

S14



GPS 1 X 4 Amplified Splitter

KEY FEATURES

- » Multiple ports eliminates expense of extra antenna or cable runs
- » Ability to share existing antenna with four GPS receiver devices
- » Passes GPS, Galileo & GLONASS L1/L2
- » High Isolation
- » Waterproof Option Available
- » Base Station Applications
- » Perfect for Both Timing & Position Applications

INTRODUCTION

The S14 Amplified Splitter, makes it possible to use a single GPS antenna and cable for multiple synchronization devices. Designed for both manufacturing and position / timing redundancy applications, the S14 Active Splitter provides dependable signals for two GPS receivers. The antenna splitter can be used with any RF coax-based antenna such as GPS Source's LMR400. It has a standard gain of 21dB at the GPS L1 frequency band.

The built-in amplification overcomes splitter losses. It can be cascaded without adding separate amplifiers and bias-tees between splitters.

HIGH ISOLATION PREVENTS OSCILLATION PROBLEMS

Interaction between multiple GPS receivers is eliminated, because of S14's high isolation. Without this isolation design, local oscillation leakage can prevent other receivers from acquiring GPS signals and maintaining lock. Poor isolation can disable cell sites in a wireless base station application.

GPS Source's S14 Amplified Splitter has a minimum of 30dB isolation at GPS frequencies between the output ports.

DC POWER MAKES INSTALLATION EASY

This splitter operates on the GPS L1/L2 carrier frequency. Normally, one output is a DC pass-through to power the antenna from the equipment to which it is connected. It also passes 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
1558-MS-GPS-1x4-Splitter-03



Specifications

GPS 1 X 4 Amplified Splitter

OUTPUT PORTS

- » Number of ports 4

ELECTRICAL SPECIFICATIONS

- » Input/Output impedance 50Ω
- » SWR all ports (typical)
 - Input: 1.5:1
 - Output: 1.5:1
- » Frequency 1-2GHz
- » Loss (passive) 8dB
- » Amplified Gain (typical)
 - Normal 21dB
 - Custom 0-22dB
- » Gain flatness
 - Amplified 2dB
 - Passive 1dB
- » Noise figure 1.8dB
- » Isolation
 - Normal - adjacent ports 13dB min.
 - Normal - opposite ports 21dB min.
 - Hi isolation - adjacent ports 30dB min.
 - Hi isolation - opposite ports 40dB min.
- » AC input level
 - 110 VAC
 - 220/240VAC
- » DC input level DC 5-28VDC
- » DC throughput 3-12VDC
- » Operating current 16mA
- » Pass through current 200mA/per port
- » Group delay 1ns

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.

PHYSICAL SPECIFICATIONS

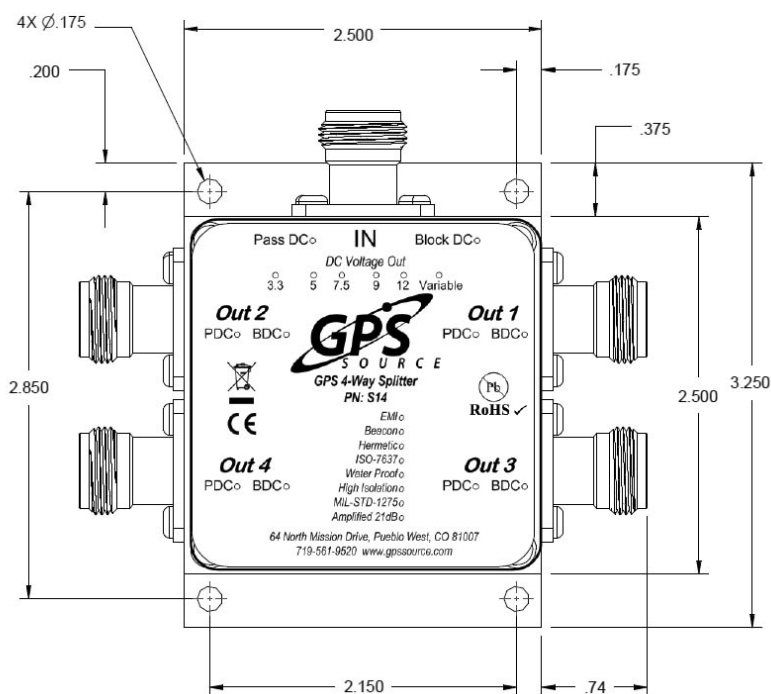
- » RF connectors
 - N (m, f)
 - SMA (m, f)
 - TNC (m, f)
- » Weight .55 lbs max.
- » Operating temperature -40 to 85°C

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
- » Other RF Connectors Avail.
- » Housing(Standard or Slimline)
- » Port - All ports pass DC
 - Custom gain by port available
- » Spike & surge protection

ORDERING INFORMATION

Contact GPS Source for pricing/availability
 Performance data available online
 1 x 4 Amplified or Passive GPS Splitter



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