

824-849: -1.1 dBi (-3.25 dBd)
1850-1910: 1.75 dBi
Band 13: -0.64 dBi

External antenna:

824-849: 1.5 dBi (-0.65 dBd)
1850-1910: 2.5 dBi
Band 13: 9.0 dBi

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

With Permanently-attached antenna:

- CDMA, 824.7 - 848.31: **ERP** = 25.32dBm – 3.25 dBd = 22.07 dBm (0.161 W)
- CDMA , 1851.25 - 1908.75: **EIRP** = 25.3 dBm + 1.75 dBi = 27.05 dBm (0.507 W)
- LTE Band 13: **EIRP** = 23.76dBm – 0.64dBi = 23.12 dBm (0.205 W)

With External antenna:

- CDMA, 824.7 - 848.31: **ERP** = 25.32dBm – 0.65 dBd = 24.67 dBm (0.293 W)
- CDMA , 1851.25 - 1908.75: **EIRP** = 25.3 dBm + 2.5 dBi = 27.8 dBm (0.603 W)
- LTE Band 13: **EIRP** = 23.76dBm + 9.0 dBi = 32.76 dBm (1.888 W)