

Slingshot-1 satellite
0583-EX-CN-2020

freq (MHz)	915	2250	5020
TX power (W)	1.3	2	7
TX power (dBW)	1.14	3.01	8.45
antenna gain (dBic)	1.75	8.5	7.5
antenna gain (numerical)	1.5	7.1	5.6
EIRP (W)	1.9	14.2	39.4
EIRP (dBW)	2.9	11.5	16.0
ERP (W)	1.2	8.6	24.0
minimum range (km)	500	500	500
Field strength (V/m)	1.53E-05	4.12E-05	6.87E-05
Field strength (dBuV/m)	23.7	32.3	36.7

Analysis

From Recommendation ITU-R P.525-3, the field strength is calculated as

$$e = \frac{\sqrt{30p}}{d}$$

where:

- e*: r.m.s. field strength (V/m)
- p*: equivalent isotropically radiated power (EIRP) of the transmitter in the direction of the point in question (W)
- d*: distance from the transmitter to the point in question (m).