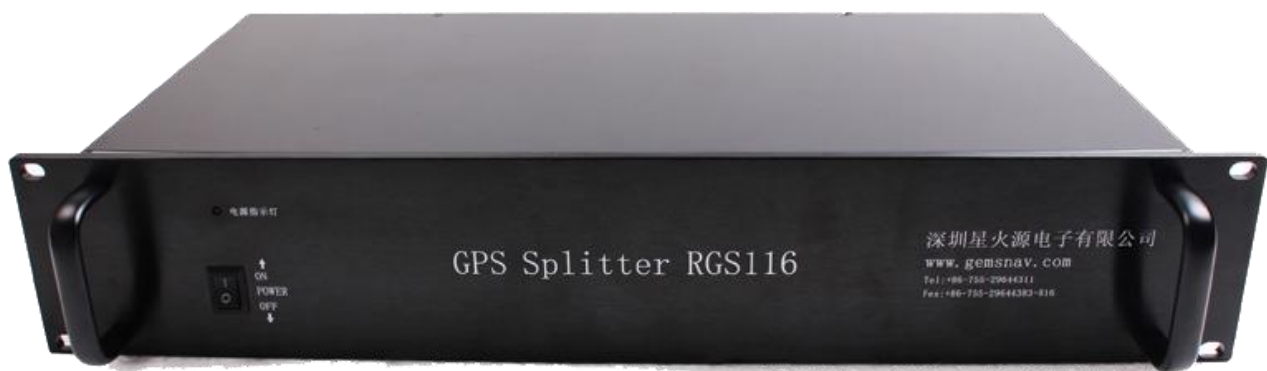


RGS116/RGS116-SF

Rackmount GPS Splitter



- Design For Wireless Infrastructure Applications
- Gain 0dB,10dB ,31dB(can be specified)
- Response For
 - GPS:L1,L2,L2C,L5;
 - Glonass:G1,G2;
 - Galileo:L1,E1,E2,E5(E5a,E5b),E6;
 - Beidou2:B1,B2,B3;
 - IRNSS:L1,L5;
 - OmniStar
- High Isolations >30dB

WWW.GEMSNV.COM

GEMS NAVIGATION Electronics Co.,Ltd.

301 303,HuaChuangDa Building,Cuizhu Road,46 Baoan District,Shenzhen,China

Tel: +86-755-29644311

Fax: +86-755-29644383

Email: sales@gemsnv.com

Document Number 120205 Rev 004 2018-11-13 Page 1 / 6

Description

The RGS116/RGS116-SF GPS Splitter is a one-input, sixteen-output GPS device. This product typically finds application where an input from an active GPS roof antenna is split evenly between sixteen receiving GPS units. In this scenario, the RGS116/RGS116-SF can be configured to pass DC from an RF output (J1) to the antenna input port in order to power an active GPS antenna on that port. Output ports(J2-J16) would feature a 200 Ohm DC load to simulate an antenna DC current draw for any receiver connected to those ports.

Specifications

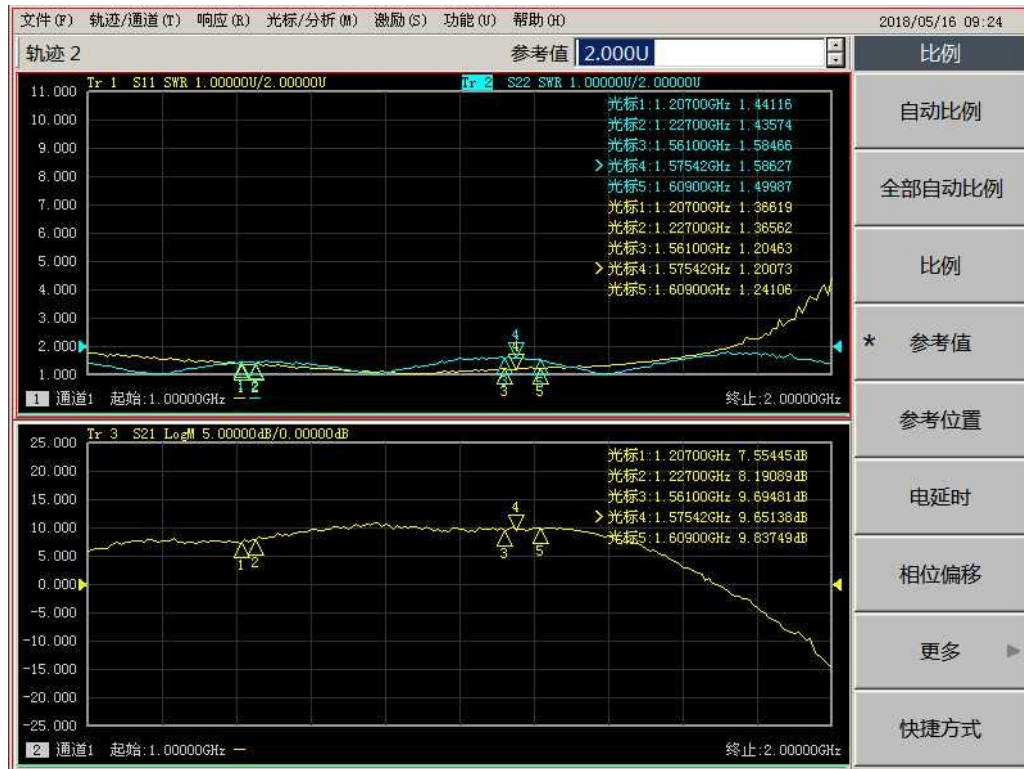
Electrical Specifications, Operating Temperature -40 to 85°C

| Parameter | | Conditions | Min | Typ | Max | Units |
|---------------------------|---|---|-----|-----|-------|----------|
| Freq. Range | | Ant – Any Port | 1.1 | | 1.7 | GHz |
| In &Out Imped. | | In, all output ports | | 50 | | Ω |
| Gain | 0dB | In- Output ports, ,Unused Ports - 50 Ω | -1 | 0 | 1 | dB |
| | 10dB | | 9 | 10 | 11 | |
| Input SWR | | All Ports- 50 Ω | | | 2.0:1 | - |
| Output SWR | | All Ports- 50 Ω | | | 2.0:1 | - |
| Nois Figure (Amplified) | | Ant- Any Port, Unused Ports-50 Ω | | | 3 | dB |
| Gain Flatness (Amplified) | | L1-L2 ,Ant- Any Port, Unused Ports-50 Ω | | | 3 | dB |
| Amp. Balance | | J1-J2 , Ant- Any Port, Unused Ports-50 Ω | | | 0.5 | dB |
| Phase Balance | | Phase(J1-J2), Ant- Any Port, Unused Ports-50 Ω | | | 1.0 | deg |
| Group Delay Flatness | | | | | 1 | ns |
| Isolation | Amplified | Adjacent Ports: In - 50 Ω | 28 | | | dB |
| | | Opposite Ports: In – 50 Ω | 34 | | | |
| | Gain:10dB | Adjacent Ports: In - 50 Ω | 28 | | | |
| | | Opposite Ports: In - 50 Ω | 34 | | | |
| AC IN | | Wall Mount transformer | | 230 | | VAC |
| DC IN | DC Block, All ports with a 200 Ω Load | | | | 14 | VDC |
| | PASS DC, Amplified | | 3 | | 16 | |
| | PASS DC, Passive | | | | 16 | |
| | Powered, (9V) | | 5 | 9 | 16 | |
| | Powered, (-48V) | | -60 | -48 | -40 | Optional |
| Device Current | | | | | 48 | mA |
| Current | Pass DC, No Powered configuration, DC input on J1 | | | | 250 | mA |
| | Powered, to be specified | | | | | mA |
| Max RF Input (Amplified) | | Max RF input without damage | | | 0 | dBm |

Performance Data

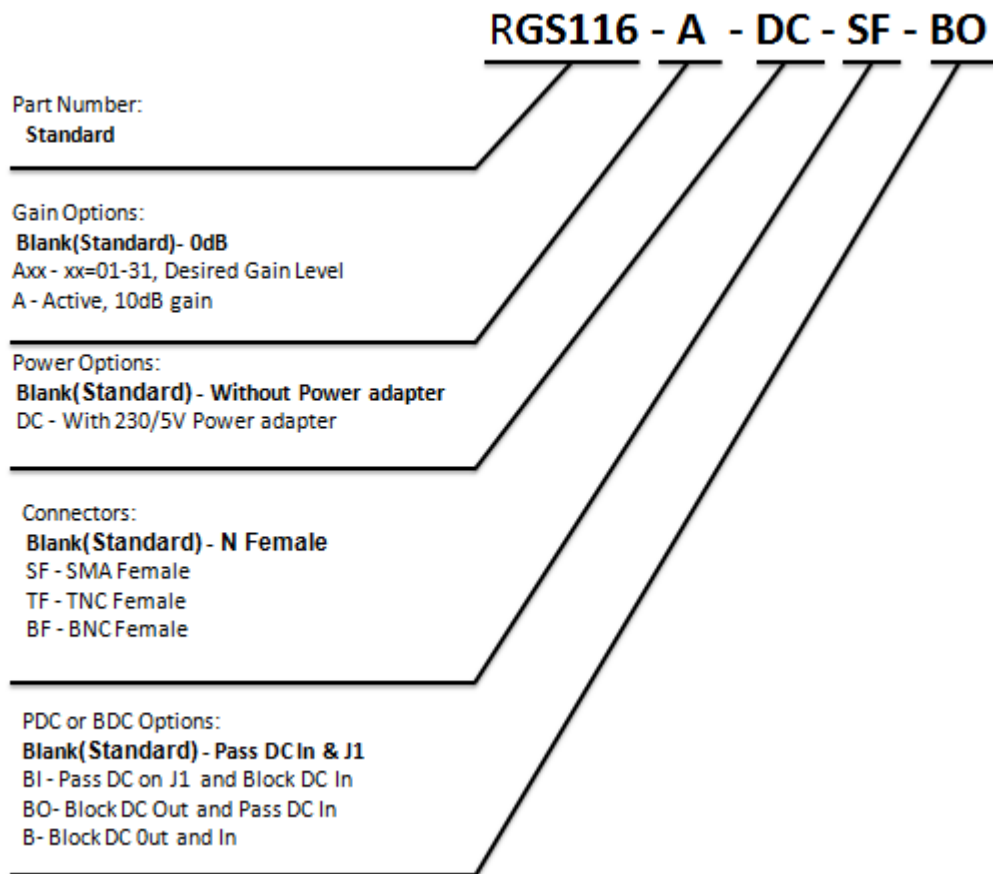


Gain :0dB



Gain :10dB

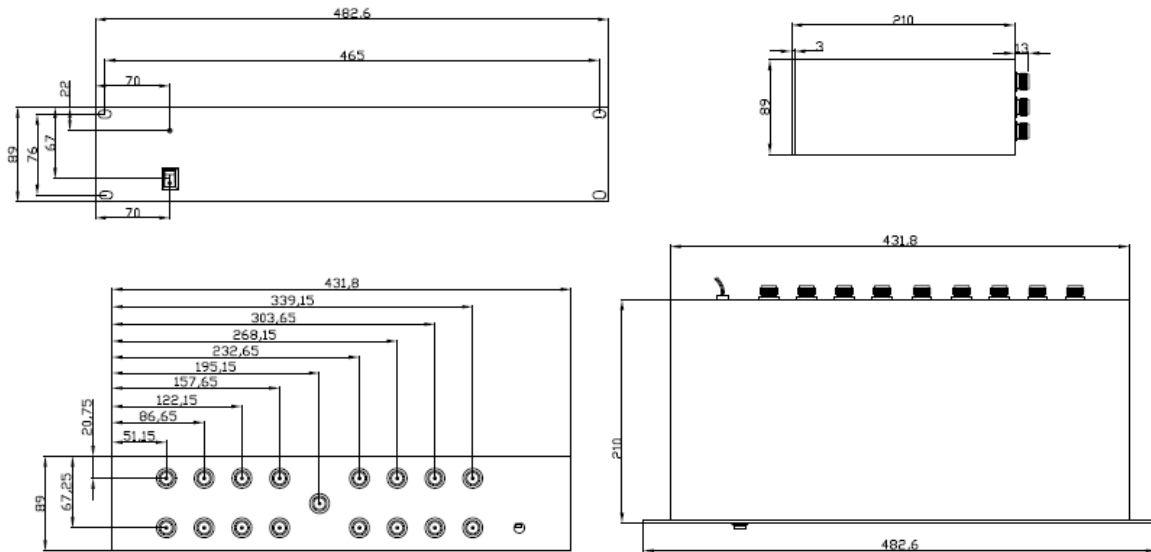
Order Informations And Available Options



Please contact us for more configurations and application supports. Email: Sales@gemsnav.com.

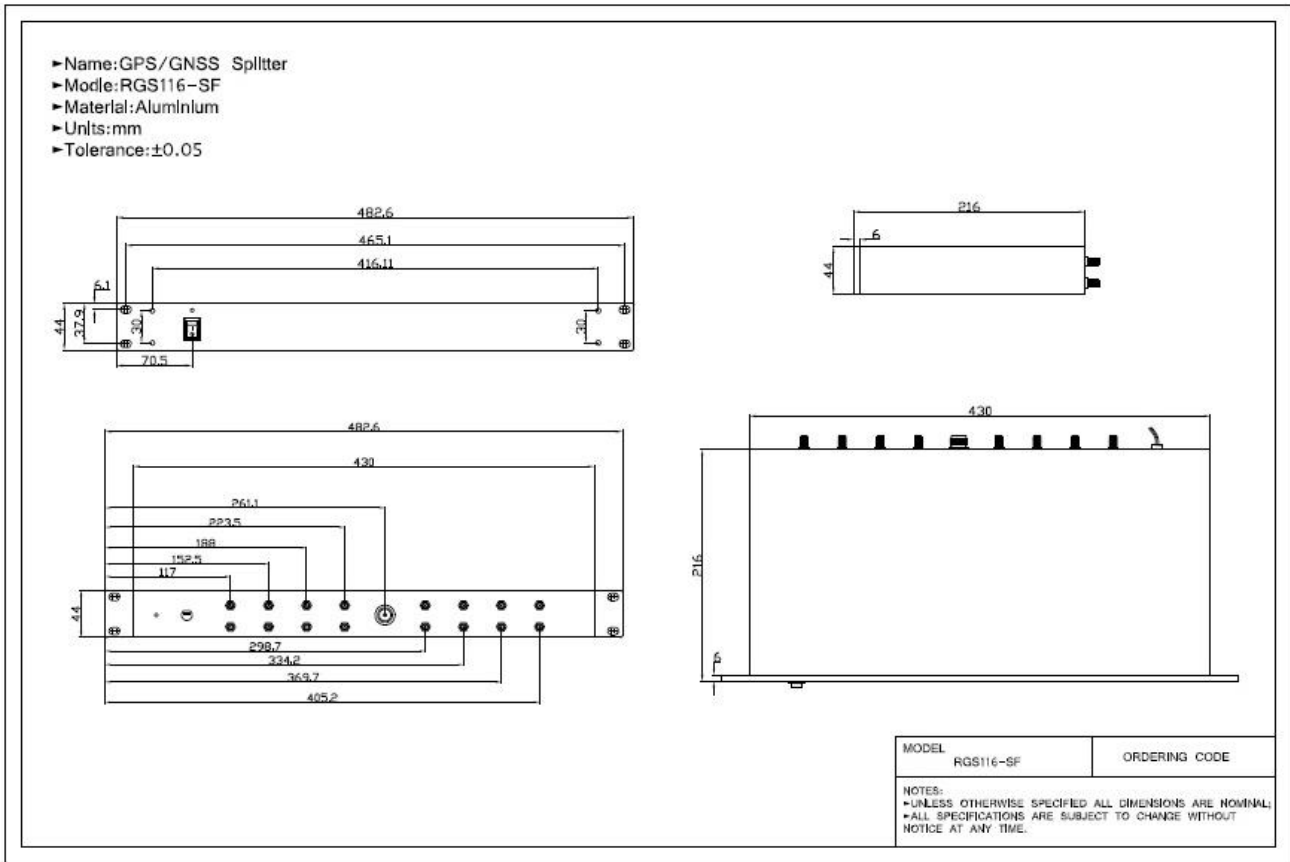
Mechanical

- Name: GPS/GNSS Splltter
- Modle: RGS116
- Material: Aluminium
- Unlts: mm
- Tolerance: ± 0.05



| | | |
|--|--------|---------------|
| MODEL | RGS116 | ORDERING CODE |
| NOTES: | | |
| • UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL; | | |
| • ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. | | |

Model : RGS116-NF



Model : RGS116-SF

Frequency reference table:

| Global/Compass Navigation Satellite Systems(GNSS/CNSS) | 5 | | | | | 2 | | | | | 6/3 | | | 6 | | | 1 | | | | | | | | | | | | | | | |
|--|---------|---------|---------|------|------|-------------|------|------|------|------|--------|------|---------|------|------|------|-------------|------|------|------|------|--------|---------|---------|------|------|------|------|------|------|--------|---|
| Frequency (MHz) | 1164 | 1176 | 1188 | 1192 | 1207 | 1215 | 1219 | 1227 | 1239 | 1245 | 1252 | 1259 | 1266 | 1268 | 1278 | 1290 | 1535 | 1540 | 1545 | 1550 | 1558 | 1558 | 1561 | 1563 | 1575 | 1587 | 1592 | 1602 | 1609 | 1616 | 2491 | |
| GPS(USA) L1,L2,L2C,L5 | L5+/-12 | | | | | L2/L2C+/-12 | | | | | | | | | | | L6+/-5 | | | | | | L1+/-12 | | | | | | | | | |
| Glonass(Russia) G1,G2 | | | | | | | | | | | G2+/-7 | | | | | | | | | | | | | | | | | | | | | |
| Galileo(Europian) L1,E1,E2,E5(E5a,E5b),E6 | E5+/-15 | | | | | | | | | | | | E6+/-12 | | | | L6+/-5 | | | | | E2 | | L1+/-17 | | E1 | | | | | | |
| Compass (Beidou 2,China) | | | B2+/-10 | | | | | | | | | | B3+/-10 | | | | | | | | | B1+/-2 | | | | | | | | | | |
| Beidou 1 (China,Tx(LHCP)/Rx(RHCP)) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | L | S |
| IRNSS (India) | | L5+/-15 | | | | | | | | | | | | | | | | | | | | | | L1+/-12 | | | | | | | S+/-15 | |
| OmniStar | | | | | | | | | | | | | | | | | O+/-14----> | | | | | | | | | | | | | | | |