

Technical Data Sheet: Antennas Direct DB2E Antenna

Physical Data:

Dimensions: Width = 23 in. Height = 16.25 in. Depth = 7 in.
Weight: TBD
Turning Radius: 12.5 in.

Electrical Data:

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

Performance Data:

Peak Gain: 11.8 dBi @ 698 MHz
VSWR: 3.0 Max 470 MHz to 698 MHz

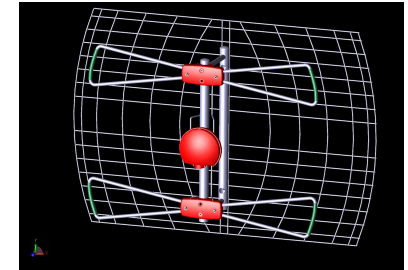


Illustration 1: DB2E

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.*

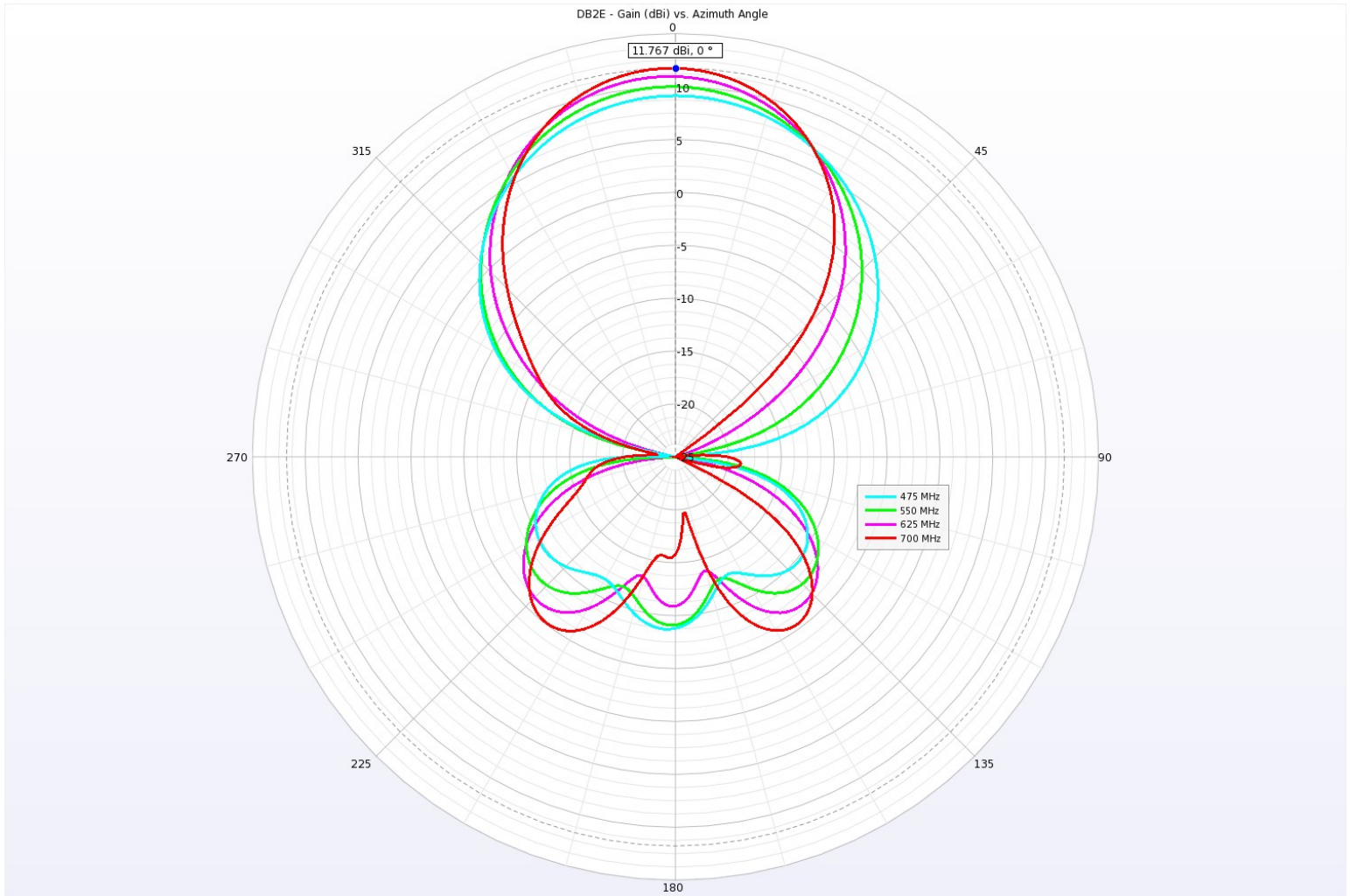


Illustration 2: DB2E - Gain versus Azimuth Angle.



Illustration 3: DB2E - Gain versus Elevation Angle.

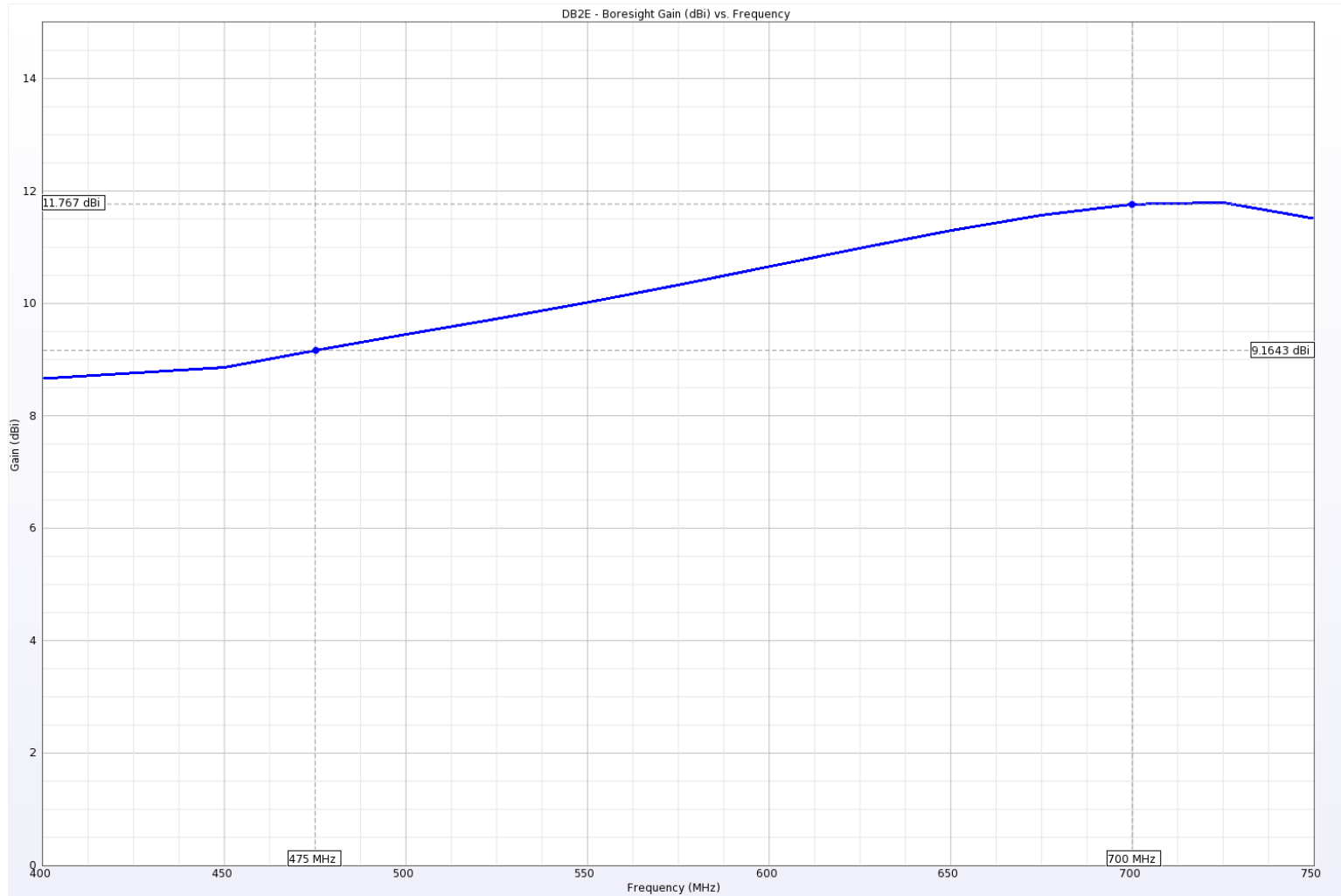


Illustration 4: DB2E - Boresight Gain versus Frequency.

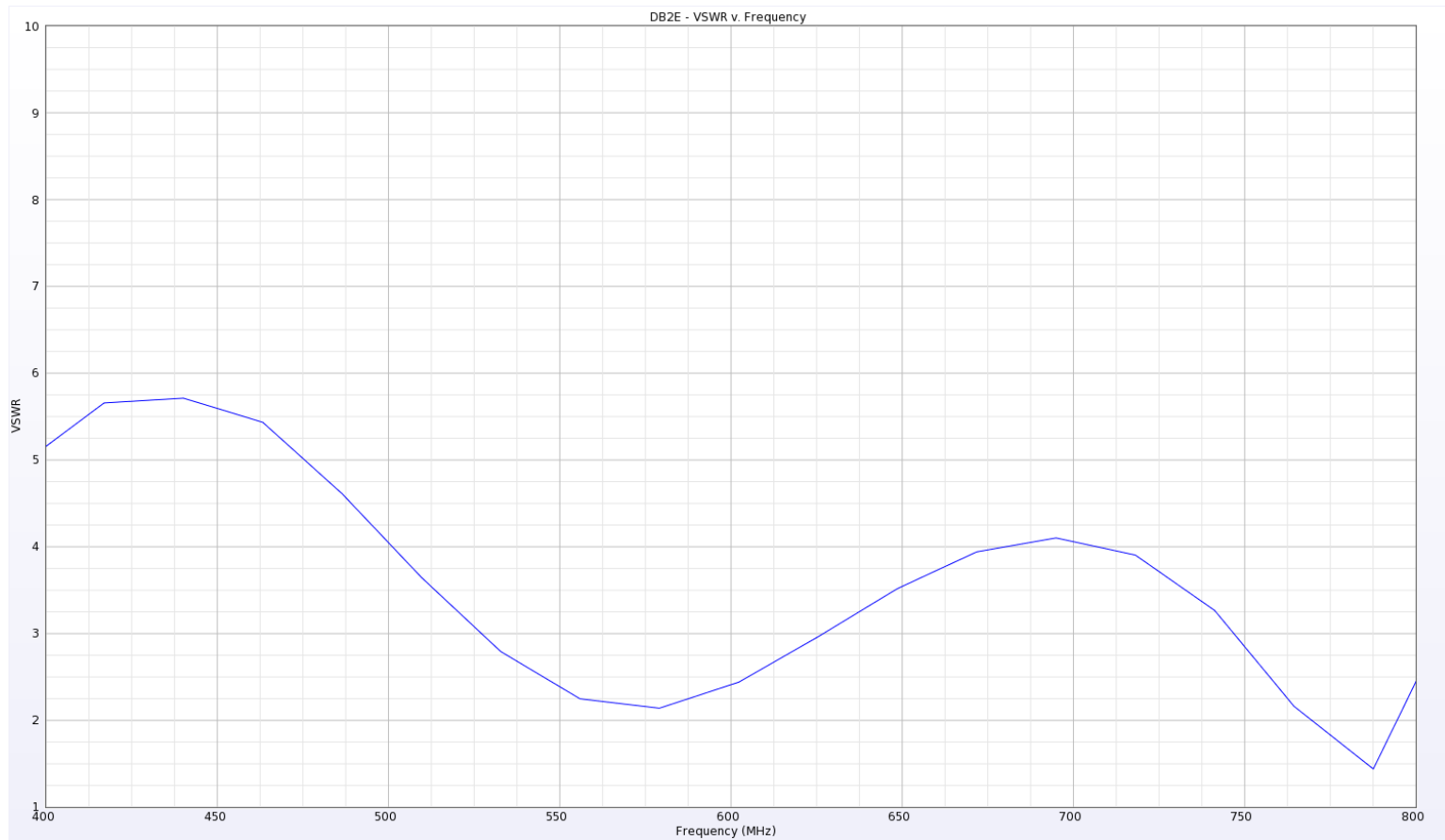


Illustration 5: DB2 - Computed VSWR versus Frequency. Balun included. 75 ohm reference. Measured better, see next plot.

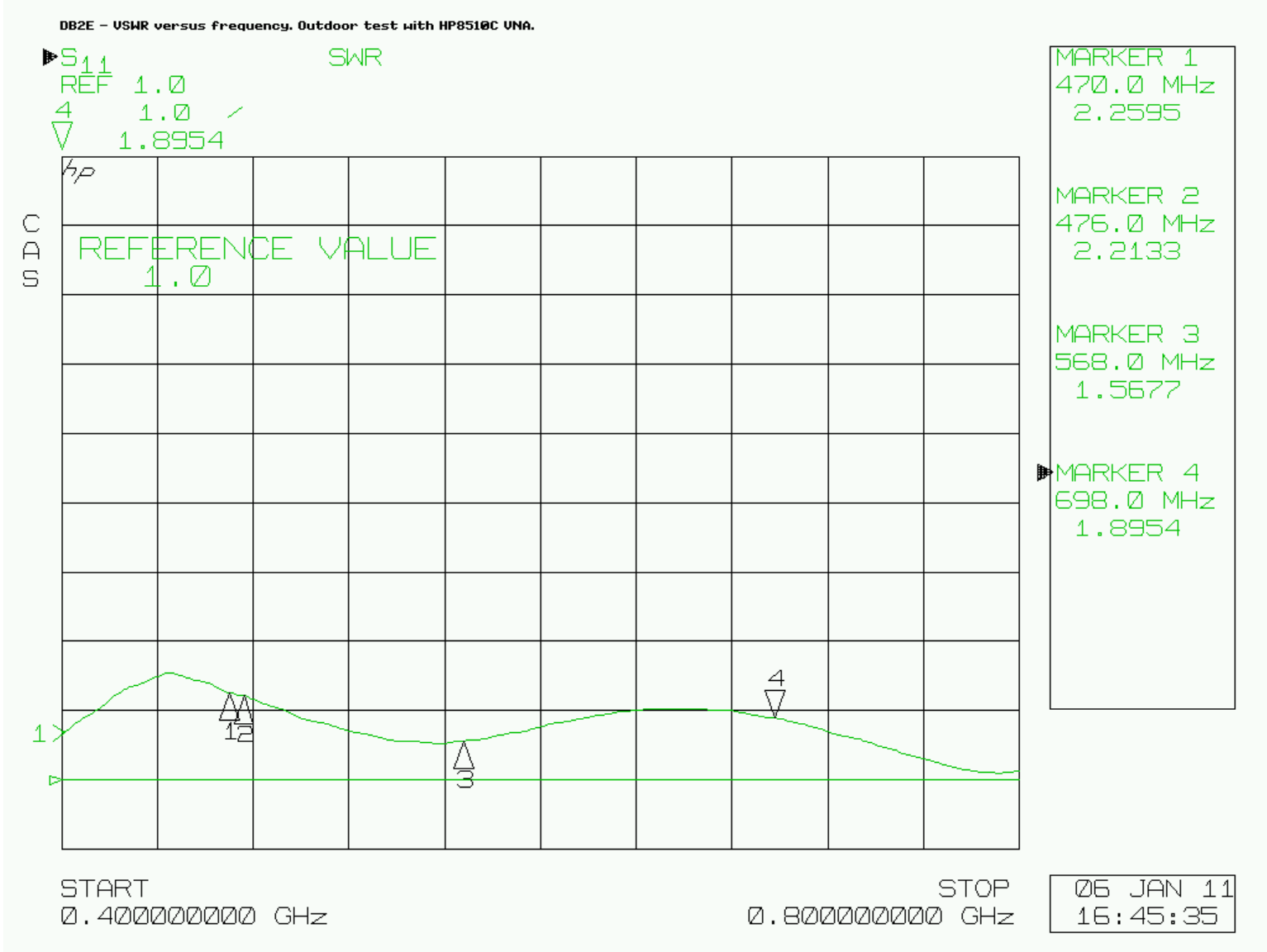


Illustration 6: DB2E - VSWR versus Frequency measured outdoors with HP8510C VNA.

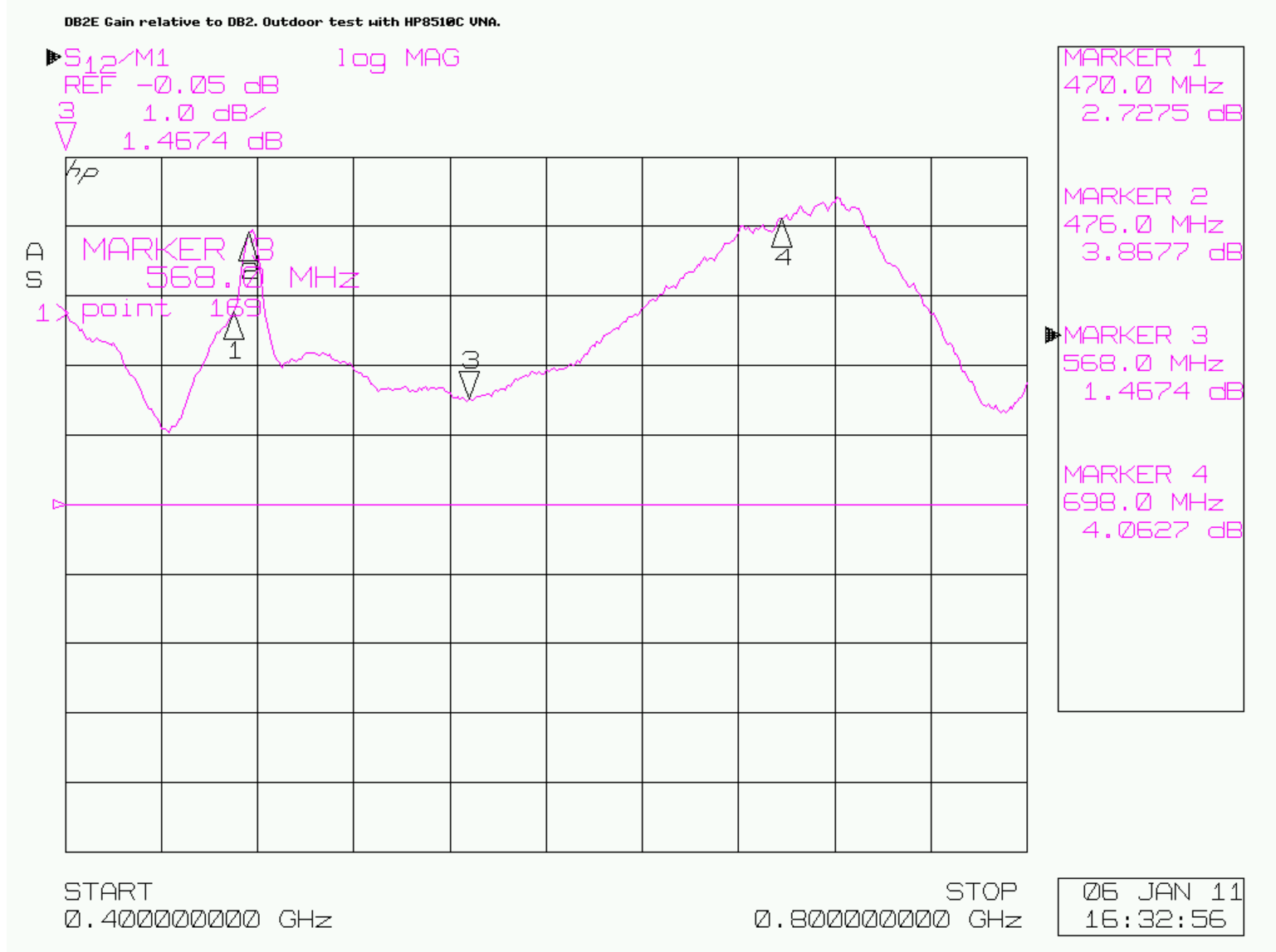


Illustration 7: DB2E - Gain relative to DB2 measured outdoors with HP8510C VNA. Up to 4 dB enhancement.