Far Field Approximation
with downtilt variation

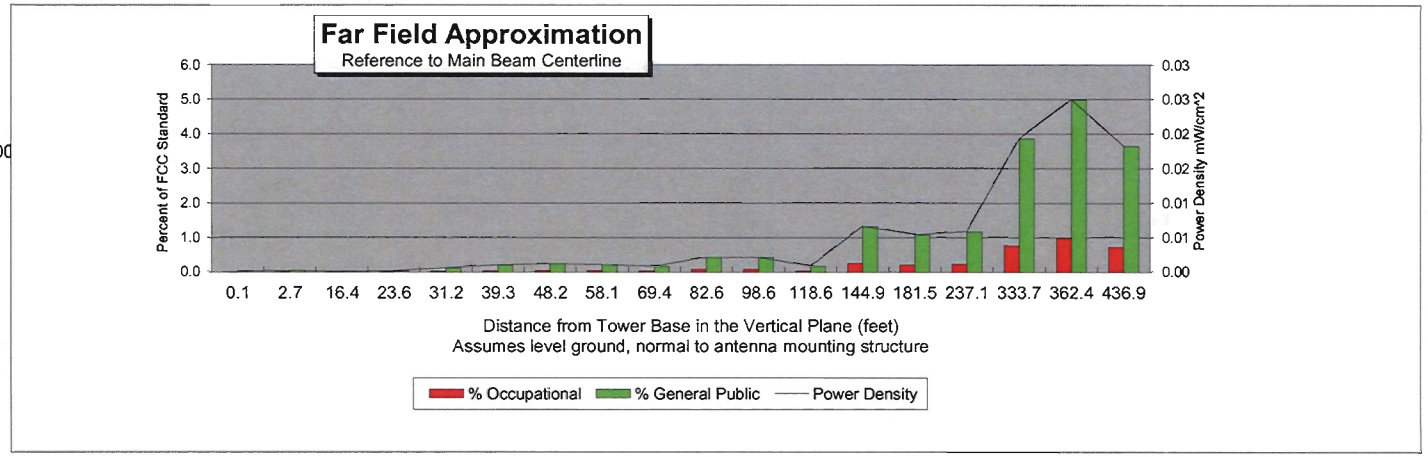
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	MERIDEN CT RELO
Site #:	
Date:	04/18/14
Name:	Jaime Laredo
File Name:	MERIDEN RELO, CT (LTE-700

Operating Freq. (MHz)	**751.0**
Antenna Height (ft):	**80.0**
Antenna Gain (dBi):	**13.6**
Antenna Size (in.):	**72.7**
Downtilt (degrees):	**8.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**714.0**



This approximation is only valid in the far field, which begins at: 65.7 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	88.0	78.0	73.0	68.0	63.0	58.0	53.0	48.0	43.0	38.0	33.0	28.0	23.0	18.0	13.0	12.0	10.0	
Solve for r, dx to antenna	77.0	77.0	78.7	80.5	83.1	86.4	90.8	96.4	103.7	112.9	125.1	141.4	164.1	197.2	249.3	342.5	370.5	443.6	
Distance from Antenna Structure Base in Horizontal plane	0.1	2.7	16.4	23.6	31.2	39.3	48.2	58.1	69.4	82.6	98.6	118.6	144.9	181.5	237.1	333.7	362.4	436.9	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.2	0.2	0.8	1.0	0.7	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.2	1.3	1.1	1.2	3.9	5.0	3.6	#NUM!

Antenna Type LNX-6514DS-VTM
Max% 4.99%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 P
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

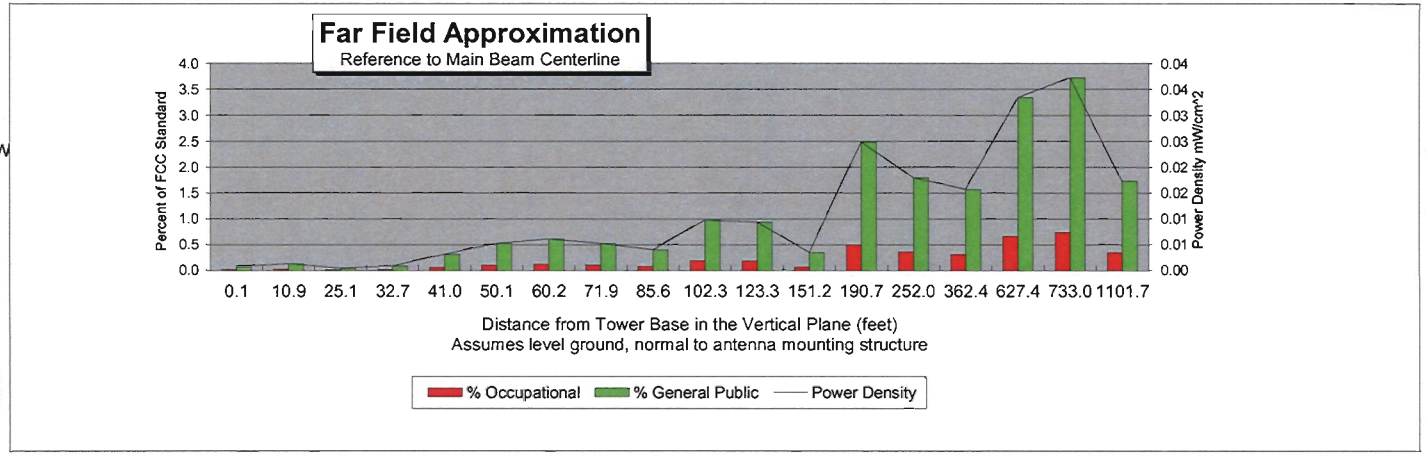
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	MERIDEN CT RELO
Site #:	
Date:	04/18/14
Name:	Jaime Laredo
File Name:	MERIDEN RELO, CT (LTE-AW

Operating Freq. (MHz)	**2120.0**
Antenna Height (ft):	**80.0**
Antenna Gain (dBi):	**17.1**
Antenna Size (in.):	**74.9**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**1897.0**



This approximation is only valid in the far field, which begins at: 69.6 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	77.0	77.8	81.0	83.7	87.2	91.8	97.7	105.3	115.1	128.0	145.4	169.7	205.6	263.5	370.5	632.1	737.0	1104.4	
Distance from Antenna Structure Base in Horizontal plane	0.1	10.9	25.1	32.7	41.0	50.1	60.2	71.9	85.6	102.3	123.3	151.2	190.7	252.0	362.4	627.4	733.0	1101.7	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.02	0.02	0.02	0.03	0.04	0.02	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.5	0.4	0.3	0.7	0.7	0.3	#NUM!
Percent of General Population Standard	0.1	0.1	0.0	0.1	0.3	0.5	0.6	0.5	0.4	1.0	0.9	0.3	2.5	1.8	1.6	3.3	3.7	1.7	#NUM!

Antenna Type HBXX-6517DS-VTM
Max% 3.72%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 P
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

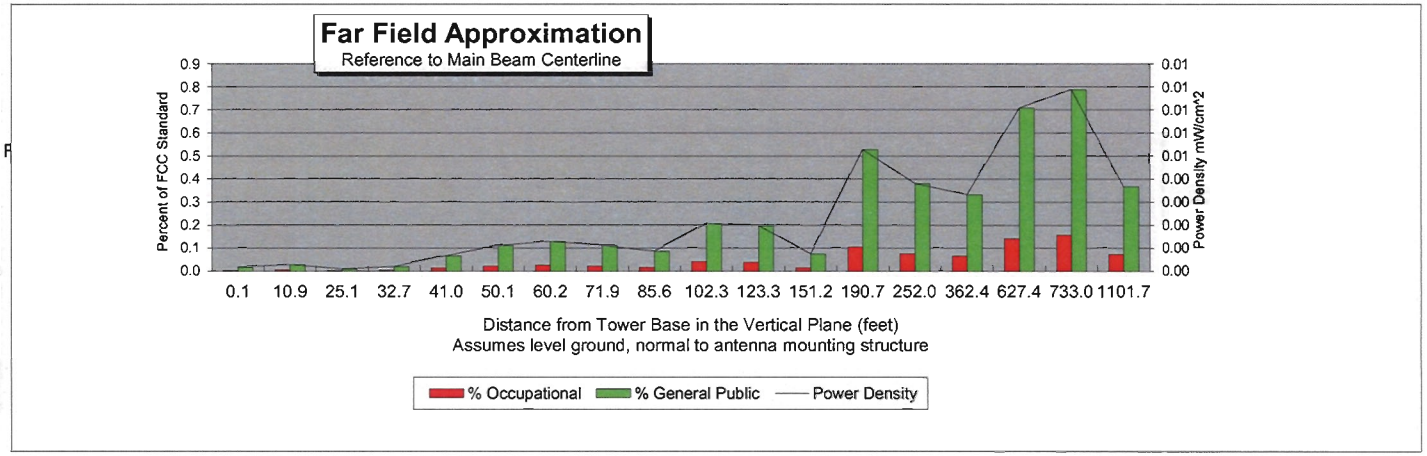
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	MERIDEN CT RELO
Site #:	
Date:	04/18/14
Name:	Jaime Laredo
File Name:	MERIDEN RELO, CT (PCS) - F

Operating Freq. (MHz)	**1973.8**
Antenna Height (ft):	**80.0**
Antenna Gain (dBi):	**16.4**
Antenna Size (in.):	**74.9**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**469.0**



This approximation is only valid in the far field, which begins at: 69.6 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	77.0	77.8	81.0	83.7	87.2	91.8	97.7	105.3	115.1	128.0	145.4	169.7	205.6	263.5	370.5	632.1	737.0	1104.4	
Distance from Antenna Structure Base in Horizontal plane	0.1	10.9	25.1	32.7	41.0	50.1	60.2	71.9	85.6	102.3	123.3	151.2	190.7	252.0	362.4	627.4	733.0	1101.7	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.5	0.4	0.3	0.7	0.8	0.4	#NUM!

Antenna Type HBXX-6517DS-VTM
Max% 0.79%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
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4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

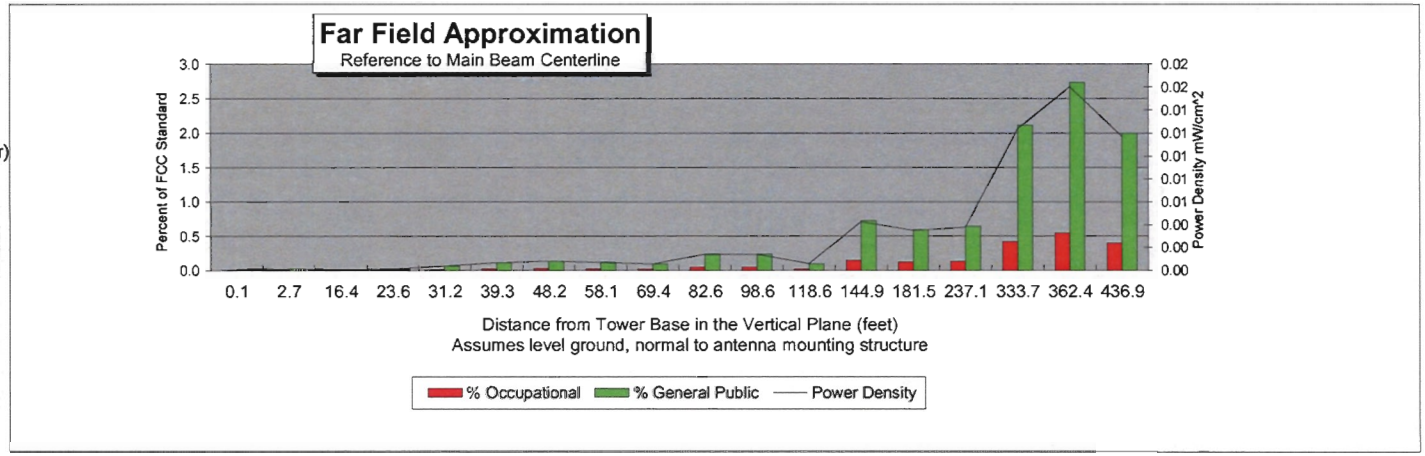
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	MERIDEN CT RELO
Site #:	
Date:	04/18/14
Name:	Jaime Laredo
File Name:	MERIDEN RELO, CT (Cellular)

Operating Freq. (MHz)	**878.5**
Antenna Height (ft):	**80.0**
Antenna Gain (dBi):	**14.2**
Antenna Size (in.):	**72.7**
Downtilt (degrees):	**8.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**399.0**



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Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.5	0.4	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.7	0.6	0.6	2.1	2.7	2.0	#NUM!

Antenna Type LNX-6514DS-VTM
Max% 2.73%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
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