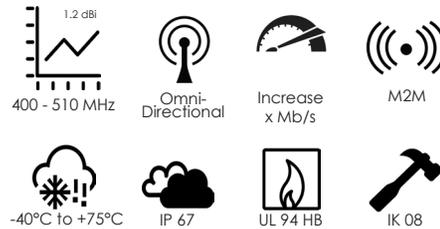


ANTENNAS | DASH SERIES, SMART METER ANTENNA

DASH-3

Ultra low profile smart meter/M2M/IoT antenna, 400MHz - 510MHz



- Smart Meter, M2M, IoT antenna
- Futureproof wideband LTE antenna
- Backwards compatible with 3G and 2G technologies
- Increased connectivity stability
- LoRa 433 MHz
- CDMA 450 MHz
- NB-IoT/LTE-M 450 MHz



Product Overview

The DASH-3 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-3 antenna is designed with installation simplicity in mind, while covering the LTE frequency bands 400 – 510MHz. This antenna has a superior electrical performance over the 433MHz - 510MHz international bands for IoT, and can also be used for the whole 400MHz - 510MHz LTE/cellularCDMA bands.

Features

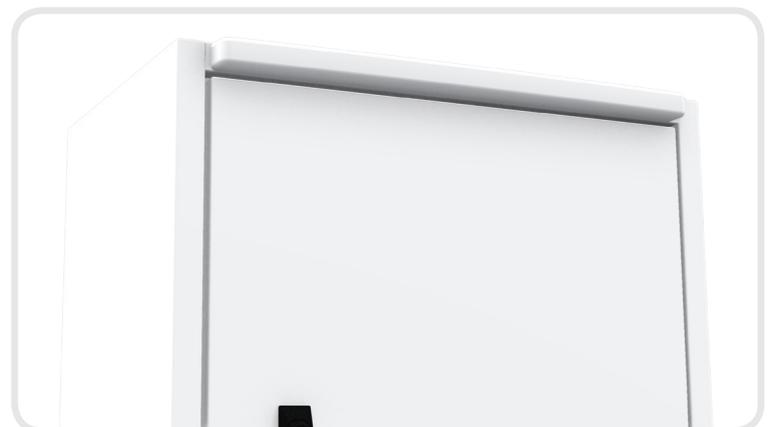
- Omni-directional antenna
- ISM frequency band
- Easy installation
- Stylish, but robust design
- Weather & vandal resistant

M2M and IoT 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 & Logistic systems
- Industrial factory automation and M2M systems
- Farming & Agricultural M2M & IoT

Can be used with the following IoT technologies:

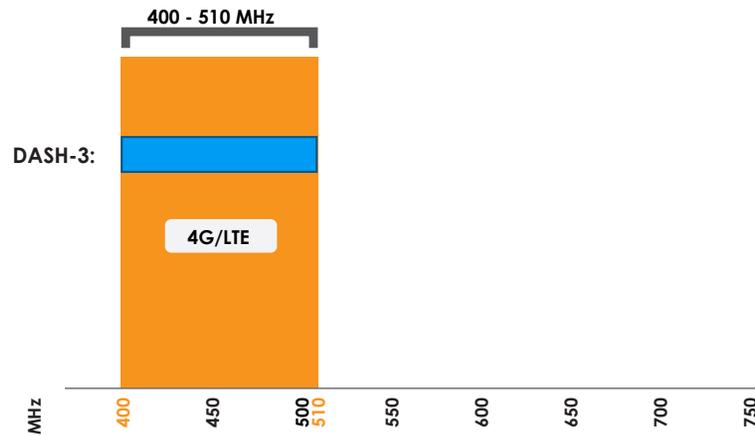
- LoRa 433MHz
- LTE-M/NB-IoT band 31, 72, 73
- CDMA 450



Frequency bands

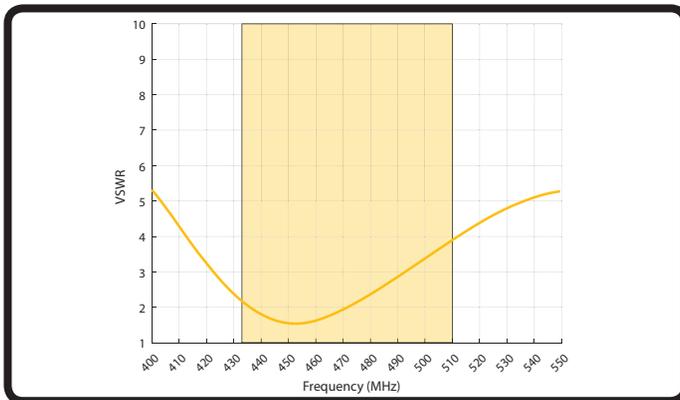
LTE bands 31, 72, 73

 Indicates the bands on which this antenna works



Antenna Performance Plots

VSWR:



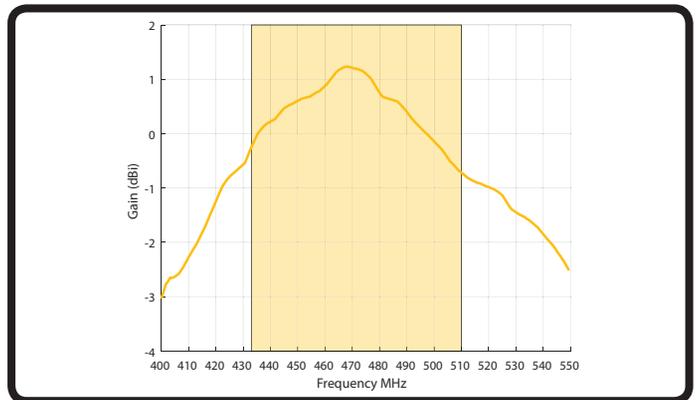
Voltage Standing Wave Ratio (VSWR)

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-3 delivers superior performance with a VSWR of:

- < 2.2:1 @ 433 MHz
- < 2:1 @ 450 - 470 MHz

Gain : (excluding cable loss)



Gain* in dBi

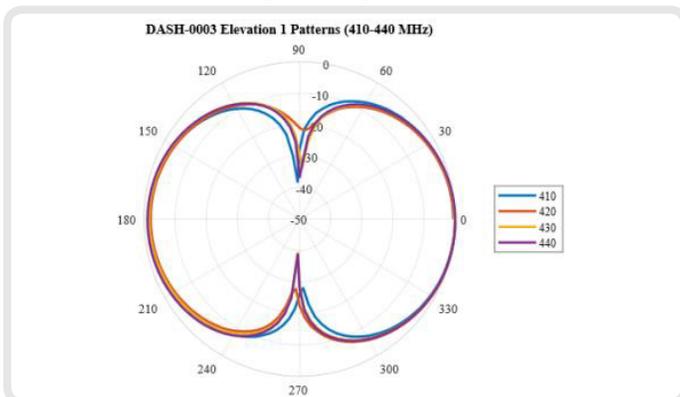
Gain @ 433 - 510 MHz:

1.2 dBi

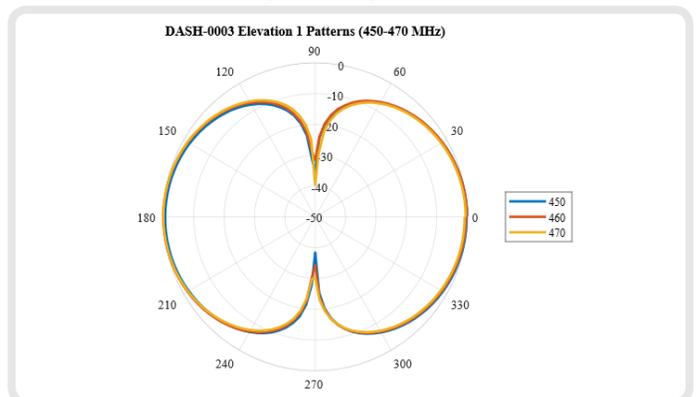
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns - Antenna mounted vertically

Elevation: 410 - 440 MHz (side view)



Elevation: 450 - 470 MHz (side view)



Electrical Specifications

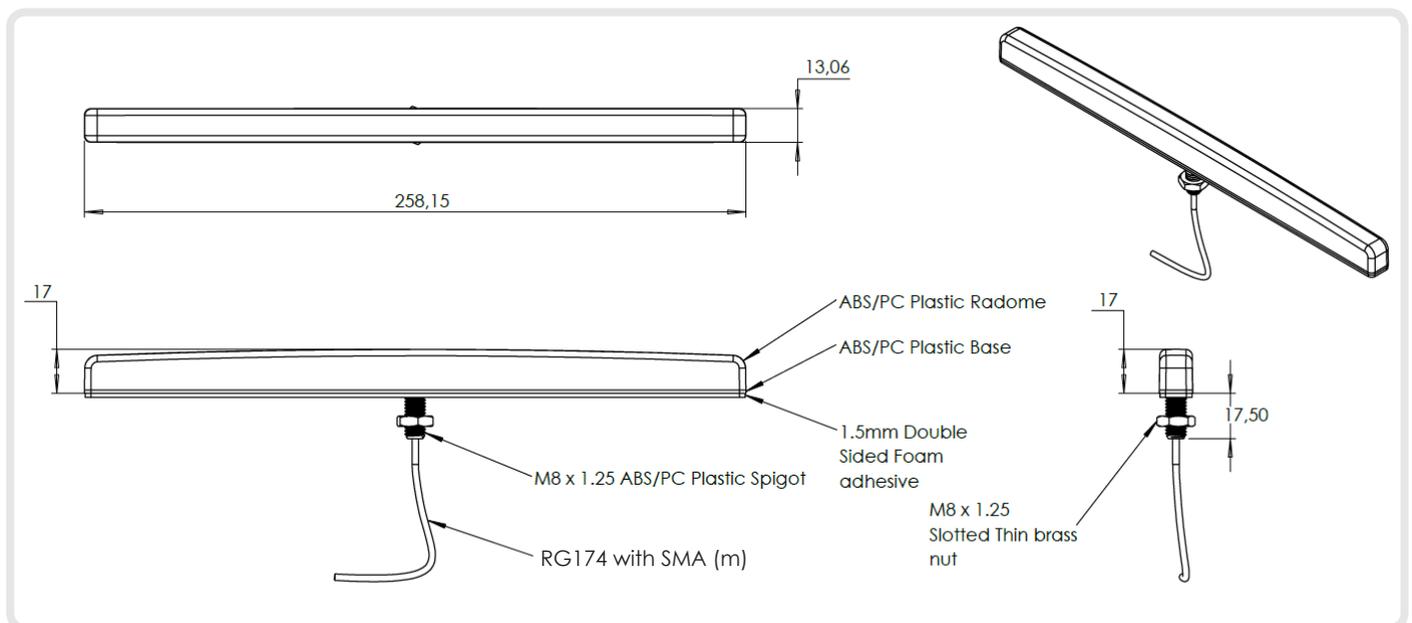
Operating Frequency:	400 - 510 MHz
Gain (Max):	1.2 dBi
VSWR:	< 2.2:1 @ 433 MHz < 2:1 @ 450-470 MHz
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Horizontal / Vertical
Cable loss:	0.62dB/m @ 400 MHz
Cable:	RG 174
Cable length:	1m ±5%
Connector:	SMA male
DC Short:	Yes

Mechanical Specifications

Product Dimensions (L x W x D):	258mm x 34mm x 13mm
Packaging Material:	Poly bag
Packaged Dimensions:	265mm x 100mm x 15mm
Weight:	60g
Packaged Weight:	70g
Radome Material:	ABS/PC (Halogen Free)
Radome Colour:	Cool Gray 1C
Mounting:	Adhesive backing & M8 x 17mm spigot with M8 brass nut

Environmental Specifications

Wind Survival:	160 km/h
Temperature Range (Operating):	-40°C to +75°C
Environmental Conditions:	IP67 (excl. Spigot Mounting)
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% non-condensing
Storage Temperature:	-40°C to +75°C



Certification Approvals and Standards

Cable Flammability rating:	UL 94-HB
Water Ingress Protection Ratio/Standard:	IP 67 (NEMA 4X)
Impact resistance:	IK 08
Salt Spray:	MIL-STD 810F/ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards

Ordering Information

Commercial name:	DASH-3
Order Product Code:	A-DASH-0003-V1
EAN number:	0707273470256



For more detailed information and availability in your region, visit our web site: www.poynting.tech

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DASH-3

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Product Specifications may change without prior notice
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