



明泰科技

零組件承認/申請報告書

編號：E7412

2003/12/27

Alpha P/N : 505900035410		申請者：顧崇輝	主管：張世宗																								
零組件品名： ANTE. CABLE 2.4G L=130mm																											
原製造廠商：WANSHIN(577800)		原廠編號：THW0354A																									
在台代理商：萬旭		連絡人：洪世澤	電話：(02)22988066#481																								
應用機種：WMP-G02																											
COMMENTS：																											
<table border="1"> <tr> <td>測試結果</td> <td colspan="3"></td> </tr> <tr> <td colspan="4">在 WMP-G02 機種上測試 OK</td> </tr> <tr> <td colspan="4">1 ST SOURCE</td> </tr> <tr> <td colspan="3"></td> <td>//顧崇輝 #3566</td> </tr> <tr> <td colspan="2">主管：王椅楠</td> <td colspan="2">承辦者：周禎義</td> </tr> <tr> <td colspan="2"></td> <td>測試人：</td> <td>日期：2003/12/25</td> </tr> </table>				測試結果				在 WMP-G02 機種上測試 OK				1 ST SOURCE							//顧崇輝 #3566	主管：王椅楠		承辦者：周禎義				測試人：	日期：2003/12/25
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		測試人：	日期：2003/12/25																								
機構	R&D		PM																								
生技	資材		品管																								
結果	合格	否決	其它																								
		審核	王椅楠 2003/12/25																								

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

明泰科技股份有限公司

日 期
DATE

92 年 12 月 15 日

品 名
DESCRIPTION

WPF001 2.4 GHz Wireless PIFA
With MHF (L=130)

客 戶 料 號
CUSTOMER P/N

成 品 編 號
Part NO.

THW0354A



萬旭電業股份有限公司

WANSHIH ELECTRONIC CO., LTD.

台北縣五股鄉五工六路 72 號 3 樓

3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT

TAIPEI HSIEN, TAIWAN, R.O.C.

TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

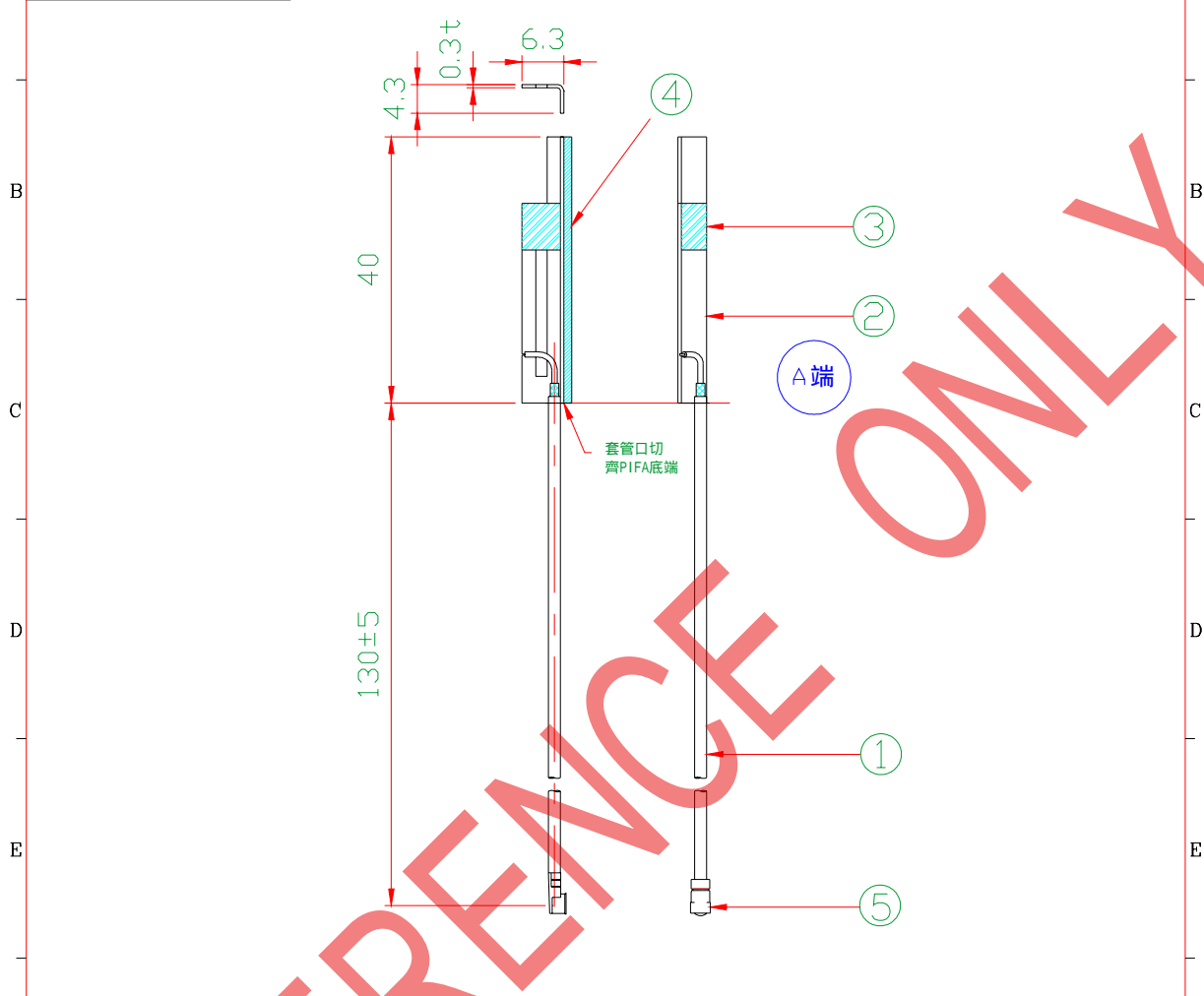
Table of Contents

Table of Contents	.....	1
Specification	.....	2
Antenna Drawing	.....	3
Install position		4
Electrical Properties		
Return Loss	.....	5
V.S.W.R	.....	6
Radiation Pattern	.....	7-8
Material Data Sheet		
Coaxial Cable	.....	9-11
MHF Connector	.....	12-14

SPECIFICATION

1. Description : 2.4 GHz Wireless PIFA
With MHF Connector
2. Customer : 明泰科技股份有限公司
3. Model No. : WPF001
4. Part No. : THW0354A
5. Standard : IEEE 802.11 b/g Wireless LAN
6. Antenna Profile : 40*6.3*4.3
7. Lead Length : 130mm
8. Electrical Characteristics
- Operating Frequency : 2.4~2.5GHz
 - Antenna Type : PIFA
 - Polarization Type : Linear
 - Type of Radiation : Toroid
 - Antenna Peak Gain : -3 dBi (after install)
 - Impedance : 50 Ohm nominal
 - V.S.W.R. : 2.3:1 Max.
9. Mechanical Characteristics
- Connector : I-PEX MHF
10. Raw Material
- Coaxial Cable : Mini-1.13 Coaxial Cable

TOLERANCES:		版次	修訂日期	ECR NO.	作成	設計變更內容簡述		
X	± 1							
X.X	± 0.5							
X.XX	± 0.2							
ANGULAR	± 5.0°							



作業說明：

1. PIFA組立，依照WSW0018 PIFA作業標準指導書規定製作，依據AQ-0018A QC管理工程圖，執行品質管制。
2. 依WSW0010A 1.13 Mini Coaxial Cable With MHF作業標準指導書規定，依據AQ-0010A QC管理工程圖，執行品質管制。

5	MHF Connector	272027811R13JP	20278-111R-13 (I-PEX)	金	1	或同級品		
4	壓克力泡棉	623M49450440GL	3M 4945 壓克力泡棉膠帶 W4mm*H1.1mm*L40mm	白	1	或同級品		
3	壓縮泡棉	69A155604070GW	P.E-LITE A-155 壓縮泡棉 W6*H4*L7	白	1	或同級品		
2	PIFA 本體	29PIFA403000WG	PIFA 本體 40-30		1	或同級品		
1	RG-1.13 Coaxial Cable	19MINIRG00A0AE	MINI RG OD:1.13(萬泰)	灰	145	或同級品		
NO	材料名稱	環材	電腦編號	零件規格	顏色	切斷尺寸	用量	備註

修訂日期：		制訂日期：92/12/04		承認圖號			
頁數：1/1	核准	審查	作成	品名		2.4 GHz Wireless PIFA with MHF (L=130)	
第三角法	林晉興	Arthur	郭雅珍	成品編號		REV	VERSION
單位：mm				THW0354		A	1
比例：FREE							

萬旭電業股份有限公司

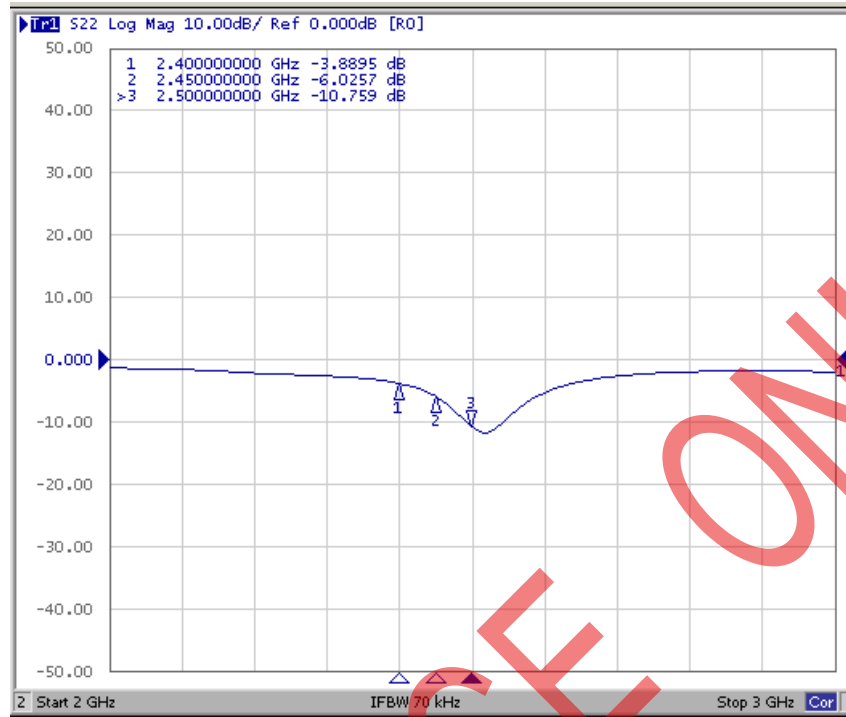
文件編號：FMT-0513-C7

Installation Position

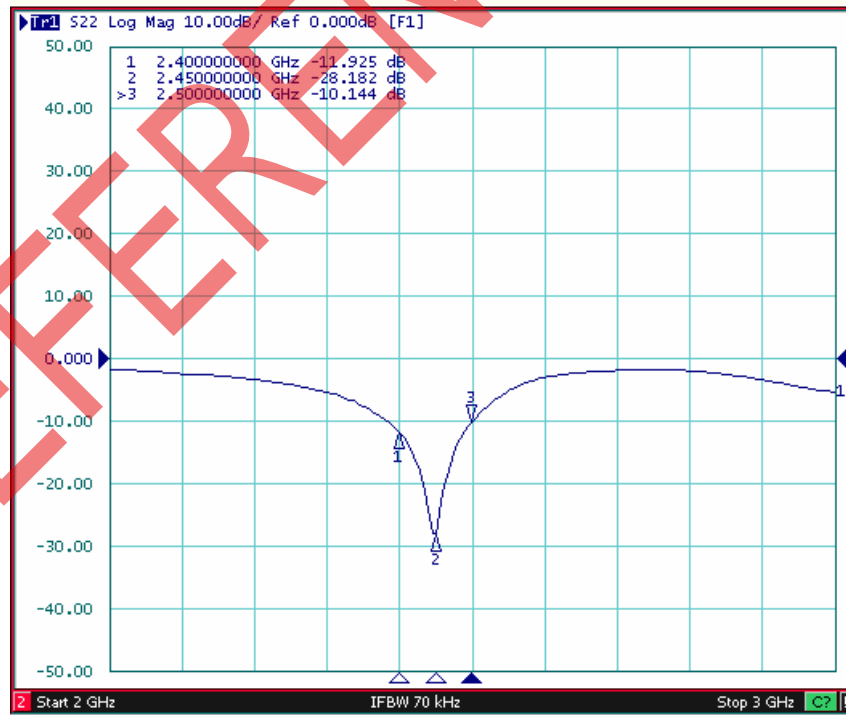


Electrical Properties

Typical Return Loss (Before install in AP)



Typical Return Loss (After install in AP)



Electrical Properties

Typical V.S.W.R(after install in AP)



Electrical Properties

Radiation Pattern – H Plane(after install in AP)

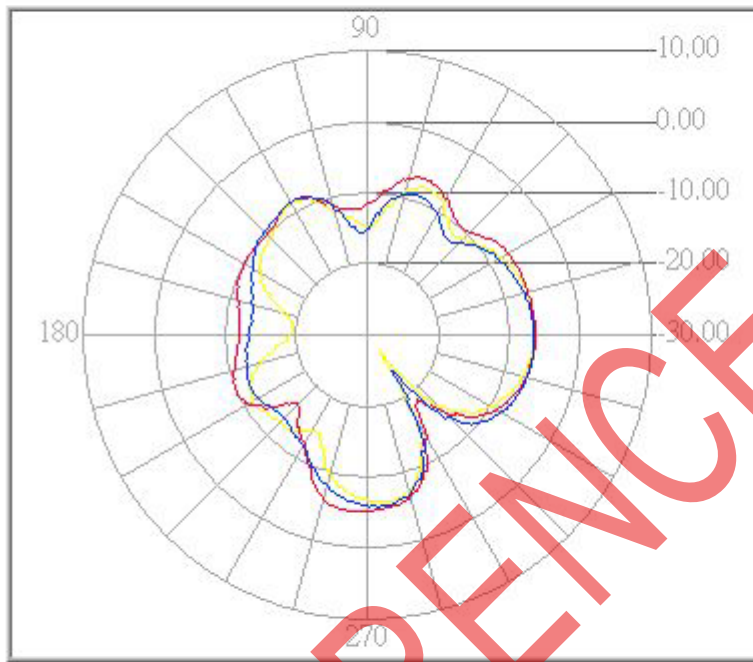


萬旭電業股份有限公司

Model No: THW 2.45G

Antenna Position: Vertical

Test Mode: H-PLANE



Freq(MHz)	Peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-6.37	275.51	-10.07
2450.00	-5.07	263.27	-8.79
2490.00	-5.80	274.29	-9.60

Test engineer: _____

Test date: 2003/12/4 at PM 08:42

Electrical Properties

Radiation Pattern – E Plane (after install in AP)

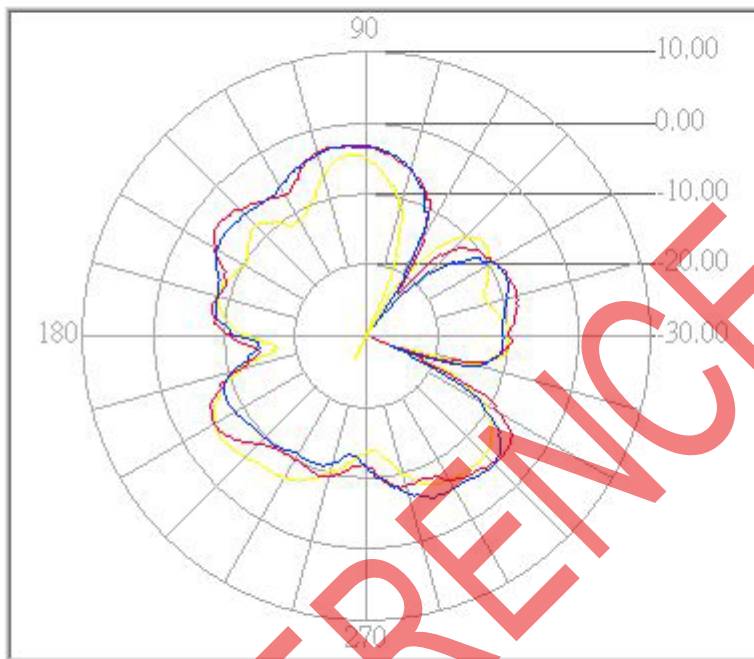


萬旭電業股份有限公司

Model No: THW 2.45G

Antenna Position: Horizontal

Test Mode: E-PLANE



Freq(MHz)	Peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-4.44	95.51	-8.92
2450.00	-3.08	100.41	-7.40
2490.00	-3.07	95.51	-7.74

Test engineer: _____

Test date: 2003/12/4 at PM 08:36

Material Data Sheet

Mini-1.13 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A3132SP001

STYLE : 200°C 30V

SIZE: 32AWG×1C
SP 7/0.080 1.13 mm

RECOGNIZED:

WONDERFUL HI-TECH CO.,LTD.

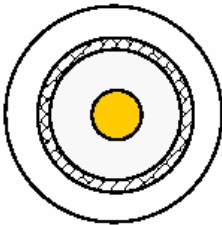
OFFICE : 72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN,TAIWAN

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 : A3132SP001	
SIZE	32AWG	ESTABLISHED DATE: 2003/01/16	
STANDARD :			
Conductor	Size	AWG	32
	Material	----	Silver-Coated Copper
	Conductors No.	----	7
	Conductors Size	mm	0.080
	O.D.	mm	0.240
Insulation	Average Thickness	mm	0.22
	Diameter	mm	0.68 ± 0.02
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Silver-Coated Copper
	Construction	mm	16 / 4 / 0.050
	Cross No.	----	20
	Coverage	%	90
Jacket	Average Thickness	mm	0.13
	Diameter	mm	1.13 ±0.05
	Material	----	FEP
	Color	----	According to custom
Marking	NON		
Drawing			

AK001/210X297/1.0

PAGE : 1

EDITION : 1.1

REVISED DATE :

MAKER :

CONFIRM :

APPROVAL :

WONDERFUL HI-TECH CO., LTD.
SPECIFICATION

Electrical & Physical Properties					
Item		32AWG			
Rating Temp Voltage		200°C 30V			
Conductor Resistance		545 OHM/KM/20°C MAX.			
Insulation Resistance		100 MEGA OHM/KM MIN.			
Dielectric Strength		AC 1.0 KV/Minute			
Spark Test		0.5 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 ± 3 Ohms			
Nom. Capacitance		96 ± 3 pF/m			
Nom. Vel. of Prop.		69%			
VSWR Test (0 – 6 GHZ)		Less 1.3			
Flame Test		VW-1 OK			
Attenuation (dB/1m)	100MHZ	400MHZ	1.8GHZ	2.4GHZ	5.2GHZ
	0.60	1.25	2.23	2.70	4.15

AK001/210X297/1.0

PAGE : 2

EDITION : 1.1

REVISED DATE :

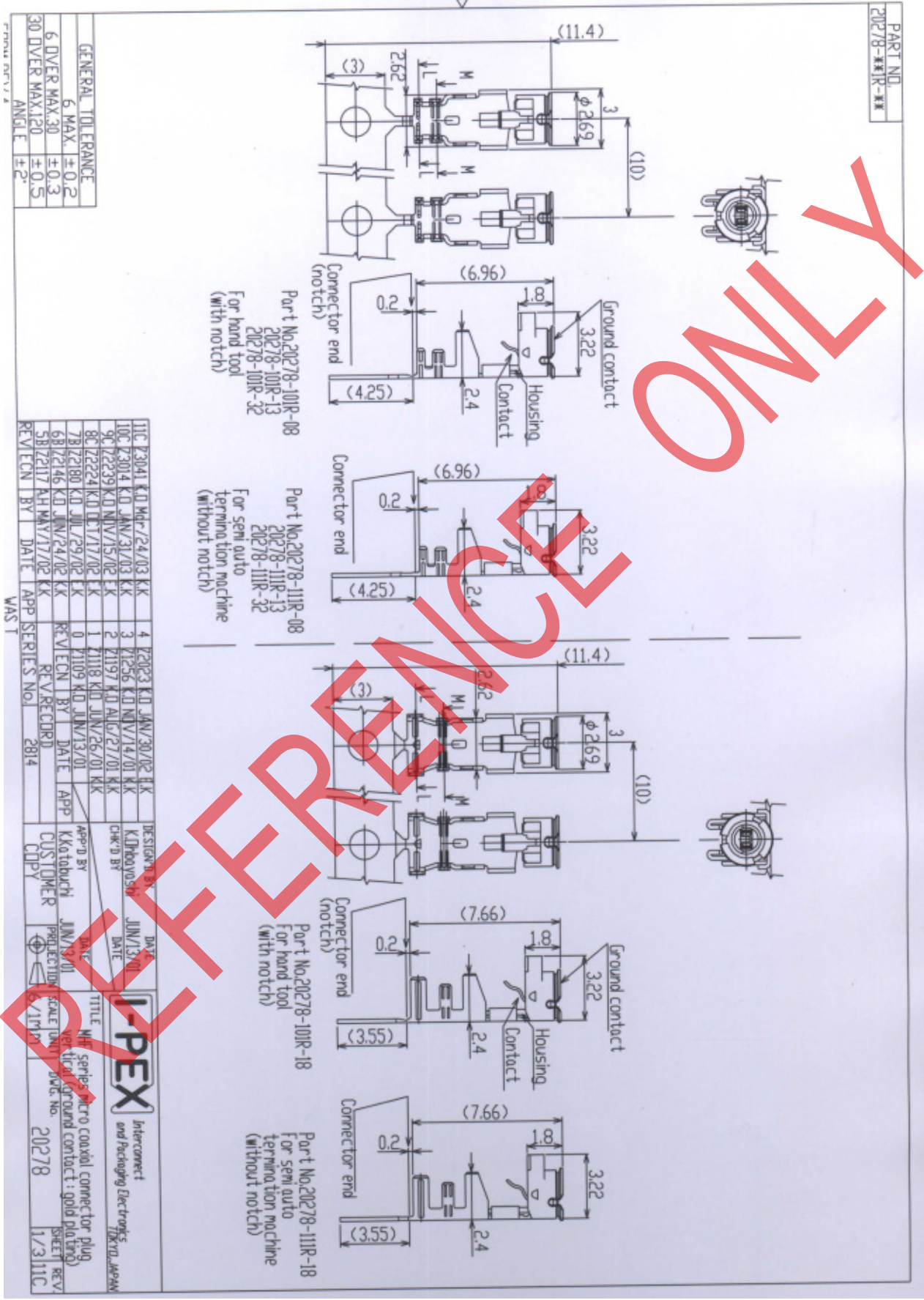
MAKER :

CONFIRM :

APPROVAL :

Material Data Sheet

I-PEX MHF



PART NO.
20278-111R-13

GENERAL TOLERANCE

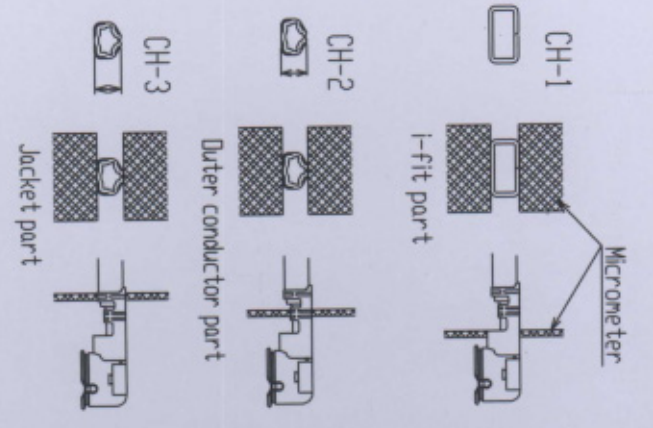
6 MAX.	±0.2
6 OVER MAX.30	±0.3
30 OVER MAX.120	±0.5
ANGLE	±2°

TIC P3041	K.D	MAR/24/03	K.K	4	Z2023	K.D	JAN/30/02	E.K
10C Z3014	K.D	JAN/31/03	K.K	3	W256	K.D	NOV/14/01	K.K
9C Z2239	K.D	NOV/15/02	E.K	2	Z197	K.D	AUG/27/01	K.K
8C Z2224	K.D	DEC/17/02	E.K	1	Z1118	K.D	JUN/26/01	K.K
7B Z2180	K.D	JUL/29/02	E.K	0	Z1109	K.D	JUN/13/01	K.K
6B Z2146	K.D	JUN/24/02	E.K					
5B Z2117	AH	MAY/17/02	K.K					

DESIGN BY	K.D/HOOYOSH	DATE	JUN/13/01
CHK'D BY			
APP'D BY	Katohuchi	DATE	JUN/13/01
CUSTOMER	CDPY	SCALE	1/3
PROJECT NO.	20278	SHEET	REV
TITLE	I-PEX Interconnect and Packaging Die-tronics TOKYO, JAPAN		
MHF series micro coaxial connector plug (ver.1) (ground contact : gold plating)			

MAST

Part No.	Applicable cable nominal dimension	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	P/N of hand Tool	P/N of semi auto termination machine	Sect. L-L	Crimp Height		
							CH-1	CH-2	CH-3
20278-10R-08 20278-11R-08	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1	$\phi 0.81$ Nominal $(\phi 0.65)$ $\phi 0.4$ Nominal AWG#36(7/0.05)	Single / 1重編組	90187-008C	90213-008C		1.34~1.40	0.76~0.84	0.85~0.97
20278-10R-13 20278-11R-13	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1	$\phi 1.13$ Nominal $(\phi 0.93)$ $\phi 0.68$ Nominal AWG#32(7/0.08)	Single / 1重編組	90187-013C	90213-013C		1.34~1.40	1.06~1.14	1.15~1.35
20278-10R-32 20278-11R-32	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1	$\phi 1.32$ Nominal $(\phi 1.12)$ $\phi 0.66$ Nominal AWG#32(7/0.08)	Double / 2重編組	90187-032C	90213-032C		1.34~1.40	1.20~1.30	1.26~1.46
20278-10R-18 20278-11R-18	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1	$\phi 1.8$ Nominal RG178 B/V $(\phi 1.35)$ $\phi 0.84$ Nominal AWG#30(7/0.102)	Single / 1重編組	90233-018	90232-018		1.34~1.40	1.41~1.49	1.70~1.80



Crimp Height

GENERAL TOLERANCE

6 MAX.	± 0.2
6 OVER MAX.30	± 0.3
30 OVER MAX.120	± 0.5
ANGLE	$\pm 2^\circ$

DESIGNED BY	DATE	CHK'D BY	DATE	APPR'D BY	DATE
REVECN BY	DATE	REV RECORD	DATE	CUSTOMER COPY	DATE
SERIES NO.1	2814	PROJECTION SCALE	1:1	TITLE	HF series micro coaxial connector plug
				Vertical (ground contact: gold plating)	
				DWG No.	20278
				SHEET REV.	2/311C

I-PEX Interconnect and Packaging Electronics TOKYO, JAPAN

FDRM REV.4

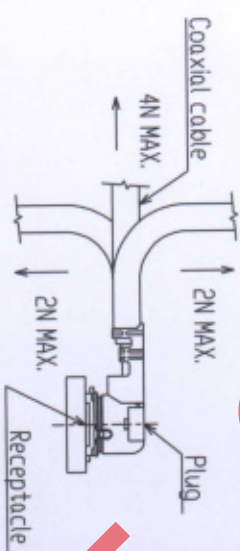
WAST

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. 材質
 (1) ハウジング : PBT, UL94V-0, 黒色
 (2) コントラクト : リン青銅, 金メッキ
 (3) グランドコネクタ : リン青銅, 金メッキ
 2. 梱包 : リール
 3. 対応相手 Part No. : 20279-001E-01

4. Permissible load of cable at mating



コネクタかん合時のケーブルに対する荷重

5. Suggestions for mating & unmating operation.

5. コネクタかん合時および抜去時の注意

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.

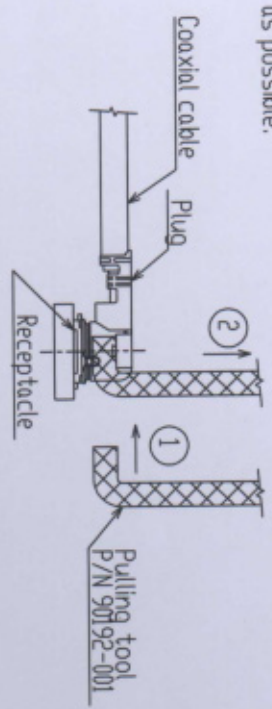
5-1 コネクタ挿入時
 PlugとReceptacleのかん合軸を合わせ、できるだけ垂直に挿入して下さい。
 極端な斜め挿入は行わないで下さい。
 コネクタ破壊の原因となりますので、過度なこじり挿抜は行わないで下さい。

5-2 Unmating.

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

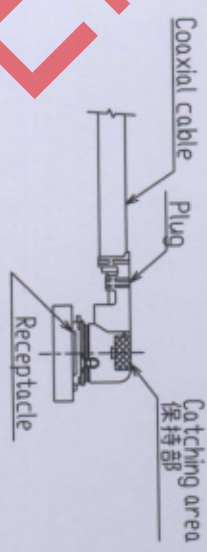
5-2 コネクタ抜去時

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



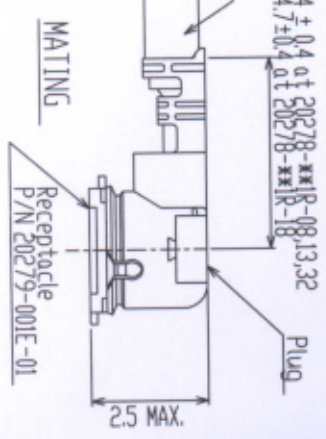
(2) In case of unmating directly by hand
 Please catch the catching area of plug, and please pull plug to vertical direction as directly as possible.

(2) 手で直接引き抜く場合
 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。



GENERAL TOLERANCE

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



REVISION	BY	DATE	APP	CHK'D BY	DATE	DESIGN'D BY	DATE
RECORD							
SERIES No.	2014			APP'D BY	DATE	CUSTOMER	DATE
						CPY	
TITLE				I-PEX Interconnect and Packaging Electronics TOKYO, JAPAN			
MHT Series micro coaxial connector plug				VERTICAL (Ground contact : gold plating)			
PROJECTION SCALE 1:1				DWG. No. 20278			
SHEET REV. 3/311C							

FORM REV.4

WAST