

VHF BASE Antenna

MODEL: VA-1400



This document provides a Sleeve Dipole Antenna design .

1.. GENERAL DESCRIPTION

| Model No | P/N |
|----------|---------|
| | VA-1400 |

Below is a table summarizing the antenna design specification.

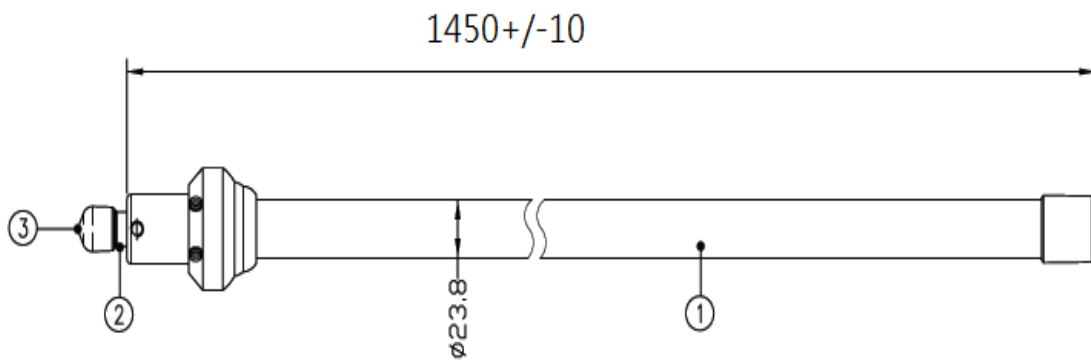
1.1 Electrical Properties


| Parameter | Description |
|------------------------------------|-------------|
| Frequency Band | 118-142 MHz |
| Nominal Impedance | 50 ohm |
| Polarization | Vertical |
| V.S.W.R | 2.0:1 |
| Note: Gain includes the cable loss | |

1.2 Mechanical Properties

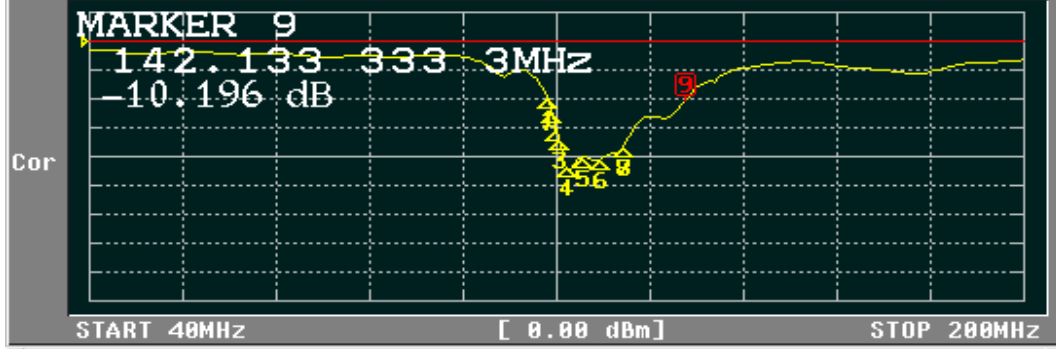
| Parameter | Description |
|-----------------------------|--------------------------|
| Antenna Type | Omni-Directional Antenna |
| Material | Fiberglass |
| Touch Type | Screw Type |
| Connector Type | N connector (Female) |
| Antenna Dimensions | 1450 mm ±10 |
| Antenna Color | White |
| Operating Temperature Range | -20°C~+60°C |
| Storage Temperature Range | -30°C~+70°C |

| NO. | NAME | Q, TY |
|-----|------------|-------|
| 01 | Bady | 01 |
| 02 | N (Female) | 01 |
| 03 | Sheath | 01 |



| | | | | | | | | |
|---|-------------------|-------------|--------------|--------------|----------|---------|----------|----------|
|  Third angle projection | CUSTOMER' S | MODEL | PARTS NUMBER | FREQUENCY | UNIT | SCALE | DATE | VERSION |
| | | | | 118-142MHZ | M/M | | 20090617 | 1 |
| | TOLERANCE | X. XX±0. 15 | NAME | PARTS NUMBER | APPROVED | CHECKED | DRAWING | DESIGNED |
| | SURFACE ROUGHNESS | \sqrt{S} | APPEARANCE | | | | | |

CH1 RFL LOG MAG MKR 9: 142.133 333 3MHz
 REF 0.000 dB 5.000 dB/ -10.196 dB



CH1 MARKER LIST

| | | |
|-----|------------|------------|
| 1: | 118.700MHz | -10.314 dB |
| 2: | 119.500MHz | -12.681 dB |
| 3: | 120.700MHz | -17.469 dB |
| 4: | 121.800MHz | -21.694 dB |
| 5: | 124.700MHz | -19.953 dB |
| 6: | 127.800MHz | -20.289 dB |
| 7: | 131.650MHz | -18.193 dB |
| 8: | 131.650MHz | -18.193 dB |
| 9: | 142.133MHz | -10.196 dB |
| 10: | | |

ACTIVATE MARKER

MARKER 6

MARKER 7

MARKER 8

MARKER 9

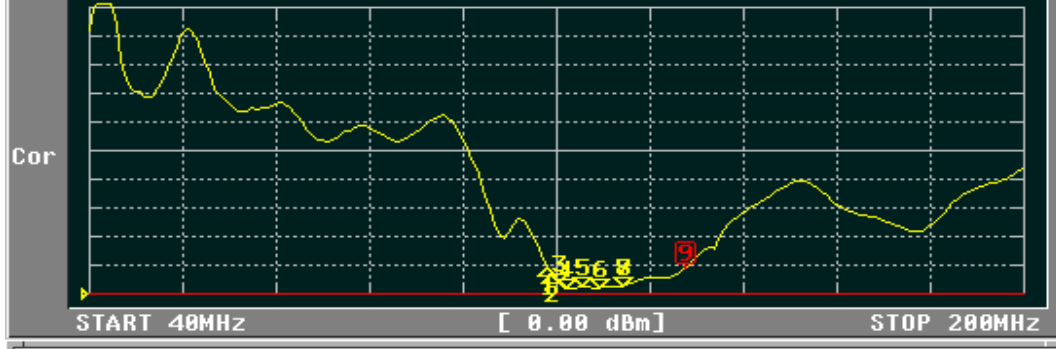
MARKER 10

ACTIVATE MKR OFF

Return

More 2/2

CH1 RFL SWR MKR 9: 142.133 333 3MHz
 REF 1.000 1.000 / 1.905



CH1 MARKER LIST

| | | |
|-----|------------|-------|
| 1: | 118.700MHz | 1.904 |
| 2: | 119.500MHz | 1.630 |
| 3: | 120.700MHz | 1.323 |
| 4: | 121.800MHz | 1.187 |
| 5: | 124.700MHz | 1.227 |
| 6: | 127.800MHz | 1.216 |
| 7: | 131.650MHz | 1.280 |
| 8: | 131.650MHz | 1.280 |
| 9: | 142.133MHz | 1.904 |
| 10: | | |

FORMAT

SWR

REAL

IMAG

PHASE -∞, +∞

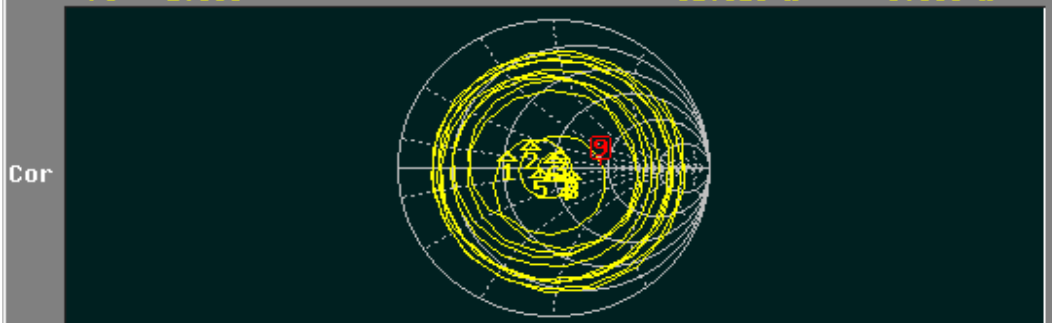
LOG MAG & PHASE

LOG MAG & DELAY

LIN MAG & PHASE

More 2/2

CH1 RFL SMITH(R+jX) MKR 9: 142.133 333 3MHz
 FS 1.000 92.628 Ω 5.865 Ω



START 40MHz [0.00 dBm] STOP 200MHz

CH1 MARKER LIST

| | | | | |
|-----|------------|----------|-----------|-----------|
| 1: | 118.700MHz | 27.638 Ω | 6.716 Ω | 9.006nH |
| 2: | 119.500MHz | 35.804 Ω | 13.833 Ω | 18.424nH |
| 3: | 120.700MHz | 53.998 Ω | 13.249 Ω | 17.470nH |
| 4: | 121.800MHz | 58.057 Ω | -1.767 Ω | 739.192pF |
| 5: | 124.700MHz | 40.901 Ω | 292.167mΩ | 372.893pH |
| 6: | 127.800MHz | 49.528 Ω | 9.931 Ω | 12.368nH |
| 7: | 131.650MHz | 63.544 Ω | -2.571 Ω | 470.106pF |
| 8: | 131.650MHz | 63.544 Ω | -2.571 Ω | 470.106pF |
| 9: | 142.133MHz | 92.591 Ω | 5.839 Ω | 6.538nH |
| 10: | | | | |

FORMAT

LOG MAG

PHASE

DELAY

SMITH
(R+jX)

SMITH
(G+jB)

POLAR

LIN MAG

More 1/2