

Table II

**Computation of Signal Level
on the Ground
from Proposed CH 288 FM Translator
New Haven, CT**

March, 2018

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal
90	0.001	0.0001	-70.5	0.0660	60.1
85	0.029	0.0757	-41.2	0.0663	89.3
80	0.058	0.3028	-35.2	0.0670	95.2
75	0.085	0.6503	-31.9	0.0683	98.4
70	0.110	1.0890	-29.6	0.0702	100.4
65	0.129	1.4977	-28.2	0.0728	101.4
60	0.138	1.7140	-27.7	0.0762	101.6
55	0.131	1.5445	-28.1	0.0806	100.7
50	0.104	0.9734	-30.1	0.0862	98.1
45	0.050	0.2250	-36.5	0.0933	91.0
40	0.033	0.0980	-40.1	0.1027	86.6
35	0.147	1.9448	-27.1	0.1151	98.6
30	0.288	7.4650	-21.3	0.1320	103.2
25	0.447	17.9828	-17.5	0.1562	105.6
20	0.611	33.5989	-14.7	0.1930	106.5
15	0.764	52.5326	-12.8	0.2550	106.0
10	0.889	71.1289	-11.5	0.3801	103.8
5	0.971	84.8557	-10.7	0.7573	98.6

Notes:

Antenna radiation center above ground (meters): 66
Maximum ERP (watts) at 0° Depression angle: 90
Free Space Signal = $106.92 - 20 \cdot \log(\text{distance in km}) + \text{dBk}$
Relative field based on PSIFML-3, 0.5 wave spaced antenna