

2.4GHz : Wi-Fi/BT External Antenna



PRO-EX-296

Request Samples



Check Inventory



Ø12 x 37 mm

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Ultra-Compact
- High Reliability/ Sensitivity
- Easy to install
- ROHS Compliant
- Customizable Cable and Connector options

Applications

- Wi-Fi/Bluetooth/ZigBee/ISM
- IoT/M2M
- Network Devices
- Set top Boxes

Product Image



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
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ABRACON IS
ISO9001-2015
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Electrical Specification – Antenna

Parameter	Specification	Unit
Operating Frequency	2400 - 2500	MHz
Return Loss	< -11.2	dB
Polarization	Linear	-
Total Efficiency	> -1.1	dB
Peak Gain	3.0	dBd
Impedance	50	Ω

Note: Performance will vary depending on the ground plane, application, and environment.

Mechanical Specification

Parameter	Specification
Antenna Dimension	Ø12 x 37 mm
Mounting Type	Screw
Material(s)	PC and PBT
Cable Type	Ø1.13 mm coaxial
Cable Length	100 ±3 mm
Connector Type	MHF-1 (F) (e.g. U.FL, IPEX)

Environmental Specification

Parameter	Specification
Storage Temperature	-30°C to +70°C



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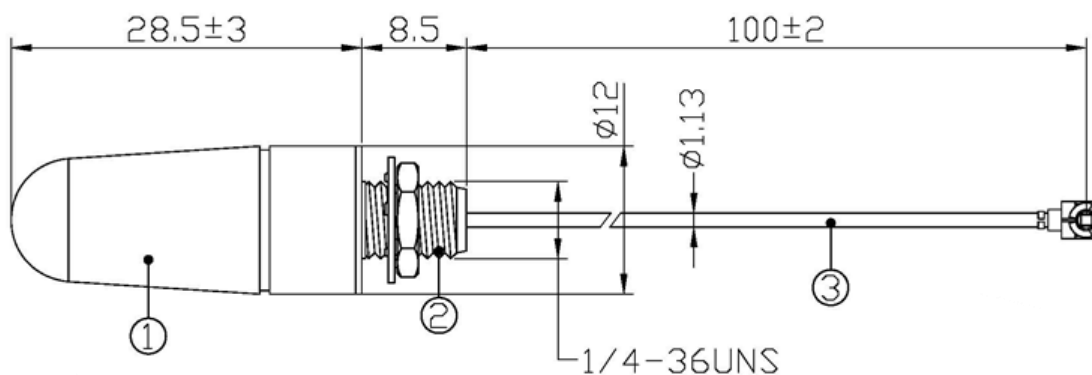


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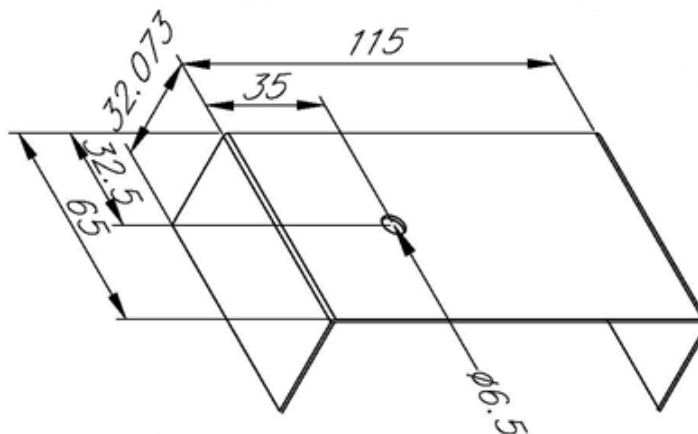
Product Dimensions



Unit: mm

Measurement Setup

The antenna measurements were all done in free space, assembled on an aluminum sheet metal test fixture according to the sketch below.



Unit: mm



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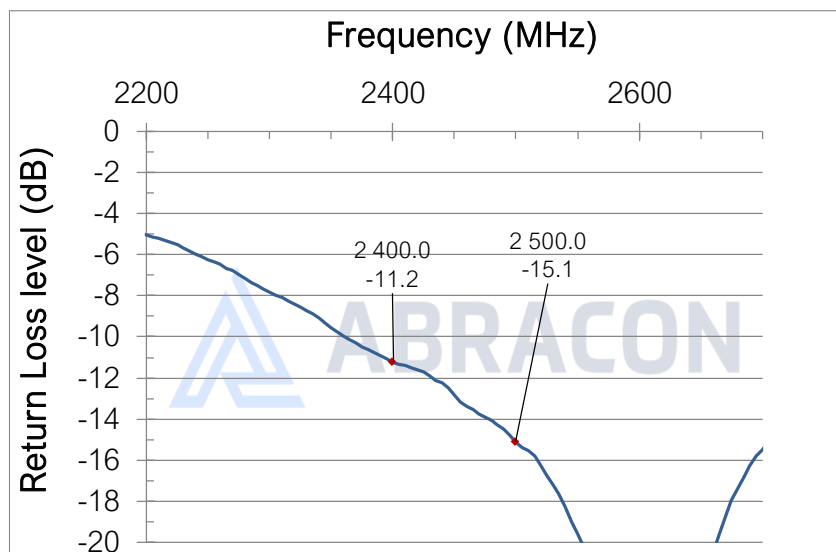


Ø12 x 37 mm

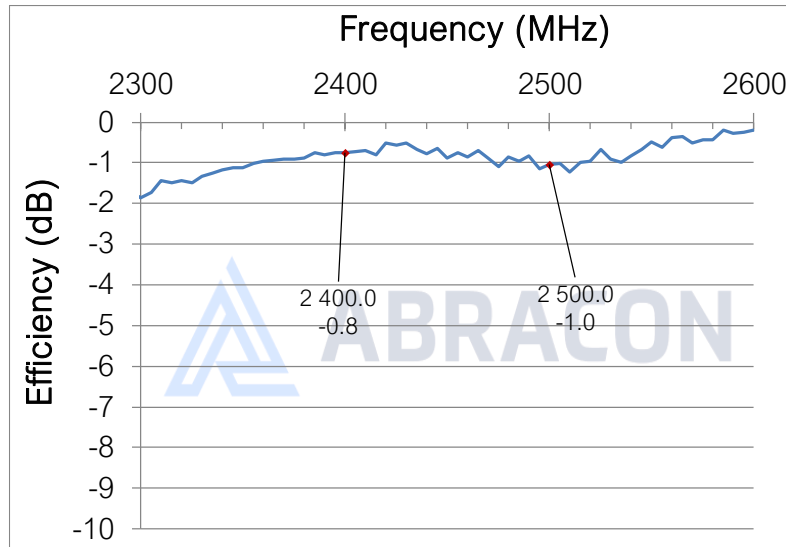
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Reflection Characteristics – Return Loss



Radiation Characteristics – Total Efficiency (dB)



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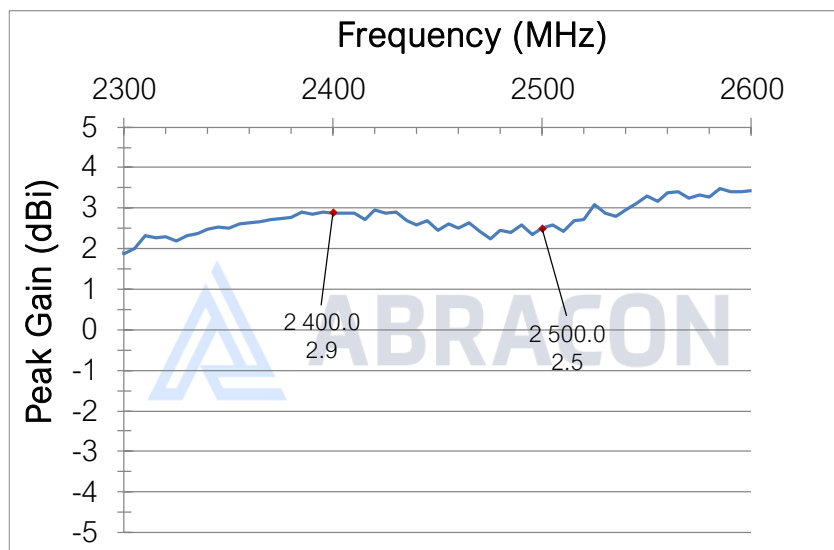


Ø12 x 37 mm

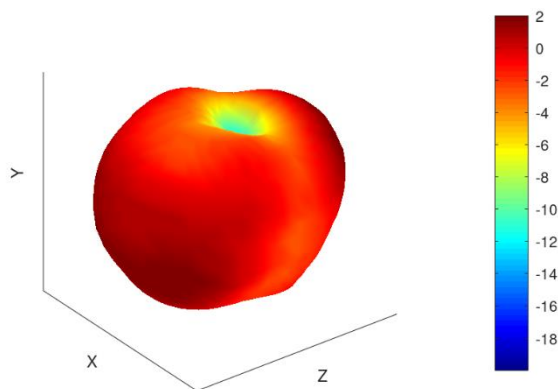
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Radiation Characteristics – Maximum Gain



Radiation Characteristics – 3D Pattern @ 2450 MHz



Unit: dBi



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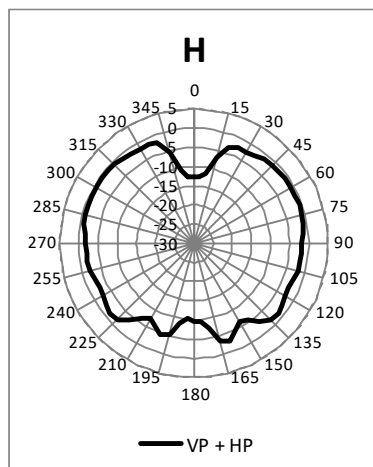
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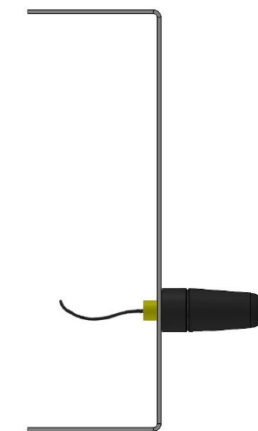
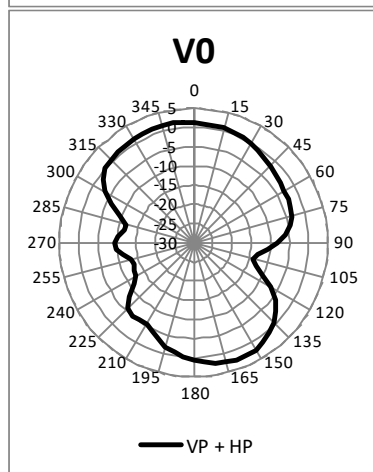
MSL Level = 1

Radiation Characteristics – 2D Pattern @ 2450 MHz

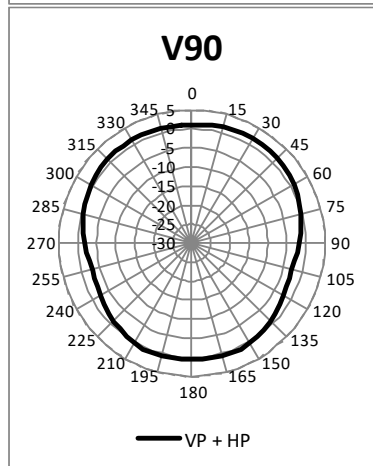
XY-plane:



YZ-plane:



XZ-plane:



VP: Vertical Polarization
HP: Horizontal Polarization

Unit: dBi



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Packaging

The antenna is delivered in a plastic bag.

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



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