

Proposed Antenna: Scala HDCA-5

Proposed Power: 0.075 kW

Antenna Height AGL: 120 meters

Interference Contour: 108.3 dBu f(50:10)

Artificial Rcv Antenna Height: 2 meters

Fill in
"yellow" cells

Distance (Free Space) Equation: $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)}) * 1000$

Field Strength (dBu) Equation $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$

Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Strength	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.075	-11.25	233.63 m	infinite	---	infinite	---
-5°	0.982	0.072	-11.41	229.43 m	1353.90 m	92.88 dBu	1376.85 m	92.74 dBu
-10°	0.952	0.068	-11.68	222.42 m	679.53 m	98.60 dBu	691.05 m	98.45 dBu
-15°	0.915	0.063	-12.02	213.77 m	455.92 m	101.72 dBu	463.64 m	101.58 dBu
-20°	0.866	0.056	-12.50	202.32 m	345.01 m	103.66 dBu	350.86 m	103.52 dBu
-25°	0.796	0.048	-13.23	185.97 m	279.21 m	104.77 dBu	283.94 m	104.62 dBu
-30°	0.700	0.037	-14.35	163.54 m	236.00 m	105.11 dBu	240.00 m	104.97 dBu
-35°	0.628	0.030	-15.29	146.72 m	205.73 m	105.36 dBu	209.21 m	105.22 dBu
-40°	0.528	0.021	-16.80	123.36 m	183.58 m	104.85 dBu	186.69 m	104.70 dBu
-45°	0.423	0.013	-18.72	98.83 m	166.88 m	103.75 dBu	169.71 m	103.60 dBu
-50°	0.329	0.008	-20.91	76.86 m	154.04 m	102.26 dBu	156.65 m	102.12 dBu
-55°	0.247	0.005	-23.40	57.71 m	144.05 m	100.35 dBu	146.49 m	100.21 dBu
-60°	0.190	0.003	-25.67	44.39 m	136.25 m	98.56 dBu	138.56 m	98.41 dBu
-65°	0.142	0.002	-28.20	33.18 m	130.20 m	96.42 dBu	132.41 m	96.28 dBu
-70°	0.134	0.001	-28.71	31.31 m	125.57 m	96.23 dBu	127.70 m	96.09 dBu
-75°	0.135	0.001	-28.64	31.54 m	122.16 m	96.54 dBu	124.23 m	96.39 dBu
-80°	0.142	0.002	-28.20	33.18 m	119.82 m	97.15 dBu	121.85 m	97.00 dBu
-85°	0.150	0.002	-27.73	35.04 m	118.45 m	97.72 dBu	120.46 m	97.58 dBu
-90°	0.157	0.002	-27.33	36.68 m	118.00 m	98.15 dBu	120.00 m	98.00 dBu

