

GPS/GNSS Signal Splitter

for GPS/GNSS signal distribution

Microlab's GPS/GNSS Signal Splitters can be used to distribute GPS/GNSS RF signals from a single antenna to multiple devices. They are designed for locations where extra gain is needed in the RF path. The splitter has an LNA with an extremely low noise figure and bandpass filter. The splitters do not require any external power supply and operate directly from the power provided by the GPS receiver. The other outputs are DC terminated



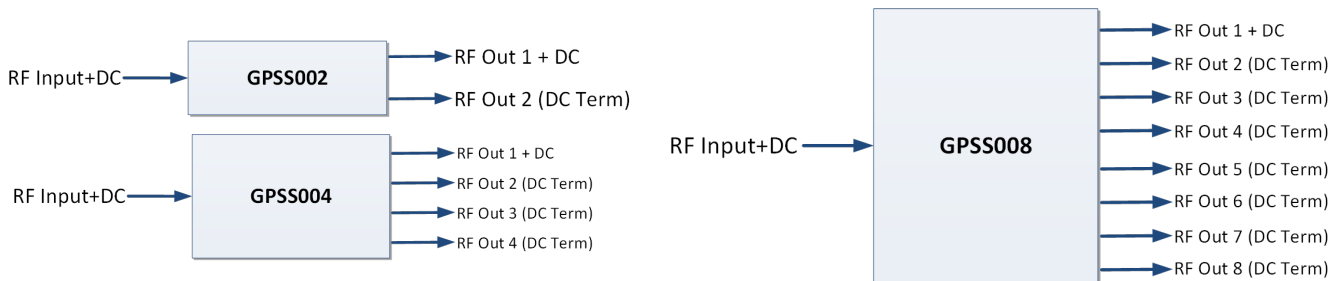
Features

- 2, 4, and 8-way splitters with gain and filtering
- Small form factor with SMA or N-type connectors
- Includes all GPS/GNSS L1/E1/G1 bands
- Extremely low noise figure
- No external power supply required
- Outdoor IP67 rated
- Works with active and passive GNSS antennas

Applications

- Signal distribution for cellular communications for UTC synchronization
- Compact splitter for small cell sites
- GPS/GNSS transmission re-broadcasting to multiple antennas

2, 4, and 8-way Connection Diagrams



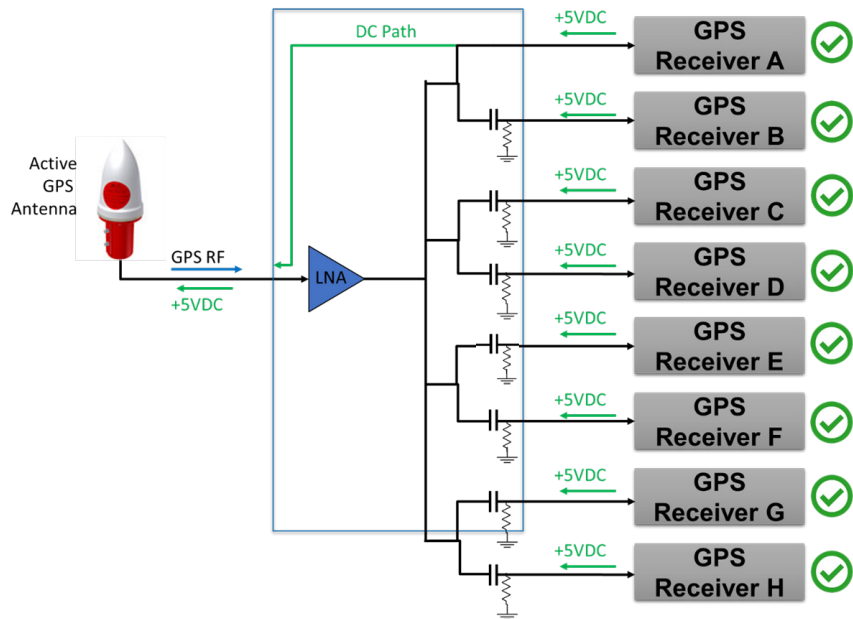
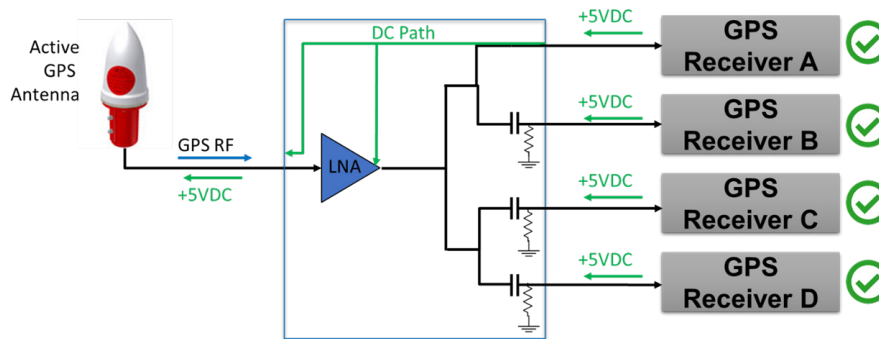
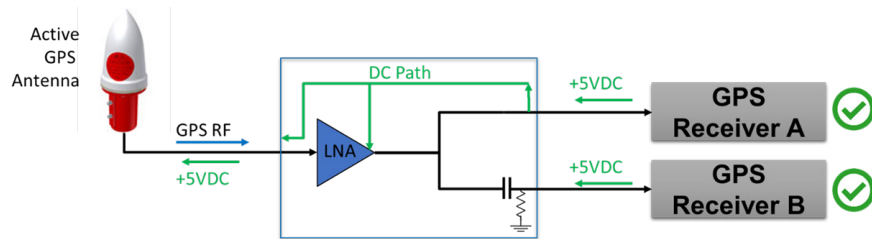
SPECIFICATIONS	GPSS002	GPSS004	GPSS008	Comments
Description	1 to 2 Splitter	1 to 4 Splitter	1 to 8 Splitter	
# RF output ports	2	4	8	
3dB Bandwidth	1.559 to 1.610GHz			All GNSS L1/G1/E1 Band
Gain @ 1575.42MHz	12dB ± 1dB	9dB ± 1dB	6dB ± 1dB	
VSWR (max)	2.0:1			
Impedance	50 ohms			
Gain Flatness (max)	±1.0 dB			Single port
Amplitude Balance (max)	±1.0 dB			Port to port
Output Isolation (min)	20 dB			Port to port
Noise Figure (max)	3dB			
Output IP3 (min)	-24dBm			
Input P1dB (min)	-32dBm			
DC current consumption	5mA min, 10mA max			At +5V
DC load to output ports	200ohm, 0.25W			RF out 2 and above
RF Connectors	SMA(f) or N(f)			Suffix -S/-N for connector
Max RF input without damage	-10dBm			
DC voltage for LNA	+5.5V max +3.6 min			On RF port 1, other ports DC terminated
Temperature range	-40 °C to +70 °C			
Environmental	Outdoor, IP67			

DISCLAIMER:

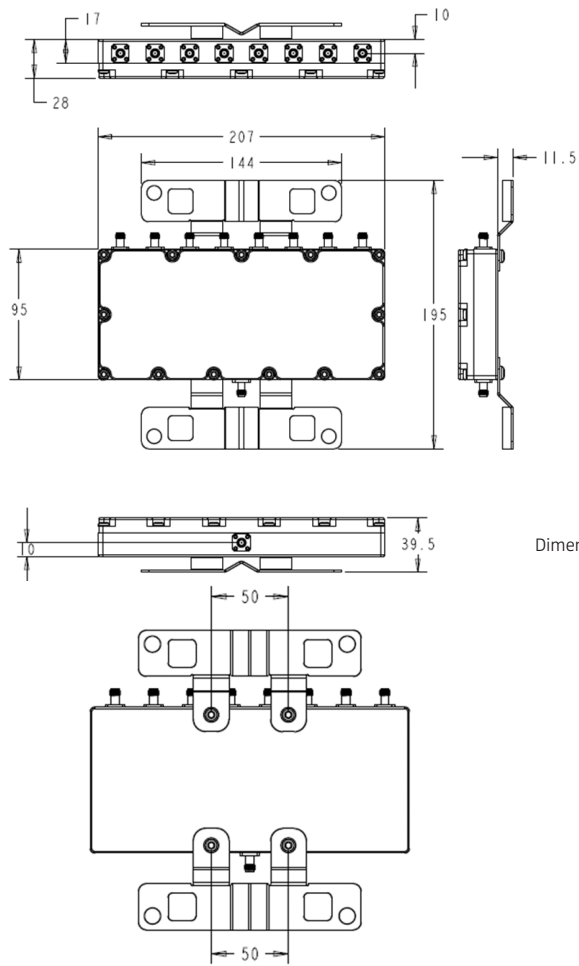
GPS and GNSS re-transmission to an antenna requires regulatory approval. These approvals are granted on an individual basis by regulating bodies. Microlab cannot grant these approvals, and cannot be held responsible for violating these regulations using the system.

The FCC requires commercial users within the US to acquire and maintain a Part 5 experimental license to re-broadcast GPS signals. Licenses are not required if they are inside an RF shielded environment. European regulations vary by country. Consult local authorities for additional details.

2, 4, and 8-way Electrical Diagrams



GPSS008-S - Mechanical Outline



Dimensions in mm

GPSS008-N - Mechanical Outline

