MGS14i

GPS Splitter

RoHS

- Design For Wireless Infrastructure Applications
- Gain 0dB, 21dB And Passive Version Available
- output ports are powered up at the same time to intelligently select the higher voltage one to supply
- Response For： 1150~1650MHZ
  - 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

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Description

The MGS14i GPS Splitter is a one-input(IN), 4-output(OUT1,OUT2,OUT3,OUT4) GPS device. This product's typically application is that the signal receiving from an active GPS antenna be transmitted to the 4 outputs,then arrived at the receivers which connect to the outputs. Like this, the MGS14i can be configured to pass DC on RF output (OUT1,OUT2,OUT3,OUT4) ,power the active antenna which connect to the input port . MGS14i When one output port is powered, the remaining output ports will have a DC load of 200 Ohm to simulate the DC loss of any receiver antenna connected to this port;

When two or three output ports have the same voltage value, the J1 port will be used for power supply by default..

Specifications

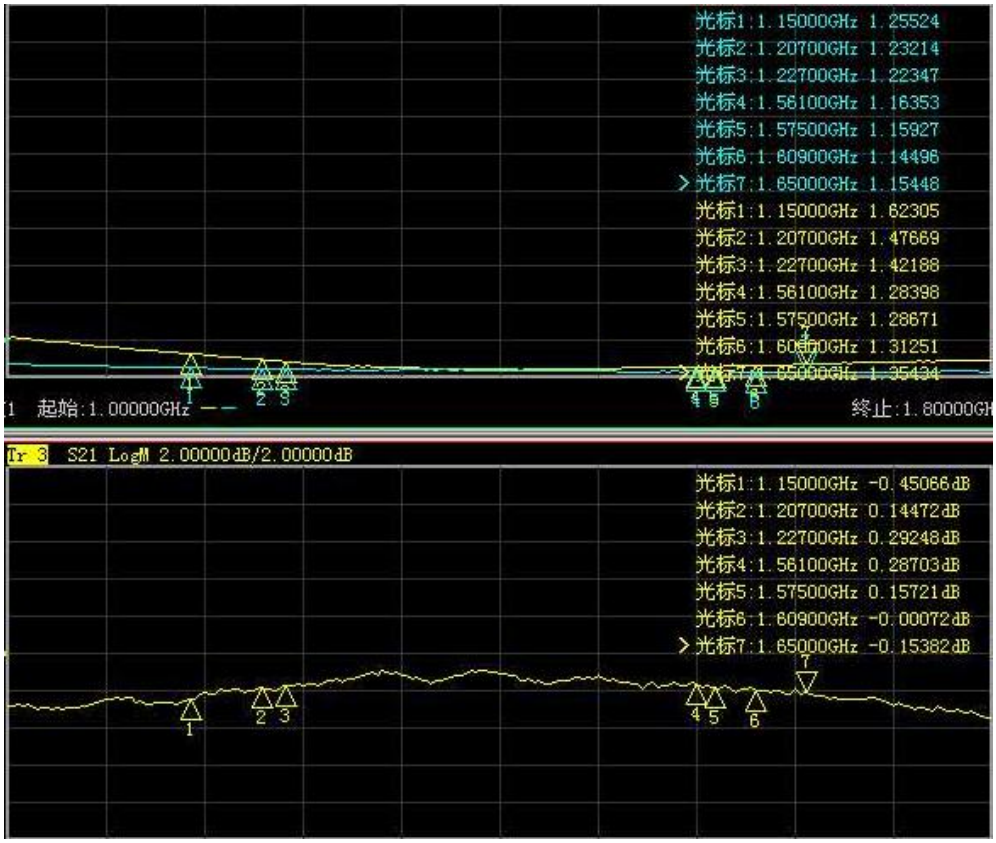
Parameter		Conditions	Min	Typ	Max	Units
Freq. Range		Ant – Any Port	1150		1650	MHz
In &Out Imped.		In, all output ports		50		Ω
Gain	0dB	In- Output ports, ,Unused Ports - 50Ω	-1	0	1	dB
	Amplified(Normal)		19.5	21	22.5	
Loss, Passive		In- Output ports, ,Unused Ports - 50Ω	6.5	7.5	8.5	dB
Input SWR					2.0:1	-
Output SWR					2.0:1	-
Nois Figure- Amplified					1.5	dB
Gain Flatness	Amplified				1.5	dB
	Passive				1	dB
Amp. Balance					0.5	dB
Phase Balance					1.0	deg
Group Delay Flatness					1	ns
Isolation	(Passive)	Unused Ports - 50Ω	5			dB
	0∽10dB		26			
	10∽21dB		7			
DC IN		All ports with a 200Ω Load	3.3	5	9	VDC
		PASS DC, Amplified	3.3	5	16	
		PASS DC, Passive	3.3	3	16	
Device Current					16	mA
		All ports with a 200Ω Load			**220**	**mA**
Current		Pass DC, No Powered configuration, DC input on J1			250	mA
Operating Temperature			**-40**		**85**	**℃**
Max RF Input		**Max RF input without damage**			**0**	**dBm**
-Amplified					**30**	
-Passive						

Frequency (MHZ)	Gain (dB)												Isolation (dB)								
	0				21				Total LOSS				0			21			Total LOSS		
	S-1	S-2	S-3	S-4	S-1	S-2	S-3	S-4	S-1	S-2	S-3	S-4	1-2	2-3	3-4	1-2	2-3	3-4	1-2	2-3	3-4
1150	-0.4	-0.7	-0.4	0.2	21.2	21.3	21.3	21.2	-7.4	-7.4	-7.3	-7.3	26	34	26	7	32	7	5	13	5
1176	-0.3	-0.6	-0.3	0.2	21.2	21.2	21.2	21.1	-7.4	-7.4	-7.3	-7.3	26	34	26	7	33	7	5	13	5
1207	0.1	-0.2	0.0	0.5	21.8	21.7	21.7	21.6	-7.5	-7.5	-7.5	-7.5	27	38	26	8	29	8	5	13	5
1227	0.3	0.1	0.2	0.7	21.4	21.4	21.4	21.5	-7.5	-7.5	-7.5	-7.5	26	40	26	9	26	9	5	13	5
1268	0.3	0.1	0.2	0.6	21.3	21.4	21.4	21.4	-7.5	-7.4	-7.4	-7.5	26	41	26	9	26	9	5	13	5
1545	0.3	0.4	0.5	0.2	20.7	20.7	20.6	20.8	-7.2	-7.1	-7.2	-7.2	34	38	33	15	19	14	9	12	8
1561	0.2	0.4	0.5	0.2	20.6	20.6	20.5	20.7	-7.2	-7.1	-7.1	-7.1	34	39	33	15	19	14	9	12	8
1575	0.1	0.2	0.3	0.1	20.6	20.5	20.6	20.5	-7.4	-7.3	-7.3	-7.3	34	39	33	15	18	14	9	12	9
1609	0.0	0.1	0.4	0.0	21.1	20.8	20.9	21.0	-7.5	-7.3	-7.3	-7.3	34	40	34	13	17	12	10	11	9

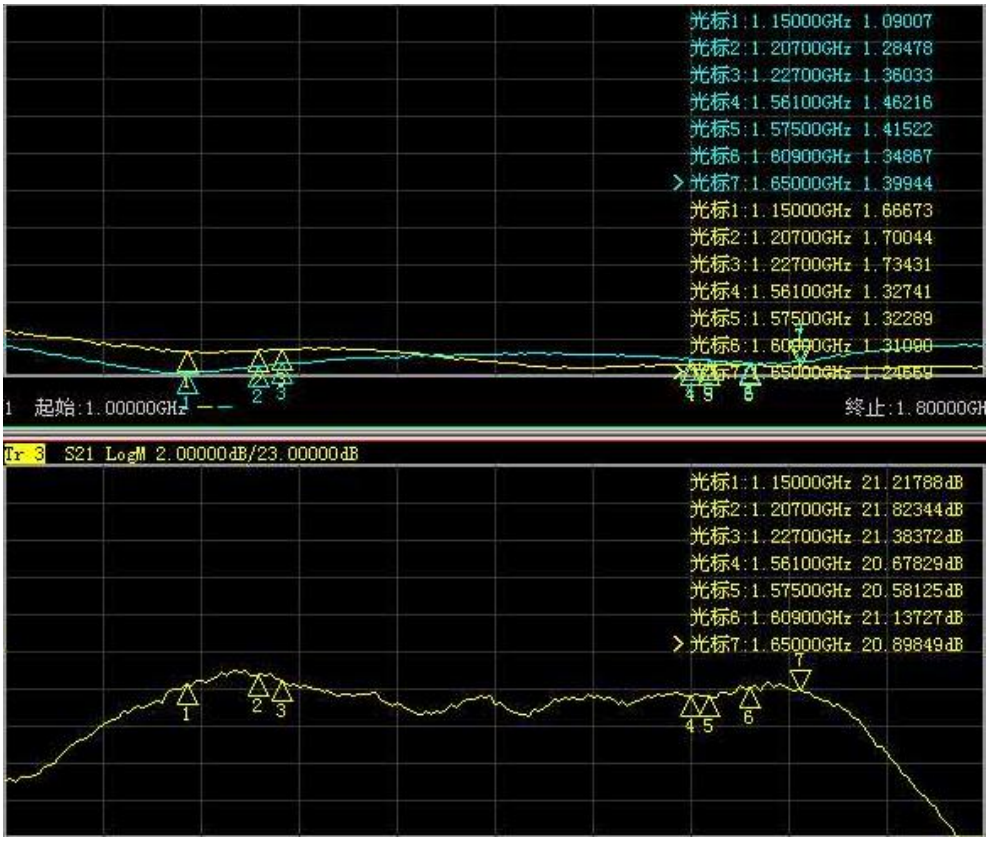
1650	−0. 1	−0. 2	0. 0	−0. 2	20. 9	20. 9	21. 1	21. 0	−8. 0	−7. 9	−7. 8	−7. 8	35	41	35	12	15	11	11	11	10

Frequency (MHZ)	VSWR															Noise(dB)		
	0					21					Total LOSS					0	5	21
	S	1	2	3	4	S	1	2	3	4	S	1	2	3	4	S	S	S
1150	1. 6	1. 2	1. 3	1. 3	1. 3	1. 7	1. 1	1. 1	1. 2	1. 2	1. 4	1. 2	1. 3	1. 3	1. 3	3. 2	1. 8	0. 7
1176	1. 5	1. 2	1. 3	1. 3	1. 2	1. 7	1. 1	1. 1	1. 2	1. 2	1. 4	1. 2	1. 2	1. 2	1. 3	3. 0	1. 7	0. 8
1207	1. 4	1. 2	1. 3	1. 3	1. 2	1. 7	1. 3	1. 3	1. 4	1. 4	1. 4	1. 1	1. 1	1. 1	1. 1	3. 2	1. 8	0. 8
1227	1. 4	1. 2	1. 3	1. 3	1. 2	1. 7	1. 4	1. 4	1. 5	1. 4	1. 4	1. 1	1. 1	1. 1	1. 1	3. 2	1. 8	0. 8
1268	1. 4	1. 2	1. 2	1. 3	1. 2	1. 6	1. 4	1. 3	1. 4	1. 3	1. 3	1. 2	1. 1	1. 2	1. 3	3. 3	1. 9	0. 8
1545	1. 3	1. 1	1. 2	1. 2	1. 2	1. 3	1. 5	1. 4	1. 3	1. 5	1. 3	1. 4	1. 3	1. 3	1. 4	3. 8	2. 2	1. 1
1561	1. 2	1. 1	1. 2	1. 2	1. 2	1. 3	1. 5	1. 5	1. 4	1. 5	1. 2	1. 4	1. 3	1. 4	1. 4	3. 9	2. 2	1. 2
1575	1. 2	1. 1	1. 2	1. 2	1. 2	1. 3	1. 4	1. 5	1. 3	1. 4	1. 3	1. 5	1. 4	1. 4	1. 5	3. 9	2. 3	1. 2
1609	1. 3	1. 1	1. 1	1. 1	1. 2	1. 3	1. 3	1. 4	1. 3	1. 4	1. 4	1. 5	1. 4	1. 4	1. 5	4. 2	2. 4	1. 2
1650	1. 3	1. 1	1. 1	1. 1	1. 2	1. 2	1. 4	1. 4	1. 4	1. 5	1. 5	1. 5	1. 5	1. 5	1. 5	4. 1	2. 5	1. 3

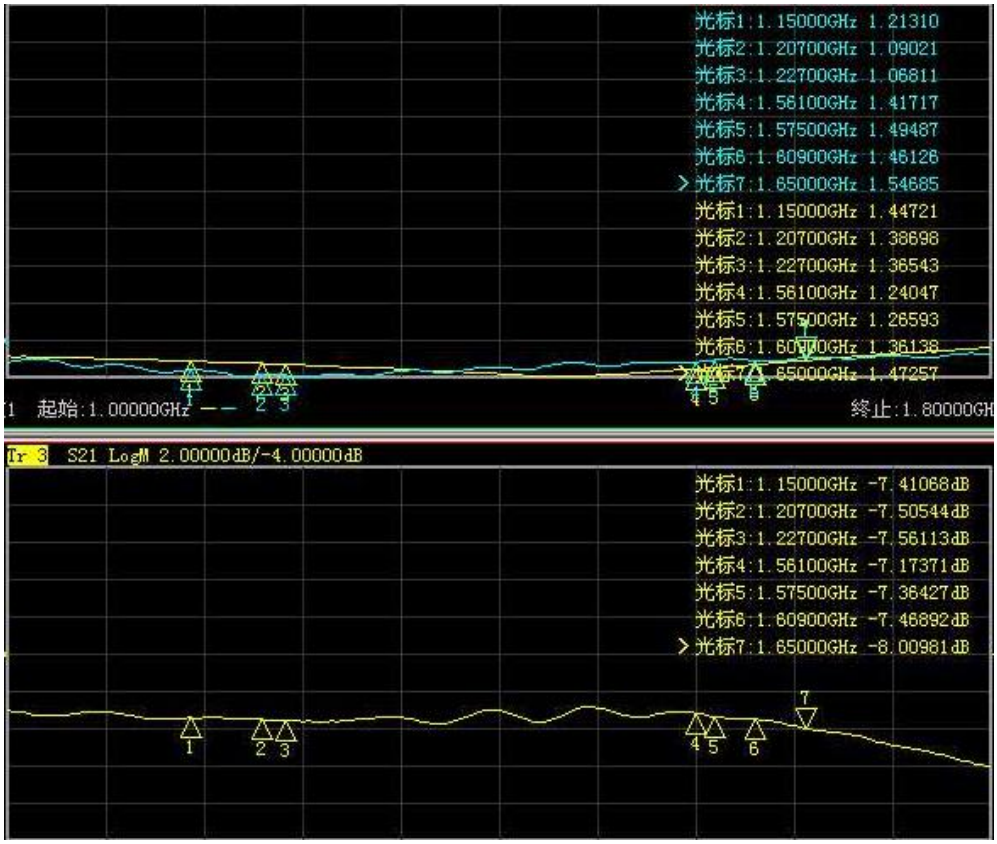
Performance Data



Gain :0dB



Gain :21dB



-7.5dB

Order Informations And Available Options

MGS14i A NM

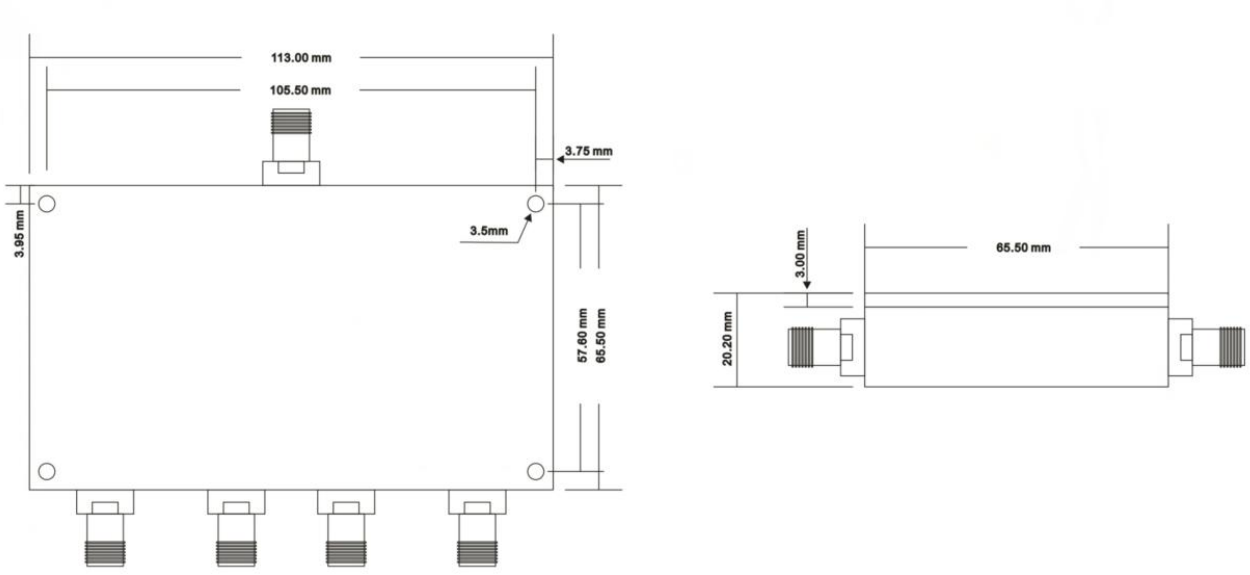
Part Number:
Power port selection:
Blank(Standard)- Output port voltage comparison and selection

Gain Options:
Blank (Standard)-0dB
-Axx xx=01-21. Desired Gain Level
A-Active, 21dB gain

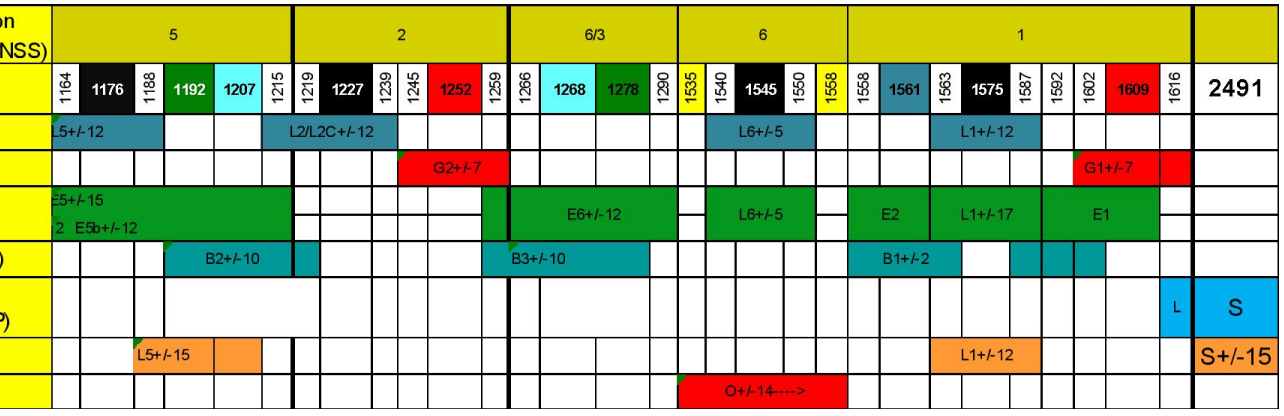
Connectors Output
Blank (Standard)-N Female
-NF N Female -NM N Male
-SF SMA Female -SM SMA Male
-TF TNC Female -TM TNC Male
-BF BNC Female -BM BNC Male

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

Mechanical



Frequency reference table:


Gllobal/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
G1+/-7
Galileo(Europian) L1,E1,E2,E5(E5a,E5b),E6
E5+/-15
2 E5b+/-12
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---->