

Caterpillar - Data Sheet - WASP integrated Antenna

This is a circular polarise Patch antenna.

Nominally a 6dB omnidirectional antenna.

Consisting of 2 elements. 1 active (bottom) and 1 passive (top).

Separated by a 2mm spacer



Radiation Pattern for WASP antenna (Data source CSIRO)

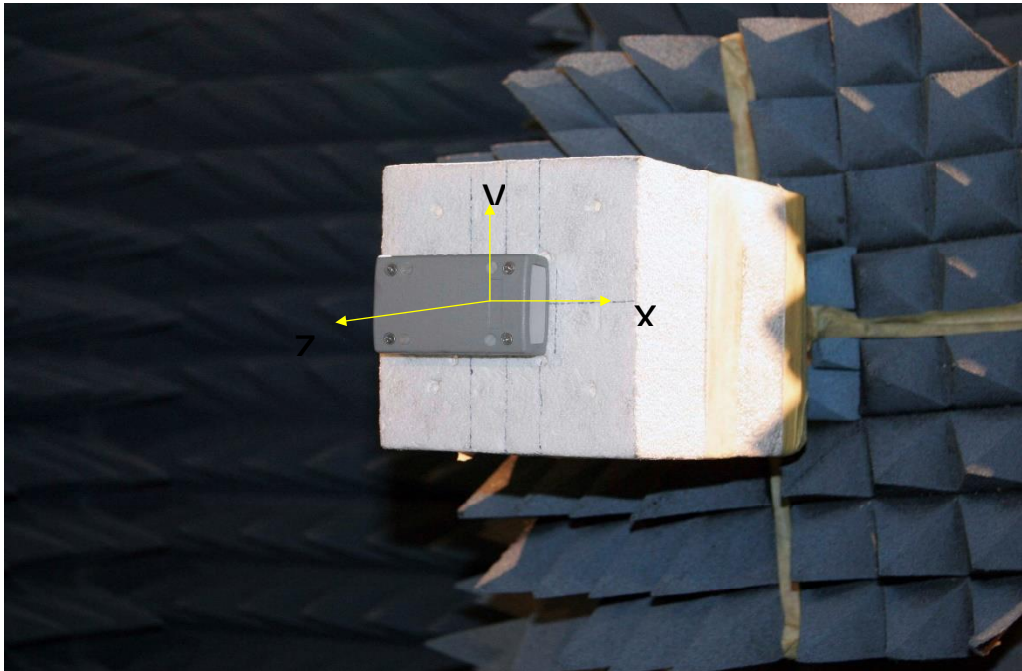
- Measured with pseudo ground plane to simulate RF/baseband PCB.
- Nylon bolts used to fix antenna to plastic case.

Frequency (GHz)	Measured Axial Ratio	Measured Directivity (dBic)	Measured Gain (dBic)
5.7875	0.6	8.02	7.13

Note dBic is gain for circular polarisation, Cross polarisation with a dipole will result in significant loss of gain.

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Test Set Up

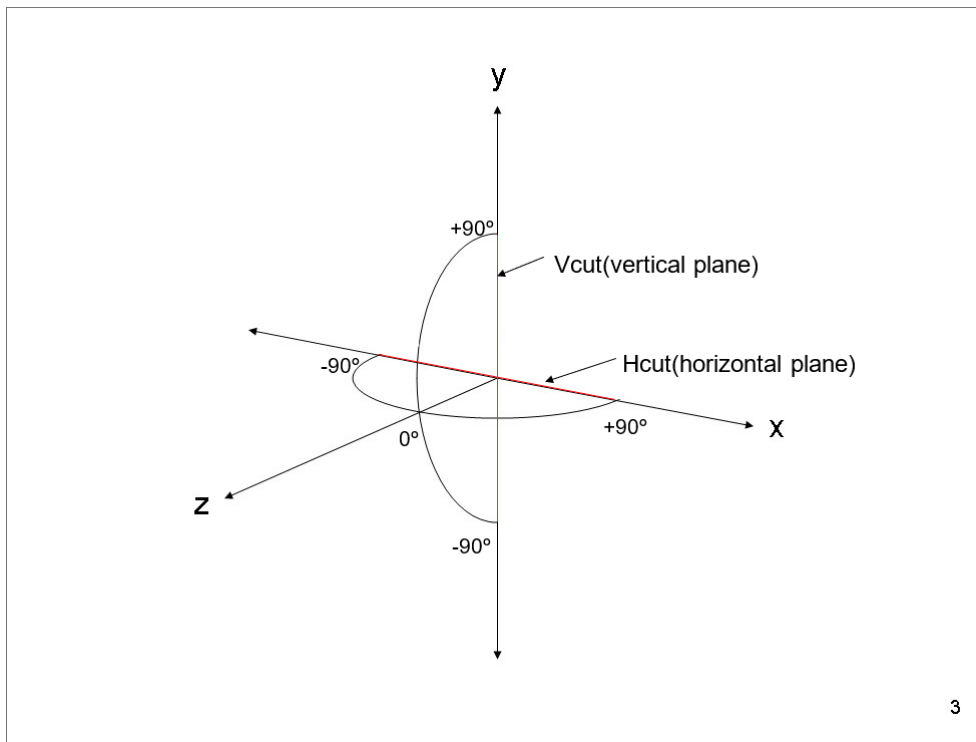


H-cut the xz-plane

V-cut is the yz-plane

The linear polarization of the source antenna (copol) is in the xz- plane

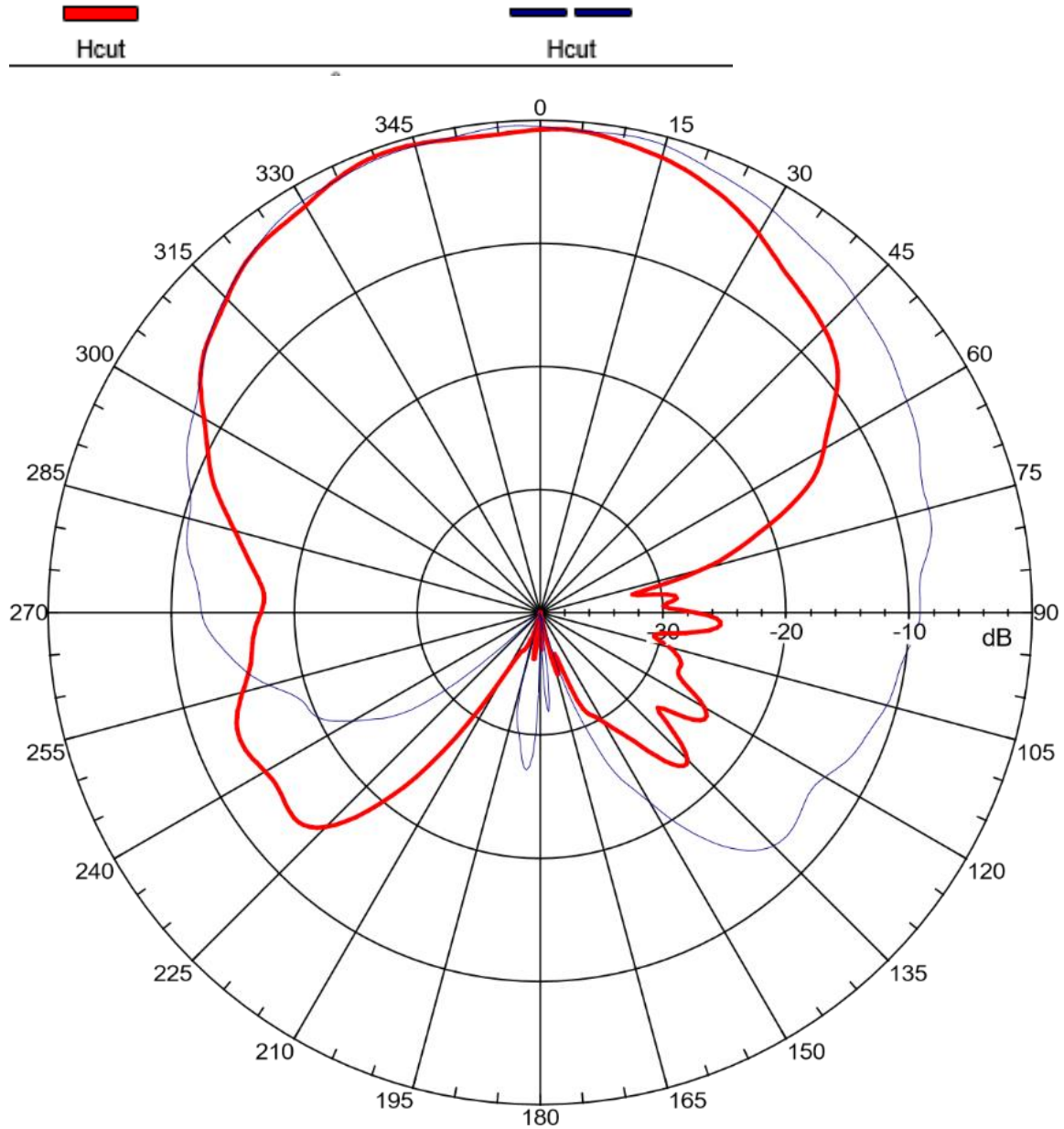
Source xpol is in yz-plane



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Measured Radiation Patterns CP Antenna 09_2 in Modified Plastic Case - Substrate spacing = 2mm

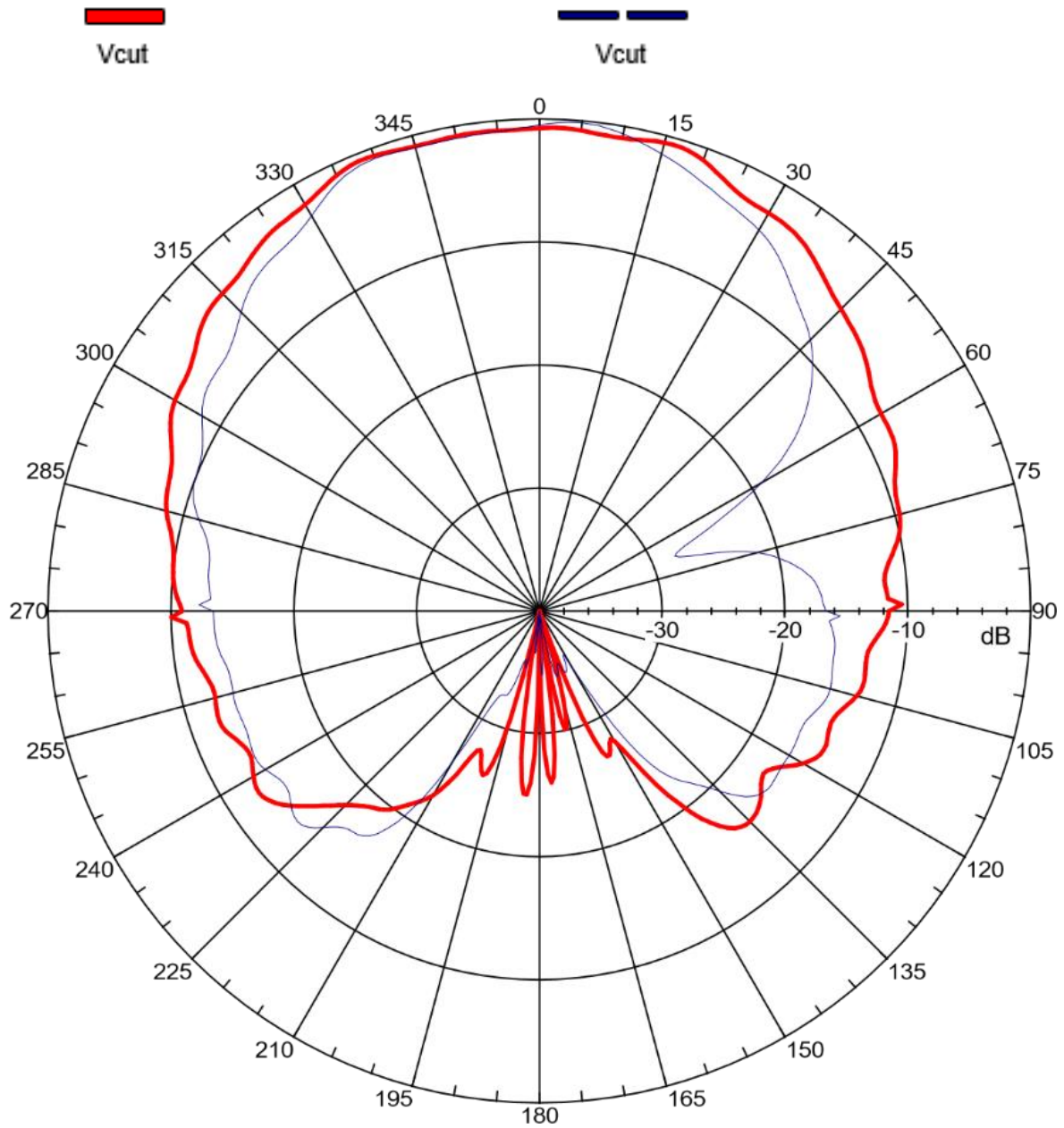
Far-field amplitude of CP_Ant_09_2_2000um.nsi



Hcut at 5.7875GHz
(red - copol, blue - xpol)

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Far-field amplitude of CP_Ant_09_2_2000um.nsi



Vcut at at 5.7875GHz
(red - copol, blue - xpol)