

GA30-DV

GPS digital step adjustable amplifier



- Gain : 0~30dB, Digital display step adjustable .
- Frequency Range: 1164MHz~1616MHz
- Program control RS232
- 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 and block DC switchable.

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Description

GA30 - DV is the latest launch of the single stage of the low noise amplifier, its technical characteristics are as follows:

1. Digital display gain: LED digital display, clearly display the current amplifier gain;
2. Touch-tone gain adjustment: through the upper and lower key, you can adjust the gain when needed;

3. Power control: toggle the power switch, easy control power supply state ;

Covers the GPS, Galileo, and GLONASS, Beidou 2 etc. The device features 30dB gain and a noise figure less than 3dB. 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-DV is More practical 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	1164		1616	MHz
In &Out Imped	In, all output ports		50		Ω
Gain			0~30		
1207MHz		(0~30)-1.5	0~30	(0~30)+1.5	dB
1227MHz	In- Output ports	(0~30)-1.5	0~30	(0~30)+1.5	
1561MHz	-45dBm Input Level	(0~30)-1.5	0~30	(0~30)+1.5	
1575MHz		(0~30)-1	0~30	(0~30)+1	
1609MHz		(0~30)-1.5	0~30	(0~30)+1.5	
Input SWR				2.5:1	-
Output SWR				2.5:1	-
Noise Figure				3	dB
Gain Flatness				3	dB
Amp. Balance				0.5	dB
Phase Balance				1.0	deg
Group Delay Flatness				1	ns
Current	Pass DC, No Powered configuration, DC input on Out Port			250	mA
Max RF Input	Max RF input without damage			0	dBm

Functional description:

Used to adjust system gain, 0-30 dB adjustable, Accuracy for 1 dB, Error of ± 1 dB .you can control when needed.

with AC220/9V power adapter, supply power to system and itself.

①② are input/output, connect to cable assembly, N female (Can be customized).

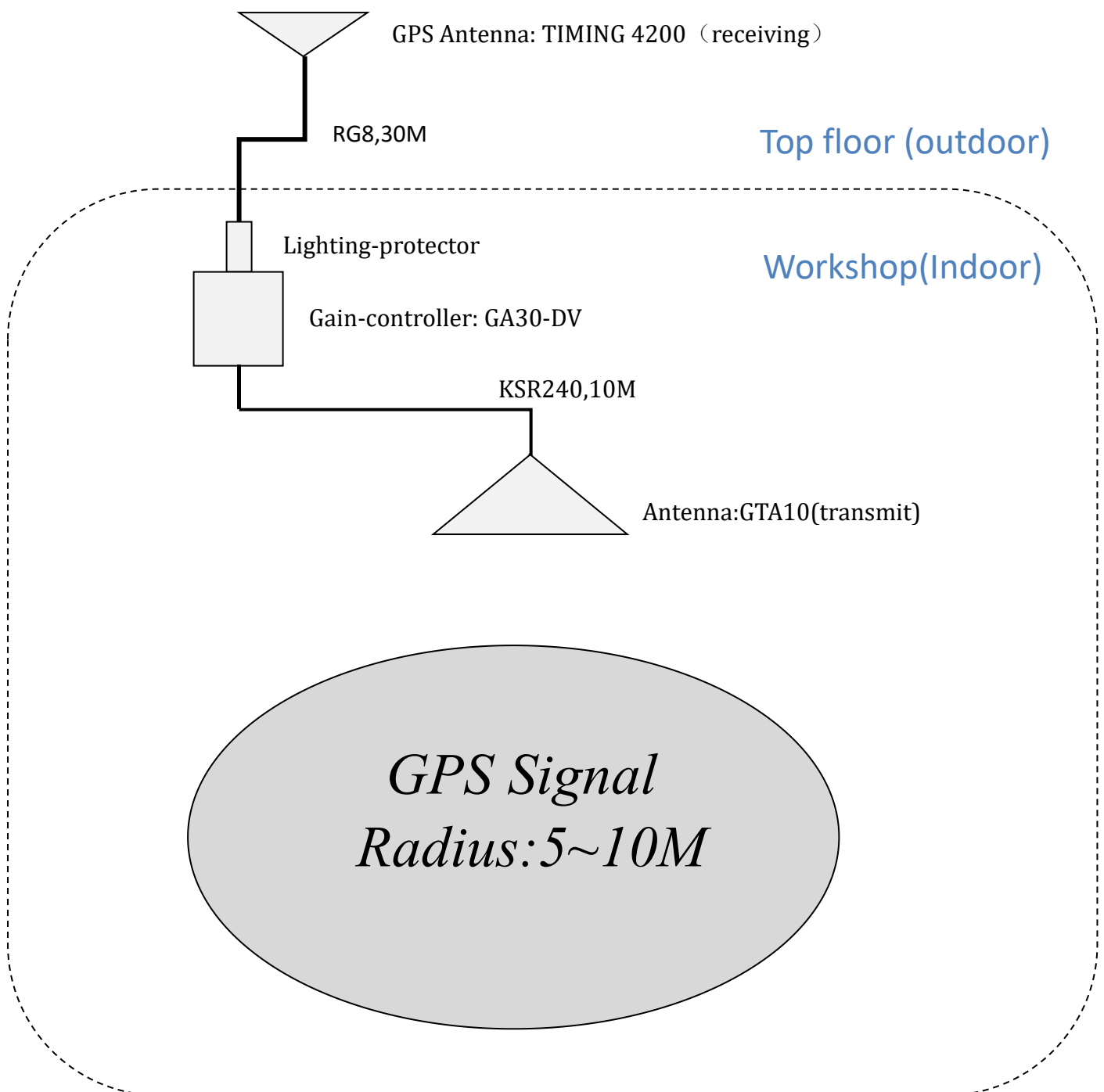
③ for power control switch. system power-on and reset (Gain reset to maximum 30dB) when allocated to upward, opposite, system stops working.

④ and ⑤ button to adjust the gain level. when system installed, generally, for this device, we usually from a maximum gain gradually adjust small, we can see the SNR of the receiver begin to weak, this point of gain will be the best choose.

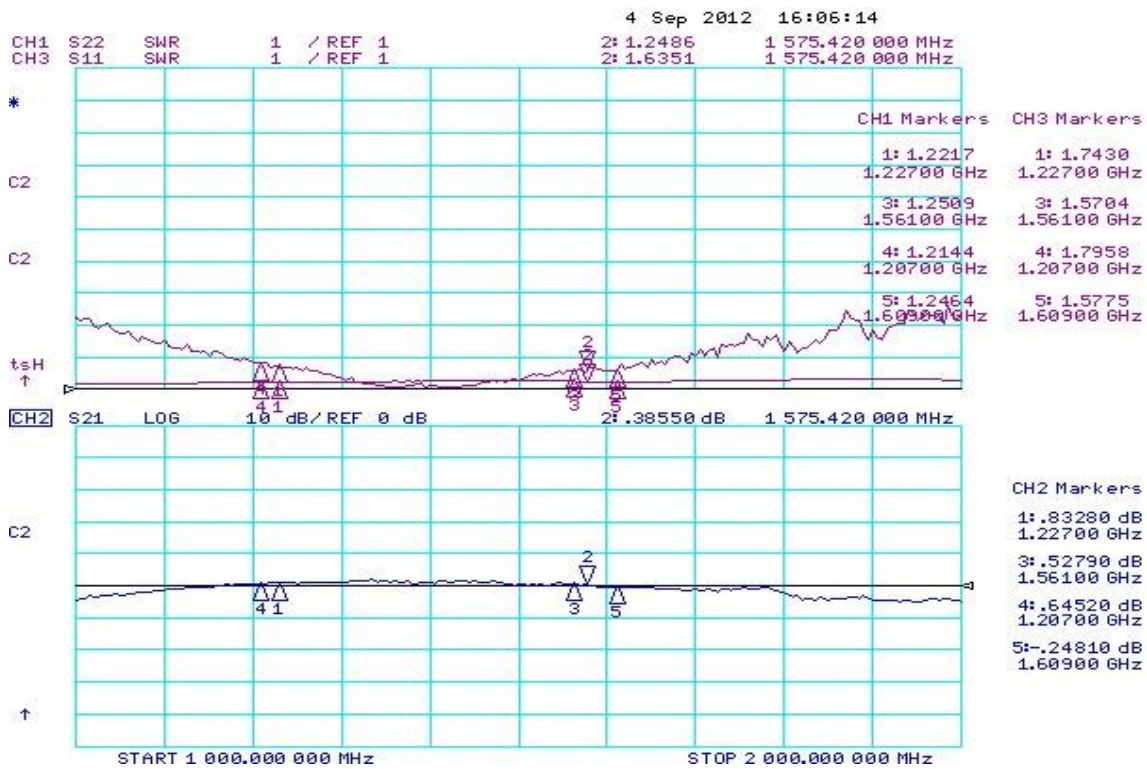
⑥ is a LED, display the initial amplification value (level +30) when power-on .



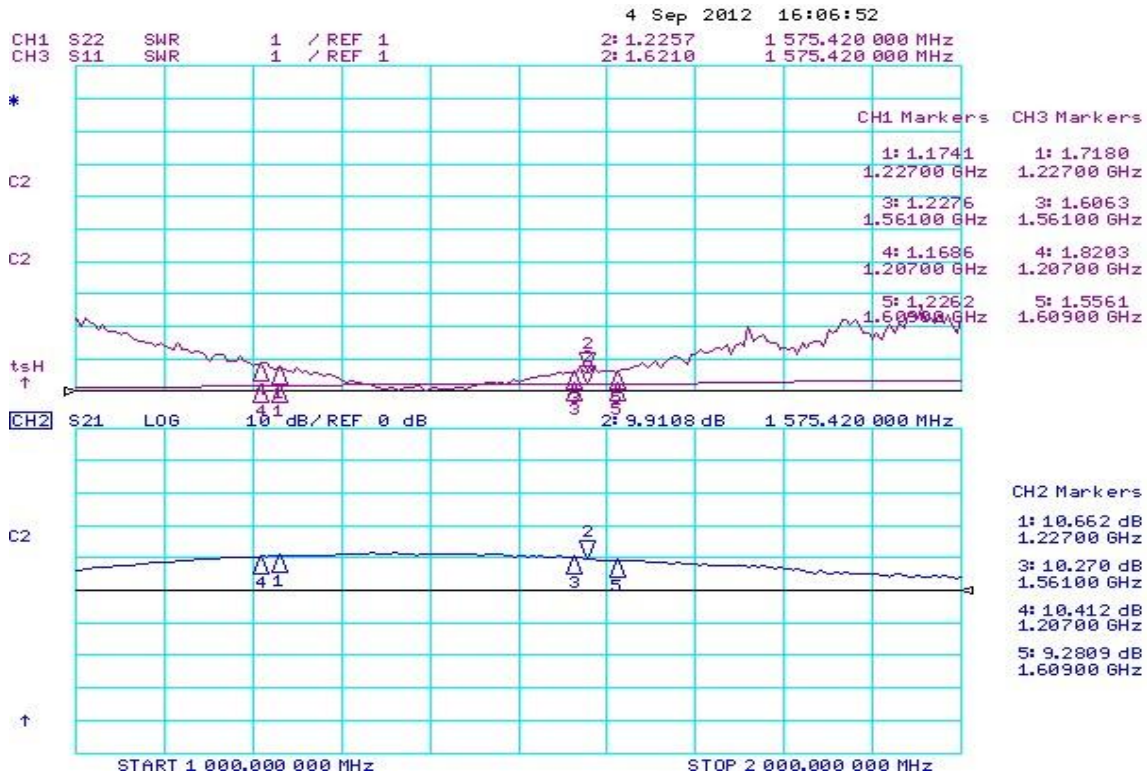
Applications



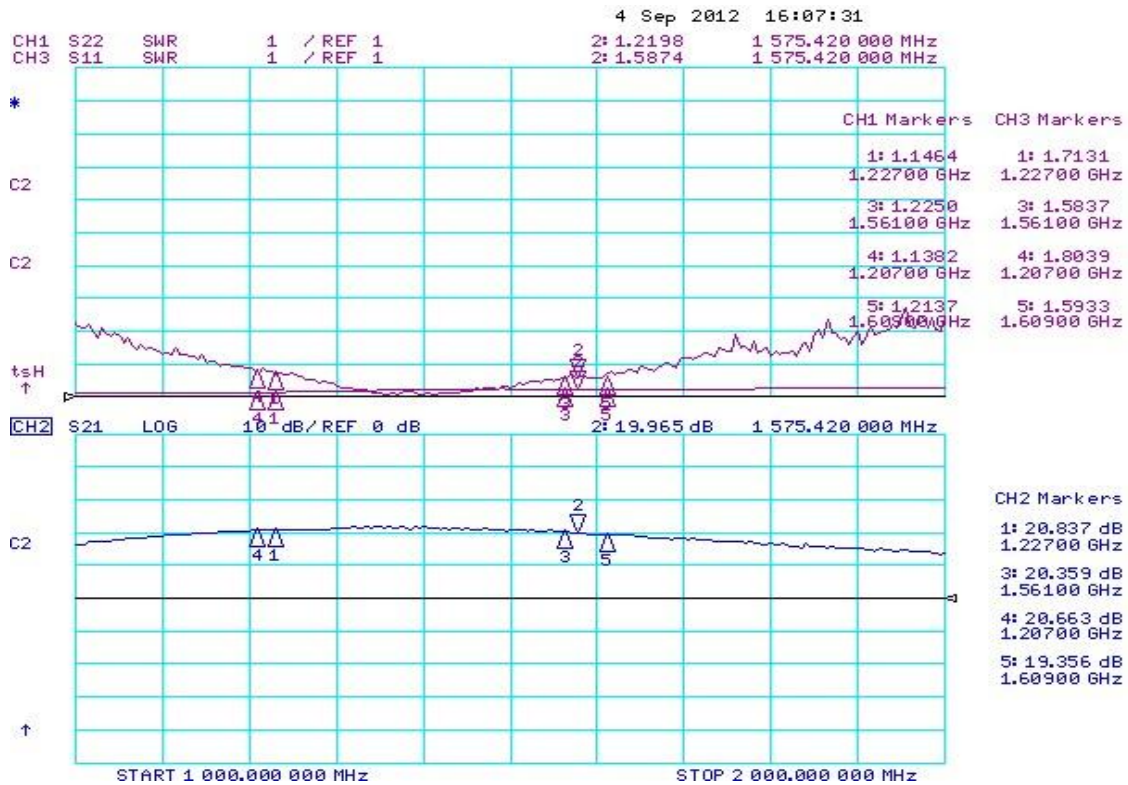
Performance Data



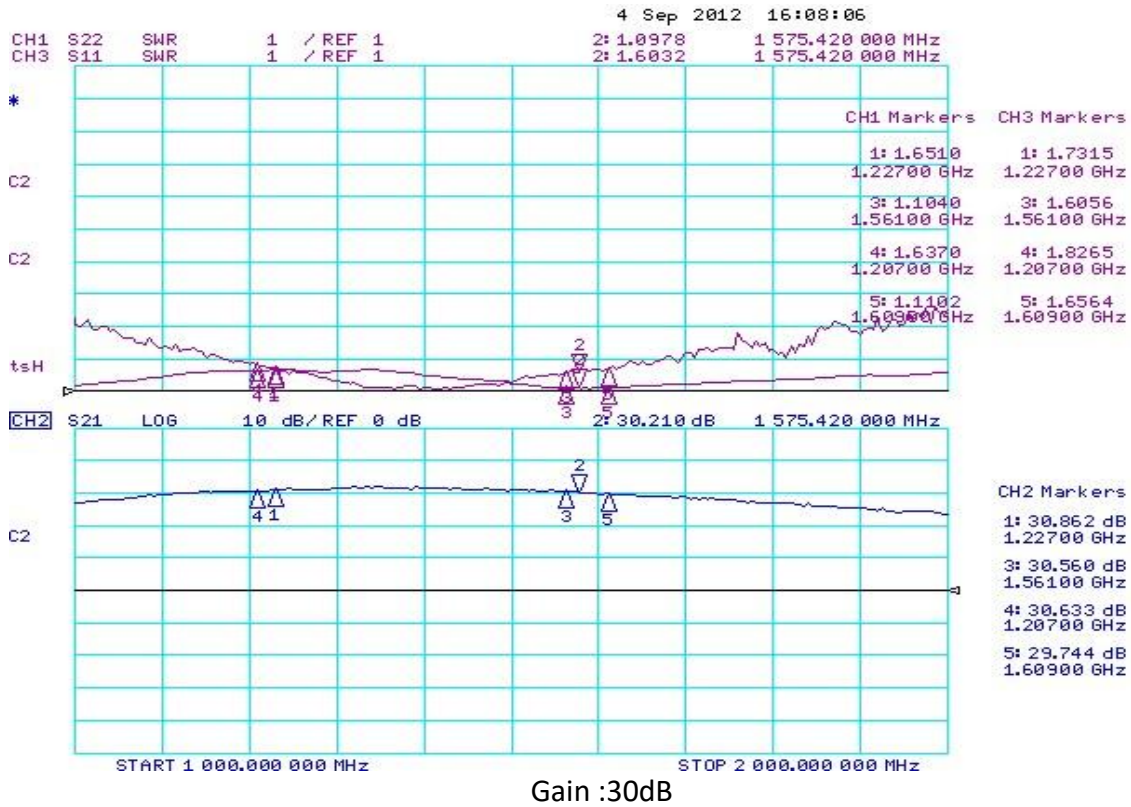
Gain :0dB



Gain :10dB



Gain :20dB



Order Informations And Available Options

GA30-DV-SF-BI

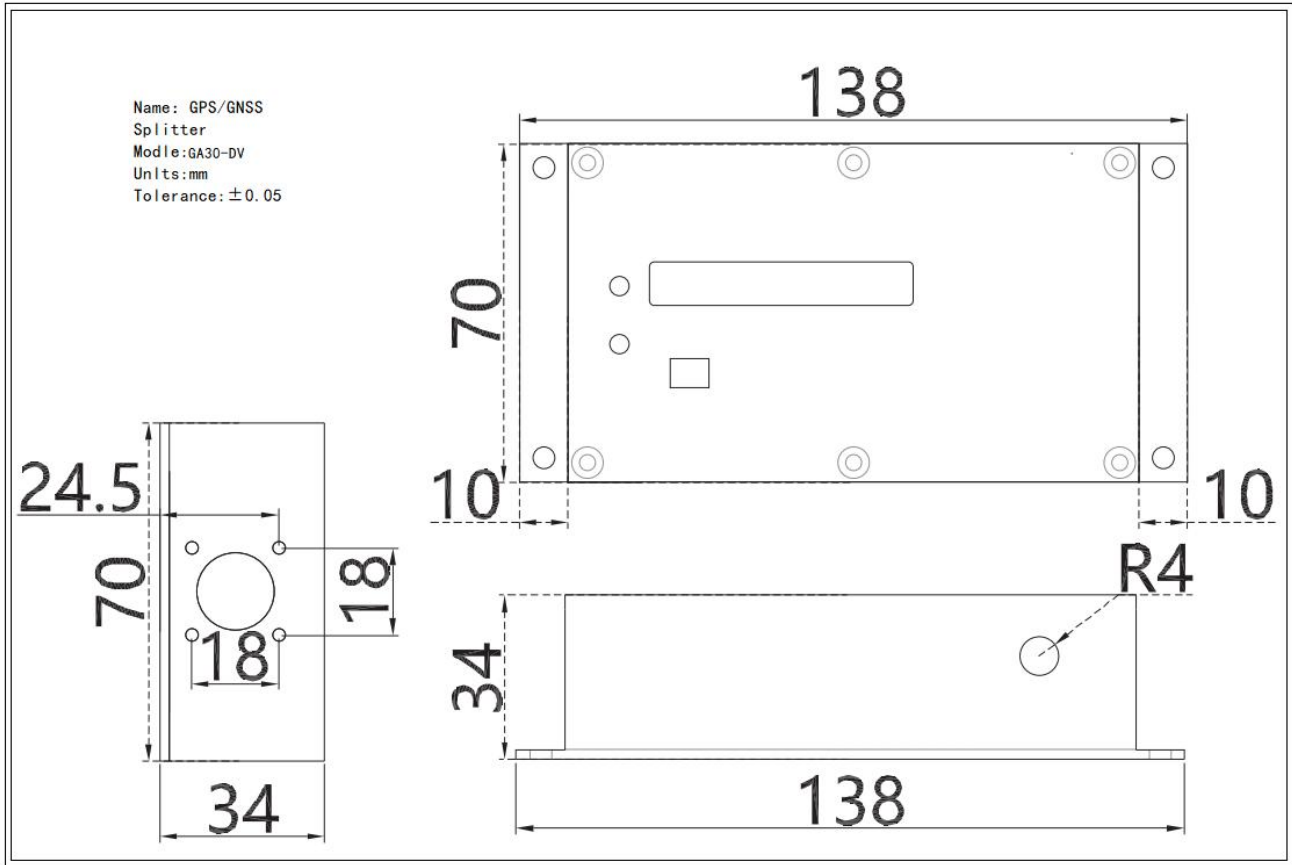
Part Number:
Standard

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 & Block DC Out
 BI - Pass DC Out and Block DC In
 B - Block DC Out and In
 P - Pass DC In and Pass DC In

Please contact us for more configurations and application supports. Email: Sales@gemsnav.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	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									
Glionass(Russia) G1,G2											G2+/-7																					
Galileo(Europian) L1,E1,E2,E5(E5a,E5b),E6	E5+/-15		E5a+/-12		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---->																