

Part Name : SMA RF Antenna

Part Number: C381-510009-B

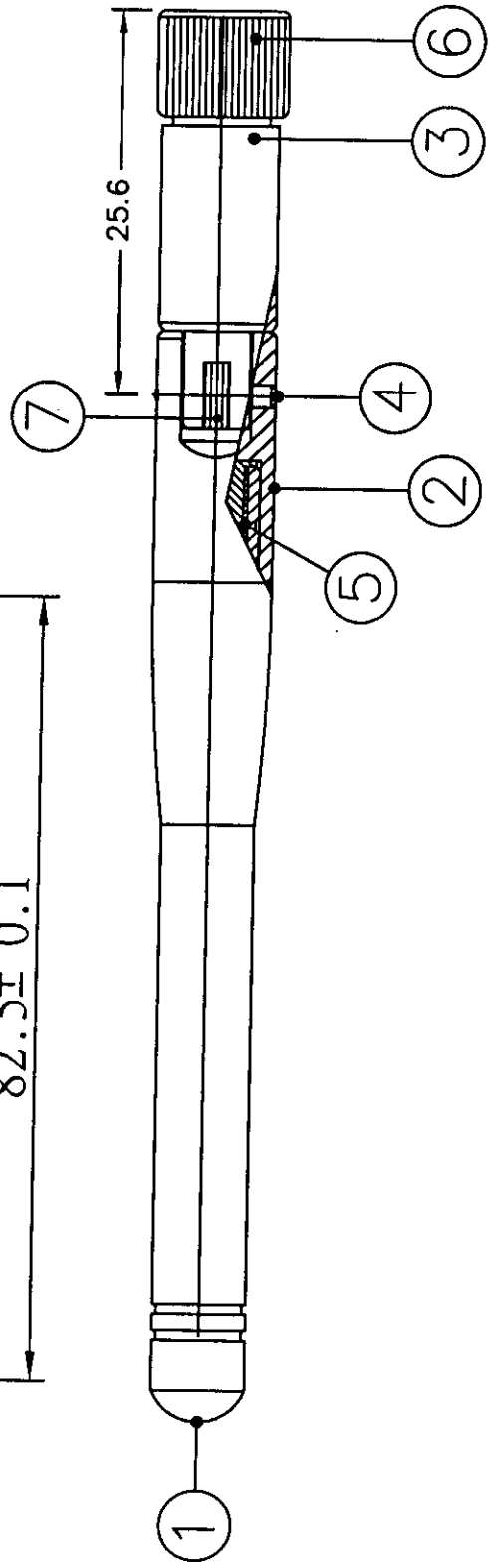
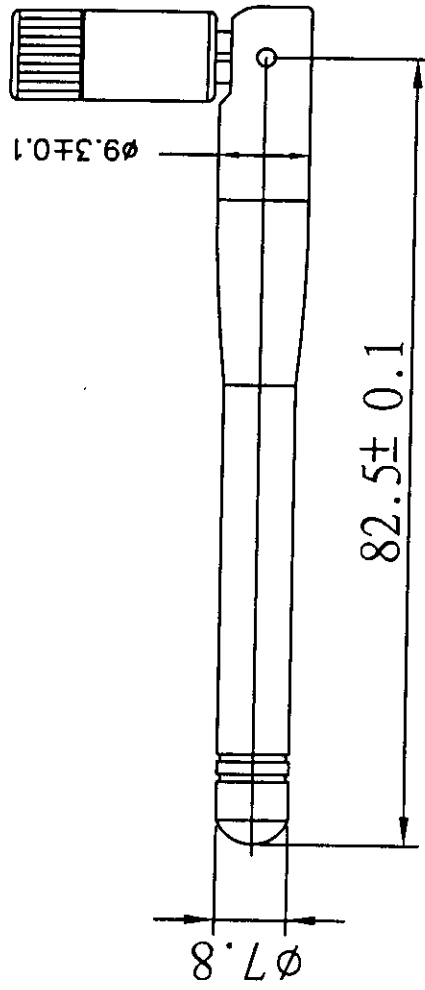
Specification

1. Electrical Properties :

- 1.1 Frequency Rang..... 2.4GHz ~ 2.5GHz
- 1.2 Impedance 50Ω Nominal
- 1.3 VSWR 2.0 Max.
- 1.4 Return Loss..... ≤ -9.5 dB
- 1.5 Electrical Wave..... $1/4 \lambda$ Diople
- 1.6 Gain..... 1.8 dBi
- 1.7 Admitted Power..... 1W

2. Physical Properties :

- 2.1 Connector..... SMA 180° Plug/Reverse
- 2.2 Cable..... RG-178 50Ω
- 2.3 Antenna Cover..... TPE
- 2.4 Antenna Base..... PC
- 2.5 Operating Temp. $-20^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- 2.6 Storage Temp. $-30^{\circ}\text{C} \sim +75^{\circ}\text{C}$
- 2.7 Color Gray



NO	DESCRIPTION	QTY	REMARK
7	Cable	1	RG-178 透明棕 50 Ohms
6	Connector	1	SMA Straight Plug/ Reverse
5	銅管	1	Brass, Ni Plated
4	銅釘	2	Brass, 表面染黑處理
3	下固定座	1	PC; Black
2	上固定座	1	PC; Black
1	天線桿套	1	TPE-EL630 ; Black


Wha Yu
INDUSTRIAL CO.,LTD.
華裕實業股份有限公司

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CUSTOMER: 永洋科技股份有限公司
 PART NO :
 PARTNAME: SMA RF Antenna
 W.Y P/NO : C381-510009-B
 REV :
 UNIT :
 FILE :
 SHEET : 1/1

APPROVED: [Signature]
 CHECKED: [Signature]
 DRAWING: [Signature]
 CUSTOMER'S SIGNATURE:

REV	DATE	DESCRIPTION
X1	07/24-2002	SMA RF Antenna



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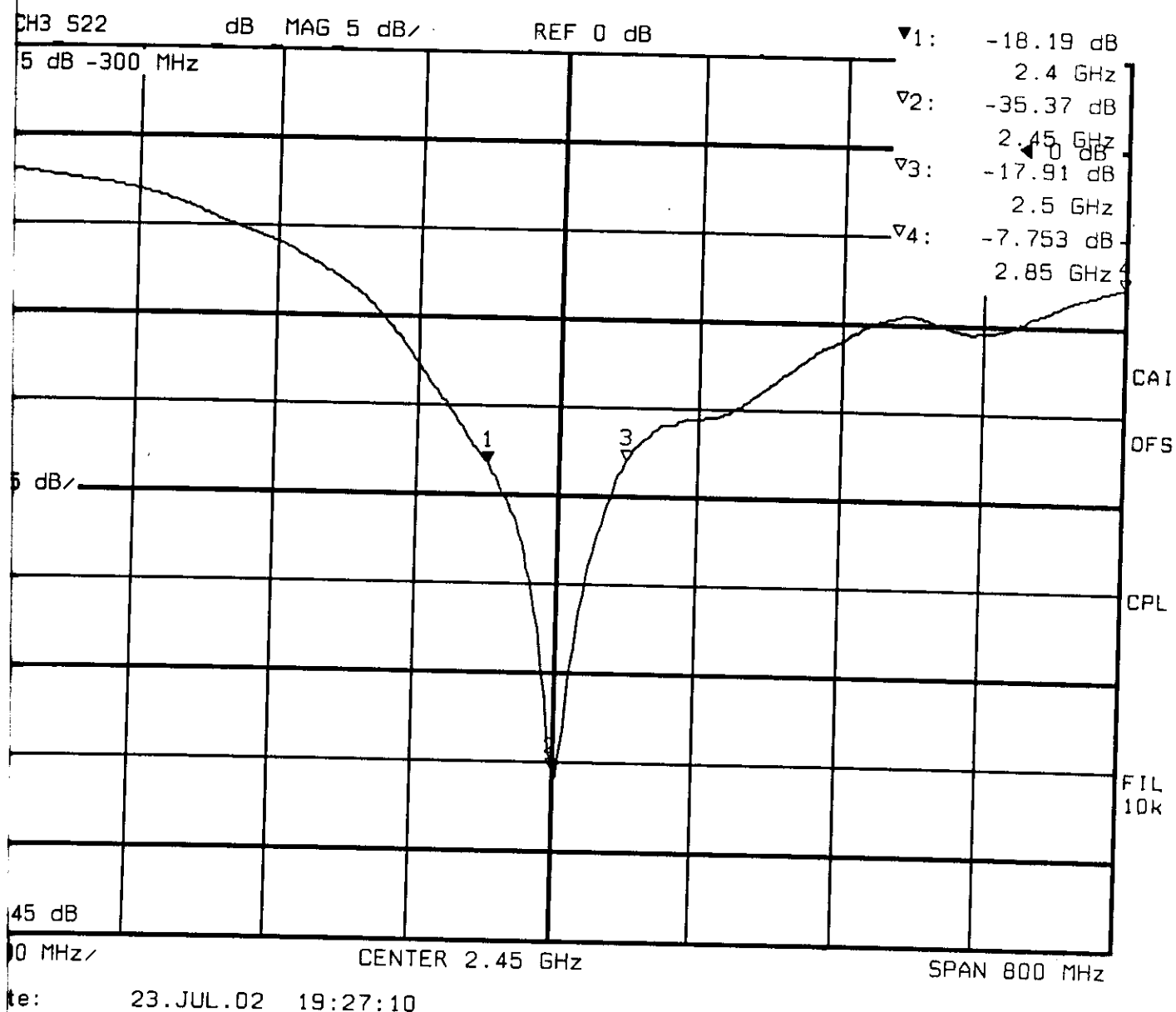
WHA YU INDUSTRIAL CO., LTD

Customer : 永洋科技股份有限公司

Part Name : SMA RF Antenna

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Return Loss





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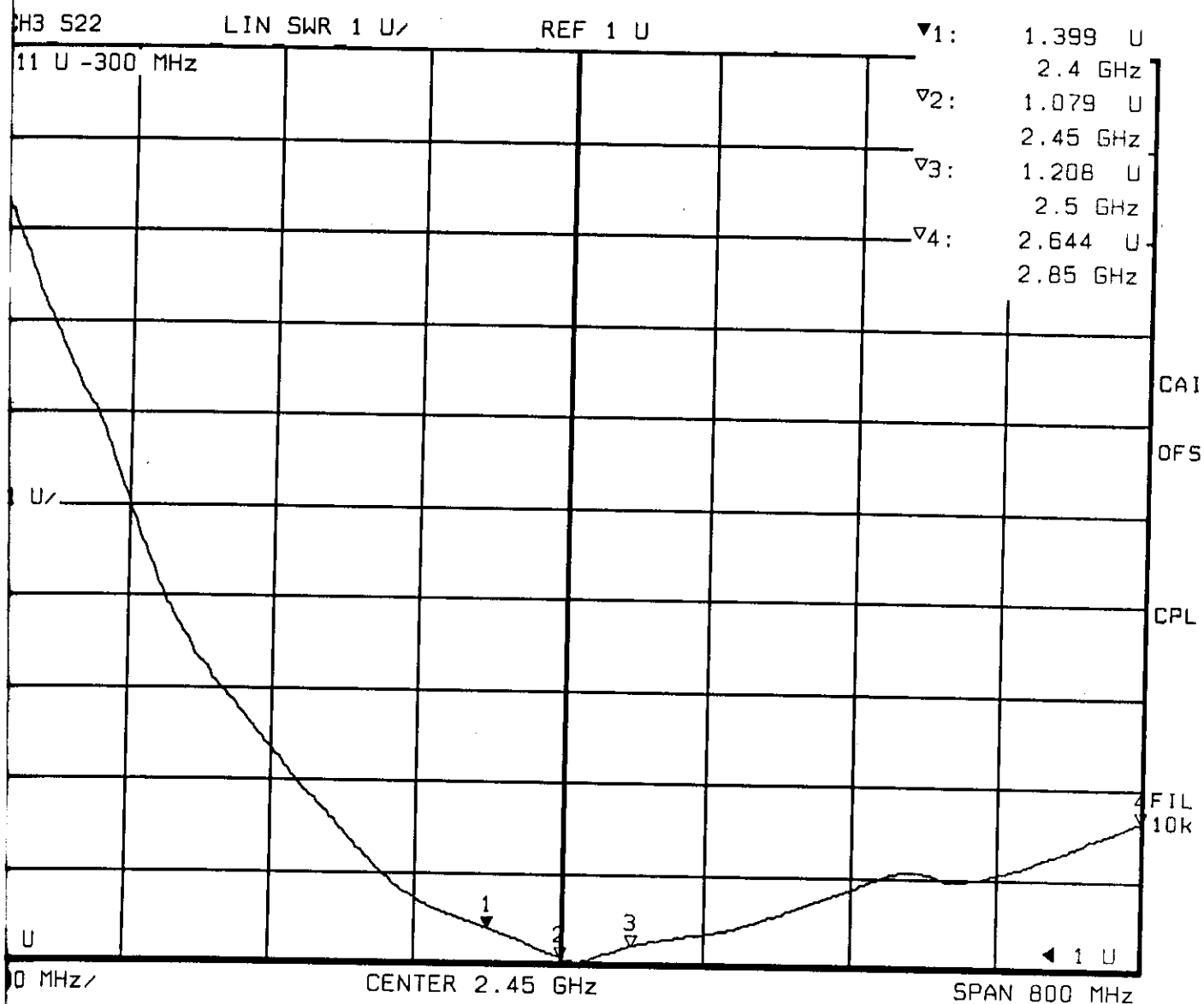
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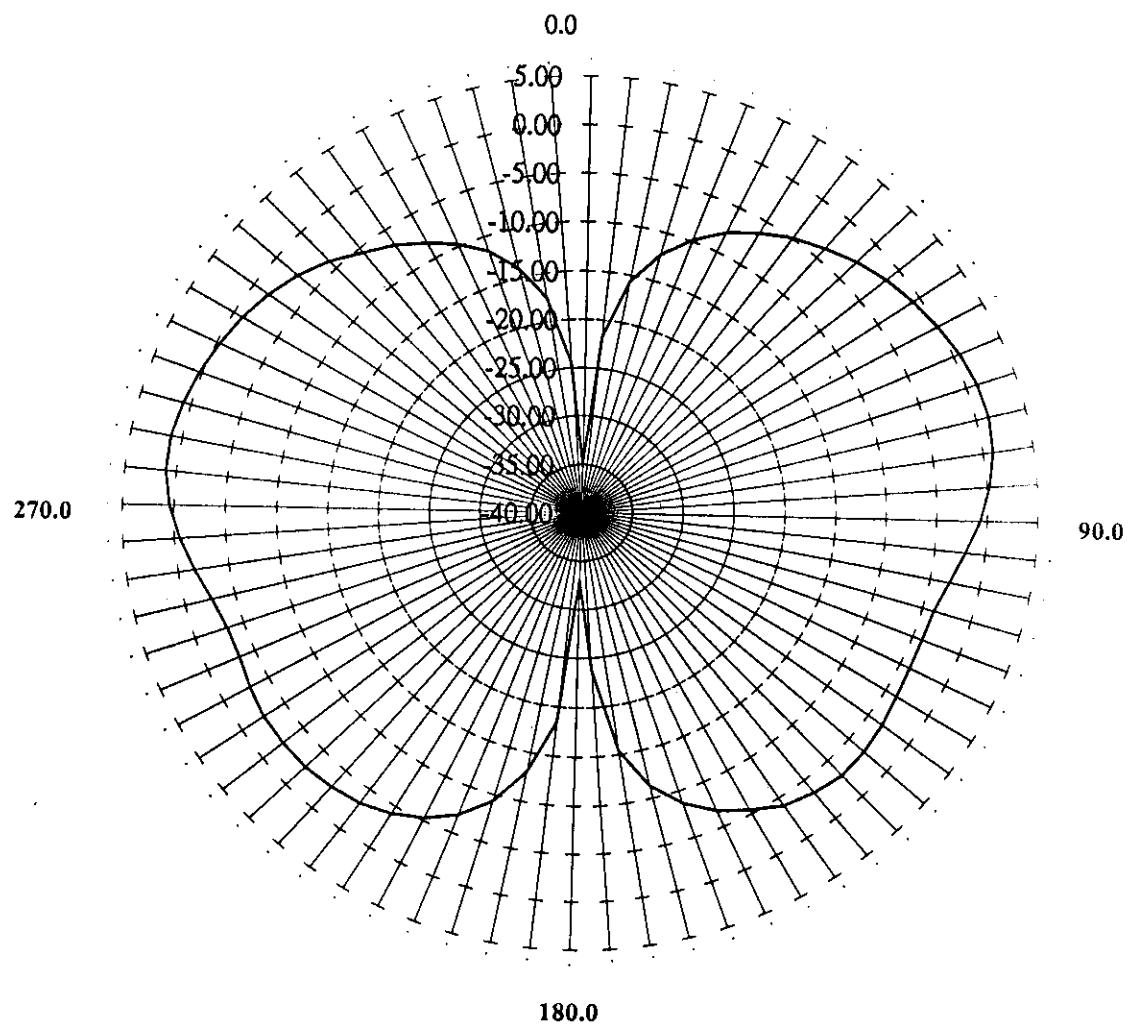
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VSWR

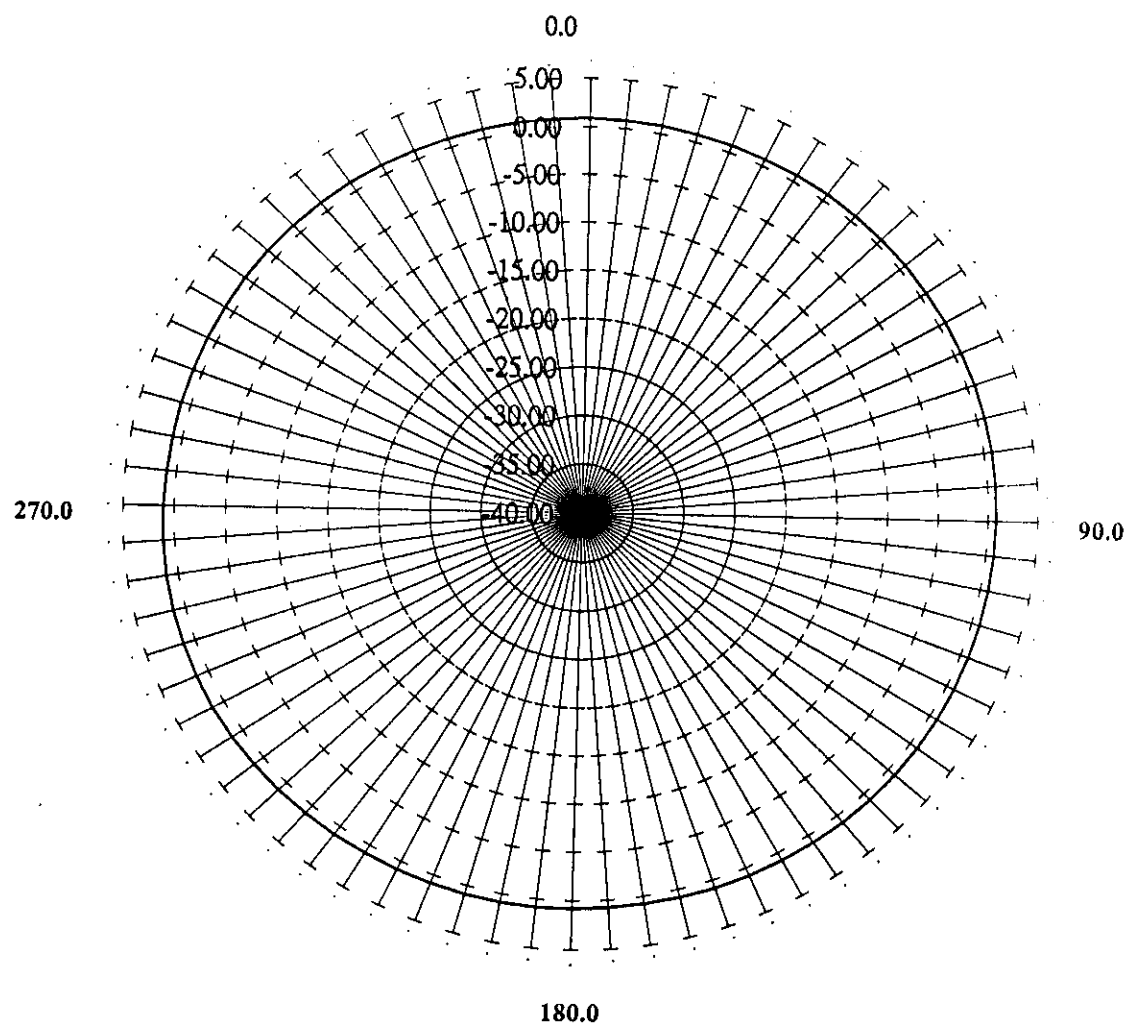


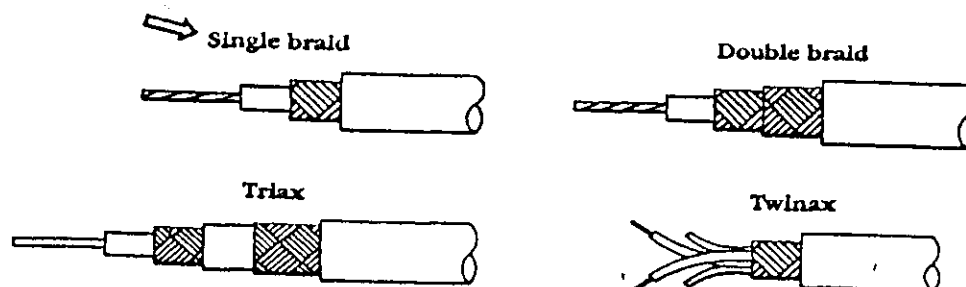
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E_PLANE (Whayu SMA_Type Antenna)



H_PLANE (Whayu SMA_Type Antenna)



MIL-C-17 Coax Cable – QPL Approved

Harbour supplies a complete line of high temperature, high performance QPL approved MIL-C-17 coax cables for the military, commercial and industrial markets. The specific M17 constructions referenced are manufactured in accordance with the most recent revision of the MIL-C-17 specification to ensure a quality product. The MIL-C-17 specification defines complete physical and electrical characteristics for each M17 part number, including diameter parameters, dielectric materials, braid coverage, maximum attenuation, and VSWR levels.

VSWR Sweep testing

When selecting a 50 ohm coaxial cable, constructions with VSWR requirements are recommended. Manufacturing and sweep testing cables with concern for VSWR ensures a quality cable free of spikes over the referenced frequency range. (Note the test frequencies specified in the electrical characteristics section.)

Precision PTFE Dielectrics

All of the high temperature, high performance coax cables listed have PTFE dielectrics with high dielectric strength and low capacitance in proportion to the dielectric constant. All PTFE dielectrics are manufactured with tolerances tighter than the MIL-C-17 specification to ensure uniformity of electrical characteristics, especially impedance, attenuation and VSWR.

Tape wrapped PTFE Constructions

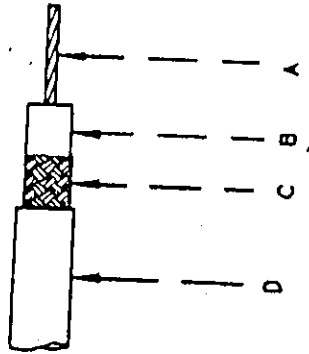
Harbour also manufactures PTFE tape wrapped cables to a previous revision of the MIL-C-17 specification. These constructions can withstand operating temperatures up to 250° C. versus 200° C. for FEP jacketed cables. Also, PTFE tape wrapped cables are generally more flexible than their FEP jacketed counterparts.

UL Approvals

All of Harbour's M17 part numbers manufactured to the MIL-C-17 specification may be ordered with UL 1971 and FT4/PT6 approvals.



Harbour
INDUSTRIES



Construction:

- A) Center Conductor:
30 7/38 SPCW
OD .012" $\pm$.001"
- B) Dielectric:
Extruded PTFE
OD .033" $\pm$.002"

C) Shield:

38 AWG SPC
OD .051" Nom.

D) Jacket:

FEP - Brown Tint
OD .071" $\pm$.004"

Surface Printed: "RC178HF HARBOUR INDUSTRIES 27478"

Electricals:

Impedance: 50 $\pm$ 2 Ohms
Capacitance: 32 pF/ft Max.
Velocity of Prop.: 70% Nom.
Cut off Frequency: 116 GHz

Physical Properties:

Weight per 1000 ft: 5.3 lbs Max.
Minimum Bend Radius: .35"
Operating Temperature Range: -55°C to 200°C

Attenuation:

1.0 GHz 45.0 dB/100ft.
2.0 GHz 64.4 dB/100ft.
3.0 GHz 79.7 dB/100ft.
4.0 GHz 92.7 dB/100ft.
5.0 GHz 104.3 dB/100ft.
6.0 GHz 115.0 dB/100ft.

Harbour Industries				
Date:	12/17/01	Scale:	None	Drawn By: MTP/ider
Drawing Name:	RC178HF	Rev:	Sheet 1 of 1	Approved By: MTP/ider
Part Number:	TBD	Drawing Number:	121701_1	