

APPROVAL SHEET

For : 藍天電腦 股份有限公司
CLEVO CO.

MODEL : M300N WLAN+ CCD cable

DESCRIPTION :

FVC P/N : 0C02WFM24001

CUSTOMER P/N : 23-724R4-A71-1

FILE P/N :

DATE : 26.May. , 2003

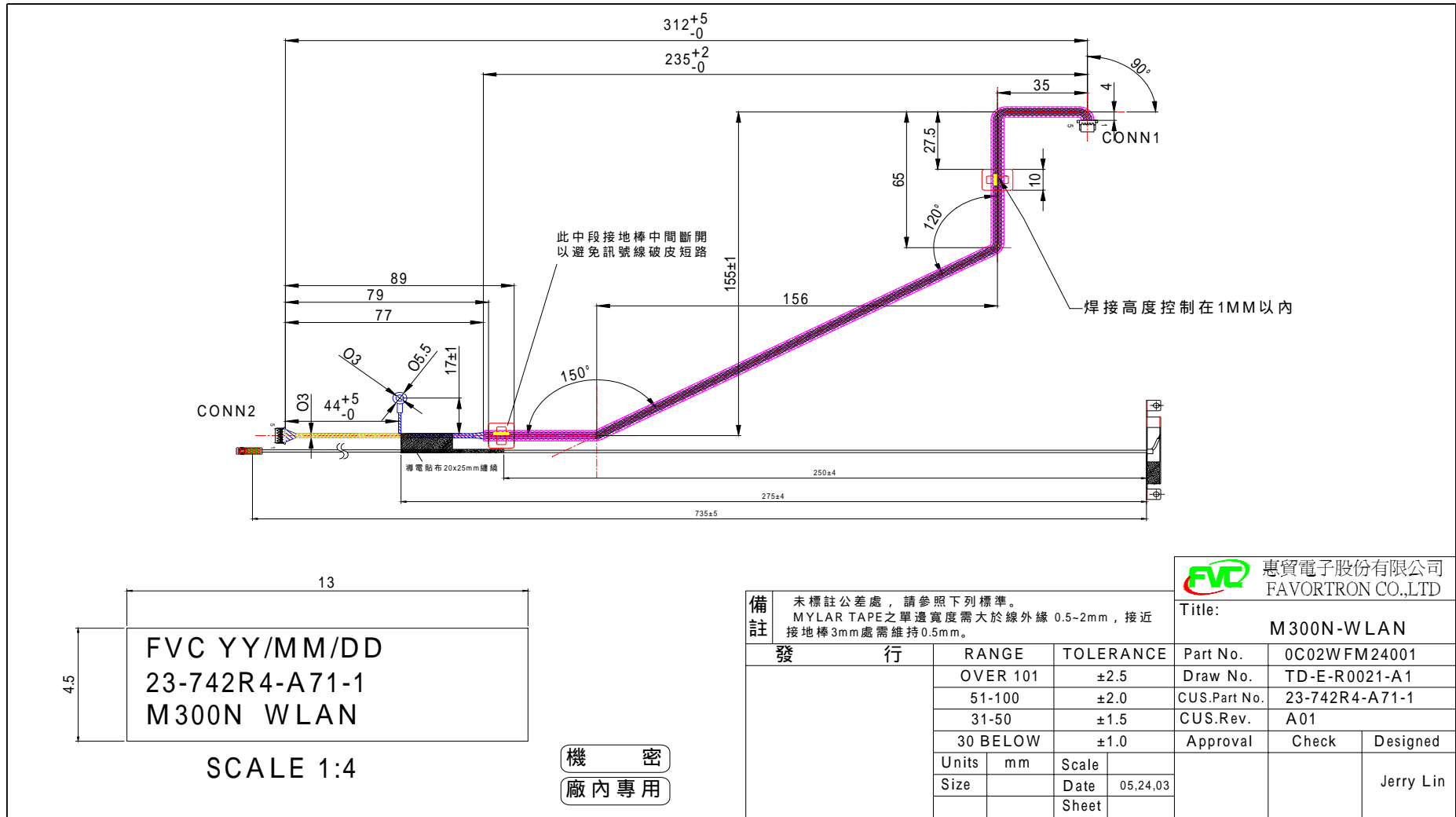
Manager	Chief	Engineer

Check	Responser



台北縣中和市中正路 866 號 17F TEL: (02) 8227-5669
17nd F, no. 866, Zhong Zheng Rd., FAX: (02) 8227-5667
Zhong He City, Taipei Hsien, Taiwan R.O.C

(一) 成品圖&BOM表：WLAN



13

4.5


FVC YY/MM/DD
23-742R4-A71-1
M300N WLAN

SCALE 1:4

機密
廠內專用

備註 未標註公差處，請參照下列標準。
MYLAR TAPE之單邊寬度需大於線外緣 0.5-2mm，接近
接地棒3mm處需維持0.5mm。

發行	RANGE	TOLERANCE
	OVER 101	±2.5
	51-100	±2.0
	31-50	±1.5
	30 BELOW	±1.0
Units	mm	Scale
Size		Date 05,24,03
		Sheet

 惠質電子股份有限公司 FAVORTRON CO.,LTD	
Title: M300N-WLAN	
Part No.	0C02WFM24001
Draw No.	TD-E-R0021-A1
CUS.Part No.	23-742R4-A71-1
CUS.Rev.	A01
Approval	Check
	Designed
	Jerry Lin

B O M					
ITEM	COMPONENT	Q'TY	DESCRIPTION	FAVORTRON P/N	REMARK
1	KURUBE+I-PEX 接頭	1	75mm(含conn長度), 黑色	308021	
2	SPONGE	1	長11mm, 寬3.25mm, 高5mm	332033	
3	導電貼布	1	24x10mm	330221	
4	6100-orientation (pifa)	1	長47.5mm, 寬5mm, 高5.5mm	321068	
5	Label	1	4.5x13mm 白色	407022	
6	熱縮套管	1	2.5x0.25x10mm	342039	
7	導電貼布	1	20x25mm	330211	
8	ODD cable	1	5P wire cable	0C33A1	
9	熱縮套管	1	Ø1.5x5mm Black	342032	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

 遠寶電子股份有限公司
FAVORTRON CO., LTD

Title: N300N WLAN BOM 表

Part No. 0C02*FN24001

Draw No. ID-E-B0021-A1

CUS Part No. 23-742R4-A71-1

CUS Rev. A01

Approval Check Designed

Jerry Lin

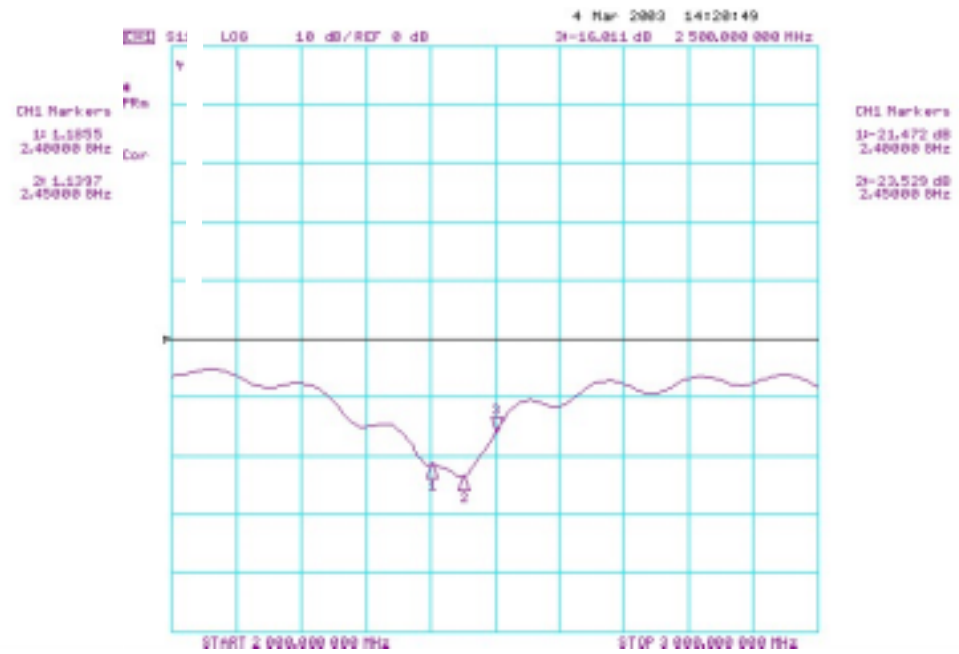
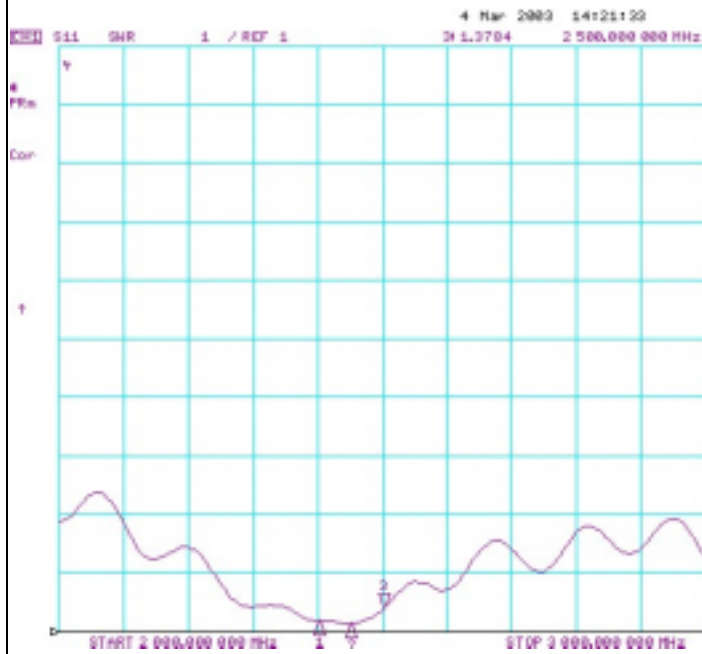
發	行	備	註
Date	02.04.25	Sheet	1/1

機 密

廠內專用

VSWR

Return Loss



惠貿電子股份有限公司
FAVORTRON CO. LTD

P/N : 0C02WFM24001

Frequency Band : 2.4 2.5GHz

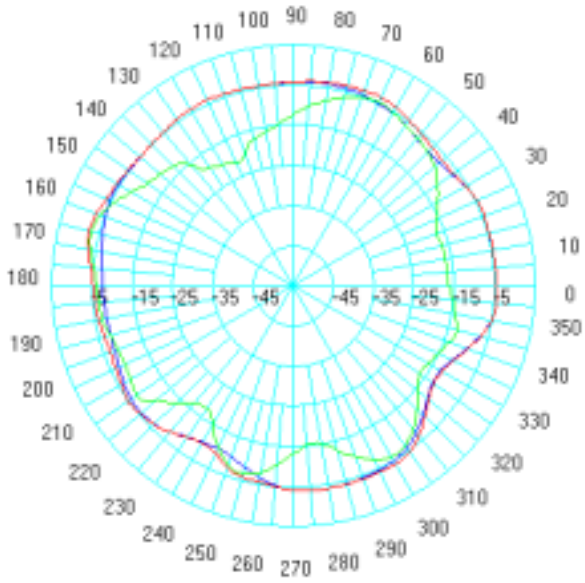
Date : 11.Mar .2003

(二)1. Free Space 天線輻射場形 M300N WLAN :

Antenna	Gain of XY Plane(Azimuth)-open		
	Frequency	2.45G	
<u>WLAN PIFA</u>	H	Peak	-3.77
		Average	-6.22
<u>WLAN PIFA</u>	V	Peak	-2.95
		Average	-11.36
<u>WLAN PIFA</u>	H+V	Peak	-2.42
		Average	-5.49
		%>-5dBi	54.29%

Radiation Pattern of XY Plane(Azimuth)-open

— H-polarized — V- polarized — H+V- polarized



惠賢電子股份有限公司
FAVORTRON CO. LTD

Testing Condition : 在無反射隔離室中,
以遠場距離進行測試

Frequency Band : 2.4 ~2.5GHz

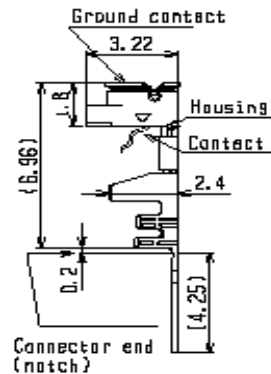
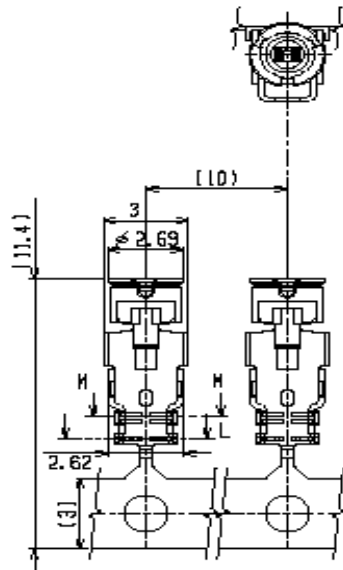
Date : 11.Mar.2003

三、 SPECIFICATIONS:

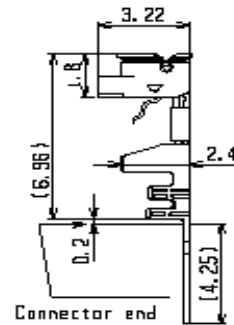
Electrical Properties

Frequency Range : 2.4~2.5GHz
Impedance : 50Ohms nominal
VSWR : 2.0
Peak Gain : -5.0dBi peak gain 3dBi

PART NO.
2027B-**[H]**



Part No. 2027B-101R-**
For hand tool
(with notch)



Part No. 2027B-111R-**
For semi auto
termination machine
(without notch)

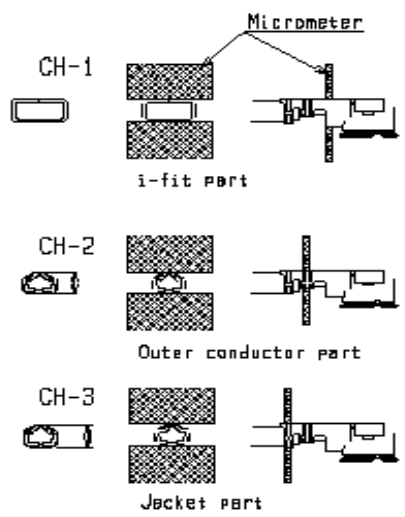
GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2°

				4	Z2029	K.O	JAN/30/02	E.K	DESIGN'D BY	DATE	I-PEX Intercircuit and Packaging Electronics TOKYO, JAPAN
				3	Z1256	K.O	NOV/14/01	K.K	K. Ohbayashi	JUN/13/01	
				2	Z1197	K.O	AUG/27/01	K.K	CHK'D BY	DATE	TITLE HF series micro coaxial connector plug vertical
				1	Z1118	K.O	JUN/26/01	K.K			
				0	Z1109	K.O	JUN/13/01	K.K	APP'D BY	DATE	SCALE UNIT DWG. No. SHEET REV. 6/1 mm 2027B 1/3 68
68	Z2146	K.O	JUN/24/02	K.K	REV	ECN	BY	DATE	APP	JUN/13/01	
58	Z2117	A.H	MAY/17/02	K.K	REV. RECORD					CUSTOMER COPY	PROJECTION
REV ECN BY DATE APP SERIES No. 2814											

FORM REV. 4

WAS T

Part No.	20278-101R-08 20278-111R-08	20278-101R-13 20278-111R-13	20278-101R-32 20278-111R-32	20278-101R-18 20278-111R-18	
Applicable cable nominal dimension					
Jacket					
Braided shield of Outer conductor 外部導体の編組	Single / 1	Single / 1	Double / 2	Single / 1	
P/N of hand Tool	<Under developing>	90187-019	<Under developing>	<Under developing>	
P/N of semi auto termination machine		90213-019			
Sect. M-M					
Sect. L-L					
Crimp Height	CH-1	Under developing	1.34~1.40	Under developing	Under developing
	CH-2	Under developing	1.06~1.14	Under developing	Under developing
	CH-3	Under developing	1.15~1.35	Under developing	Under developing



Crimp Height

GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2'

FORM REV. 4

WAS T

DESIGN'D BY	DATE	I-PEX Interconnect and Packaging Electronics TOKYO, JAPAN	TITLE	MHF series micro coaxial connector plug vertical	DWG. No.	20278	SHEET	2/3	REV.	68
CHK'D BY	DATE		SCALE	UNIT	6/1	mm				
APP'D BY	DATE		CUSTOMER COPY	PROJECTION						

Notes

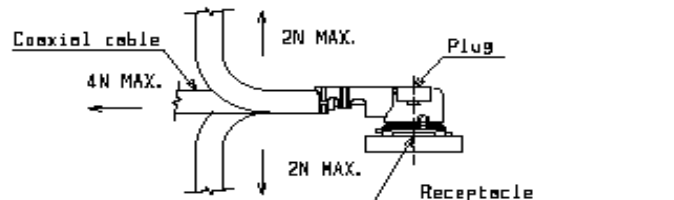
1. Material

- (1) Housing : PBT , UL94V-0 , black
- (2) Contact
phosphor bronze
gold plating
- (3) Ground contact
phosphor bronze , gold plating

2. Packing : reel

- 3. Mating partner part No.
: 20279-001E-01

4. Permissible load of cable at mating



5. Suggestions for mating & unmating operation.

5-1 Mating.

Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle. As excessive slant angle mating may break the connector, please don't do it.

1. 材料

- (1) ハウジング:PBT, UL94V-0, 黒色
- (2) コンタクト
: 磷銅
: 金メッキ
- (3) グランドコンタクト
: りん青銅, 金メッキ

2. 梱包 : リール

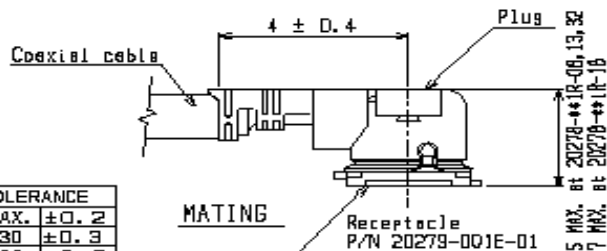
- 3. かん合相手 part No.
: 20279-001E-01

コネクタかん合後のケーブルに対する荷重

5. コネクタかん合時および抜去時の注意

5-1 コネクタ挿入時

PlugとReceptacleのかん合軸を合わせ、できるだけ垂直に挿入して下さい。極端な斜め挿入は行わないで下さい。コネクタ破損の原因となりますので、過剰なこじり挿入は行わないで下さい。



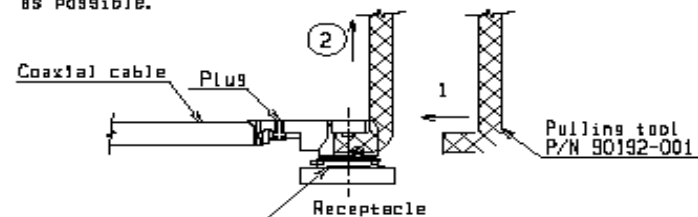
GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2°

FORM REV. 4

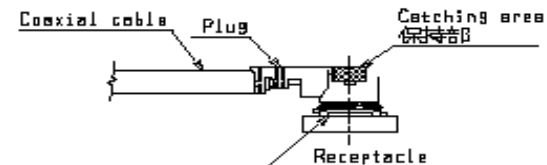
WAS T

5-2 Unmating.

- (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.



5-2 コネクタ抜去時

- (1) 抜きジプを用いる場合
下図のようにできるだけ垂直に引き抜いて下さい。

- (2) 手で直接は抜く場合
下図の保持部をつかみ、できるだけ垂直に引き抜いて下さい。

DESIGN'D BY	DATE	I-PEX Interconnect and Packages Electronics TOKYO, JAPAN	TITLE MF series micro coaxial connector plug vertical	SHEET 3/3	REV. 6B
CHK'D BY	DATE				
APP'D BY	DATE				
CUSTOMER COPY	PROJECTION	SCALE	UNIT	QMS. No.	
		-/-	mm	20278	

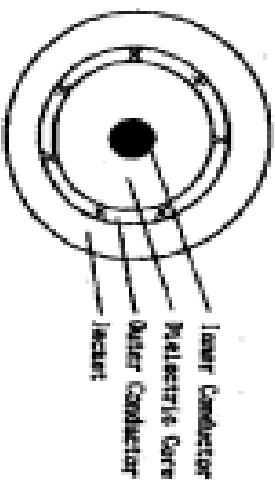
MS/51/01-1

1. SCOPE

This specification covers Cable Radio Frequency, RF-RW18, which a product of MISORI ELECTRIC CO., LTD.

2. CONSTRUCTION, MATERIALS AND DIMENSIONS

2.1 Construction



2.2 Materials and dimensions

Materials and dimensions of this cable is shown as Table-1.

2. PERFORMANCE OF THE CABLE

2.1 Testing of cable

Performance of the cable is examined and tested in accordance with the test method as listed in Table-2.

4. QUALITY ASSURANCE

4.1 Misori Electric Company fully guarantees the quality of this cable.

Every lot produced are processed and inspected with best available technical skill.

KURABE INDUSTRIAL CO., LTD

SP8830M-X	PEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022) UL 1979	PAGE	
PRODUCT STANDARD		ISSUED	11-12-2001
		REVISED	10-3-2002

Table 1. Construction

Item	Material	Unit	Specified Value	
Inner Conductor	Material	—	Silver coated annealed copper wire	
	Stranding	No./mm	7/0.08	
	Dia.(approx.)	mm	0.24	
Dielectric Core	Material	—	PEP	
	Thick.(nom.)	mm	0.22	
	Dia.	mm	0.58±0.05	
Outer Conductor	Color	—	Natural	
	Material	—	Silver coated annealed copper wire	
	Type	—	Braid (16/4/0.05)	
Jacket	Dia.(approx)	mm	0.93	
	Material	—	PEP	
	Thick.(nom.)	mm	0.10	
	Color	—	1.13 +0.10/-0.06 Standard colors are white,black,blue,brown,red,gray	

Table 2. Performance

Item	Unit	Specified Value	Note
Appearance	—	Faultless in visible	—
Inner conductor resistance	Ω/km	Max.597	at 20°C
Insulation resistance	M Ω ·km	Min.1600	at 20°C
Dielectric strength	—	Dielectric core: No breakdown at AC1.6kV for 0.15sec.	Spark test
		Jacket: No breakdown at AC1.6kV for 0.15sec.	Spark test
Heat resistance for solder	—	No breakdown at AC600V for 1min.	Outer conductor to inner conductor
Capacitance Characteristic Impedance	pF/m	nom. 98	Shrink or expansion of dielectric core are not more than 0.5mm
Attenuation (nom.)	dB/m	2.0	1.0GHz
		2.0	2.0GHz
		3.5	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 256°C ± 6°C for 5 seconds, shrinkage or expansion of the dielectric core must not exceed 0.5mm.

NOTE :

MADE BY	<i>T. Ishii</i>
APPROVALS	<i>T. Ishii</i>

4.2 Quality performance inspection

Every lot produced shall be examined and tested for items 1 thru 19 of Table-2.

5. PACKAGING AND MARKING

5.1 Packaging

Unless otherwise indicated in the contract, packaging shall be made per good commercial practices.

5.2 Marking

Each coil shall be marked with the following information.

1. Description
2. Length
3. Date of Manufacture
4. Lot Number
5. Name of Manufacturer

(Note)

1. The modification or addition of this specification is acceptable.



The specified values of this specification is changed over different usage environments and method of use.

Table-1. Description

No.	Components	Material	Construction	Diameter
1	Inner Conductor	Silver-Coated Annealed Copper Wire	7/0.08	0.24mm (nominal)
2	Dielectric Core	PFP	Thickness 0.22mm(nominal)	0.98±0.04mm -0.02
3	Outer Conductor	Silver-Coated Annealed Copper Wire	16/4/0.05	0.93mm(nominal)
4	Jacket	PFP * Standard color is Gray	Thickness 0.10mm(nominal)	1.13±0.09mm -0.05

Table-2. Requirements

PART	No.	TEST ITEM	PERFORMANCE	TEST CONDITIONING
Inner Conductor	1	Stranding	See Table-1.	Visual
	2	Material	See Table-1.	Visual
	3	Diameter of Wire	See Table-1.	Visual
Dielectric Core	4	Conductor Resistance (at 20°C)	Less than 520Ω/km	Double Bridge
	5	Diameter of Core	See Table-1.	
	6	Spark Test	No breakdown at AC 4000V for 0.15sec	Spark Tester
Outer Conductor	7	Material of Strands	See Table-1.	Visual
	8	Construction	See Table-1.	Visual
	9	Overall Diameter	See Table-1.	Visual
Finished cable	10	Dielectric Withstand Voltage	No breakdown at AC 500V for 1min.	Outer Conductor to Inner Conductor
	11	Insulation Resistance (at 20°C)	More than 1500Ω · km	High Insulation Resistance Meters
	12	Characteristic Impedance	50±2 ohms	TDR Method
	13	Capacitance	97pF/m (nominal)	Capacitance Meter

REFERENCE No. 120-130-0020
 CONTRACT No. 9-870-N1-5-5-4340
 COMMODITY ELECTROLYTIC TEMPLA IN COIL

検査証明書
INSPECTION CERTIFICATE

CUSTOMER CHENG LIH TRADING
 CUSTOMER'S CONTROL No.

日本鋼管株式会社
 検査部
 検査員
 検査日
 検査場所

ASSOCIATION JIS ASSOCIATION
 NOTE
 ITEM No. 02 SIZE: 0.2X31X3C

COATING: 25

ITEM No.	CASE No.	CONTROL No. INSPECTION No.	CAST No. / COIL No.	QUANTITY	NET MASS THEO. KG	H.T.C.W.T.C.M.B CAST ANALYSIS (%)							
						HR301	T.SN G/M2	T.SN G/M2	C X100	SI X100	PH X1000	P X1000	S X1000
02	1	44F02-0001	IT07380 / M-24978-11	1	5195	59	3.50	3.50	9	0	22	18	12
02	2	44F02-0002	IT07379 / M-24950-2	1	7663	59	3.50	3.50	9	0	23	17	12
02	3	44F02-0003	IT07379 / M-24950-1	1	7750	59	3.50	3.50	5	0	23	17	12
02	4	44F02-0004	IT07379 / M-24949-2	1	8403	59	3.50	3.50	5	0	23	17	12
02	5	44F02-0005	IT07379 / M-24949-1	1	7743	59	3.50	3.50	5	0	23	17	12
02	6	44F02-0006	IT07380 / M-24978-12	1	4444	59	3.50	3.50	5	0	22	18	12
02	7	44F02-0007	ZE-543 / M-25002-2	1	5733	59	3.50	3.50	5	0	20	13	16
02	8	44F02-0008	ZE-543 / M-25002-1	1	5570	59	3.50	3.50	5	0	20	13	16
TOTAL				8	54581								

NOTES
 THEO.: THEORETICAL
 H.T.: HARDNESS TEST
 T.SN: COATING MASS-TOP
 C: TOTAL C
 SI: COATING MASS-BOT

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

Yoshihiko Hirohata
 大塚製鉄株式会社 検査グループリーダー
 MANAGER, INSPECTION
 HIROHATA WORKS



華友材料科技股份有限公司
Sunipac Corp.

應用高分子部營業課

在中華民國臺灣地區註冊地址

9, 381 Chung Hsueh 1st Road, Section 4,
Tainan, Taiwan, R.O.C.

TEL:823791-5000 FAX:823791-5001

TO: MRS.

DEC. 20, 2000

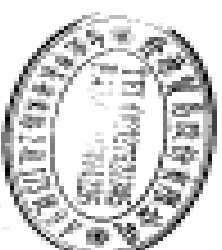
MATERIAL CERTIFICATION

WE CERTIFY HEREBY THAT SUNITUBE, MANUFACTURED BY "SUNIPAC CORPORATION", DOES NOT CONTAIN ANY OZONE-DEPLETED MATERIALS, AND NEVER CONTACT OZONE DURING MANUFACTURING PROCESS. BESIDES, SUNITUBE FOR CONFORM TO THE REQUIREMENT CONCERNING TOXICITY AS BELOW.

NAME OF PRODUCTS	SUNITUBE F1E
MATERIAL GENERIC NAME	IRADIATED FLEXIBLE HEAT-SHRINKABLE POLYOLEFIN TUBING (UL & CSA, IZODIG, C AND 4007, V94) RATINGS
MANUFACTURER	SUNIPAC CORPORATION
TOXICITY	SUNITUBE FOR CONTAINS PART OF THE FOLLOWING MATERIALS: CHROMIUM HEAVY METAL 2. IRON/STAINLESS METAL AS BELOW: SOL. BARIUM (BA) PEROX SOL. LEAD (PB) PEROX SOL. CADMIUM (CD) PEROX SOL. ANTIMONY (SB) SOL. SILENTHIUM (SI) SOL. CHROMIUM (CR) SOL. NICKEL (NI) SOL. ARSENIC (AS) AND ARSENITE

HSI LING TUL

HSI LING TUL
MANAGER
SUNIPAC CORPORATION



Y09V/2
 Component - Extruded Tubing, Electrical
 July 20, 1994
SUNITOMO ELECTRIC INDUSTRIES LTD
IRRADIATED PRODUCTS DIV

E48762 (S)
 ID - cont. from S (cont)

Insulated flexible heat shrinkable polyethy.

Shrinkage F12	600	125	1	+	-	Y09
829 or	600	125	1	+	-	Y09
Shrinkage F3						
Shrinkage F5	600	125	1	+	-	Y09
828 or	600	105	1	+	-	Y09
Shrinkage F97						
840 or	600	125	1	+	-	Y09
Shrinkage F105						
842 or	200	125	1	+	-	Y09
Shrinkage F420						
844 or S4412	600	125	1	+	-	Y09
851 or S4523	600	125	1	+	-	Y09
824 or	600	105	1	+	-	Y09
Shrinkage F720						

Report February 18, 1973.

Replaces E48762C dated June 21, 1994.
 20025901 N028 Underwriters Laboratories Inc.*

Hours on D card
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