

ANTENNAS | DASH-1 SERIES

ULTRA LOW PROFILE, SMART METER LTE ANTENNA

LTE; 690 – 2700 MHz, 4 dBi



690 – 960 MHz; 1710 – 2700 MHz;	1 dBi @ 690- 960 MHz	Increase x Mb/s	Omni- Directional	Machine to Machine	IoT
690 – 2700 MHz	2.4 – 2.5 GHz	IP 67	-40°C to +75°C	Fire Resistant	

- **Smart Meter, M2M, IoT Antenna**
- **Futureproof wideband LTE antenna**
- **Backwards compatible with 2G and 3G technologies**
- **Increased connectivity stability**
- **Low profile design**

APPLICATION AREAS

- Urban
- Rural/Farm
- Meter

Product Overview

The DASH-1 antenna is purposefully designed for low profile requirements such as Smart Meters. This omni-directional antenna is suitable for indoor and outdoor use, typically mounted on the top or side of smart meter boxes. The DASH-1 antenna is designed with installation simplicity in mind, while covering the LTE frequency bands from 690 – 2700MHz. This antenna has a superior electrical performance over the whole 690 - 2700MHz LTE/cellular bands.

Features

- Omni-directional antenna
- Wideband frequency ranges from 690 – 2700 MHz
- Stylish, but robust design
- Robust, vandal resistant and waterproof (IP67) antenna
- Ultra-versatile mounting options for easy installation

Application Areas

- Smart Utilities: Smart Power Metering, Gas & Water Metering
- Smart Buildings: Climate control, access control, security, irrigation
- Digital signage
- Smart environmental & water systems
- Warehouses & logistics systems
- Industrial factory automation and M2M systems
- Farming & agricultural M2M & IoT

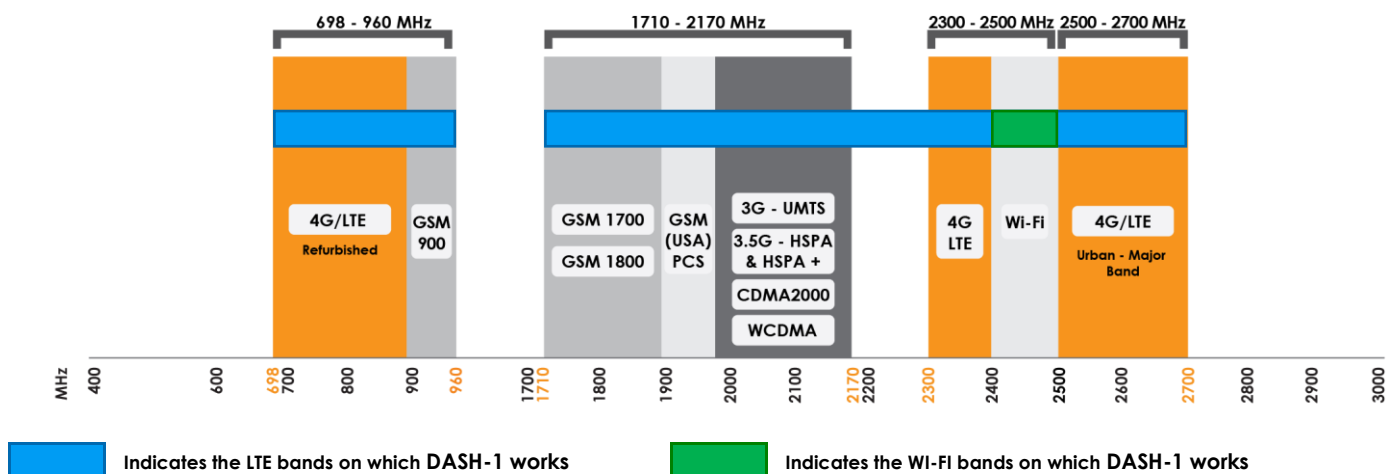
Can be used with the following IoT technologies:

- | | |
|-----------|----------------|
| • Zigbee | • Wi-Fi |
| • Z-Wave | • Wi-Fi HaLow |
| • LoRaWAN | • LTE-M/NB-IoT |
| • Sigfox | • Bluetooth |



Frequency Bands

The DASH-1 works from 690 – 960 MHz | 1710 – 2700 MHz



Antenna Derivatives

Product Order Code (SKU)	A-DASH-0001-V1	A-DASH-0001-01-V1
Ports	1	1
SISO / MIMO	SISO	SISO
Coax Cable Type	RG 174	HDF 195
Coax Cable Length	1m	1m
Connector Type	Right Angle MCX	Right Angle SMA
Product Weight	0.057kg	0.06kg
Packaged Weight	0.068kg	0.071kg
EAN	0707273470010	0707273470157

*The coax cable & connector are factory mounted to the antenna

Electrical Specifications

Frequency bands:	690 – 960 MHz 1710 – 2700 MHz
Gain (max):	1 dBi @ 690-960 MHz 4 dBi @ 1710-2700 MHz
VSWR:	<3:1 Across 90% of the bands
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Coax cable loss:	0.78 dB/m @ 600 MHz 0.92 dB/m @ 900 MHz 1.35 dB/m @ 1800 MHz 1.6 dB/m @ 2400 MHz
DC short:	Yes

Product Box Contents

Antenna:	A-DASH-0001-V1
Mounting bracket:	N/A

Mechanical Specifications

Product dimensions	258 mm x 13 mm x 34 mm
Packaged dimensions:	265 mm x 100 mm x 15 mm
Radome material:	ABS/PC
Radome colour:	Pantone Cool Gray 1C
Mounting Type:	Adhesive backing & M8 x 17 mm spigot with M8 brass nut

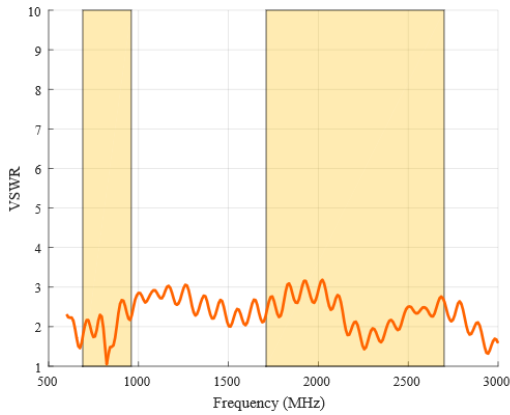
Environmental Specifications, Certification & Approvals

Wind Survival:	≤120 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 65
Salt Spray:	MIL-STD 810F/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C to +70°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards

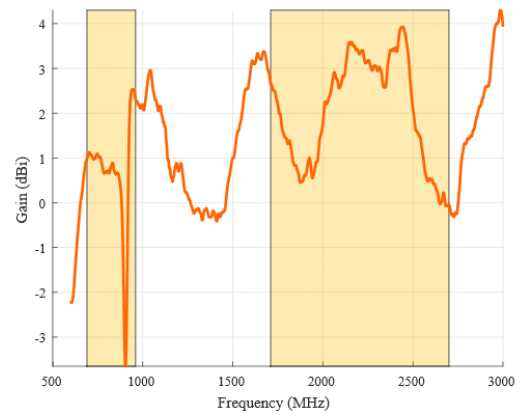


Antenna Performance Plots

VSWR



GAIN (EXCLUDING CABLE LOSS)



Voltage Standing Wave Ratio (VSWR)

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The DASH-1 delivers superior performance across all bands with a VSWR of 3:1 or better across 90% of the bands.

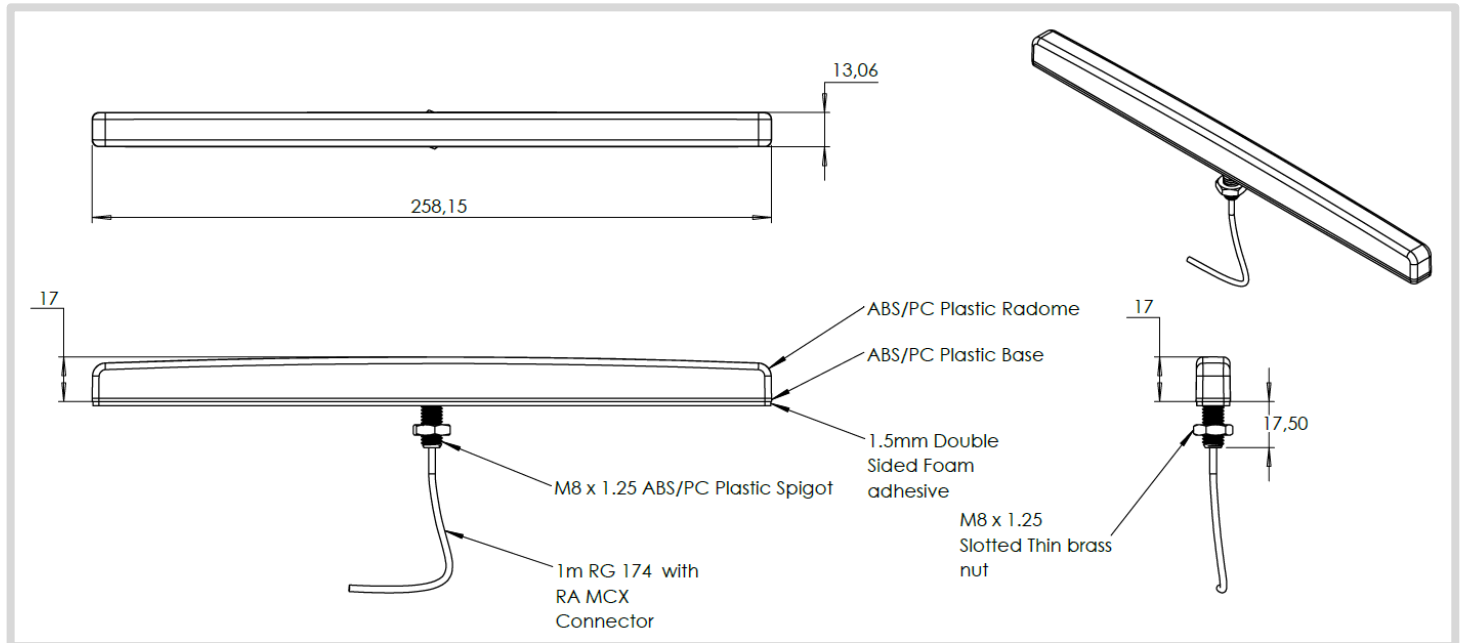
Gain* in dBi

4 dBi is the peak gain across all bands from 690-2700 MHz

Gain @ 690 – 960 MHz:	1 dBi
Gain @ 1710 – 2700 MHz:	4 dBi

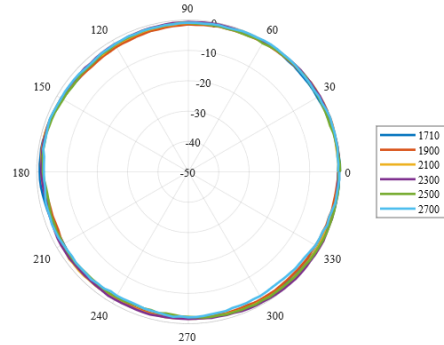
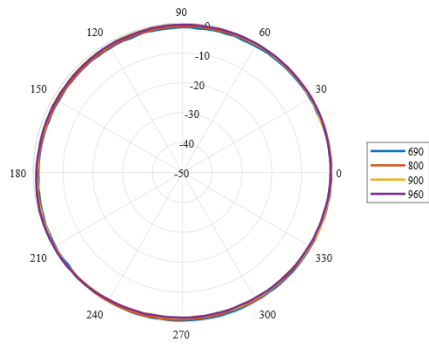
**Antenna gain measured with polarisation aligned standard antenna*

Technical Drawings

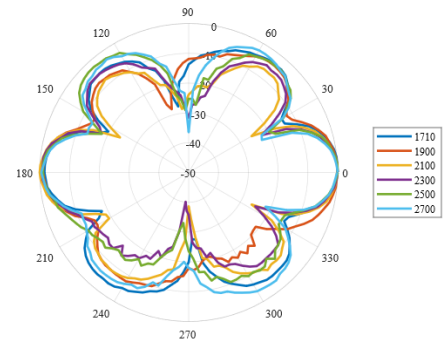
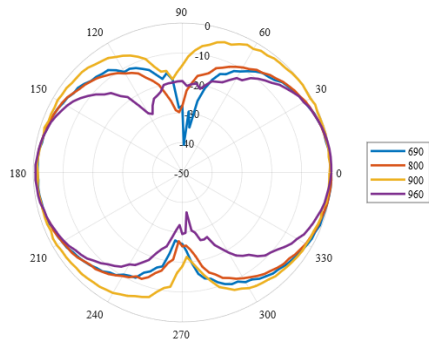


Radiation Patterns

Azimuth: 690 – 960 MHz **Azimuth: 1710 – 2700 MHz**



Elevation: 690 – 960 MHz **Elevation: 1710 – 2700 MHz**



Mounting Options



Surface Mount

Surface mounted using the provided adhesive backing.

Additional Accessories

For more information, visit www.poynting.tech

Contact Poynting

Poynting Antennas (Pty) Ltd - Head Office

Unit 4, N1 Industrial Park
Landmarks Avenue,
Samrand, 0157
South Africa

Phone: +27 (0) 12 657 0050

E-mail: sales@poynting.co.za

Poynting Europe

Regus Business Center Neue Messe Riem
Kronstadter Straße 4
81677 München
Germany

Phone: +49 89 208026538

E-mail: sales-europe@poynting.tech