

S12



GPS 1 X 2 Splitter

KEY FEATURES

- » Multiple ports eliminates expense of second antenna or cable run
- » Ability to share existing antenna with two GPS receiver devices
- » Passes GPS, Galileo & GLONASS L1/L2
- » High Isolation Available
- » Waterproof Option Available
- » Base Station Applications
- » Perfect for Timing/Positioning and Test Manufacturing Applications

INTRODUCTION

GPS Source Splitters makes it possible to use a single GPS antenna and cable for multiple GPS receiving devices. They operate on the GPS L1, L1/L2, Galileo or GLONASS frequency. Designed for both manufacturing and position / timing redundancy applications, the S12 Splitter provides dependable signals for two GPS receiver devices. This antenna splitter can be used with any RF coax-based antenna such as GPS Source's LMR400.

Amplified and passive versions are available. The amplified version has built-in amplification to overcome insertion losses (0 - 24dB), it can also be cascaded without adding separate amplifiers and bias-tees between splitters.

OPTIONAL HIGH ISOLATION PREVENTS OSCILLATION PROBLEMS

The S12 has port to port isolation available, mitigating interaction between multiple GPS receivers. This isolation keeps local oscillation (LO) leakage from occurring. LO leakage can prevent other receivers from acquiring GPS signals and maintaining lock. In GPS manufacturing tests, low isolation can cause spurious or it can downgrade performance and reduce yields. LO leakage also has the ability to disable cell sites in a wireless base station application.

DC POWER MAKES INSTALLATION EASY

Normally, one output is a DC pass-through to power the antenna from the equipment to which it is connected. It can also pass on DC power for the GPS receiving antenna or other GPS line amplifier. This conveniently eliminates the need for a separate DC power supply and wiring. The splitter can obtain power from a GPS receiver connected to any port.



An AS9100 Certified Company
1556-MS-GPS-1x2-Splitter-05



Specifications

GPS 1 X 2 Splitter

OUTPUT PORTS

- » Number of ports 2

ELECTRICAL SPECIFICATIONS

- » Input/Output impedance 50Ω
- » SWR all ports (typical)
 - Input: 2.0:1max
 - Output: 2.0:1max
- » Frequency Range 1-2 GHz
- » Loss (passive) 4db (typical)
- » Amplified Gain (typical)
 - Normal 24dB
 - Custom 0-24dB
- » Gain flatness
 - Amplified 2dB
 - Passive 1dB
- » Noise figure 1.8dB
- » Isolation
 - Amp/Pass (Norm) 16dB min.
 - Amp/Pass (Hi Iso) 30dB min.
- » AC input level 110 VAC
220/240VAC
- » DC input (source voltage) 5-28VDC
- » DC throughput 3-12VDC
- » Operating current 14mA
- » Antenna / Thru Current
 - Pass DC (non-powered) 200mA/per port
 - Powered See Note¹
- » Group delay 1ns

PHYSICAL SPECIFICATIONS

- » RF connectors
 - N (m, f)
 - SMA (m, f)
 - TNC (m, f)
- » Weight .55 lbs max.
- » Operating temperature -40 to 85°C

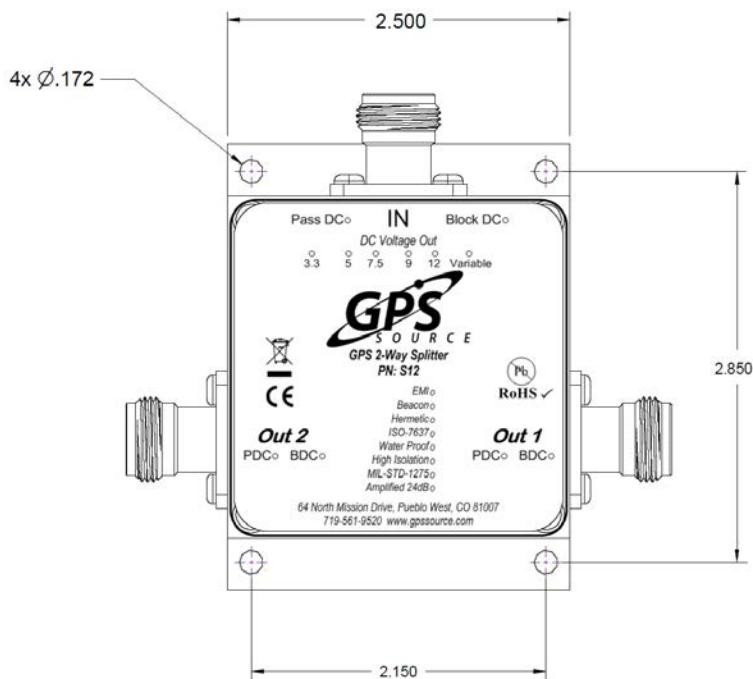
AVAILABLE OPTIONS

- » Power Supply
 - Source Voltage
 - Any or all RF ports (input/output) can be DC blocked or can pass the powered DC voltage
 - Output Voltage
- » Multiple RF Connector Options
- » EMI Shielding
- » Hermetically Sealed
- » Beacon
- » Waterproofing
- » Housing (Standard or Slimline)
- » Port - All ports can pass DC
 - Custom gain by port available
- » Spike & surge protection

ORDERING INFORMATION

Contact GPS Source for pricing/availability
Performance data available online
1 x 2 Amplified GPS Splitter

¹ Maximum DC total current draw out all port(s) of the device is a function of the DC input voltage and the output voltage where the power dissipation must be less than 1 watt @ 25C.



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