Drills a hole fixed GPS /VHF Antenna

MODEL: GVA-100

(Low Input Voltage)

AIS system & boat manages the double frequency GPS/VHF Antenna or

GPS/ Orbcomm Antenna

Specifications:

PHYSICAL CONDITION	
Constructions:	Polycarbonate radome, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	47.2mm(Dia.) x 38mm(H)
Weight:	100grams (with 5M cable & connector).
Color:	Standard in Black
Mounting:	Bulkhead mount with 0.46 inch threaded wing nut.
Cable & Connector	
RF cable:	5 meter RG174/U (standard) other length (optional)
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector available:	SMA/SMB/MCX/MMCX/GT5/FME---
Optional:	Universal Connector Adapter (FME to TNC/BNC/SMA/SMB/MCX)
Antenna Element	
Center Frequency:	1575.42 MHz +/-1.023 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Absolute Gain @ Zenith:	+5 dBi typical.
Gain @ 10^{o} Elevation:	-1 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Center Frequency:	1575.42 MHz

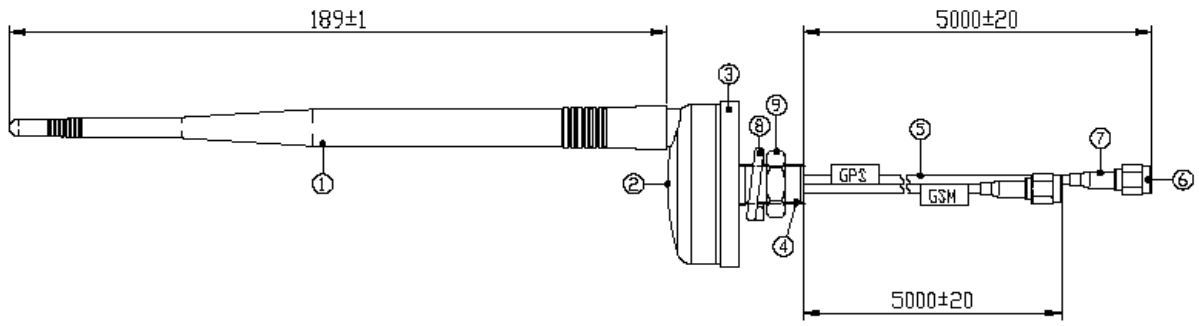
Power Gain:	28db +/-4.5db
Bandwidth:	10MHz min.
Noise Figure:	1.5 min.
Outer Band Attenuation:	3 dB max.
Supply Voltages:	2.5~5.5V DC
Current Consumption:	2.5V : 6.6mA Typ. 3V: 8.6mA Typ. 4V: 12.6mA Typ. 5V: 16.6mA Typ.
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1575.42 Mhz.
Gain:	At 90° 30 ± 4.5dBi-(cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	2.0 max.
Axial Ratio:	3 dB max.
Bandwidth:	2MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +85°C.
Storage Temperature:	-50°C~ +90°C.
Relative Humidity:	95% non-condensing.

VHF Annt			
Frequency	156-165Mhz (AIS System)	Frequency	137-150Mhz (Orbcomm)
VSWR 156Mhz 160Mhz 165Mhz	<2.0 Max 1.9 1.3 1.7	VSWR 137Mhz 141Mhz 150Mhz	2.5Max 2.29 1.42 2.3
Impedence	50Ω	Impedence	50Ω
Cable type	RG174	Cable type	RG174
Cable length	5M	Cable length	5M
Connector	SMA Coding or Others	Connector	SMA Coding or Others
Power	5~10W	Power	5~10W

* This specification is subject to change without prior notice

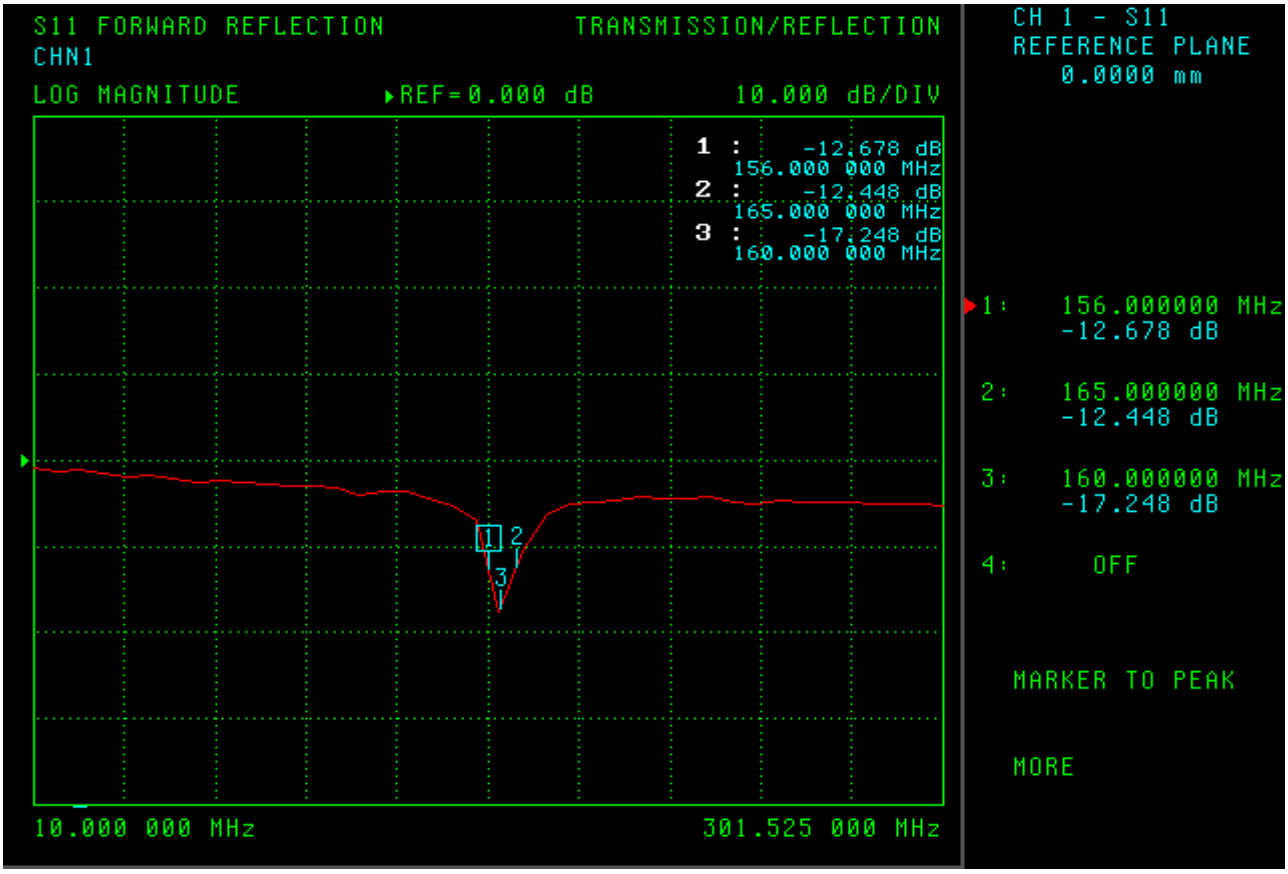
PS. Car Shell drill the hole OD12mm, When test must lock on the sheet iron

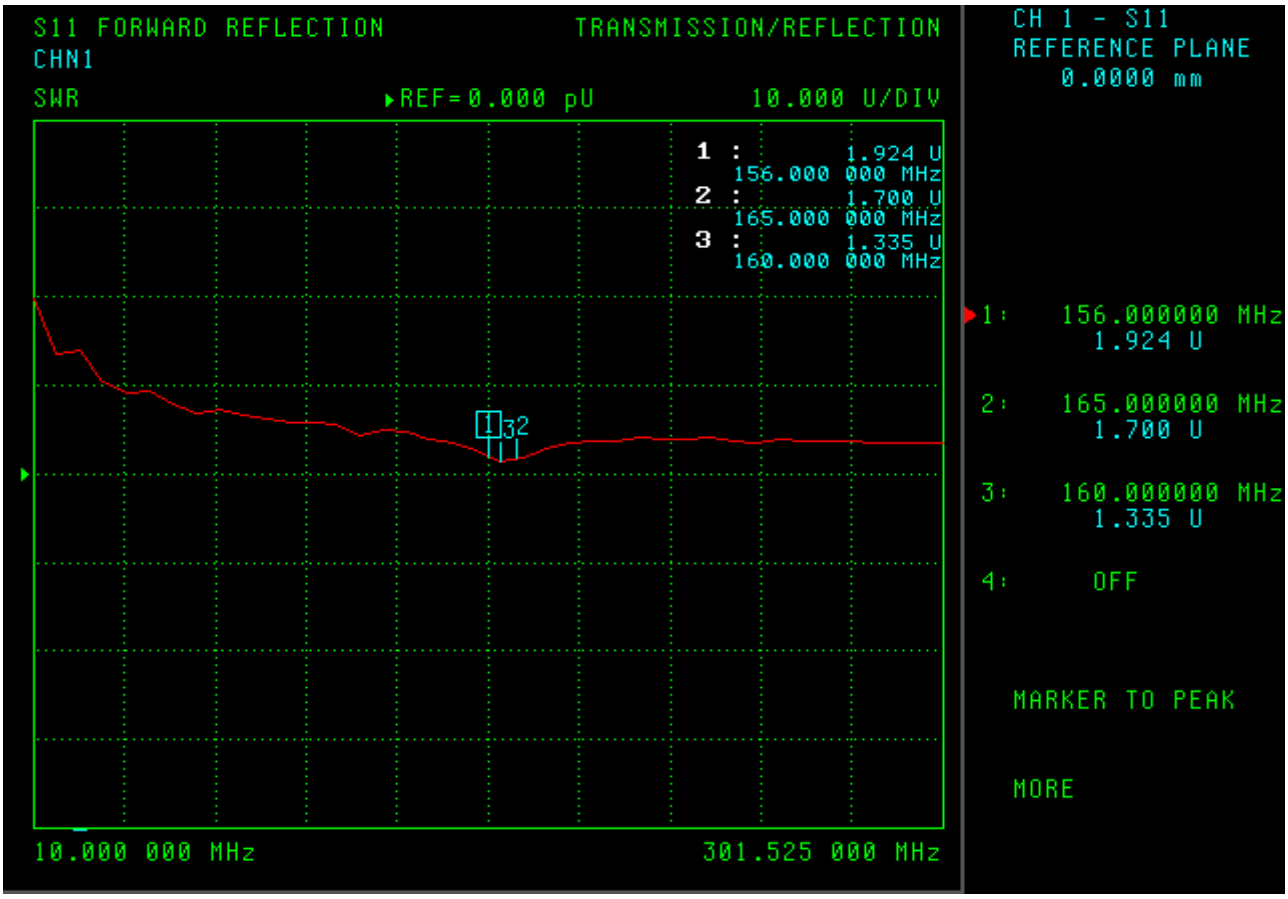
NO.	NAME	FINISH	Q.TY
01	Whip	Black	
02	Top cap	Black	01
03	Base	Black	01
04	Screw set	Nickel plating	01
05	RG-174 A/U Cable	Black	02
06	SMA 180°(Male)	Golden plating	02
07	Heat-shrink tube	Black	02
08	Washer	Nickel plating	01
09	Nut hexagonal	Nickel plating	01

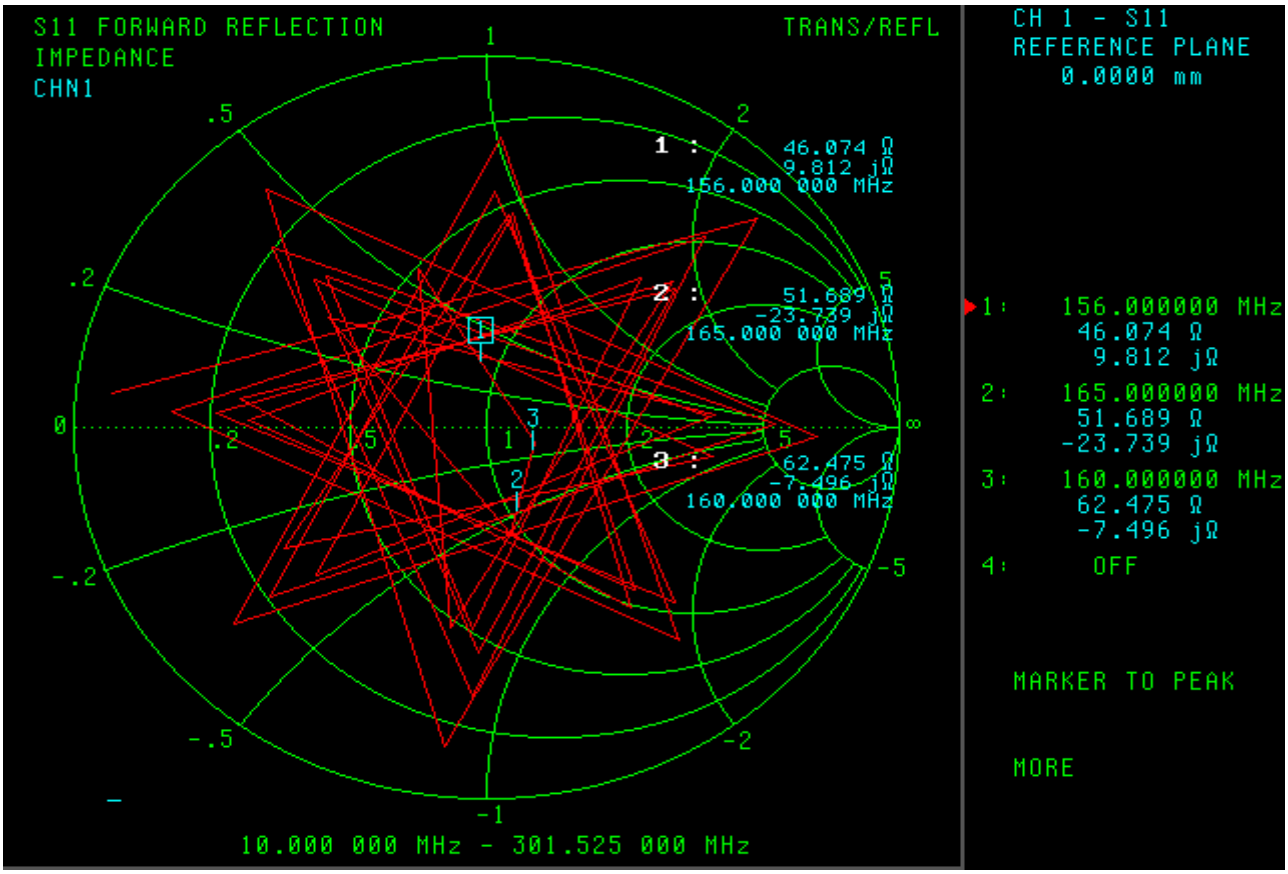


Third angle projection	CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
				156~165MHz	M/M		20080715	1
	TOLERANCE	X.XX±0.15	NAME	PARTS NUMBER	APPROVED	CHECKED	DRAWING	DESIGNED
	SURFACE ROUGHNESS		APPEARANCE					

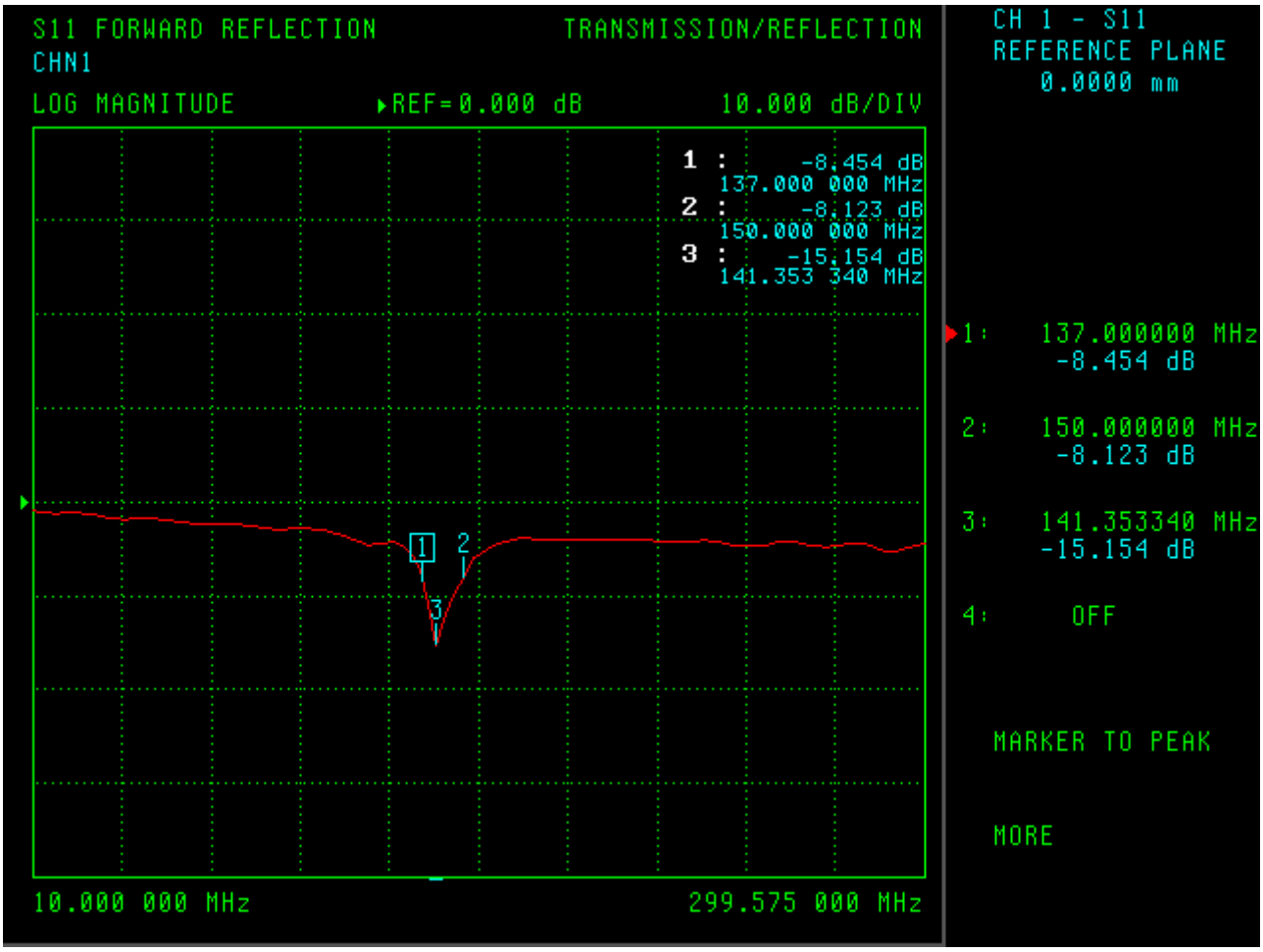
A: 156~165Mhz

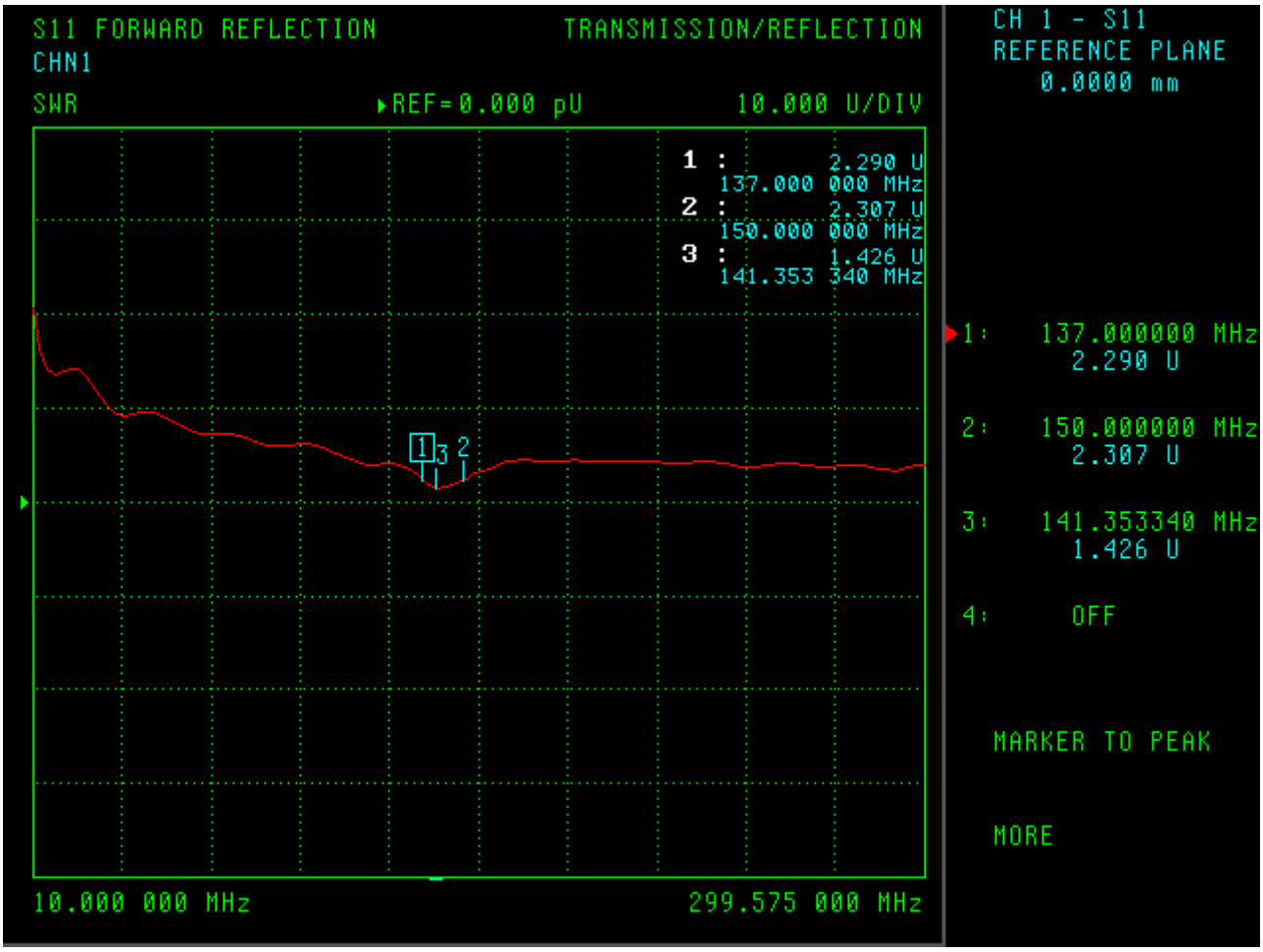


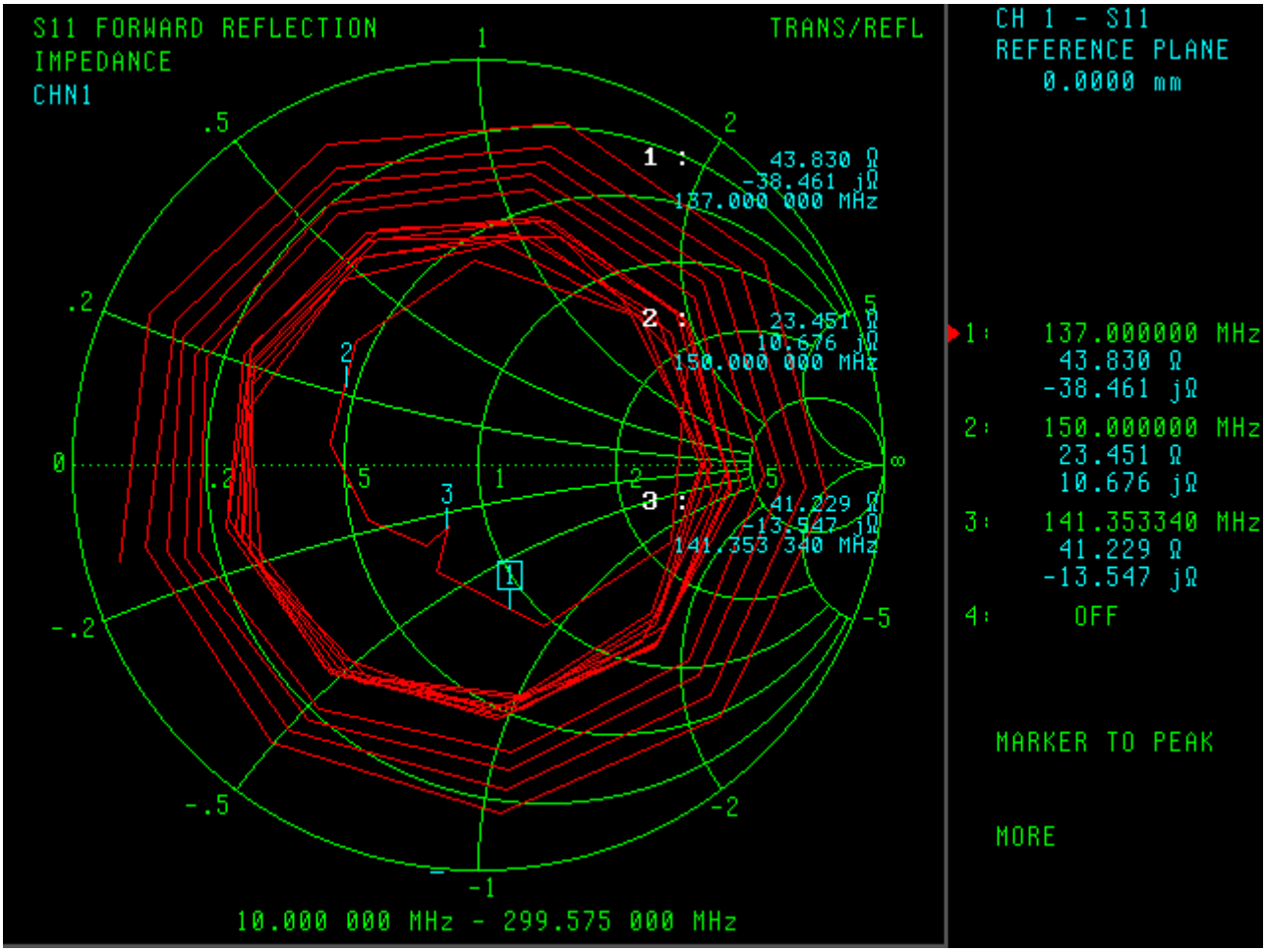

S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
SWR
▸REF=0.000 pU
10.000 U/DIV
1 : 1.924 U
156.000 000 MHz
2 : 1.700 U
165.000 000 MHz
3 : 1.335 U
160.000 000 MHz
10.000 000 MHz
301.525 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 156.000000 MHz
1.924 U
2: 165.000000 MHz
1.700 U
3: 160.000000 MHz
1.335 U
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
IMPEDANCE
CHN1
TRANS/REFL
1 : 46.074 Ω
9.812 jΩ
156.000 000 MHz
2 : 51.689 Ω
-23.739 jΩ
165.000 000 MHz
3 : 62.475 Ω
-7.496 jΩ
160.000 000 MHz
10.000 000 MHz - 301.525 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 156.000000 MHz
46.074 Ω
9.812 jΩ
2: 165.000000 MHz
51.689 Ω
-23.739 jΩ
3: 160.000000 MHz
62.475 Ω
-7.496 jΩ
4: OFF
MARKER TO PEAK
MORE

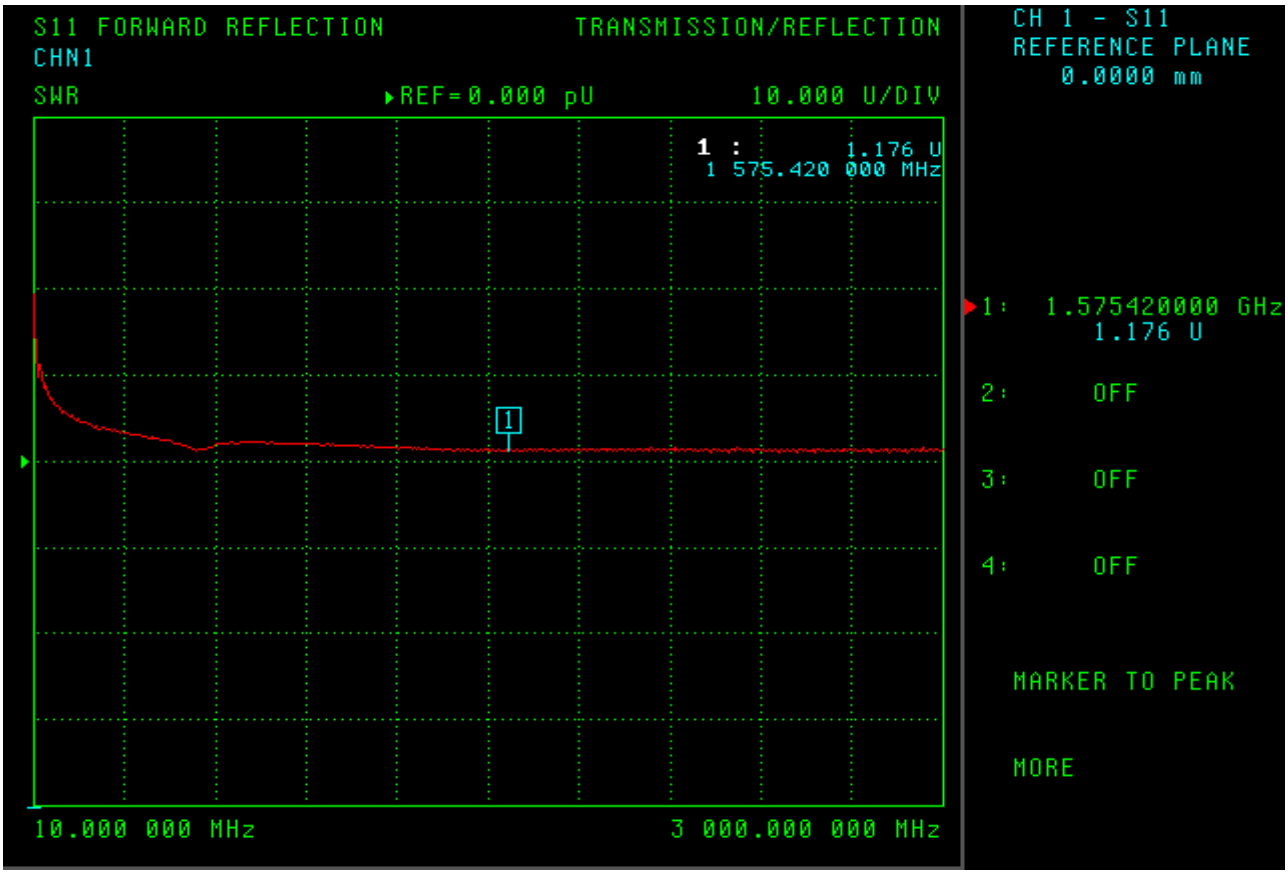
B:137~150Mhz

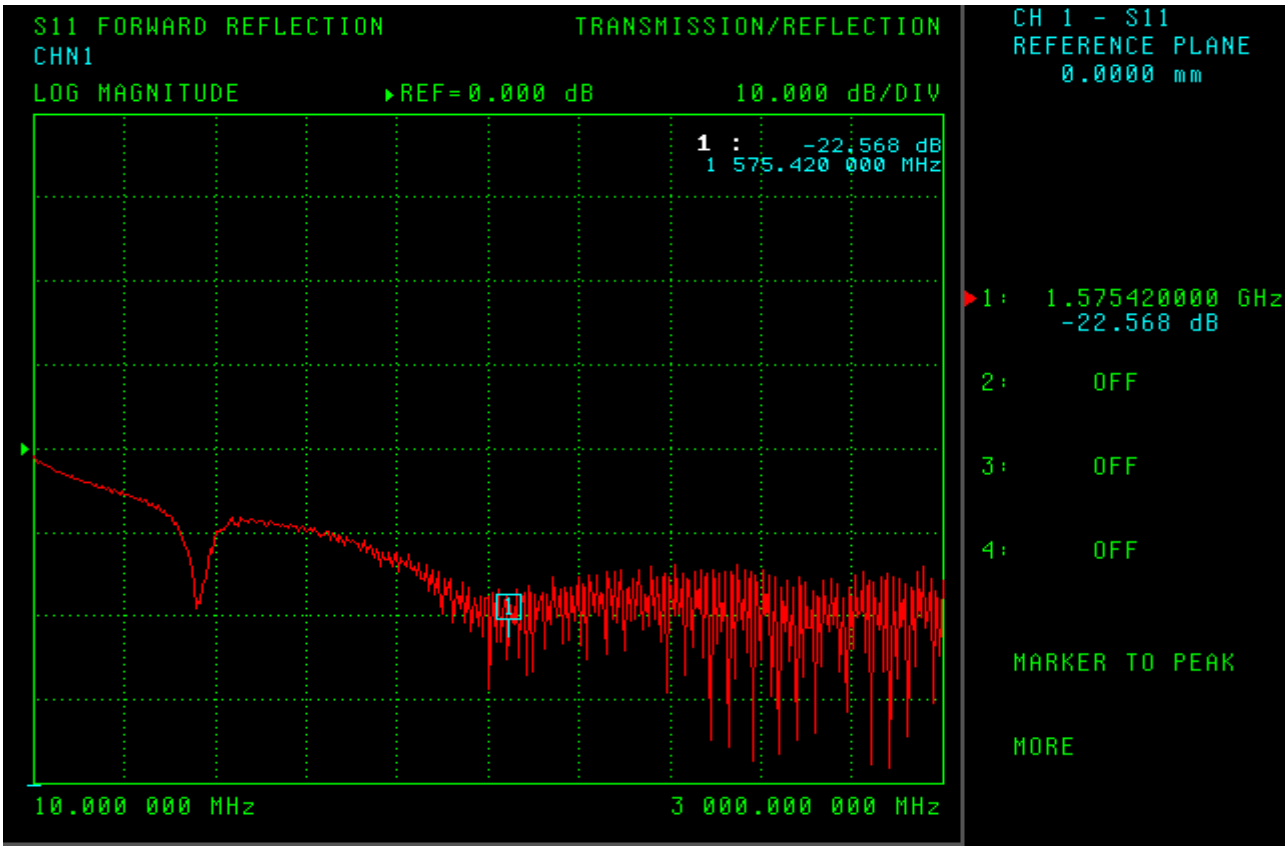

S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
LOG MAGNITUDE
▸REF=0.000 dB
10.000 dB/DIV
1 : -8.454 dB
137.000 000 MHz
2 : -8.123 dB
150.000 000 MHz
3 : -15.154 dB
141.353 340 MHz
10.000 000 MHz
299.575 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 137.000000 MHz
-8.454 dB
2: 150.000000 MHz
-8.123 dB
3: 141.353340 MHz
-15.154 dB
4: OFF
MARKER TO PEAK
MORE

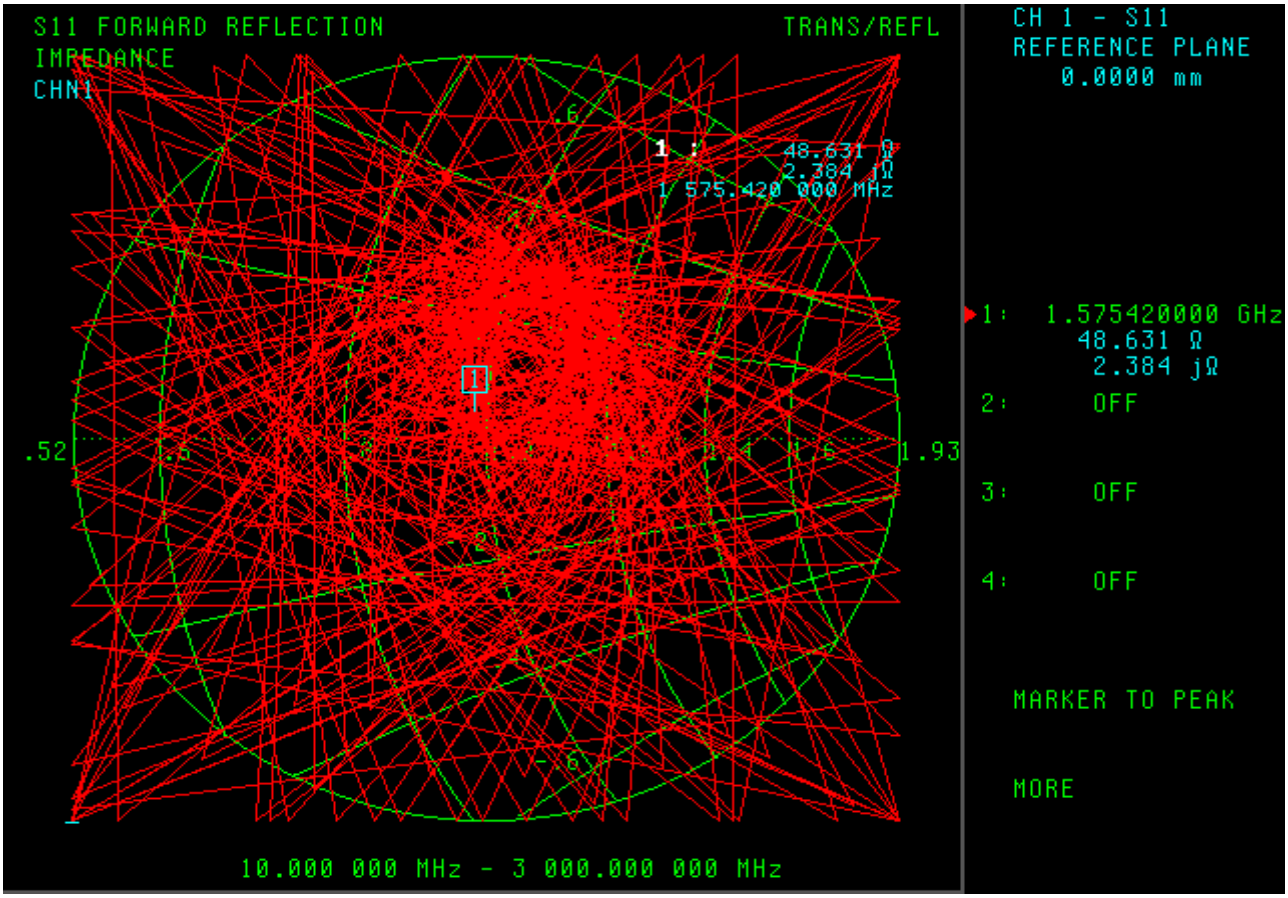

S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
SWR
▸REF=0.000 pU
10.000 U/DIV
1 : 2.290 U
137.000 000 MHz
2 : 2.307 U
150.000 000 MHz
3 : 1.426 U
141.353 340 MHz
10.000 000 MHz
299.575 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 137.000000 MHz
2.290 U
2: 150.000000 MHz
2.307 U
3: 141.353340 MHz
1.426 U
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
IMPEDANCE
CHN1
TRANS/REFL
1 : 43.830 Ω -38.461 jΩ 137.000 000 MHz
2 : 23.451 Ω 10.676 jΩ 150.000 000 MHz
3 : 41.229 Ω -13.547 jΩ 141.353 340 MHz
10.000 000 MHz - 299.575 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 137.000000 MHz
43.830 Ω
-38.461 jΩ
2: 150.000000 MHz
23.451 Ω
10.676 jΩ
3: 141.353340 MHz
41.229 Ω
-13.547 jΩ
4: OFF
MARKER TO PEAK
MORE

C: GPS


S11 FORWARD REFLECTION
CHN1
TRANSMISSION/REFLECTION
SWR
▸REF=0.000 pU
10.000 U/DIV
1 : 1.176 U
1 575.420 000 MHz
10.000 000 MHz
3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 1.575420000 GHz
1.176 U
2: OFF
3: OFF
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
LOG MAGNITUDE
▸REF=0.000 dB
10.000 dB/DIV
1 : -22.568 dB
1 575.420 000 MHz
10.000 000 MHz
3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 1.575420000 GHz
-22.568 dB
2: OFF
3: OFF
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
TRANS/REFL
IMPEDANCE
CHN1
1 : 48.631 Ω
2.384 jΩ
1 575.420 000 MHz
.52
1.93
10.000 000 MHz - 3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 1.575420000 GHz
48.631 Ω
2.384 jΩ
2: OFF
3: OFF
4: OFF
MARKER TO PEAK
MORE