

# 京廣科技股份有限公司

## 承 認 書



### SPECIFICATION FOR APPROVE

客 戶  
CUSTOMER 旭隆科技股份有限公司

產品名稱  
DESCRIPTION DIPOLE ANTENNA

料 號  
PART NO. GAT2-GIS15B, 3907-001230

日 期  
DATE 2003/10/06

DESIGNER SIGNATURE		DIRECTOR SIGNATURE	
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客戶簽認

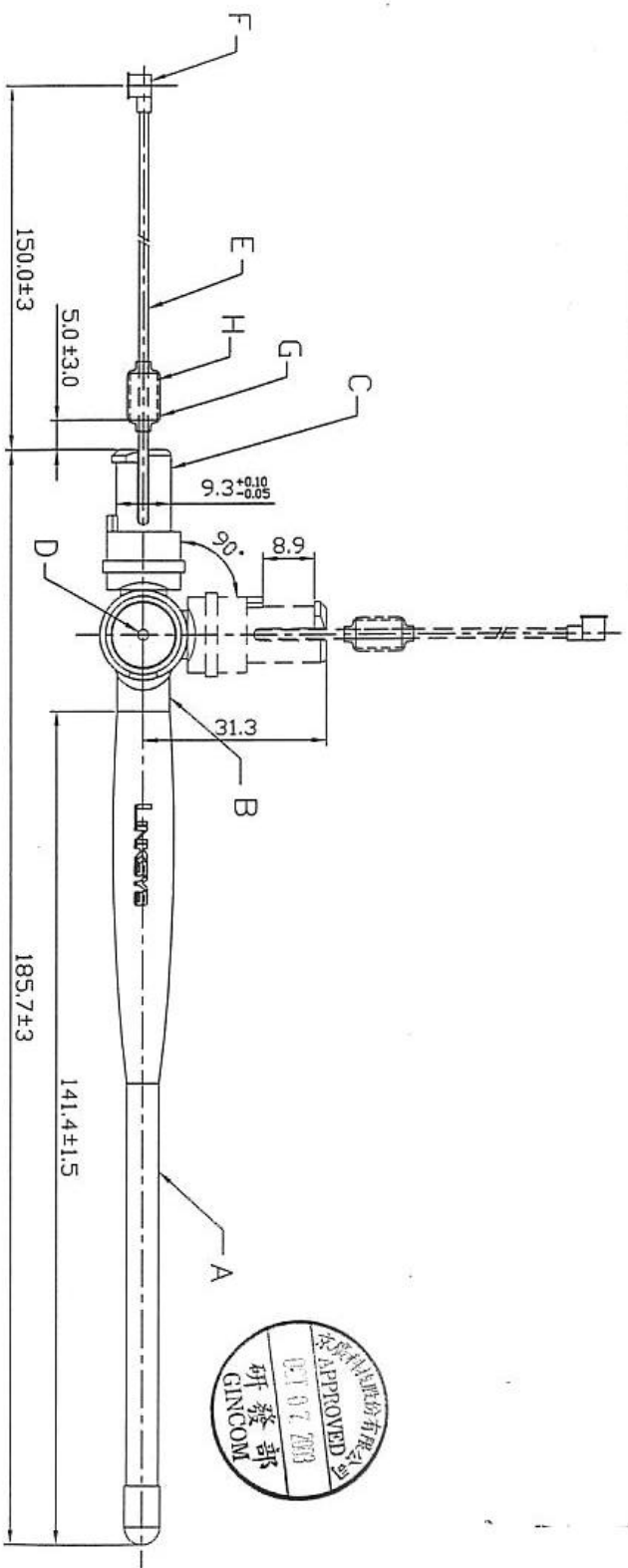


桃園市三民路三段284號15F 統一編號：13042931

15F., No. 284, Sec. 3, Sanmin Rd., Taoyuan, Taiwan 330, R.O.C.

TEL : 886-3-3364686 FAX : 886-3-3330608 [www.gincom.com.tw](http://www.gincom.com.tw)

No.	名 稱 (NAME)	外觀 (FINISH)	材質 (MATERIAL)	數量 (QTY)
A	頂 蓋 (ANT. SHELL)	黑 (BLCAK)	TPEE	01
B	上環封蓋 (INDICING DIS. RING)	黑 (BLCAK)	ABS	01
C	下環封蓋 (INDICING DIS. RING)	黑 (BLCAK)	ABS+PC	01
D	定位銷 (PIN)	鍍黑鎳 (PLATED Cr)	銅 (BRASS)	02
E	φ1.13 (CABLE)	灰 (GRAY)	特氟龍 (TEFLON)	01
F	IPEX CONNECTOR	鍍金 (ELECTRO-GILDING)	銅 (BRASS)	01
G	熱縮套管 (Heat Shrink Tube Sleeve)	黑 (BLCAK)	PVC	01
H	螺絲心 (CORE)	黑 (BLCAK)		01



京廣科技股份有限公司  
Gincom technology Co.,Ltd

DESIGNED BY: Charles 07.24.2003  
DATE CHECKED BY: Tim  
DATE APPROVED BY: 莊育偉

THREE ANGLE PRODUCTION  
SCALE: 1  
UNIT: m/m  
REMARKS: USED ON: GAT2-GISISB

PART NO.:  
DWG NAME: 外觀圖  
DWG NO.: 03038B37

REV.	BASIC RANGE	30°-120°	120°-200°	ANGLE
00	XX	±0.3	±0.4	±0.5
	XXX	±0.1	±0.2	±0.4
A4	XXXX	±0.05	±0.1	±0.15

ANGULAR DIMS. ± 0.5

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REV.	DESCRIPTION	DRAWN

# GAT2-GIS15B

## ● Specifications

Frequency Range	2.4~2.5GHz
Impedance	50 Ohms nominal
VSWR	$\leq 2$
Gain	3.5dBi
Radiation	Omni
Polarization	Vertical
Antenna Cover	Polyurethane
Swivel Mechanism	Polycarbonate
Operation Temperature	-20°C~+65°C
Storage Temperature	-30°C~+75°C

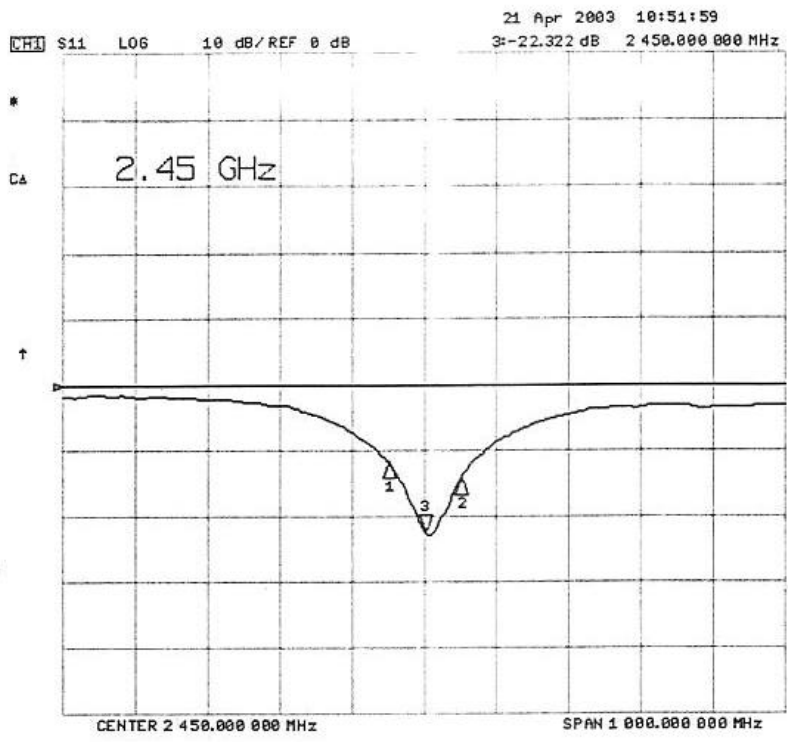


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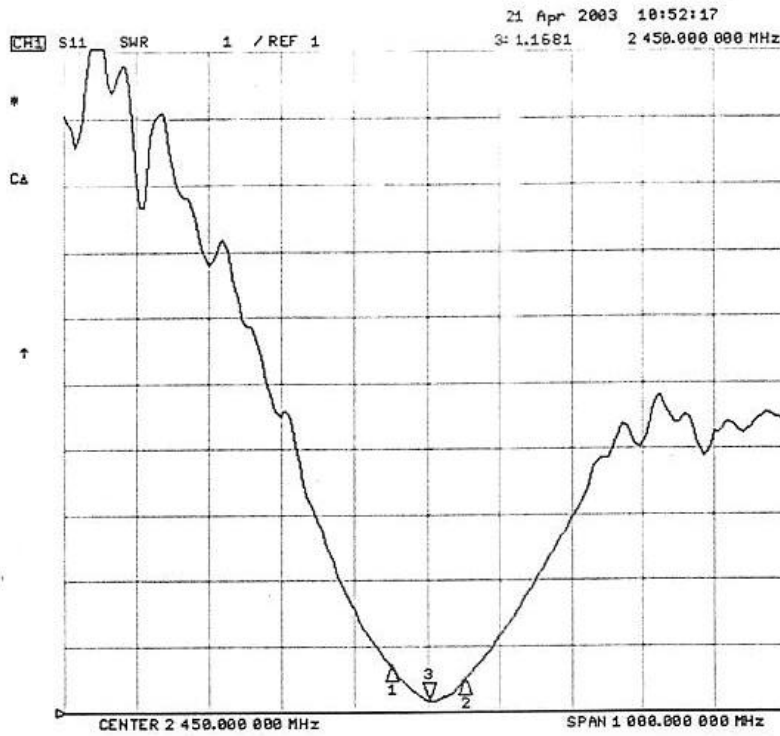
*Gincom Technology Corp.*



CH1 Markers  
 1:-11.838 dB  
 2.40000 GHz  
 2:-14.374 dB  
 2.50000 GHz



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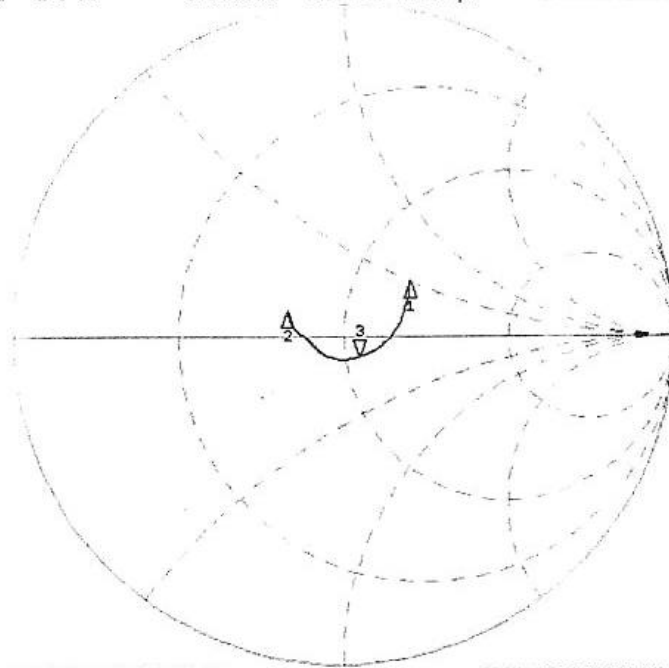
21 Apr 2003 10:52:57

CH1 S11 1 U FS 3: 54.336  $\Omega$  -6.9785  $\Omega$  9.3087 pF 2 450.000 000 MHz

\*

Cd

†



CH1 Markers

1: 69.895  $\Omega$   
24.500  $\Omega$   
2.40000 GHz  
2: 34.759  $\Omega$   
5.2266  $\Omega$   
2.50000 GHz

CENTER 2 450.000 000 MHz

SPAN 100.000 000 MHz



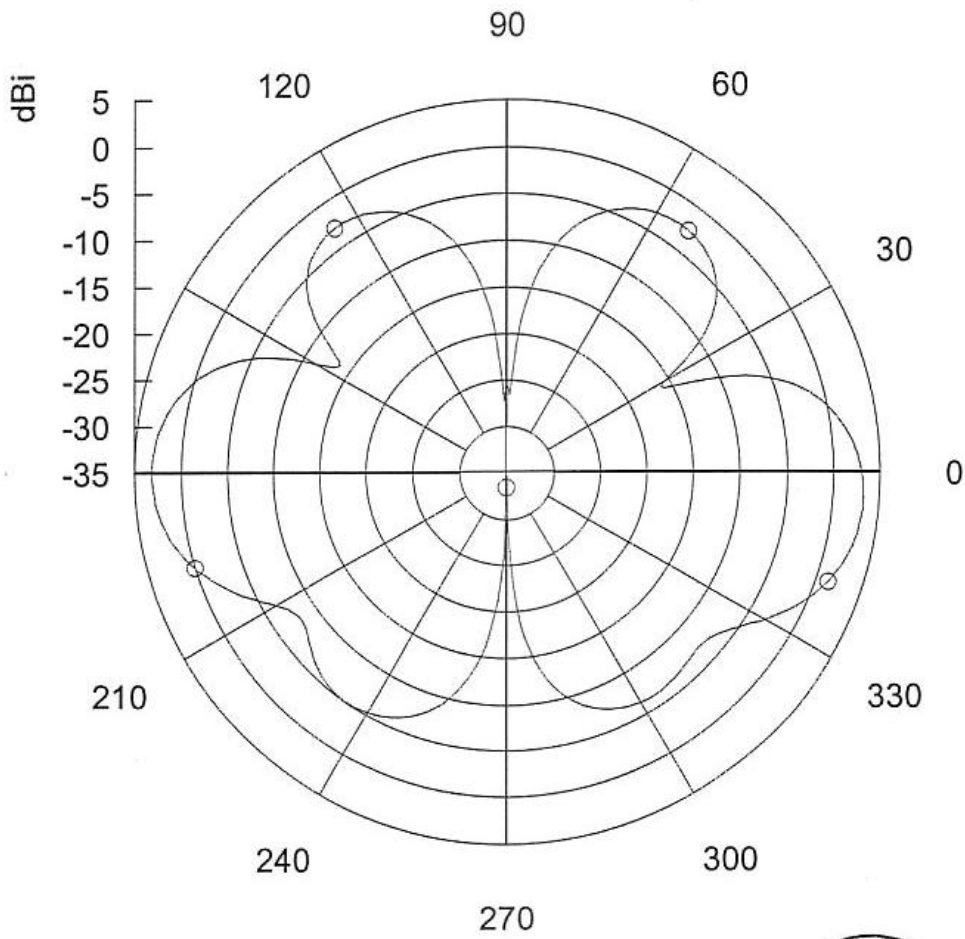
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# Horizontal



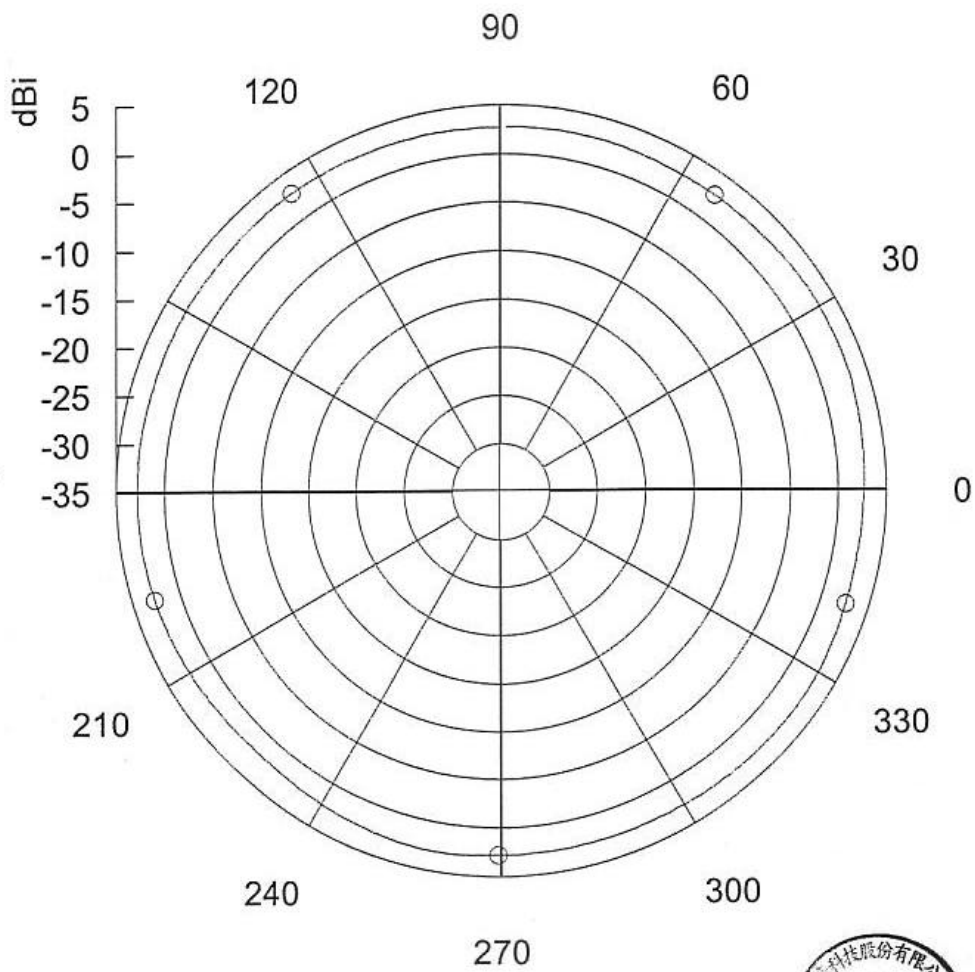
桃園市三民路三段284號15F 統一編號：13042931

15F., No. 284, Sec. 3, Sanmin Rd., Taoyuan, Taiwan 330, R.O.C.

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# Vertical



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*Gincom—Technology Corp.*



1000

1. Material  
 (1) Housing : PBT , UL94V-0 , Black

(2) Connector  
 : 90MHz  
 : Gold Plating

(3) Housing material  
 : 90MHz, Gold Plating

(4) Housing material  
 : 90MHz, Gold Plating

(5) Housing material  
 : 90MHz, Gold Plating

1. Material  
 (1) Housing : PBT , UL94V-0 , Black

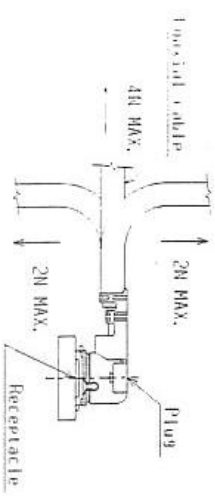
(2) Connector  
 : 90MHz  
 : Gold Plating

(3) Housing material  
 : 90MHz, Gold Plating

(4) Housing material  
 : 90MHz, Gold Plating

(5) Housing material  
 : 90MHz, Gold Plating

4. Connective load of cable at mating  
 コネクタ合後のケーブルに対する荷重

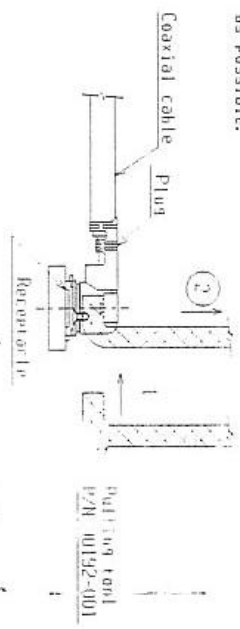


5. Precaution for motion & unmating  
 コネクタ合時及び抜去時の注意

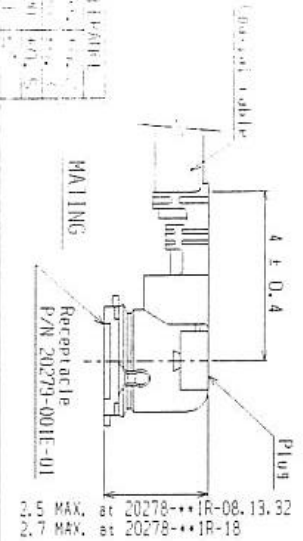
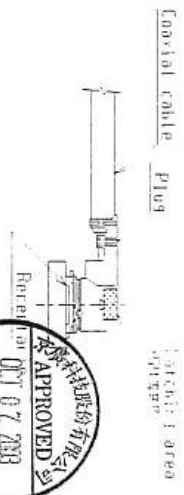
- 5-1 コネクタ挿入時  
 PlugとReceptacleの合時合離は、  
 極端な斜め挿入は行わないで下さい。  
 コネクタの目的用途とご照会下さい。 過度なご使用  
 挿入は行わないで下さい。

5-2 Unmating.  
 コネクタ抜き時

- (1) In case of unmating by  
 pulling tool.  
 Please use the pulling  
 tool as the following drawing,  
 and please pull plug to  
 vertical direction as directly  
 as possible.



- (2) In case of unmating directly  
 by hand.  
 Please catch the catching area  
 of plug , and please pull plug  
 to vertical direction as directly  
 as possible.



20278-08-13-32  
 20278-08-13-32  
 20278-08-13-32  
 20278-08-13-32

DESIGNED BY	DATE	 I-PEX High Precision Electronics 100-00, Japan
CHK'D BY	DATE	
APP'D BY	DATE	TITLE
CUSTOMER COPY	DATE	HIF Series Micro Coaxial Connector Plug Vertical Date: No. 1/15 3-2-58

KURABE INDUSTRIAL CO., LTD

SP3830M·X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022)	PAGE	1/4
PRODUCT STANDARD		ISSUED	17-9-2001
		REVISED	

1. SCOPE

This standard covers "FEP insulated High-Frequency coaxial cable".

2. CONSTRUCTION

Construction and dimensions of the cable are shown in Figure.1 and Table 1.

3. PERFORMANCE

Performance of the finished cable is shown in Table 2. The test methods are in accordance with applicable test methods described in JIS C 3005.

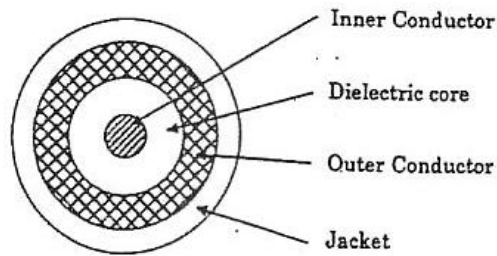


Figure 1.



NOTE :	MADE BY	<i>M. Ueba</i>
	APPROVALS	<i>T. Nagazawa</i>

KURABE INDUSTRIAL CO., LTD

SP3830M-X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022)	PAGE	2/4
PRODUCT STANDARD		ISSUED	17-9-2001
		REVISED	

Table 1. Construction

Item	Unit	Specified Value
Inner Conductor	Material	Silver coated annealed copper wire
	Stranding	No./mm
	Dia.(approx.)	7/0.08
Dielectric Core	Material	FEP
	Thick.(nom.)	mm
	Dia.	mm
	Color	Natural
Outer Conductor	Material	Silver coated annealed copper wire
	Type	Braid (16/4/0.05)
	Dia.(approx)	mm
Jacket	Material	FEP
	Thick.(nom.)	mm
	Dia.	mm
	Color	Standard colors are white,black,blue,brown,and gray.

Table 2. Performance

Item	Unit	Specified Value	Note
Appearance	—	Faultless in visible	—
Inner conductor resistance	$\Omega$ /km	Max.597	at 20°C
Insulation resistance	M $\Omega$ ·km	Min.1500	at 20°C
Dielectric strength	—	Dielectric core: No breakdown at AC1.5kV for 0.15sec.	Spark test
		Jacket: No breakdown at AC1.5kV for 0.15sec.	Spark test
		No breakdown at AC500V for 1min.	Outer conductor to inner conductor
Heat resistance for solder	—	Shrink or expansion of dielectric core are not more than 0.5mm	※
Capacitance	pF/m	nom. 98	at 1kHz
Characteristic impedance	$\Omega$	50±2	TDR method
Attenuation (nom.)	dB/m	2.0	1.0GHz
		2.9	2.0GHZ
		3.6	3.0GHz
		4.2	4.0GHz
		4.7	5.0GHz
		5.2	6.0GHz

※ After immersion of dielectric core, 10mm into soldering pot which is 230°C for 5 seconds, shrinkage or expansion of the dielectric core must not exceed 0.5mm.




NOTE :	MADE BY	M. Ohba
	APPROVALS	J. Kawasumi

KURABE INDUSTRIAL CO., LTD

SP3830M-X	<p style="text-align: center;">FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022)</p>	PAGE	3/4
<p style="text-align: center;">PRODUCT STANDARD</p>		ISSUED	17-9-2001
		REVISED	
<p><b>4. INSPECTION</b> An inspection is took place in accordance with applicable test methods. The cable has to pass the specifications described Table 1 and Table 2.</p> <p><b>5. TEST METHOD</b> The test methods are in accordance with applicable test methods described in JIS C 3005 (Test methods for rubber or plastic insulated wires and cables).</p> <p><b>6. TEMPERATURE RATING</b> 150 °C</p> <p><b>7. VOLATGE LATING</b> 250 V</p> <p><b>8. MARKING ON TAG</b> Each reel of finished cable is tagged to indicate following information:          (1) Designation of the cable,          (2) Conductor size,          (3) Length,          (4) Date of manufacture or LOT No.,          (5) Specification No., and          (6) Manufacture's name.</p> <p><b>9. PACKAGE</b> The finished cables are cut into a shipping length of 200 meters, reeled to paper bobbin and packed securely to prevent injuries during transportation. Odd length of the finished wires should be accepted for shipping according to the condition of mutual agreement. In the case no agreement is found, the condition stated in quotation shall prevail.</p> <p><b>10. APPLICATION NOTES</b>          10-1. For use other than the use mutually agreed, compatibility should be carefully confirmed in each practical use by user.          10-2. It is recommended to make a trial run for each practical application.</p>			
NOTE:		MADE BY	<i>M. Ohta</i>
		APPROVALS	<i>J. Hasegawa</i>



KURABE INDUSTRIAL CO., LTD

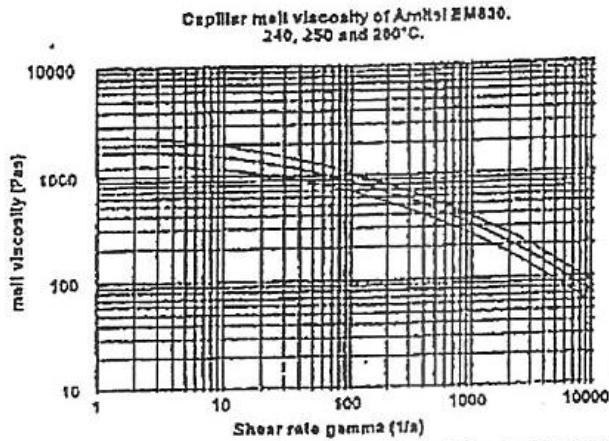
SP3830M-X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022)	PAGE	4/4
PRODUCT STANDARD		ISSUED	17-9-2001
		REVISED	
<p>10-3. In case a design for use of cable is changed, please contact our sales department, if necessary. Do not use under extreme mechanical stress such as hard bending, tightening, and twisting. The use under extreme mechanical stress may cause not only shortening the life span of cable but also troubles such as decline of dielectric strength.</p> <p>10-4. Handling precautions</p> <p>① Do not hurt the insulation and sheath of the cable by making holes and scratches. And avoid any sharp edge when wiring so as not to injure cables.</p> <p>② Avoid unnecessary excessive force to cable, such as pulling, twisting, bending or tightening.</p> <p>10-5. Storage precautions</p> <p>Avoid continuous exposure to sunlight.</p> <div style="text-align: right; margin-top: 200px;">  </div>			
NOTE:	MADE BY	<i>m. Ohba</i>	
		APPROVALS	<i>T. Kanazawa</i>



# TPEE 材質證明



DSM Engineering Plastics  
Arlitel<sup>®</sup> EL630/EM630



Graph 2.80 and 2.81: Temperature dependency of the melt viscosity for Arlitel EL630 and EM630.

The MFI values are shown in table 2.31.

		EL630	EM630	
MFI 230°C	g/10 min		7	ISO 1133
MFI 240°C	g/10 min	30		ISO 1133

Table 2.31: MFI for Arlitel EL630/EM630.

### • Use of regrind:

Arlitel can readily be recycled. If the MFI of the regrind is up or down to four points higher, 20% can be recycled. A difference of 2 MFI points allows up to 50% of regrind. Obviously the regrind should be dried properly before use.

### 2.8.34 Mechanical properties:

If Arlitel EL630 or Arlitel EM630 are processed properly the materials will have mechanical properties as shown in table 2.32.

Mechanical property	SI Unit	typical data*		test method
		EL630	EM630	
Hardness	Shore D	63	63	ISO 868
Tensile modulus (1 mm/min)	MPa	330	330	ISO 527
Tensile strength (50 mm/min)	MPa	30	30	ISO 527
Strain at break	%	350	350	ISO 527
Tensile stress at 5% strain	Mpa	11.5	11.5	
Tensile stress at 10% strain	Mpa	15.0	15.0	
Tensile stress at 50% strain	Mpa	17.3	17.3	
Tear strength Graves	KN/m	145	145	DIN53515
Izod notched 23°C (73°F)	KJ/m²	NB	NB	ISO 180/1A
Izod notched -30°C (-22°F)	KJ/m²	4	4	ISO 180/1A
Charpy notched 23°C (73°F)	KJ/m²	NB	NB	ISO 178/1eA
Charpy notched -30°C (-22°F)	KJ/m²	12	12	ISO 178/1eA

\* Data for dry natural materials.

NB: No Break

Table 2.32: mechanical properties of Arlitel<sup>®</sup> EL630.



# PC+ABS 材質證明

## Cycloloy 物性 Typical Properties of Cycloloy

項目	規格	C1000										C2000									
		C1000		C1000		C1000		C1000		C1000		C1000		C1000		C1000		C1000		C1000	
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2	品名	Cycloloy																			
3	品名	Cycloloy																			
4	品名	Cycloloy																			
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100	品名	Cycloloy																			



Cycloloy

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