

Product: CASCO LTE MIMO, GNSS, WIFI

Product Order Code:
BM-02996/D302

Wideband Telemetry Antenna

MIMO LTE-4G, CELLULAR (2G, 3G)
GNSS, WIFI, WLAN, BT, ZIGBEE, ISM

- Rugged wideband body mounted antenna
- RoHS 2011/65/EU & RoHS3 (2015/863/EU) compliant
- Request samples for test & evaluation via enquiry@bloomice.com



Technical Data

Dimensions	53mm (H) Above panel height x 110mm Diameter (Base)
Weight	376g (Excluding cable)
Construction Materials	PC/ABS UL94 V0 UV Stable
Mounting Arrangement	M27 Stainless Steel Nut Mounting on any surface (glass, metal, plastic etc.)
Temperature Range	-40 – +85° C
Protection Class	IP67 / IK09 (IEC 60529)

MIMO Cellular LTE / 2G / 3G (2 CABLES)

Frequency Range	LTE 700 + GSM 900: GSM 1800: UMTS: LTE (High):	700 - 960 MHz 1710 - 1880 MHz 1920 - 2170 MHz 2300 - 2700MHz
Impedance		50 Ohm
Polarisation		Linear
Peak Gain	LTE 700 & GSM 900: GSM 1800: UMTS: LTE (High):	@ 790-960 MHz; 3dBi @ 1710-1880 MHz; 3dBi @ 1920-2170 MHz; 3dBi @ 2300-2700 MHz; 3dBi
Radiation Pattern		Omni-Directional
Max Power @ 30°C	LTE 700 & GSM 900: GSM 1800: UMTS: LTE (High):	35 Watts @ 790-960 MHz 35 Watts @ 1710-1880 MHz 35 Watts @ 1920-2170 MHz 35 Watts @ 2300-2700 MHz
Return loss (VSWR)		≤ 2:1 (All Bands)
Radiator Type(s)		Folded Monopole
Cable type		LEONI DACAR 302
Cable Length		3m (x2)
Connector		SMA MALE (x 2)
Test & Measurement Conditions		300mm x 300mm GP / 1000mm LL100 Cable / SMA Male

dBi: Referenced to an isotropic radiator

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Technical Data (Continued)

GNSS (GPS / GALILEO / QZSS & GLONASS)

Frequency Range	GPS, GALILEO, QZSS: GLONASS	1575.42 MHz Centre Frequency (+/- 1.024MHz) 1602 MHz Centre Frequency (+/-4MHz)
Impedance		50 Ohm
Polarisation		RHCP
Radiation Pattern		Hemispherical
Return loss (VSWR)		<1.3:1 (@ 1575.42MHz & 1602MHz)
Gain		28dB @ 3v / 30dB @ 5v
Operational Voltage		2.7v to 5.5v
Current Consumption		11mA to 18mA (Typical)
Power Consumption		40mW (Typical)
SAW Filter		Pre-filter
Noise Figure		1.5dB (Typical)
Cable type		LEONI DACAR 302
Cable Length		3m
Connector		SMA MALE
Test & Measurement Conditions		300mm x 300mm x 2mm ABS / 1000mm LL100 Cable / SMA Male connector

WLAN / WIFI / BLUETOOTH / ZIGBEE / ISM

Frequency Range	Bluetooth: IEEE Standard 802.11b	2400 MHz - 2484 MHz 2412 MHz - 2500 MHz 4900 MHz - 5825 MHz
Impedance		50 Ohm
Polarisation		Linear
Radiation Pattern		Omni-directional
VSWR		<2.5:1
Maximum Gain		3.1dBi
Average Gain		2.14dBi
Input Power		25w (Maximum)
Cable type		LEONI DACAR 302
Cable Length		3m
Connector		SMA MALE
Test & Measurement Conditions		300mm x 300mm GP / 1000mm LL100 Cable / SMA Male

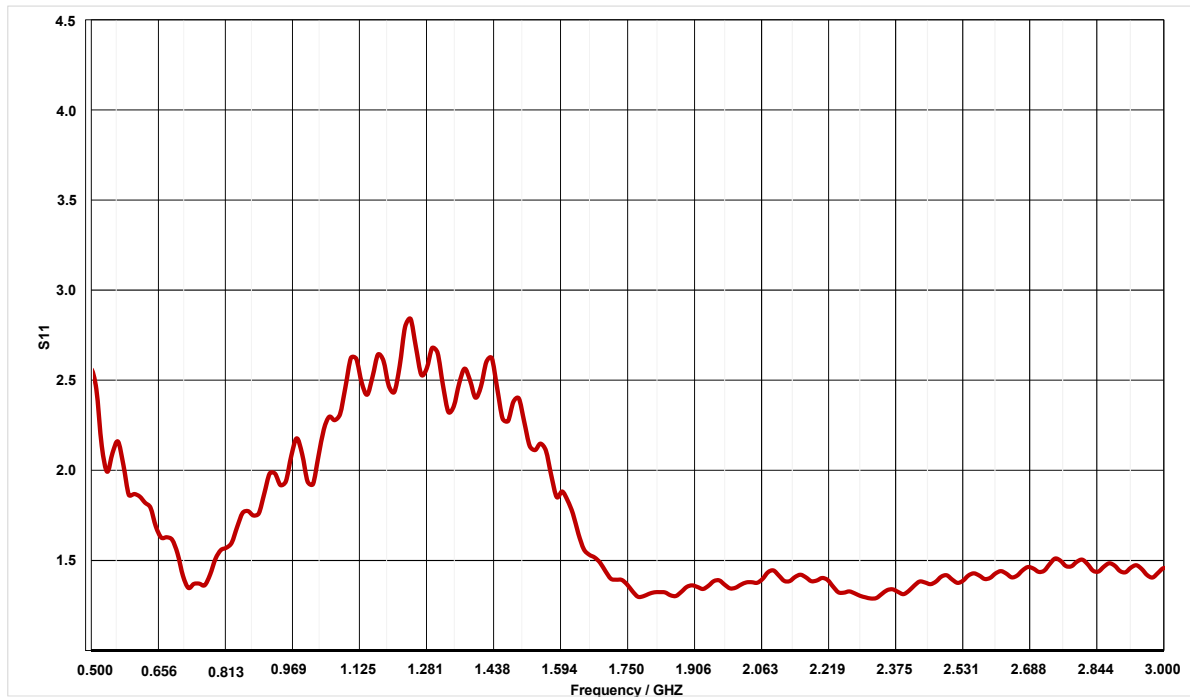
dBi: Referenced to an isotropic radiator

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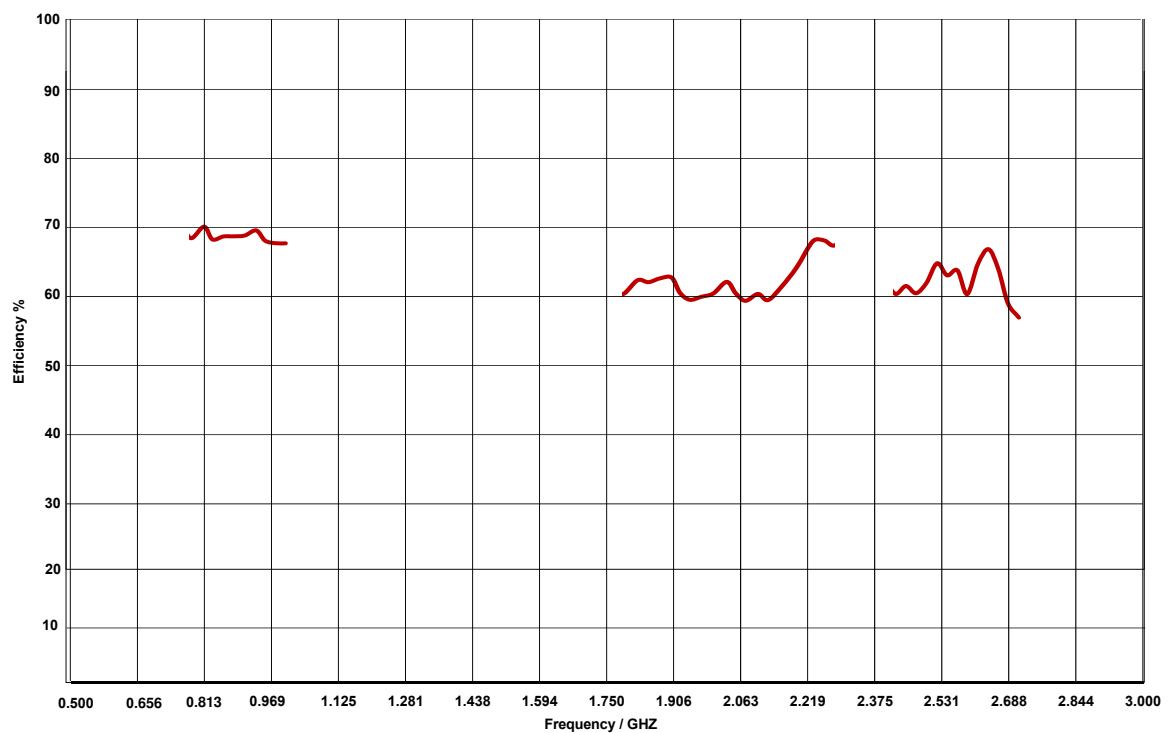
Product Order Code:

BM-02996/D302

Typical VSWR Data (LTE)



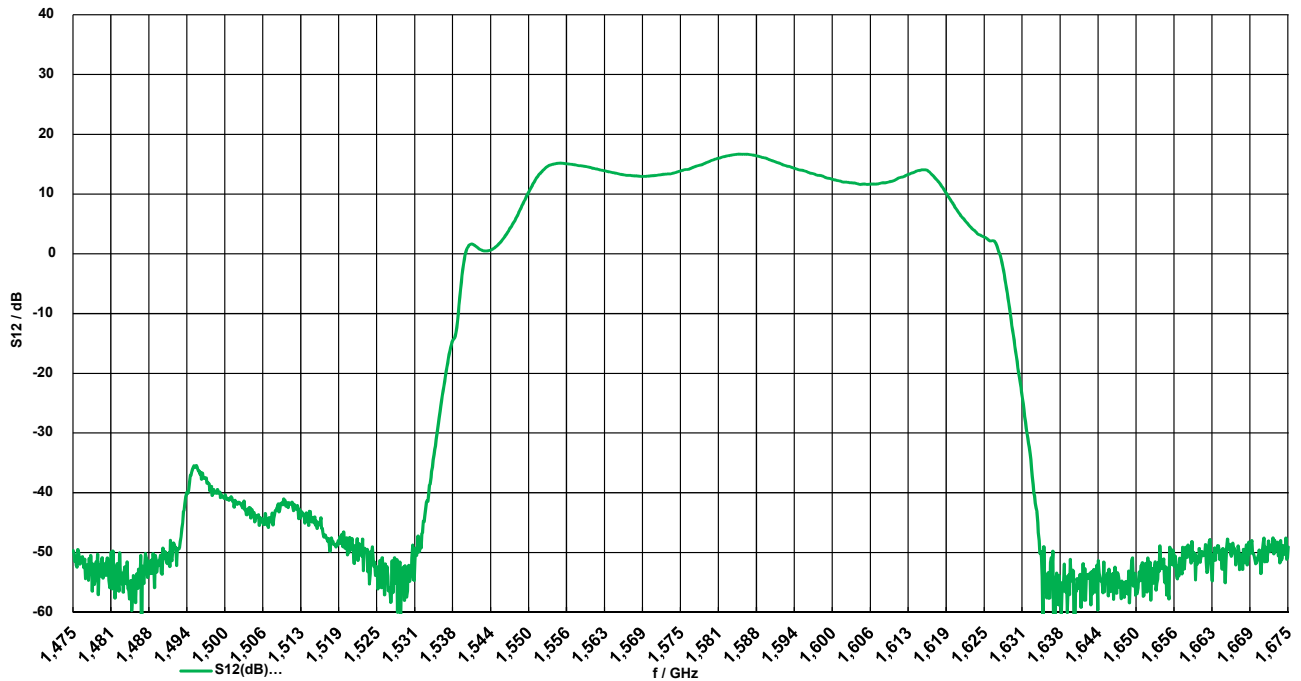
Radiated Efficiency (LTE)



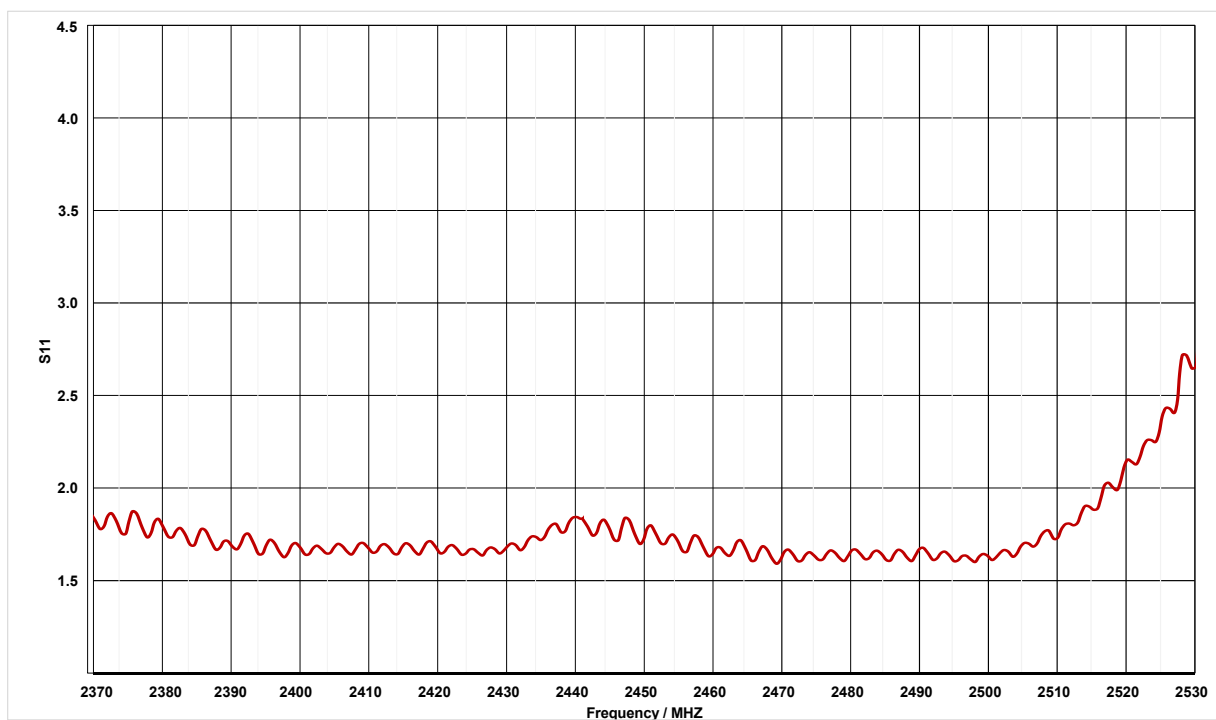
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Typical GNSS LNA Gain



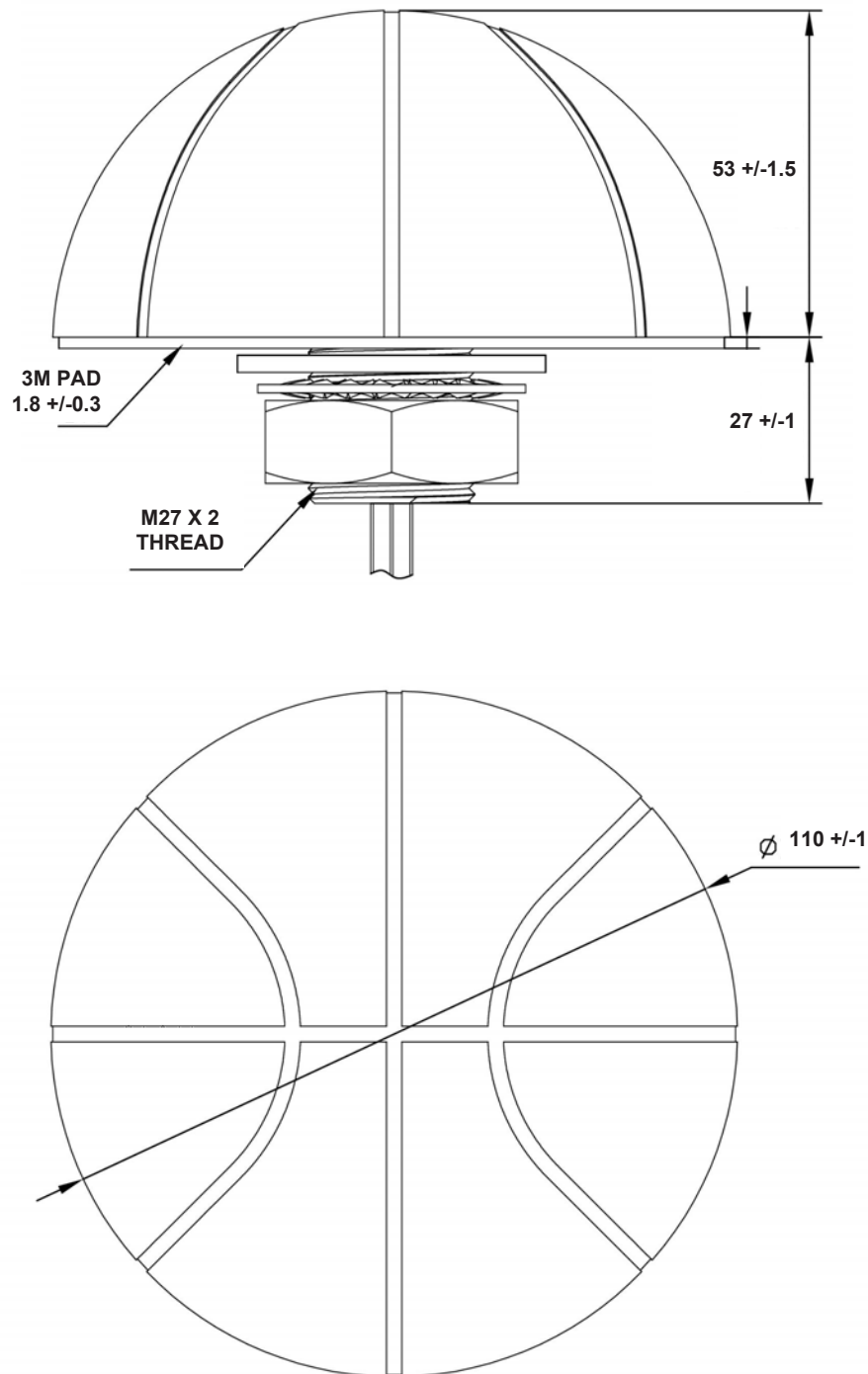
Radiated Efficiency (WIFI 2400MHz to 2500MHz Band)



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CAD Data



DIMENSIONS IN MM