



承認書

APPROVAL SHEET

客戶名稱

CUSTOMER

: 泰鉅科技股份有限公司

品名

DESCRIPTION

: 2.4G ANTENNA SMA PLUG REVERSE L=10CM 黑色(ROHS)

型號

PART NO.

: 100SPR-A

客戶料號

PART NO.

:

變更項目

:

名晨(電子)股份有限公司		APPROVALED NO:
DOCU. NO:		客戶承認簽章 APPROVED SIGNATURES
工程出圖	楊浩	
業務	吳建成	
核准 Approved By	JOHNNY	
日期 DATE: 2005/9/20		日期 DATE:

名晨(電子)股份有限公司

MY-CHANCE ELECTRONIC CO., LTD.

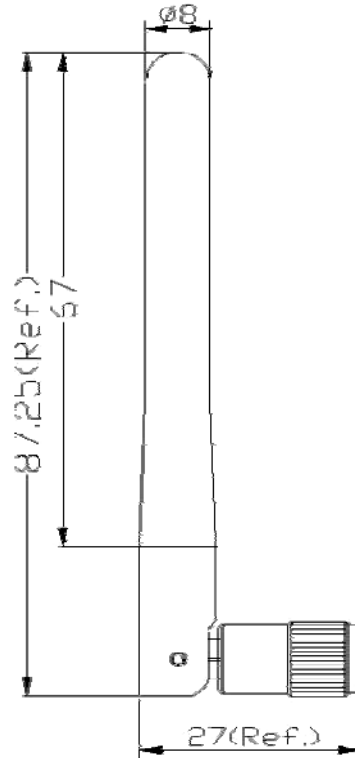
桃園縣蘆竹鄉龍安街二段 185 號

TEL:886-3-3699978

FAX:886-3-3608382

SPECIFICATION

Part Name 2.4GHz Antenna
 Part Number 100SPR-A



Electrical Properties

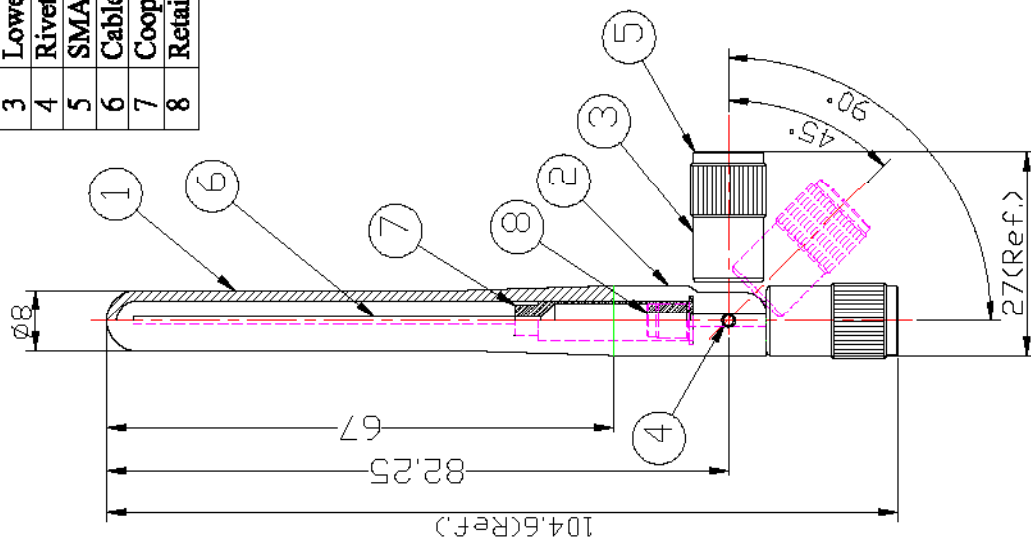
Frequency Range	2.4~2.5GHz
Impedance	50 Ohms nominal
V.S.W.R	2.0 (Max.)
Gain	1.6dbi
Polarization	Vertical
Radiation	0mni
Electrical Wave	1/4 λ Dipole

Mechanical Properties:

Cable	RG-178
Antenna Cover	Polyurethane (TPE)
Antenna Base	Polyurethane (ABS)
Color	Black
Operation Temperature	-20°C~+65°C
Storage Tempersture	-30°C~+75°C

B.O.M

Item	Name	Dwg. No	Spec.	Material.	QTY	Surface	Note.
1	Main Sleeve	PT-B00-003	φ 9.3x φ 6x78L	TPE	1	Black	
2	Upper Base	PT-B01-001	φ 9.3x20L	ABS	1	Black	
3	Lower Base	PT-B02-001	φ 9.3x16L	ABS	1	Black	
4	Rivet	MA-B00-001	φ 1.8x3.5L	C3604	2	Zinc Black	
5	SMA Connector				1		
6	Cable	RG-178			1		
7	Cooper Tube	MA-A01-001	φ 5.2x23L	cooper	1	Nickel	
8	Retainer	PA-A00-001	φ 4.6x6L	p.o.m	1	white	



尺寸公差	B	C	D	E	角度公差	±3°
1.0↓	±0.025	±0.05	±0.1	±0.25	Angular	±3°
1.0-2.0	±0.03	±0.06	±0.13	±0.3	Tolerance	
2.0-4.0	±0.04	±0.08	±0.16	±0.4		
4.0-8.0	±0.05	±0.1	±0.2	±0.5		
8.0-16	±0.06	±0.13	±0.25	±0.6		
16-31.5	±0.08	±0.16	±0.3	±0.8	50-100	±0.5
31.5-50	±0.1	±0.2	±0.4	±1.0		
50-125	±0.13	±0.25	±0.5	±1.25	5-50	±0.3
125-250	±0.16	±0.3	±0.6	±1.6		
250-500	±0.2	±0.4	±0.8	±2.0	5↓	±0.2
500↑	±0.25	±0.5	±1.0	±2.5		

名晨(電子)股份有限公司

MY-CHANCE ELECTRONIC CO.:LTD

機種 100SPR-A

圖號 WBC-05BK-C001

名稱 2.4Ghz Antenna

單位 mm

比例 1:1

公差 E

材質

表面

日期

繪圖 Yang

檢圖

核准 River

版次

日期

校

說

明

正

記

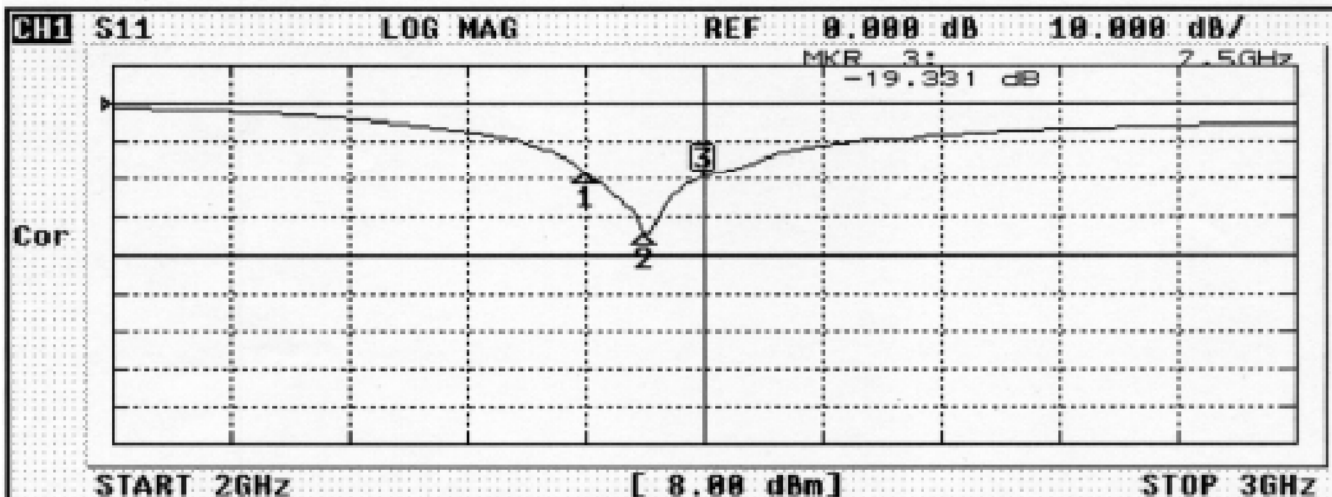
錄

4

客戶

RETURN LOSS Test Chart

2004/11/01 Mon 8:53:09

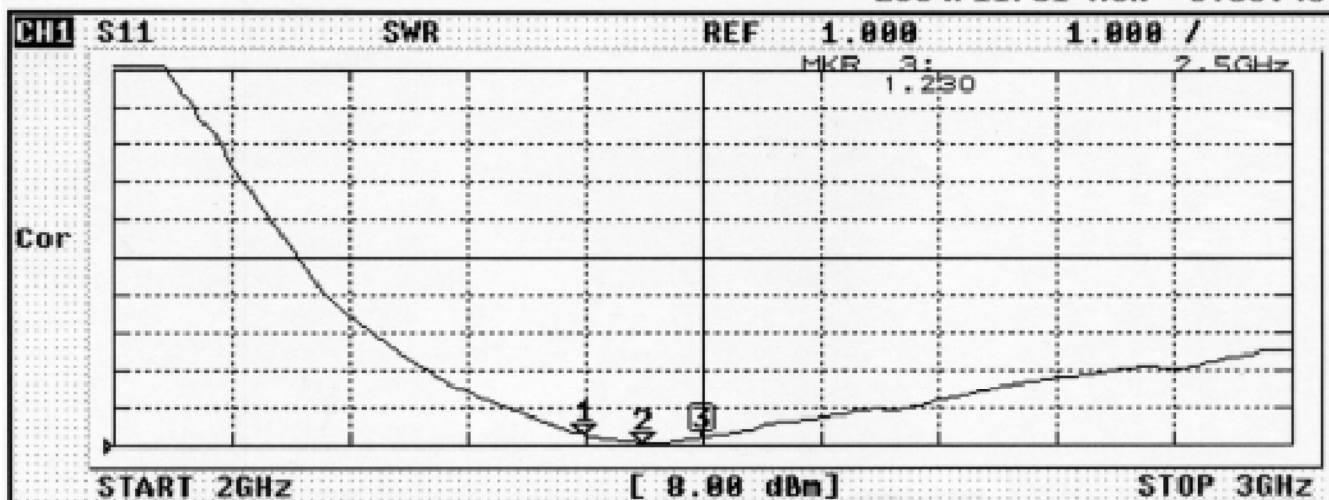


CH1 MARKER LIST

1:	2.400 000GHz	-18.310 dB
2:	2.450 000GHz	-33.873 dB
3:	2.500 000GHz	-19.333 dB
4:		
5:		
6:		
7:		
8:		
9:		
10:		

V.S.W.R Test Results

2004/11/01 Mon 8:53:43



CH1 MARKER LIST

1:	2.400 000GHz	1.295
2:	2.450 000GHz	1.047
3:	2.500 000GHz	1.231
4:		
5:		
6:		
7:		
8:		
9:		
10:		



Advance Data Technology Corporation

誠信科技股份有限公司

http://www.adt.com.tw/ E-mail: service@adt.com.tw

Hwa Ya Lab : No.19, Hwa Ya 2nd RD, Kueishan, Taoyuan, Taiwan, R.O.C.

Tel (03) 318-3232 Fax (03) 318-5050

Tayuan Lab : 13-1 Lane 19, Wen Shan 3rd St., Kueishan, Taoyuan, Taiwan, R.O.C.

Tel (03) 327-0910 Fax (03) 327-0892

Hsinchu Lab: 81-1 Luliakeng, 8th Lin, Wulung Tsuen, Chunglin, Hsinchu, Taiwan, R.O.C.

Tel (03) 593-5343 Fax (03) 593-5342

Brand / Model : WBC-05BK-C001

Remark : ANT E1

Tested by : LAWRENCE

EUT description :

Location: RF Chamber3

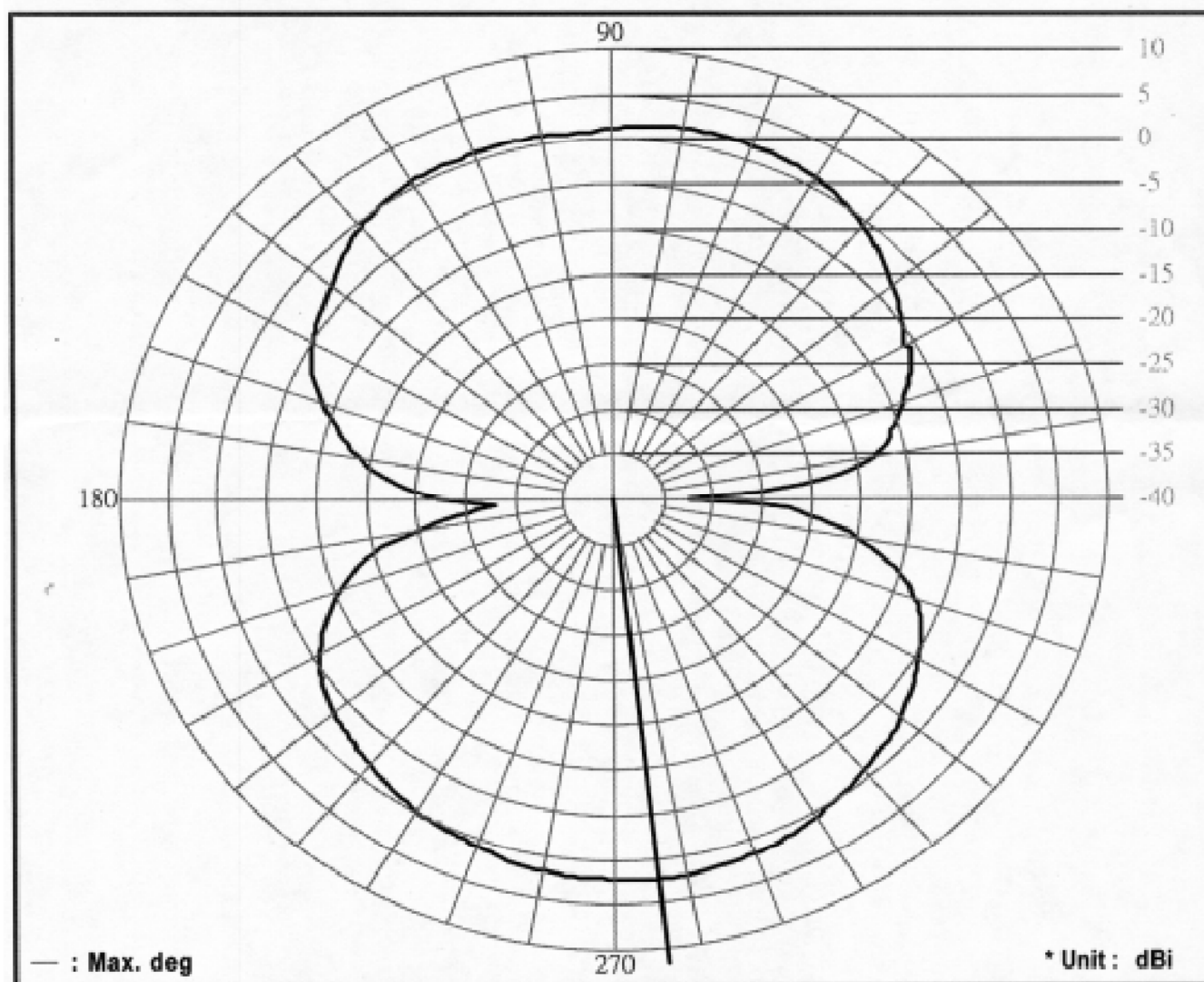
Date: 2004/10/29

Time: 19:47:06

Temperatuer (°C): 25

Humidity (%): 75

Approved by:



Frequency (MHz) : 2450.00

Antenna Polarity : Horizontal

Average Gain (dB) : -1.25

Maximum Gain (dB) : 2.52

Maximum Gain (degree) : 276

Minimum Gain (dB) : -32.19

Minimum Gain (degree) : 360

C:\Antenna Pattern V5.1\Graph\1029\10290002.png



Advance Data Technology Corporation

誠信科技股份有限公司

Hwa Ya Lab : No.19, Hwa Ya 2nd RD, Kueishan, Taoyuan, Taiwan, R.O.C.

Tayuan Lab : 13-1 Lane 19, Wen Shan 3rd St., Kueishan, Taoyuan, Taiwan, R.O.C.

Hsinchu Lab: 81-1 Luliakeng, 9th Lin, Wulung Tsuen, Chunglin, Hsinchu, Taiwan, R.O.C.

<http://www.adt.com.tw/> E-mail: service@adt.com.tw

Tel (03) 318-3232 Fax (03) 318-5050

Tel (03) 327-0910 Fax (03) 327-0892

Tel (03) 593-5343 Fax (03) 593-5342

Brand / Model : WBC-05BK-C001

Remark : ANT H

Tested by : LAWRENCE

EUT description :

Location: **RF Chamber3**

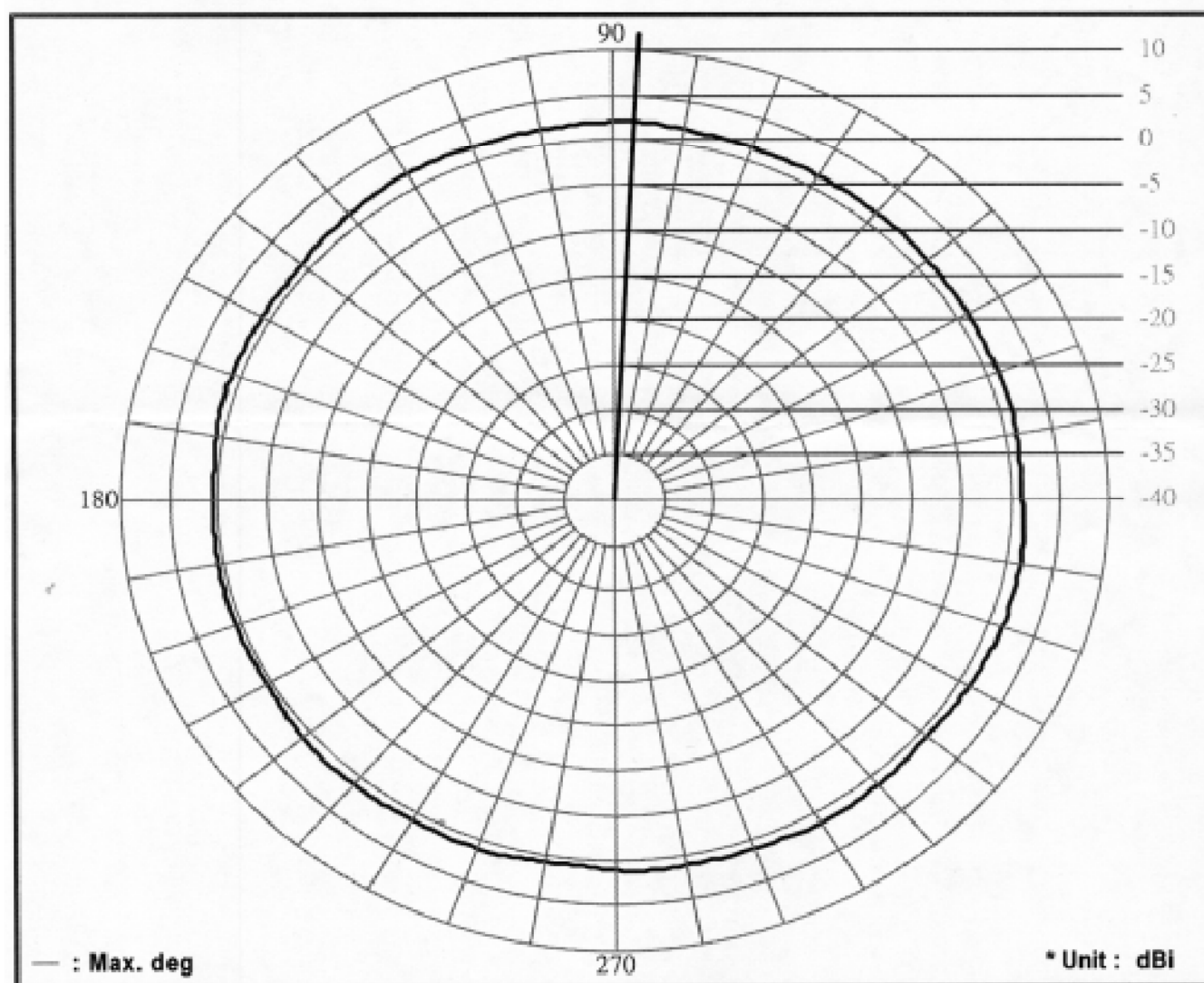
Date: **2004/10/29**

Time: **19:40:38**

Temperatuer (°C): **25**

Humidity (%): **75**

Approved by:



Frequency (MHz): **2450.00**

Antenna Polarity: **Vertical**

Average Gain (dB): **1.36**

Maximum Gain (dB): **2.12**

Maximum Gain (degree): **87**

Minimum Gain (dB): **0.52**

Minimum Gain (degree): **177**

C:\Antenna Pattern V5.1\Graph\1029\10290001.png

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).



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 perlets

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

TEL: (06)2663000

FAX: (06)2665555-7

□ Taipei Office: 8th Fl., Chi Mei Bldg.,
No. 9, Ai-Kuo West Road
Taipei, Taiwan.

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		檢測值	
	ASTM			
✓ PA-765A 4Q561021	Tensile Strength (kg/cm2)	Break	D 638	300.00
	引張強度			
	Tensile Strength (kg/cm2)	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				





Test Report

WGJ COMPANY LTD.
NO. 5, TING FU 5 TH STREET, KWEI SHAN HSIANG,
TAOYUAN HSIEN, TAIWAN

Report No. : CE/2005/43135
Date : 2005/04/22
Page : 1 of 4

The following merchandise was (were) submitted and identified by the client as :

Type of Product : DSM ARNITEL TPEE
Style/Item No : EM400, EM460, EL550, EL630, EM740
Sample Received : 2005/04/15
Testing Date : 2005/04/15 TO 2005/04/22

=====
Conclusion : The test results of Pb, Cd, Hg, Cr+6, PBB and PBDE for
the submitted sample which is comply with the
requirements of RoHS (2002/95/EC).


Daniel Yen, M.P., Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

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Test Report

WGJ COMPANY LTD.
NO. 5, TING FU 5 TH STREET, KWEI SHAN HSIANG,
TAOYUAN HSIEN, TAIWAN

Report No. : CE/2005/43135
Date : 2005/04/22
Page : 2 of 4

Test Result

PART NAME NO.1 : WHITE PLASTIC PELLETS (PLEASE REFER TO THE PHOTO ATTACHED)

PASS

Test Item (s):	Unit	Method	MDL	Result	Limit of ROHS
				No.1	
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD; LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	-
Dibromobiphenyl	%		0.0005	N.D.	-
Tribromobiphenyl	%		0.0005	N.D.	-
Tetrabromobiphenyl	%		0.0005	N.D.	-
Pentabromobiphenyl	%		0.0005	N.D.	-
Hexabromobiphenyl	%		0.0005	N.D.	-
Heptabromobiphenyl	%		0.0005	N.D.	-
Octabromobiphenyl	%		0.0005	N.D.	-
Nonabromobiphenyl	%		0.0005	N.D.	-
Decabromobiphenyl	%		0.0005	N.D.	-
Total PBBs(Polybrominated biphenyls)/Sum of above	%		-	N.D.	0.1
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD; LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	-
Dibromobiphenyl ether	%		0.0005	N.D.	-
Tribromobiphenyl ether	%		0.0005	N.D.	-
Tetrabromobiphenyl ether	%		0.0005	N.D.	-
Pentabromobiphenyl ether	%		0.0005	N.D.	-
Hexabromobiphenyl ether	%		0.0005	N.D.	-
Heptabromobiphenyl ether	%		0.0005	N.D.	-
Octabromobiphenyl ether	%		0.0005	N.D.	-
Nonabromobiphenyl ether	%		0.0005	N.D.	-
Decabromobiphenyl ether	%		0.0005	N.D.	-
Total PBBEs(PBDEs)(Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.	0.1

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Report No. : CE/2005/43135
Date : 2005/04/22
Page : 3 of 4

PASS

Test Item (s):	Unit	Method	MDL	Result	Limit of ROHS
				No.1	
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.	1000
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.	100
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.	1000
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3050B or other acid digestion.	2	N.D.	1000

NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) " --- " = Not Applicable
(5) " - " = No Regulation

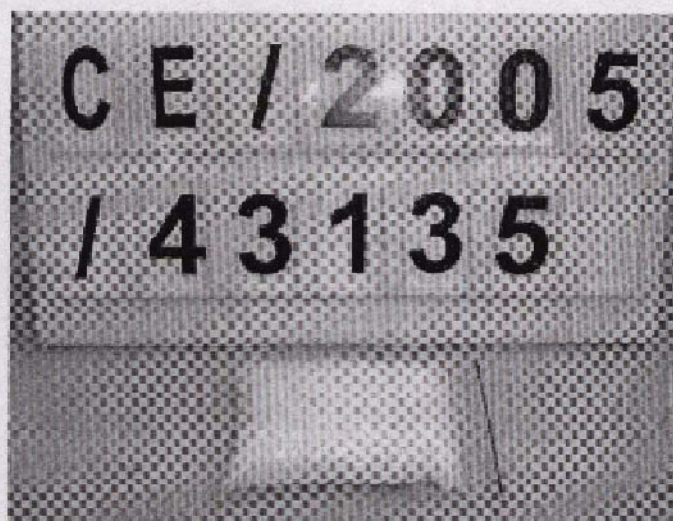
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Test Report

WGJ COMPANY LTD.
NO. 5, TING FU 5 TH STREET, KWEI SHAN HSIANG,
TAOYUAN HSIEN, TAIWAN

Report No. : CE/2005/43135
Date : 2005/04/22
Page : 4 of 4



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SGS TAIWAN (TAT) LTD.

NO. 136-1, Wu Kung Road, Wu Ku Industrial Zone, Taipei county, Taiwan.
(886-2) 22490839 / 6565-2 / 2299-9237 www.sgs.com.tw

TEST REPORT

APPLICANT

CHI MEI CORPORATION

No. 59-1, San Chia, Jen Te Shiang,
Tainan County, Taiwan, R.O.C.

SAMPLE DESCRIPTION

One (1) group of submitted samples said to be :

Product Description : ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER

Style/Item No. : POLYLAC PA-709

Color : NATURAL

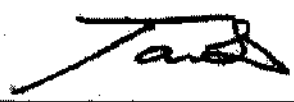
Date sample received : Oct. 19, 2004

Date test started : Oct. 21, 2004

TEST CONDUCTED

As requested by the applicant, for details please refer to attached page.

Prepared and checked by :
For Intertek Testing Services
Taiwan Limited


Jacob Lin
General Manager



This report shall not be
reproduced except in full,
without the written approval
of the laboratory.

Intertek Testing Services Taiwan Ltd.
8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan, R.O.C.

全國公證檢驗股份有限公司
114台北市內湖區瑞光路423號8樓
Tel: (+886-2) 6602-2886 · 2797-8885 Fax: (+886-2) 6602-2410

TEST CONDUCTED

(A) Test result summary :

Testing item	Result (ppm)
	Submitted samples
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr ⁶⁺) content	ND
PBBs/PBDEs	ND

Remarks : ppm = Parts per million

ND = Not detected

(B) Test method :

Testing item	Testing method	Reporting limit
Cadmium (Cd) content	With reference to EN 1122, by acid digestion and determined by ICP-OES	2 ppm
Lead (Pb) content	With reference to USEPA 3050B, by acid digestion and determined by ICP-OES	2 ppm
Mercury (Hg) content	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Chromium VI (Cr ⁶⁺) content	With reference to USEPA 3060A & 7196A, by alkaline digestion and determined by UV-Vis	1 ppm
PBBs/PBDEs	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD	10 ppm

Remark : Reporting limit = Quantitation limit of analyte in sample solution

- END -

Intertek Testing Services Taiwan Ltd.

8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan, R.O.C.

全國公證檢驗股份有限公司

114台北市內湖區瑞光路423號8樓

Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2410



Test Report

元祥金屬工業股份有限公司
*500彰化縣彰化市彰水路175號

報告號碼 : CE/2005/3569

日期 : 2005/04/01

以下測試樣品乃係應廠商所提供及確認：

樣品名稱 : C6801
產品型號 :
收件日期 : 2005/03/26.
測試日期 : 2005/03/25 TO 2005/04/01

測試結果

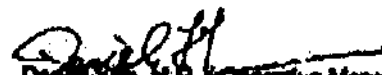
測試部位 NO.1 : 鋼色金屬棒(請參照附件圖片)

測試項目:	單位	測試方法	偵測極限值	結果
				NO.1
六價鉻	ppm	依照US EPA 7196A及3060A方法	2	N.D.
鎳	ppm	依照 EN1122 方法B:2001或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析	2	N.D.
汞	ppm	依照 US EPA 3052 方法或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析	2	N.D.
鉛	ppm	依照 US EPA 3050B 方法或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析	2	66.9

備註: (1) N.D. = Not detected. (<MDL) / 未檢出(低於偵測極限值)

(2) ppm = $\mu\text{g}/\text{kg}$ 百萬分之一

(3) MDL= Method Detection Limit(偵測極限值)


Daniel Yen, M.P., Operations Manager
Signed for and on behalf of
SGS TAIWAN LTD.

Report issued by the Company subject to its General conditions of Service printed on test. Attention is drawn to the limitation of liability, indemnification, and other usage defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be used, except in full, without prior written permission of the Company. 此報告僅為本公司(以下簡稱SGS)之測試結果,其內容不得作為其他用途。本公司之測試結果,僅供客戶參考,不得作為其他用途。本公司之測試結果,僅供客戶參考,不得作為其他用途。

17049

No. 3, Wu Chuan Road, Wuu Industrial Zone, Taipei County, Taiwan / 台北縣五股工業區五權路33號
台灣檢驗科技股份有限公司 | 1666-21228-3335 | 1666-21228-1237 | www.tw.sgs.com

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

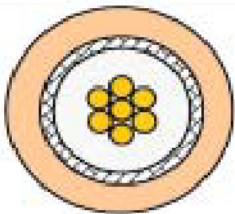
TEL : (02)22988033
FAX : (02)22988031-2

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

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

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		

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EDITION : 1.1

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

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REVISED DATE :

APPROVAL : W.J.WANG

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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	

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