



承認書

APPROVAL SHEET

客戶名稱

CUSTOMER : 泰鉅科技股份有限公司

品 名

DESCRIPTION : 130 TYPE 2.4G WITH SMA PLUG REVERSE

型 號

PART NO. : 130SRP-A-P1

客戶料號

PART NO. : 71020005010002

變更項目

CHANGE :

名晨(電子)股份有限公司		APPROVALED NO:
DOCU. NO:		客戶承認簽章 APPROVED SIGNATURES
出 圖 Drawn By	CAD	
業務 SALES	吳建成	
核准 Approved By	KEVIN	
日期 DATE: 2008/03/25		日期 DATE:

名晨(電子)股份有限公司

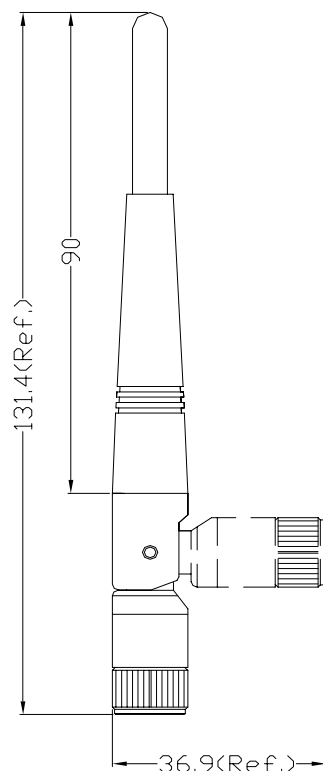
MY-CHANCE ELECTRONIC CO., LTD.

桃園縣蘆竹鄉龍安街二段 185 號

TEL:886-3-3699978 FAX:886-3-3608382

SPECIFICATION

Part Name 2.4GHz Antenna
 Part Number 130SPR-A



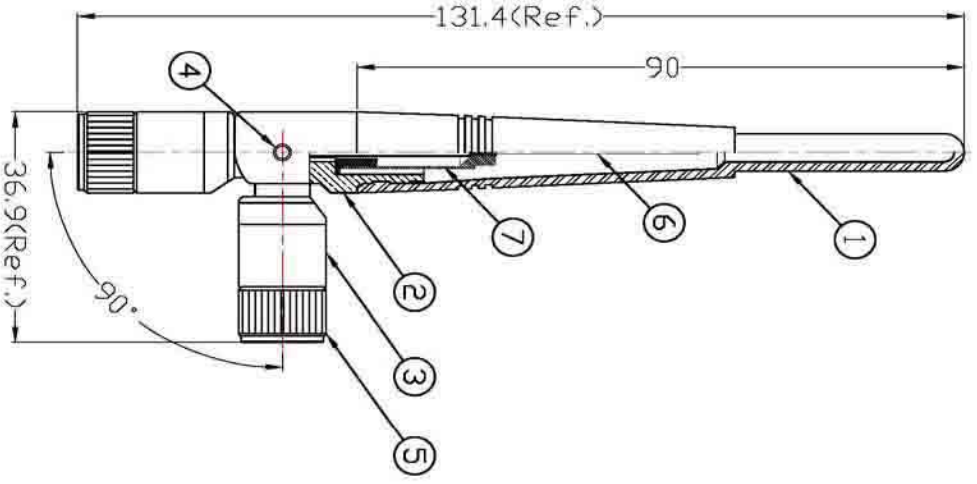
Electrical Properties

Frequency Range	2.4GHz
Impedance	50 Ohms nominal
V.S.W.R	2.0 (Max.)
Gain	3dB (Max.)
Polarization	Vertical
Radiation	Omni
Electrical Wave	1/4 λ Dipole

Mechanical Properties:

Cable	RG-178
Antenna Cover	Polyurethane
Antenna Base	Polyurethane
Connector	SMA P/R
Color	Black
Operation Temperature	-20°C ~ +65°C
Storage Temperature	-30°C ~ +75°C

B.O.M				
ITEM	NAME	MATERIAL	Qty	F.N. Note
1	Antenna Seve	TPE	1	
2	Upper Base		1	
3	Lower Base		1	
4	Rivet	C3604	2	
5	SMA P/R Connector	BRASS	1	
6	Cable RG-178		1	
7	Copper Tube	copper	1	

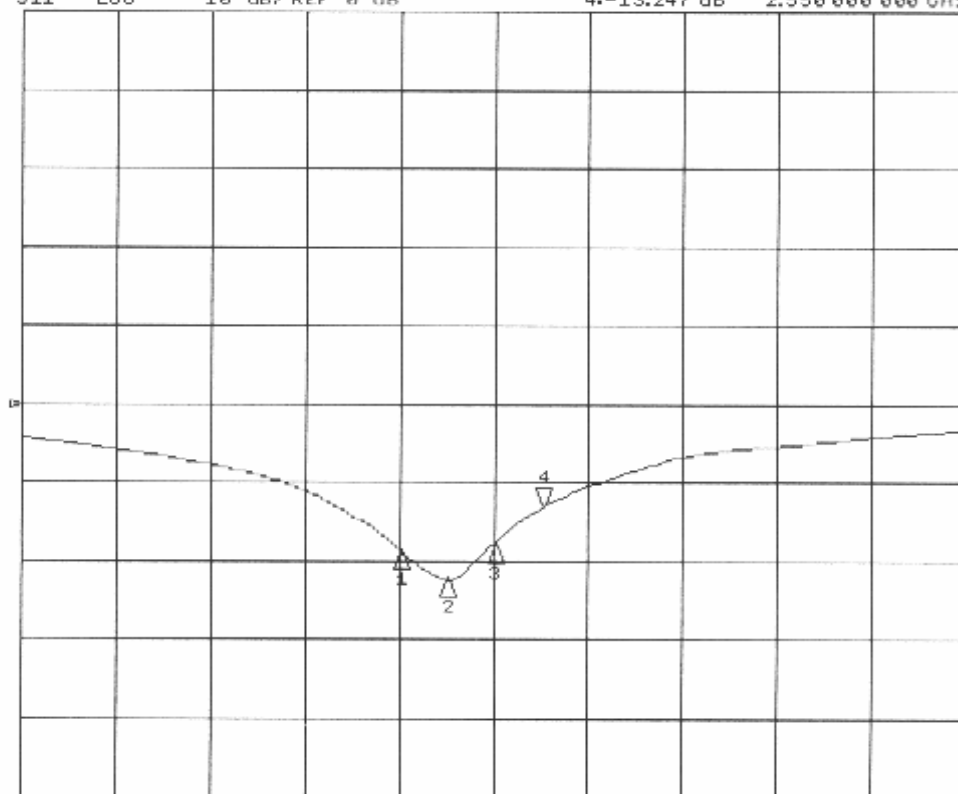


TITLE		2.4GHz Antenna	
PART No.		130-SPR-A	
DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED TOLERANCES ARE xx ±3.0 x ±0.5 .x ±0.2 .xx ±0.1 ANGULAR: ±3°			
MATERIAL	FINISH	VER. Δ	DESCRIPTIONS
SCALE	DATE	DESIGN/CHKD.	APPROVED BY.
DRAWN BY. <i>Jiao Yang</i>		APPROVED BY.	
DATE		APPROVED BY.	

16 Aug 2006 13:08:08
 CH1 S11 LOG 10 dB/REF 0 dB 4:-13.247 dB 2.550 000 000 GHz

Cor

↑



START 2.000 000 000 GHz

STOP 3.000 000 000 GHz

CH1 Markers

1:-18.522 dB

2.40000 GHz

2:-22.751 dB

2.45000 GHz

3:-17.842 dB

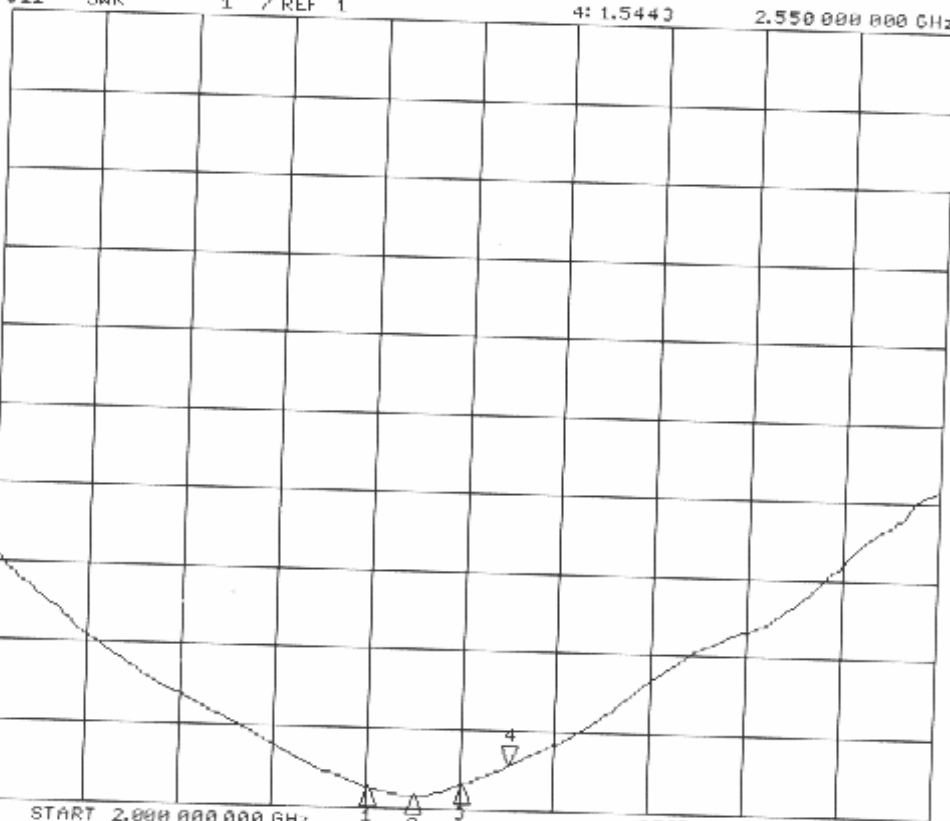
2.50000 GHz

V.S.W.R

16 Aug 2006 13:08:11
 CH1 S11 SWR 1 / REF 1 4: 1.5443 2.550 000 000 GHz

Cor

↑



START 2.000 000 000 GHz

STOP 3.000 000 000 GHz

CH1 Markers

1: 1.2520

2.40000 GHz

2: 1.1470

2.45000 GHz

3: 1.2864

2.50000 GHz



CCS WUGU Antenna Pattern

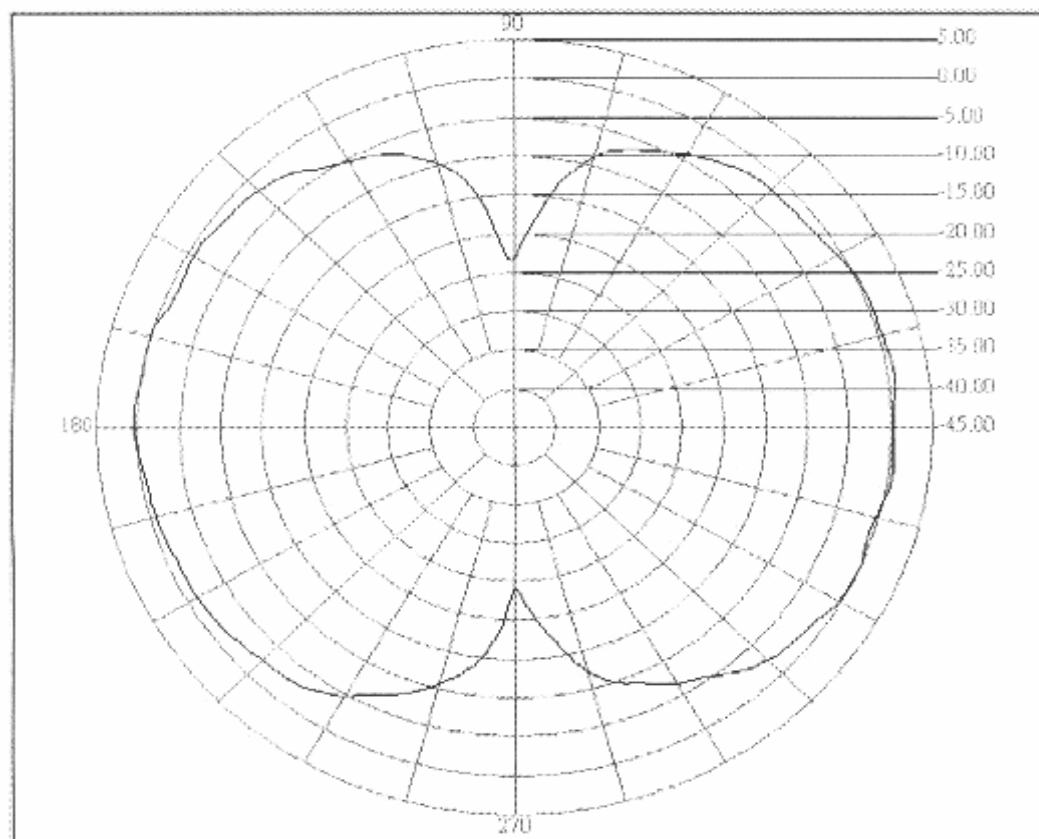
Job No.:950316-2,4G-A-2400-E

Date:2006/3/16

Time:下午 02:21

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2400

Polarization : E Plane

Max gain(dBi):0.93

Min gain(dBi):-24.21

Avg gain(dBi):-2.48

2.4G A



CCS WUGU Antenna Pattern

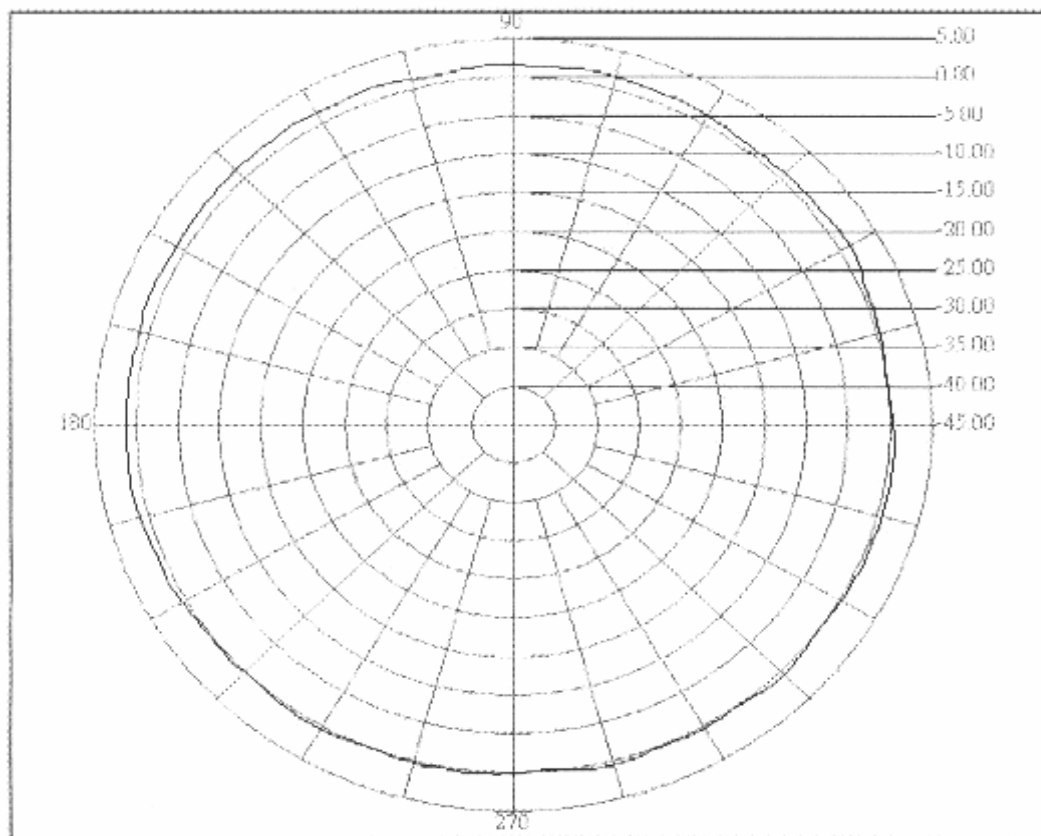
Job No.:950316-2.4G-A-2400-H

Date:2006/3/16

Time:下午 02:13

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2400

Polarization : H Plane

Max gain(dBi):1.81

Min gain(dBi):-0.12

Avg gain(dBi):0.87

2.4G A



CCS WUGU Antenna Pattern

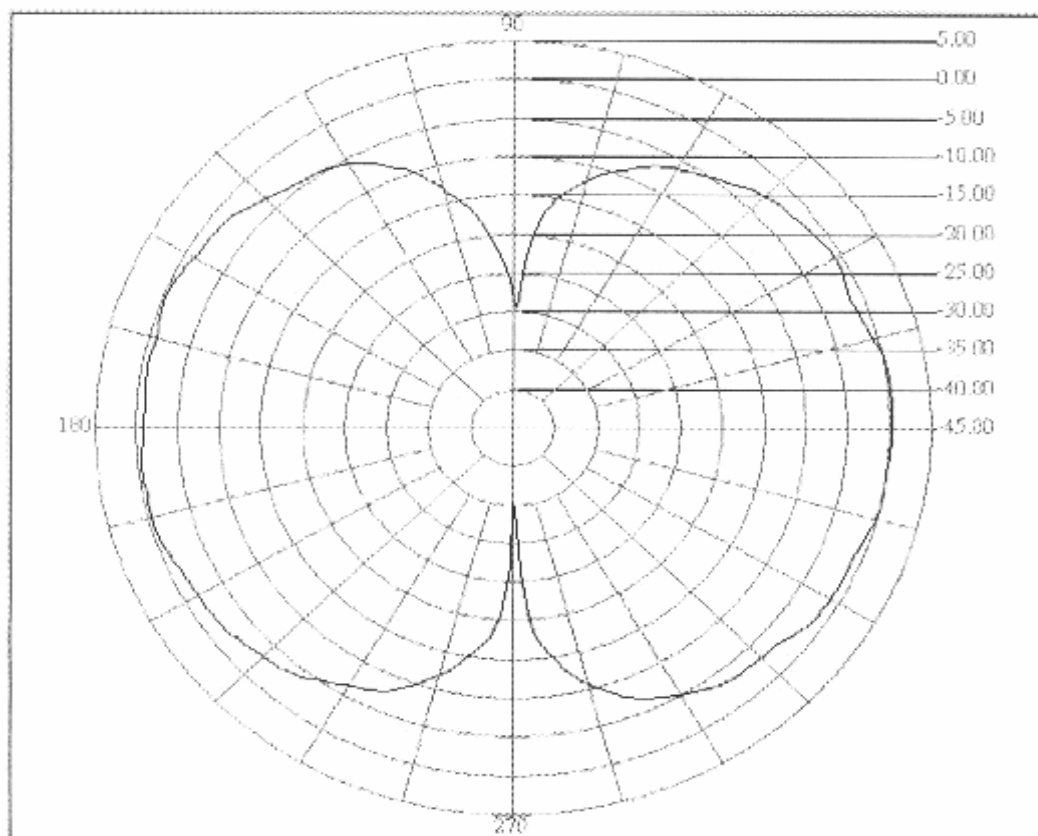
Job No.:950316-2,4G-A-2450-E

Date:2006/3/16

Time:下午 02:18

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2450

Polarization : E Plane

Max gain(dBi):0.45

Min gain(dBi):-35.08

Avg gain(dBi):-3.03

2.4G A



CCS WUGU Antenna Pattern

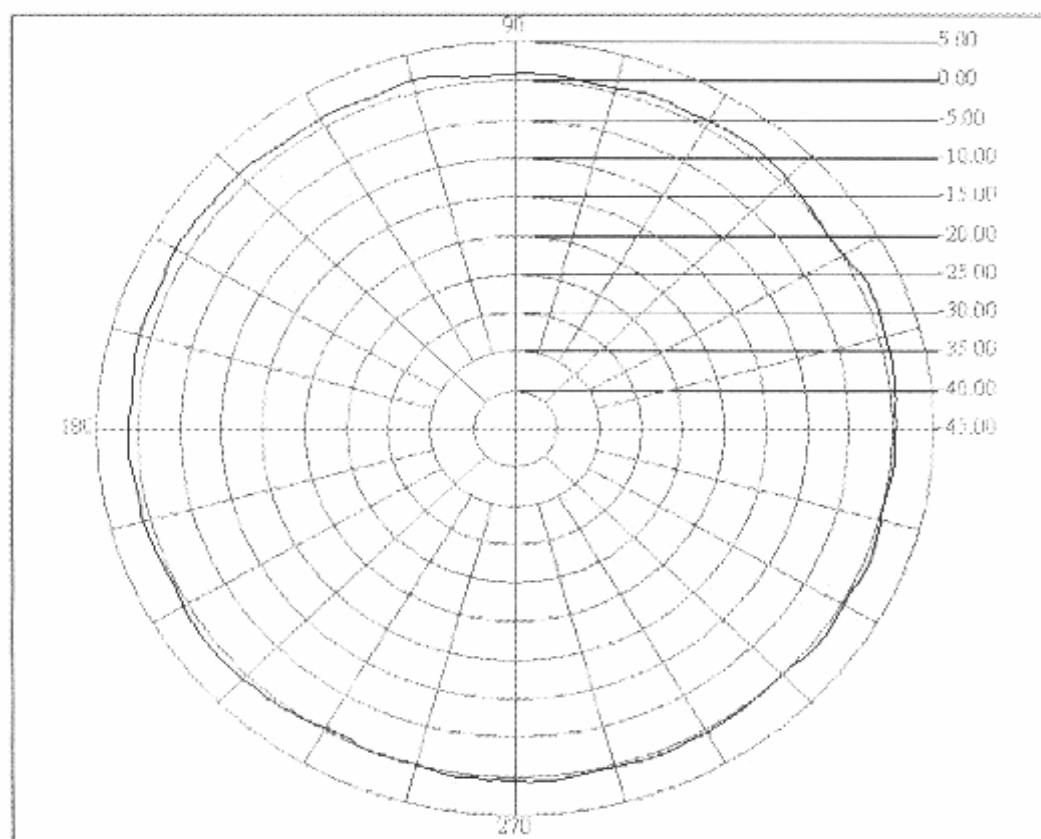
Job No.:950316-2.4G-A-2450-H

Date:2006/3/16

Time:下午 02:11

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2450

Polarization : H Plane

Max gain(dBi):1.68

Min gain(dBi):-0.27

Avg gain(dBi):0.77

2.4G A



CCS WUGU Antenna Pattern

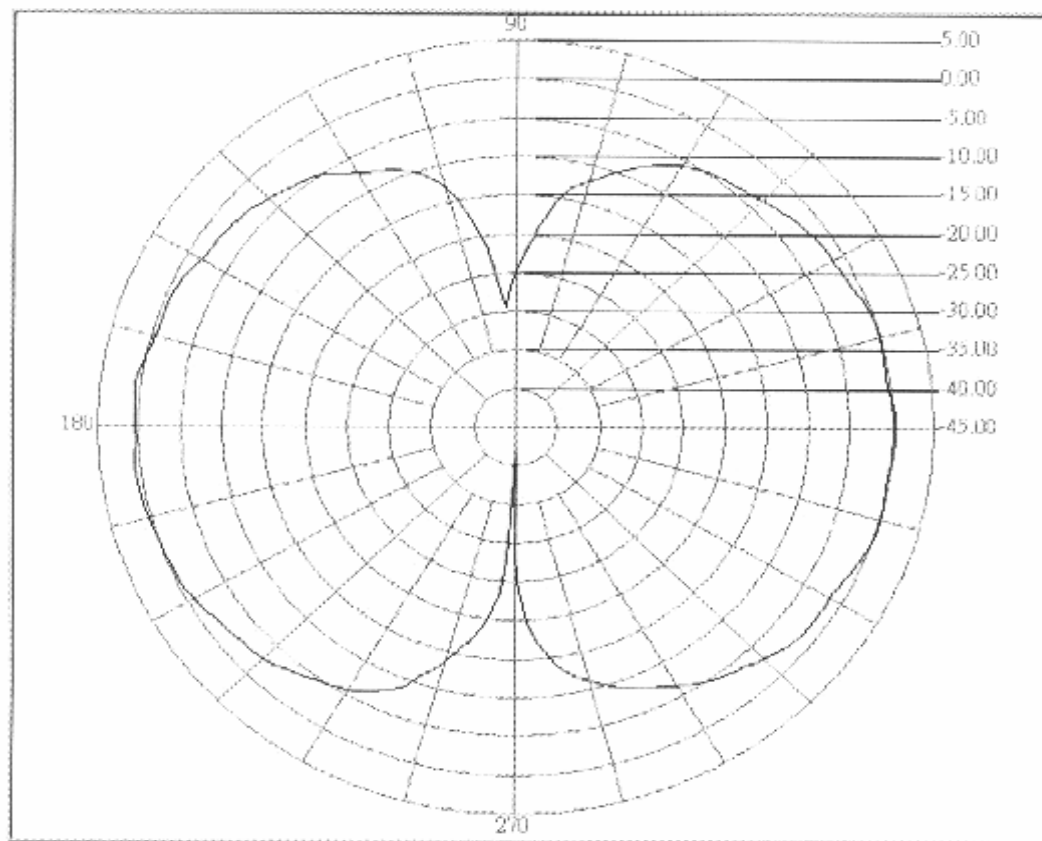
Job No.:950316-2.4G-A-2500-E

Date:2006/3/16

Time:下午 02:19

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2500

Polarization : E Plane

Max gain(dBi):0.76

Min gain(dBi):-41.75

Avg gain(dBi):-2.87

2.4G A



CCS WUGU Antenna Pattern

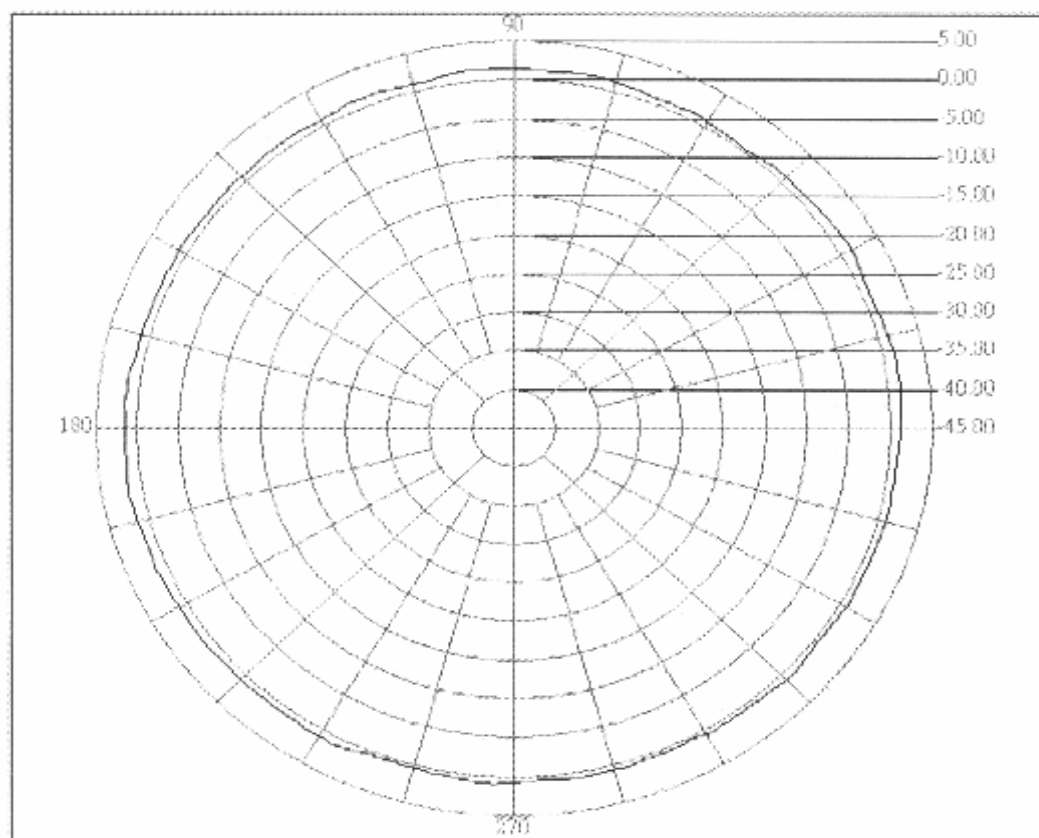
Job No.:950316-2,4G-A-2500-H

Date:2006/3/16

Time:下午 02:14

Temp.(°C)/Hum.(%):25°C/80%

Tested by:



Center freq.(MHz): 2500

Polarization : H Plane

Max gain(dBi):1.72

Min gain(dBi):0.34

Avg gain(dBi):1.00

2.4G A

Amitel EL630

TPE E

63 Shore D polyether-ester elastomer

<i>properties</i>	<i>Units SI</i>	<i>Typical data Dry</i>	<i>Test methods</i>
Physical properties			
Density	g/cm ³	1,23	ISO 1183
Flammability			ISO 1210/A
burring rate	mm/min	-	
classification	-	FH-1	
Moisture absorption			
at equilibrium in air (23°C/50%RH)	%	0,2	ISO 62
after saturation in water 23°C	%	0,6	
Mechanical properties			
Hardness Shore D	-	63	ISO 868
Tensile modulus (at 1mm/min)	MPa	330	ISO 527-1
Tensile strength (at 50 mm/min)	MPa	30	
Nominal strain at break	%	350	ISO 527-1
Tensile stress at 5% strain	MPa	11,5	ISO 527-1
Tensile stress at 10% strain	MPa	15,9	ISO 527-1
Tensile stress at 50% strain	MPa	17,3	ISO 527-1
Tear strength Graves	kN/m	145	DIN 53515
Izod notched impact strength 23°C	kJ/m ²	NB	ISO 180-1A
Izod notched impact strength -30°C	kJ/m ²	4	ISO 180-1A
Charpy notched impact strength 23°C	kJ/m ²	NB	ISO 179/1eA
Charpy notched impact strength -30°C	kJ/m ²	12	ISO 179/1eA
Tensile impact strength	kJ/m ²	-	ISO 8256
Thermal properties			
Melting temperature	°C	212	ISO 3146
Melt mass-flow rate (240°C/2160g)		-	
Vicat softening temperature - 10 N	°C	200	ISO 306
Vicat softening temperature -50 N	°C	125	ISO 306
Deflection temp. under load - HDT-B	°C	115	ISO 75-2
Coeff.of lin. therm. expansion (parallel)	E-4/K	1,4	DIN 33752
Electrical properties			
Electric strength	kV/mm	22	IEC 60243-1
Relative permittivity at 1kHz	.	4,4	IEC 60250
Loss factor at 1 kHz	E-4	160	IEC 60250
Comparative tracking index	V	600	IEC 60112
Volume resistivity	Ohm.cm	1E+14	IEC 60093
Surface resistivity	Ohm	1E+14	IEC 60093

NB No Break (ductile fracture)

1) Specimen according to ISO 14910 (Campus®).

2) Typical values for nature' coloured materials (unless indicated otherwise).

Amitel is a registered trademark of DSM





QMFZ2 Component -Plastics

E47960

DSM ENGINEERING PLASTICS B V
POSTBUS 43 6130 AA SITTARD THE NETHERLANDS

Material Designation: **EL630,EM630**

Product Description: Thermoplastic Elastome'(TPE). Polyester,designated "Amitel" furnished as periets

Color	Min. Thick (mm)	Flame Class	HWI	NAI	RTI Elec.	RTI IMP	RTI Str	IEC GWIT	IEC GWFI
NC.BK	1.5	HB	-	-	-	-	-	-	-
	CTI:-		HVTR:-		D495:-		IEC BP:-		

Underwriters Laboratories Inc®

75932:001

UL94 small-scale test data does not pertain to building materials,furnishings and ,elated contents. UL 94 small-scale test data is intended solery for determining the flamm-ability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.



奇美實業股份有限公司

CHI MEI CORPORATION

ORIGINAL

☐ Head Office: 59-1, San Chia, Jen Te
Tainan County, Taiwan
☐ Taipei Office: 8th Fl., Chi Mei Cldg.,
No. 9, Ai-Kuo West Road
Taipei, Taiwan.

TEL: (06)2663000

FAX: (06)2665555-7

TEL: (02)23148841

FAX: (02)23618800

033271860

4LA05137

物性測定結果
Physical Properties

客戶名稱 : P40538

品名 LOT NO	項目	Test Method	ASTM	檢測值
✓ PA-765A 40561021	Tensile Strength (kg/cm ²)	Break	D 638	300.00
	引張強度			
	Tensile Strength (kg/cm ²)	Yield	D 638	390.00
	引張強度			
	Tensile Elongation (%)		D 638	36.00
	延伸率			
	Izod Impact Strength (kg.cm/cm)		D 256	16.40
	衝擊強度			
	Melt Index (g/10 min)*		D 1238	5.48
	流動係數			



Coaxial Cable Data Sheet
RG-178

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

STYLE : 200°C 30V
RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED:

WONDERFUL HI-TECH CO.,LTD

OFFICE : 72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN,TAIWAN

TEL : (02)22988033
FAX : (02)22988031-2

FACTORY : 17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL : (03)4527777
FAX : (03)4517214

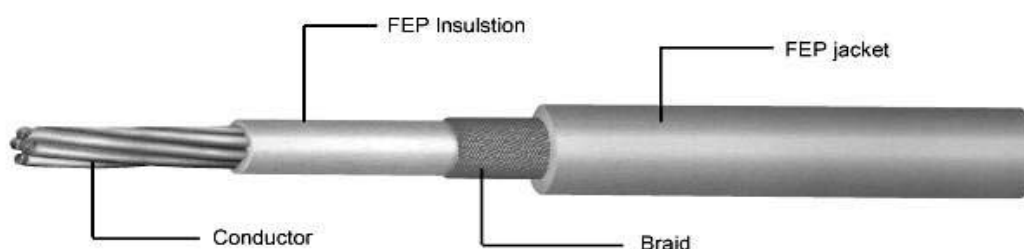
RG178B/U , RG179/U , RG316/U

High Frequency Coaxial Cable

R.F. RG178B/U 179/U 316/U

Applications

Application include mobile phone, PC and peripherals, home appliances, PDA, digital still camera, GPS, network access device, Video/audio equipment, security equipment, medical equipment, lighting equipment, Remote control, wrist watch, carphone, hands-free voice-controlled device, broadcast equipment, identification card, shopping mall information. etc.



SPECIFICATION

- Conductor : Silver coated copper clad steel
- Insulation : FEP Teflon
- Braid : Silver coated copper
- Jacket : FEP Teflon
- Jacket Thickness : 0.25 ~ 0.62mm
- Temperature Range : -70°C~200°C
- Voltage Rating : 30V

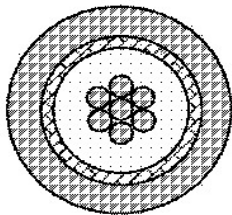
Feature

- Continuous working temperature range : -70°C~200°C
- Resistant to Solvents , chemicals , gasoline and radiation.
- High Dielectric Strength permits extremely fast transmission and
- Minimal signal distortion
- Tough flexible resistant to crush , abrasion.

Style	Conductor		Insulation	Braid	Jacket	Capacitance	Impedance	VSWR (max.)	
	AWG	No./AWG Strands	Diameter (mm)	Coverage (%)	Diameter (mm)	(pF/ft)	(ohms)	Frequency(Hz)	
RG-178B/U	30	7×38	0.86	95	1.8	29	50	1.2	1.3
RG-179/U	30	7×38	1.58	95	2.54	19.5	75	1.2	1.3
RG-316/U	26	7×34	1.53	95	2.52	29	50	1.2	1.3

WONDERFUL HI-TECH CO., LTD

SPECIFICATION

STYLE	200°C 30V COAXIAL	DOCUMENT NO : A30178B001
SIZE	RG-178B/U	ESTABLISHED DATE: 2003/02/13
STANDARD : MIL-C-17		
Conductor	Size	AWG 30
	Material	----- Silver-Coated Copper Clad Steel
	Conductors No.	----- 7
	Conductors Size	mm 0.102
	O.D.	mm 0.30
Insulation	Average Thickness	mm 0.28
	Diameter	mm 0.86
	Material	----- FEP
	Color	----- Clear
Braid	Material	----- Silver-Coated Copper
	Construction	mm 16 / 3 / 0.10
	Coverage	% 95
Jacket	Average Thickness	mm 0.25
	Diameter	mm 1.80 ±0.05
	Material	----- FEP
	Color	----- Brown
Marking		
Drawing		

AK001/210X297/1.0

PAGE : 1

EDITION : 1.1

REVISED DATE :

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

WONDERFUL HI-TECH CO., LTD

SPECIFICATION

Electrical & Physical Properties						
Item			RG-178B/U			
Rating Temp Voltage			200°C 30V			
Conductor Resistance			838 OHM/KM/20°C MAX.			
Insulation Resistance			3000 MEGA OHM/KM MIN.			
Dielectric Strength			AC 1.0 KV/Minute			
Spark Test			2.0 KV			
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN 75%(168HRS×232°C)			
		Elongation	UNAGED MIN 75%(168HRS×232°C)			
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232°C)			
		Elongation	UNAGED MIN.75%(168HRS×232°C)			
Nom. Impedance			50 Ohms			
Nom. Capacitance			95.8 pF/m			
Nom. Vel. of Prop.			69.5%			
VSWR (0 – 6 GHZ)			UNDER 1.3			
Attenuation (dB/100m)	100MHz	1GHz	1.8GHz	2.4GHz	5.2GHz	6GHz
	46	155	295	340	505	550

AK001/210X297/1.0

PAGE : 2

EDITION : 1.1

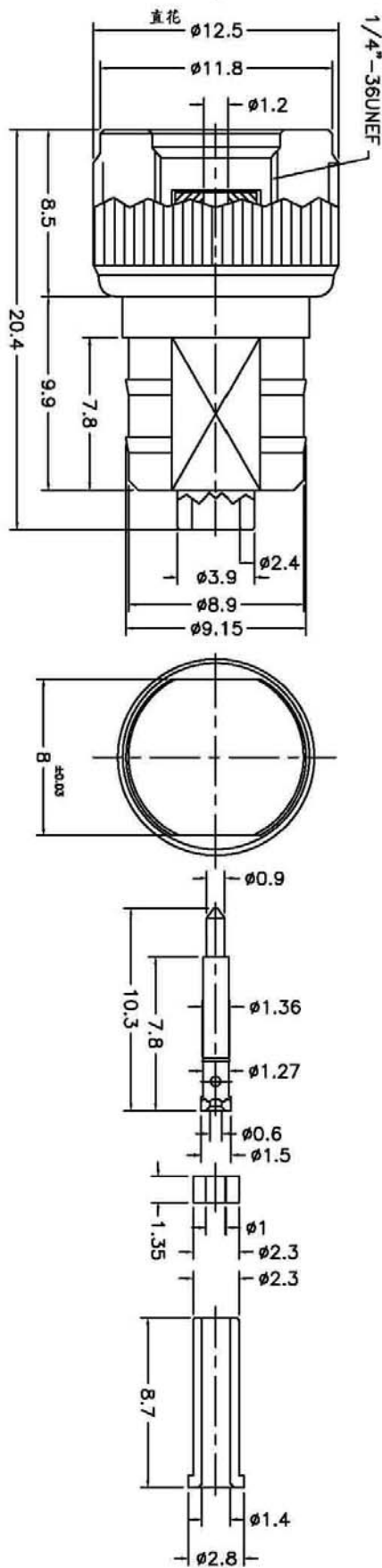
REVISED DATE :

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

10	FERRULE	BRASS	1	NICKEL
9	INSULATOR	TEFLON	1	
8	CENTER PIN	BRASS	1	GOLD
7	BODY	BRASS	1	GOLD
6	BODY	BRASS	1	BLACK NICKEL
5	WASHER	BRASS	1	BLACK NICKEL
4	INSULATOR	TEFLON	1	
3	GASKET	SILICONE	1	
2	WASHER	BRASS	1	BLACK CHROME
1	SHELL	BRASS	1	BLACK CHROME
NO	DESCRIPTION	MATERIAL	QTY	FINISH



TITLE		SMA-P-178(for Antenna)		DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED TOLERANCES ARE xx ±3.0 x ±0.5 .xx ±0.2 ANGULAR: ±3°		MATERIAL		VER. Δ		DESCRIPTIONS		DONE BY CKD. BY	
PART NO.		SMA-P-178		FINISH		SCALE		DESIGN/CHKD.		REVISIONS NOTE		APPROVED BY.	
				DATE				DRAWN BY.		Hao Yang			

SMA Series

ELECTRICAL

* Impedance	50 ohm
* Frequency	0-12.4 GHz on Flexible cable. 0-18 GHz on Semi-rigid cable
* Working Voltage	RG-178: 170 VRMS max. at see level RG316, 0.085": 250 VRMS max. at see level RG-142, 0.141": 335 VRMS max. at see level
* Dielectric Withstanding Voltage	RG-178: 500 VRMS min. at see level RG316, 0.085": 750 VRMS min. at see level RG-142, 0.141": 1000 VRMS min. at see level
* VSWR	Straight: 1.3 max. Right Angle: 1.5 max.
* Contact resistance	Center Contact: 6 Milliohms Max. Outer Contact: 2 Milliohms Max.
* Insulator Resistance	5000 megohms min.

MATERIAL

Parts Name	Material	Finish
* Body, metal parts	Brass per QQ-B-626 or Non-magnetic stainless steel per QQ-S-764 # 303	Nickel or BCr. per requirement
* Center Contacts	Male: Brass per QQ-B-626 Female: Phosphor Bronze Bars QQ-C-530	Gold plated Gold plated
* Insulators	PTFE	None
* Gasket	Silicone Rubber	None
* Crimp Ferrules	Annealed copper	Nickel or per requirement

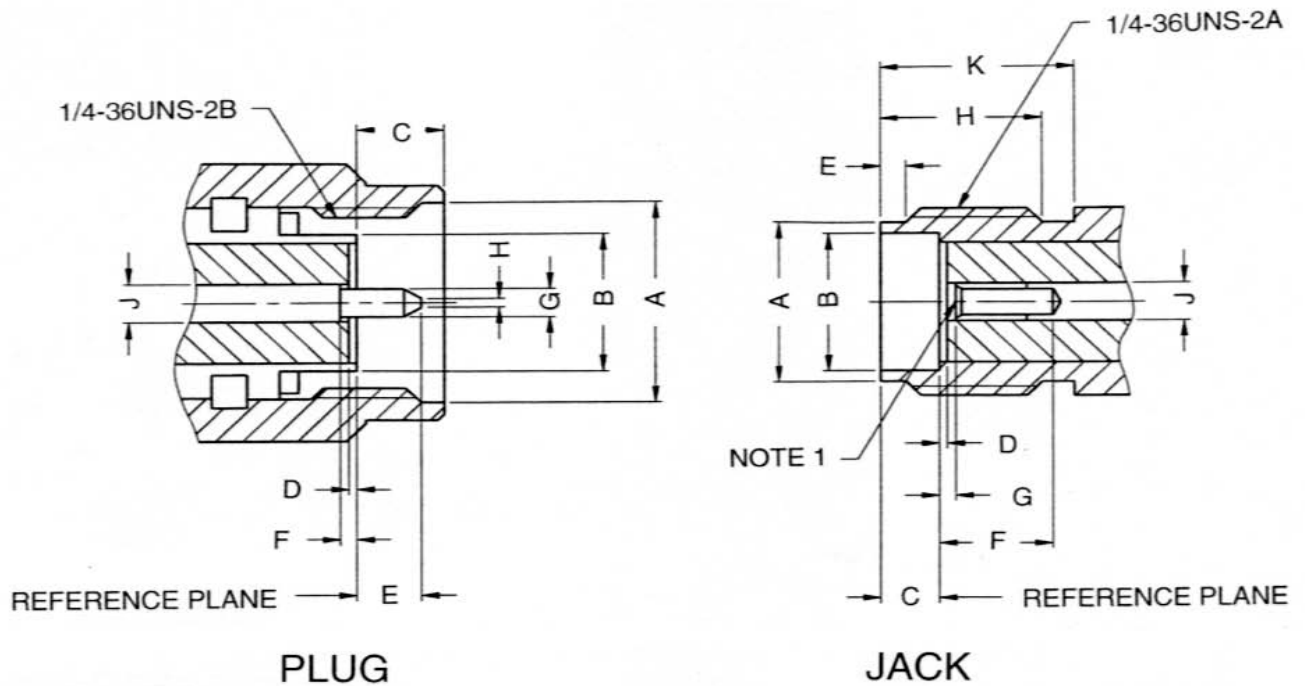
Note: Other Material / Finish is Available on Request.

MECHANICAL

* Engagement Force	2 in- lbs. Max.
* Disengagement Force	2 in- lbs. Max
* Coupling Nut Retention	60 lbs. Min.
* Coupling Proof Torque	15 in-lbs. Min.
* Contact Retention	6 lbs. Min.
* Durability (Mating)	500 cycles min.

SMA COAXIAL CONNECTOR

INTERFACE MATING DIMENSIONS



Letter	Millimeters	
	Minimum	Maximum
A	6.35	6.73
B	4.53	4.59
C	2.54	3.43
D	0.00	0.25
E	1.91	2.54
F	0.00	0.25
G	0.90	0.94
H	0.00	0.38
J	1.24	1.30

Letter	Millimeters	
	Minimum	Maximum
A	5.28	5.49
B	4.60	4.67
C	1.88	1.98
D	0.00	0.25
E	0.38	1.14
F	2.92	-
G	0.00	0.25
H	4.32	-
J	1.24	1.30
K	5.54	-

NOTE: 1. I.D. TO MEET VSWR AND CONTACT RESISTANCE WHEN MATED WITH .9/.94MM DIA. PIN.

宮前五金股份有限公司

檢驗報告表

編號：930201

93年2月1日

客 戶				
品 名		FREE CUTTING BRASS ROD	丸 9.5 / 15.0 / 15.5 m/m	
規 格		JIS H3250 C3604 BD		
數 據 項 目		標 準 值	實 測 值	備 註
化 學 成 份 %	Cu	57.0 - 61.0	58.08	
	Pb	1.8 - 3.7	3.28	
	Fe	<0.5	—	
	Sn+Fe	<1.2	0.71	
	Zn	REMAINDER	REMAINDER	
其 它				

桃園縣龜山鄉頂湖一街 24 號 TEL: (03) 3283068-70

THE MATERIAL CERTS OF TEFLON

Customer		
Material	TEFLON	
Physical Properties		%
Physical Properties	Density g/cm ³	2.14-2.2
	Water absorption %	>0.01
Mechanical Properties	Tensile strength kg/cm ²	140-350
	Flexural strength kg/cm ²	16.4
	Rockwell hardness	D55
	Izod impact strength kg cm/cm with notch	2.5-2.7
	Taper wears mg/1000 Times	
	Friction coefficients	0.1-0.04
Heat Properties	Coefficient of linear thermal expansion x 10 /°C	7.0-10.0
	Thermal conductivity kcal/m. Hr. °C	6.0
	Heat distortion temperatures °C	
	Heat resistance °C	260-278
Electrical Properties	Dielectric breakdown strengths KV/mm	43-50
	Coefficient of volume resistance Ω-cm	10 ⁻⁹
REMARK:		



品越工業股份有限公司
PREEMINENT INDUSTRIAL CO., LTD.

地址：台北縣新莊市民樂街 60.62.64.66 號
ADD: 60, 62, 64, 66, MIN LO ST., HSIN CHUANG
CITY, TAIPEI HSIEN, TAIWAN, R. O. C.
TEL: (02) 29924567, 29933767, 29977355
FAX: (02) 29947004

鍍層厚度報告單

FISCHERSCOPE X - R A Y TEST RECORD

品名規格 (SPECIFICATION):

備註 (REMARK):

Au

U* SAMPLE 5 PCS

N =	1	THICKNESS=	3.82	=	130.3
N =	2	THICKNESS=	3.93	=	137.1
N =	3	THICKNESS=	4.23	=	106.2
N =	4	THICKNESS=	4.02	=	113.9
N =	5	THICKNESS=	3.50	=	120.0

檢測結果 (RESULT):

F I N A L R E S U L T

DOUBLE COATING MEASUREMENT

APPLICATION No.

=

5

Au / Ni / Cu

(u*)

Coll.2

TOP COAT.

INT.COAT.

M E A N V A L U E	=	3.902	=	121.52
STD. DEVIATION	=	0.2713	=	12.389
V meas. (/ %)	=	6.952	=	10.195
LOWEST READING	=	3.500	=	106.23
HIGHEST READING	=	4.234	=	137.10
No. OF MEAS.	=	5	=	5
MEASURING TIME (s)	=		=	30

M E A N T H I C K N E S S

APPLICATION No.

=

1

Au / Ni

(u*) STD.

Coll.2

M E A N T H I C K N E S S	=	1.735
STD. DEVIATION	=	0.0695
LOWEST READING	=	1.686
HIGHEST READING	=	1.784
No. OF MEAS.	=	2
MEASURING TIME (s)	=	10

	品 管 Q C		主 管 MANAGER	 合格 (ACCEPT) 品質部 出貨品檢	合格章 APPROVE
---	------------	---	----------------	--	----------------

POWER 3460

Cyanoacrylate Adhesive

POWER 3460 is a fast setting, medium viscosity general purpose adhesive. **POWER 3460** is a user friendly, cosmetically pleasing formulation that incorporates no-odor, non-blooming characteristics while maintaining excellent bond strengths. **POWER 3460** may eliminate the need for special ventilation.

PHYSICAL PROPERTIES

MONOMER (Liquid)

Base Compound	Ethoxyethyl
Appearance	Colorless Liquid
Viscosity (cps @ 68F)	80 cPs
Specific Gravity (g/cc)	1.06
Flash Point (TCC)	176F
Shelf Life @ 40F	One year in unopened containers
Setting Time:(68F, 65%R.H.)	
Metal/Metal	40 Seconds
Plastic/Plastic	15 Seconds
Rubber/Rubber	10 Seconds

POLYMER (Cured)

Appearance	Colorless Solid
Service Temperature Range	-65F to 200F
Softening Point	293F
Refractive Index (ND 20)	1.49
Full Cure Time	24 Hours
Dielectric Strength KV/mm	12.6
Dielectric Constant @ 1Kc	5.4
Coefficient of Thermal Expansion (in./in./F)	.000126
Tensile Strength: Steel / Steel	2600 psi
Solubility	Nitromethane, Acetone, Dimethylformamide

A. NEW CYANOACRYLATE ADHESIVE *POWER 3460*

1. *POWER 3460* is a NON - BLOOMING and NO - ODOR cyanoacrylate adhesive.
2. *POWER 3460* can be used for bonding a variety of metals, plastics, rubber, etc.

(Setting Time and Strength)		
Substrate	Setting time (sec.)	Tensile Shear Strength (N/mm2)
Steel/Steel	20	19.6
Aluminum/Aluminum	20	11.8
Stainless Steel/Stainless Steel	20	19.6
Copper/Copper	20	11.8
ABS/ABS	30	*5.9
Acrylic/Acrylic	100	*3.9
Rigid PVC/Rigid PVC	40	2.9
Phenol/Phenol	40	*6.9
Polycarbonate/Polycarbonate	60	*8.8
CR/CR	5	*0.5
NBR/NBR	5	*0.5
Steel/Rigid PVC	40	2.9
Steel/CR	10	*0.5

• Substrate Failure

Test conditions : 23°C, 60%RH

Setting time, tensile shear strength apply correspondingly
to JIS K 6861