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 690 – 2700MHz. This antenna has a superior electrical performance over the whole 690 - 2700MHz LTE/cellular bands.

Features

- Omni-directional antenna
- Wideband - covers wide 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:

- Zigbee
- Z-Wave
- LoRaWAN
- Sigfox
- Wi-Fi
- Wi-Fi HaLow
- LTE-M/NB-IoT
- Bluetooth
**Frequency bands**

The DASH-1 works across the following LTE bands: 1-21, 23-28, 30, 33-41

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**Antenna Performance Plots**

**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 2.5:1 or better across 90% of the band.

**Gain (excluding cable loss):**

4 dBi is the peak gain across all bands from 698 - 2700 MHz

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

*Antenna gain measured with polarisation aligned standard antenna
Radiation Patterns - Antenna mounted vertically

Elevation: 690 - 960 MHz (side view)

Azimuth: 690 - 960 MHz (top view)

Elevation: 1710 - 2700 MHz (side view)

Azimuth: 1710 - 2700 MHz (top view)
**Electrical Specifications**

Operating Frequency: 690 - 2700 MHz
Gain (Max): 4 dBi
VSWR: < 2.5:1 over 95% of the band
Feed Power Handling: 10 W
Input Impedance: 50 Ohm (nominal)
Polarisation: Linear Horizontal / Vertical (installation dependent)
Cable loss: 1dBi/m @ 900 MHz
Cable: RG 174
Cable Length: 1m ±5%
Connector: Right Angle MCX
DC Short: Yes

**Mechanical Specifications**

Product Dimensions (L x W x D): 258mm x 34mm x 13mm
Packaging Material: Poly bag
Packaging Dimensions: 265mm x 100mm x 15mm
Weight: 60g
Packaged Weight: 70g
Radome Material: ABS/PC (Halogen Free)
Radome Colour: Pantone Black or 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

**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

**Certification Approvals and Standards**

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**Ordering Information**

Commercial name: DASH-1
Order Product Code: A-DASH-0001-V1
EAN number: 0707273470010

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

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