



MICRONETIXX

COMMUNICATIONS



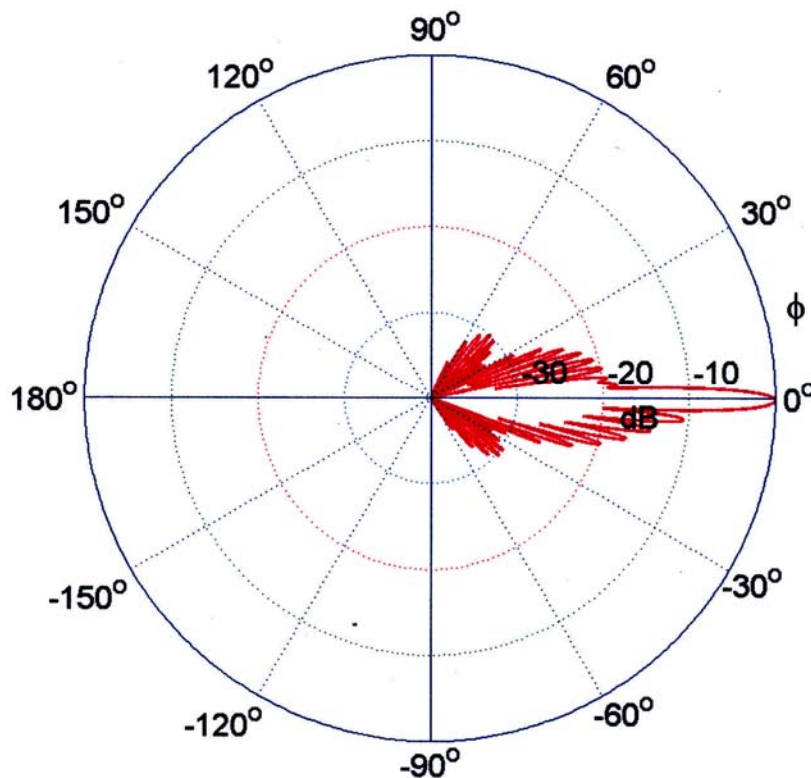
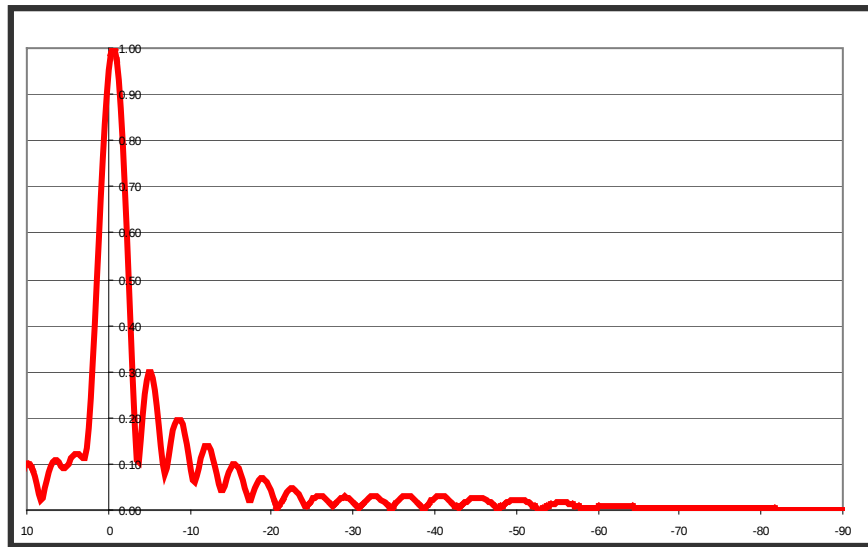
- **Up to 25 dB less RFR than standard antennas**
- **Wide Range of Standard And Custom Azimuth Patterns**
- **Available In 4 To 24 Bay Models, In 1 or 2 Bay Increments**
- **7.5 to 65 kW Input Power Ratings**
- **Excellent for DTV and 700 to 1500 MHz applications**

SFN Series Low RFR UHF Slot Antennas

Micronetixx Communications offers the SFN series of low RFR UHF slot antennas, which provide up to 25 dB less RFR at high depression angles. The antennas are available as side or top mounted models in a frequency range of 400 to 1500 MHz (Band IV). The SFN series models have power input ranges from 7.5 to 65 kW. The smaller antennas up to 8 bays are end fed, while the larger 8 bay and larger models are true center fed. Each antenna is custom built to the beam tilt and null fill specifications needed to ensure the best coverage. A wide range of azimuth patterns available, along with the choice of elliptical, circular, or horizontal polarization.

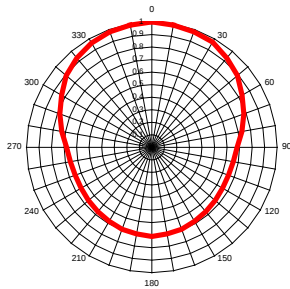
The SFN Series Advantage

The SFN series of antennas have greatly reduced RFR at high depression angles, making them perfect for mounting on building rooftops or on short towers. A typical 18 bay SFN antenna has a 40 dB ratio field difference between the main beam and 80 to 90 degrees above or below the main beam. Pictured below are Cartesian and Polar plots of a 18 bay SFN antenna.



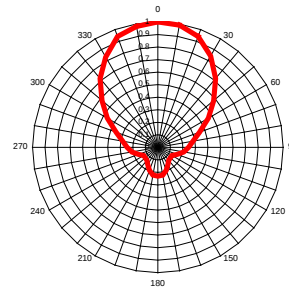
Sample Azimuth Patterns

Azimuth Pattern B Rotated 0 Degrees



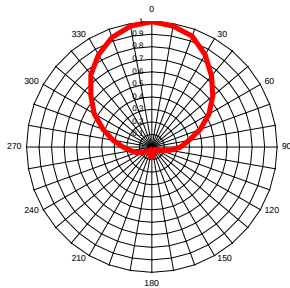
B Pattern – Gain 1.70 (2.30 dB)

Azimuth Pattern F Rotated 0 Degrees



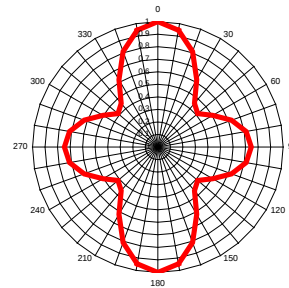
F Pattern – Gain 3.80 (5.80 dB)

Azimuth Pattern G Rotated 0 Degrees



G Pattern – Gain 3.60 (5.56 dB)

Azimuth Pattern 5771 Rotated 0 Degrees

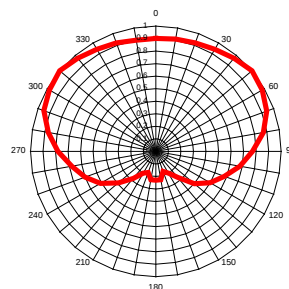


2771 Pattern – Gain 2.10 (3.22 dB)



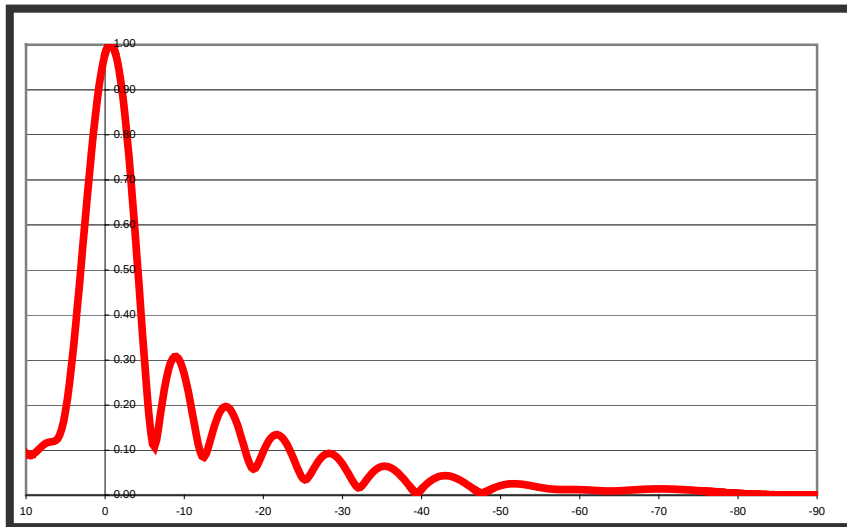
The picture to the left is a “D” pattern cardioid 2030 series antenna without the radome.

Azimuth Pattern D Rotated 0 Degrees

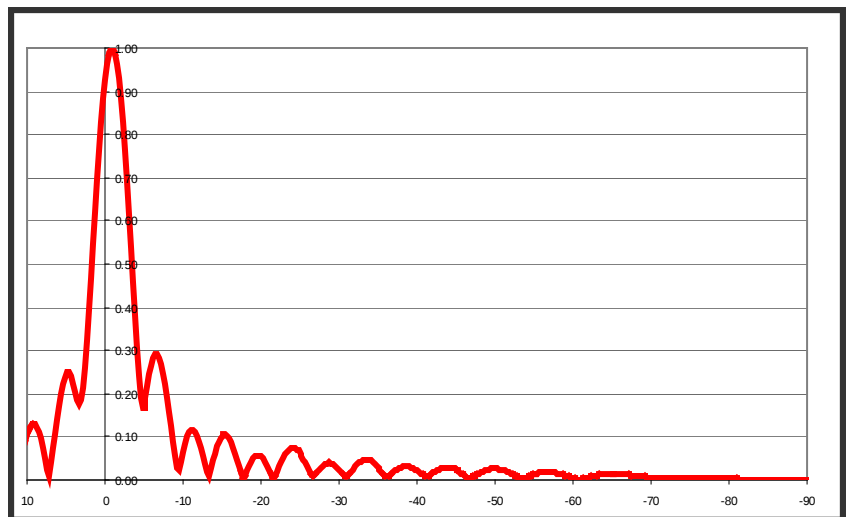


D Pattern – Gain 1.90 (2.70 dB)

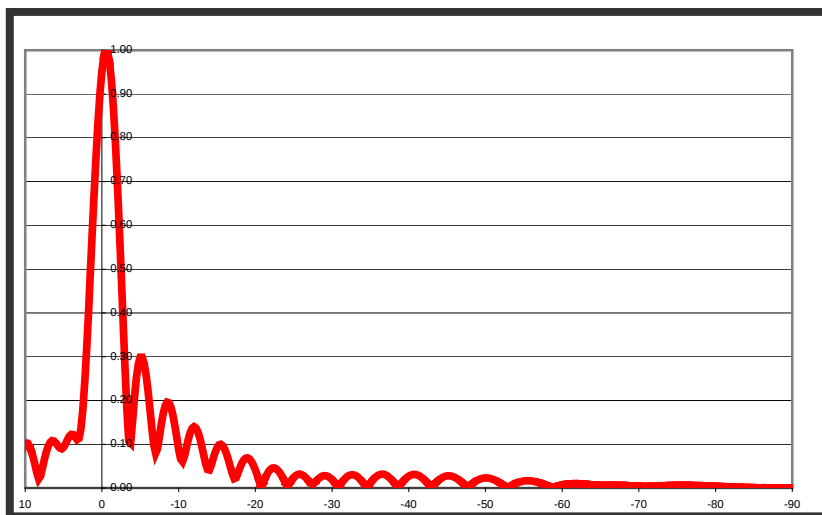
Sample Elevation Patterns



10 Bay 0.75 Degree Beam
Tilt. Gain 11.27 (10.52 dB)



14 Bay 1.0 Degree Beam
Tilt. Gain 16.16 (12.08 dB)



18 Bay 0.5 Degree Beam
Tilt. Gain 20.45 (13.10 dB)

SFN Series Antenna Options

Each SFN series antenna is built to the customer's specifications. These antennas are available in two bay increments, a 14, 18. or 22 bay antenna that other manufacturers do not offer, is standard to us. In addition to our full range of bay sizes, the SFN antennas are available in a wide range of azimuth patterns. In many cases, to maximize coverage for a client, we can modify or customize an azimuth pattern.

ATSC-M/H transmission is optimized with the use of circular or elliptical polarized antennas. We can build the SFN series with a vertical component from a 90H/10V to 50/50 CP ratio. In many cases, going to elliptical or circular polarization only adds 10 to 20 pounds of weight with no increase in wind load area.

For transmission sites with high environment conditions, we can customize the radome system to extend it out farther from the slots. The SFN series antennas use rugged UV stabilized Polyethylene for the radome. International Orange, Light Gray and White radomes are available.

The SFN series antennas are built using aluminum pylons, and parastitics, which are finished with a class 1A chromate treatment. For applications where building codes call for a painted structure, the antennas can be supplied painted to spec, or they can be field painted.



70 Commercial Street ~ Lewiston, ME 04240 V +1-207-786-2000
www.micronetixx.com/ANTENNAS
