



HH Pattern Measurements

30 April 2004

Rincon Networks Proprietary

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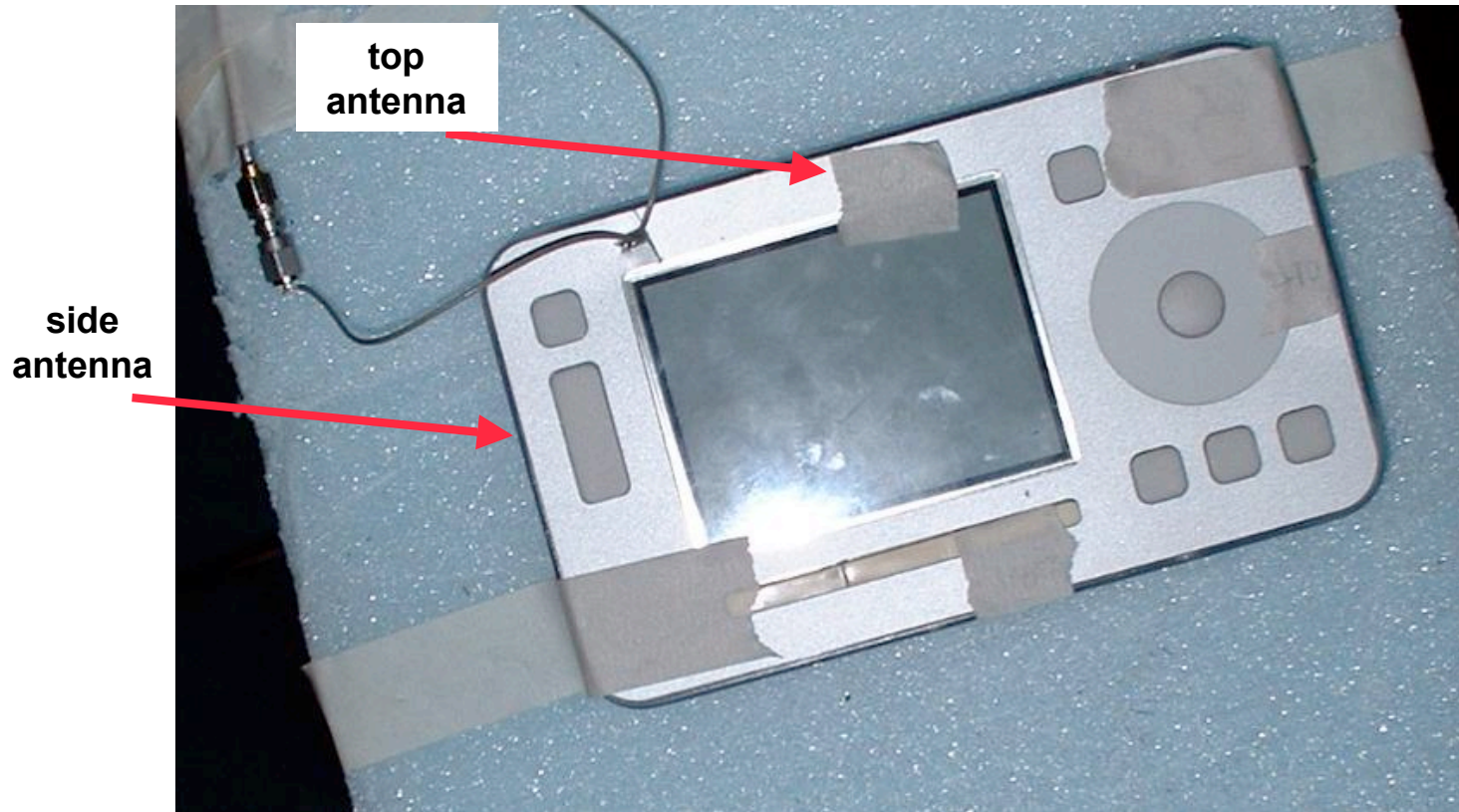
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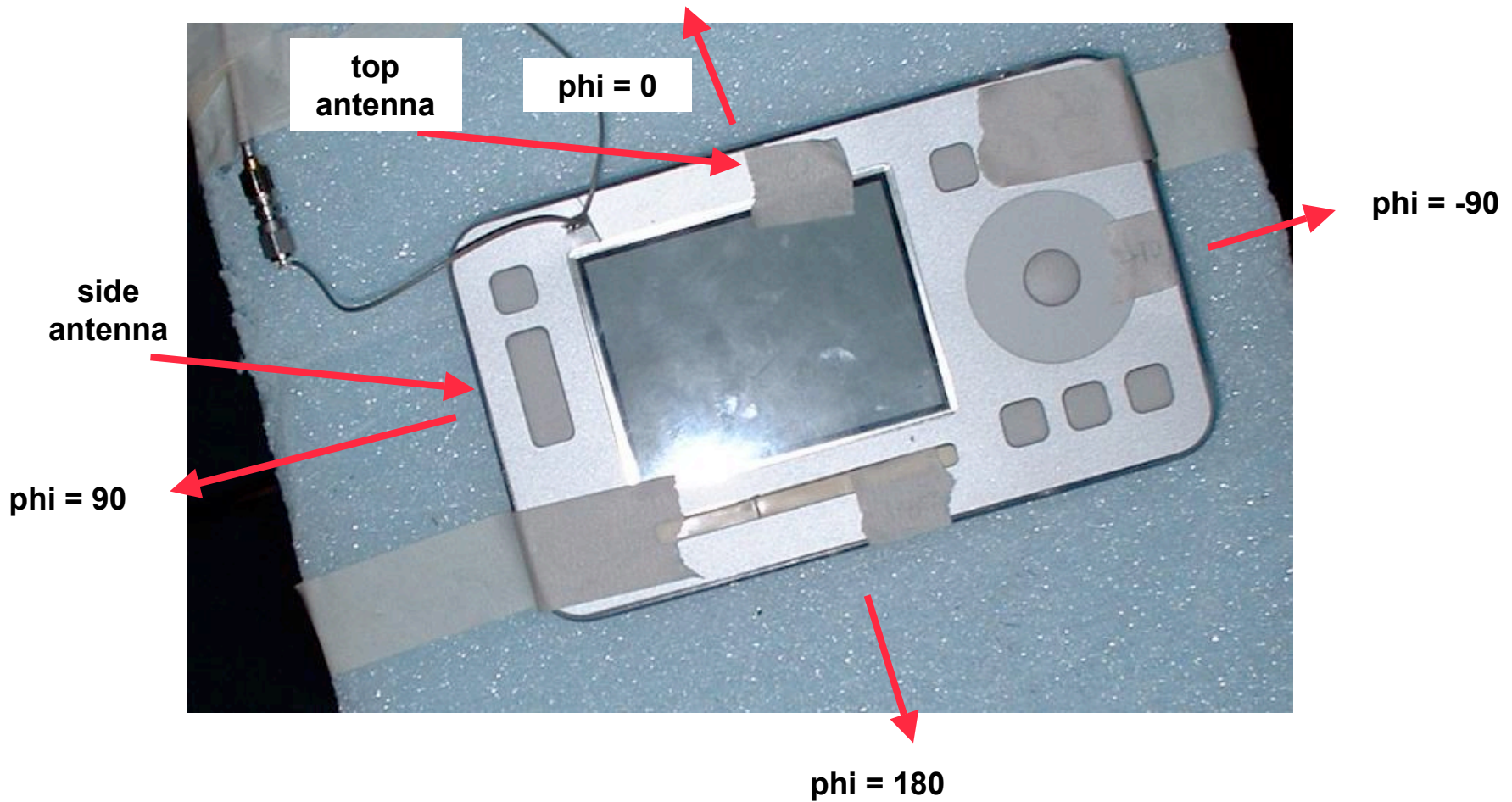


HH model



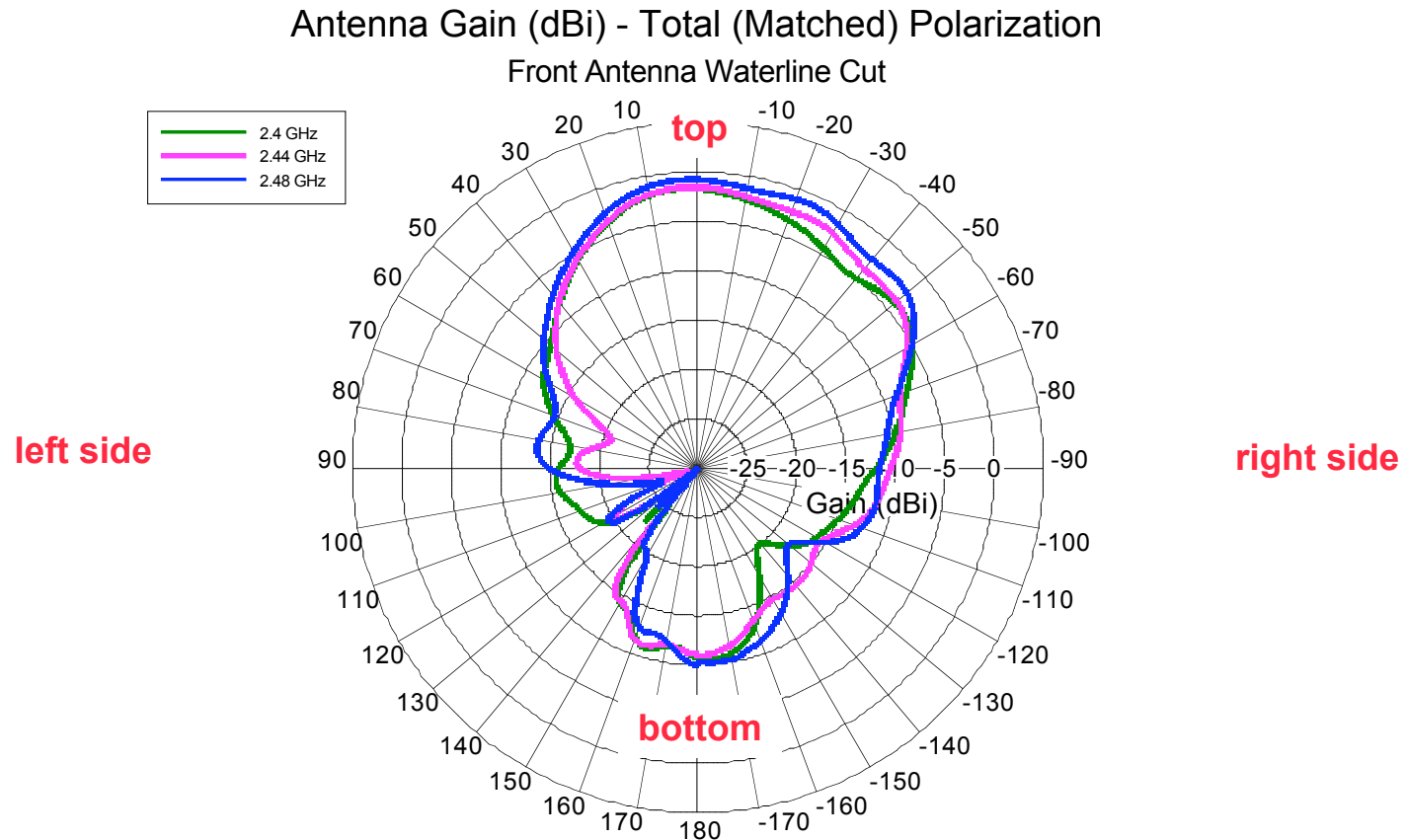


HH model setup, waterline cuts





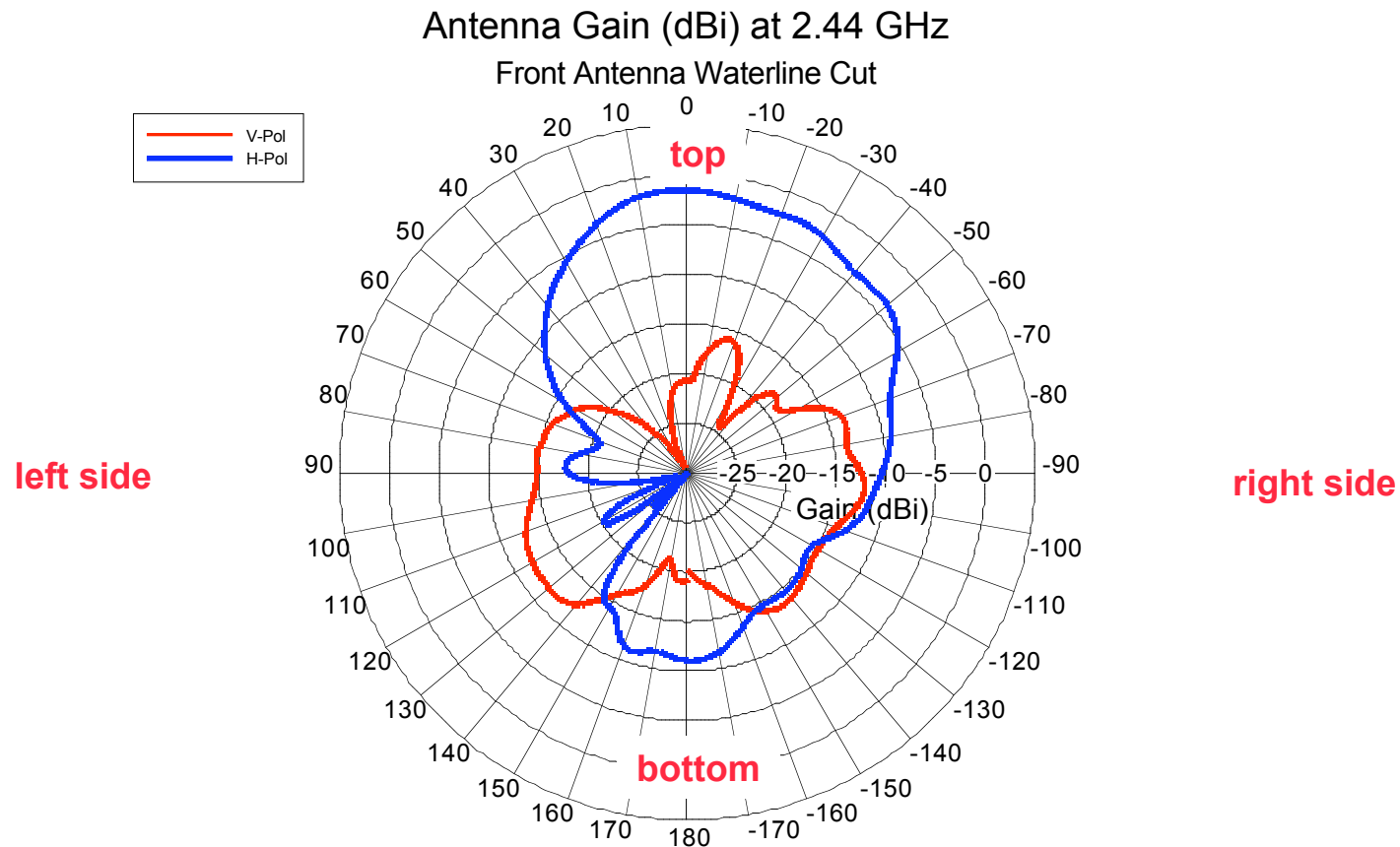
Waterline Cut, Front Antenna



- Beamwidth is somewhat narrow, but this plane does not cut through the main beam of the antennas.



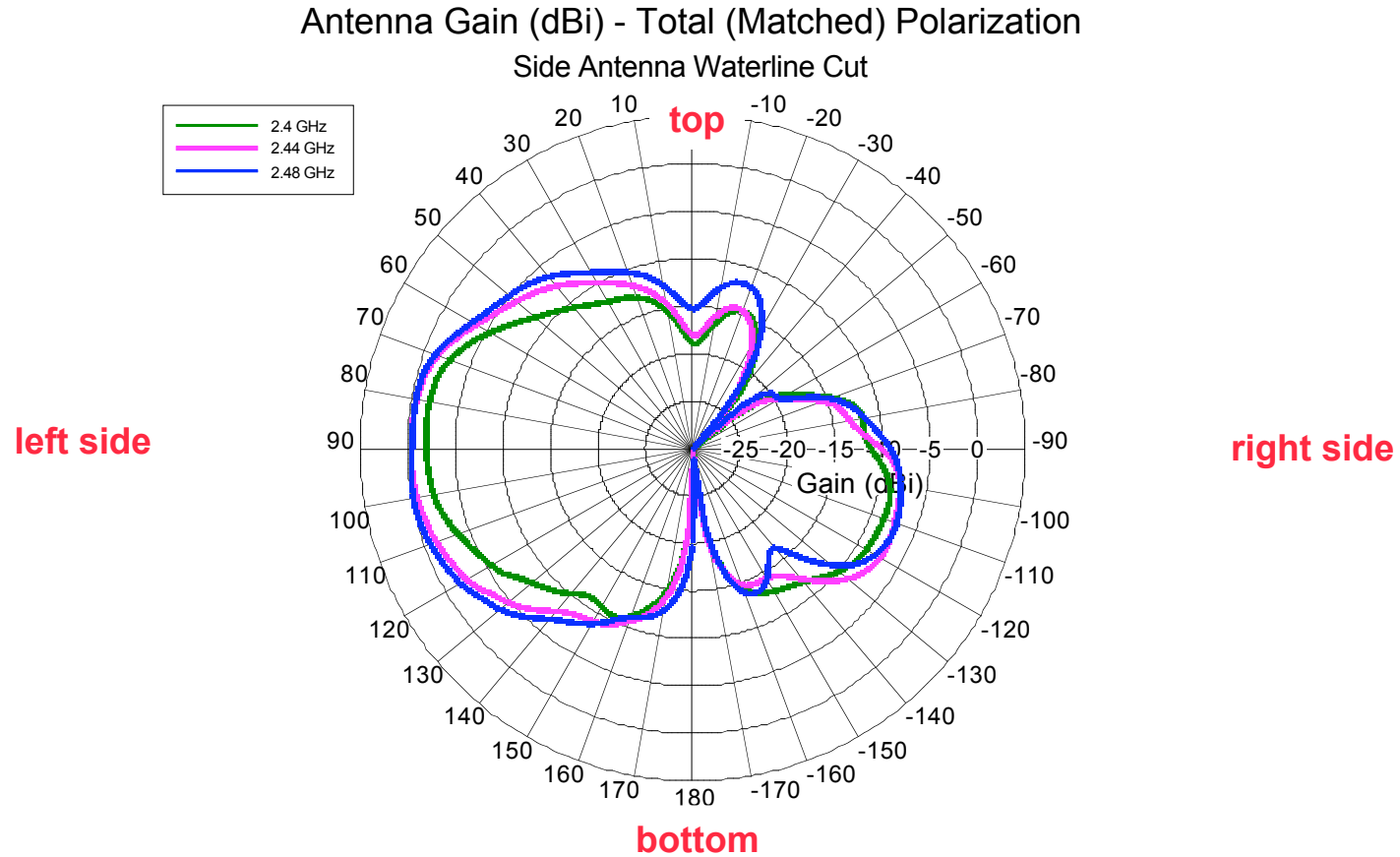
Waterline Cut, Front Antenna



- Primary polarization is horizontal, while primary polarization of ZP antennas is vertical. This is probably not much of a problem in a realistic multipath environment, but we should check to make sure.

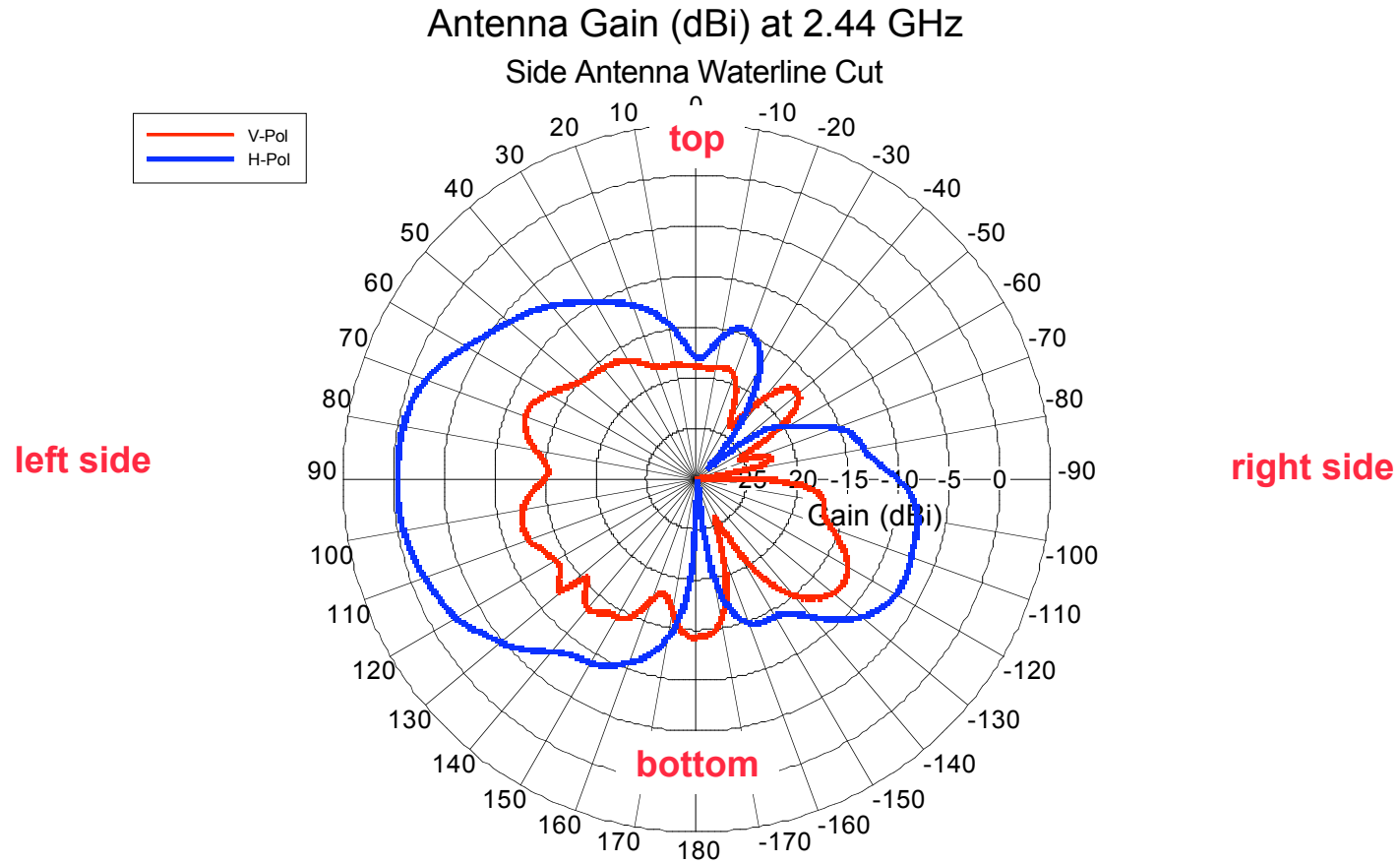


Waterline Cut, Side Antenna



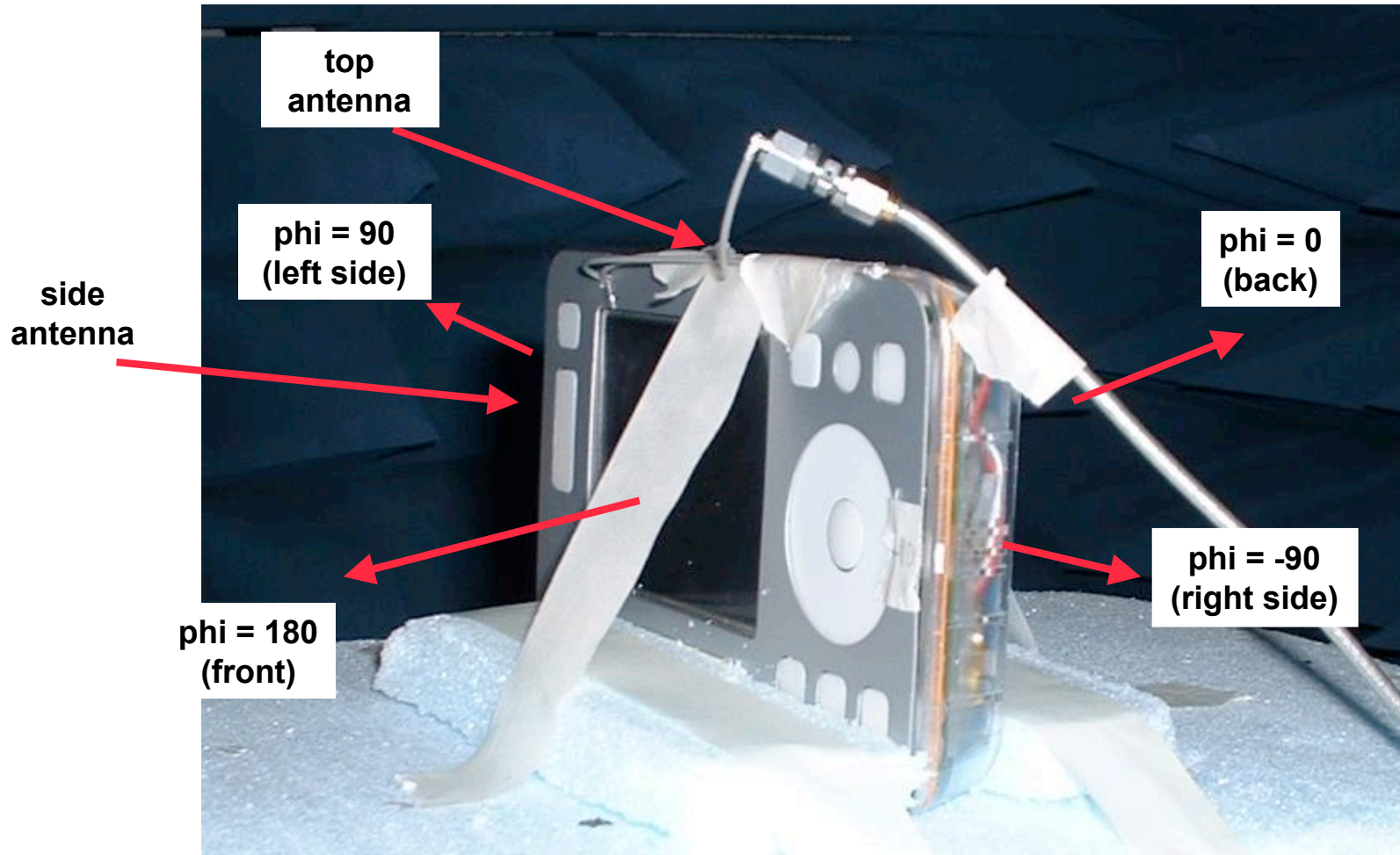


Waterline Cut, Side Antenna



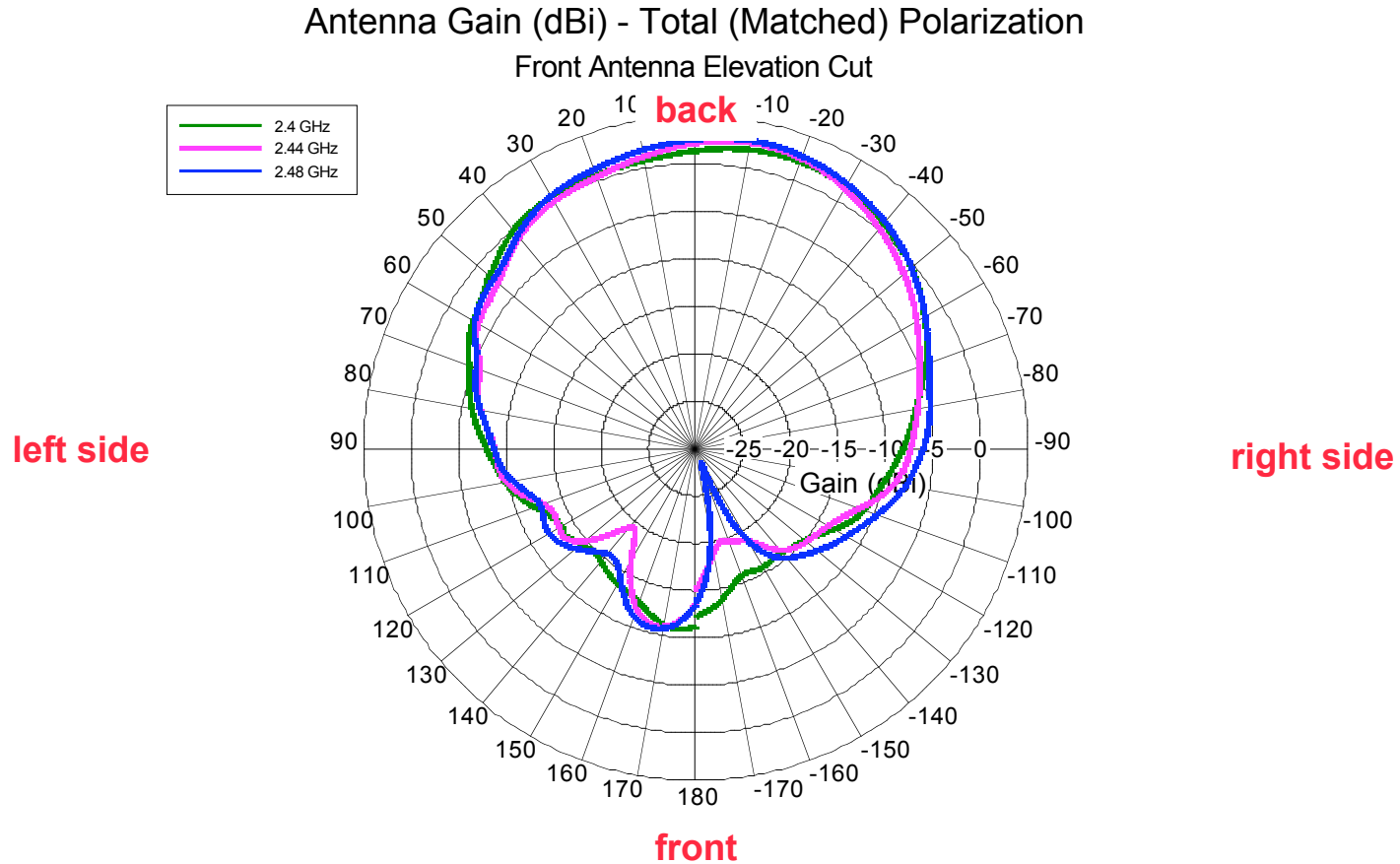


HH model setup, elevation cuts





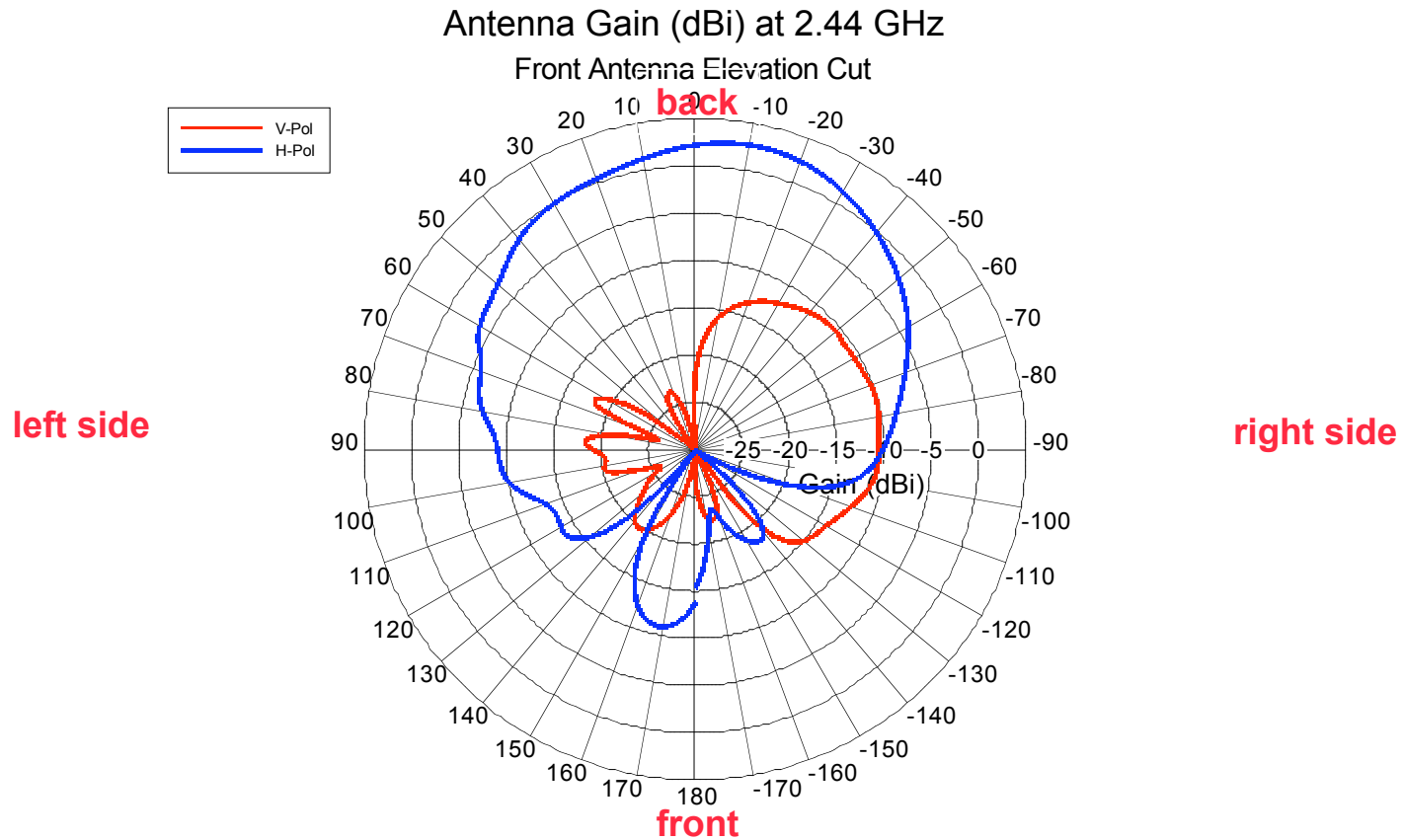
Elevation Cut, Front Antenna



Much broader beam than waterline cut.



Elevation Cut, Front Antenna



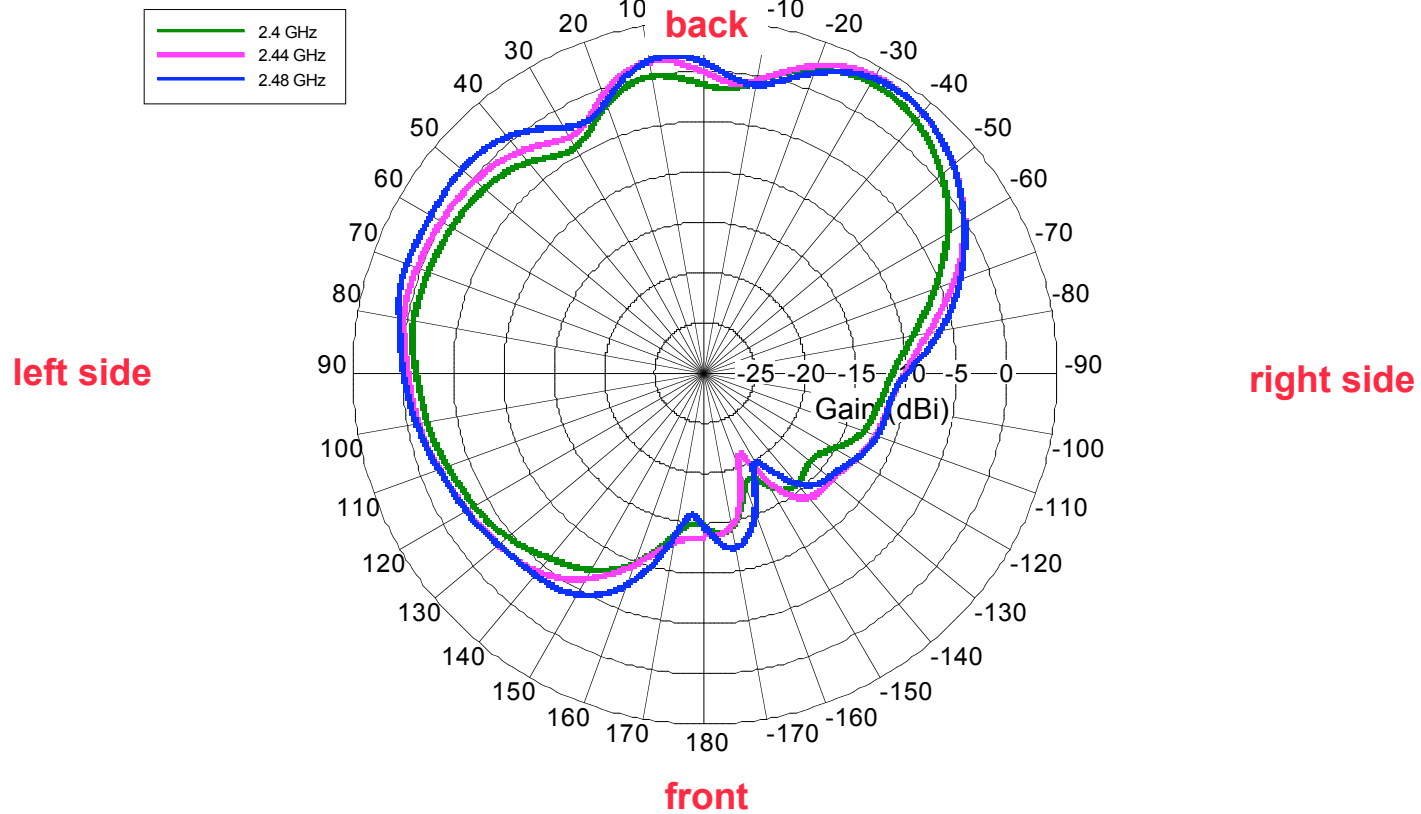
— Again, primary polarization is horizontal



Elevation Cut, Side Antenna

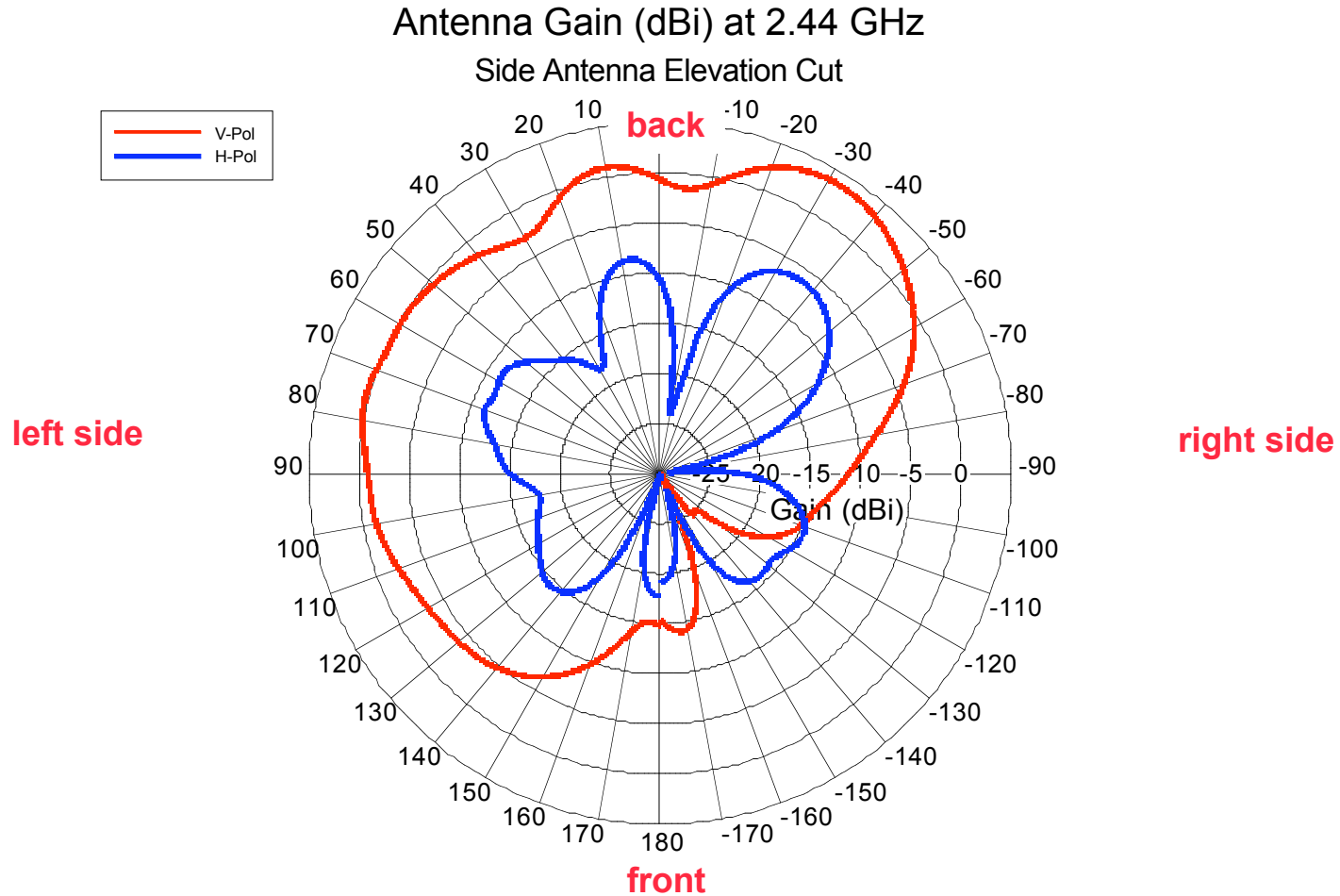
Antenna Gain (dBi) - Total (Matched) Polarization

Side Antenna Elevation Cut





Elevation Cut, Side Antenna



Primary polarization is vertical for this cut.