

MGS12

GPS Splitter



- Design For Wireless Infrastructure Applications
- Gain 0dB, 21dB And Passive Version Available
- 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 >28dB

WWW.GEMSNAV.COM

Description

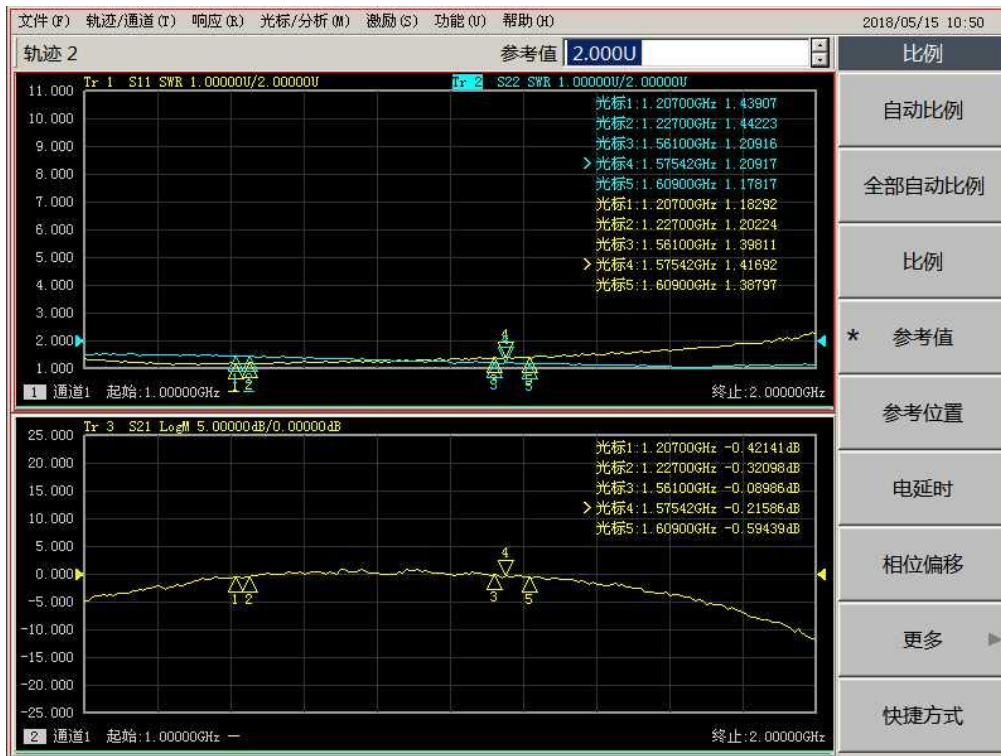
The MGS12 GPS Splitter is a one-input, two-output GPS device. This product typically finds application where an input from an active GPS roof antenna is split evenly between four receiving GPS units. In this scenario, the MGS12 can be configured to pass DC from an RF output (J1) to the antenna input port in order to power an active GPS antenna on that port. The second output (J2) would feature a 200 Ohm DC load to simulate an antenna DC current draw for any receiver connected to those ports.

Specifications

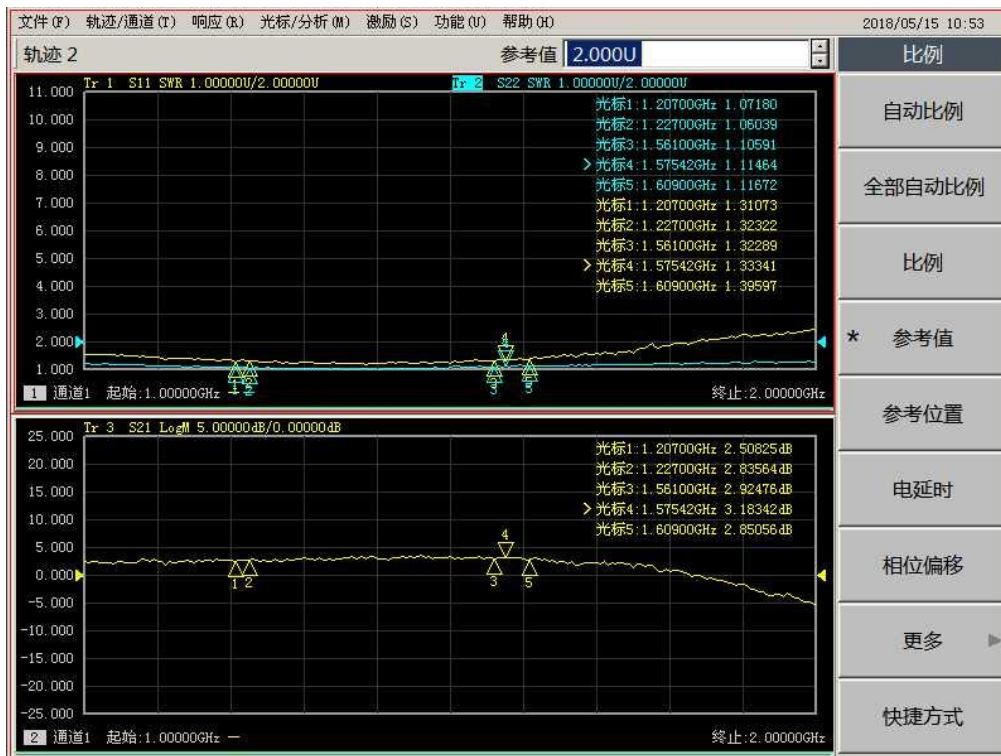
Electrical Specifications, Operating Temperature -40 to 85°C

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 -Amplified(Normal)		In- Output ports, ,Unused Ports - 50 Ω	-1	0	1	dB
			20	21	22	
Loss, Passive		In- Output ports, ,Unused Ports - 50 Ω	3.5	4.5	5.5	dB
Input SWR					1.5:1	-
Output SWR					1.5:1	-
Nois Figure- Amplified					3	dB
Gain Flatness - Amplified: - Passive:					2	dB
					1	dB
Amp. Balance					0.5	dB
Phase Balance					1.0	deg
Group Delay Flatness					1	ns
Isolation	Passive	Unused Ports - 50 Ω (GPS L1)	18			dB
	0~10dB	Input - 50 Ω	28			
	10~20dB	Input - 50 Ω	18			
DC IN		DC Block, All out ports with a 200 Ω Load			14	VDC
		PASS DC, Amplified	3.5		16	
		PASS DC, Passive			16	
Device Current					16	
Current		Pass DC, No Powered configuration, DC input on J1			250	mA
		Powered, to be specified				mA
Max RF Input -Amplified -Passive		Max RF input without damage			0	dBm
					30	

Performance Data



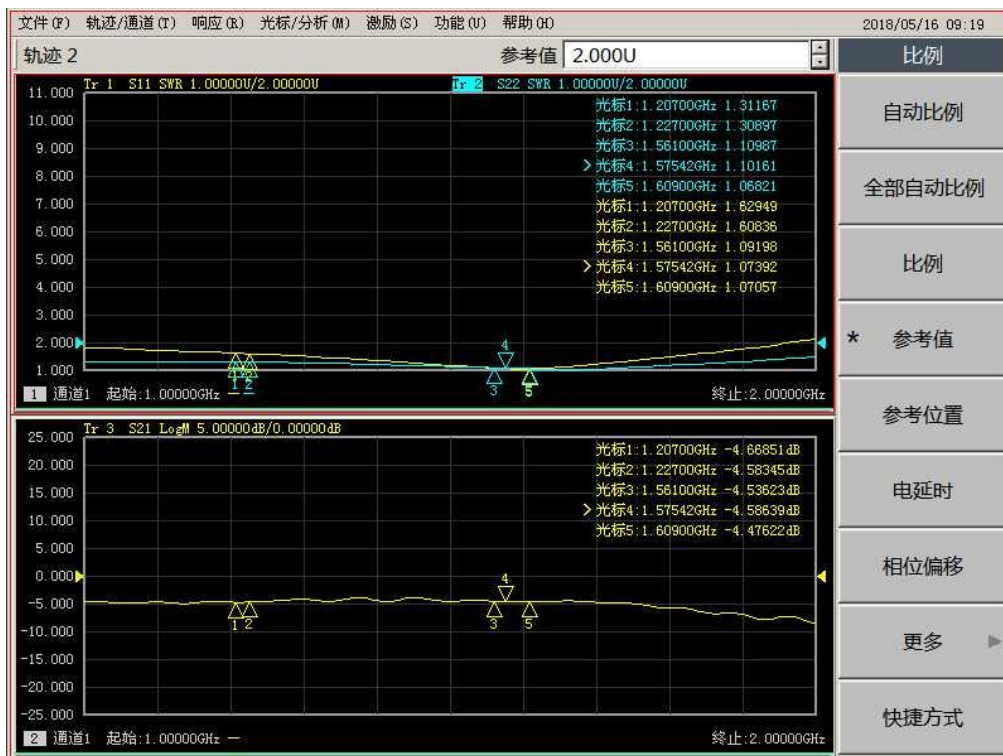
Gain :0dB



Gain :3dB



Gain :21dB



无源

Order Informations And Available Options

MG12 - A NM -NM - BO

Part Number:

Standard:

0dB gain, N Female In&Out, Pass DC IN&J1

Gain Options:

Blank(Standard)- 0dB

-Axx xx=01-20, Desired Gain Level

-A Active, 21dB gain

-P Passive,

Connector In

Blank(Standard) - N Female

-NF N female -NM N Male

-SF SMA Female -SM SMA Male

-TF TNC Female -TM TNC Male

-BF BNC Female -BM BNC Male

Connectors Output:

Blank(Standard) - N Female

-NF N female -NM N Male

-SF SMA Female -SM SMA Male

-TF TNC Female -TM TNC Male

-BF BNC Female -BM BNC Male

Pass DC or Block DC Options:

Blank(Standard) - Pass DC In & J1

BI - Pass DC on J1 and Block DC In

BO- Block DC Out and Pass DC In

B- Block DC Out and In

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

Product has passed European Union ROHS Certification

UONE

Test Report

Report No.: U01603201209605-1E Query Password: QW2664 Date: Dec. 28, 2020 Page 1 of 8



Applicant: Shenzhen GEMS NAVIGATION Electronics Co., Ltd.
Contact information: Floor 2, Building 6, Rundongsheng Industrial Zone, Longzhu Community, Xixiang Street, Bao'an District, Shenzhen, China

The following sample(s) was (were) submitted and identified by client as:

Sample Name : GPS Splitter
Model No. : MGS12
Manufacturer : Shenzhen GEMS NAVIGATION Electronics Co., Ltd.
Address : Floor 2, Building 6, Rundongsheng Industrial Zone, Longzhu Community, Xixiang Street, Bao'an District, Shenzhen, China
Sample Received Date : Dec. 9, 2020
Testing Period : From Dec. 9, 2020 to Dec. 23, 2020
Test Request : Please refer to next page(s).
Test Result(s) : Please refer to next page(s).

Signed for and on behalf of Shen Zhen UONE Test Co., LTD.
 Prepared by: *Marcia* Checked by: *Nora Deng* Approved by: *Levent Liang*
 Marcia Deng Nora Deng Levent Liang



This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

深圳市宇创检测有限公司 Hotline: 400-774-3358 Tel: +86-755-23695858 Fax: +86-755-23695878
 Shen Zhen UONE Test Co., LTD. Web: www.uonetest.com E-mail: service@uonetest.com
 深圳市宝安区沙井街道沙井社区沙井大道3009号 Unit: 4B, Building 6, China Merchants Guangming Science Park, Tourist Road 3009, Guangming New District, Shenzhen.

UONE

CERTIFICATE OF CONFORMITY

No.: U01603201209605-1E

Applicant : Shenzhen GEMS NAVIGATION Electronics Co., Ltd.
Address : Floor 2, Building 6, Rundongsheng Industrial Zone, Longzhu Community, Xixiang Street, Bao'an District, Shenzhen, China
Manufacturer : Shenzhen GEMS NAVIGATION Electronics Co., Ltd.
Address : Floor 2, Building 6, Rundongsheng Industrial Zone, Longzhu Community, Xixiang Street, Bao'an District, Shenzhen, China
Trade Mark : /
Sample Name : GPS Splitter
Model No. : MGS12

The submitted sample of the above equipment has been tested and found to comply with the following European Directive:

RoHS Directive 2011/65/EU & (EU) 2015/863
 The standard(s) used for showing compliance with the essential requirements:

Applicable Standard(s)	Test Report(s) Number
IEC 62321-1:2013, IEC 62321-2:2013	U01603201209605-1E
IEC 62321-3-1:2013, IEC 62321-3-2:2013	
IEC 62321-4: 2013+A1:2017, IEC 62321-5:2013	
IEC 62321-6:2015, IEC 62321-7-1: 2015 IEC 62321-7-2: 2017, IEC 62321-8: 2017	

The submitted samples have been tested by UONE with the listed standards and found in conformity with the Directive 2011/65/EU & (EU) 2015/863 of the European Parliament and of the Council with regard to the restriction of the use of certain hazardous substances in electrical and electronic equipment. It is possible to use CE marking to demonstrate the conformity with this Directive.

This certification is part of the full test report(s) and should be read in conjunction with it. The certificate is based on a single evaluation of one sample of above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo. Other CE marking directives may apply have not been considered during the RoHS assessment.

The CE mark as shown below can be used under the responsibility of the relevant finished-product manufacturer, after completion of an EU Declaration of Conformity and compliances with all relevant EU Directives.

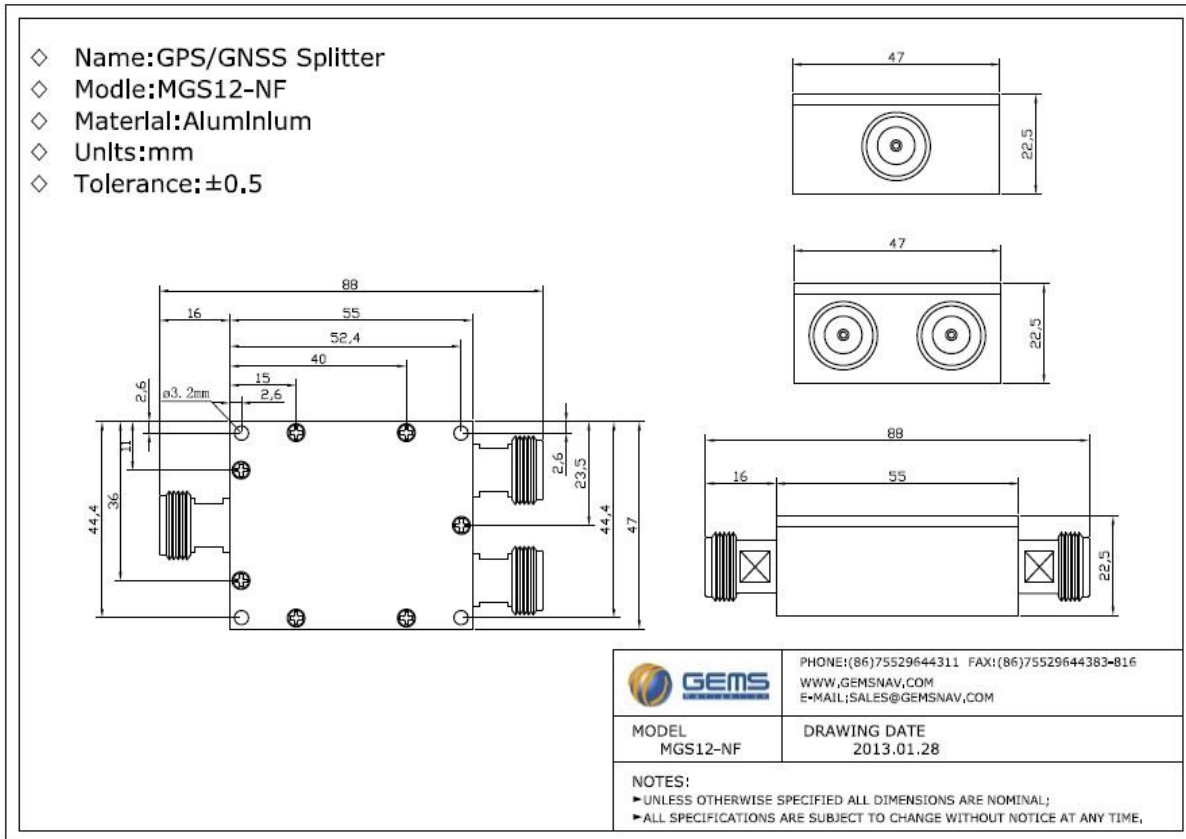
Levent Liang
 Technical Director
 Dec. 23, 2020



CE **RoHS**

Shen Zhen UONE Test Co., LTD.
 Unit: 4B, Building 6, China Merchants Guangming Science Park, Tourist Road 3009, Guangming New District, Shenzhen
 Tel: 0755-23695858 Fax: 0755-23695878 E-mail: service@uonetest.com http://www.uonetest.com

Mechanical



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	1246	1252	1269	1266	1268	1278	1290	1535	1540	1545	1550	1556	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										G1+/-7																
Galileo (European) 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---->																					