



WHA YU INDUSTRIAL CO., LTD. (HEAD OFFICE)  
 DONGGUAN AEON TECH CO.,LTD.(CHINA)  
 TAI HWA ELECTRONIC CO., LTD.(CHINA)  
 SHANGHAI HUA YU ELECTRONIC CO., LTD.(CHINA)  
 SU ZHOU AEON TECH CO., LTD. (CHINA)

## SPECIFICATION FOR APPROVAL

**CUSTOMER:** *Kiss Technology*

**PART NAME:** *RF Cable Assembly*

**PART NO.:**

**REVISION:**

**W. Y. P/NO.:** *C1046-510005-A(SSR-72577)*

**REV.:** *XI*

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY :	<i>Winston</i>	
DATE :	<i>08/06 16/10</i>	

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# RF Cable Assembly

## Specification

### 1. Electrical Properties :

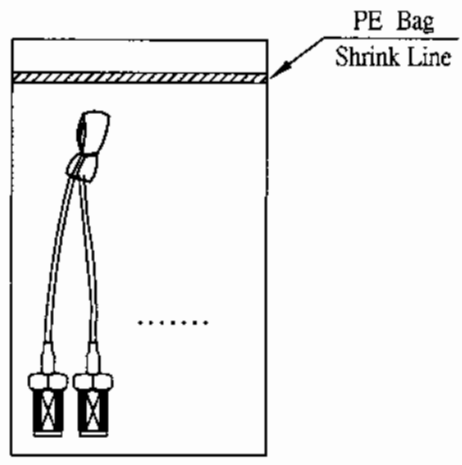
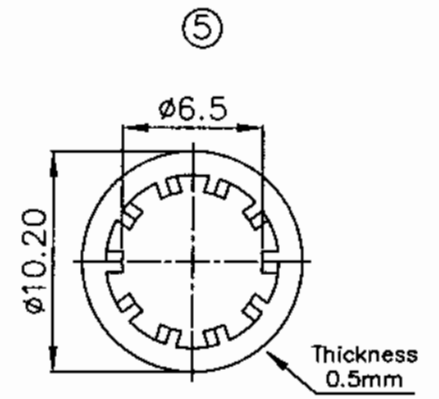
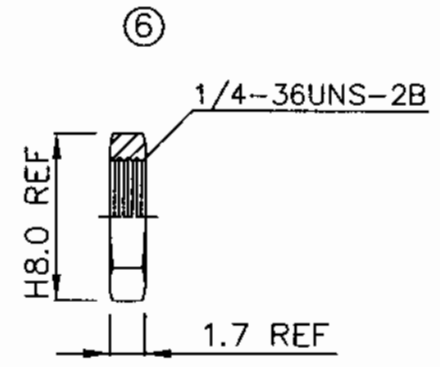
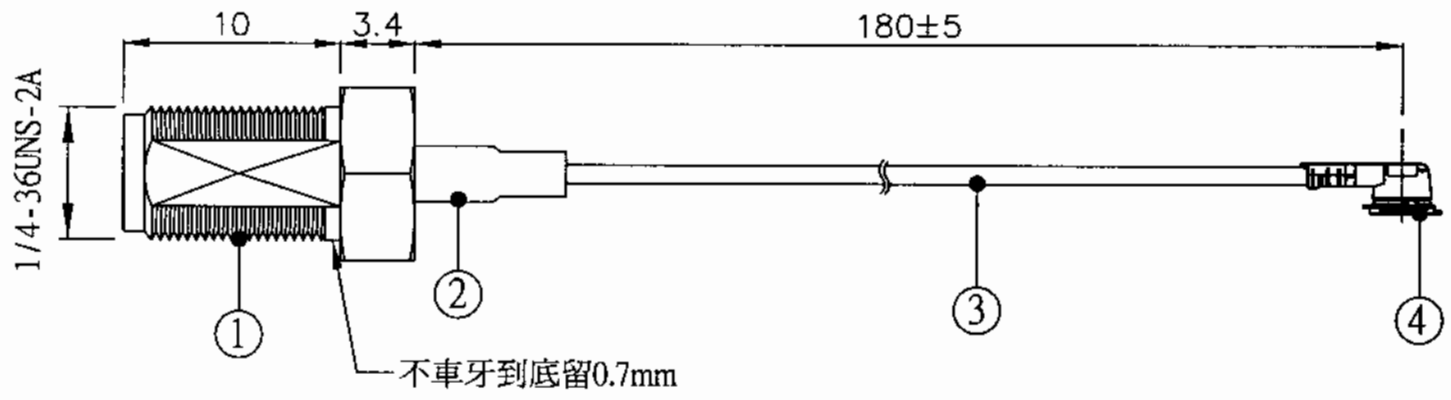
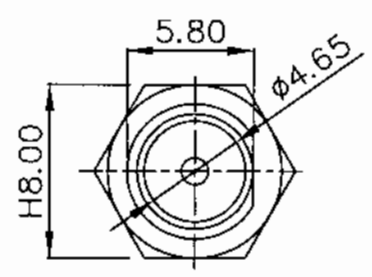
- 1.1 Frequency Range..... DC ~ 6GHz
- 1.2 Impedance ..... 50Ω Nominal
- 1.3 Insertion Loss..... 2GHz-----1.1dB  
3GHz-----1.3dB  
4GHz-----1.7dB  
5GHz-----2.1dB  
6GHz-----4.2dB
- 1.4 VSWR..... 1.5 :1 Max.
- 1.5 Cable..... φ1.13 Coaxial Cable
- 1.6 Connector..... I-PEX MHF
- 1.7 Connector..... SMA Jack Reverse

### 2. Physical Properties :

- 2.1 Operating Temp. .... -10 ~ +60
- 2.2 Storage Temp. .... -10 ~ +70

CG-

REV	DATE	DESCRIPTION
X1	8/3-2007	New Issue



6	Nut	Brass ; Gold Plated	1	
5	Washer	Brass ; Gold Plated	1	
4	Connector	MHF Connector	1	
3	Coaxial cable	$\phi 1.13$ Coaxial Cable	1	
2	Tube	Heat Shrink Tube	1	
1	Connector	SMA Straight Jack Reverse	1	
NO	DESCRIPTION		QTY	REMARK

CUSTOMER'S SIGNATURE	XX. ±5	APPROVED	CUSTOMER: KISS
	X. ±3.0	<i>Andrew</i>	PART NO :
	.X ±1.0	CHECKED	PARTNAME: RF Cable Assembly
	.XX ±0.5		W.Y P/NO : C1046-510005-A
	.XXX ±0.1	DRAWING	REV UNIT FILE :
		<i>程淑娟</i>	X1 m/m SHEET : 1/1

**M.gear** Wha Yu Group

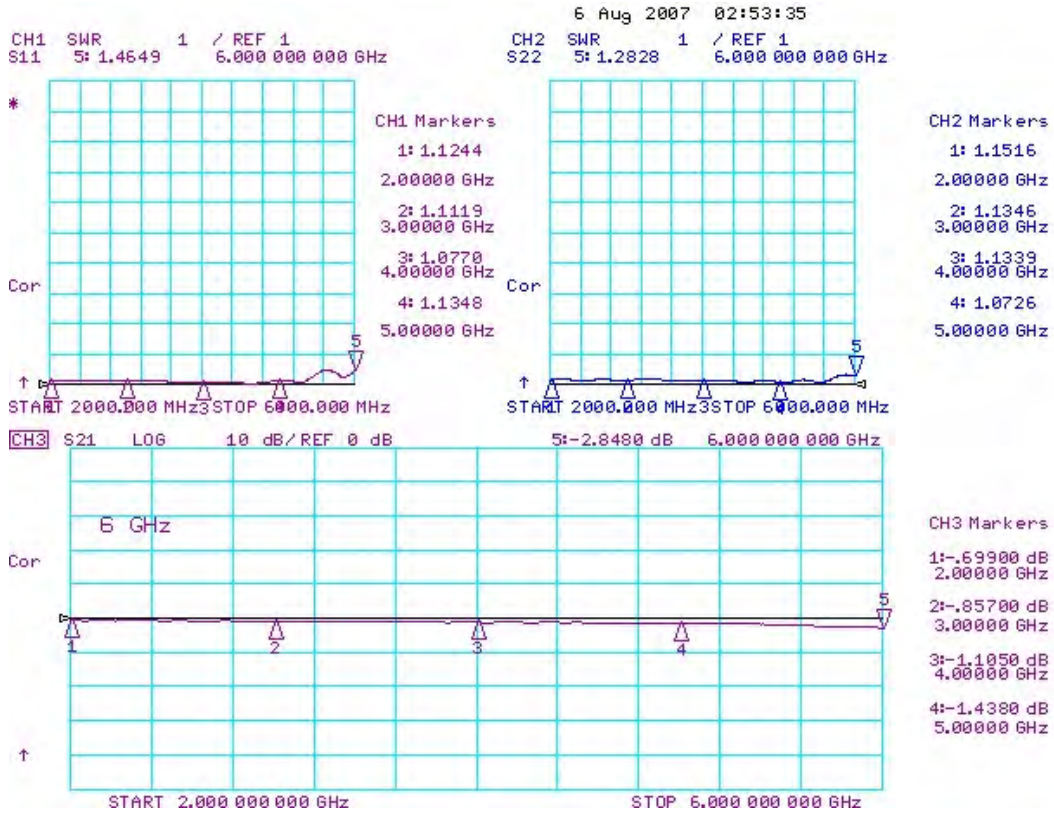
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RF Cable Assembly

P/NO : C1046-510005-A(SSR-72577) SPEC :DC~ 6GHz

S11 : MHF

S22 : SMA Jack Reverse



2007/8/6

Date : 2005/02/02

Our Spec. No. WS05-M016

MESSRS.

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SPECIFICATION  
FOR  
HIGH FREQUENCY COAXIAL CABLE  
" KHCX - 32AWG - SB - TA " GRAY

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SHOWA ELECTRIC WIRE & CABLE CO., LTD.

TORANOMON

TOKYO JAPAN

*T. Mori*

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T. Mori  
Manager, Engineering Section  
Engineering Dept.  
Electronic Wire Business Unit

## 1. 適用(SCOPE)

本仕様書は電子機器などの内部配線に使用される細径同軸“KHCX-32AWG-SB-TA”の構造と特性について定める。

This specification covers the construction and characteristics of coaxial cable “KHCX-32AWG-SB-TA” for internal wiring of electronic equipment.

## 2. ケーブル型名の説明 (EXPLANATION OF CABLE TYPE)

KHCX-32AWG-SB-TA

(1) (2) (3) (4)

(1) ケーブル略称 (Cable Abbreviation)

(2) 導体サイズ (Conductor Size)

(3) Inner Conductor Type (4) Outer Conductor Type.

## 3. 構造(CONSTRUCTION)

項目 Item		要求特性 Requirement
内部導体 Inner conductor	材質 Material	銀めっき軟銅線 Silver coated annealed copper wire
	構成 Stranding	7/0.08mm
	外径 Diameter	標準 0.24mm Nom. 0.24mm
絶縁体 Insulation	材質 Material	FEP
	色別 Color	自然色 Natural
	厚さ Thickness	標準 0.22mm Nom. 0.22mm
	外径 Diameter	0.68 +0.04/ -0.02mm
外部導体 Outer conductor	材質 Material	錫めっき銅合金線編組 Tinned copper alloy wire braid shield
	構成 Stranding	16/4/0.05 mm
	編組密度 Coverage	Approx. 90%
シース Sheath	材質 Material	FEP
	色別 Color	灰・白・黒 Gray・White・Black
	厚さ Thickness	標準 0.10mm Nom. 0.10mm
仕上外径 Overall diameter		1.13mm +0.08/ -0.05mm
概算質量 Approximate mass		3 kg/km

## 4. 特性 (CHARACTERISTICS)

項目 Item	単位 Unit	要求特性 Requirements
導体抵抗 Conductor Resistance	$\Omega$ /km	597 以下 (20°C) Max. 520 (at 20°C)
絶縁抵抗 Insulation Resistance	M $\Omega$ km	1,500 以上 (DC 500V 1 分間充電後, 20°C) Min. 1,500 (After charge DC 500V for 1 min. at 20°C)
耐電圧 Dielectric Strength	-	絶縁体 : AC.1.5kV/0.15 秒間 (スパークテスト) Dielectric core : No breakdown at AC.1.5kV for 0.15sec by spark test.
		シース : AC.1.5kV/0.15 秒間 (スパークテスト) Jacket : No breakdown at AC.1.5kV for 0.15sec by spark test.
		内部導体-外部導体間 : AC.500V/1 分間 No breakdown at AC.500V for 1 min between outer conductor and inner conductor.
静電容量 Capacitance	pF/m	標準 98 (at 1kHz) Nom. 98 (at 1kHz)
特性インピーダンス Characteristic Impedance	$\Omega$	50 $\pm$ 2 (at TDR)
減衰量 Attenuation	dB/m	2.0GHz : 2.9 以下 Max.2.9 2.4GHz : 3.2 以下 Max.3.2 3.0GHz : 3.7 以下 Max.3.7 4.0GHz : 4.3 以下 Max.4.3 5.0GHz : 4.8 以下 Max.4.8 6.0GHz : 5.3 以下 Max.5.3
VSWR	--	2.4~2.5GHz : 1.20 以下 Max.1.20 4.8~6.0GHz : 1.40 以下 Max.1.40
耐はんだ性 Heat resistance for solder	--	絶縁体およびシースの寸法変化は 0.2mm 以下のこと。 Shrink and expansion of dielectric core or jacket should not be more than 0.2mm. 試験条件(test condition) : 255°C $\pm$ 5°C * 3 sec.

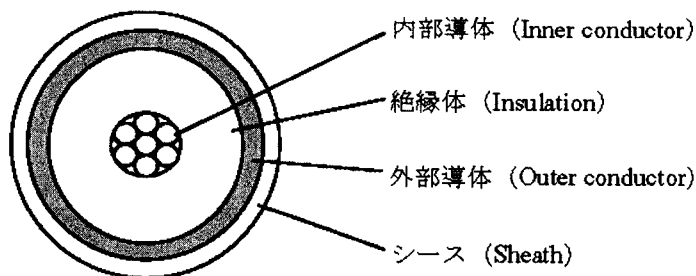


図 1 .ケーブル構造図

Fig.1. Cable Cross-Section





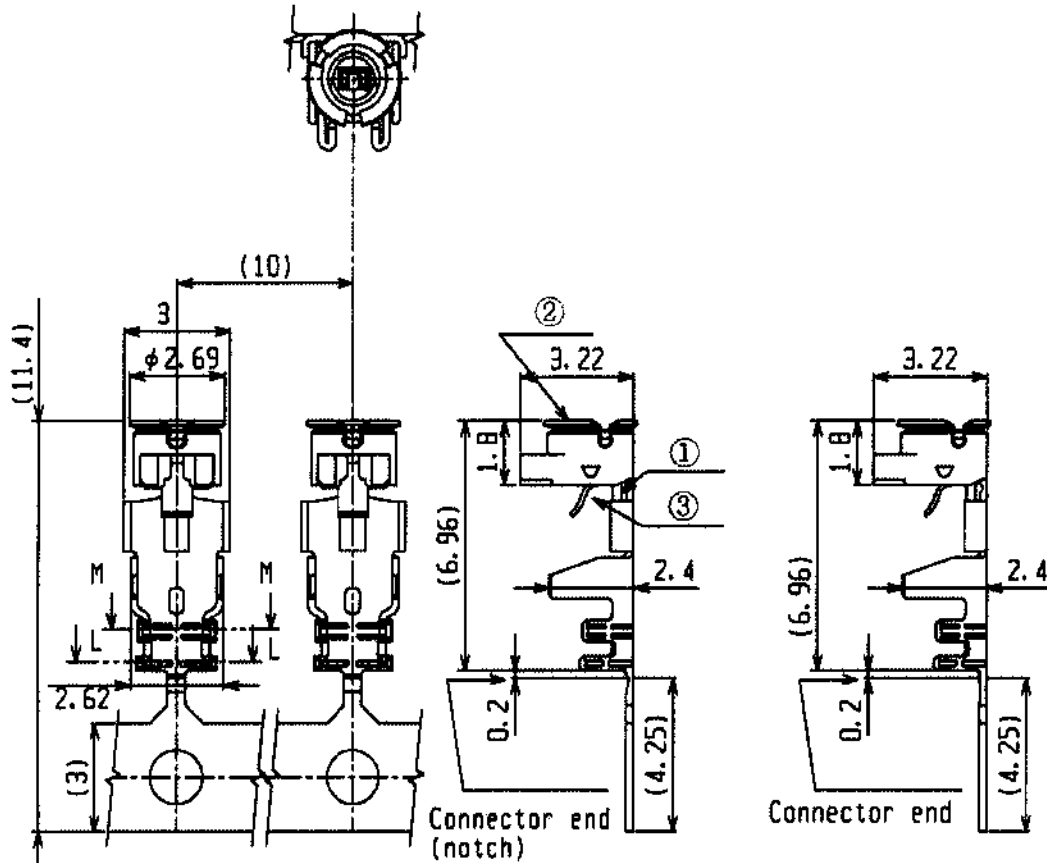
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WHA YU INDUSTRIAL CO., LTD

## Connector 材質證明書

譚裕料號 Whayu P/N	Z101-02110002-A1	產品名稱 Product Name	MHF Plug for $\phi$ 1.13 Coaxial Cable
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### 結構圖面



材質成份								表面處理
1	絕緣	PBT	Polybutylene Terephthalate(UL 94V-0)					Black
2	外殼	Phos. Bronze	Cu	Sn	P	Zn	Pb	鍍金 0.05 $\mu$ m
3	中心夾持	Phos. Bronze	Cu	Sn	P	Zn	Pb	鍍金 0.1 $\mu$ m

Remark : 插拔次數 30 次





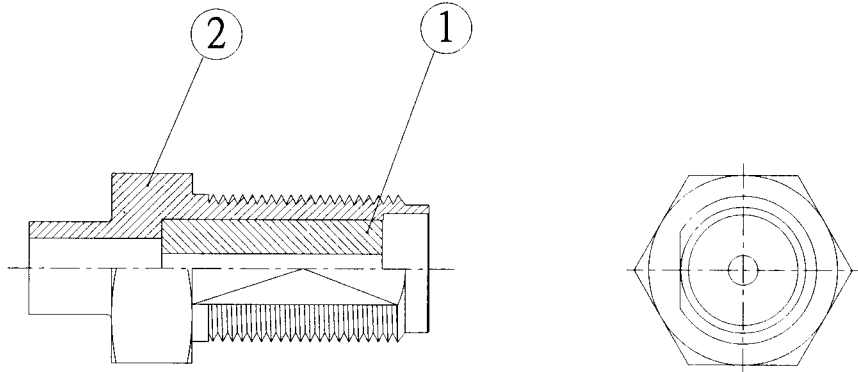
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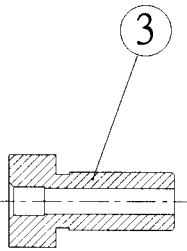
## Connector 材質證明書

譁裕料號 Whayu P/N	100-2001080-AZ	產品名稱 Product Name	SMA Straight Jack Reverse for 1.13cable
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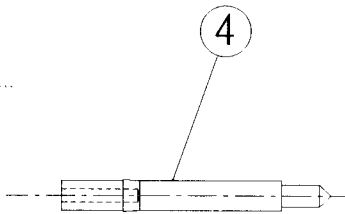
### 結構圖面



1. ASSEMBLY BODY



4. Ferrule



3. PIN



2. DIELECTRIC

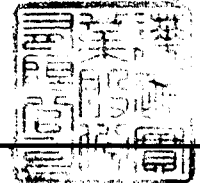
### 材質成份

### 表面處理

材質成份									表面處理
1	絕緣	Teflon	PTFE						N/A
2	本體	Zinc Alloy	Zn	Fe	Al	Mg	Cu	Pb	鍍金
3	尾管	Brass	Cu	Pb	Fe	Fe+Sn	Zn		鍍金
4	中心針	Brass	Cu	Pb	Fe	Fe+Sn	Zn		鍍金
5	絕緣	Teflon	PTFE						N/A

Remark :

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