VHF ANTENNA

Model : TH-159

1. GENERAL DESCRIPTION

Model No
TH159-TNC(M)

Below is a table summarizing the antenna design specification.

1.1 Electrical Properties

Parameter	Description
Frequency Band	156-162 MHz (Fo:159Mhz) ON Portable VHF radio
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss	Please See Data-1
V.S.W.R	2.5：1 (Handheld Portable VHF radio)

1.2 Mechanical Properties

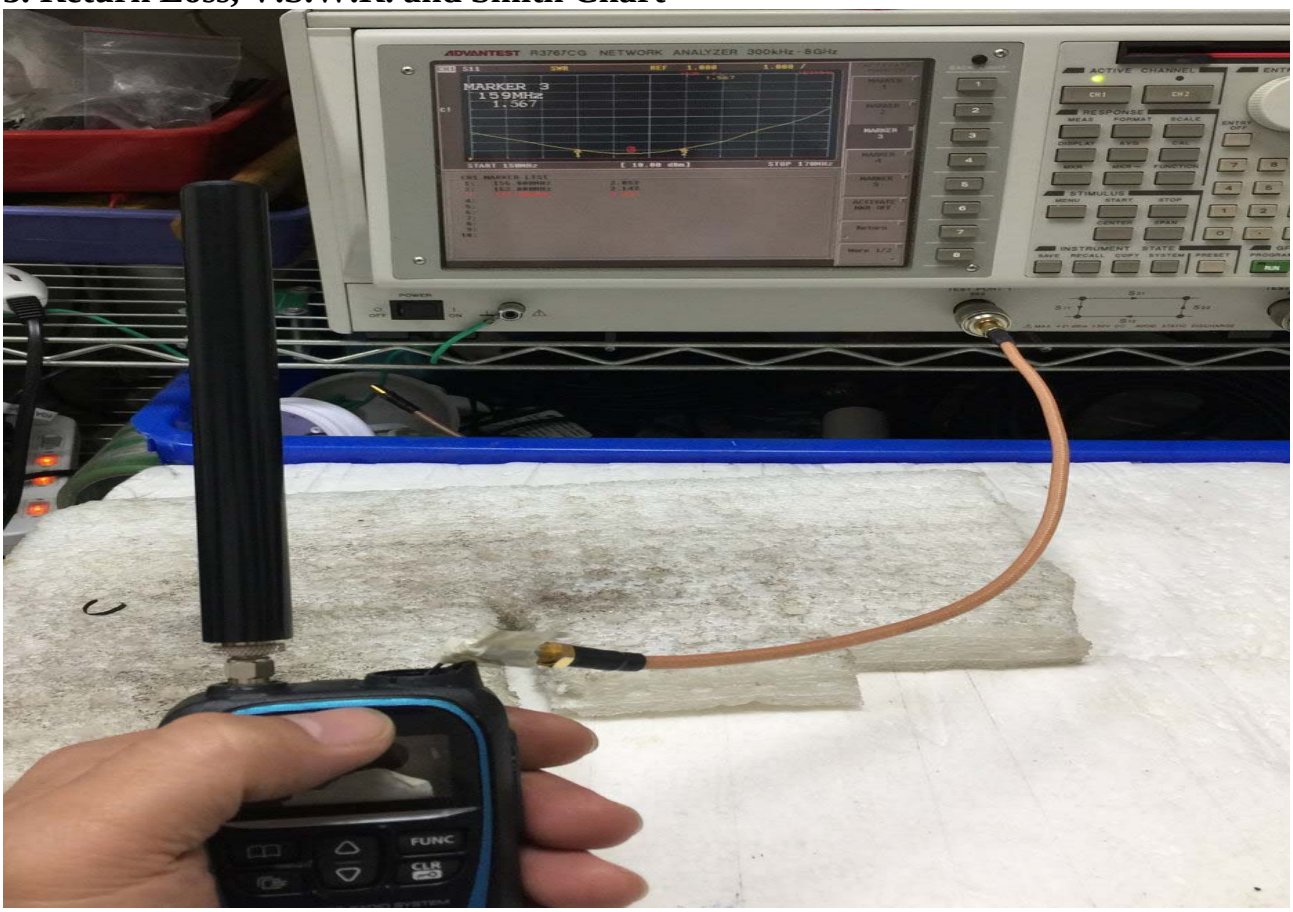
Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type
Connector Type	TNC 180°(Male)
Antenna Dimensions	OD16 x154mm ±2
Antenna Color	Black
Operating Temperature Range	-40°C~+85°C
Storage Temperature Range	-40°C~+85°C

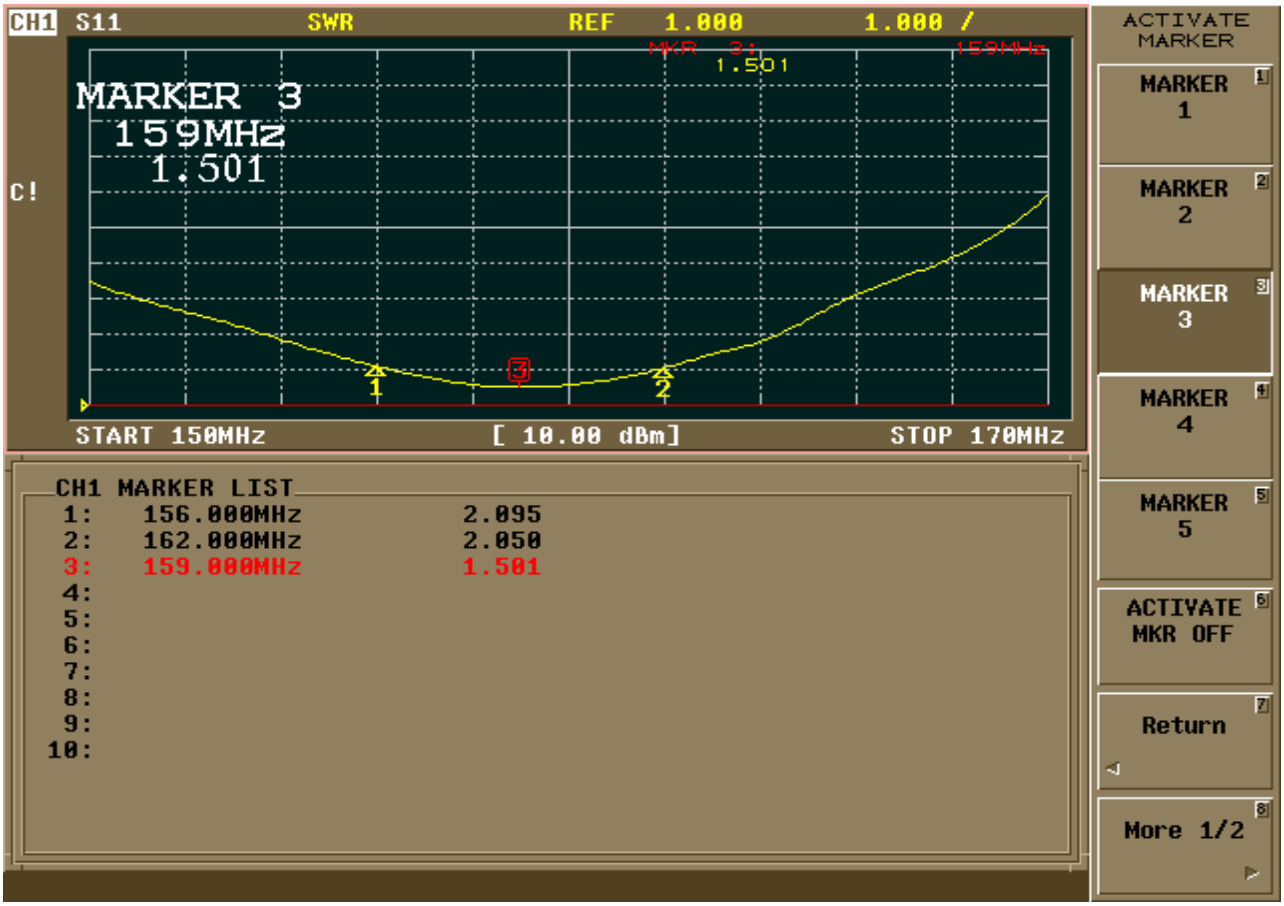
2. Appearance

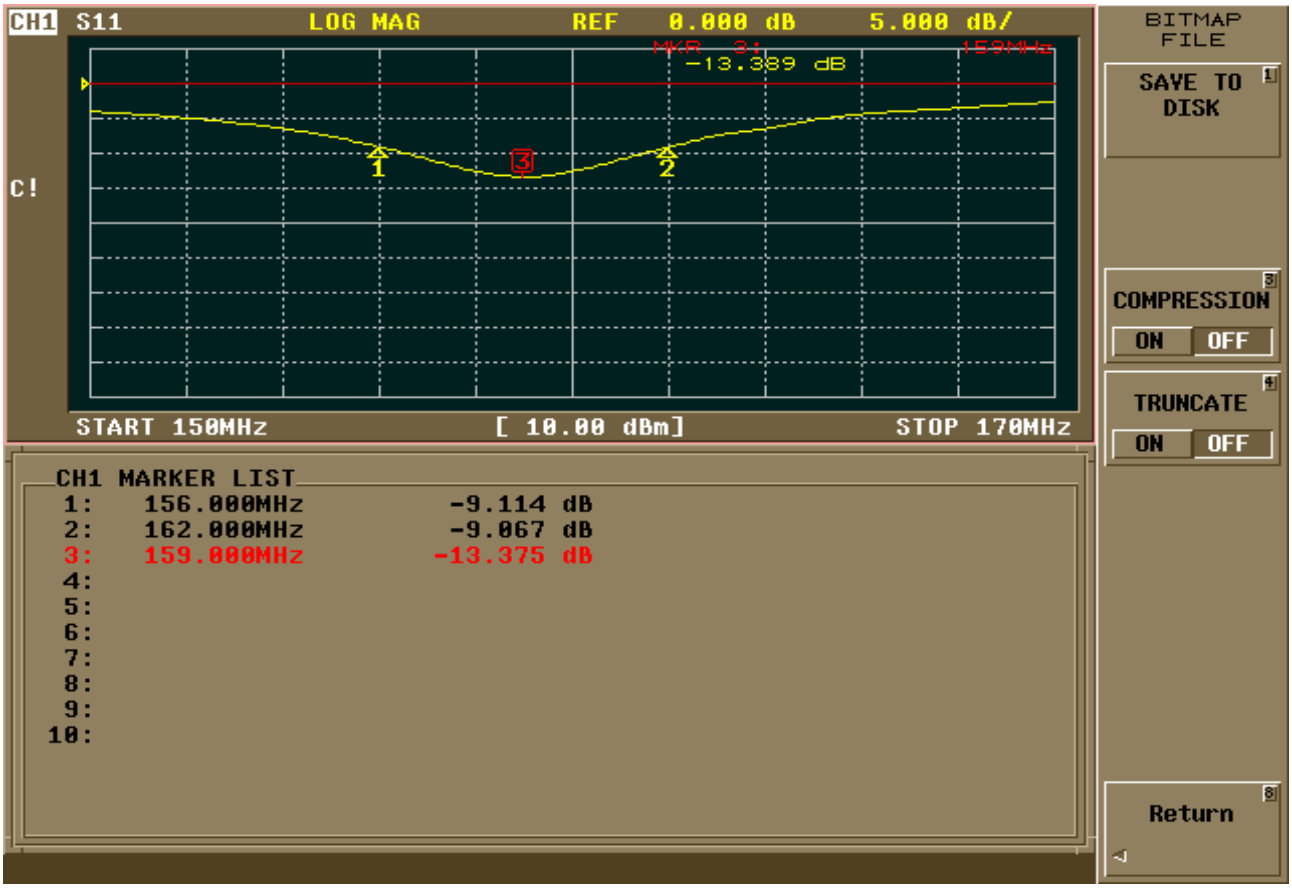
NO.	NAME	FINISH	Q, TY
01	Core tube	Black ASA	01
02	TNC 180°(Male)	Nickel plating	01

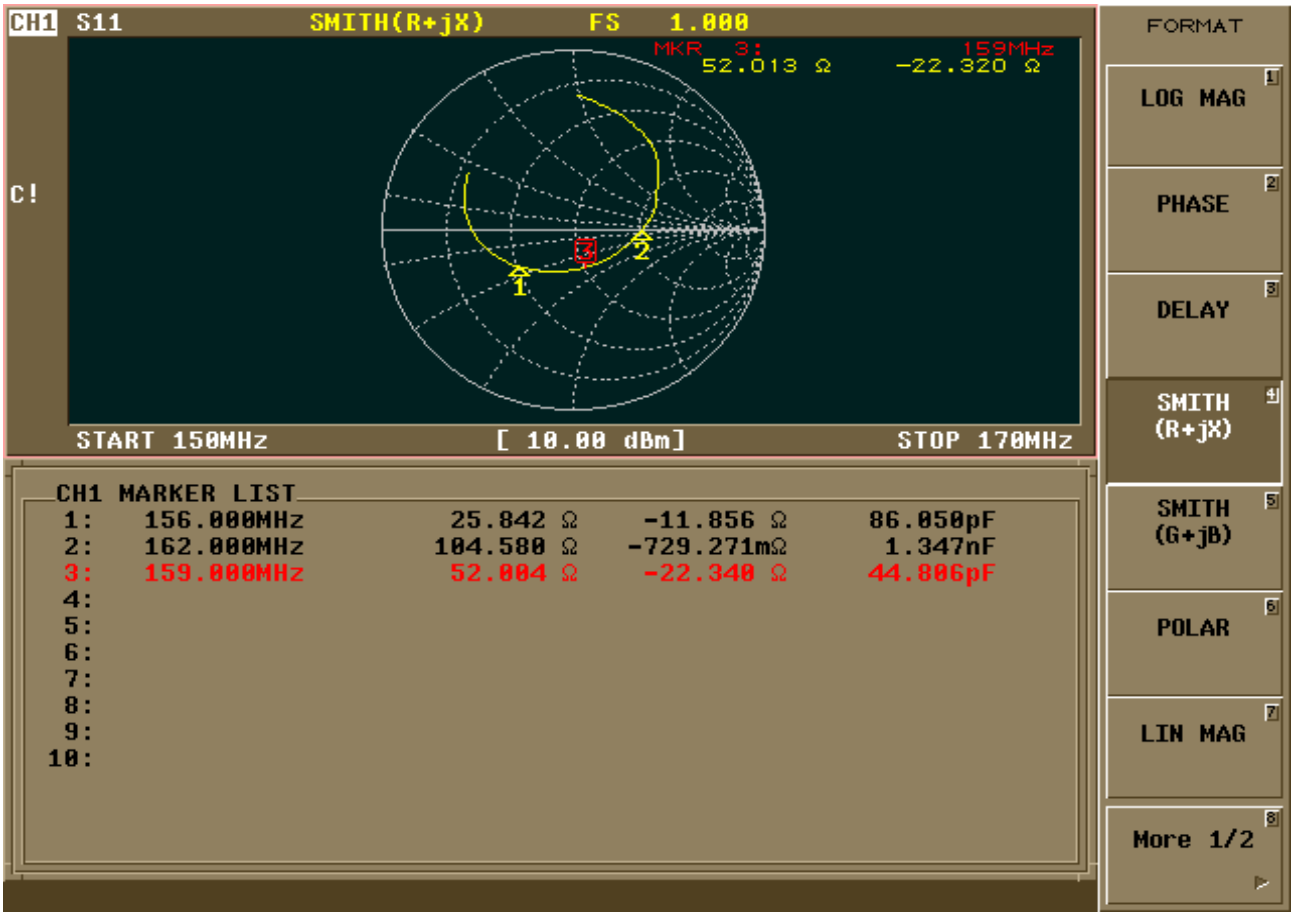
Third angle projection	CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
		TH-159		156~162Mhz	M/M		20190318	1
	TOLERANCE	X.X±0.3	NAME	PARTS NUMBER	APPROVED	CHECKED	DRAWING	DESIGNED
	SURFACE ROUGHNESS	▽	APPEARANCE					

3. Return Loss, V.S.W.R. and Smith Chart




CH1 S11 SWR REF 1.000 1.000 /
MKR 3: 159MHz
1.501
MARKER 3
159MHz
1.501
START 150MHz
[10.00 dBm]
STOP 170MHz
CH1 MARKER LIST
1: 156.000MHz 2.095
2: 162.000MHz 2.050
3: 159.000MHz 1.501
4:
5:
6:
7:
8:
9:
10:
ACTIVATE MARKER
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER 5
ACTIVATE MKR OFF
Return
More 1/2


CH1 S11 LOG MAG REF 0.000 dB 5.000 dB/
MKR 3: 159MHz
-13.389 dB
START 150MHz
[10.00 dBm]
STOP 170MHz
CH1 MARKER LIST
1: 156.000MHz -9.114 dB
2: 162.000MHz -9.067 dB
3: 159.000MHz -13.375 dB
4:
5:
6:
7:
8:
9:
10:
BITMAP FILE
SAVE TO DISK
COMPRESSION
ON OFF
TRUNCATE
ON OFF
Return


CH1 S11
SMITH(R+jX)
FS 1.000
MKR 3: 159MHz
52.013 Ω -22.320 Ω
C!
START 150MHz
[10.00 dBm]
STOP 170MHz
CH1 MARKER LIST
1: 156.000MHz 25.842 Ω -11.856 Ω 86.050pF
2: 162.000MHz 104.580 Ω -729.271mΩ 1.347nF
3: 159.000MHz 52.004 Ω -22.340 Ω 44.806pF
4:
5:
6:
7:
8:
9:
10:
FORMAT
LOG MAG
PHASE
DELAY
SMITH (R+jX)
SMITH (G+jB)
POLAR
LIN MAG
More 1/2