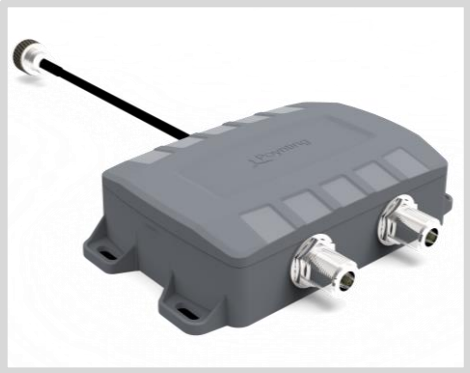
SPLT-16

ANTENNAS | SPLT-16 SERIES

ULTRA-WIDEBAND TWO-WAY SPLITTER

410 – 7200 MHz



410 – 7200 MHz; < 1.5:1 VSWR; Increase x Mb/s; 4G LTE; 5G Ready; 2.4-2.5 GHz 5.0-6.0 GHz

Machine to Machine; 2x2 MIMO; IP 68; -40°C to +70°C; Fire Resistant

- **Ultra-wideband 2-Way Splitter from 410 – 7200 MHz**
- **Covers 5G/4G/3G/2G frequency bands.**
- **Covers dual-band Wi-Fi for 2.4 GHz and 5 to 7.2 GHz**
- **Wilkinson splitter design implemented.**
- **Easy to implement and rugged design**
- **Weather, dust and vandal resistant enclosure (IP 68)**

APPLICATION AREAS: Urban; Rural/Farm; Tunnelling; Marine

Product Overview

The SPLT-16 is a 2-way splitter, which is has an ultra-wideband operation and operates from 410 to 7200 MHz. The ultra-wideband operations allow for multiple implementations and can be used for all the popular 4G/LTE and 5G applications, as well as dual-band Wi-Fi implementation. The product implements the design of a Wilkinson power divider, as this ensures low loss while providing good phase and amplitude balance. The SPLT-16 can be used as a splitter to split the power from a single antenna to two independent devices. The SPLT-16 can also be used as a combiner to combine two separate antennas to a single device, which will allow for antenna diversity and improved performance. The SPLT enclosure is made of ABS with UV stabiliser, which is a high impact resistant plastic and is also resistant to acids and other chemicals.

Features

- Ultra-wideband operation from 400 to 7200 MHz
- Low-loss Wilkinson splitter design
- Constant phase and amplitude balance
- Good isolation between ports

Application Areas

- Least Cost Routers (LCRs)
- Combining coverage from two antennas to a single device
- Splitting power from a single antenna to two independent devices

Revised: May 2021

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
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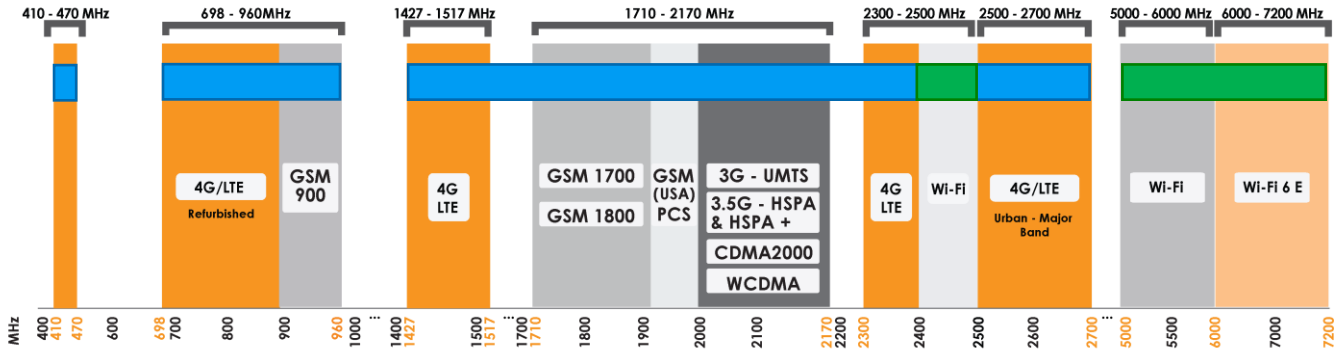
Frequency Bands

The SPLT-16 is a splitter that works from 410 – 7200 MHz



Indicates the LTE frequency bands which SPLT-16 supports

Indicates the Wi-Fi frequency bands which SPLT-16 supports

Antenna Derivatives

Product Order Code (SKU)	A-SPLT-0016-V1-01	A-SPLT-0016-V1-02
Ports	3	3
SISO / MIMO	MIMO	MIMO
Coax Cable Type	HDF 195	HDF 195
Coax Cable Length	0.3m	0.3m
Connector Type	N-Type (F)/N-Type (M)	SMA (F)/SMA (M)
Weight	0.34 kg	0.29 kg
Packaged Weight	0.4 kg	0.35 kg
EAN	6009710921708	6009710922460

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

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Electrical Specifications

Frequency bands:	410 – 7200 MHz
VSWR:	<1.5:1 Over 95% of the bands
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Coax cable loss:	0.232 dB/m @ 400 MHz 0.362 dB/m @ 900 MHz 0.514 dB/m @ 1800 MHz 0.533 dB/m @ 2400 MHz 1.07 dB/m @ 5800 MHz

Mechanical Specifications

Product dimensions	158 mm x 96 mm x 40 mm (Excluding cables, connectors and adhesive foam)
Packaged dimensions:	205 mm x 192 mm x 54 mm
Radome material:	PC-ABS with UV Stabilizer
Radome colour:	Pantone – Cool Gray (11C)
Mounting Type:	Surface mount

Environmental Specifications, Certification & Approvals

Wind Survival:	<160 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 68 (NEMA 4X)
Salt Spray:	MIL-STD 810G/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 10
Product Safety & Environmental:	Complies with CE and RoHS standards

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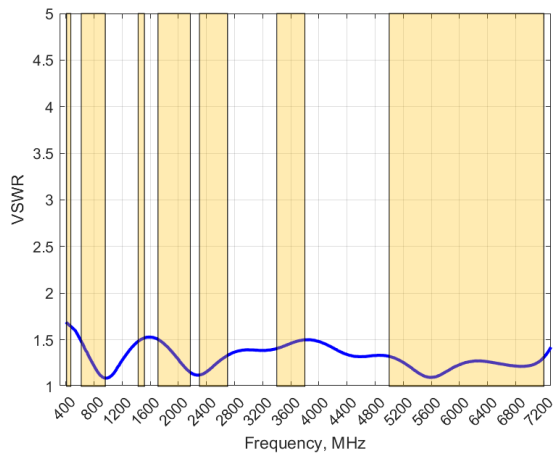
Antenna Performance Plots

VSWR: Port 1



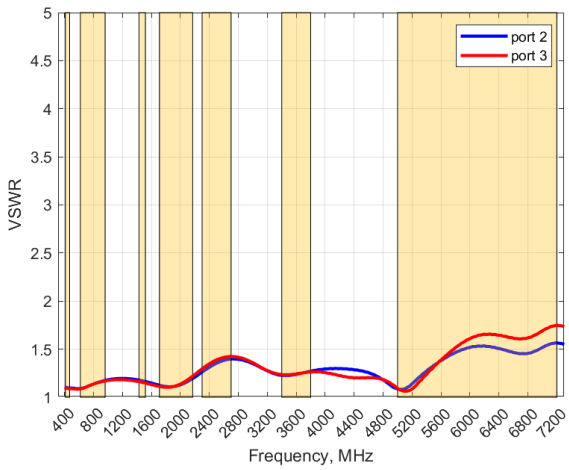
Voltage Standing Wave Ratio (VSWR)

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 SPLT-16 delivers superior performance across all bands with a VSWR of 1.5:1 or better across 95% of the bands.

**VSWR measured at the port. Unused port(s) terminated with 50Ω load(s)*

VSWR: Ports 2 & 3



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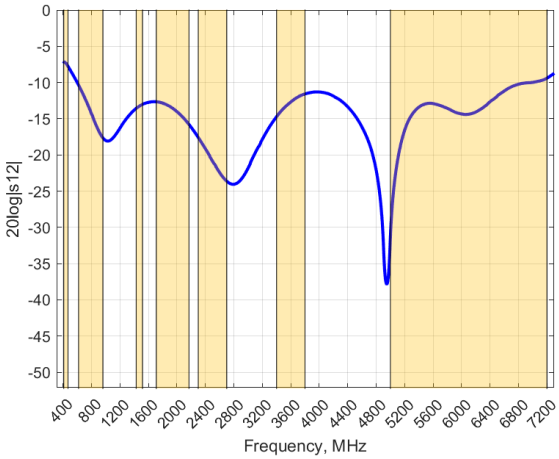
Isolation: Port 2 & Port 3

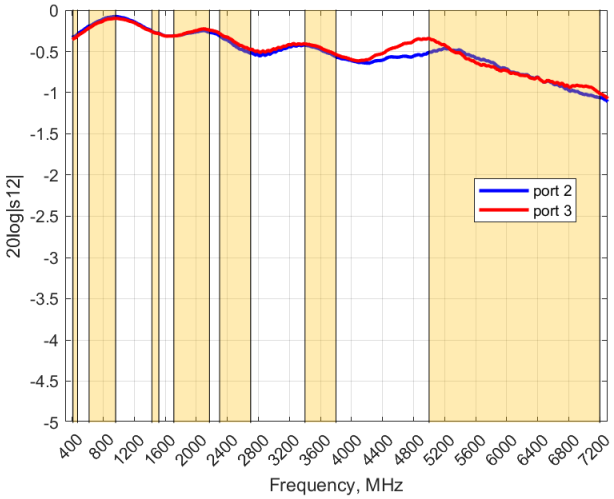


Isolation

S23 is a measurement of the amount of energy is leaked from one port to another. In an ideal case no energy should leak from port 2 to port 3.

** Unused port(s) terminated with 50Ω load(s)*

Insertion Loss: Port 1 to Port 2 & 3



Insertion Loss

Insertion loss is a measurement of how much energy is received at port 2, because of energy sent from port 1. The data above is the loss in the PCB excluding the -3 dB split and cable losses.

** Unused port(s) terminated with 50Ω load(s)*

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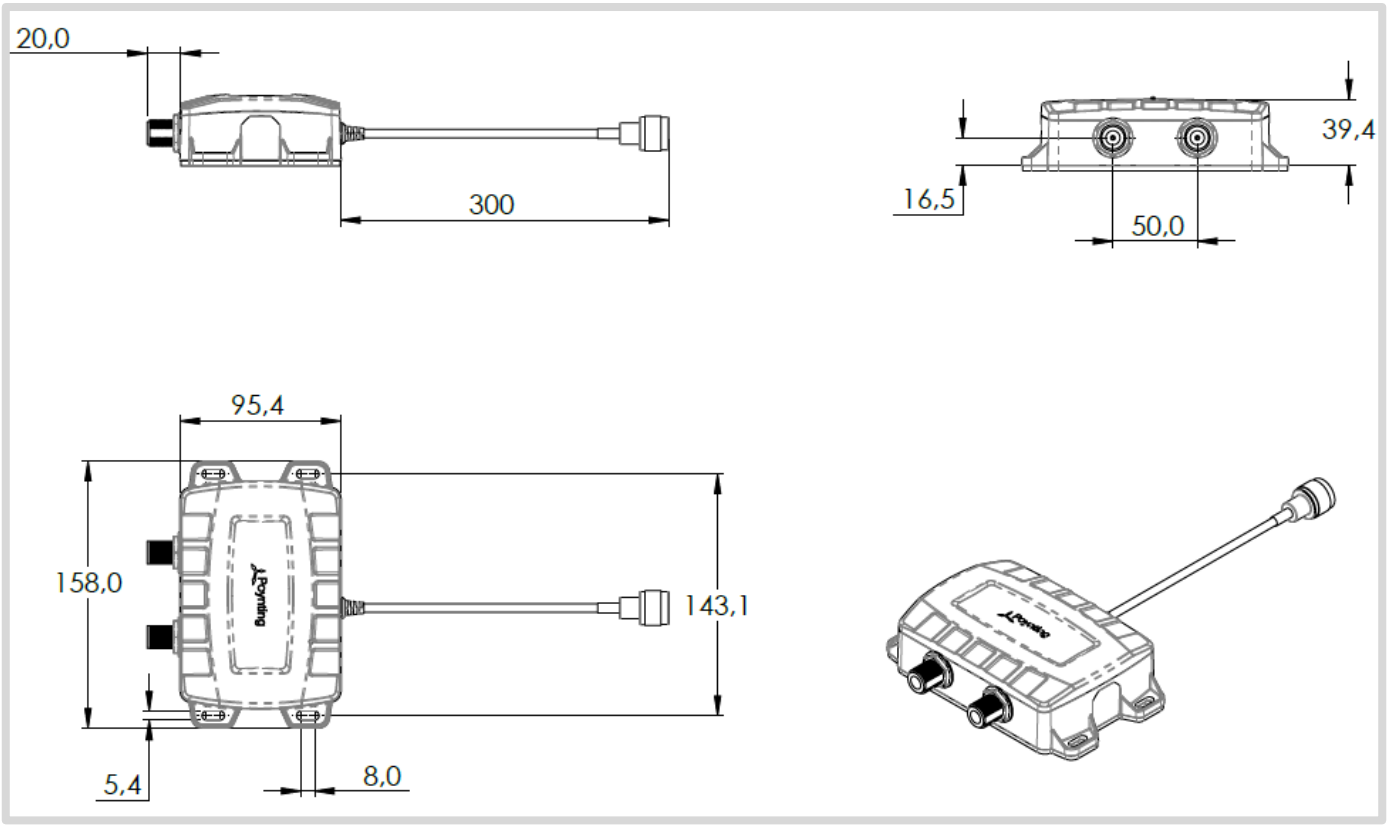
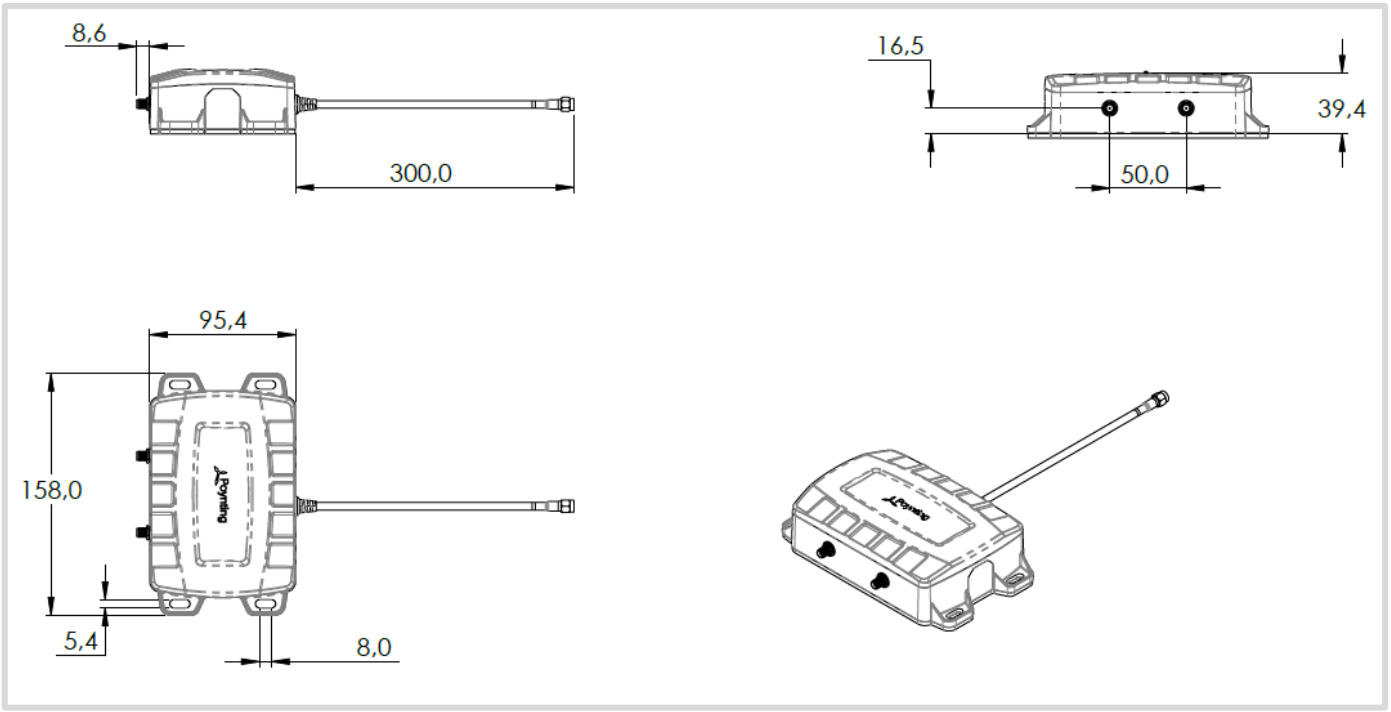
Technical Drawings

A-SPLT-0016-V1-01



A-SPLT-0016-V1-02



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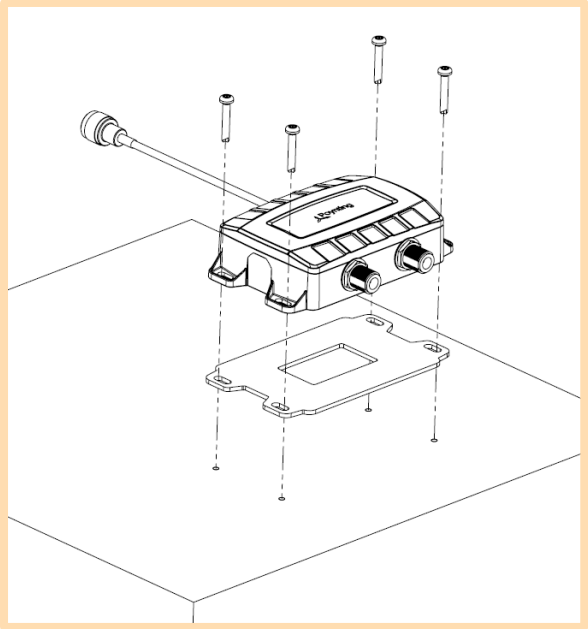
Mounting Options



Surface Mount

Using provided adhesive and optional suitable fasteners (not included).

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Additional Accessories

Extension Cables: Up to 15m HDF 195
Various connectors available
See accessories technical specifications on www.poynting.tech

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