

METRIC 447-0331

A vertical line with a small square at the bottom and a small square at the top, with a horizontal line extending to the right from the bottom square.

A technical line drawing of a vertical pipe assembly. The main vertical pipe has a flange at the top. A horizontal pipe connects to the vertical pipe at a 45-degree angle. A dimension line with a leader arrow indicates a height of 4 inches from the horizontal baseline to the top of the vertical pipe. The drawing is labeled with '(50 &)' and '(24)'.

A technical drawing of a vertical cylinder. The top part is a rectangular cap labeled 'C' at its top edge. The bottom part is a wider, flared base. A vertical line extends downwards from the center of the base, representing the axis of the cylinder.

M24 x 1.5
N-TYPE CONNECTOR

L'ESPRESSO - 10 GENNAIO 1980 - 11

W. A. SOUTER
1 E 54 A WRIGHT MATL

HI	IE2722B	DRAWING
TR	IE057F	INFANT

ITEM NO.	ITEM
IE0445B	SUP COMPONENT
IE0138R	BRAND MARKINGS

LE003Y CONFIDENTIALITY
LE002A INTERPRETATION
NO LE0011 INTPR & TOL

Caterpillar: Confidential Yellow

PROD.	<input checked="" type="checkbox"/> OTHER
UNLESS OTHERWISE SPECIFIED	VERSION
	PRIMARY

DIMENSIONS ARE IN mm		TYPE	
DIMENSIONS WHO TOL. ARE BASIC		SECONDARY	
THIRD ANGLE	SHEET	1	OF
	DWG CONTROL	C	E

NOTE A: MALTEC ENGINEERING
447-033 |

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ANTENNA AS.

(FLEET FOR UNDERGROUND)
447-0333 | VER CDS
HO 01 C

BROADSPEC UWB ANTENNA

Time Domain's BroadSpec™ is a planar elliptical dipole antenna designed to be used with the PulsON 400 (P400) ultra wideband module. It has a standard male SMA connector that allows it to be connected to one of the P400 module's two antenna ports.

Performance Specification

Radiated Waveform: 500ps monocycle; 1 ns waveform
Pattern: Omni in azimuth to +/- 1.5dB
Polarization: VSWR ~ 1.75:1; S11 ~-12 dB
Gain: Nominally ~3dBi
Phase Response: Linear
Efficiency: Nominally ~90%

Antenna Beam Patterns

Figure 1 below shows the antenna azimuth beam pattern, and **Figure 2** illustrates the elevation beam pattern. For the azimuth beam pattern, 0 and 180 degrees represent the flat face of the antenna ("boresight"), and 90 and 270 degrees represent the edge of the antenna. Note that when two radios at the same elevation are rotated so the flat sides of the antennas face one another, radio performance will be approximately 6 dB higher than when the antennas are edge-on.

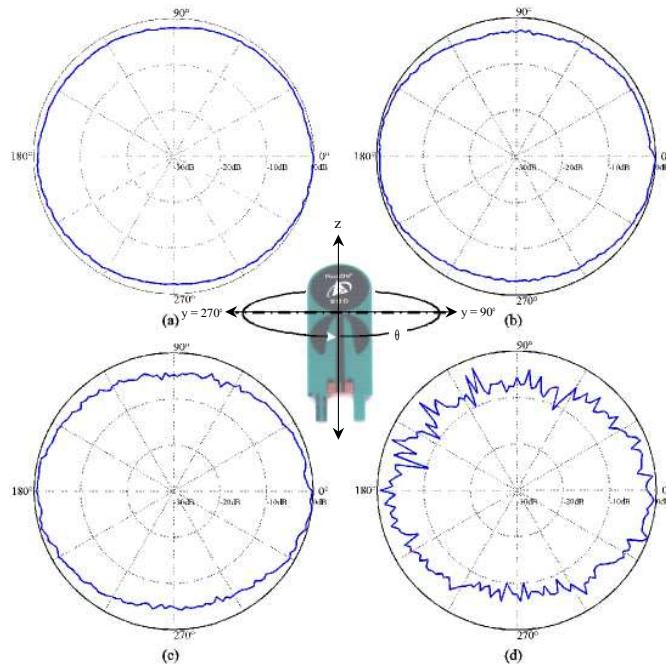


Fig. 1 Azimuth Beam Pattern for a) 3 GHz,
b) 4 GHz, c) 5 GHz, and d) 6 GHz

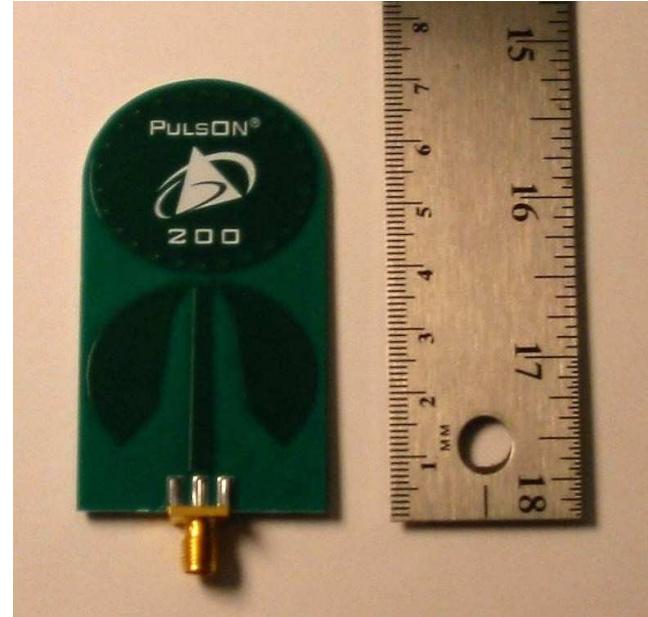


Fig. 2 Elevation Beam Pattern for a) 3GHz,
b) 4 GHz, c) 5 GHz, and d) 6 GHz

**FOR MORE INFORMATION
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