

**Technical Data Sheet:      Antennas Direct Micron XG Antenna**

**Physical Data:**

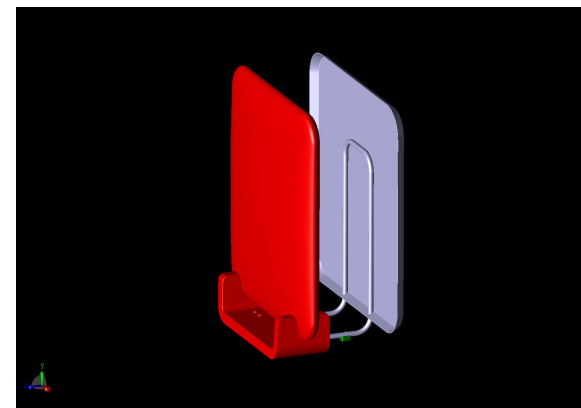
Dimensions:            Height = 10 in.            Width = 11 in.            Depth = 4.5 in.  
 Weight:                    TBD lbs.

**Electrical Data:**

Band:                    UHF                    470 to 698 MHz            Channels 14 - 51  
 Impedance:            75 ohm  
 Connector:            F-Male

**Performance Data:**

Peak Gain:            8.4 dBi                    @ 550 MHz  
 VSWR:                    4.0 Max, 2.5 typical    470 to 698 MHz



*Illustration 1: Micron XG*

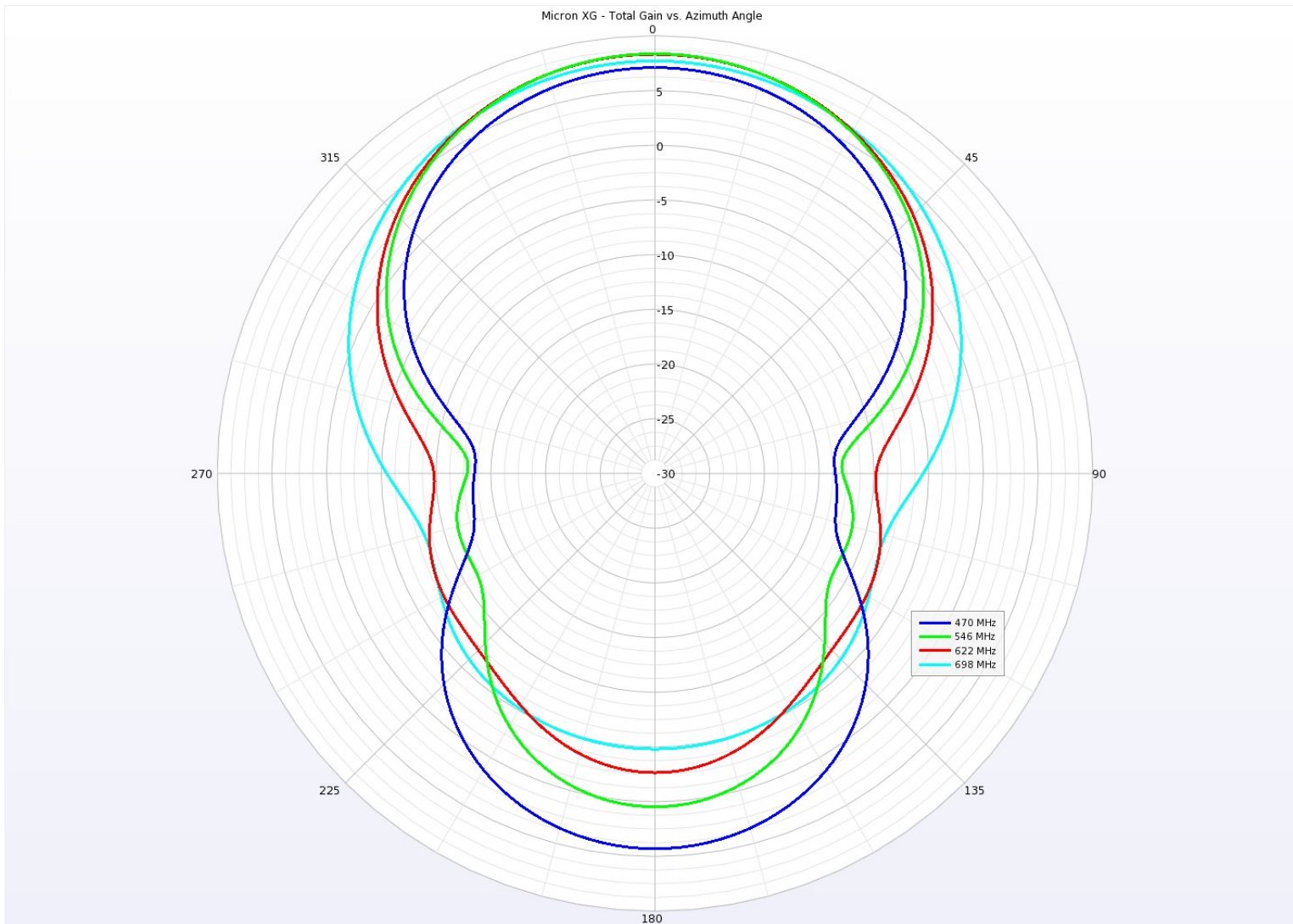
**Micron XG Performance**

Frequency (MHz)	Boresight Gain (dBi)	Azimuth – Half Power Beam Width (deg)	Elevation – Half Power Beam Width (deg)	Front-to-Back @ 180 deg (dB)	IEEE Rear Hemisphere F/B (dB)
470	7.13	64	80	2.83	2.83
546	8.4	68	78	8.9	7.9
622	8.3	68	74	10.9	10.9
698	7.7	60	78	12.5	11.7

*Illustration 2: Micron XG - Performance in USA UHF DTV Band.*

*Notes:*

1. Unless stated otherwise, all performance data computed using Remcom, Inc. X-FDTD 7.0 simulator.
2. Assumptions: PEC, free space, no balun. 300 Ohm transmission line reference.
3. Gain is specified dBi (isotropic) per IEEE definition. Balun and mismatch losses not included.
4. There are two common meanings for Front-to-Back Ratio (F/B). One specifies ratio as measured 180 degrees opposite boresight. The other, used by IEEE specifies the ratio of boresight gain to maximum gain in rear hemisphere. The IEEE definition is the most conservative. IEEE F/B values shown here are computed based on azimuth and elevation cuts provided in this document.



*Illustration 3: Micron XG - Total gain versus azimuth angle.*

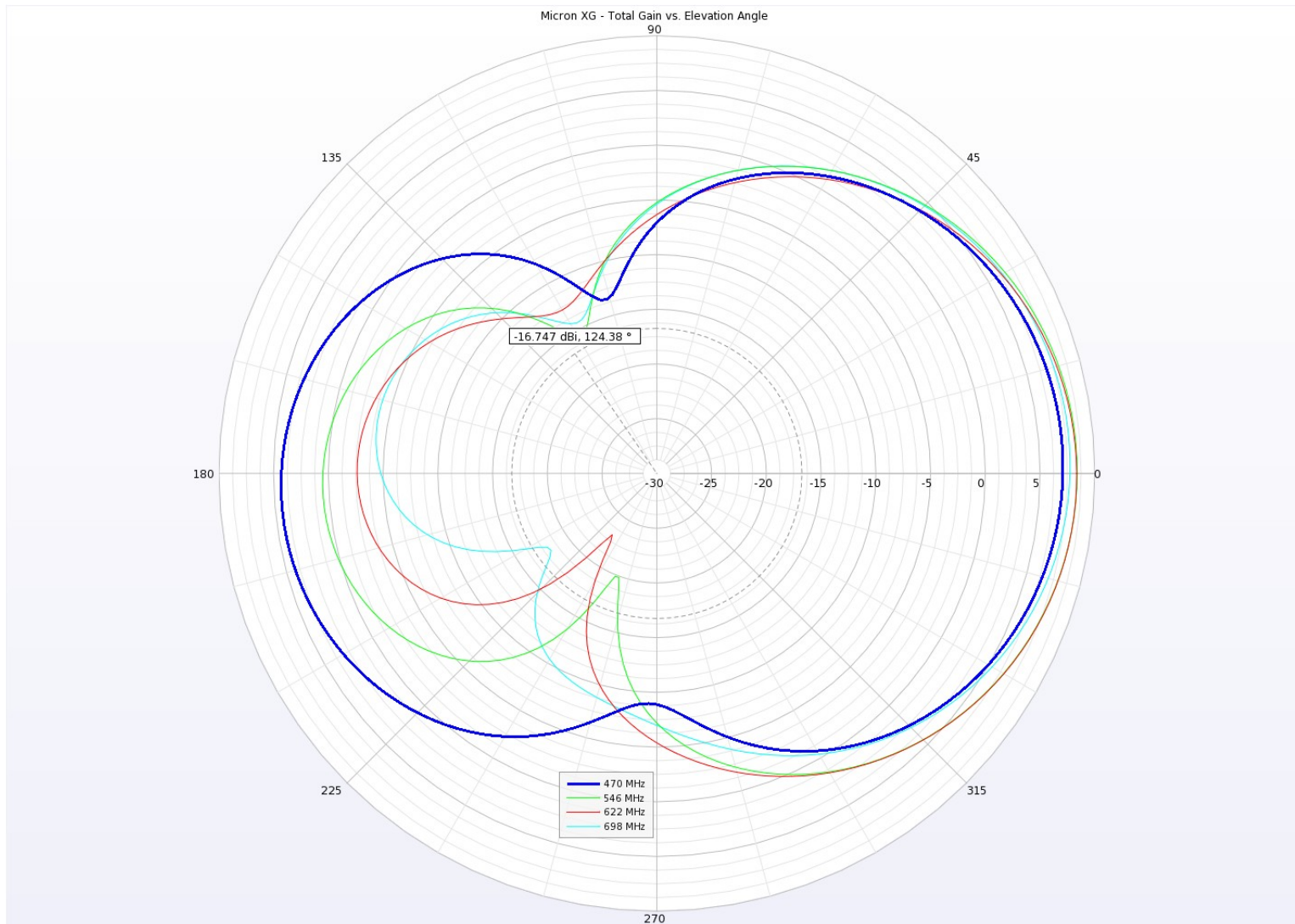
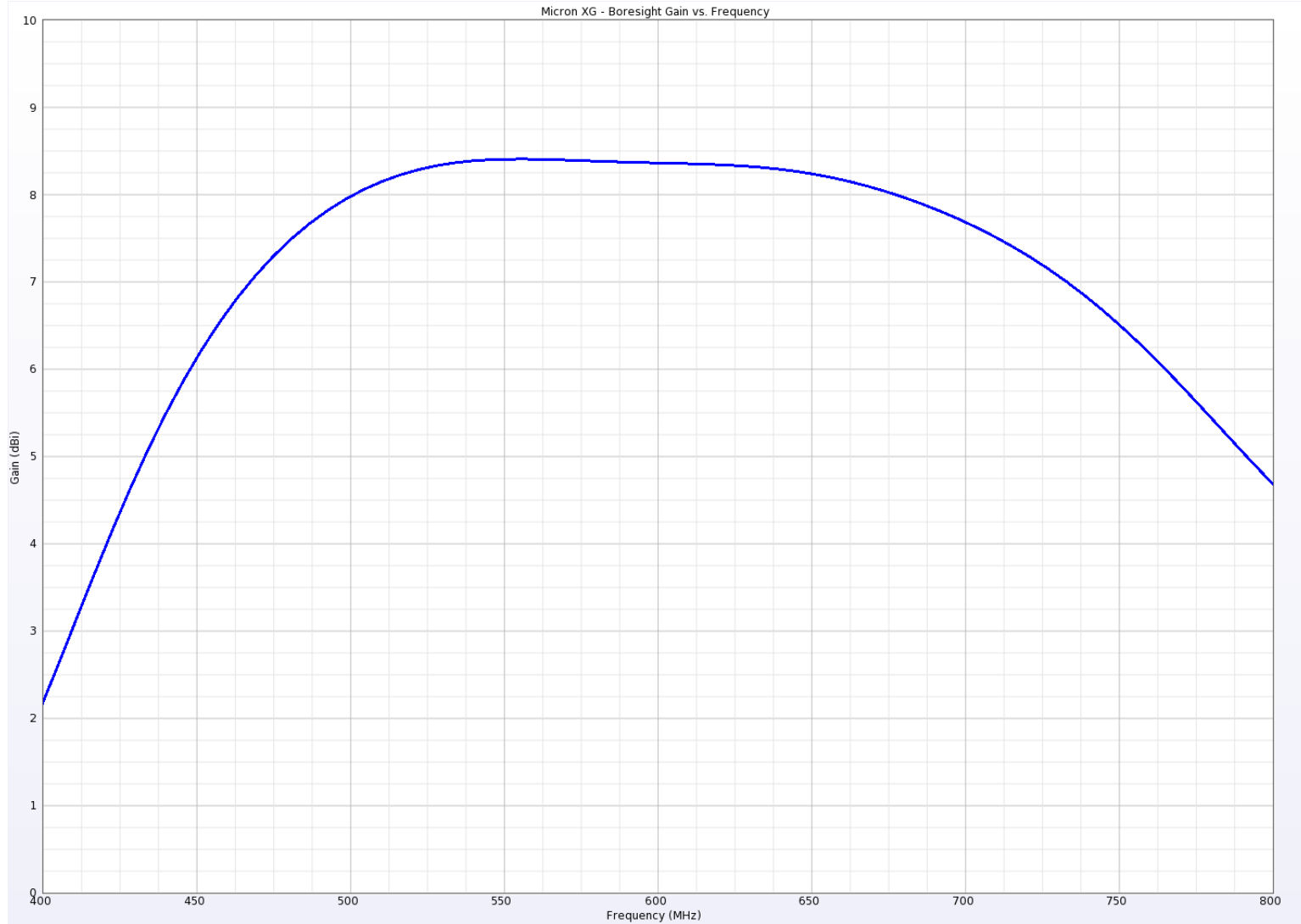
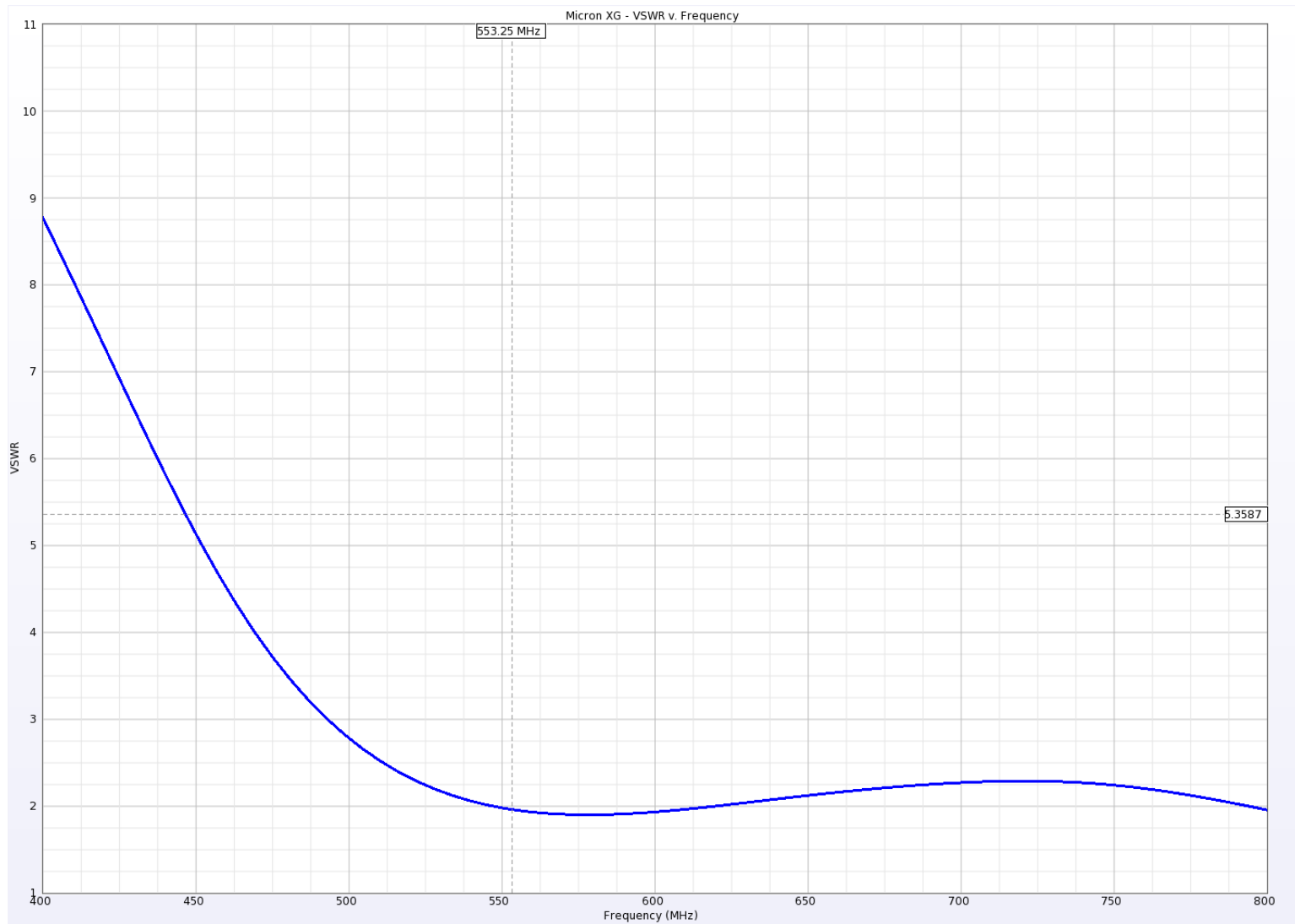


Illustration 4: Micron XG - Total gain versus elevation angle.



*Illustration 5: Micron XG - Boresight Gain versus Frequency.*



*Illustration 6: Micron XG - Computed VSWR versus Frequency. No balun, free space, 300 ohms.*