

Product: FIN J GPS / LTE / WIFI

Product Order Code:
BM-02 RANGE

Body Mounted Combination Antenna

GPS, LTE-4G, CELLULAR (2G, 3G),
WIFI / WLAN



- Low profile, low noise robust combination antenna
- RoHS 2011/65/EU & RoHS3 (2015/863/EU) compliant
- Request samples for test & evaluation via enquiry@bloomice.com

Technical Data

Dimensions	84mm (L) x 53mm (W) x 62mm (H)
Weight	155g (Excluding cables & connectors)
Construction Materials	PC/ABS / UL94 V0 / UV Stable
Maximum Torque Setting (Nm)	5Nm
Mounting Arrangement	M14 x 1 Thread & Stainless Steel Nut Ground Plane Dependent
Temperature Range	-40 to +85 Degree Celsius
Protection Class	IP67 (IEC60529) / IP69 / IK09

Cellular LTE / 2G / 3G

Frequency Range	LTE 700 + GSM 900: 698 - 960 MHz GSM 1800: 1710 - 1880 MHz UUMTS: 1920 - 2170 MHz LTE (High): 2300 - 2700 MHz
Impedance	50 Ohm
Polarisation	Linear
Peak Gain	LTE 700 + GSM 900: @ 790-960 MHz; 0dBi GSM 1800: @ 1710-1880 MHz; 0dBi UUMTS: @ 1920-2170 MHz 2.14Bi LTE (High): @ 2300-2700 MHz; 0dBi
Radiation Pattern	Omni-Directional
Max Power @ 30 Celsius	LTE 700 + GSM 900: 25 Watts @ 790-960 MHz GSM 1800: 25 Watts @ 1710-1880 MHz UUMTS: 25 Watts @ 1920-2170 MHz LTE (High): 25 Watts @ 2300-2700 MHz
Return loss (VSWR)	<2:1 (All Bands)
Radiator Type	Folded Monopole
Cable types Available	LL100 50 Ohm Low Loss / RG174
Cable Length	According to customer specification
Connector	According to customer specification
Test & Measurement Conditions	300mm x 300mm Ground Plane / 1000mm LL100 Cable

dBi: Referenced to an isotropic radiator

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Technical Data (Continued))

GPS / GALILEO / QZSS

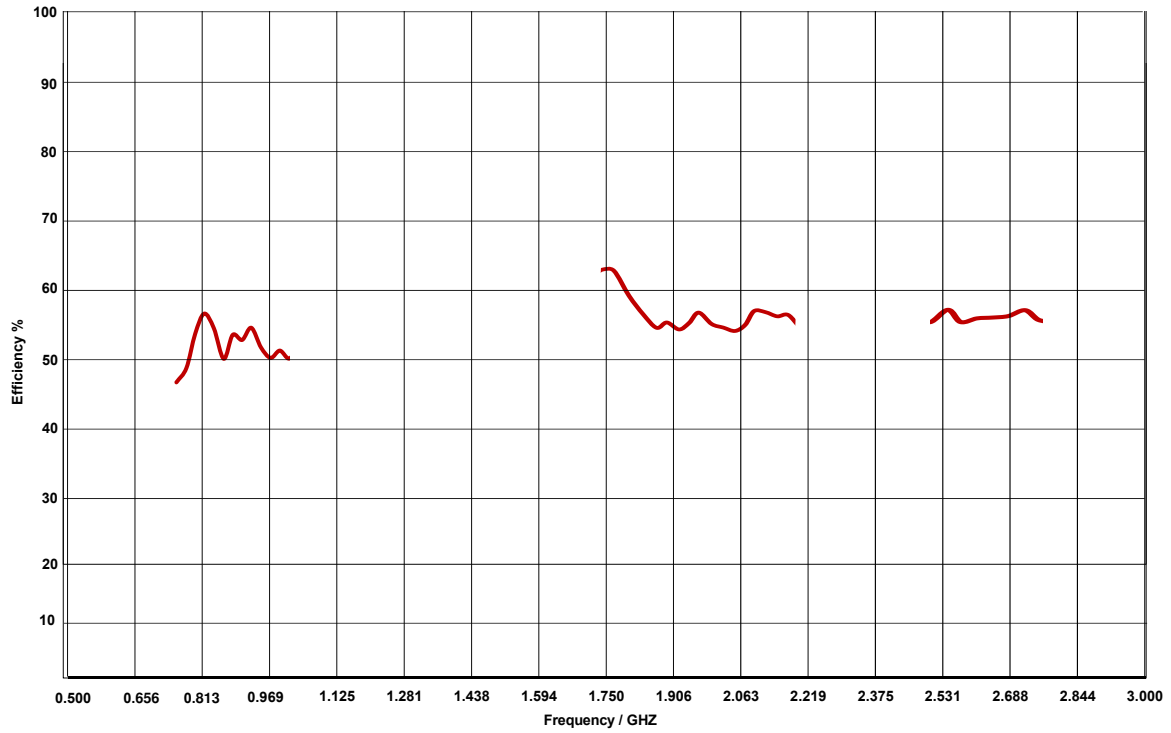
Frequency Range	GPS, GALILEO, QZSS:	1575.42 MHz Centre Frequency (+/- 1.024MHz)
Impedance		50 Ohm
Polarisation		RHCP
Radiation Pattern		Hemispherical
Return loss (VSWR)		<1.3:1 @ 1575.42MHz
Gain		0dB
Active Gain (Amplification)		28dB @ 3v / 30dB @ 5v
Operational Voltage		2.7v to 5.5v
Current Consumption		9mA to 14mA (Typical)
Power Consumption		28mW
SAW Filter		Pre-filter
Noise Figure		1.5dB (Typical)
Cable types Available		LL100 50 Ohm Low Loss / RG174 /
Cable Length		According to customer specification
Connector		According to customer specification
Test & Measurement Conditions		300mm x 300mm Ground Plane / 1000mm LL100 Cable

WLAN / WIFI / BLUETOOTH / ZIGBEE / ISM

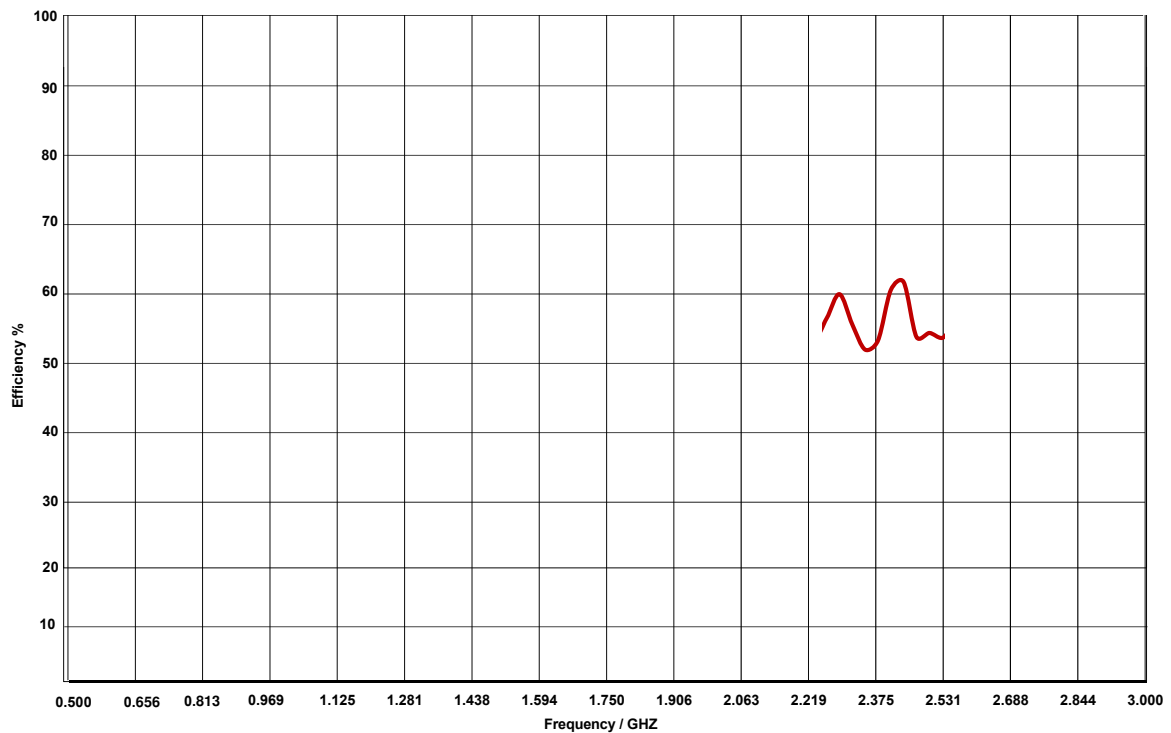
Frequency Range	Bluetooth: IEEE Standard 802.11b	2400 MHz - 2484 MHz 2412 MHz - 2484 MHz
Impedance		50 Ohm
Polarisation		Linear
Radiation Pattern		Omni-directional
VSWR		<2:1
Maximum Gain		3.1dBi
Average Gain		2.14dBi
Input Power		25w (Maximum)
Cable types Available		LL100 50 Ohm Low Loss / RG174
Cable Length		According to customer specification
Connector		According to customer specification
Test & Measurement Conditions		300mm x 300mm Ground Plane / 1000mm LL100 Cable

dBi: Referenced to an isotropic radiator

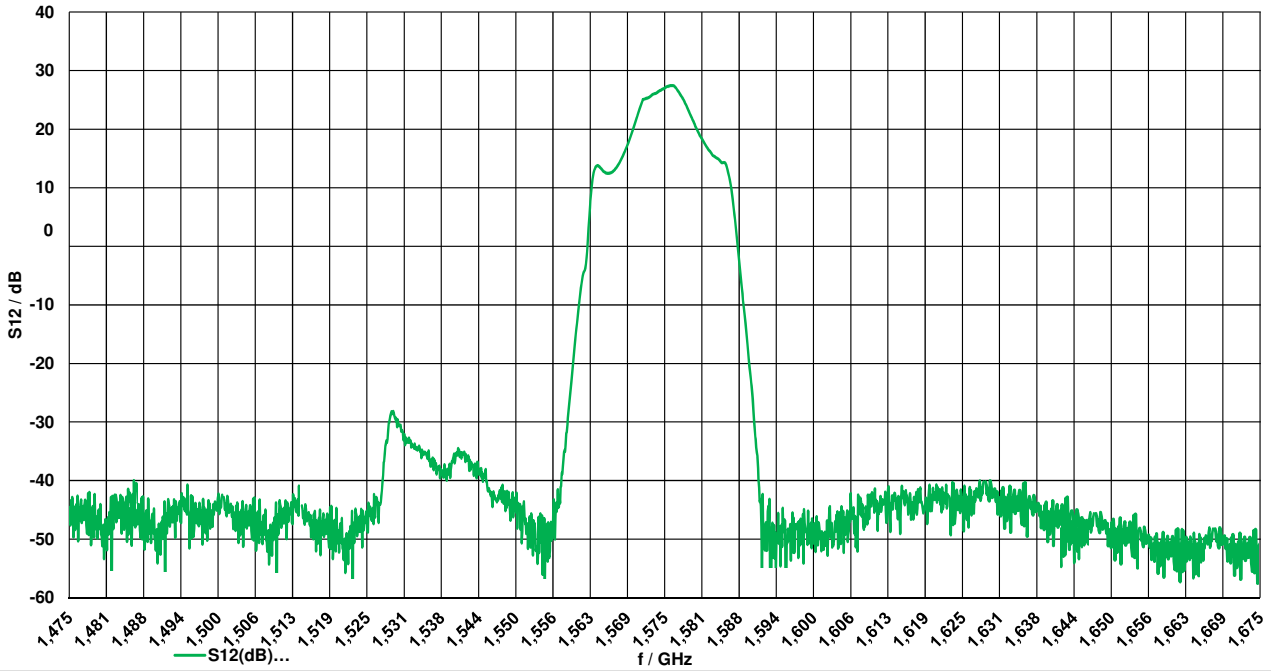
Radiated Efficiency (LTE)



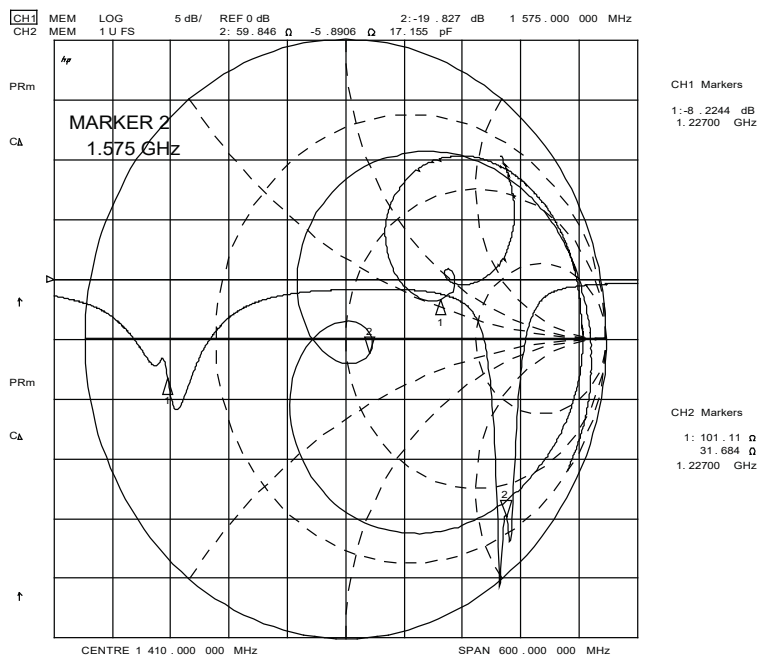
Radiated Efficiency (WIFI)



Typical GPS LNA Gain @ 3v



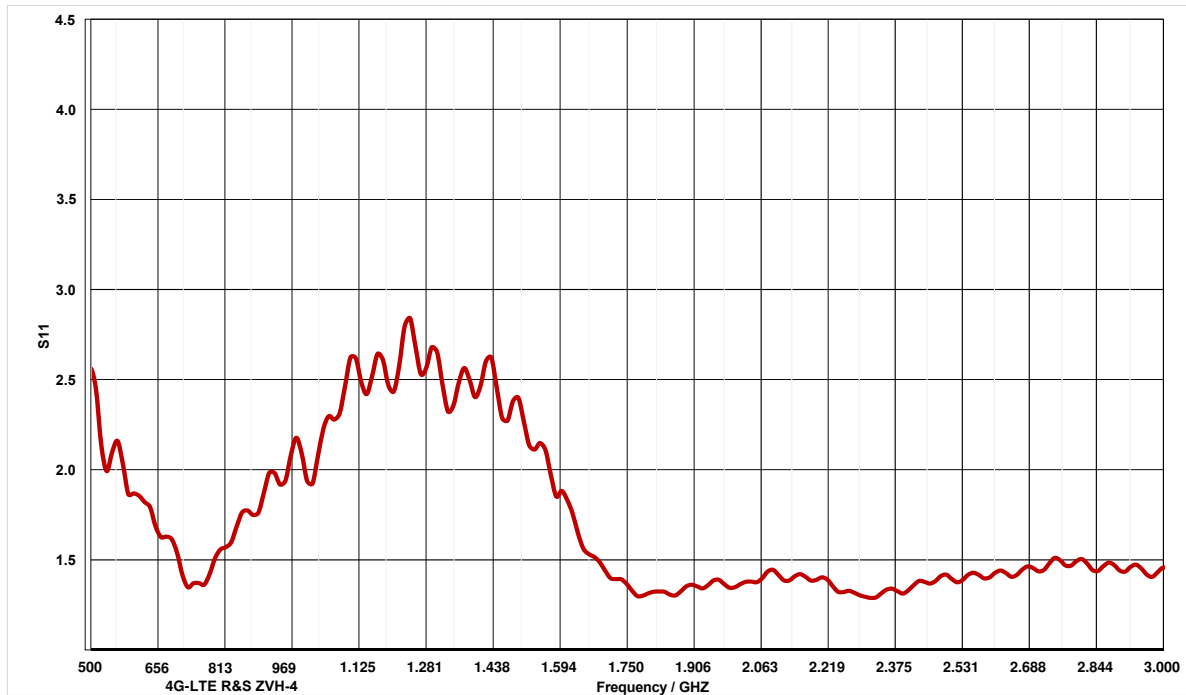
GPS Smith Chart



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Typical VSWR Data (LTE)



CAD Data

