

# 承認書

## APPROVAL SHEET

CUSTOMER: 宇智網通股份有限公司

CUSTOMER MODEL NO.:

JOYMAX MODEL NO.: IWX-1511RSJX-999

DESCRIPTION 2.4GHz #1511 1/2  $\lambda$ , Collinear Antenna, Swivel type

REV.: 02

DATE 2018/10/1

Customer Approval

Joymax Approval



## Index.

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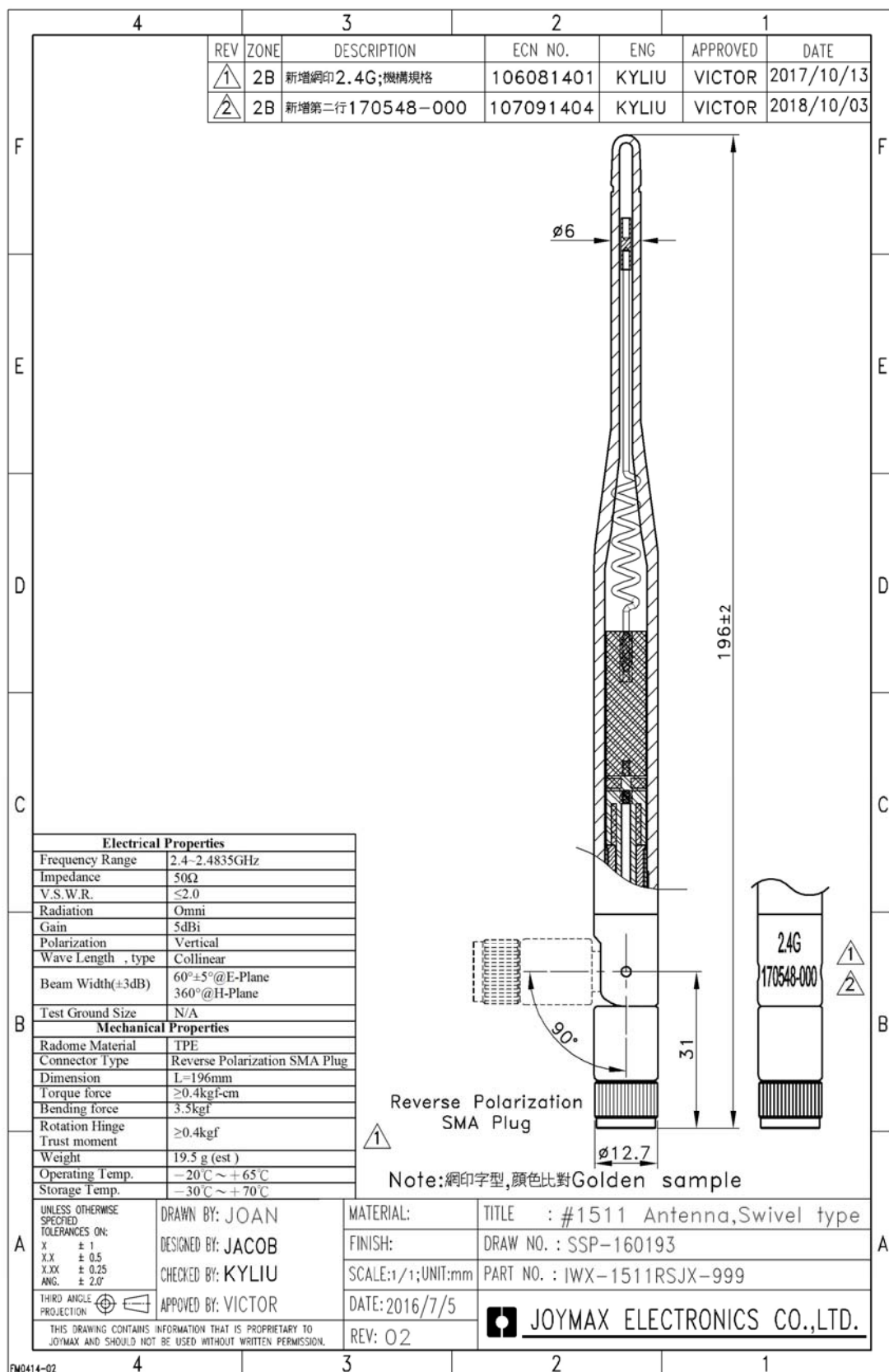
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## Modification History:

| Rev. | Date      | Content          |
|------|-----------|------------------|
| 00   | 2016/7/4  |                  |
| 01   | 2017/9/12 | 新增網印2.4G         |
| 02   | 2018/10/1 | 新增第二行170548-00 0 |

# 1. Specification

## 1.1 Drawing



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**Connector****SMA**

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|                       |                                    |                                                                             |
|-----------------------|------------------------------------|-----------------------------------------------------------------------------|
| Specification<br>Data | 1) Impedance                       | 50 ohm                                                                      |
|                       | 2) Frequency Range                 | 0~6GHz                                                                      |
|                       | 3) Working Voltage                 | $\leq 250$ Vrms                                                             |
|                       | 4) Dielectric Withstanding         | $\leq 670$ Vrms                                                             |
|                       | 5) Voltage Insulation Resistance   | $\geq 2000$ Mega ohm                                                        |
|                       | 6) Contact Resistance              | Center contact: 3.0 Milliohms (Max.)<br>Outer contact: 2.0 Milliohms (Max.) |
|                       | 7) Recommended coupling nut torque | 4.0 in. lbs                                                                 |
|                       | 8) Coupling nut retention force    | $\geq 50$ lbs (222N)                                                        |
|                       | 9) Contact captivation force       | $\geq 5$ lbs (22.2N)                                                        |
|                       | 10) Durability (mating)            | $\geq 500$ cycles                                                           |

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|                       |                        |                                     |
|-----------------------|------------------------|-------------------------------------|
| Environmental<br>Data | 1) Thermal Shock       | MIL-STD-202,Method 107, Condition I |
|                       | 2) Corrosion           | MIL-STD-202,Method 101, Condition I |
|                       | 3) Shock               | MIL-STD-202,Method 213, Condition I |
|                       | 4) Vibration           | MIL-STD-202,Method 204, Condition I |
|                       | 5) Moisture Resistance | MIL-STD-202,Method 106              |

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|                            |               |                  |
|----------------------------|---------------|------------------|
| Material<br>Specifications | Material Data | Material         |
|                            | 1) Body       | Brass            |
|                            | 2) Contact    | Brass            |
|                            | 3) Insulator  | Teflon or Delrin |

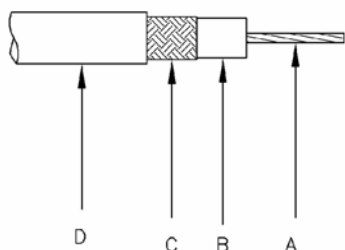
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## Cable

## RG178

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### Electricals:

|                      |              |
|----------------------|--------------|
| Impedance:           | 50 ± 2 Ohms  |
| Capacitance:         | 105 pF/m nom |
| Velocity of Prop:    | 70% Nom.     |
| Cut off Frequency:   | 116 GHz      |
| VSWR(.10 - 6.0 GHz): | 1.20:1 Mean  |
| Romp Function:       |              |
| 0.10GHz:             | 1.10:1       |
| 6.00GHz:             | 1.40:1       |

### Construction:

A) Center Conductor:  
SPC  
OD 0.305±0.0254mm

B) Dielectric:  
Extruded PTFE  
OD 0.838±0.0508mm

C) Inner Shield:  
38 awg spc  
OD 1.295 Nom

D) Jacket:  
Fep-brown tint  
OD 1.803±0.1016mm  
Nom.

### Physical Properties:

|                              |                |
|------------------------------|----------------|
| Weight:                      | 0.94kg/100m    |
| Minimum Bend Radius:         | 8.89mm         |
| Operating Temperature Range: | -55°C to 200°C |
| Conductor Break Strength:    | 4.6 lbs.       |

### Attenuation:

|        |                |
|--------|----------------|
| 100MHz | 45.93 dB/100m  |
| 400MHz | 92.52 dB/100m  |
| 800MHz | 147.64 dB/100m |
| 1GHz   | 211.29 dB/100m |
| 2GHz   | 234.91 dB/100m |
| 3GHz   | 261.48 dB/100m |
| 4GHz   | 304.13 dB/100m |
| 5GHz   | 342.19 dB/100m |
| 6GHz   | 377.30 dB/100m |

Model NO.IWX-1511RSJX-999

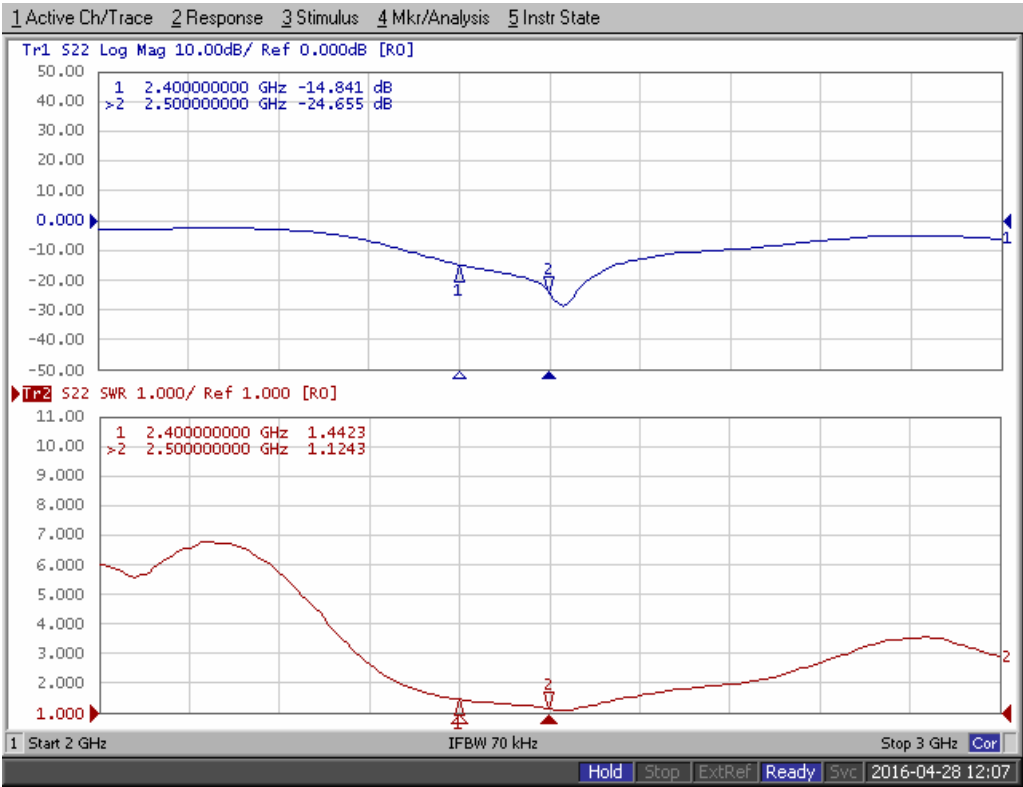
2.Test Report

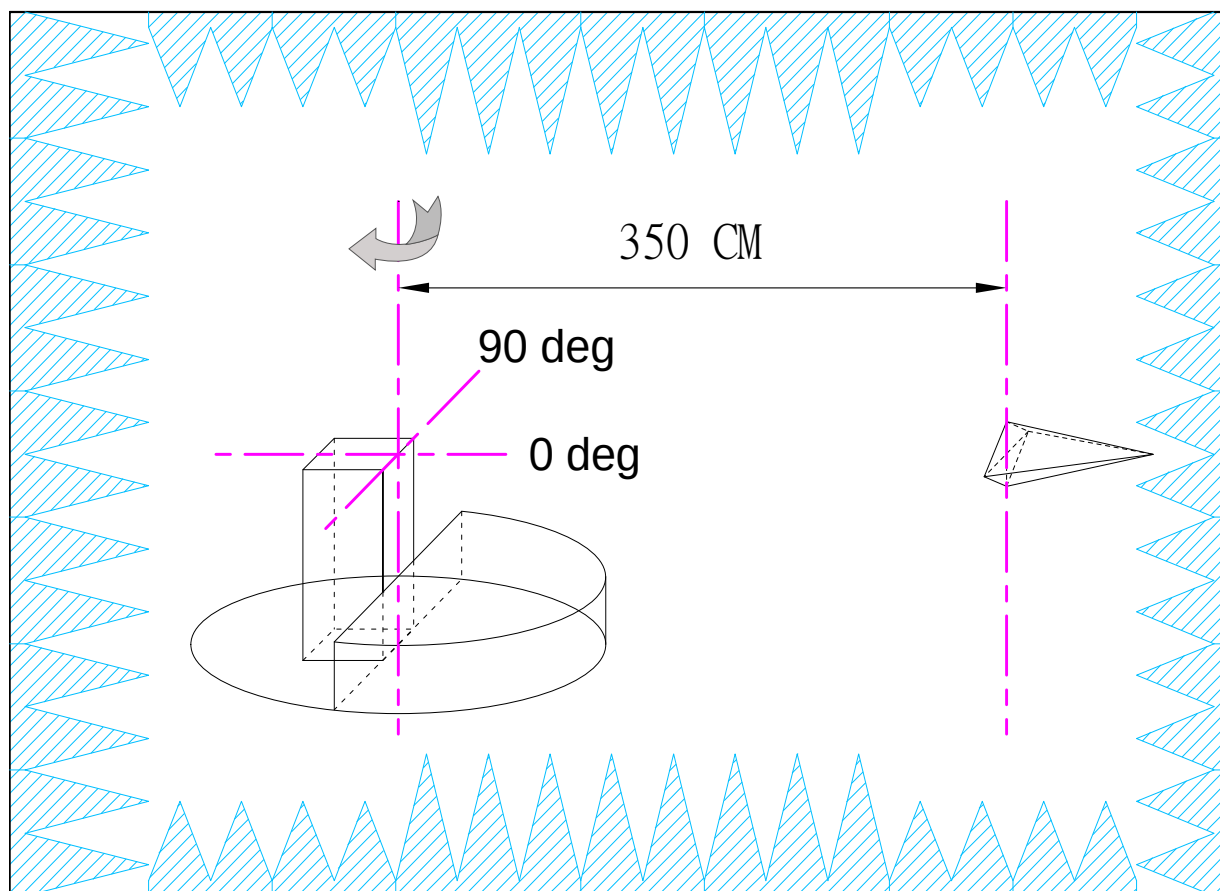
2.1 Electrical test

Return loss/V.S.W.R

Return loss

V.S.W.R.





### Test Equipment

Anechoic chamber: 100MHz~6GHz 8\*6\*6m (※ 1m Quiet zone at 800MHz)

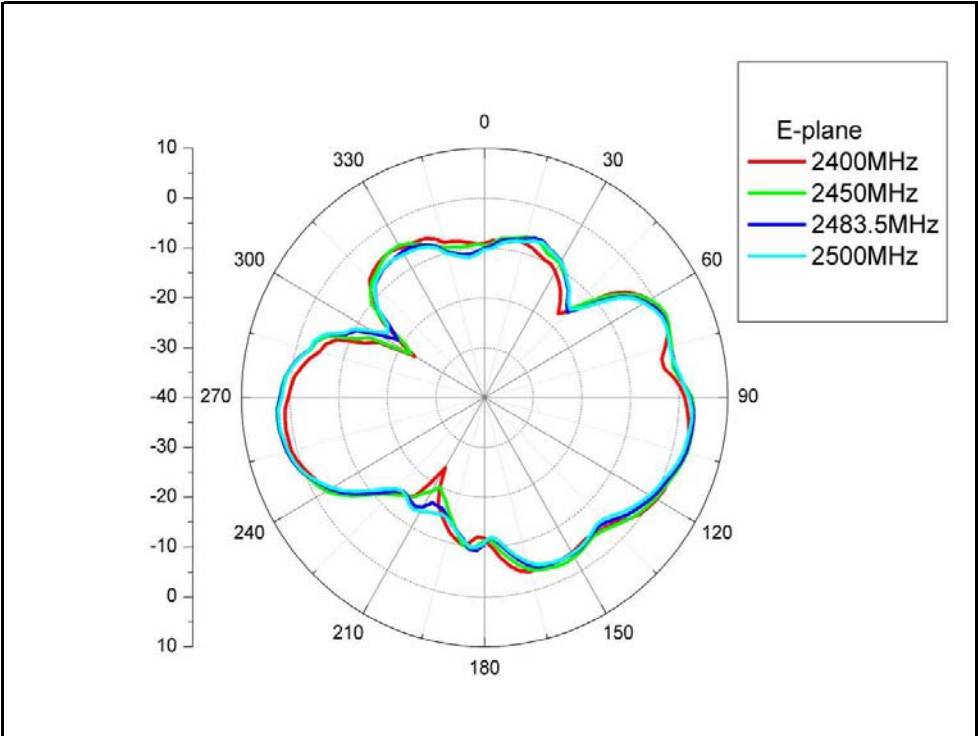
Soure Antenna: ETS-3164 Dual Polarized Horn

Network Analyzer: Agilent E5071B 100kHz~8.5GHz

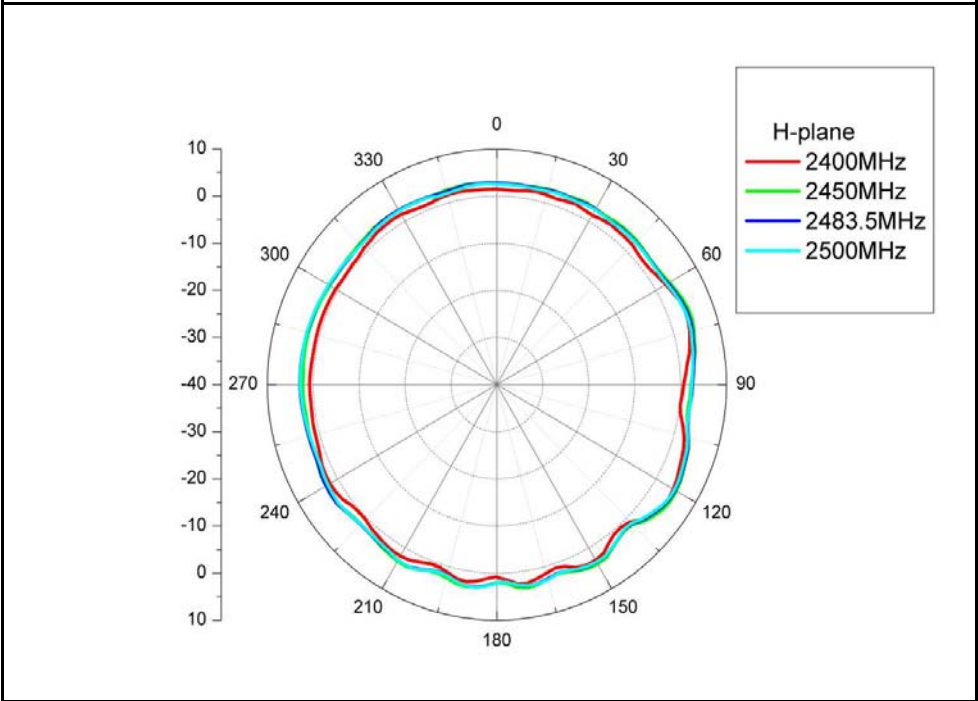
Model NO.IWX-1511RSJX-999

Test Setup

E-plane



H-plane



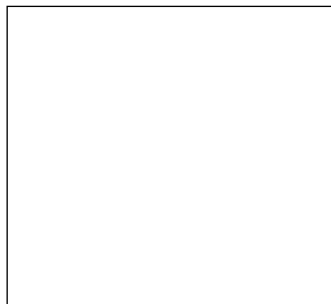
|          |          |          |            |          |
|----------|----------|----------|------------|----------|
| °        | 2400MHz° | 2450MHz° | 2483.5MHz° | 2500MHz° |
| E plane° | 2.7°     | 3.24°    | 3.16°      | 2.82°    |
| H plane° | 4.55°    | 5.18°    | 4.83°      | 4.61°    |

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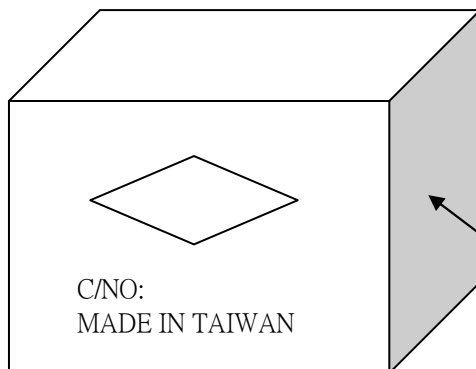
### 3. Package



- ① 1pcs antenna / 1 PE bag  
PE bag size 45\*240mm



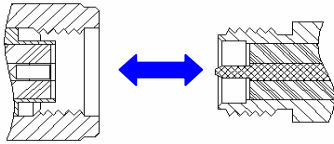
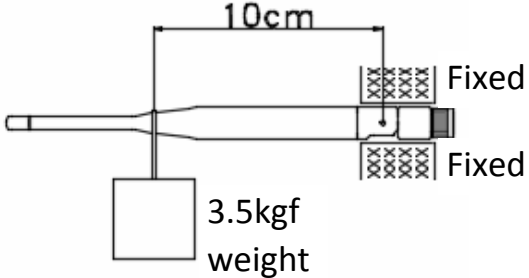
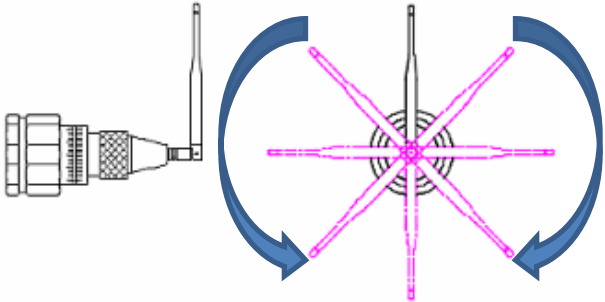
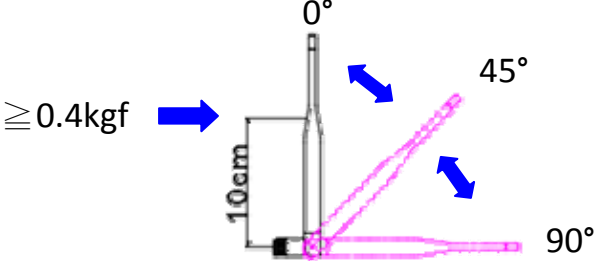
- ② 50pcs antenna / 1 PE bag  
PE bag size 280\*450mm



- ③ 400pcs antenna / 1 Carton++2  
Partition  
Carton size 320\*250\*290mm  
Partition size 310\*250 mm

|                   |     |
|-------------------|-----|
| <u>MODEL No.:</u> |     |
| <u>Q'ty:</u>      | PCS |
| <u>N.W:</u>       | PCS |
| <u>G.W:</u>       | PCS |

## 4. Mechanical Properties

| Mechanical Requirements            |                                                                            | Schematic Diagram                                                                    |
|------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Durability (mating)</b>         | 500 cycles                                                                 |    |
| <b>Bending force</b>               | 3.5kgf                                                                     |   |
| <b>Torque</b>                      | $\geq 0.4\text{kgf-cm}$<br>Antenna can be rotated any angle does not fall. |  |
| <b>Rotation Hinge Trust moment</b> | $0^\circ / 45^\circ / 90^\circ$<br>$\geq 0.4\text{kgf}$                    |  |

Component - Plastics

E50075

TEIJIN CHEMICALS LTD

KASUMIGASEKI COMMON GATE WEST TOWER, 2-1, KASUMIGASEKI 3-CHOME, CHIYODA-KU TOKYO 100-8585 JP

L-1250(##)(r2)(r2)

Polycarbonate (PC), "Panlite", furnished as pellets, powder

| Color | Min Thk<br>(mm) | Flame<br>Class | HWI | HAI | RTI  |     |     |
|-------|-----------------|----------------|-----|-----|------|-----|-----|
|       |                 |                |     |     | Elec | Imp | Str |
| ALL   | 0.40            | V-2            | 4   | 3   | 80   | 80  | 80  |
|       | 0.84            | V-2            | 4   | 3   | 80   | 80  | 80  |
|       | 1.5             | HB             | 4   | 0   | 125  | 115 | 125 |
|       | 3.0             | HB             | 1   | 0   | 125  | 115 | 125 |
|       | 6.0             | HB             | 1   | 0   | 125  | 115 | 125 |

Comparative Tracking Index (CTI): 2

Dielectric Strength (kV/mm): 24

High-Voltage Arc Tracking Rate (HVTR): 4

Dimensional Stability (%): 0

Inclined Plane Tracking (IPT): -

Volume Resistivity (10<sup>9</sup> ohm-cm): 16

High Volt, Low Current Arc Resis (D495): 5

(##) - May be suffixed with one or two letters except for a single letter U, V or Z or the letters U, V or Z followed by another letter.

(r2) - Subjected to one or more of the following tests: Ultraviolet Light, Water Exposure or Immersion in accordance with UL 746C, where the acceptability for outdoor use is to be determined by UL.

(r2) - Virgin and regrind up to 100% by weight inclusive have the same flammability characteristics only in the range of 1.5mm to 3.0mm; no other properties for regrind 26 to 100% by weight inclusive have been determined; Regrind in the range of 26 to 100% are to have a 80C generic RTI.

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.

Report Date: 1990-09-24

Last Revised: 2011-02-13

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### ZPMV2.E157836 Wiring, Printed - Component

Enhanced searching capability for this category can be found in UL's iQ Family of Databases ([iq.ul.com](http://iq.ul.com)).

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### Wiring, Printed - Component

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

**MUTUAL-TEK INDUSTRIES CO LTD**

E157836

25 LANE 195 HUA CHENG RD

HSIN CHUANG

TAIPEI HSIEN, 242 TAIWAN

ASTEN, 242 TAIWAN

| Type                                                             | Cond Width   |              | Cond              | SS/<br>DSO | Max         |        | Max    |        | Flame | Meets | C |
|------------------------------------------------------------------|--------------|--------------|-------------------|------------|-------------|--------|--------|--------|-------|-------|---|
|                                                                  | Min          | Min          |                   |            | Area        | Solder | Oper   |        |       |       |   |
|                                                                  | mm(in)       | mm(in)       |                   |            | mm(in)      | mm(in) | mm(in) | mm(in) |       |       |   |
| Type                                                             | mm(in)       | mm(in)       | mic(mil)          | DSO        | mm(in)      | C      | sec    | C      | Class | UL796 | T |
| Multilayer printed wiring boards.                                |              |              |                   |            |             |        |        |        |       |       |   |
| 0001                                                             | 0.1 (0.004)  | 0.1 (0.004)  | 17 (0.67) Int:34  | DS         | 152.4 (6.0) | 260    | 20     | 105    | V-0   | All   | - |
| 0001A                                                            | 0.03 (0.001) | 0.09 (0.004) | 11 (0.43) Int:34  | DS         | 25.4 (1.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 0001B                                                            | 0.03 (0.001) | 0.09 (0.004) | 17 (0.67)         | DS         | 25.4 (1.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 0002                                                             | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67) Int:170 | DS         | 50.8 (2.0)  | 288    | 20     | 120    | V-0   | All   | - |
| 0002A                                                            | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67)         | DS         | 25.4 (1.0)  | 288    | 20     | 120    | V-0   | All   | - |
| 0003                                                             | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67) Int:34  | DS         | 152.4 (6.0) | 288    | 20     | 130    | V-0   | All   | - |
| 0003A                                                            | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67)         | DS         | 25.4 (1.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 0004                                                             | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67) Int:34  | DS         | 101.6 (4.0) | 288    | 20     | 130    | V-0   | All   | - |
| 0004A                                                            | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67)         | DS         | 25.4 (1.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 0005                                                             | 0.06 (0.002) | 0.18 (0.007) | 17 (0.67) Int:340 | DS         | 50.8 (2.0)  | 288    | 20     | 130    | V-0   | All   | - |
| Multilayer printed wiring boards, flammability only Recognition. |              |              |                   |            |             |        |        |        |       |       |   |
| 001E@                                                            | -            | -            | -                 | SS         | -           | 288    | 20     | -      | V-0   | -     | - |
| Single layer Metal Base printed wiring boards.                   |              |              |                   |            |             |        |        |        |       |       |   |
| 001A                                                             | 0.26 (0.010) | 0.78 (0.031) | 17 (0.67)         | SS         | 76.2 (3.0)  | 288    | 20     | 130    | V-0   | -     | - |
| 001B (a)                                                         | 0.27 (0.011) | 0.81 (0.032) | 17 (0.67)         | SS         | 76.2 (3.0)  | 288    | 20     | 140    | V-0   | All   | - |
| Single layer printed wiring boards.                              |              |              |                   |            |             |        |        |        |       |       |   |
| 001                                                              | 0.1 (0.004)  | 0.1 (0.004)  | 17 (0.67)         | DS         | 152.4 (6.0) | 260    | 20     | 130    | V-0   | All   | - |
| 001C                                                             | 0.03 (0.001) | 0.09 (0.004) | 17 (0.67)         | DS         | 152.4 (6.0) | 288    | 20     | 130    | V-0   | All   | - |
| 001D                                                             | 0.04 (0.002) | 0.12 (0.005) | 17 (0.67)         | SS         | 76.2 (3.0)  | 270    | 20     | 130    | V-0   | All   | - |
| 001E                                                             | 0.03 (0.001) | 0.09 (0.004) | 17 (0.67)         | DS         | 25.4 (1.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 003A                                                             | 0.09 (0.004) | 0.27 (0.011) | 17 (0.67)         | DS         | 50.8 (2.0)  | 288    | 20     | 105    | V-0   | All   | - |
| 003C                                                             | 0.05 (0.002) | 0.15 (0.006) | 17 (0.67)         | DS         | 76.2 (3.0)  | 288    | 20     | 130    | V-0   | All   | - |
| 004                                                              | 0.1 (0.004)  | 0.3 (0.012)  | 17 (0.67)         | DS         | 50.8 (2.0)  | 288    | 20     | 130    | V-0   | All   | - |

(a) - Min. Conductor Width: 0.27 mm. (Cu thickness = 17 mic); 0.81 mm. (Cu thickness = 204 mic). Min. Edge: 0.36 mm. (Cu thickness = 17 mic); 1.08 mm (Cu thickness = 204 mic)

@ - May attach solid aluminum sheet as metal base of minimum thickness 0.80 mm on single side of the finished product.



Marking: Company name or tradename "MT", "MTK", "MU" or trademark or file number and type designation. May be followed by a

suffix to denote factory identification or burning test classification.

Last Updated on 2012-05-30

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Component - Plastics

E162823

FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV

201 TUNG HWA N RD, TAIPEI 105 TW

AG15A1

Acrylonitrile Butadiene Styrene/Styrene Acrylonitrile, "TAIRILAC", furnished as pellets

| Color                                           | Min Thk<br>(mm) | Flame |     | RTI |      |     |
|-------------------------------------------------|-----------------|-------|-----|-----|------|-----|
|                                                 |                 | Class | HWI | HAI | Elec | Imp |
| ALL                                             | 1.0             | HB    | 4   | 0   | 60   | 60  |
|                                                 | 1.6             | HB    | 4   | 0   | 95   | 85  |
|                                                 | 3.0             | HB    | 2   | 0   | 95   | 85  |
| Comparative Tracking Index (CTI): 0             |                 |       |     |     |      |     |
| High-Voltage Arc Tracking Rate (Hv/TR): 0       |                 |       |     |     |      |     |
| High Volt. Low Current Arc Resis (D495): 6      |                 |       |     |     |      |     |
| Dielectric Strength (kV/mm): -                  |                 |       |     |     |      |     |
| Volume Resistivity (10 <sup>9</sup> ohm-cm) : - |                 |       |     |     |      |     |

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Report Date: 1997-07-08  
Last Revised: 2011-05-18

Underwriters Laboratories Inc®



IEC and ISO Test Methods

| Test Name                      | Test Method     | Units             | Thickness   |            |
|--------------------------------|-----------------|-------------------|-------------|------------|
|                                |                 |                   | Tested (mm) | Value      |
| Flammability                   | IEC 60695-11-10 | Class (color)     | 1.0         | HB75 (ALL) |
|                                |                 |                   | 1.6         | HB75 (ALL) |
|                                |                 |                   | 3.0         | HB40 (ALL) |
| Glow-Wire Flammability (GWFI)  | IEC 60695-2-12  | C                 | -           | -          |
| Glow-Wire Ignition (GWTI)      | IEC 60695-2-13  | C                 | -           | -          |
| IEC Comparative Tracking Index | IEC 60112       | Volts (Max)       | -           | -          |
| IEC Ball Pressure              | IEC 60695-10-2  | C                 | -           | -          |
| ISO Heat Deflection (1.80 MPa) | ISO 75-2        | C                 | -           | -          |
| ISO Tensile Strength           | ISO 527-2       | MPa               | -           | -          |
| ISO Flexural Strength          | ISO 178         | MPa               | -           | -          |
| ISO Tensile Impact             | ISO 8256        | kJ/m <sup>2</sup> | -           | -          |
| ISO Izod Impact                | ISO 180         | kJ/m <sup>2</sup> | -           | -          |
| ISO Charpy Impact              | ISO 179-2       | kJ/m <sup>2</sup> | -           | -          |

Underwriters Laboratories Inc®

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Component - Plastics [\[guide info\]](#)

E107536

**SHINKONG SYNTHETIC FIBERS CORP**

223 YEN PING RD SEC 3, PIN CHENG TAoyuan Hsien 324 TW

**S201(E)**

Thermoplastic Polyester Elastomer (TPEE), furnished as pellets

| Color  | Min Thk<br>(mm) | Flame<br>Class | HWI | HAI | RTI<br>Elec | RTI<br>Imp | RTI<br>Str |
|--------|-----------------|----------------|-----|-----|-------------|------------|------------|
| NC, BK | 0.8             | HB             | 4   | 0   | 50          | 50         | 50         |
|        | 3.0             | HB             | 4   | 0   | 50          | 50         | 50         |

Comparative Tracking Index (CTI): -

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10<sup>X</sup> ohm-cm): -

High-Voltage Arc Tracking Rate (HVTR): -

High Volt, Low Current Arc Resis (D495): 4

Dimensional Stability (%): -

(E) - Replace by D40~D55, except D40 and D55. Associated with formula.

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Report Date: 2016-08-11

Last Revised: 2016-08-11

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**IEC and ISO Test Methods**

| Test Name                      | Test Method     | Units             | Thk (mm) | Value         |
|--------------------------------|-----------------|-------------------|----------|---------------|
| Flammability                   | IEC 60695-11-10 | Class (color)     | 0.8      | HB75 (NC, BK) |
|                                |                 |                   | 3.0      | HB40 (NC, BK) |
| Glow-Wire Flammability (GWFI)  | IEC 60695-2-12  | C                 | -        | -             |
| Glow-Wire Ignition (GWIT)      | IEC 60695-2-13  | C                 | -        | -             |
| IEC Comparative Tracking Index | IEC 60112       | Volts (Max)       | -        | -             |
| IEC Ball Pressure              | IEC 60695-10-2  | C                 | -        | -             |
| ISO Heat Deflection (1.80 MPa) | ISO 75-2        | C                 | -        | -             |
| ISO Tensile Strength           | ISO 527-2       | MPa               | -        | -             |
| ISO Flexural Strength          | ISO 178         | MPa               | -        | -             |
| ISO Tensile Impact             | ISO 8256        | kJ/m <sup>2</sup> | -        | -             |
| ISO Izod Impact                | ISO 180         | kJ/m <sup>2</sup> | -        | -             |
| ISO Charpy Impact              | ISO 179-2       | kJ/m <sup>2</sup> | -        | -             |



**AVLV2.E308587**  
**Appliance Wiring Material - Component**

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**Appliance Wiring Material - Component**

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

**WEIYANG TECHNOLOGY CO LTD**

13 Datung St  
Tucheng Industrial District  
New Taipei, 236 TAIWAN

E308587

**Table of Recognized Styles**

| Single-conductor, thermoplastic insulation.   |       |       |       |       |       |  |  |
|-----------------------------------------------|-------|-------|-------|-------|-------|--|--|
| 1330                                          | 1332  | 1354  | 1335  | 10064 |       |  |  |
| 1331                                          | 1333  | 1745  | 1979  | 10231 |       |  |  |
| Multiple-conductor, thermoplastic insulation. |       |       |       |       |       |  |  |
| 20079                                         | 20145 | 20262 | 20308 | 20476 | 21071 |  |  |

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

Last Updated on 2015-12-22

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Component - Plastics

E107536

SHINKONG SYNTHETIC FIBERS CORP

223 YEH PING RD SEC 3, PIN CHENG TAOYUAN H.SEN 324 TW

A724

Polybutylene Terephthalate/Polycarbonate (PBT/PC), furnished as pellets

| Color                                            | Min Thk (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str |
|--------------------------------------------------|--------------|-------------|-----|-----|----------|---------|---------|
| 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      |
| Comparative Tracking Index (CTI): -              |              |             |     |     |          |         |         |
| High-Voltage Arc Tracking Rate (HVRT): 2         |              |             |     |     |          |         |         |
| Dielectric Strength (KV/mm): 38                  |              |             |     |     |          |         |         |
| High Volt. Low Current Arc Resist (DAS): -       |              |             |     |     |          |         |         |
| Volume Resistivity (10 <sup>10</sup> ohm-cm): 17 |              |             |     |     |          |         |         |
| Dimensional Stability (%): -                     |              |             |     |     |          |         |         |

AN SVUL 84 small-scale test data does not pertain to building materials, furnishings and related contents. AN SVUL 84 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.

Report Date: 1992-04-06

Last Revised: 2005-09-21

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IEC and ISO Test Methods

| Test Name                      | Test Method     | Units             | Thickness Tested (mm) | Value     |
|--------------------------------|-----------------|-------------------|-----------------------|-----------|
| Flammability                   | IEC 60695-11-10 | Class (color)     | 0.8                   | HB75 (NC) |
|                                |                 |                   | 1.6                   | HB75 (NC) |
|                                |                 |                   | 3.2                   | HB40 (NC) |
| Glow-Wire Flammability (GVWF)  | IEC 60695-2-12  | C                 | -                     | -         |
| Glow-Wire Ignition (GVWI)      | IEC 60695-2-13  | C                 | -                     | -         |
| IEC Comparative Tracking Index | IEC 60112       | Voits (Max)       | -                     | -         |
| IEC Ball Pressure              | IEC 60695-10-2  | C                 | -                     | -         |
| ISO Heat Deflection (1.80 MPa) | ISO 75-2        | C                 | -                     | -         |
| ISO Tensile Strength           | ISO 527-2       | MPa               | -                     | -         |
| ISO Flexural Strength          | ISO 178         | MPa               | -                     | -         |
| ISO Tensile Impact             | ISO 3256        | KJ/m <sup>2</sup> | -                     | -         |
| ISO Izod Impact                | ISO 180         | KJ/m <sup>2</sup> | -                     | -         |
| ISO Charpy Impact              | ISO 179-2       | KJ/m <sup>2</sup> | -                     | -         |

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YDPU2.E338209

Tubing, Extruded Insulating - Component

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Tubing, Extruded Insulating - Component

See General Information for Tubing, Extruded Insulating - Component

DONGGUAN CITY CHANGJIE METALS & PLASTIC PRODUCTS CO LTD

E338209

1ST FL, ROOM 041, DIST 5

XIANSHA WUFANG VILLAGE, GAOBU TOWN

DONGGUAN, GUANGDONG 523285 CHINA

| Cat. No.                                                  | Max V,<br>rms | Max Oper<br>Temp, °C | Col<br>Recognized   | Oil-resistance<br>Class* | VW-1<br>Rated# |
|-----------------------------------------------------------|---------------|----------------------|---------------------|--------------------------|----------------|
| Not Heat Shrinkable PTFE (Polytetrafluoroethylene) Tubing |               |                      |                     |                          |                |
| CJ-TT-L                                                   | 150           | 200                  | All including Clear | —                        | Yes            |
| CJ-TT-T                                                   | 300           | 200                  | Black               | —                        | Yes            |

# Tubing is considered to comply with the optional VW-1 flammability requirements only if it is so marked.



Marking: Company name or "E338209" or trademark shrinkable tubing), voltage rating, temperature rating in degrees C and date of manufacture to be printed on tags attached to both ends of the tubing or on the shipping spool label or smallest unit container in which the product is packaged.

Last Updated on 2011-07-21

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**QMFZ2.E236040**  
**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

**DONGJUE SILICONE (NANJING) CO LTD**

No. 196 Fuyin St.(e)  
Qiaolin Pukou District  
Nanjing, Jiangsu 211806 CHINA

E236040

|                                                    |       |         |       |   |   |      |     |       |     |   |     |
|----------------------------------------------------|-------|---------|-------|---|---|------|-----|-------|-----|---|-----|
|                                                    |       | Min.    |       | H | H |      |     |       |     | H | D   |
|                                                    |       | Thk     | Flame | W | A | Elec |     | R T I |     | V | 4 C |
| Material Dsg                                       | Color | mm      | Class | I | I |      |     | Mech  |     | T | 9 T |
| Silicone Molding Resin (SIR), furnished as sheets. |       |         |       |   |   |      |     |       |     |   |     |
| NE-2150                                            | NC    | 1.8     | V-0   | - | - | 150  | 150 | 150   | 150 | - | -   |
|                                                    |       | 3.0     | V-0   | - | - | 150  | 150 | 150   | 150 |   |     |
| Silicone Rubber (SIR), furnished as plate.         |       |         |       |   |   |      |     |       |     |   |     |
| NE-2250                                            | WT    | 3.0-3.3 | V-0   | - | - | 150  | 150 | 150   | 150 | - | -   |
| Silicone Rubber (SIR), furnished as plate.         |       |         |       |   |   |      |     |       |     |   |     |
| NE-2260                                            | WT    | 3.0-3.3 | V-0   | - | - | 150  | 150 | 150   | 150 | - | -   |
| Silicone Rubber (SIR), furnished as plate.         |       |         |       |   |   |      |     |       |     |   |     |
| NE-2270                                            | WT    | 3.0-3.3 | V-0   | - | - | 150  | 150 | 150   | 150 | - | -   |
| Silicone Rubber (SIR), furnished as sheets.        |       |         |       |   |   |      |     |       |     |   |     |
| NE-2160                                            | GY    | 1.1     | V-0   | - | - | 150  | 150 | 150   | 150 | - | -   |

Marking: Company name and material designation on container, wrapper or finished part.

Last Updated on 2015-09-24

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