

# Sample acknowledgment

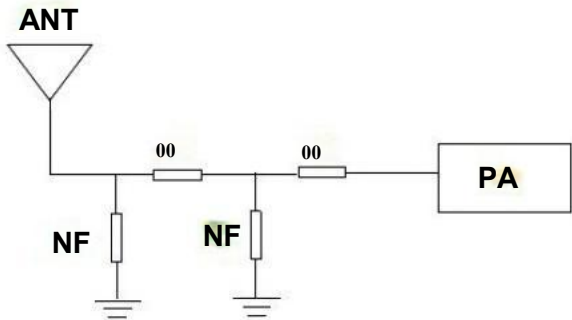
|                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |                                                                               |             |                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------|
| specifications and models                                                                                                                                                                                                                                                                                             | <b>FPC(RC MPS4050)-1.13-L50-IPEX-WIFI2.4G</b>                                                                                                                              |                                                                               |             |                                                                             |
| brand                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                            | Send sample date                                                              | 2021/10/19  |                                                                             |
| Sample Number (material number)                                                                                                                                                                                                                                                                                       | Fill in the corresponding material number of the customer                                                                                                                  | Supplier material number                                                      |             |                                                                             |
| sample size                                                                                                                                                                                                                                                                                                           | 5                                                                                                                                                                          | PCS/individual                                                                | MPQ         |                                                                             |
| Type of supplier                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Production <input type="checkbox"/> agent <input type="checkbox"/> trade <input type="checkbox"/> Other                                           |                                                                               |             |                                                                             |
| Name of supplier:                                                                                                                                                                                                                                                                                                     | Shenzhen Ruicai Electronic Technology Co., LTD                                                                                                                             |                                                                               |             |                                                                             |
| address:                                                                                                                                                                                                                                                                                                              | North wing of 5th floor, Building 1, Weixin Software Science and Technology Park, No.9, Gaoxin South 9 Road, South District, Nanshan Science and Technology Park, Shenzhen |                                                                               |             |                                                                             |
| Business contact person:                                                                                                                                                                                                                                                                                              | Zhou Zhaojie                                                                                                                                                               | telephone:                                                                    | 13430459789 | postbox: <a href="mailto:zhouzhaojie@reecam.net">zhouzhaojie@reecam.net</a> |
| technical support:                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                            | telephone:                                                                    |             | postbox:                                                                    |
| check:                                                                                                                                                                                                                                                                                                                | QA:                                                                                                                                                                        | engineering:                                                                  |             |                                                                             |
| Note: The above information shall be filled in by the supplier<br>Please provide several samples, paper file recognition cover and specification in duplicate, electronic file specification (email form)<br><b>Please fill in the above carefully, please provide the information correctly, otherwise refuse!!!</b> |                                                                                                                                                                            |                                                                               |             |                                                                             |
| (The following contents shall be filled in by FOSCAM personnel)                                                                                                                                                                                                                                                       |                                                                                                                                                                            |                                                                               |             |                                                                             |
| Applicable machine                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                            |                                                                               |             |                                                                             |
| First sample delivery                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                            |                                                                               |             |                                                                             |
| Date of sample delivery:                                                                                                                                                                                                                                                                                              |                                                                                                                                                                            | Acknowledgement person 1:                                                     | Admit date: |                                                                             |
|                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            | Recognize person 2:                                                           |             |                                                                             |
| bear fruit                                                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> Qualified <input type="checkbox"/> unqualified <input type="checkbox"/> Other remarks:                                                 |                                                                               |             |                                                                             |
| suggestion                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> small batch trial production                                                                                                                      | <input type="checkbox"/> Qualified <input type="checkbox"/> Unqualified Note: |             |                                                                             |
|                                                                                                                                                                                                                                                                                                                       | Batch trial production in <input type="checkbox"/>                                                                                                                         | <input type="checkbox"/> Qualified <input type="checkbox"/> Unqualified Note: |             |                                                                             |
| The second sample                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                            |                                                                               |             |                                                                             |
| Date of sample delivery:                                                                                                                                                                                                                                                                                              |                                                                                                                                                                            | Acknowledgement person 1:                                                     | Admit date: |                                                                             |
|                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            | Recognize person 2:                                                           |             |                                                                             |

|                |                                                                                                                 |                                                                               |
|----------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| bear fruit     | <input type="checkbox"/> Qualified <input type="checkbox"/> Unqualified <input type="checkbox"/> Other remarks: |                                                                               |
| suggestion     | <input type="checkbox"/> small batch trial production                                                           | <input type="checkbox"/> Qualified <input type="checkbox"/> Unqualified Note: |
|                | Batch trial production in <input type="checkbox"/>                                                              | <input type="checkbox"/> Qualified <input type="checkbox"/> Unqualified Note: |
| article number |                                                                                                                 | Admit the chapter                                                             |
| description    |                                                                                                                 |                                                                               |

1. Test items and equipment

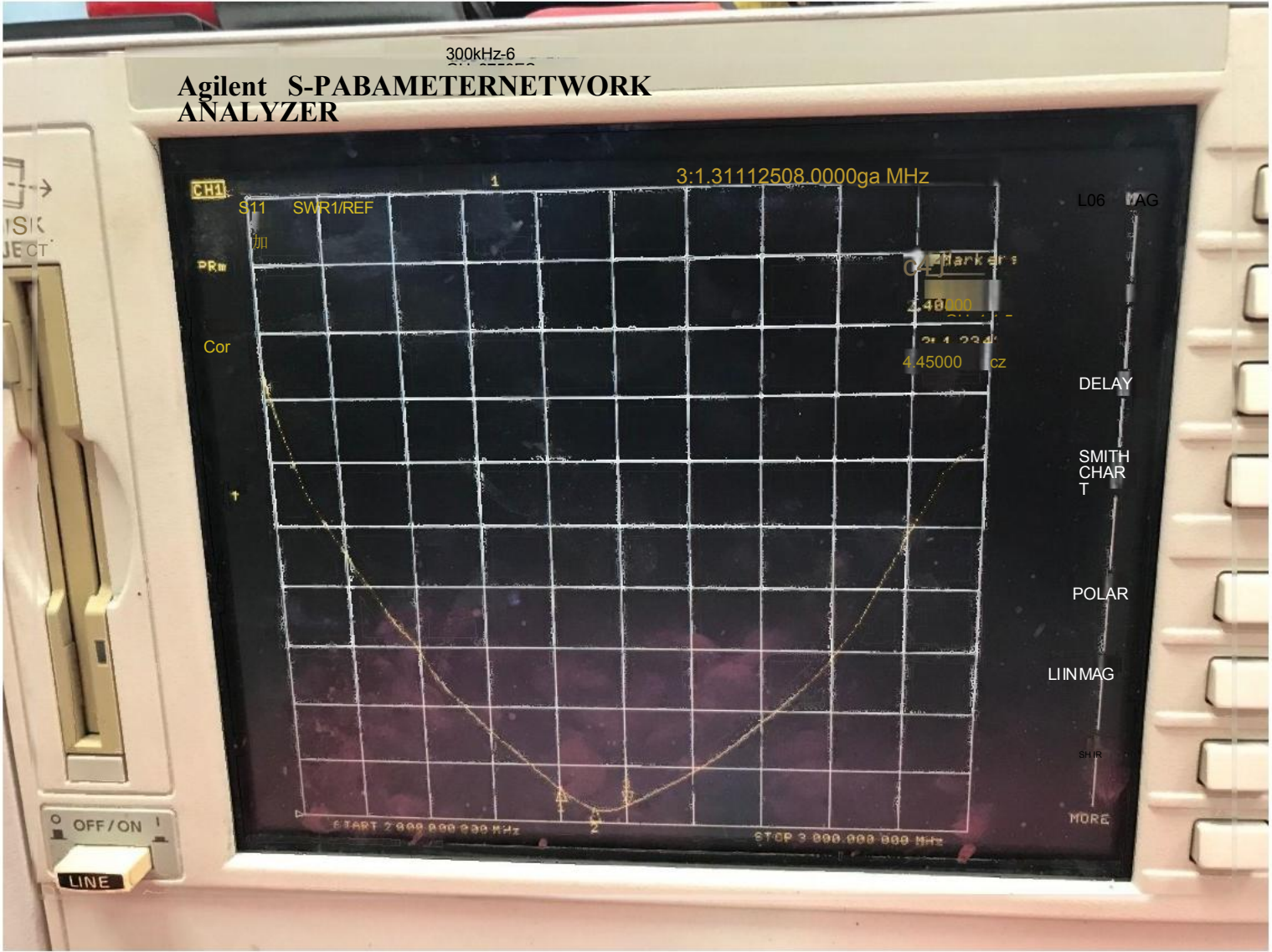
|                                   | test item                                                        | equipment                                                                                                                        |
|-----------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1.S11 parameters<br>(S-parameter) | 1. Echo loss (Return Loss) 2. Voltage standing wave ratio (VSWR) | Network analyzer: Agilent E5071B HP8753D                                                                                         |
| 2. Active testing<br>(Active)     | 1. Emission Power (TRP) 2. Receiving Sensitivity (TIS)           | 1. Dark room: ETS 7x4x3 m (3D) ChamberETS 5x3x3 m (3D) Chamber<br>2. Comprehensive tester: Agilent 8960 E5515B 2 StarPointSP6011 |
| 3. passive test<br>(Passive)      | 1. Antenna Gain(Gain)2. Antenna efficiency ( Efficiency)         | 1. darkroom: ETS 7x4x3 m(3D)ChamberETS 5x3x3m(3D)Chamber<br>2. network analyzer: Agilent E5071BHP8753D                           |

2. Matching Circuit-Antenna:



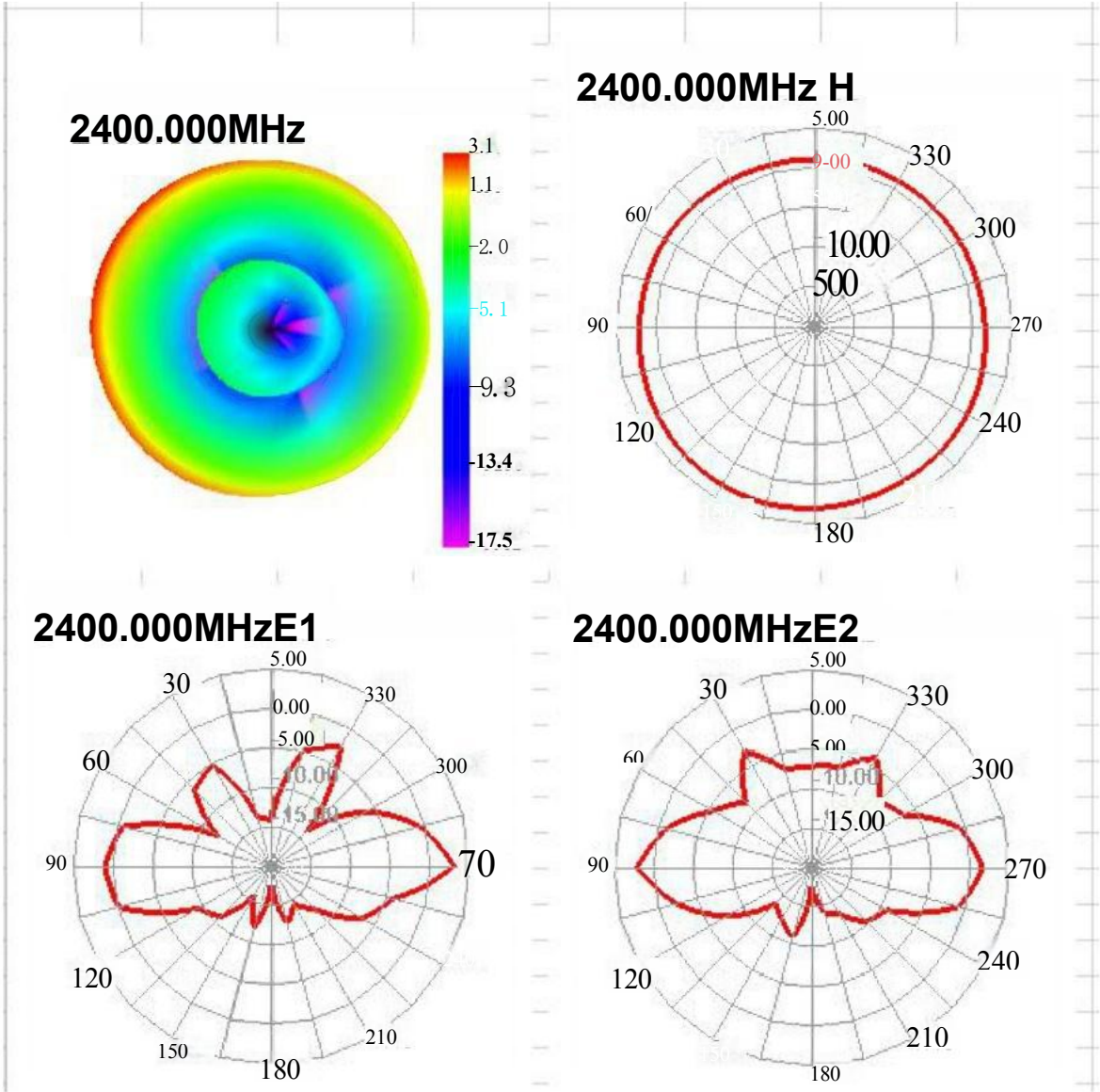
We have not made any modifications to the matching circuit

3. Antenna Performance

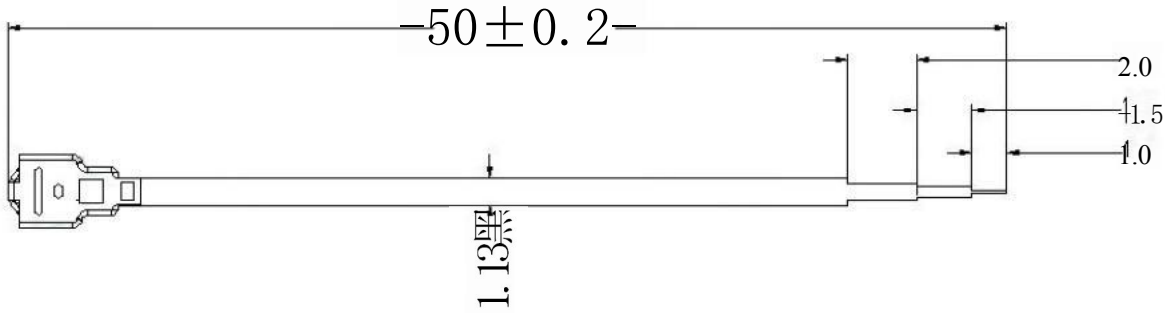
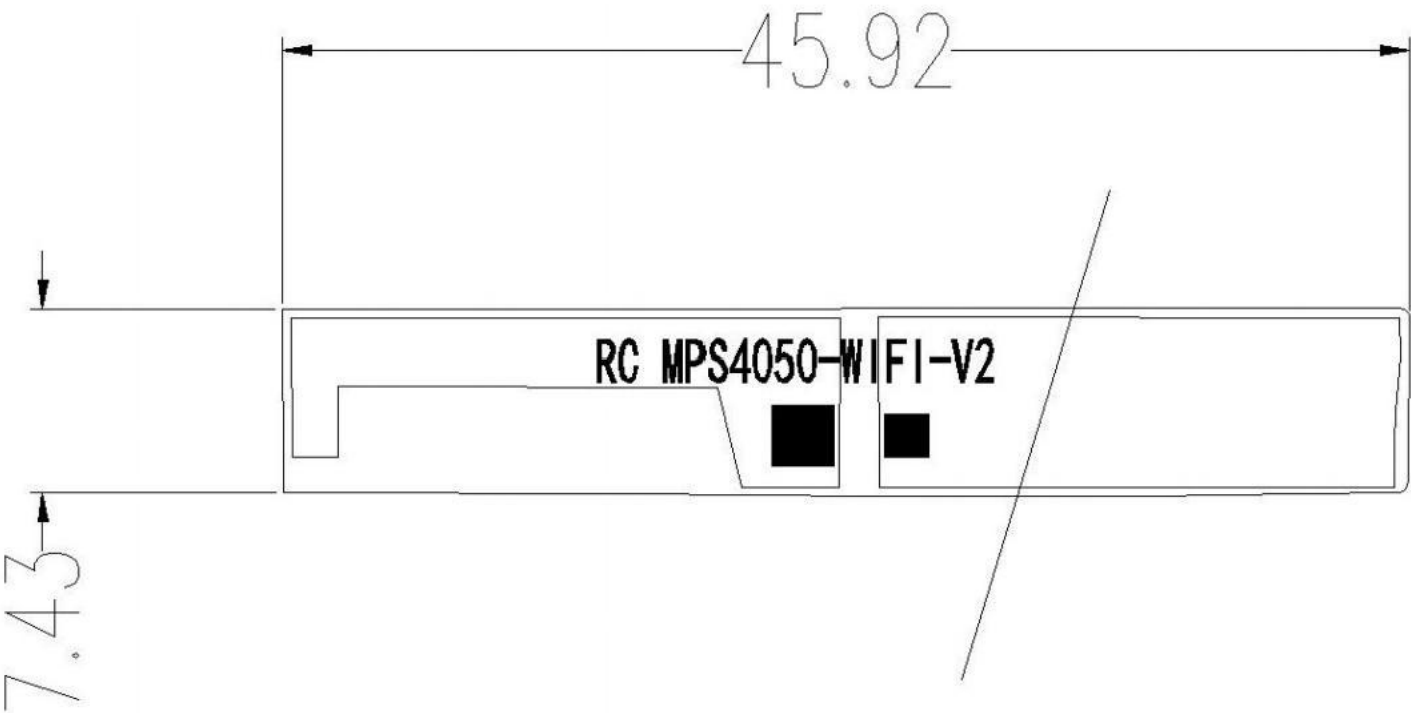


4. Antenna Test Data

| Passive Test For WIFI |          |           |            |            |         |          |          |          |             |             |
|-----------------------|----------|-----------|------------|------------|---------|----------|----------|----------|-------------|-------------|
| Freq (MHz)            | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) | UHS (%) | DHIS (%) | Max (dB) | Min (dB) | Attenut Hor | Attenut Ver |
| 2400                  | 64.87    | -1.88     | 3.04       | 0.89       | 39.258  | 25.616   | 3.04     | -10.56   | 48.09       | 47.94       |
| 2410                  | 64.93    | -1.88     | 3.19       | 1.04       | 39.664  | 25.266   | 3.19     | -9.99    | 48.07       | 47.87       |
| 2420                  | 64.09    | -1.93     | 3.19       | 1.04       | 39.526  | 24.568   | 3.19     | -9.58    | 48.18       | 48          |
| 2430                  | 63.42    | -1.98     | 3.15       |            | 39.483  | 23.935   | 3.15     | -10.3    | 48.17       | 47.99       |
| 2440                  | 64.44    | -1.91     | 3.16       | 1.01       | 40.314  | 24.128   | 3.16     | -10.44   | 48.33       | 48.11       |
| 2450                  | 65.27    | -1.85     | 3.08       | 0.93       | 40.884  | 24.383   | 3.08     | -10.72   | 48.44       | 48.14       |
| 2460                  | 64.99    | -1.87     | 2.9        | 0.75       | 40.601  | 24.389   | 2.9      | -12.44   | 48.41       | 48.06       |
| 2470                  | 65.62    | -1.83     | 2.83       | 0.68       | 40.834  | 24.788   | 2.83     | -14.61   | 48.49       | 48.11       |
| 2480                  | 65.19    | -1.86     | 2.74       | 0.59       | 40.523  | 24.667   | 2.74     | -17.58   | 48.63       | 48.18       |
| 2490                  | 64.68    | -1.89     | 2.66       | 0.51       | 40.414  | 24.269   | 2.66     | -19.56   | 48.76       | 48.29       |
| 2500                  | 62.89    | -2.01     | 2.49       | 0.34       | 39.738  | 23.153   | 2.49     | -21.19   | 48.69       | 48.16       |



5. Antenna Structure Diagram



| Technical parameters of electrical appliances |                        |                           |               |
|-----------------------------------------------|------------------------|---------------------------|---------------|
| Electrical Performance Indicators             |                        | Electrical Specifications |               |
| frequency range                               | 2400~2500 MHz          | Frequency Range           | 2400~2500 MHz |
| voltage standing-wave ratio                   | ≤2.0                   | VSWR                      | ≤2.0          |
| gain                                          | 3 DBI                  | Gain                      | 3 DBI         |
| input impedance                               | 50 Ω                   | Input Impedance           | 50 Ω          |
| Maximum input power                           | 50W                    | MaximumInput Power        | 50W           |
| Mechanical indicators                         |                        | Mechanical Specifications |               |
| Antenna color                                 | black                  | Antenna Color             | Black         |
| Interface form                                | IPEX-take the place of | Input connector           | IPEX-1        |
| Wire length                                   | 50 mm                  | Cable length              | 50 mm         |
| working temperature                           | -40℃~+85℃              | Working Temperature       | -40℃~+85℃     |
| Working humidity                              | 20~80%                 | Working Humidity          | 20~80%        |

# RF113 specification

1. Scope of application

This specification defines the structure and electrical characteristics of the wires

Coaxia  
1 line  
of AWG  
32

1.Scope

This specification covers the construction and the electrical properties of wire

Coaxial  
WireAWG  
32

Unit / Unit: mm

2. Structure / Construction

| project /Item                         |                                                        | unit /Unit | Details on / Details                                    |
|---------------------------------------|--------------------------------------------------------|------------|---------------------------------------------------------|
| Conductor<br>conduc<br>tor            | Material / Material                                    |            | Groofing silver copper wire<br>Silver-coatedcopper wire |
|                                       | Composition of /<br>Composition                        | (No. /mm)  | 7/0.08                                                  |
|                                       | external diameter<br>/OD.                              | mm         | 0.24                                                    |
|                                       | Stringing direction /<br>Orientation                   |            | S                                                       |
| Insulation<br>Insulat<br>ion<br>layer | Material / Material                                    |            | FEP (imported material)                                 |
|                                       | Insulation color /<br>Insulation colo r                |            | True color / Natural                                    |
|                                       | Nominal insulation<br>thickness /                      | mm         | 0.22                                                    |
|                                       | Insulation wire<br>diameter / OD.                      | mm         | 0.69                                                    |
| Braid Shield<br>Weave it              | Material / Material                                    |            | tinned copper wire<br>Tinned copper wire                |
|                                       | Composition of /<br>Composition                        | (No. /mm)  | 16/4/0.05                                               |
|                                       | Woven density /<br>Coverage                            | (%)        | >=90                                                    |
| Jacket<br>ecderon                     | Material / Material                                    |            | FEP                                                     |
|                                       | Nominal<br>insulation<br>thickness /<br>Nom. Thickness | mm         | 0.12                                                    |
|                                       | external diameter<br>/OD.                              | mm         | 1.13±0.10                                               |

3.Electrical Properties (at 20℃) / Electrical characteristics (at 20℃)

| project /Item                                        | unit /Unit | Details on / Details |
|------------------------------------------------------|------------|----------------------|
| Conductor resistance / Conductor Resistance          | Q/km       | 571(Max.)            |
| Insulation resistance / Insulation Resistance        | MO • km    | 100(Min.)            |
| Compressive strength (AC) / Dielectric Strength (AC) | V/1 Min    | 500                  |
| Characteristic impedance / Impedance                 | Ω          | 50±3                 |
| Temperature resistance grade / Temperature           | ℃          | 200                  |
| Rated voltage / rated voltage                        | V          | 30                   |

#### 4. The wire section

