

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

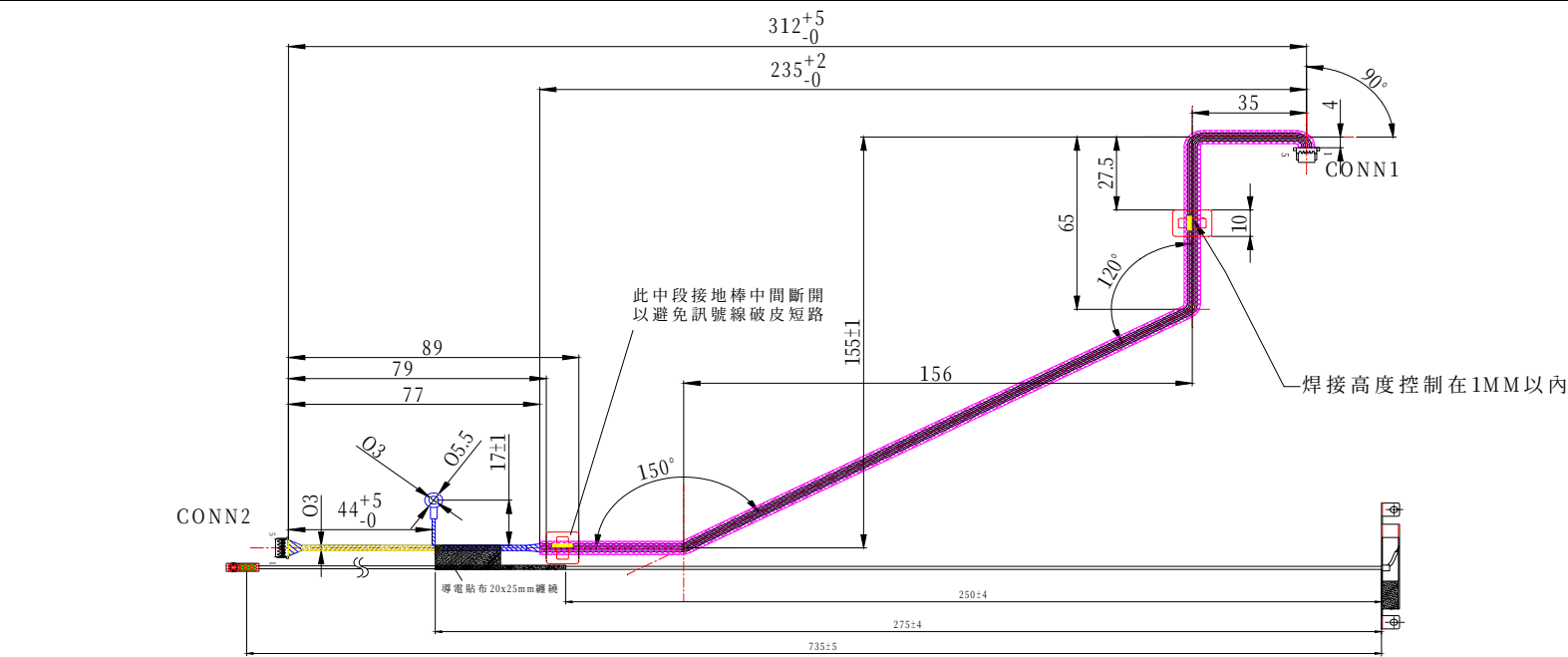
Manager	Chief	Engineer

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。				 惠貿電子股份有限公司 FAVORTRON CO.,LTD				
					Title: M300N-WLAN				
發行		RANGE		TOLERANCE		Part No.	0C02WFM24001		
		OVER 101		±2.5		Draw No.	TD-E-R0021-A1		
		51-100		±2.0		CUS.Part No.	23-742R4-A71-1		
		31-50		±1.5		CUS.Rev.	A01		
		30 BELOW		±1.0		Approval	Check	Designed	
		Units	mm	Scale		Jerry Lin			
		Size		Date	05,24,03				
		Sheet							

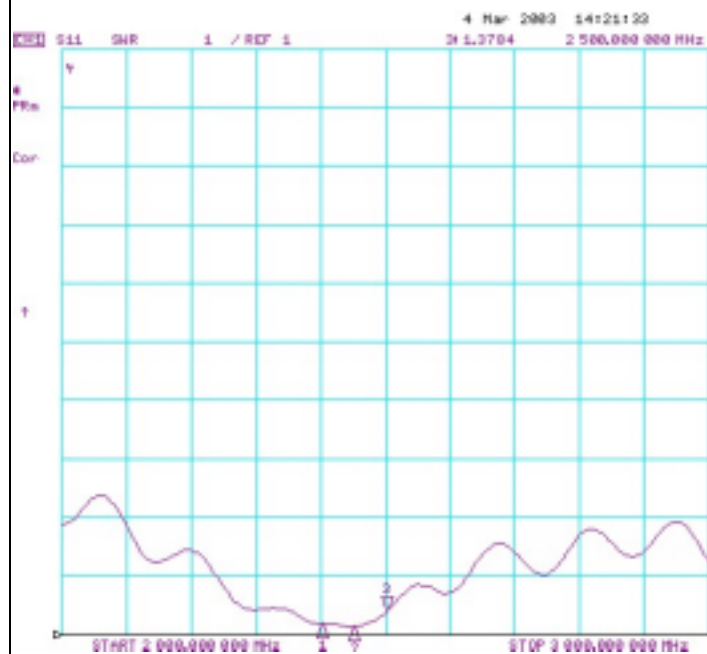
B O M					
ITEM	COMPONENT	Q'TY	DESCRIPTION	FAVORTRON P/N	REMARK
1	KURUBE+I-PEX 接頭	1	753mm(含conn長度), 黑色	308021	
2	SPONGE	1	長11mm, 寬3.25mm, 高5mm	332033	
3	導電貼布	1	24x10mm	330221	
4	radio-transparent (pifa)	1	長47.5mm, 寬5mm, 高5.5mm	321068	
5	Label	1	4.5x13mm 白色	407022	
6	熱縮套管	1	2.5x0.25x10mm	342039	
7	導電貼布	1	20x25mm	330211	
8	OD cable	1	5P wire cable	0C33A1	
9	熱縮套管	1	Ø1.5x5mm Black	342032	
10					
11					
12					
13					
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16					
17					
18					
19					
20					

機 密
廠內專用

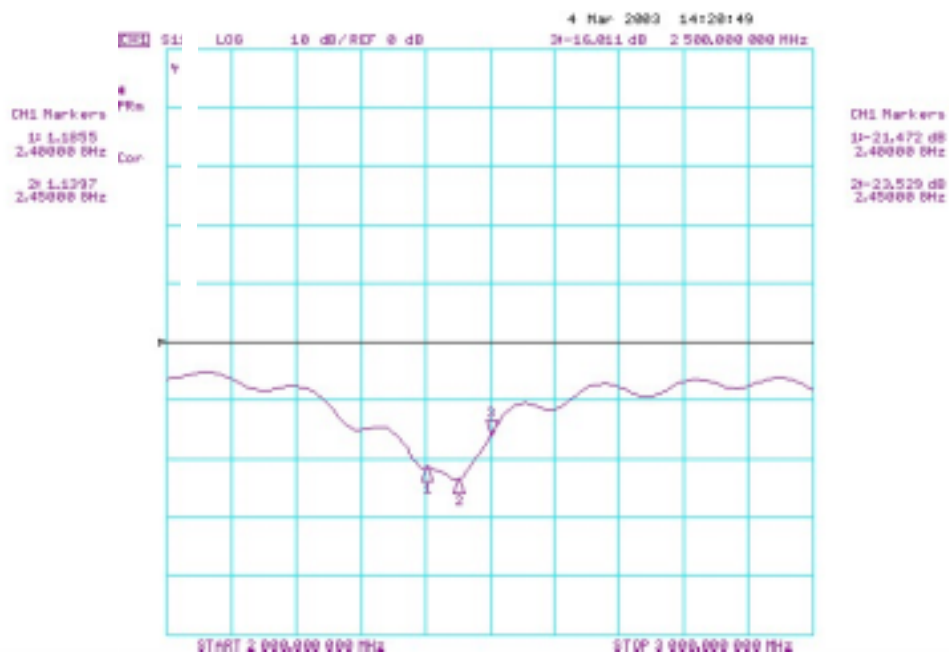
 廣寶電子股份有限公司 FAVORTRON CO., LTD.		
Title: W300N WLAN BOM 表		
Part No.	0002WFM24001	
Draw No.	ID-E-B0021-A1	
CUS Part No.	23-742R4-A71-1	
CUS Rev.	A01	
Approval	Check	Designed
		Jerry Lin

發 行	備 註
Date 22.04.25	Sheet 1/1

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

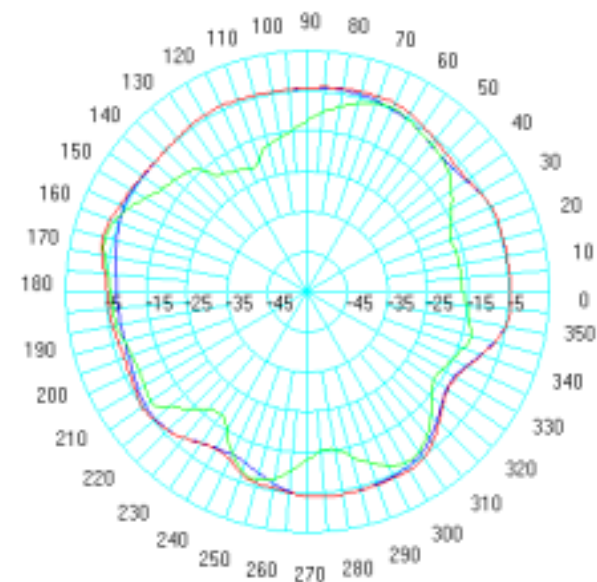
Date : 11.Mar .2003

(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



惠貿電子股份有限公司
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

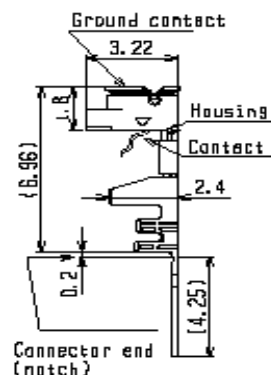
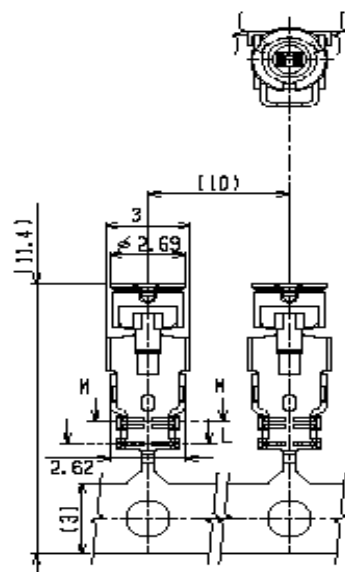
Date：11.Mar.2003

三、 SPECIFICATIONS:

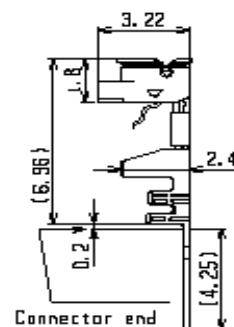
● Electrical Properties

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

PART NO.
20278-**-H-**-



Part No. 20278-101R-**-
For hand tool
(with notch)



Part No. 20278-111R-**-
For semi auto
termination machine
(without notch)

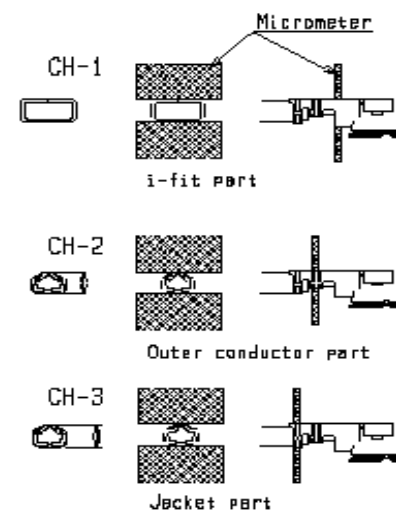
GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2°

FORM REV. 4

				4	Z2029	K.O	JAN/30/02	E.K	DESIGN'D BY	DATE	I-PEX Interconnect and Packaging Electronics TOKYO, JAPAN	HF series micro coaxial connector plug vertical	SCALE UNIT DWG. No. B/1 mm 20278	SHEET REV. 1/3 68
				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				
				1	Z1118	K.O	JUN/26/01	K.K	APP'D BY	DATE				
				0	Z1109	K.O	JUN/13/01	K.K	K. Katobuchi	JUN/13/01				
68	Z2146	K.O	JUN/24/02	K.K	REV	ECN	BY	DATE	APP	CUSTOMER COPY				
58	Z2117	A.H	MAY/17/02	K.K	REV. RECORD				PROJECTION					
REV	ECN	BY	DATE	APP	SERIES No.				2814					

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	2.09±0.1 1.36±0.1 1.16±0.1	1.55±0.1 0.82±0.1 1.7±0.1	2.09±0.1 1.36±0.1 1.16±0.1	2.09±0.1 1.36±0.1 1.16±0.1
Jacket Outer conductor silver or tin plating Dielectric core Inner conductor silver plating				
Braided shield of Outer conductor 外部導体の編組	Single / 1 6	Single / 1 6	Double / 2 6	Single / 1 6
P/N of hand Tool P/N of semi auto termination machine	<Under developing>	90187-019 90213-019	<Under developing>	<Under developing>
Sect. M-M				
Sect. L-L				
Crimp Height	CH-1	Under developing	1.34~1.40	Under developing
	CH-2	Under developing	1.06~1.14	Under developing
	CH-3	Under developing	1.15~1.35	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	Interconnect and Packaging Electronics TOKYO, JAPAN	
CHK'D BY	DATE		
APP'D BY	DATE		
CUSTOMER COPY	PROJECTION	SCALE 6/1	UNIT mm
		DWG. No. 20278	SHEET 2/3
		REV. 68	

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

1. 材 料

- (1) ハウジング: PBT, UL94V-0, 黒色
(2) コンタクト

: 銅
: 金メッキ

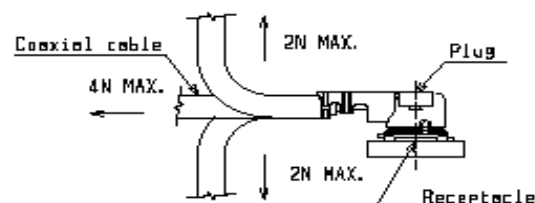
- (3) グランドコンタクト
: りん青銅, 金メッキ

2. 梱包 : リール

3. かん合相手 part No.
: 20279-001E-01

4. Permissible load of cable at mating

コネクタかん合後のケーブルに対する荷重



5. Suggestions for mating & unmating operation.

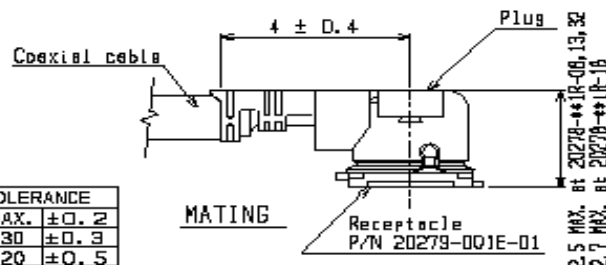
5-1 Mating.

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.

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、過度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

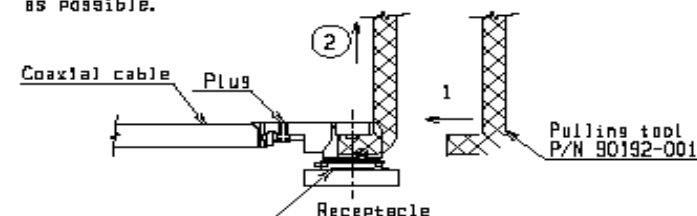
WAS T

5-2 Unmating.

5-2 コネクタ抜去時

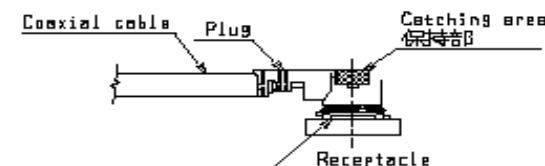
- (1) In case of unmating by pulling tool.
Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.

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



- (2) 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.

- (2) 手で直接抜き抜く場合
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
CHK'D BY	DATE		
APP'D BY	DATE		
CUSTOMER COPY	PROJECTION	SCALE	UNIT
		1:1	mm
TITLE		MF series micro coaxial connector plug vertical	
DWS. No.		20278	
SHEET		3/3	
REV.		68	

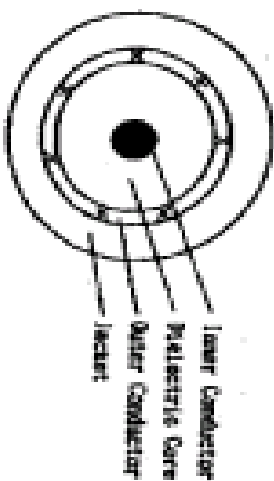
MUS 61-1

1. SCOPE

This specification covers Cable Radio Frequency, RF-RW18, which is product of MISSEI 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.

3. PERFORMANCE OF THE CABLE

3.1 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 MISSEI 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

SP830M-X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022) UL 1979		PAGE	
PRODUCT STANDARD			ISSUED	11-12-2001
			REVISED	18-3-2002

Table 1. Construction

Item	Material	Unit	Specified Value
	Stranding	No./mm	Silver coated annealed copper wire
Inner Conductor	Die.(approx.)		7/0.08
	Material		0.24
	Thick.(nom.)	mm	PBP 0.22
Dielectric Core	Die.	mm	0.58±0.05
	Color		Natural
	Material		Silver coated annealed copper wire
Outer Conductor	Type		Braid (16/4/0.05)
	Die.(approx)	mm	0.93
	Material		PBP
Jacket	Thick.(nom.)	mm	0.10
	Die.	mm	1.13 +0.10/-0.06
	Color		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 $\Omega \cdot \text{km}$	Min.1600	at 20°C
Dielectric strength	—	Dielectric core: No breakdown at AC1.8kV for 0.10sec.	Spark test
		Jacket: No breakdown at AC1.8kV for 0.15sec.	Spark test
Heat resistance for solder	—	No breakdown at AC500V for 1min.	Outer conductor to inner conductor
Capacitance Characteristic Impedance	pF/m Ω	Shrink or expansion of dielectric core are not more than 0.5mm nom. 98	※
Attenuation (nom.)	dB/m	50±2	TDR method
		2.0	1.0GHz
		2.0	2.0GHz
		3.6	3.0GHz
		4.2	4.0GHz
		4.7	6.0GHz
		5.2	6.0GHz

※ After immersion of dielectric core, 10mm into soldering pot which is 256°C ± 6°C for 6 seconds, shrinkage or expansion of the dielectric core must not exceed 0.5mm.

NOTE:

MADE BY	Y. Ishikawa
APPROVALS	T. Kikuchi

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	PDP	Thickness 0.23mm(nominal)	0.58±0.04mm -0.02
3	Outer Conductor	Silver-Coated Annealed Copper Wire	16/4/0.05	0.93mm(nominal)
4	Jacket	PDP * Standard color is Gray	Thickness 0.10mm(nominal)	1.13±0.08mm -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.	
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.	
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



華友材料科技股份有限公司
Sumi-Pac Corp.

應用高分子部營業課

在府中區東區南區181番地

9, 281 Chong-Poon (San Road) Section 4

Taipei, Taiwan, R.O.C.

TEL:02-2716-2800 FAX:02-2716-2881

TO: MRS.

DEC. 20, 2000

MATERIAL CERTIFICATION

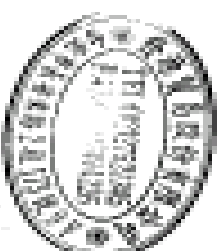
WE CERTIFY HEREBY THAT SUMITRE, MANUFACTURED BY " SUMIPAC CORPORATION ", DOES NOT CONTAIN ANY OZONE-DEPLETED MATERIALS, AND NEVER CONTACT OPGV DURING MANUFACTURING PROCESS. BESIDES, SUMITRE FFS CONFORM TO THE REQUIREMENT CONCERNING TOXICITY AS BELOW.

NAME OF PRODUCTS	SUMITRE FFE
MATERIAL GENERIC NAME	IRADIATION-INDUCIBLE HEAT-SHRINKABLE POLYOLIFIN TUBING (UL & CSA, 125 DEG. C & 250 DEG. C, V90, 1 RATING)
MANUFACTURER	SUMIPAC CORPORATION
TOXICITY	SUMITRE FFE CONTAINS FREE OF THE FOLLOWING MATERIALS: 1. TOXIC HEAVY METAL 2. BIOOXIDIZED MATERIAL AS BELOW: SOL. BARIUM (BA) PBIOS SOL. LEAD (PB) PBIOS SOL. CUPRUM (CU) PBIOS SOL. ANTIMONY (SB) SOL. SILENIUM (SI) SOL. CHROMIUM (CR) SOL. NICKEL (NI) SOL. ARSENIC (AS) AND ARSENITES


HSI-LING FUL

MANAGER

SUMIPAC CORPORATION



Y08V2 July 20, 1994
Component - Extruded Tubing, Electrical
SUNTOMO ELECTRIC INDUSTRIES LTD
IRRADIATED PRODUCTS DIV

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

Irradiated flexible heat shrinkable polymeric.					
Shrinkage F12	400	125	1	+	Yes
425 or	400	125	1	+	Yes
Shrinkage B2					
Shrinkage F5	400	125	1	+	Yes
425 or	400	105	1	+	Yes
Shrinkage F97					
440 or	400	125	1	+	Yes
Shrinkage F205					
442 or	200	125	1	+	Yes
Shrinkage F425					
444 or S4412	400	125	1	+	Yes
453 or S4523	400	125	1	+	Yes
425 or	400	105	1	+	Yes
Shrinkage F775					

Report February 18, 1973.

Replaces E48762C dated June 21, 1994.
200120001 NC25 Underwriters Laboratories Inc.*

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