

**Technical Data Sheet:      Antennas Direct 91XG Antenna**

**Physical Data:**

Dimensions:            Length = 93 in.            Width = 20 in.            Height = 22 in.  
Weight:                6.5 lbs  
Turning Radius:        52 in.

**Electrical Data:**

Band:                UHF                470 MHz to 806 MHz            Channels 14 - 69  
Impedance:        75 ohm  
Connector:        F-Female

**Performance Data:**

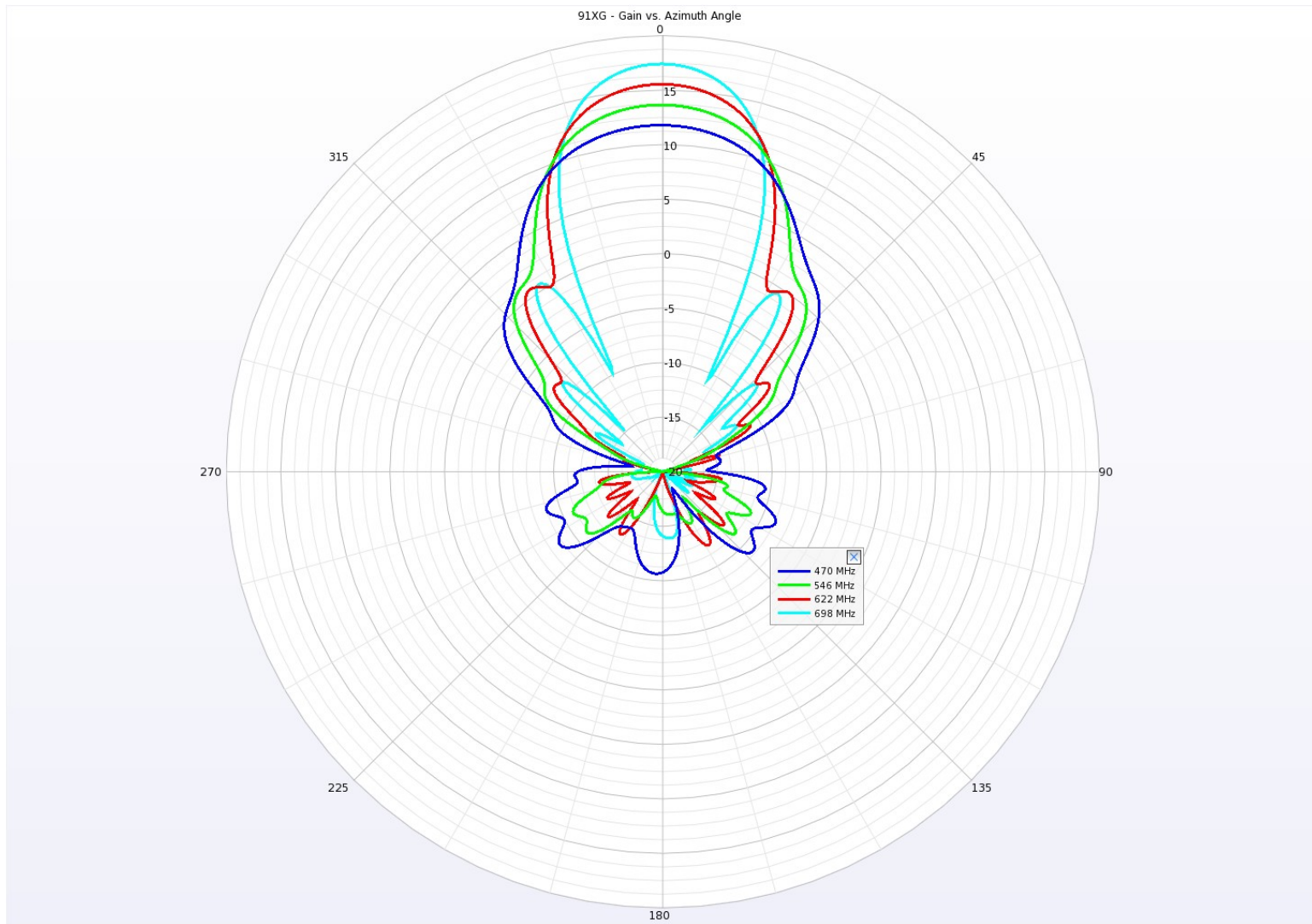
Peak Gain:        18.28 dBi        @ 765 MHz  
VSWR:            Max 3.0        470 MHz to 806 MHz

Frequency (MHz)	Boresight Gain (dBi)	Azimuth Half-Power Beam Width (deg)	Elevation Half-Power Beam Width (deg)	Front-to-Back Ratio (dB) @ 180 deg	IEEE F/B Rear Hemisphere (dB)
470	11.81	42	51	22.57	20.3
546	13.68	36	43	30.05	24.57
622	15.57	30	35	41.95	24.44
698	17.44	24	28	31.53	23.48

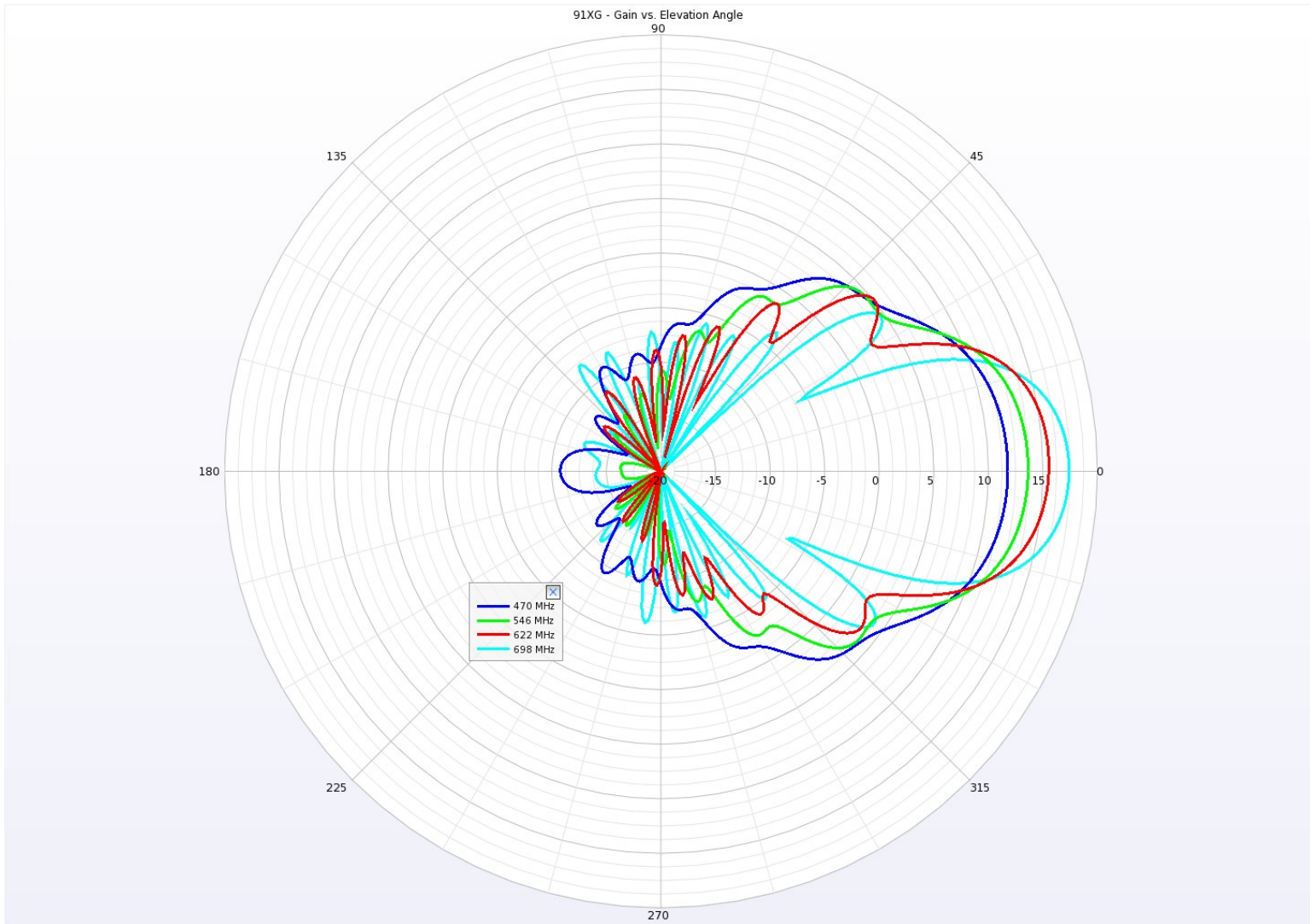
*Table 1: 91XG - Computed Performance Data for USA UHF DTV Band*

*Notes:*

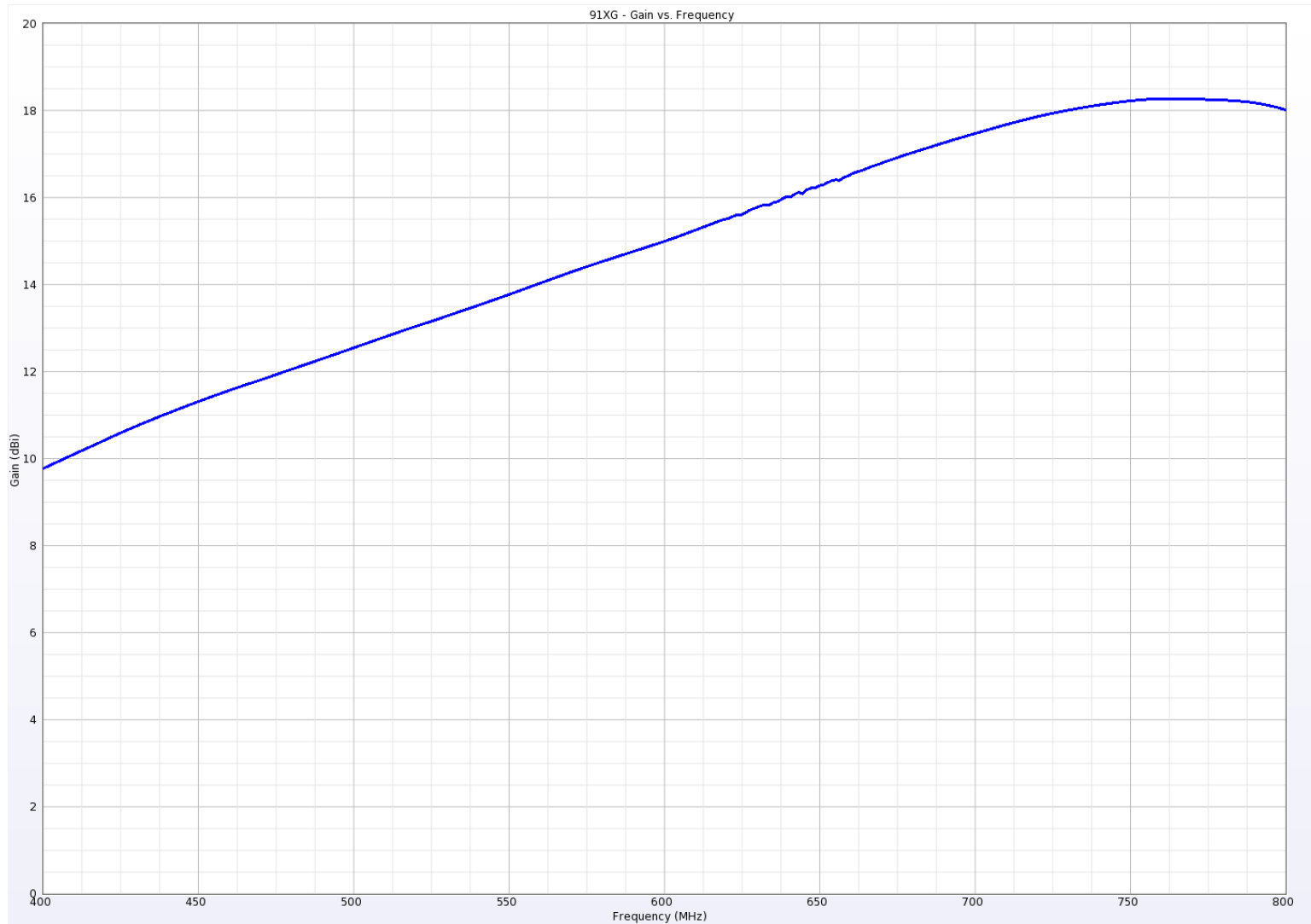
1. *Unless stated otherwise, all performance data computed using Remcom, Inc. X-FDTD 7.0 simulator.*
2. *Assumptions: PEC, free space, no balun. 300 Ohm transmission line reference.*
3. *Gain is specified dBi (isotropic) per IEEE definition. Balun and mismatch losses not included.*
4. *There are two 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.*



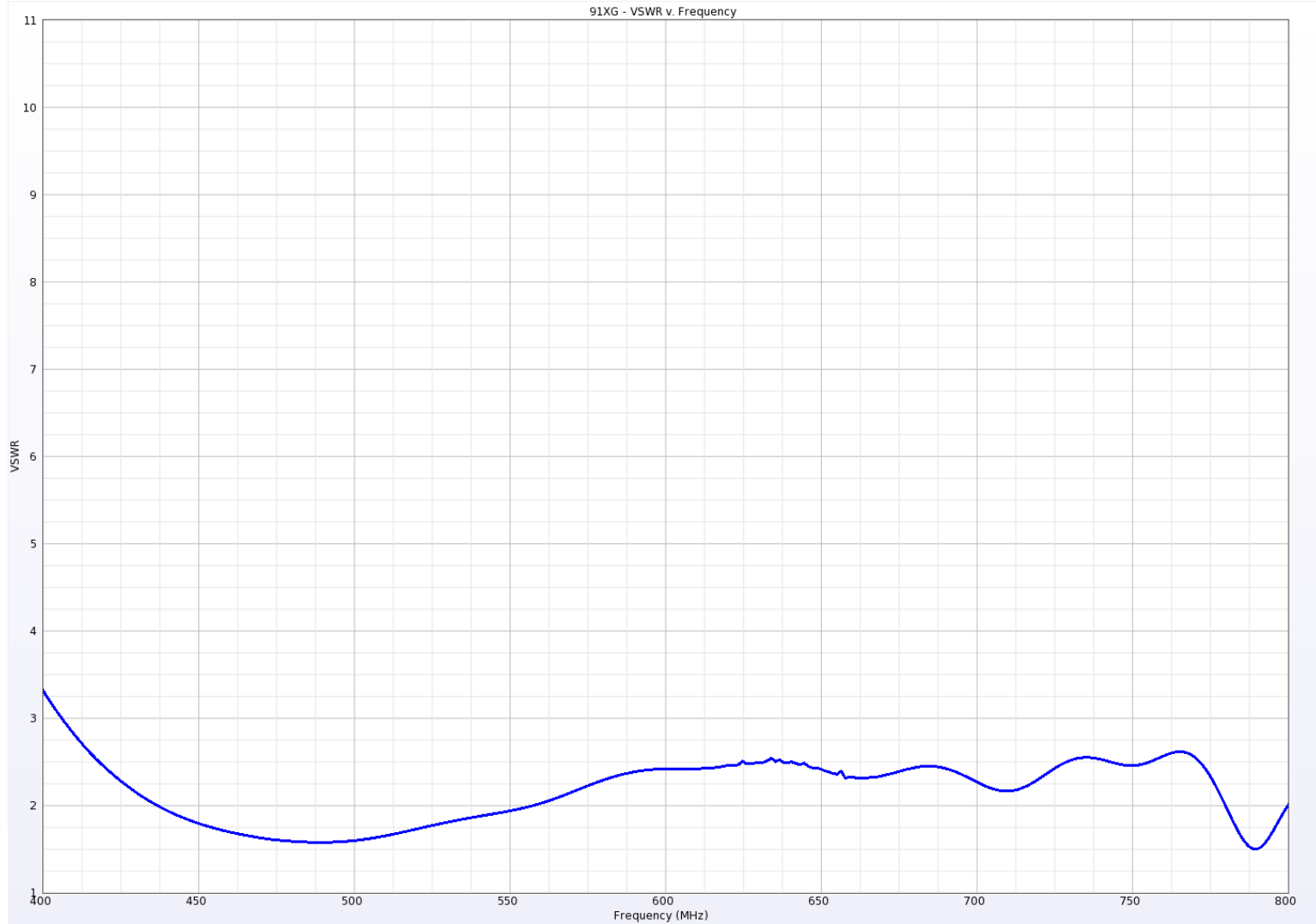
*Illustration 1: 91XG - Gain versus azimuth angle.*



*Illustration 2: 91XG - Gain versus elevation angle.*



*Illustration 3: 91XG - Gain vs Frequency.*



*Illustration 4: 91XG - VSWR vs Frequency. Computed. No Balun. 300 ohm reference.*