Marine GPS/GLONASS/VHF Antenna

MODEL: GVA-680G

FOR Marine VHF Radio & AIS SYSTEM

GPS Specifications:

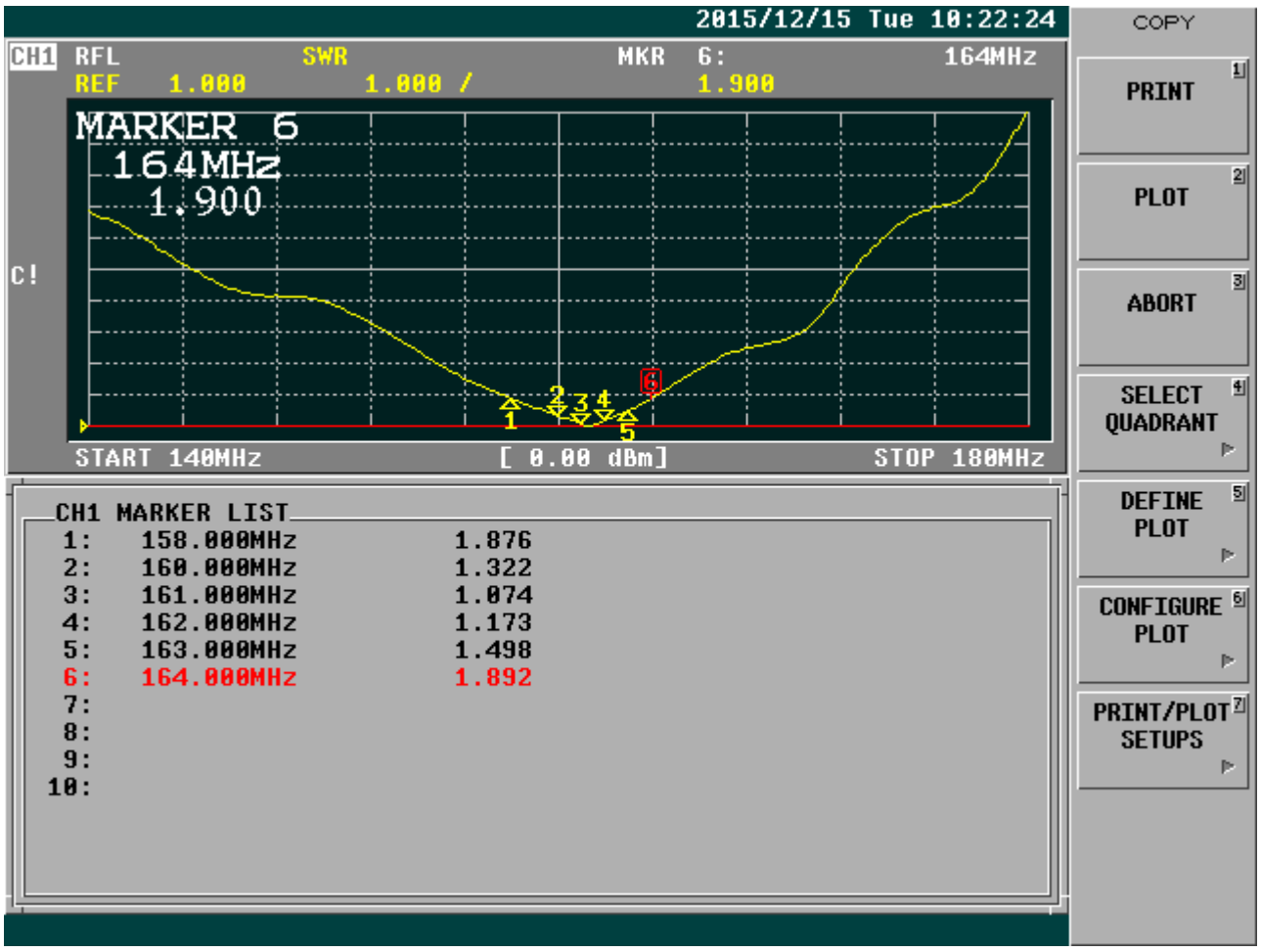
PHYSICAL CONDITION	
Constructions:	Polycarbonate radome,detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	60mm(Dia.) x 140mm(H)
Weight:	190grams (w/o cable & connector).
Color:	White or Black (Optional)
Mounting:	FB1 or FB3A SUS L-mounting 1"-14 UNS threaded mast (GVA680GL)
Cable & Connector	
RF cable:	SMA(M)-10M- CFD200 -TNC(M) or Optional
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector available:	RG174-15CM-SMA(F)
Antenna Element	
Center Frequency:	1575Mhz & 1596-1610 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Bandwidth	10 MHz min. @S11≤-10 dB, 24MHz typ. @S11<-8dB
Gain @ 10^{o} Elevation:	2 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Power Gain:	1570 Mhz : 29db typ 1610 Mhz : 29db typ
Bandwidth:	50 MHz min.
Noise Figure:	1.5 typ
Filter	SAW Filter

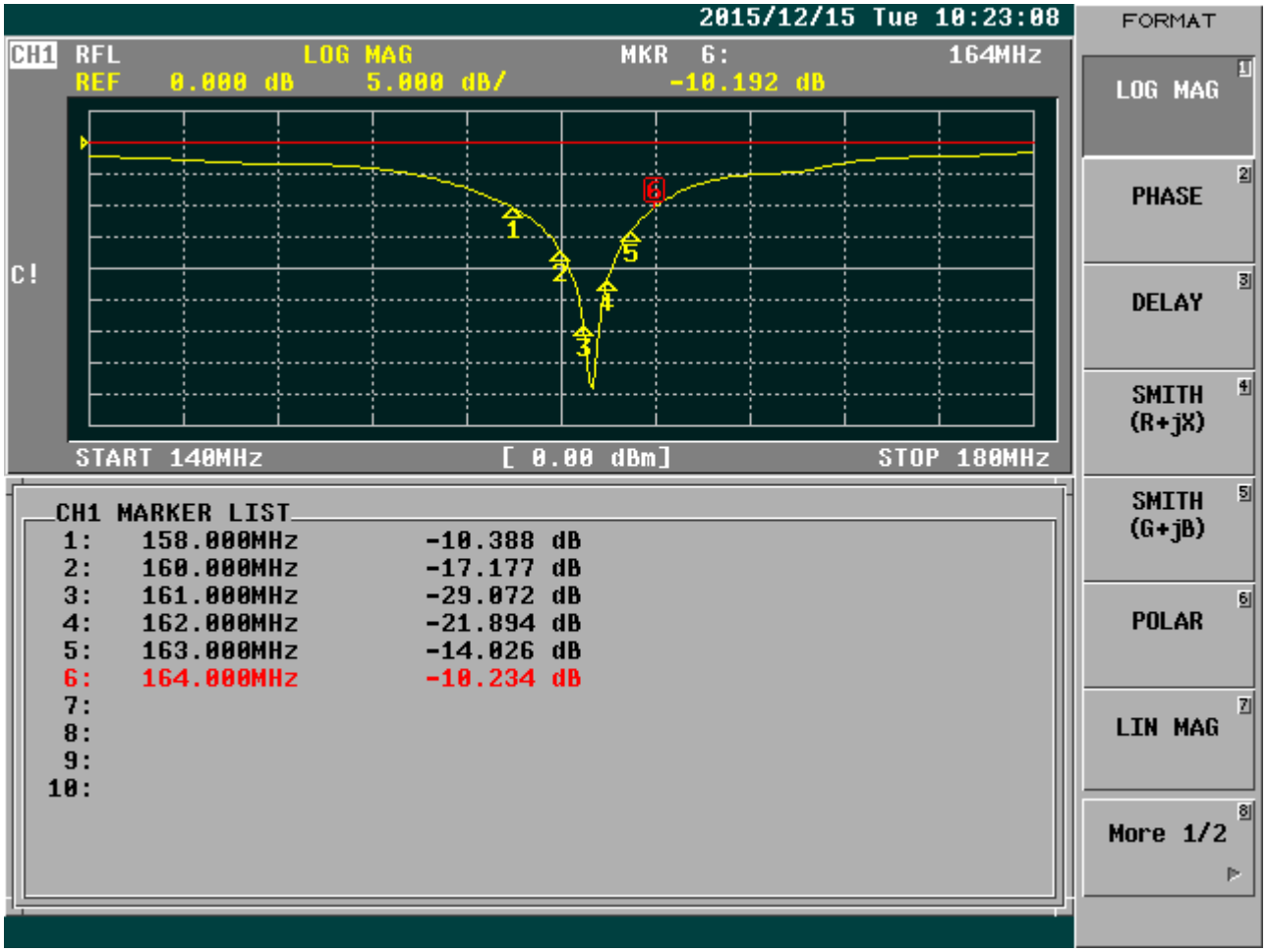
	30 dB min @ fo± 100MHz * fo=1590.MHz
Supply Voltages:	2.3~5.5V DC.
Current Consumption:	2.5V : 6.6mA Typ. 3V: 10.6mA Typ. 4V: 14.6mA Typ. 5V: 20.6mA Typ.
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1570 ~1610 Mhz.
Gain:	At 90° vertical to sky 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:	10MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +80°C.
Storage Temperature:	-40°C~ +80°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof. IPX7

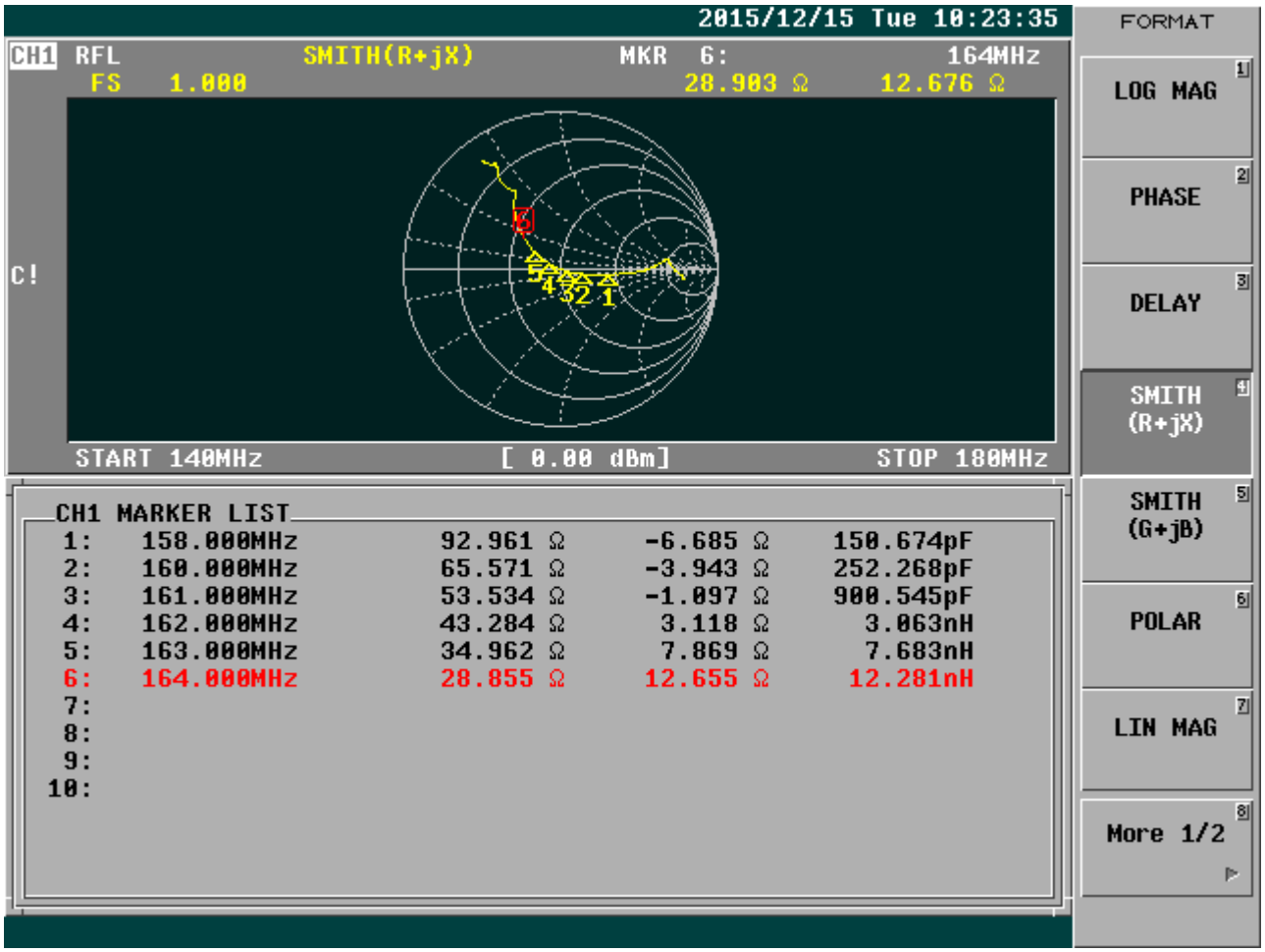
Marine VHF Antenna Specifications:

	Marinr VHF ANTENNA
Fr :	**158 ~ 164 Mhz**
Gain:	**1dB**
Configuration :	**1/4 wave**
VSWR	**2.0:1**
Impedence:	**50 ohm**
Connector:	**RG174-15CM-SMA(F)**
Ground	**With FB3A Base mounting**


GPS


2015/12/15 Tue 10:22:24
CH1 RFL SWR MKR 6: 164MHz
REF 1.000 1.000 / 1.900
MARKER 6
164MHz
1.900
START 140MHz
[0.00 dBm]
STOP 180MHz
CH1 MARKER LIST
1: 158.000MHz 1.876
2: 160.000MHz 1.322
3: 161.000MHz 1.074
4: 162.000MHz 1.173
5: 163.000MHz 1.498
6: 164.000MHz 1.892
7:
8:
9:
10:
COPY
PRINT
PLOT
ABORT
SELECT QUADRANT
DEFINE PLOT
CONFIGURE PLOT
PRINT/PLOT SETUPS


2015/12/15 Tue 10:23:08
CH1 RFL LOG MAG MKR 6: 164MHz
REF 0.000 dB 5.000 dB/ -10.192 dB
START 140MHz [0.00 dBm] STOP 180MHz
CH1 MARKER LIST
1: 158.000MHz -10.388 dB
2: 160.000MHz -17.177 dB
3: 161.000MHz -29.072 dB
4: 162.000MHz -21.894 dB
5: 163.000MHz -14.026 dB
6: 164.000MHz -10.234 dB
7:
8:
9:
10:
FORMAT
LOG MAG
PHASE
DELAY
SMITH (R+jX)
SMITH (G+jB)
POLAR
LIN MAG
More 1/2


2015/12/15 Tue 10:23:35
CH1 RFL SMITH(R+jX) MKR 6: 164MHz
FS 1.000 28.903 Ω 12.676 Ω
START 140MHz [0.00 dBm] STOP 180MHz
CH1 MARKER LIST
1: 158.000MHz 92.961 Ω -6.685 Ω 150.674pF
2: 160.000MHz 65.571 Ω -3.943 Ω 252.268pF
3: 161.000MHz 53.534 Ω -1.097 Ω 900.545pF
4: 162.000MHz 43.284 Ω 3.118 Ω 3.063nH
5: 163.000MHz 34.962 Ω 7.869 Ω 7.683nH
6: 164.000MHz 28.855 Ω 12.655 Ω 12.281nH
7:
8:
9:
10:
FORMAT
LOG MAG
PHASE
DELAY
SMITH (R+jX)
SMITH (G+jB)
POLAR
LIN MAG
More 1/2