

License Certifications Attachment
Directional Antenna Manufacturer/Model Change
UniMas Chicago, LLC - WXFT-DT, Aurora, IL

WXFT-DT has installed a Micronetixx CS-2070-7211-24 (E/P) transmitting antenna, in lieu of the ERI ATW24H3-ESS-50S model specified in the station's construction permit. The azimuth radiation patterns of the Micronetixx and ERI antennas are essentially identical. The following Tables and Figures provide the azimuth and elevation radiation patterns for the Micronetixx antenna, along with a comparison to the radiation pattern of the authorized ERI antenna.

Table I and Figures 1 and 2 present the azimuth radiation patterns at horizontal and vertical polarization, for the Micronetixx antenna. Table I also presents a comparison of the horizontally-polarized azimuthal radiation of the installed Micronetixx antenna to the authorized ERI antenna. The azimuthal patterns are essentially identical, within 0.05 dB of each other.

Table II and Figures 3 and 4 present the elevation radiation pattern for the Micronetixx antenna, which is essentially identical for both polarizations.

Table I
Horizontal & Vertical Azimuth Pattern Data
and Comparison to Construction Permit Pattern Data
 UniMas Chicago, LLC - WXFT-DT, Aurora, IL

<u>Azimuth</u>	Micronetixx Antenna		CP Pattern	Micronetixx
	Relative Field		Rel. Field	Variance
	<u>Horizontal</u>	<u>Vertical</u>	<u>Horizontal</u>	<u>dB</u>
0	1.000	1.000	1	0.00
10	0.995	0.995	0.996	-0.01
20	0.985	0.975	0.985	0.00
30	0.965	0.950	0.967	-0.02
40	0.940	0.905	0.939	0.01
50	0.900	0.850	0.901	-0.01
60	0.850	0.785	0.851	-0.01
70	0.790	0.710	0.79	0.00
80	0.715	0.635	0.717	-0.02
90	0.635	0.550	0.634	0.01
100	0.550	0.470	0.548	0.03
110	0.465	0.390	0.467	-0.04
120	0.405	0.310	0.405	0.00
130	0.375	0.240	0.377	-0.05
140	0.385	0.175	0.386	-0.02
150	0.420	0.140	0.419	0.02
160	0.455	0.125	0.457	-0.04
170	0.485	0.130	0.485	0.00
180	0.495	0.130	0.496	-0.02
190	0.485	0.130	0.485	0.00
200	0.455	0.125	0.457	-0.04
210	0.420	0.140	0.419	0.02
220	0.385	0.175	0.386	-0.02
230	0.375	0.240	0.377	-0.05
240	0.405	0.310	0.405	0.00
250	0.465	0.390	0.467	-0.04
260	0.550	0.470	0.548	0.03
270	0.635	0.550	0.634	0.01
280	0.715	0.635	0.717	-0.02
290	0.790	0.710	0.79	0.00
300	0.850	0.785	0.851	-0.01
310	0.900	0.850	0.901	-0.01
320	0.940	0.905	0.939	0.01
330	0.965	0.950	0.967	-0.02
340	0.985	0.975	0.985	0.00
350	0.995	0.995	0.996	-0.01

Figure 1 - Horizontally Polarized Azimuthal Radiation Pattern

Micronetixx Azimuth Pattern 7211 Rotated 270 Degrees

H Pol Pattern

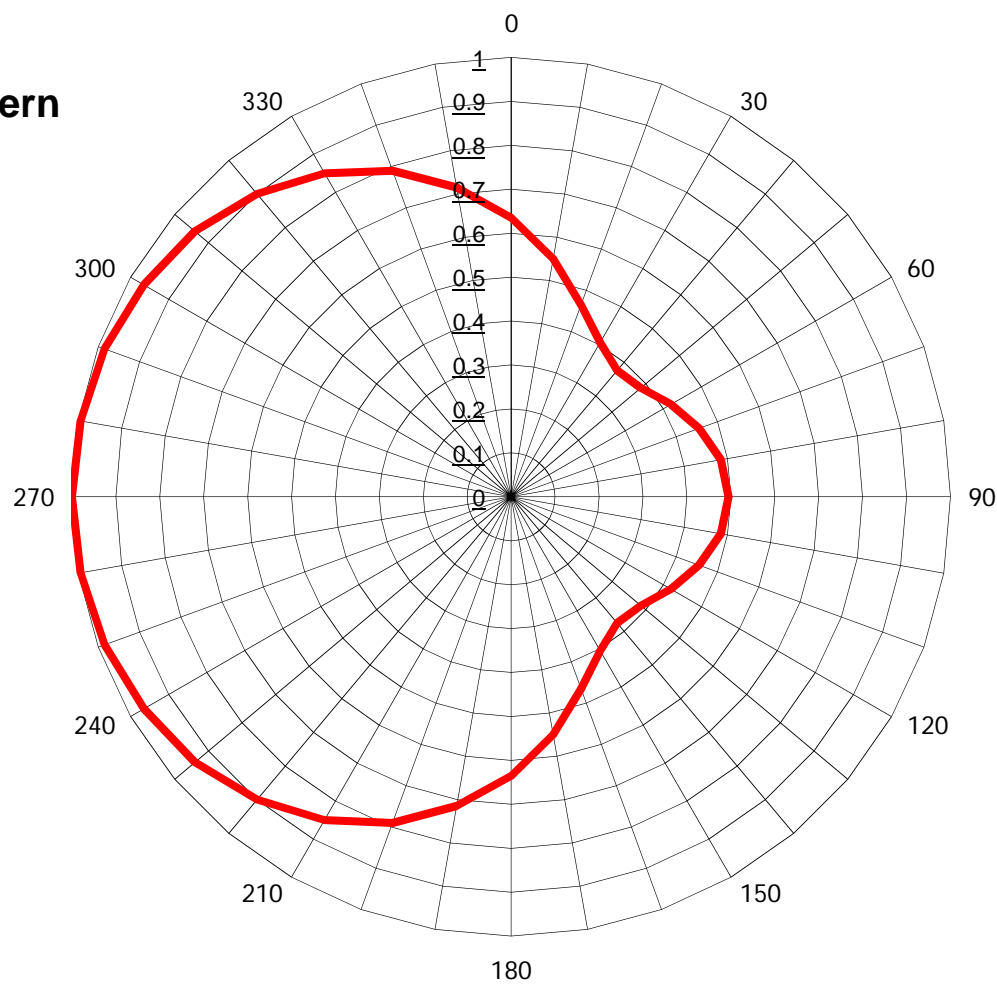


Figure 2 - Vertically Polarized Azimuthal Radiation Pattern

Micronetixx Azimuth Pattern 7211 Rotated 270 Degrees

V Pol Pattern

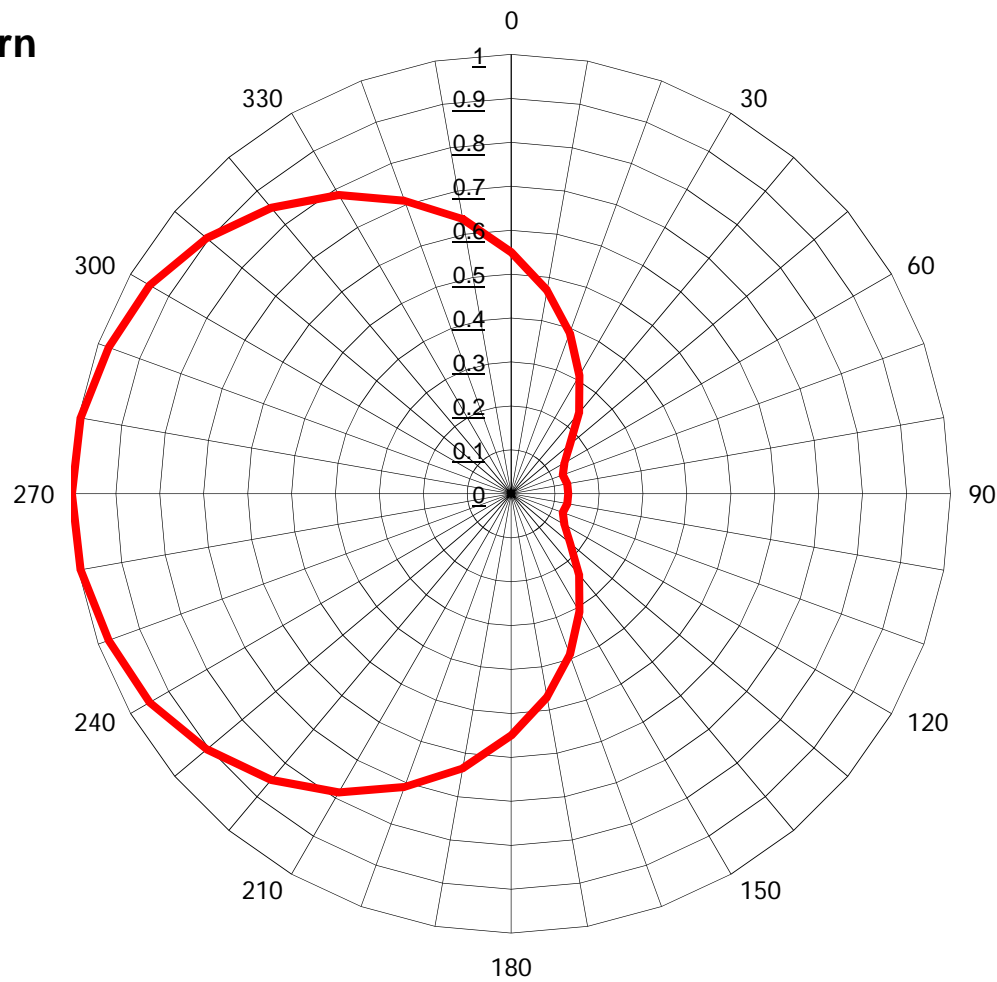
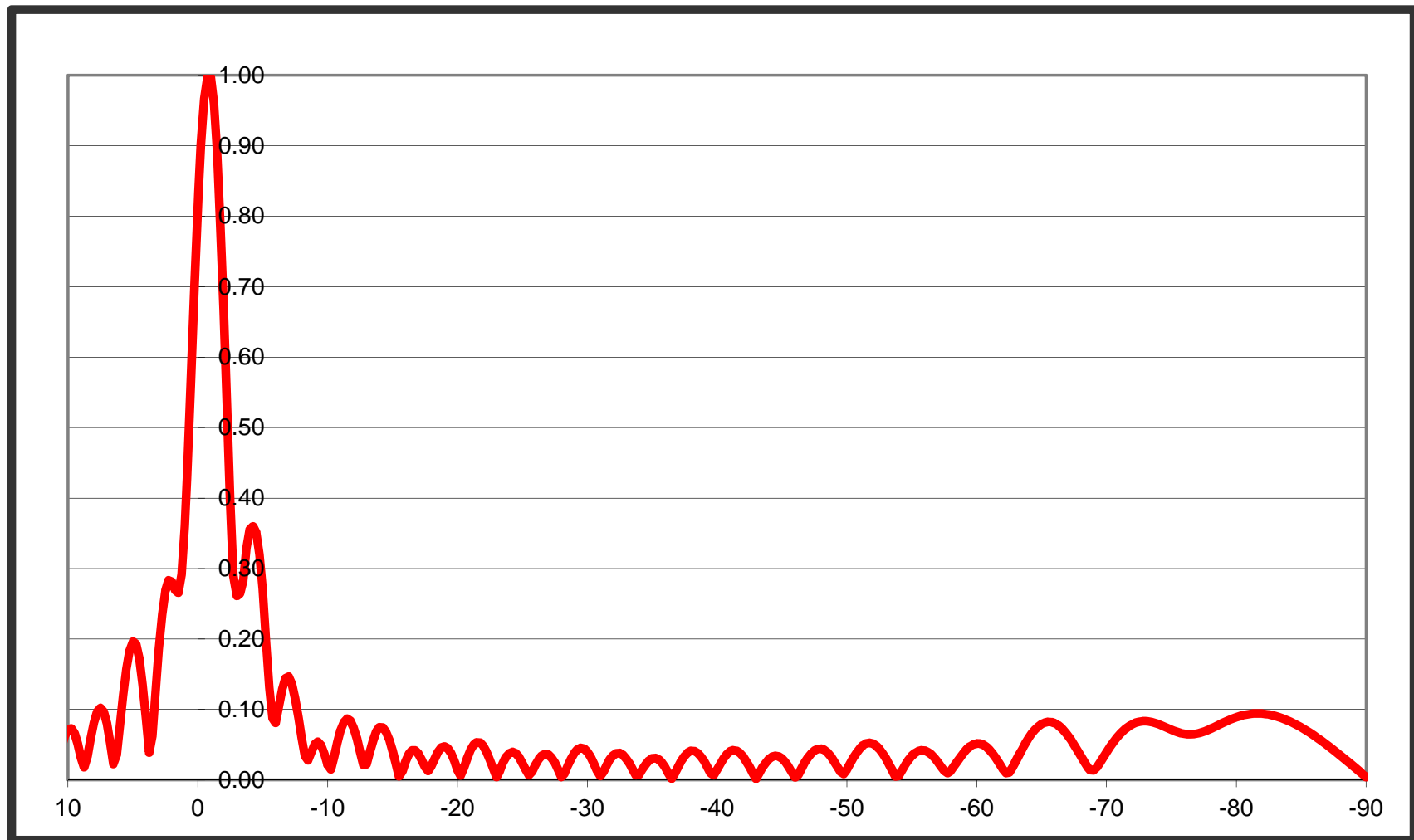


Table II
Elevation Pattern Data
 UniMas Chicago, LLC - WXFT-DT, Aurora, IL

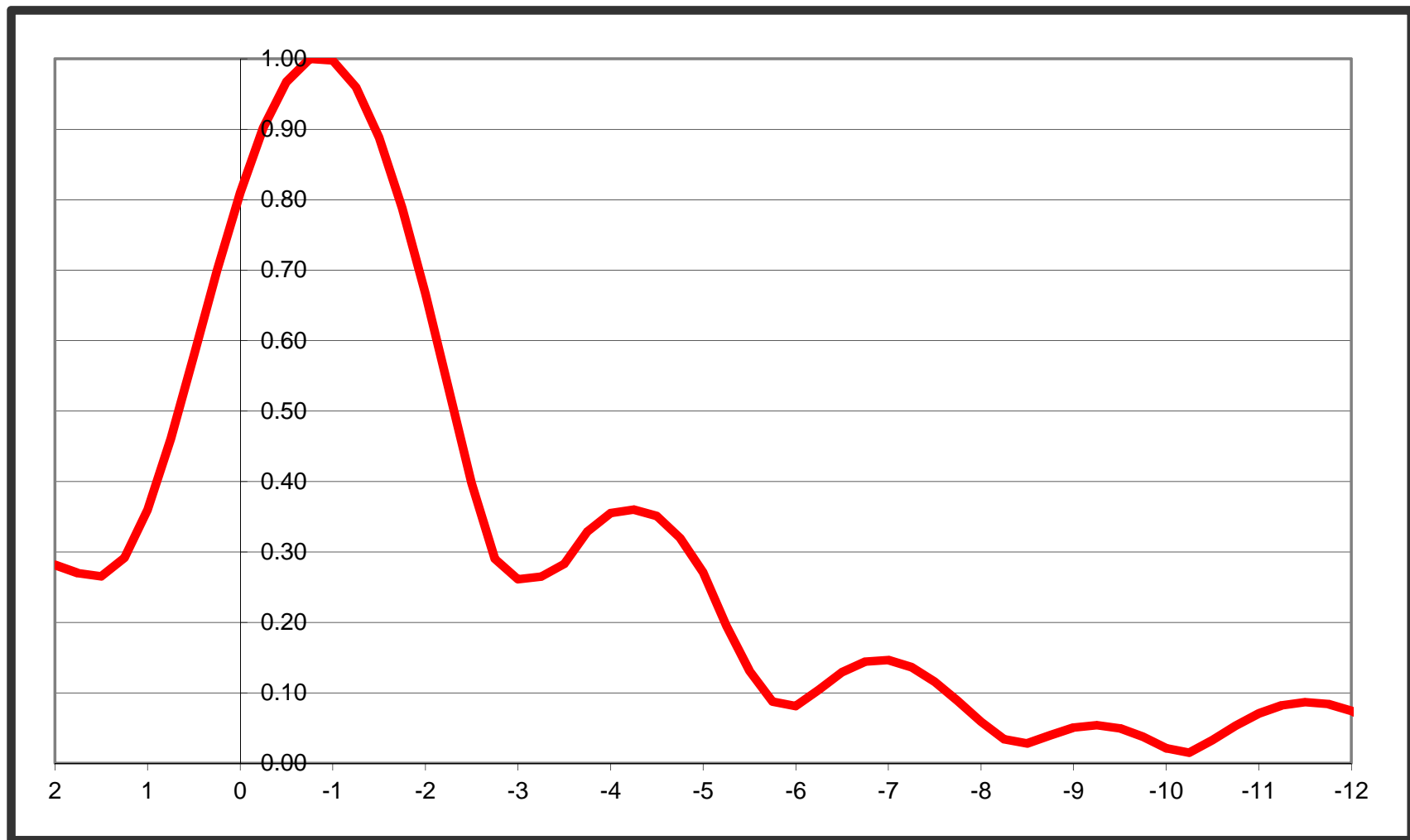
<u>Angle</u>	<u>Relative Field</u>	<u>Angle</u>	<u>Relative Field</u>	<u>Angle</u>	<u>Relative Field</u>	<u>Angle</u>	<u>Relative Field</u>
10	0.071	-3	0.261	-25	0.024	-58	0.013
9.5	0.066	-3.25	0.265	-26	0.021	-59	0.039
9	0.032	-3.5	0.283	-27	0.036	-60	0.052
8.5	0.034	-3.75	0.329	-28	0.004	-61	0.042
8	0.081	-4	0.355	-29	0.038	-62	0.016
7.5	0.102	-4.25	0.360	-30	0.040	-63	0.026
7	0.080	-4.5	0.351	-31	0.006	-64	0.059
6.5	0.023	-4.75	0.320	-32	0.035	-65	0.079
6	0.078	-5	0.271	-33	0.031	-66	0.080
5.5	0.157	-5.5	0.131	-34	0.007	-67	0.064
5	0.196	-6	0.081	-35	0.031	-68	0.034
4.5	0.172	-6.5	0.129	-36	0.018	-69	0.013
4	0.087	-7	0.146	-37	0.019	-70	0.039
3.5	0.062	-7.25	0.136	-38	0.041	-71	0.064
3	0.185	-8	0.059	-39	0.027	-72	0.079
2.5	0.268	-8.5	0.028	-40	0.014	-73	0.083
2	0.281	-9	0.050	-41	0.040	-74	0.079
1.5	0.265	-9.5	0.049	-42	0.033	-75	0.071
1	0.360	-10	0.021	-43	0.001	-76	0.065
0.75	0.461	-11	0.070	-44	0.030	-77	0.066
0.5	0.579	-12	0.074	-45	0.030	-78	0.073
0.25	0.699	-13	0.022	-46	0.004	-79	0.081
0	0.810	-14	0.075	-47	0.032	-80	0.089
-0.25	0.902	-15	0.041	-48	0.044	-81	0.093
-0.5	0.967	-16	0.026	-49	0.027	-82	0.094
-0.75	1.000	-17	0.037	-50	0.015	-83	0.091
-1	0.998	-18	0.020	-51	0.045	-84	0.084
-1.25	0.960	-19	0.048	-52	0.051	-85	0.074
-1.5	0.888	-20	0.015	-53	0.030	-86	0.063
-1.75	0.788	-21	0.042	-54	0.006	-87	0.049
-2	0.666	-22	0.048	-55	0.034	-88	0.035
-2.25	0.532	-23	0.004	-56	0.042	-89	0.020
-2.5	0.398	-24	0.038	-57	0.025	-90	0.004
-2.75	0.290						

Figure 3 - Elevation Radiation Pattern, Wide Scale



24 Bay elevation pattern with 0.75 degrees electrical beam tilt 10 to -90 degree plot

Figure 4 - Elevation Radiation Pattern, Expanded Scale



24 Bay elevation pattern with 0.75 degrees electrical beam tilt 2 to -12 degree plot