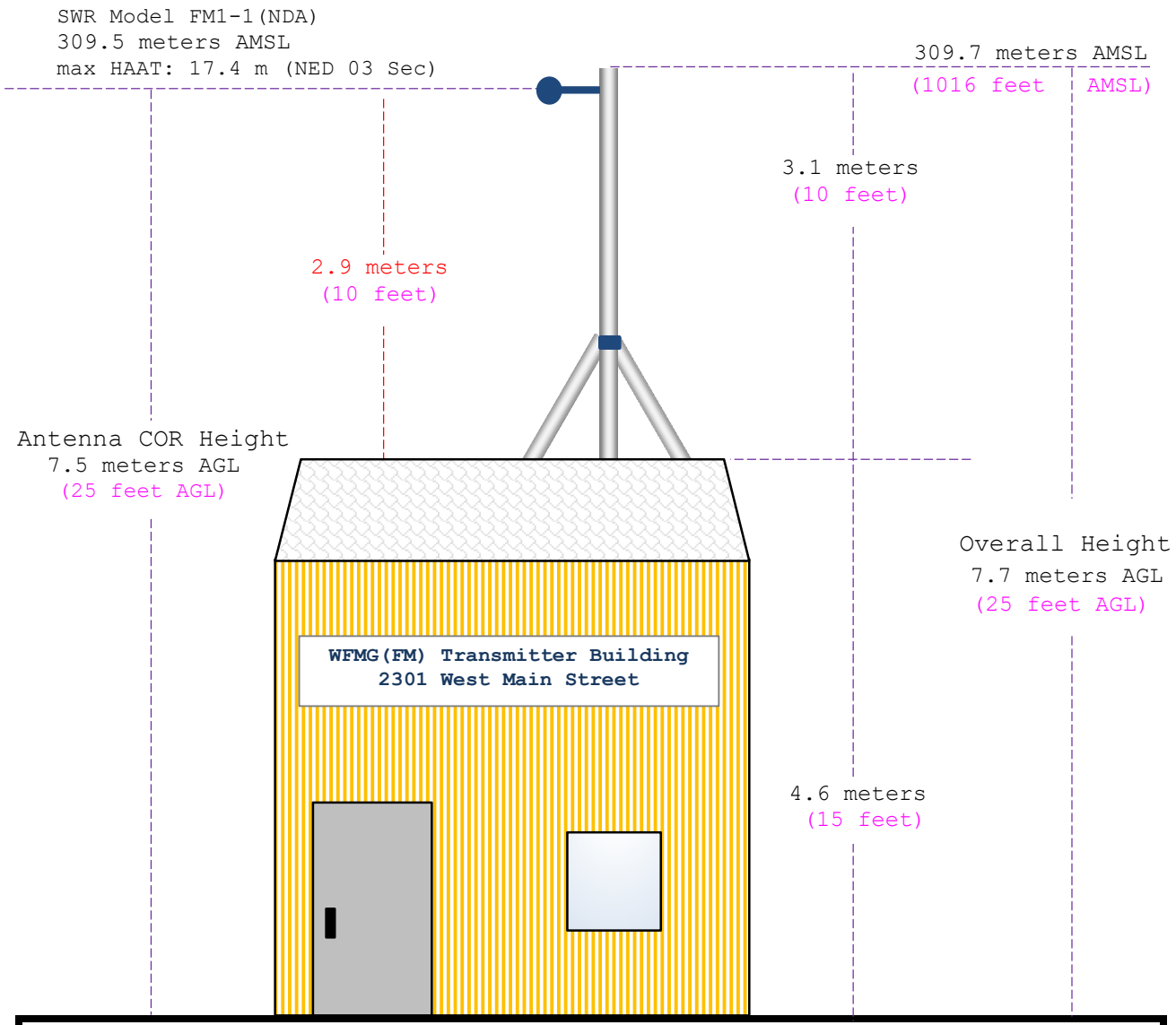
Richmond, IN - W233AN (STA)
Vertical Plan of Antenna System



Ground Elevation: 302.0 meters AMSL (991 feet AMSL)
(Ground Elevation taken from adjacent/nearby ASRN 1031399)

Address: 2301 West Main Street
City: Richmond
County: Wayne
State: Indiana

	Latitude (D M S)	Longitude (D M S)
NAD 27 datum values:	39 49 41.72888	84 55 57.53875
NAD 83 datum values:	39 49 41.90000	84 55 57.40000

Antenna Structure Registration
Not Required

Drawing Is Not To Scale

Asher Broadcast Consulting, LLC
justinasher@consultant.com
1(202)875-2986

Richmond, IN - W233AN (STA)
HAAT and Miscellaneous Coordinate Information

HAAT Calculation (NAD 1983):

N. Lat. = 394941.9 W. Lng. = 845557.4
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - NED 03 SEC

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	334.4	-24.9	0.0015	-28.24	1.000	2.01
030	331.6	-22.1	0.0015	-28.24	1.000	2.01
060	325.5	-16.0	0.0015	-28.24	1.000	2.01
090	337.4	-27.9	0.0015	-28.24	1.000	2.01
120	329.5	-20.0	0.0015	-28.24	1.000	2.01
150	318.4	-8.9	0.0015	-28.24	1.000	2.01
180	292.1	17.4	0.0015	-28.24	1.000	2.01
210	314.1	-4.6	0.0015	-28.24	1.000	2.01
240	298.5	11.0	0.0015	-28.24	1.000	2.01
270	308.6	0.9	0.0015	-28.24	1.000	2.01
300	315.4	-5.9	0.0015	-28.24	1.000	2.01
330	325.9	-16.4	0.0015	-28.24	1.000	2.01

Ave El= 319.29 M HAAT= -9.79 M AMSL= 309.5 M

NAD 1983 to NAD 1927 Conversion:

	Latitude	**Longitude**
NAD 27 datum values:	39 49 41.7	84 55 57.5
NAD 83 datum values:	39 49 41.9	84 55 57.4

Various Coordinate Conversion Calculations (NAD 1983):

Position Type	Lat Lon
Degrees Lat Long	39.8283056°, -084.9326111°
Degrees Minutes	39°49.69833', -084°55.95667'
Degrees Minutes Seconds	39°49'41.9000", -084°55'57.4000"
UTM	16S 676919mE 4410745mN
UTM centimeter	16S 676919.85mE 4410745.94mN
MGRS	16SFK7691910745
Grid North	1.3°
GARS	191LV17
Maidenhead	EM79MT88CT00
GEOREF	GJFK04044969

Richmond, IN - W233AN (STA)
Proposed Special Temporary Authority Allocation Study

Star Educational Media Network, Inc.

REFERENCE CH# 233D - 94.5 MHz, Pwr= 0.0015 kW, HAAT= -9.8 M, COR= 309.5 M DISPLAY DATES
39 49 41.90 N. Average Protected F(50-50)= 2.01 km Data 05-12-23
84 55 57.40 W. Omni-directional Search 05-12-23

CH CALL / CITY	TYPE ANT / STATE	AZI / <--	DIST / FILE #	LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* / (Overlap in km)	*OUT*
233A WYDB Englewood	LIC ZCN OH	91.0 271.4	58.47 BLH20061114ABX	39 49 03.20 84 14 52.80	3.600 130	80.5 401	26.3 Aloha Station Trust II LLC	-24.0*	25.5
233D W233AN Richmond	LIC _CN IN	89.0 269.0	3.80 BLFT20060508AAS	39 49 44.10 84 53 16.80	0.120 -3	316	---Reference--- Star Educational Media Net		
234B WFBQ Indianapolis	LIC _CN IN	274.3 93.5	108.51 BLH19980707KB	39 53 43.10 86 12 04.00	58.000 245	93.9 502	77.8 Ihm Licenses, LLC	12.5	26.8
232A WIFE-FM Rushville	LIC _CN IN	254.4 74.0	49.91 BMLH20000913AAR	39 42 22.20 85 29 40.90	1.050 171	34.7 462	23.2 Rodgers Broadcasting Corp.	13.3	23.9
235B WREW Fairfield	LIC _CN OH	153.1 333.4	78.17 BLH19921014KE	39 12 01.20 84 31 21.70	10.500 322	5.1 542	64.1 Cincinnati FCC License Sub	71.1	13.9
231B WNNF Cincinnati	LIC _CN OH	154.8 335.1	87.35 BLH20070313AAT	39 06 59.20 84 30 06.80	16.000 264	5.4 483	63.6 Cumulus Licensing LLC	79.9	23.4
233C1 WMXL Lexington	LIC NCN KY	167.3 347.6	194.20 BLH20061113ADA	38 07 24.30 84 26 36.80	85.000 194	159.1 485	63.3 Ihm Licenses, LLC	32.8	124.4
233D W233BG Cincinnati	LIC DVN OH	154.8 335.1	87.35 BLFT20130117ACF	39 06 59.20 84 30 06.80	0.099 236	48.7 450	14.7 Ihm Licenses, LLC	36.7	66.3
232A WKKI Celina	LIC _CN OH	19.3 199.5	87.72 BLH20090831ADP	40 34 21.20 84 35 21.80	5.200 108	41.3 369	26.8 The Sonshine Communication	44.5	58.1
230B1 WNDX Lawrence	LIC NCN IN	270.3 89.6	89.49 BLH20120301AEG	39 49 39.10 85 58 50.90	8.400 140	3.4 393	39.9 Radio License Holding Src	84.1	49.5
236B WAJI Fort Wayne	LIC _CN IN	351.3 171.2	143.46 BLH19900226KE	41 06 13.10 85 11 27.80	39.000 207	6.6 453	69.5 Sarkes Tarzian, Inc.	134.8	73.8
231D W231AZ Sidney	LIC _CN OH	50.1 230.6	88.62 BLFT20070110ABD	40 20 14.20 84 07 50.80	0.027 82	0.4 389	6.9 Educational Media Foundati	86.2	81.6
234B WSNY Columbus	LIC _CN OH	83.8 265.0	163.25 BLH19850605KO	39 58 16.20 83 01 39.60	22.000 230	74.5 475	63.1 Franklin Communications, I	86.8	96.3
236D W236CR Indianapolis	LIC DCN IN	274.0 93.2	108.85 0000117985	39 53 25.00 86 12 20.00	0.250	1.1 493	20.9 Radio One Of Indiana, LLC	105.7	87.8
232L1 WIWU-LP Marion	LIC _CN IN	321.2 140.8	99.06 BLL20071001AJP	40 31 15.10 85 39 58.90	0.100 25	281	89.1 Indiana Wesleyan Universit		90.6

Terrain database is NED 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: AM tower

Asher Broadcast Consulting LLC
justinasher@consultant.com
1(202)875-2986

FM1 SERIES

LOW POWER FM ANTENNAS

Product Specifications:

Frequency Range	88 – 108 MHz
Polarization	Circular
Power Rating	500 Watts per bay
System Input	Type N Male or 7/8" EIA
VSWR	1.3:1 ± 150 kHz
Dimensions	H 29" / W 16" / D 21"

Features:

•**BUILT WITH LOW POWER BROADCASTERS IN MIND.** Rated at 500 watts per bay with a maximum of 3 kW for six bays. Power divider required for three or more bays.

•**CENTER OF TUNING.** Ranges under 1.1:1 VSWR.

•**RUGGED CONSTRUCTION.** Each bay is constructed of high grade stainless steel which provides excellent corrosion resistance and optimal mechanical properties.

•**PRESSURIZATION IS NOT REQUIRED.**

•**OMNI DIRECTIONAL OR DIRECTIONAL PATTERNS.** Many standard patterns available. SWR, Inc. can also provide patterns for specific coverage areas and FCC filing documentation.

•**WEATHERIZATION (OPTIONAL).** Radomes or electrical deicers available for areas that experience periods of heavy icing and/or snow conditions.

•**STANDARD MOUNTING BRACKETS.** Fits up to 4" tower leg or pipe. Supplied with antenna.

•**WARRANTY.** 2-year limited warranty on defects and workmanship to the original purchaser.

Notes:
1. Power rating is based on 40 degrees C ambient. Degeneration occurs above 2000 ft.
2. Antenna weight and windload are based on mid-band operation (98.1 MHz).
3. Antennas with 3 or more bays come with input power divider.
4. SWR, Inc. maintains a continuous program of product improvement and therefore reserves the right to change specifications without notice.

Full Wave Spaced Models
Electrical and Mechanical Specifications

Bays	Power Rating (watts)	Power Gain	dB Gain	Net. Weight (lbs)	Windload (lbs)
1	500	0.441	-3.556	9	25
2	1000	.959	-0.182	18	50
3	1500	1.495	1.746	27	75
4	2000	2.044	3.105	36	100
5	2000	2.590	4.133	45	125
6	2000	3.160	4.997	54	150
8	2000	4.311	6.346	63	175
10	2000	5.456	7.369	72	200

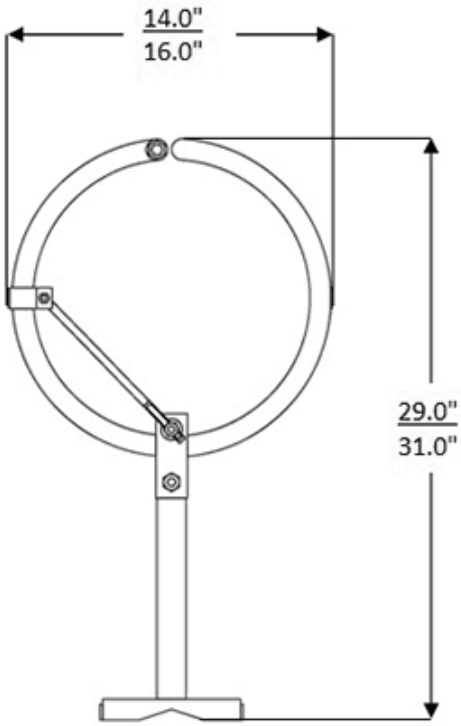
Half Wave Spaced Models
Electrical and Mechanical Specifications

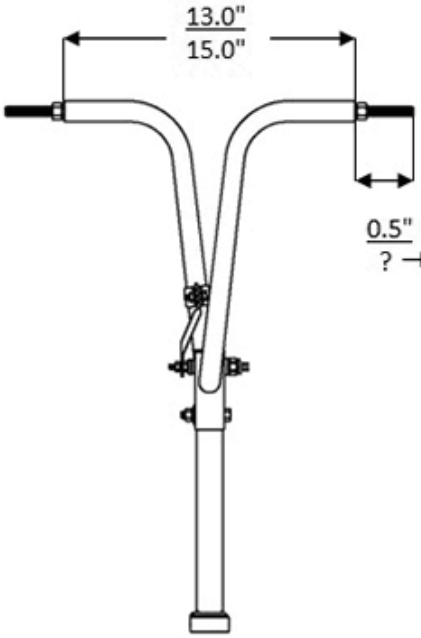
Bays	Power Rating (watts)	Power Gain	dB Gain	Net. Weight (lbs)	Windload (lbs)
1	500	0.441	-3.556	9	25
2	1000	0.695	-1.580	18	50
3	1500	1.012	0.052	27	75
4	2000	1.313	1.183	36	100
5	2000	1.623	2.103	45	125
6	2000	1.924	2.842	54	150
8	2000	2.526	4.028	63	175
10	2000	3.129	4.954	72	200

3/4-Wave Spaced Models
Electrical and Mechanical Specifications

Bays	Power Rating (watts)	Power Gain	dB Gain	Net. Weight (lbs)	Windload (lbs)
1	500	0.441	-3.556	9	25
2	1000	0.935	-0.292	18	50
3	1500	1.396	1.449	27	75
4	2000	1.845	2.660	36	100
5	2000	2.301	3.619	45	125
6	2000	2.756	4.403	54	150
8	2000	3.664	5.64	63	175
10	2000	4.590	6.618	72	200

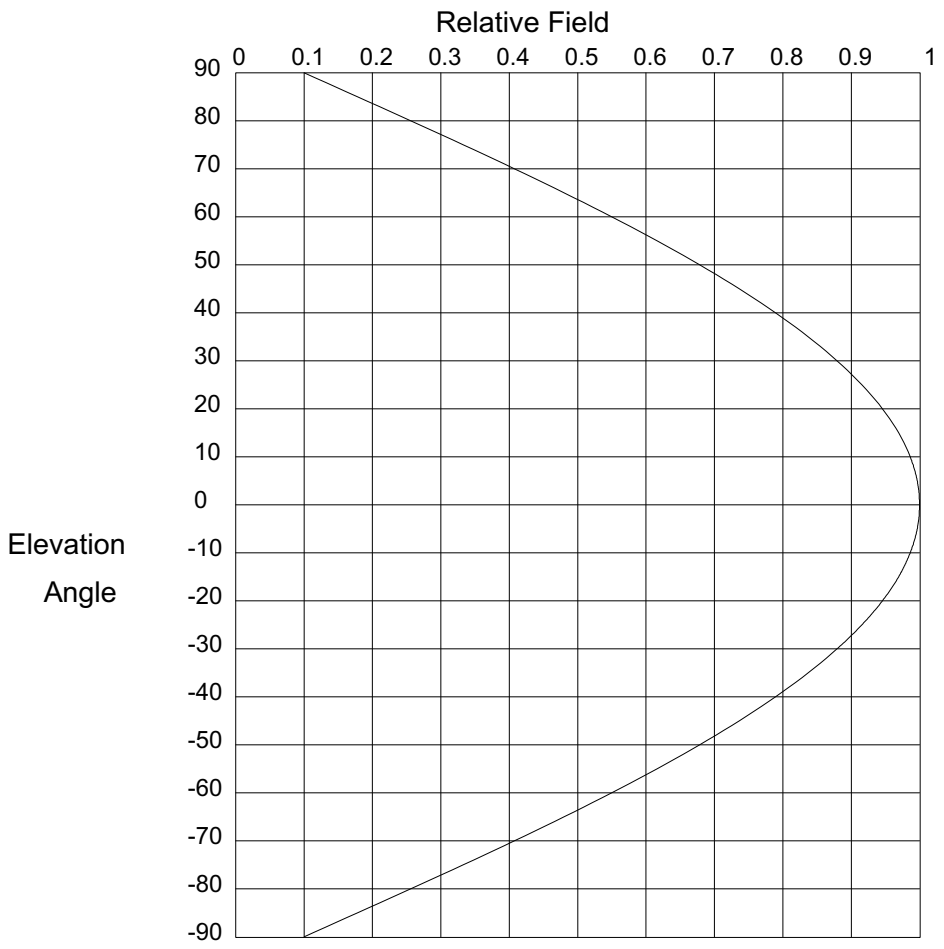
Dimensions





NOTE:
Minimum: 0.5" to accommodate clamping nut and probe.
Maximum: (?) Varies according to frequency. "Should not" exceed 6"

Manufacturer's Antenna Documentation
(Public Record Copy)



Elevation Pattern

Scale: Linear

Units: Field, Relative

Systems With Reliability

CLIENT:

Date: 11/28/2016

ANTENNA TYPE: FMxx/1

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 0.883/-0.539 dBd

Beam Tilt (Deg.) : *0*

DIRECTIVITY(Horiz): 0.883/-0.539 dBd

Null Fill(s)(%) : *0, 0, 0*

Micro-Tek Eng. Ver. 2.6

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
90.0	.10 (-20)	52.0	.654 (-3.687)	14.0	.973 (-0.235)
89.0	.116 (-18.733)	51.0	.666 (-3.525)	13.0	.977 (-0.203)
88.0	.131 (-17.627)	50.0	.679 (-3.369)	12.0	.98 (-0.173)
87.0	.147 (-16.648)	49.0	.69 (-3.217)	11.0	.983 (-0.145)
86.0	.163 (-15.768)	48.0	.702 (-3.071)	10.0	.986 (-0.12)
85.0	.178 (-14.97)	47.0	.714 (-2.928)	9.8	.987 (-0.115)
84.0	.194 (-14.241)	46.0	.725 (-2.791)	9.6	.987 (-0.11)
83.0	.21 (-13.569)	45.0	.736 (-2.658)	9.4	.988 (-0.106)
82.0	.225 (-12.946)	44.0	.747 (-2.529)	9.2	.988 (-0.101)
81.0	.241 (-12.367)	43.0	.758 (-2.404)	9.0	.989 (-0.097)
80.0	.256 (-11.826)	42.0	.769 (-2.283)	8.8	.989 (-0.093)
79.0	.272 (-11.317)	41.0	.779 (-2.167)	8.6	.99 (-0.088)
78.0	.287 (-10.839)	40.0	.789 (-2.054)	8.4	.99 (-0.084)
77.0	.302 (-10.387)	39.0	.799 (-1.944)	8.2	.991 (-0.08)
76.0	.318 (-9.959)	38.0	.809 (-1.839)	8.0	.991 (-0.076)
75.0	.333 (-9.553)	37.0	.819 (-1.737)	7.8	.992 (-0.073)
74.0	.348 (-9.167)	36.0	.828 (-1.638)	7.6	.992 (-0.069)
73.0	.363 (-8.799)	35.0	.837 (-1.543)	7.4	.993 (-0.065)
72.0	.378 (-8.448)	34.0	.846 (-1.451)	7.2	.993 (-0.062)
71.0	.393 (-8.112)	33.0	.855 (-1.363)	7.0	.993 (-0.058)
70.0	.408 (-7.791)	32.0	.863 (-1.277)	6.8	.994 (-0.055)
69.0	.423 (-7.483)	31.0	.871 (-1.195)	6.6	.994 (-0.052)
68.0	.437 (-7.187)	30.0	.879 (-1.116)	6.4	.994 (-0.049)
67.0	.452 (-6.904)	29.0	.887 (-1.04)	6.2	.995 (-0.046)
66.0	.466 (-6.631)	28.0	.895 (-0.967)	6.0	.995 (-0.043)
65.0	.48 (-6.369)	27.0	.902 (-0.897)	5.8	.995 (-0.04)
64.0	.495 (-6.116)	26.0	.909 (-0.83)	5.6	.996 (-0.037)
63.0	.509 (-5.873)	25.0	.916 (-0.765)	5.4	.996 (-0.035)
62.0	.523 (-5.638)	24.0	.922 (-0.704)	5.2	.996 (-0.032)
61.0	.536 (-5.411)	23.0	.928 (-0.645)	5.0	.997 (-0.03)
60.0	.55 (-5.193)	22.0	.934 (-0.589)	4.8	.997 (-0.027)
59.0	.564 (-4.982)	21.0	.94 (-0.535)	4.6	.997 (-0.025)
58.0	.577 (-4.778)	20.0	.946 (-0.485)	4.4	.997 (-0.023)
57.0	.59 (-4.58)	19.0	.951 (-0.437)	4.2	.998 (-0.021)
56.0	.603 (-4.39)	18.0	.956 (-0.391)	4.0	.998 (-0.019)
55.0	.616 (-4.205)	17.0	.961 (-0.348)	3.8	.998 (-0.017)
54.0	.629 (-4.027)	16.0	.965 (-0.308)	3.6	.998 (-0.015)
53.0	.642 (-3.854)	15.0	.969 (-0.271)	3.4	.998 (-0.014)

Systems With Reliability

CLIENT:

Date: 11/28/2016

ANTENNA TYPE: FMxx/1

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 0.883/-0.539 dBd

Beam Tilt (Deg.) : *0*

DIRECTIVITY(Horiz): 0.883/-0.539 dBd

Null Fill(s)(%) : *0, 0, 0*

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.999 (-0.012)	-4.4	.997 (-0.023)	-12.0	.98 (-0.173)
3.0	.999 (-0.011)	-4.6	.997 (-0.025)	-12.2	.98 (-0.178)
2.8	.999 (-0.009)	-4.8	.997 (-0.027)	-12.4	.979 (-0.184)
2.6	.999 (-0.008)	-5.0	.997 (-0.03)	-12.6	.978 (-0.19)
2.4	.999 (-0.007)	-5.2	.996 (-0.032)	-12.8	.978 (-0.196)
2.2	.999 (-0.006)	-5.4	.996 (-0.035)	-13.0	.977 (-0.203)
2.0	.999 (-0.005)	-5.6	.996 (-0.037)	-13.2	.976 (-0.209)
1.8	1.00 (-0.004)	-5.8	.995 (-0.04)	-13.4	.975 (-0.215)
1.6	1.00 (-0.003)	-6.0	.995 (-0.043)	-13.6	.975 (-0.222)
1.4	1.00 (-0.002)	-6.2	.995 (-0.046)	-13.8	.974 (-0.229)
1.2	1.00 (-0.002)	-6.4	.994 (-0.049)	-14.0	.973 (-0.235)
1.0	1.00 (-0.001)	-6.6	.994 (-0.052)	-14.2	.973 (-0.242)
.8	1.00 (-0.001)	-6.8	.994 (-0.055)	-14.4	.972 (-0.249)
.6	1.00 (0)	-7.0	.993 (-0.058)	-14.6	.971 (-0.256)
.4	1.00 (0)	-7.2	.993 (-0.062)	-14.8	.97 (-0.263)
.2	1.00 (0)	-7.4	.993 (-0.065)	-15.0	.969 (-0.271)
.0	1.00 (0)	-7.6	.992 (-0.069)	-15.2	.969 (-0.278)
-.2	1.00 (0)	-7.8	.992 (-0.073)	-15.4	.968 (-0.285)
-.4	1.00 (0)	-8.0	.991 (-0.076)	-15.6	.967 (-0.293)
-.6	1.00 (0)	-8.2	.991 (-0.08)	-15.8	.966 (-0.3)
-.8	1.00 (-0.001)	-8.4	.99 (-0.084)	-16.0	.965 (-0.308)
-1.0	1.00 (-0.001)	-8.6	.99 (-0.088)	-16.2	.964 (-0.316)
-1.2	1.00 (-0.002)	-8.8	.989 (-0.093)	-16.4	.963 (-0.324)
-1.4	1.00 (-0.002)	-9.0	.989 (-0.097)	-16.6	.962 (-0.332)
-1.6	1.00 (-0.003)	-9.2	.988 (-0.101)	-16.8	.962 (-0.34)
-1.8	1.00 (-0.004)	-9.4	.988 (-0.106)	-17.0	.961 (-0.348)
-2.0	.999 (-0.005)	-9.6	.987 (-0.11)	-17.2	.96 (-0.357)
-2.2	.999 (-0.006)	-9.8	.987 (-0.115)	-17.4	.959 (-0.365)
-2.4	.999 (-0.007)	-10.0	.986 (-0.12)	-17.6	.958 (-0.374)
-2.6	.999 (-0.008)	-10.2	.986 (-0.124)	-17.8	.957 (-0.383)
-2.8	.999 (-0.009)	-10.4	.985 (-0.129)	-18.0	.956 (-0.391)
-3.0	.999 (-0.011)	-10.6	.985 (-0.134)	-18.2	.955 (-0.4)
-3.2	.999 (-0.012)	-10.8	.984 (-0.14)	-18.4	.954 (-0.409)
-3.4	.998 (-0.014)	-11.0	.983 (-0.145)	-18.6	.953 (-0.418)
-3.6	.998 (-0.015)	-11.2	.983 (-0.15)	-18.8	.952 (-0.427)
-3.8	.998 (-0.017)	-11.4	.982 (-0.156)	-19.0	.951 (-0.437)
-4.0	.998 (-0.019)	-11.6	.982 (-0.161)	-19.2	.95 (-0.446)
-4.2	.998 (-0.021)	-11.8	.981 (-0.167)	-19.4	.949 (-0.456)

Systems With Reliability

CLIENT:
Date: 11/28/2016

ANTENNA TYPE: FMxx/1
FREQUENCY: 98.1 MHz
PATTERN POL.: Circular
DIRECTIVITY(Peak): 0.883/-0.539 dBd
Beam Tilt (Deg.) : *0*
DIRECTIVITY(Horiz): 0.883/-0.539 dBd
Null Fill(s)(%) : *0, 0, 0*

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.948 (-0.465)	-27.2	.90 (-0.911)	-54.0	.629 (-4.027)
-19.8	.947 (-0.475)	-27.4	.899 (-0.924)	-55.0	.616 (-4.205)
-20.0	.946 (-0.485)	-27.6	.898 (-0.939)	-56.0	.603 (-4.39)
-20.2	.945 (-0.495)	-27.8	.896 (-0.953)	-57.0	.59 (-4.58)
-20.4	.944 (-0.505)	-28.0	.895 (-0.967)	-58.0	.577 (-4.778)
-20.6	.942 (-0.515)	-28.2	.893 (-0.981)	-59.0	.564 (-4.982)
-20.8	.941 (-0.525)	-28.4	.892 (-0.996)	-60.0	.55 (-5.193)
-21.0	.94 (-0.535)	-28.6	.89 (-1.01)	-61.0	.536 (-5.411)
-21.2	.939 (-0.546)	-28.8	.889 (-1.025)	-62.0	.523 (-5.638)
-21.4	.938 (-0.556)	-29.0	.887 (-1.04)	-63.0	.509 (-5.873)
-21.6	.937 (-0.567)	-29.2	.886 (-1.055)	-64.0	.495 (-6.116)
-21.8	.936 (-0.578)	-29.4	.884 (-1.07)	-65.0	.48 (-6.369)
-22.0	.934 (-0.589)	-29.6	.883 (-1.085)	-66.0	.466 (-6.631)
-22.2	.933 (-0.6)	-29.8	.881 (-1.101)	-67.0	.452 (-6.904)
-22.4	.932 (-0.611)	-30.0	.879 (-1.116)	-68.0	.437 (-7.187)
-22.6	.931 (-0.622)	-31.0	.871 (-1.195)	-69.0	.423 (-7.483)
-22.8	.93 (-0.633)	-32.0	.863 (-1.277)	-70.0	.408 (-7.791)
-23.0	.928 (-0.645)	-33.0	.855 (-1.363)	-71.0	.393 (-8.112)
-23.2	.927 (-0.656)	-34.0	.846 (-1.451)	-72.0	.378 (-8.448)
-23.4	.926 (-0.668)	-35.0	.837 (-1.543)	-73.0	.363 (-8.799)
-23.6	.925 (-0.68)	-36.0	.828 (-1.638)	-74.0	.348 (-9.167)
-23.8	.923 (-0.692)	-37.0	.819 (-1.737)	-75.0	.333 (-9.553)
-24.0	.922 (-0.704)	-38.0	.809 (-1.839)	-76.0	.318 (-9.959)
-24.2	.921 (-0.716)	-39.0	.799 (-1.944)	-77.0	.302 (-10.387)
-24.4	.92 (-0.728)	-40.0	.789 (-2.054)	-78.0	.287 (-10.839)
-24.6	.918 (-0.74)	-41.0	.779 (-2.167)	-79.0	.272 (-11.317)
-24.8	.917 (-0.753)	-42.0	.769 (-2.283)	-80.0	.256 (-11.826)
-25.0	.916 (-0.765)	-43.0	.758 (-2.404)	-81.0	.241 (-12.367)
-25.2	.914 (-0.778)	-44.0	.747 (-2.529)	-82.0	.225 (-12.946)
-25.4	.913 (-0.791)	-45.0	.736 (-2.658)	-83.0	.21 (-13.569)
-25.6	.912 (-0.803)	-46.0	.725 (-2.791)	-84.0	.194 (-14.241)
-25.8	.91 (-0.816)	-47.0	.714 (-2.928)	-85.0	.178 (-14.97)
-26.0	.909 (-0.83)	-48.0	.702 (-3.071)	-86.0	.163 (-15.768)
-26.2	.908 (-0.843)	-49.0	.69 (-3.217)	-87.0	.147 (-16.648)
-26.4	.906 (-0.856)	-50.0	.679 (-3.369)	-88.0	.131 (-17.627)
-26.6	.905 (-0.87)	-51.0	.666 (-3.525)	-89.0	.116 (-18.733)
-26.8	.903 (-0.883)	-52.0	.654 (-3.687)	-90.0	.10 (-20)
-27.0	.902 (-0.897)	-53.0	.642 (-3.854)	90.0	.00 (-50)

Systems With Reliability

CLIENT:
Date: 11/28/2016
ANTENNA TYPE: FMxx/1
FREQUENCY: 98.1 MHz
PATTERN POL.: Circular
DIRECTIVITY(Peak): 0.883/-0.539 dBd
Beam Tilt (Deg.) : *0*
DIRECTIVITY(Horiz): 0.883/-0.539 dBd
Null Fill(s)(%) : *0, 0, 0*