

GA30-V

GPS Line Amplifier



- Applications: GPS Signal Indoor, Timing, Survey, Wireless Communication etc.
- Gain : 0~30dB, Variable options 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
- Pass DC.

GEMS NAVIGATION Electronics Co.,Ltd. Floor 2, building 6, rundongsheng Industrial Zone, Longzhu community, Xixiang street, Bao'an District, Shenzhen China

Tel: +86-755-29644311 Fax: +86-755-29644383 Email: sales@gemsnv.com

Document Number 120101 Rev 006 2018-11-16 Page 1 / 7

Description

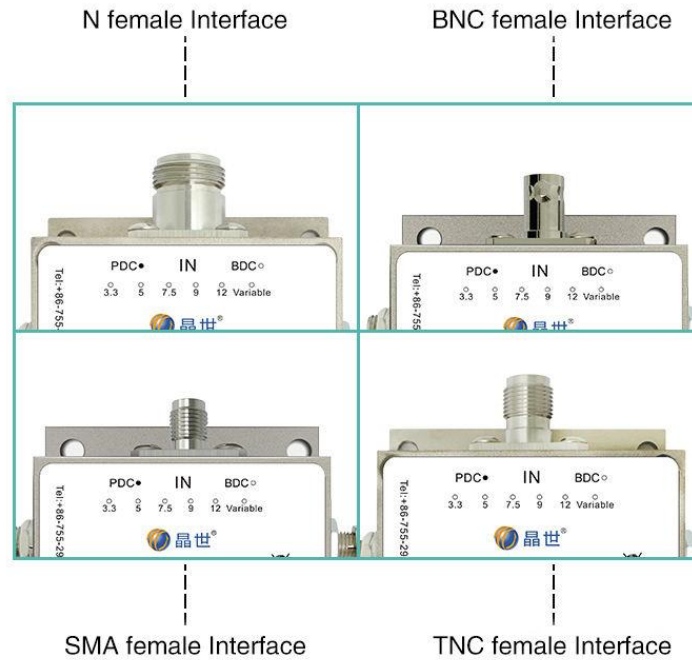
The GA30-V Line amplifier is a single stage gain block in a small form factor that covers the GPS, Galileo, and GLONASS, Beidou2 frequencies. The device features 0~30dB gain and a noise figure less than 2dB. Since the product consumes less than 20mA, the device can be placed in line with the receiver antenna and can be powered by the GPS receiver's antenna voltage output.

The GA30-V is available with more options than any competitive product in the market.

Specifications

Electrical Specifications, Operating Temperature -40 to 85°C

Parameter		Conditions	Min	Typ	Max	Units	
Freq. Range		In- Output ports, 50Ω	1.2		1.7	GHz	
In &Out Imped.		In, all output ports		50		Ω	
Gain	1227MHz	In- Output ports -45dBm Input Level	28	30	32	dB	
	1575MHz		28	30	32		
Adjustable gain	1227MHz		Max	29	30		31
			Min	-4	-2		0
	1575MHz		Max	29	30		31
			Min	-2	0		1
Input SWR					2.5:1		-
Output SWR					2.5:1		-
Nois Figure				2	dB		
Gain Flatness				3	dB		
Current balance				0.5	dB		
Phase Balance				1.0	deg		
Group Delay Flatness				1	ns		
Device current				16	mA		
DC IN		The DC input on the input or output port	3	5	16	VDC	
AC supply				220		AC	
Max RF Input		Maximum lossless RF input			0	dBm	
Operating temperature			-40		85	°C	

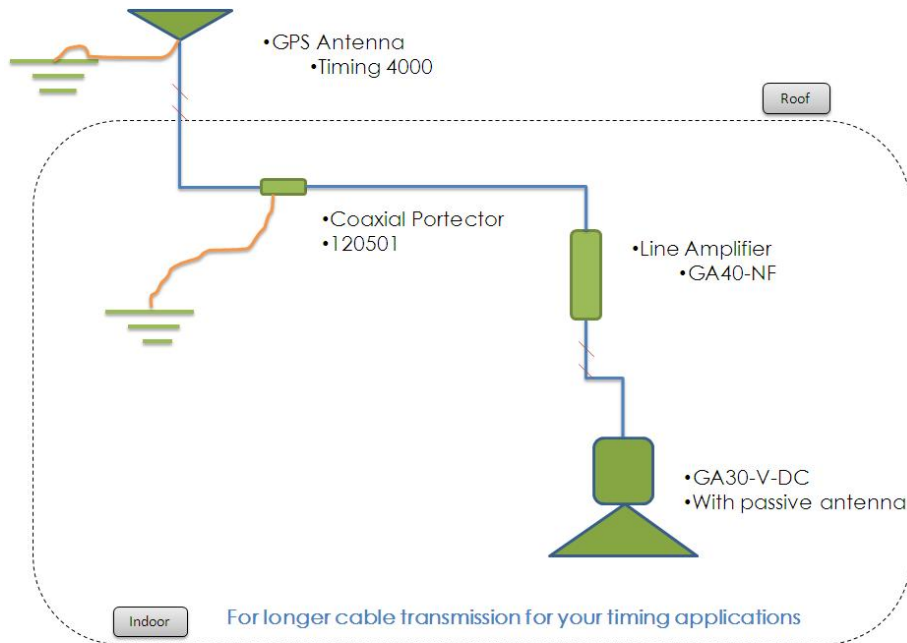


4 interfaces are available: N、BNC、SMA、TNC
users can choose according to the needs.

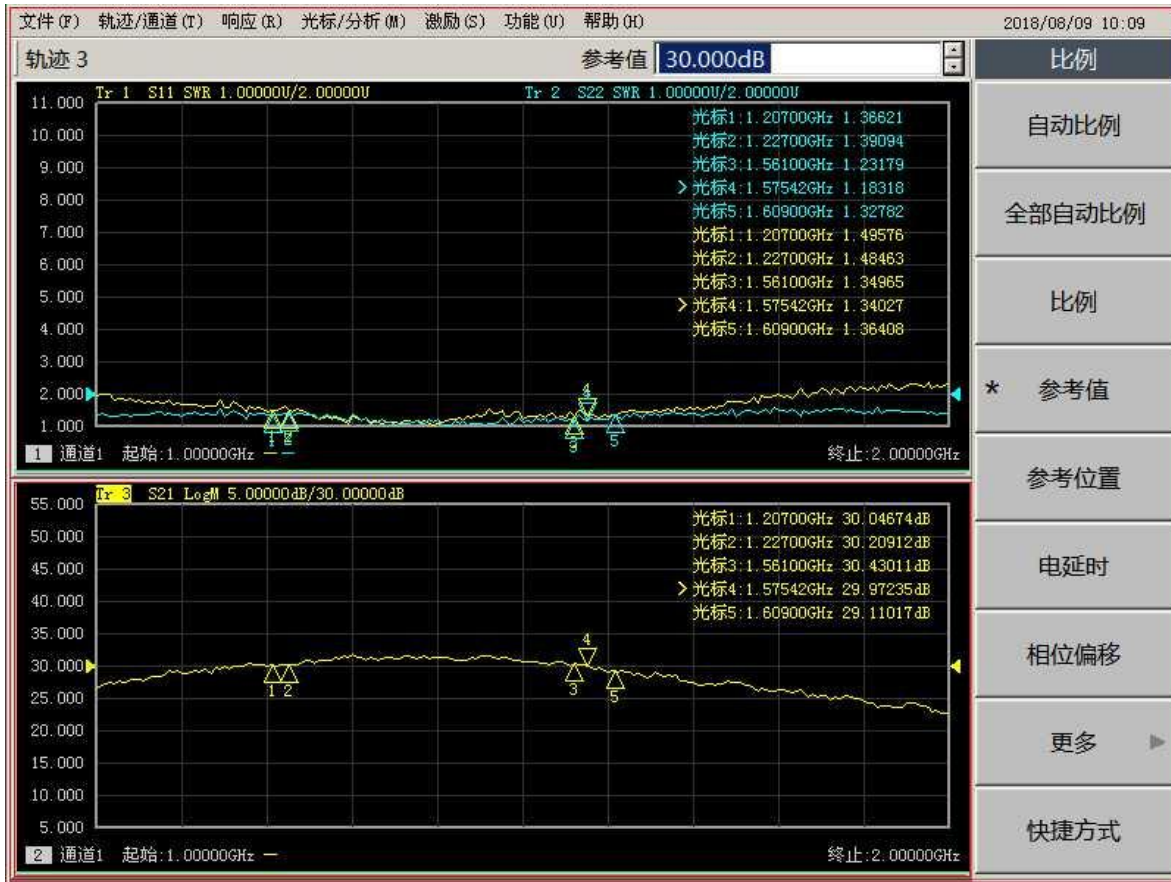


3C Security Certification
Three power adapters available

Applications



Permanence for Data



Order Informations And Available Options

GA30 - V - DC - NF - BO

Part Number:

Standard

Gain Options:

Blank(Standard)- 30dB

Axx - XX=01-29, Desired Gain Level

V - 0dB to 30dB Variable

Power Options:

Blank(Standard) - Without Power adapter

DC - With 230/5vPower adapter

Connectors:

Blank(Standard) - N Female

NM - N Male

SF - SMA Female

SM - SMA Male

TF - TNC Female

TM - TNC Male

BF - BNC Female

BM - BNC Male

PDC or BDC Options:

Blank(Standard) - Pass DC In &Out

BI - Pass DC Out and Block DC In

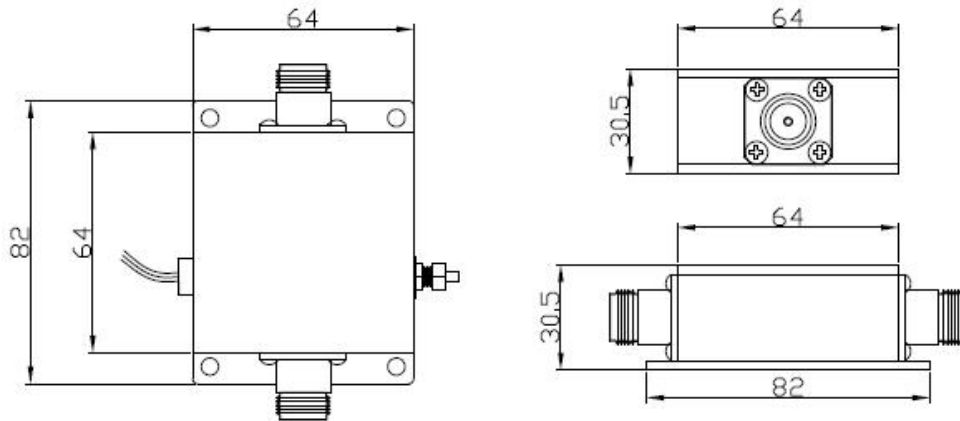
BO- Block DC Out and Pass DC In

B- Block DC Out and In

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

Mechanical

- ▶ Name: Power Divider
- ▶ Model: GA30-V
- ▶ Material: Aluminium
- ▶ Units: mm
- ▶ Tolerance: ± 0.05



MODEL
GA30-V

DRAWING DATE
2013.10.22

NOTES:

- ▶ UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL;
- ▶ ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.

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	1561	1563	1575	1587	1592	1602	1609	1616	2491
GPS(USA) L1,L2,L2C,L5	L5+/-12					L2/L2C+/-12										L6+/-5						L1+/-12								
Glionass(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---->														