



**MICRONETIXX**  
COMMUNICATIONS

## Selected Antenna Projects



Here is a 10 Bay SFN-2030 low RFR UHF slot antenna. This antenna produces a cardioid azimuth pattern, is circular polarized and has an input rating of 10 kW average. Peak ERP available from this antenna is 220 kW. The antenna is center fed with a 3-1/8" EIA connector.

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Final test of a 4 bay channel 3 (60 to 66 MHz) batwing antenna. The antenna was supplied with a 12 foot bury section, and forms the bottom half of a stacked batwing array 126 feet (38 Meters) long.

This is the first low RFR batwing antenna in the world. It uses scaled elements and 0.875 Lambda spacing to lower RFR and reduce the physical length of the antenna by about 10 feet.

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This is a 8 Bay channel 9 (186 – 192 MHz) side mounted slot antenna. This center fed antenna produces a wide cardioid azimuth pattern, The input power rating of the antenna is 25 kW average, which will produce a maximum ERP of 350 kW. The antenna is 48 feet (14.6 meters) long.

The antenna uses our SFNstar™ antenna technology. This reduces the radiation at high depression angles by up to 25 dB as compared to similar sized standard antennas. In addition to the much lower RFR, the elevation gain of this antenna is about 15% higher than a standard antenna.





This is a photo of a 6 bay, top mounted TPV VHF Pylon antenna taken while the antenna was being built. It's an omni-directional antenna with 3 slots per elevation, operating on channel 13 (210 to 216 MHz).

Above each slot are small stainless steel elements. These elements launch the field to make the antenna operate with circular Polarization. The white Teflon standoffs support the radome system.

These antennas are popular for VHF high-Band (Band III) operation due to the excellent frequency response and low group delay that DTV transmissions need.

The TPV series of antennas are also available in low RFR versions – the TPV-SFN. These antennas have a much lower RFR foot print than standard spaced antennas.

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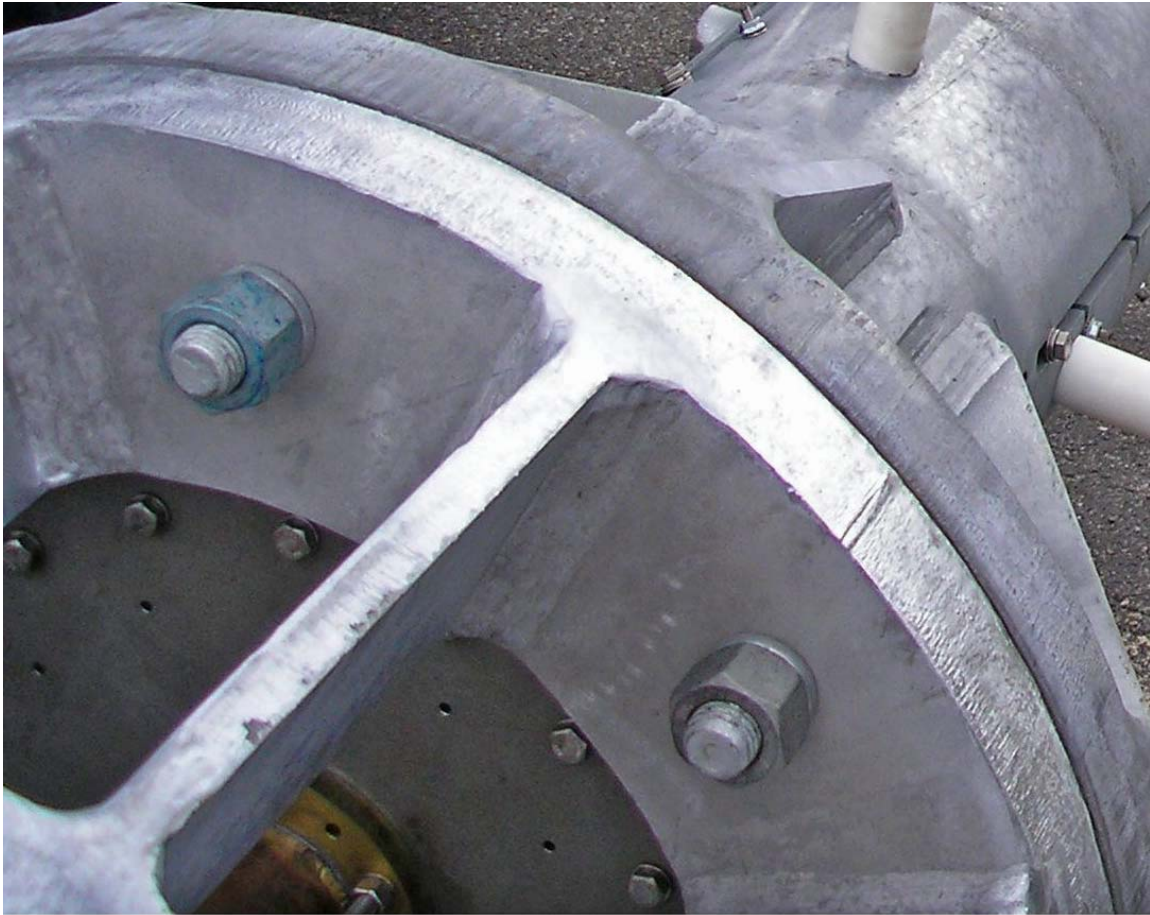


Here is a 14 Bay SFN-2030 antenna that's mounted on the pylon of the previous antenna. The center fed antenna is just 60 feet above the ground. With an analog peak ERP of 316 kW a standard antenna would have produced very high RFR levels on the ground. This antenna uses our SFNstar™ low RFR technology. On the next page is an RFR power density graph of this antenna compared to a standard spaced 14 bay antenna.

This antenna has an input power rating of 10 kW average power and can produce a maximum DTV ERP of 300 kW

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The photo shows a portion of the wedding cake along with the top antenna pylon. A wedding cake assembly allows the stacking of two antennas, and a bottom access area from the transmission line. A part of the EIA input flange is visible in the lower left hand corner of the picture. The antenna pylon above is bolted to the top of the wedding cake. The radome system has not been installed yet.

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This is the bottom half of a 32 Bay slot antenna being manufactured. The wings running along the antenna shape the azimuth pattern. In this case the pattern is a wide cardioid. The antenna is a CS-2030 series, with an input power rating of 10 kW average. The antenna can produce a maximum ERP of 600 kW.

When fully assembled the antenna will be 68 feet (20.72 meters) long and covered by a white radome system. This antenna was built to withstand 130 a basic 130 M.P.H. (209 kph) wind speed. The picture below show the finished antenna with radome and input power tee installed.





This picture shows a top mounted channel 8 antenna being loaded on a truck for delivery. This is a 3 bay low RFR model with elliptical polarization. The antenna will be mounted in a high environment at 10,800 feet above sea level. The radome system is pressurized.

Not shown in the picture is the bury section of the antenna. This antenna is replacing an old channel 5 batwing that had a bury socket. A wedding cake assembly on the top of the bury section allow the transmission line to enter the bottom of the antenna.



# Antenna Product Lines

- UHF (Band IV) Side Mount Slot Antennas
- UHF (Band IV) Top Mount Slot Antennas
- UHF (Band IV) low RFR Side Mount Antennas
- UHF (Band IV) low RFR Top Mount Antennas
- VHF (Band III) Side Mount Slot Antennas
- VHF (Band III) Top Mount Slot Antennas
- VHF (Band III) low RFR Side Mount Antennas
- VHF (Band III) low RFR Top Mount Antennas
- VHF (Band I, III) Batwing Style Antennas
- VHF (Band I, III) low RFR Batwing Style Antennas

For More Information, please contact us at:

Phone: 207-786-2000

Fax: 207-786-7444

Web: [www.micronetixxantennas.com](http://www.micronetixxantennas.com)

Email: [bammons@micronetixx.com](mailto:bammons@micronetixx.com)

Or [gharris@micronetixx.com](mailto:gharris@micronetixx.com)



70 Commercial Street ~ Lewiston, Maine 04240 USA +(207) 786-2000  
[www.micronetixxantennas.com](http://www.micronetixxantennas.com) E-Mail: [info@micronetixx.com](mailto:info@micronetixx.com)

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