

On-board GNSS high gain twelve-way power divider GS112-55



深圳星火源电子有限公司

Tel: +86-755-29644311 Fax: +86-755-29644383 Document Number 22111001 Rev001 2022-11-02 Page 1 / 4

深圳市宝安区西乡街道龙珠社区润东晟工业园6栋2层

Email: sales@gemsnav.com



Product function description and requirements:

- Commercial grade: -40° ~85°;
- Military grade: -55° ~85° (Optional)
- Gain: 55dB;
- X0 port pass-through antenna: -5dB~0dB;
- Operating frequency range:
 - ▶ 1164MHz ~1616MHz;
 - > 1557.5MHz~1587.5MHz (GPS L1 & Beidou B1 with filter option);
- Output voltage at IN:5V;
- Connector mode: SMA Female with self-locking (Optional);
- Connector mode: SMA Female (Standard);
- The whole product is 100% domestic chip;
- Power supply mode:
 - 220VAC to 12VDC power adapter power supply; (Standard)
 - 18~76V DC input; (Optional)
- The antenna feed port is powered by a receiver of X0, Voltage: 5V DC
- Enter the number of ports: 1-way;
- Number of output ports: 12 with gain, 1 pass-through without gain;



Product description

The GNSS active high-gain twelve-way power divider is an active power divider with high-gain amplification with twelve outputs at one end. The signal received by the active GPS receiving antenna is divided equally among the twelve outputs, and one feed port without gain is added. In such an application, its IN terminal can be configured to pass 5V DC, X0 feeds the active GPS antenna connected to the IN port, and the other output ports will have a 200 Ohm DC load to simulate the DC loss of any receiver antenna connected to these ports.

Electrical parameters

参数	条件	最小	标称	最大	单位
Operating temperature	Standard	-40°		85°	° C
Operating temperature	Optional	-55		85	° C
Frequency range	Antenna – Either port	1268.52 ± 10		1575.42 ± 10	MHz
Input & output impedance	Input, All Output ports		50		Ω
Gain	X1~X12	50	52	55	dB
Gain	X0 (Straight through)	-5		0	dB
Enter VSWR			2.0:1		-
Output VSWR			2.0:1		-
Noise figure			3.5	4	dB
Gain flatness				3	dB
Isolation	Unused port - 50Ω (Beidou B1)		20		dB
DC input	220VAC to 12VDC power adapter		12		VDC
Device current				280	mA
Maximum RF input	Maximum RF input			0	dBm
Input and output port types	Standard	SMA Female			
Input and output port types	Optional	SMA Female with self-locking			
Enter the number of ports		1			
Number of output ports	All the way through; Twelve strips are magnified	13			



Product size



Surface treatment process of structural parts Copper plating, spray conformal paint.