

APPROVAL SHEET (RoHS)

CUSTOMER : 啟基科技股份有限公司

CUSTOMER'S PART NO. : 08.21413.002

DESCRIPTION : RF ANTENNA ASSEMBLY

PART NO. : BTEAWT14136G0C1A01

DATE :

AUTHORIZED BY : *Alvin Chen*

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN			
SUGGESTION			

美磊科技股份有限公司

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MAG.LAYERS

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Antenna Specification

ELECTRICAL PROPERTIES

1.1	Frequency Range.....	2400-2500MHz/5150-5850MHz 5875-6275MHz/6300-6700MHz 6725-7125MHz
1.2	Impedance.....	50 Ohm Nominal
1.3	VSWR.....	≤ 2.5
1.4	Radiation.....	Omni-directional
1.5	Gain(peak).....	2400-2500MHz/2.81dBi 5150-5850MHz/2.39dBi 5925-7125MHz/2.71dBi
1.6	Polarization.....	Linear Vertical
1.7	Admitted Power.....	1W

PHYSICAL PROPERTIES

2.1	Antenna Cover.....	ABS
2.2	Antenna Base.....	PC+PBT
2.3	Color.....	White
2.4	Cable.....	ϕ 1.13 Black
2.5	Connector.....	IPEX Compatible
2.6	Operating Temp.....	-20°C ~ +65°C
2.7	Storage Temp.....	-30°C ~ +75°C



Mechanical Specification

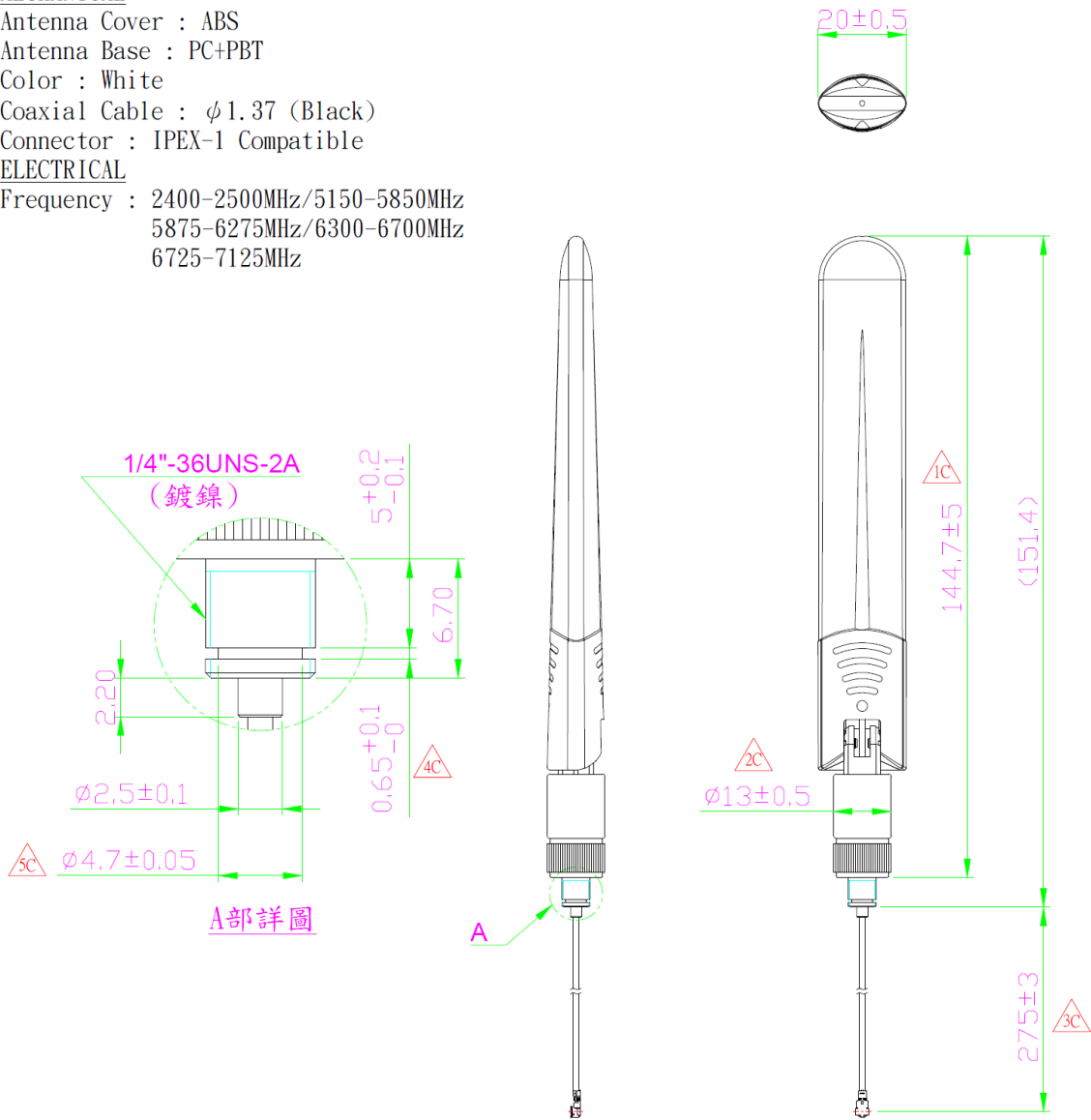
RoHS COMPLIANT

MECHANICAL

Antenna Cover : ABS
 Antenna Base : PC+PBT
 Color : White
 Coaxial Cable : $\phi 1.37$ (Black)
 Connector : IPEX-1 Compatible

ELECTRICAL

Frequency : 2400-2500MHz/5150-5850MHz
 5875-6275MHz/6300-6700MHz
 6725-7125MHz



設計 DR.		核准 APPD.	
Sheng		Alvin	
2022/03/16		2022/03/16	
版本說明		REVISION NOTE	
MAGLAYERS			

※凡標記 $\triangle C$ 記號者, 為品管檢驗之尺寸

容許公差	TOLERANCE
.XXX	± 0.20
.XX	± 0.35
.X	± 0.50
X	± 1.00
ANG	± 5

品名
 ARTICLE
BTEAWT14136G0C1A01

單位 UNIT	比例 SCALE	張數 SHEET	版本 REV.
mm	****	1	A

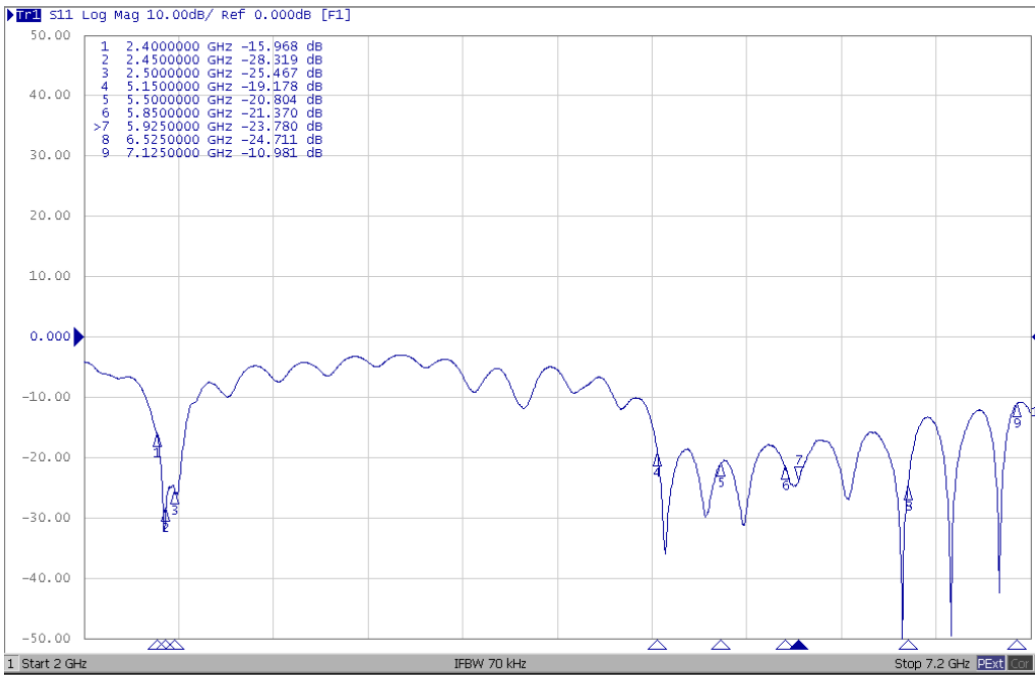
Test Report

ELECTRICAL CHARACTERISTICS

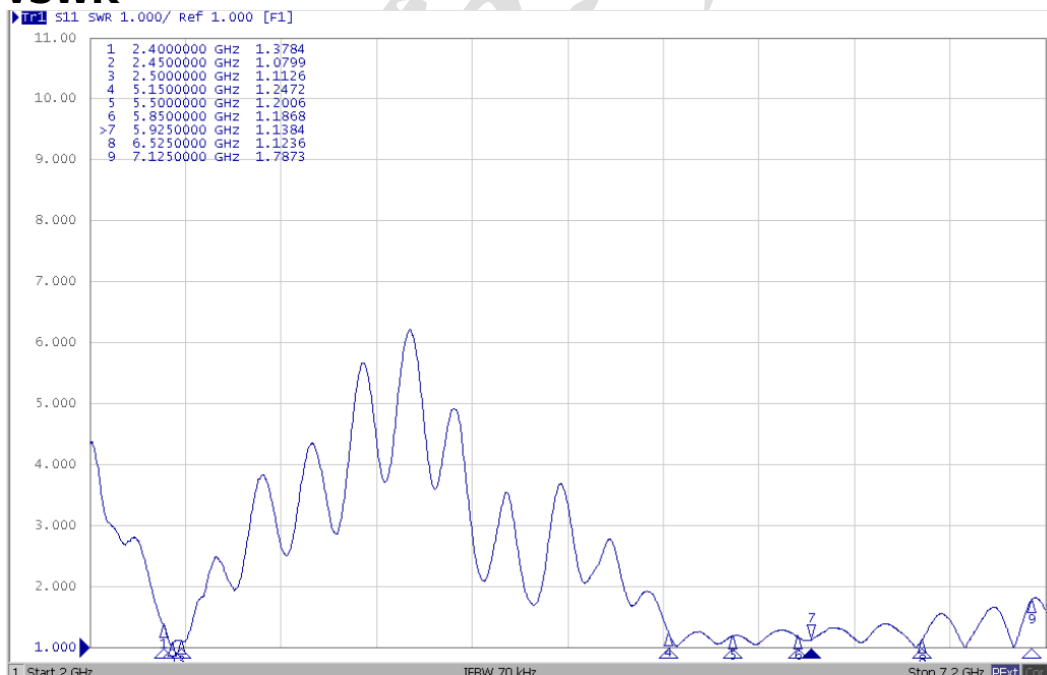
P/NO: BTEAWT14136G0C1A01

Return Loss

S11



VSWR



Frequency(MHz)	2400	2450	2500
Efficiency(%)	71%	69%	70%
Peak Gain(dBi)	2.81	2.73	1.95
Frequency(MHz)	5150	5500	5850
Efficiency(%)	58%	63%	60%
Peak Gain(dBi)	2.37	2.39	2.21
Frequency(MHz)	5925	6525	7125
Efficiency(%)	62%	60%	57%
Peak Gain(dBi)	2.71	2.61	2.22

Mag.Layers



Cable UL

2021/1/27

AVLV2.E349435 - Appliance Wiring Material - Component | UL Product iQ

UL Product iQ™



AVLV2.E349435 - Appliance Wiring Material - Component

Appliance Wiring Material - Component

[See General Information for Appliance Wiring Material - Component](#)

JIANGYIN KAIBO COMMUNICATION TECHNOLOGY CO LTD

No.83 Dong Ding Rd. Mountain View Town
Jiangyin, Jiangsu 214400 CHINA

E349435

Table of Recognized Styles

Single-conductor, thermoplastic insulation.							
1007	1061	1569	10064	10304	10369	11149	
1015	1354	1571	10248	10368	10871	11180	
Single-conductor, thermoset insulation.							
3302	3385	3386	3619				

Marking: Company name, voltage rating, temperature rating, conductor size, conductor material if other than copper, and use.

[Last Updated](#) on 2021-01-15

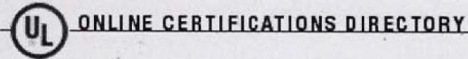
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Connector UL PTFE

QMFZ2.E252343 - Plastics - Component

http://database.ul.com/cgi-bin/XYV/temp



QMFZ2.E252343 Plastics - Component

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Plastics - Component

[See General Information for Plastics - Component](#)

DAIKIN FLUOROchemicals (CHINA) CO LTD
CHANGSHU INTERNATIONAL
CHEMICAL INDUSTRIAL PARK
HAIYU TOWN
CHANGSHU, JIANGSU 215522 CHINA

E252343

									H	D	
		Min.		H	H	R T I			V	4	C
		Thk	Flame	W	A	Elec	Mech		T	9	T
Material Dsg	Color	mm	Class	I	I		Imp	Str	R	5	I
Polytetrafluoroethylene (PTFE), furnished as pellets.											
F-208H	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.6-1.76	V-0	-	-	180	180	180			
M-139	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.40-1.54	V-0	-	-	180	180	180			
Polytetrafluoroethylene (PTFE), furnished as powder.											
F-201	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.6	V-0	-	-	180	180	180			
M-18	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.6	V-0	-	-	180	180	180			
M-18F	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.6	V-0	-	-	180	180	180			
RMS574	NC	0.81	V-0	-	-	180	180	180	-	-	-
		1.6	V-0	-	-	180	180	180			
Polytetrafluoroethylene (PTFE).											
F-104	NC	0.81-1.8	V-0	-	-	180	180	180	-	-	-
F-108	NC	0.81-1.8	V-0	-	-	180	180	180	-	-	-
F-208	NC	0.81-1.8	V-0	-	-	180	180	180	-	-	-
F-303	NC	0.81-1.8	V-0	-	-	180	180	180	-	-	-

Marking: Company name and material designation on container, wrapper or finished part.
[Last Updated](#) on 2015-07-30

[Questions?](#)

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Connector UL POM



Component - Plastics
File Number: E45034

POLYPLASTICS CO LTD
18-1 KONAN, 2-CHOME, MINATO-KU TOKYO 108-8280 JP



DURACON: M25-44(r5), M90-44(r5), M140-44(r5), M270-44(r5), M450-44(r5)

Acetal "Polyoxymethylene" (POM), pellets

(r5) - Virgin and Regrind from 1 to 100% by weight inclusive have the same basic material characteristics except for the RTI's are 50C for all three properties for Regrind from 26 - 100%

Flammability	Value	Test Method
Flame Rating		UL 94
0.75 mm, ALL	HB	
1.5 mm, ALL	HB	
3.0 mm, ALL	HB	
Flammability Classification		IEC 60695-11-10, -20
3.0 mm, ALL	HB40	
0.75 mm, ALL	HB75	
1.5 mm, ALL	HB75	
Electrical	Value	Test Method
Hot-wire Ignition (HWI)		UL 746
0.75 mm	PLC 4	
1.5 mm	PLC 4	
3.0 mm	PLC 3	
High Amp Arc Ignition (HAI)		UL 746
0.75 mm	PLC 0	
1.5 mm	PLC 0	
3.0 mm	PLC 0	
Comparative Tracking Index (CTI)	PLC 0	UL 746
Dielectric Strength	29 kV/mm	ASTM D149
High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL 746
Volume Resistivity	1.0E+15 ohms-cm	ASTM D257
Volume Resistivity	1.0E+15 ohms-cm	IEC 60093
Arc Resistance	PLC 5	ASTM D495
Electric Strength	29 kV/mm	IEC 60243-1
Thermal	Value	Test Method
RTI Elec		UL 746
0.75 mm	110 °C	
1.5 mm	110 °C	
3.0 mm	110 °C	
RTI Imp		UL 746
0.75 mm	95.0 °C	
1.5 mm	95.0 °C	
3.0 mm	95.0 °C	
RTI Str		UL 746
0.75 mm	100 °C	
1.5 mm	100 °C	
3.0 mm	100 °C	
Physical	Value	Test Method
Dimensional Stability	0.0 %	ASTM D1042



Physical	Value	Test Method
Dimensional Stability	0.0 %	ISO 2796

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Cover UL ABS



Component - Plastics
File Number: E56070

CHI MEI CORPORATION
59-1 SAN CHIA, JEN TE, TAINAN 717 TW



Polylac: PA-757(+)

Acrylonitrile Butadiene Styrene (ABS), pellets

(+) - Optional prefix or suffix; may be used to denote usage of 0-0.5 percent acid scavengers. For PC-110(+). Optional the suffix except L, N, U, V, T, and F. For Grades PC-6015(+), PB-1202(+). Maybe none or replace by one alphabet to indicate the color.

Flammability	Value	Test Method
Flame Rating		
1.50 mm, ALL	HB	UL 94
3.00 mm, ALL	HB	UL 94
3.00 mm, ALL	HB40	IEC 60695-11-10, -20
1.50 mm, ALL	HB75	IEC 60695-11-10, -20
Electrical	Value	Test Method
Hot wire Ignition (HW)		UL 746
1.50 mm	PLC 4	
3.00 mm	PLC 3	
High Amp Arc Ignition (HAI)		UL 746
1.50 mm	PLC 0	
3.00 mm	PLC 0	
Comparative Tracking Index (CTI)	PLC 0	UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 1	UL 746
Arc Resistance	PLC 7	ASTM D495
Thermal	Value	Test Method
RTI Elec		UL 746
1.50 mm	85.0 °C	
3.00 mm	85.0 °C	
RTI Imp		UL 746
1.50 mm	80.0 °C	
3.00 mm	80.0 °C	
RTI St		UL 746
1.50 mm	85.0 °C	
3.00 mm	85.0 °C	

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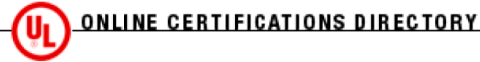
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IPEX UL

QMFZ2 Component - Plastics		Wednesday, September 14, 2005					E107536			
SHINKONG SYNTHETIC FIBERS CORP 223 YEN PING RD SEC 3 PIN CHENG TAOYUAN HSIEN 324 TW										
Material Designation: A724										
Product Description: Polybutylene Terephthalate/Polycarbonate (PBT/PC), furnished as pellets.										
Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT		IEC GWFI
NC	0.8	HB	4	1	75	75	75	-		-
	1.6	HB	4	1	75	75	75	-		-
	3.2	HB	2	1	75	75	75	-		-
CTI: -	IEC CTI (V): -	HVTR: 2			D495: -			IEC Ball Pressure (°C): -		
Dielectric Strength (kV/mm): 38			Volume Resistivity (10 ⁶ ohm-cm): 17					Dimensional Stability(%): -		
ISO Tensile Strength (MPa): -			ISO Flexural Strength (MPa): -					ISO Heat Deflection (°C): -		
ISO Tensile Impact (kJ/m ²): -			ISO Izod Impact (kJ/m ²): -					ISO Charpy Impact (kJ/m ²): -		
Report Date: 4/6/1992			Underwriters Laboratories Inc®							
UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.										

PCB UL



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ZPMV2.E327405 Wiring, Printed - Component

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Wiring, Printed - Component

[See General Information for Wiring, Printed - Component](#)

HUNG HING ELECTRONICS CO LTD
ROOM 1801, 18TH FL, TREASURE CENTRE
42 HUNG TO RD
KWUN TONG, KOWLOON HONG KONG

E327405

Type	Cond Width		Cond	SS/ DS/ DS0	Max Area Diam mm(in)	Solder		Oper Temp C	Max Flame Class	Meets UL796 UL796 DSR	C T I
	Min mm(in)	Edge mm(in)				Limits C	sec				
Single layer printed wiring boards.											
HH-02;HF-02A (#)											
	0.16 (0.006)	0.22 (0.009)	34 (1.34)	SS	25.4 (1.0)	260	10	130	V-0	All	-
HH-03;HF-07A											
	0.10 (0.004)	0.15 (0.006)	34 (1.34)	DS	25.4 (1.0)	280	10	130	V-0	All	-
HH-	0.10 (0.004)	0.15 (0.006)	17 (0.67)	DS	50.8 (2.0)	280	10	130	V-0	▲	-

TABLE II - BASE MATERIALS

Type	Base Material &			Min. Thk. (mm)	Min. Copper Thk. (mics)	SS/ DS [®]	PWB Mfg. Process	Meets UL 746E DSR	CTI (PLC)
	UL/ ANSI Grade	Mfr +	Grade						
HH-02; HF-02A	FR-1	SJ	ZD-90F	0.80	34	SS	A	Yes	-
	FR-1	KB	KB-3151C	0.80	34	SS	A	Yes	-
	FR-1	KB	KB-3152	0.80	34	SS	A	Yes	-
	FR-1	CC	CCP-3400	0.80	34	SS	A	Yes	-
	FR-1	CC	CCP-6400	0.80	34	SS	A	Yes	-
	FR-1	DS	DS-1108	0.80	34	SS	A	Yes	-
HH-03; HF-07A; HF-08	CEM-1	SJ	ZD-95(G)F	0.63	34	DS	B	Yes	-
	CEM-1	KB	KB-5150	0.63	34	DS	B	Yes	-
	CEM-3	KB	KB-7152	0.63	34	DS	B	Yes	-
HH-05	FR-4	NH	NHL-4806	0.38	17	DS	B	-	-
	FR-4	KB	KB-6160, KB-6164, KB-6167	0.38	17	DS	B	Yes	-
	FR-4	GM	ILM-R1, GEM-R1##	0.38	17	DS	B	Yes	-

& - Recognized Component, Industrial Laminate (QMTS2)

@ - SS - Single Sided; DS - Double Sided or Single Sided

+ - SJ: Shandong Jinbao (E141940); NH: Nam Hing (E74035);
KB: Kingboard (E123995); CC: Chang Chun (E108591);
DS: Doosan (E103670); GM: Goldenmax (E224772)

