



Perseus Tech. International Corp.

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The Bluetooth Chip Antenna(2.4GHz) (BTA003)

The Bluetooth and IEEE802.11 facility is one of the major wireless application in the near future. Bluetooth can be applied in many place, such as WLAN, cell-phone, IA product, PDA, etc. to provide data and voice transformation in short distance at 10 meter(which can be upgraded to 100 meter.).

The bluetooth antenna(2.4GHz) by the *Perseus Tech. Int'l Corp.* is especially design for bluetooth facility application. The small-embedded antenna provides the most reliable, ease to use and adjustment-free antenna technology to solve the problem during assembly and implement by developer.

The bluetooth antenna and module can be provided either only antenna itself or mounted on the small PCB with connector as customer requirement. The characteristic curve can be adjusted to meet the whole system requirement of customer' s facility. The details of antenna specification are as followings:

Part NO. : BTA003	
ITEM	SPECIFICATION
Size	7.6 x 3.8 x 1.1 mm
Central frequency	2,450 MHz
Bandwidth	200 MHz
Peak gain	1.5 dBi
Normal gain	0.5 dBi
VSWR	2.0(Max.)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Feed Point Impedance	50
Weight	0.14 g



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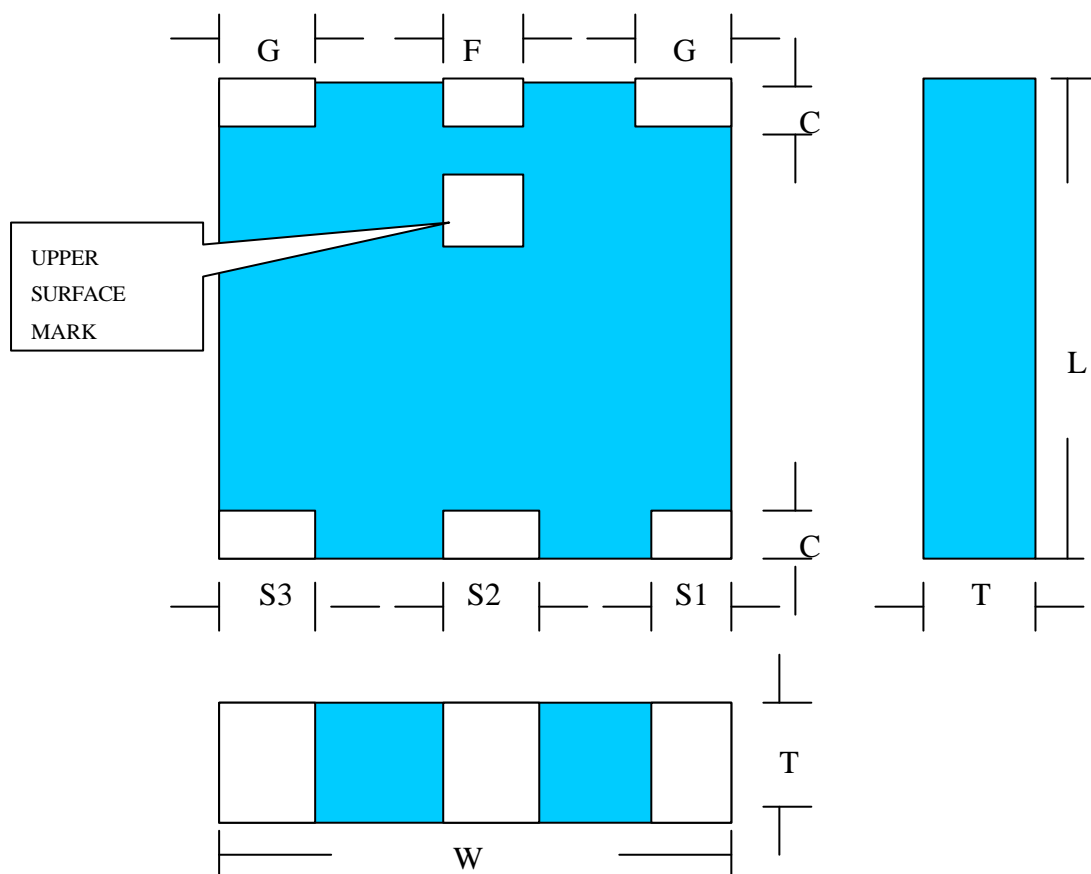
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Mechanical Specification of Bluetooth Antenna



ITEM	DIMENSION	PORT
L	7.6mm	-
W	3.8 mm	-
T	1.1mm	-
F	0.5mm	Feed
G	0.5mm	Ground
C	0.25mm	-
S1	0.5mm	Solder Land
S2	0.5mm	Solder Land
S3	0.5mm	Solder Land



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Measured Antenna patterns (BTA003)

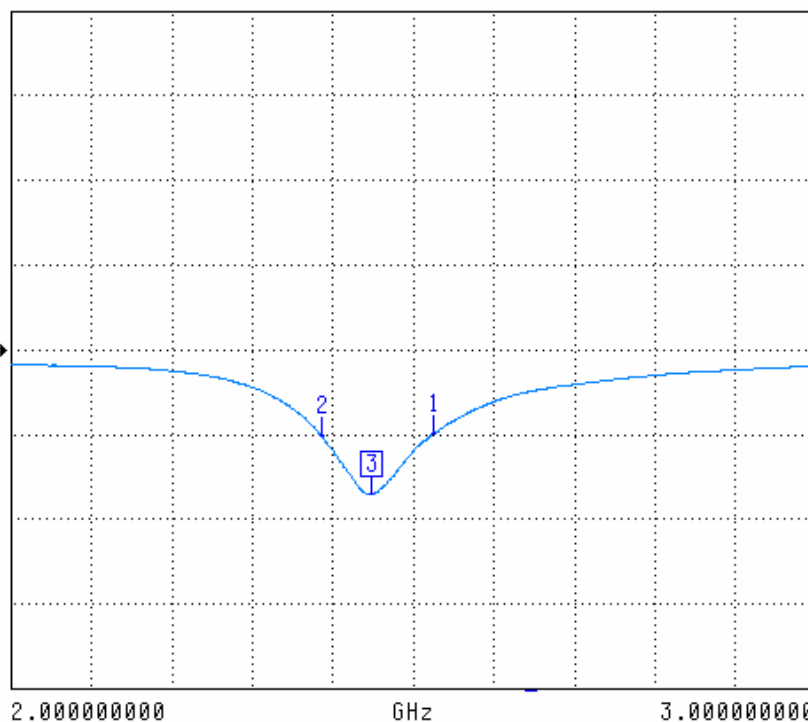
Return loss chart

S11 FORWARD REFLECTION

LOG MAGNITUDE

REF = 0.000 dB

10.000 dB/DIV



CH 1 - S11
REFERENCE PLANE
0.0000 mm

MARKER 3
2.450000000 GHz
-17.090 dB

MARKER TO MAX
▶ MARKER TO MIN

1 2.526250000 GHz
-9.979 dB
2 2.386250000 GHz
-10.139 dB

MARKER READOUT
FUNCTIONS

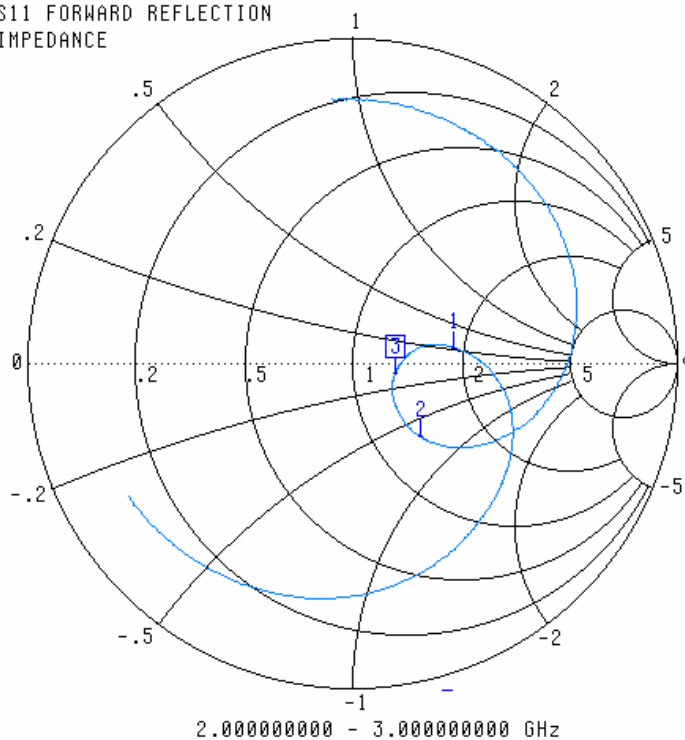


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Smith Chart (BTA003)

S11 FORWARD REFLECTION
IMPEDANCE



CH 1 - S11
REFERENCE PLANE
0.0000 mm

MARKER 3
2.450000000 GHz
65.500 Ω
-4.545 $j\Omega$

MARKER TO MAX
▶ MARKER TO MIN

1 2.526250000 GHz
95.116 Ω
9.470 $j\Omega$
2 2.386250000 GHz
67.029 Ω
-33.875 $j\Omega$

MARKER READOUT
FUNCTIONS