APPROVAL SHEET
(RoHS)

CUSTOMER	:	啟碁科技股份有限公司
CUSTOMER'S PART NO.	:	**08.21413.001**
DESCRIPTION	:	**RF ANTENNA ASSEMBLY**
PART NO.	:	**BTEAWT14136G0C1A02**
DATE	:	
AUTHORIZED BY	:	*Alvin Chen*

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN			
SUGGESTION			

美磊科技股份有限公司

MAG. LAYERS SCIENTIFIC-TECHNICS CO., LTD

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Revisions

REV.	Description	Date	Prepared by	Approved by
V01	New Release	2022/03/17	Fchou	Alvin

Contents

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/3.11dBi 5150-5850MHz/2.81dBi 5925-7125MHz/2.74dBi
1.6	Polarization……..……....	Linear Vertical
1.7	Admitted Power……..….	1W

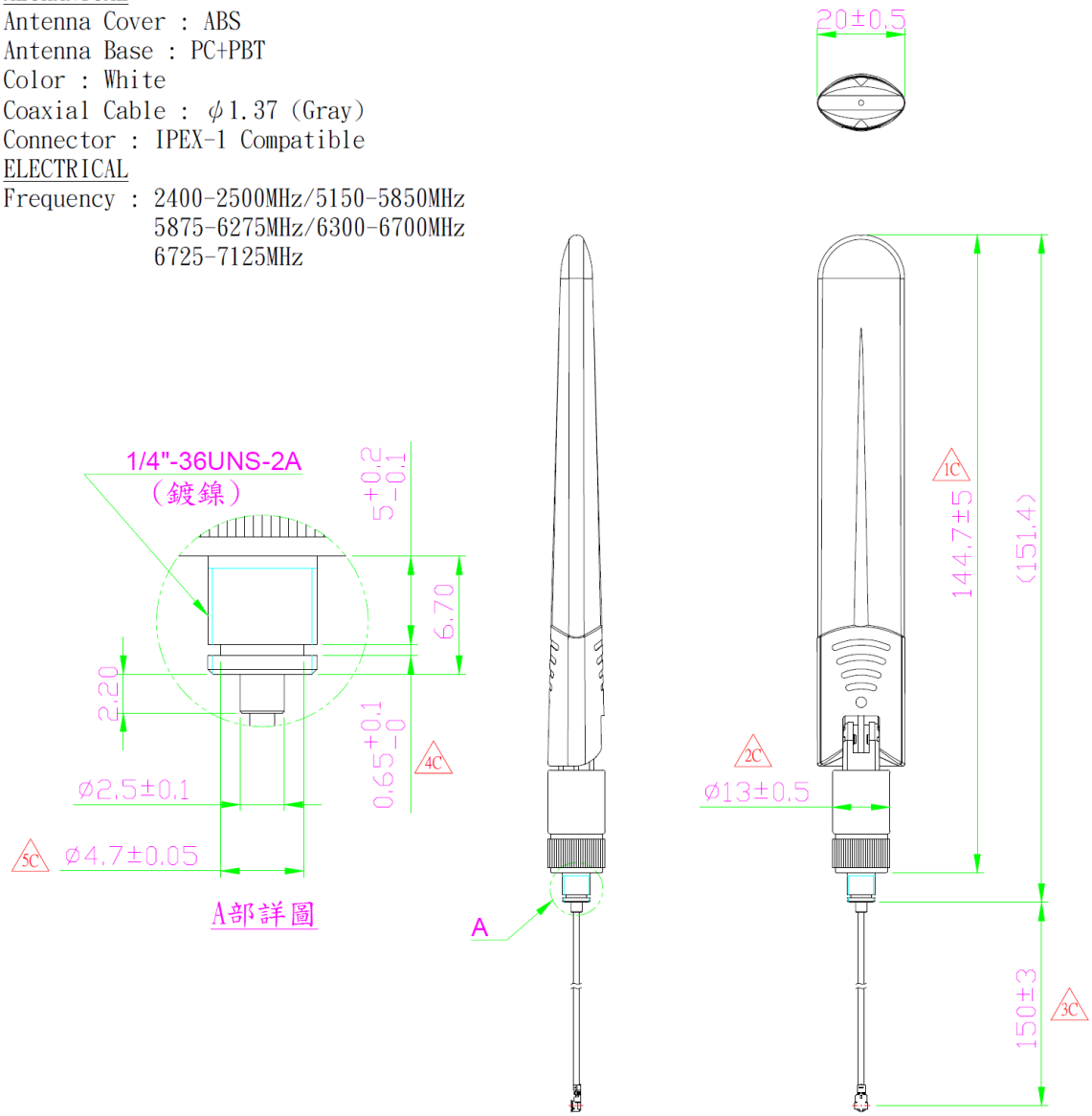
PHYSICAL PROPERTIES

2.1	Antenna Cover……..….	ABS
2.2	Antenna Base……..….	PC+PBT
2.3	Color……..….	White
2.4	Cable……...	ϕ1.13 Gray
2.5	Connector……...….	IPEX Compatible
2.6	Operating Temp……..….	-20℃ ~ +65℃
2.7	Storage Temp…….....	-30℃ ~ +75℃

Mechanical Specification

RoHS COMPLIANT

MECHANICAL
Antenna Cover : ABS
Antenna Base : PC+PBT
Color : White
Coaxial Cable : φ1.37 (Gray)
Connector : IPEX-1 Compatible
ELECTRICAL
Frequency : 2400-2500MHz/5150-5850MHz
5875-6275MHz/6300-6700MHz
6725-7125MHz



LTR	DESCRIPTION	DATE	REQ. BY
A	New Release	03/16/22'	Sheng

※凡標記 C 記號者，為品管檢驗之尺寸

設計 DR.	核准 APPD.	容許公差 TOLERANCE	品名 ARTICLE
Sheng 2022/03/16	Alvin 2022/03/16	.XXX ±0.20 .XX ±0.35 .X ±0.50 X ±1.00 ANG ±5	BTEAWT14136G0C1A02

版本說明 REVISION NOTE

MAGLAYERS

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

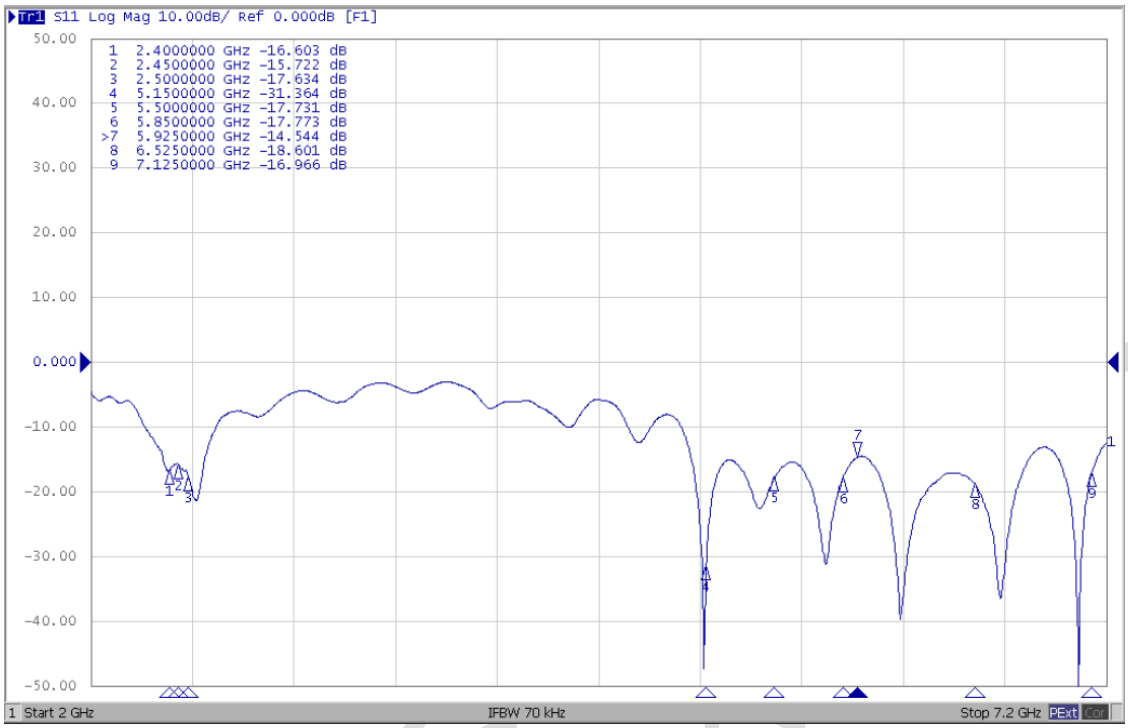
Test Report

ELECTRICAL CHARACTERISTICS

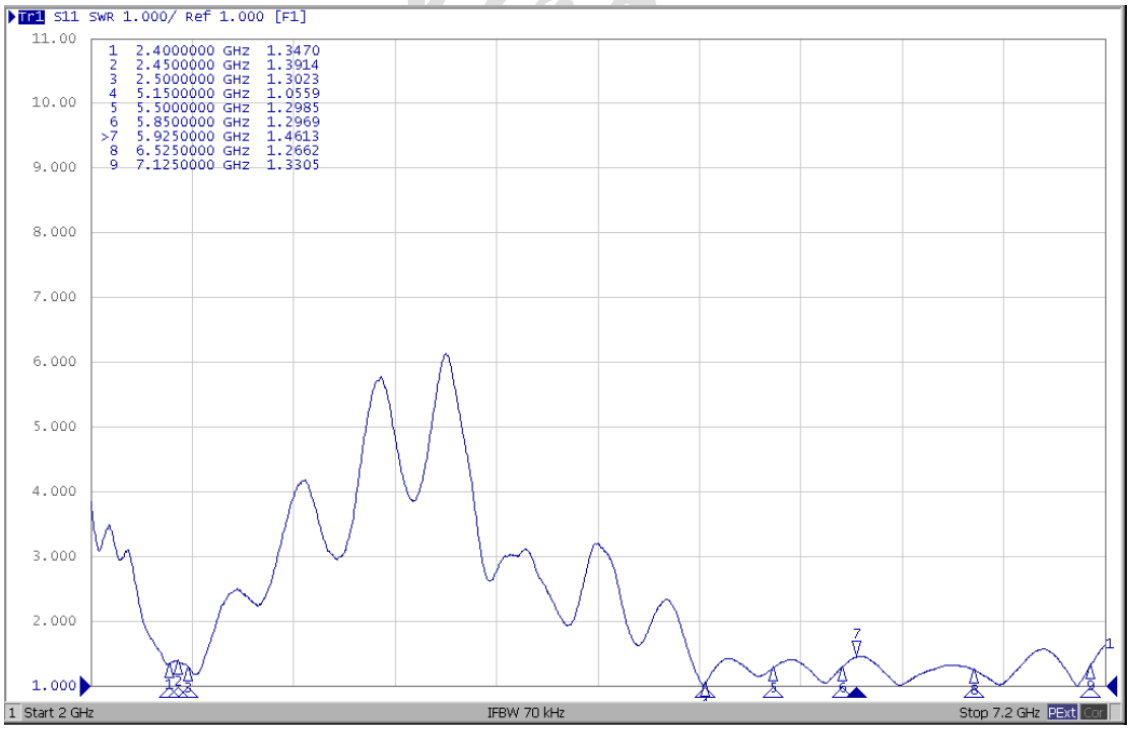
P/NO: BTEAWT14136G0C1A02

Return Loss

S11



VSWR



Frequency(MHz)	2400	2450	2500
Efficiency(%)	73%	71%	72%
Peak Gain(dBi)	3.11	3.01	2.01

Frequency(MHz)	5150	5500	5850
Efficiency(%)	60%	65%	62%
Peak Gain(dBi)	2.27	2.12	2.81

Frequency(MHz)	5925	6525	7125
Efficiency(%)	65%	63%	61%
Peak Gain(dBi)	2.35	2.55	2.74

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 E349435
No.83 Dong Ding Rd. Mountain View Town
Jiangyin, Jiangsu 214400 CHINA

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

Connector UL
PTFE

ONLINE CERTIFICATIONS DIRECTORY

QMFZ2.E252343
Plastics - Component

For enhanced search functionality, please visit UL's iQ™ Family of Databases.
Click on a product designation for complete information.
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Plastics - Component

See General Information for Plastics - Component

DAIKIN FLUOROCHEMICALS (CHINA) CO LTD E252343
CHANGSHU INTERNATIONAL
CHEMICAL INDUSTRIAL PARK
HAIYU TOWN
CHANGSHU, JIANGSU 215522 CHINA

									H	D	
		Min.		H	H	RTI			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? Print this page Terms of Use Page Top

Connector UL
P0M

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 charactersitics 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

Form Number: E45034-100337529

Report Date: 6/5/1984
Last Revised: 2013-12-11

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Component - Plastics
File Number: E45034

Physical	Value	Test Method
Dimensional Stability	0.0 %	ISO 2796

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Form Number: E45034-100337529

Report Date: 6/5/1984
Last Revised: 2013-12-11

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Cover UL
ABS

Component - Plastics
File Number: E56070

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

c UL us

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 (HWI)		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 Str		UL 746
1.50 mm	85.0 °C	
3.00 mm	85.0 °C	

Form Number: E56070-565071

Report Date: 6/23/1983
Last Revised: 11/27/2007

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

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 (10^5ohm-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.

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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 E327405
ROOM 1801, 18TH FL, TREASURE CENTRE
42 HUNG TO RD
KWUN TONG, KOWLOON HONG KONG

	Cond Width				Max			Max			
		Min	Cond	SS/	Area	Solder		Oper		Meets	C
	Min	Edge	Thk	DS/	Diam	Limits		Temp	Flame	UL796	T
Type	mm(in)	mm(in)	mic(mil)	DSO	mm(in)	C	sec	C	Class	DSR	I
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	▲	-

05;HF-08											

- Pattern limits without carbon paste: minimum conductor's width is 0.12 mm and minimum edge conductor's width is 0.15mm.

Marking: Company name or trademark , and type designation. May be followed by a suffix to denote factory identification.

Last Updated on 2010-04-26

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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)