

|          |                                                                          |
|----------|--------------------------------------------------------------------------|
| Customer |                                                                          |
| Date     | 2014 / 11 / 20                                                           |
| Product  | OA-868M06-NF<br>860MHz - 870MHz 6dBi Omni-Directional<br>Outdoor Antenna |
| REV      | 1                                                                        |

FEI TENG WIRELESS TECHNOLOGY CO., LTD

APPROVAL SHEET

| Customer Approved By | Approve | Chief | Responsible |
|----------------------|---------|-------|-------------|
|                      |         |       |             |

## 860MHz - 870MHz 6dBi Omni-Directional Outdoor Antenna

| Applications:                                                                                                                                                                                                                                                               | Features :                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• 860MHz - 870MHz Frequency Band</li> <li>• IEEE 802.22 WRAN</li> <li>• Point to Point Bridge</li> <li>• Multipoint Application</li> <li>• Bluetooth</li> <li>• Public Wireless Hotspot</li> <li>• Wireless Video Systems</li> </ul> | <ul style="list-style-type: none"> <li>• Superior performance</li> <li>• The Weight is light</li> <li>• Good appearance designs</li> <li>• DC Short lightning protection</li> <li>• Support is up and down or so to adjust</li> <li>• Behind and support is an aluminum</li> <li>• Outdoor antenna for public Hot spots</li> <li>• Includes tilt and swivel mast mount brackets</li> <li>• RoHS Compliant</li> </ul> |

| Accessories                                                                         |                                                                                                                                                                              |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Stainless steel "U type" screw X2</b><br/> <b>M6 Stainless steel screw mat slice X 4</b><br/> <b>M6 Stainless steel screw X 4</b><br/> <b>Water proof tape X 1</b></p> |

**Fei Teng Wireless Technology Corp.**

6F.,NO 10-10.Guangming 9st RD.,Jhubei city.  
Hsinchu conutry302,Taiwan

TEL:886-3-5882899  
 FAX:886-3-5882879  
<http://www.FT-RF.com>  
[e-mail:ft@ft168.com.tw](mailto:ft@ft168.com.tw)

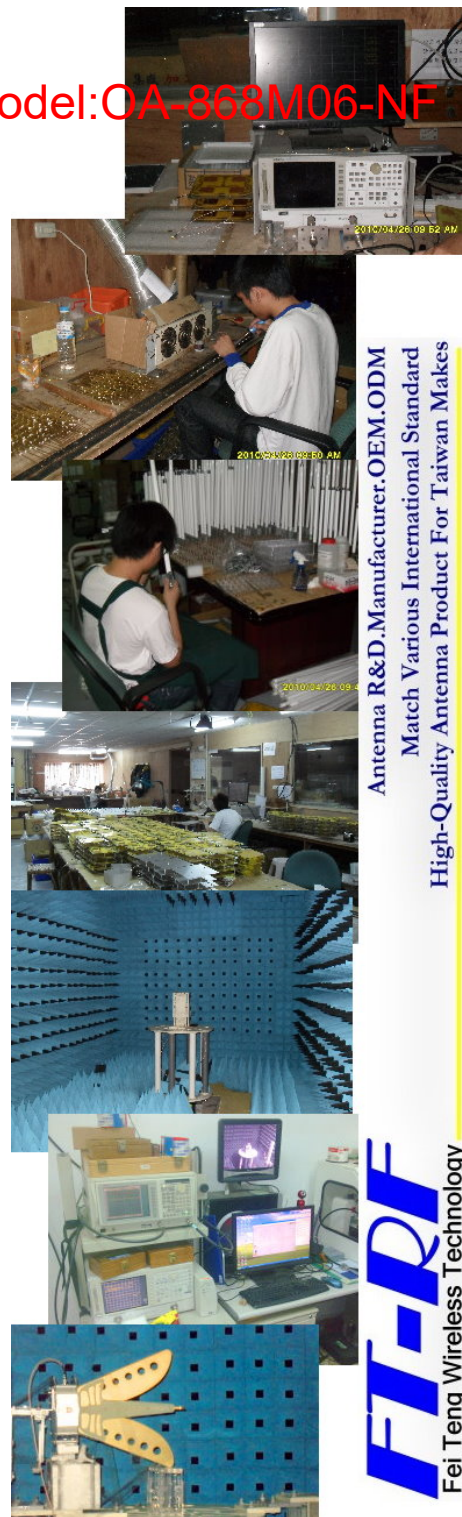
## Electrical Specifications

|                              |                 |
|------------------------------|-----------------|
| <b>Frequency Range</b>       | 860MHz - 870MHz |
| <b>V.S.W.R (MAX)</b>         | 1.8 :1          |
| <b>Antenna Type</b>          | Omni            |
| <b>Radiation</b>             | Directional     |
| <b>Gain</b>                  | 6 dBi           |
| <b>Polarization</b>          | Vertical        |
| <b>Maximum Power</b>         | 100 Watts       |
| <b>Vertical Beam-width</b>   | 75 Deg          |
| <b>Horizontal Beam-width</b> | 360 Deg         |
| <b>Impedance</b>             | 50 Ohm          |
| <b>Antenna Design</b>        | Dipole Array    |
| <b>Internal Material</b>     | Copper          |
| <b>Connector</b>             | N-Female        |

## Mechanical Specifications

|                                  |                              |
|----------------------------------|------------------------------|
| <b>Length x Width (MAX)</b>      | 1094mm                       |
| <b>Diameter (MAX)</b>            | 70x55 mm                     |
| <b>Antenna Weight(G.W)</b>       | 540g                         |
| <b>Accessories (G.W)</b>         | 70 g                         |
| <b>Application</b>               | Indoor / Outdoor             |
| <b>Radome Material</b>           | White Fiberglass             |
| <b>Parts Material</b>            | Aluminum                     |
| <b>Mount Style</b>               | Pole Mount / Wall Mount      |
| <b>Mounting</b>                  | Stainless Steel and Aluminum |
| <b>Wind Survival</b>             | Greater than 150MPH          |
| <b>Storage Temperature</b>       | -20 to +80                   |
| <b>Operating Temperature</b>     | -20 to +60                   |
| <b>Operating Humidity</b>        | 10%~80% non-condensing       |
| <b>Storage Humidity</b>          | 5%~80% non-condensing        |
| <b>Safety,Emission and other</b> | RoHS                         |

Model:OA-868M06-NF



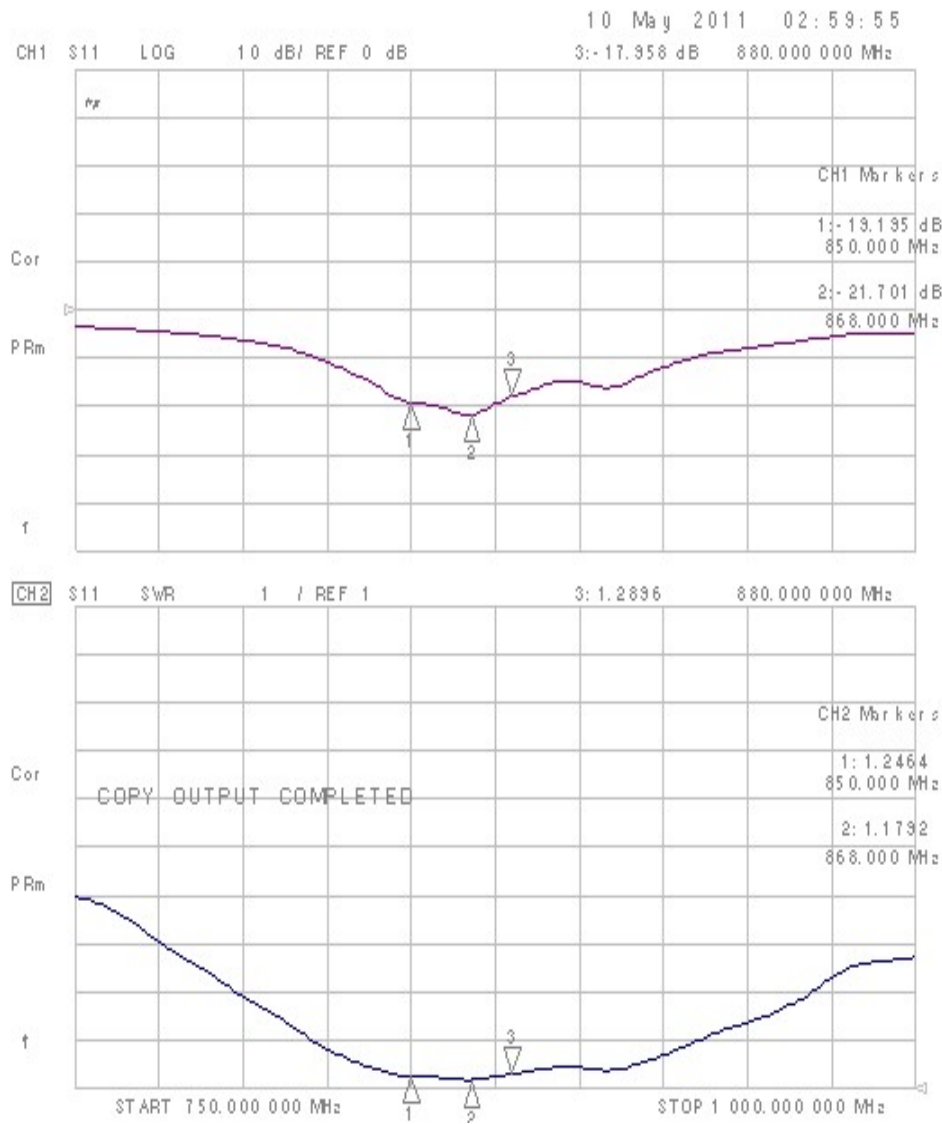
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Network Analyzer Test Report

|                      |                                       |
|----------------------|---------------------------------------|
| Test Equipment       | Agilent 8720ET 50MHz-20.5GHz          |
| Test Equipment Cable | Agilent 60cm SMA Male to SMA Male     |
| RF connector Adapter | Agilent SMA-Female to N-Male DC~18GHz |
| Correction           | 85052D-DC-26.5Ghz                     |
| Test Model           | OA-868M06-NF                          |
| Test Port            | S11                                   |

Return Loss & V.S.W.R



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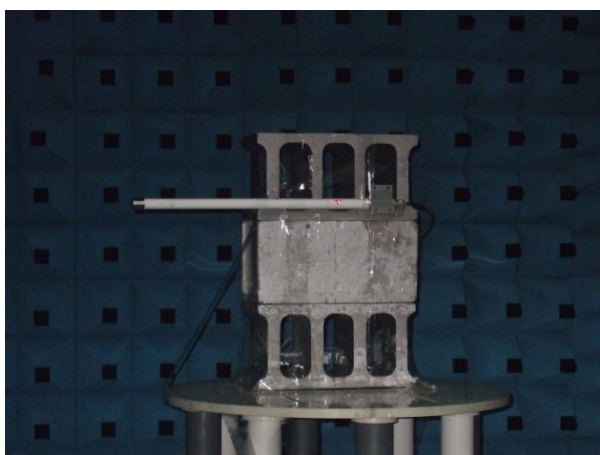
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## RF Chamber Test Report

|                |                              |
|----------------|------------------------------|
| Test Equipment | Agilent 8720ET 50MHz-20.5GHz |
| Chamber        | 14M(L) X 7M(D) X 7M(H)       |
| Test Frequency | 860MHz - 870MHz              |
| Test Antenna   | FT-RF HA-07M18G-NF           |

### Vertical Pattern Photos

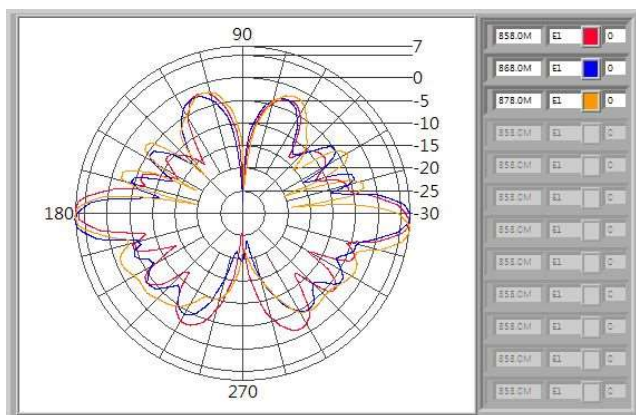


### Horizontal Pattern Photos



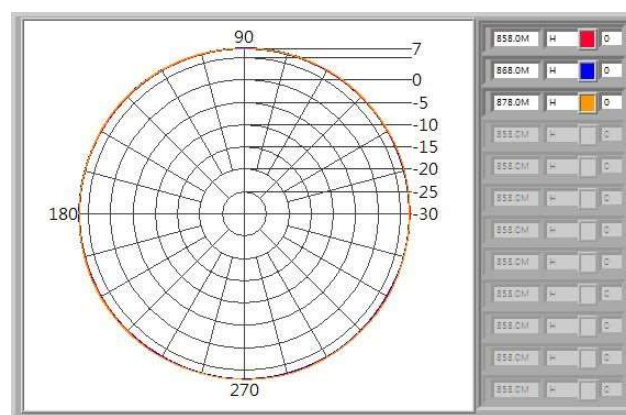
### Vertical Pattern

E-plane co-pol ----- -3dB beam-width=25 Deg



### Horizontal Pattern

H-plane co-pol ----- -3dB beam-width=360 Deg

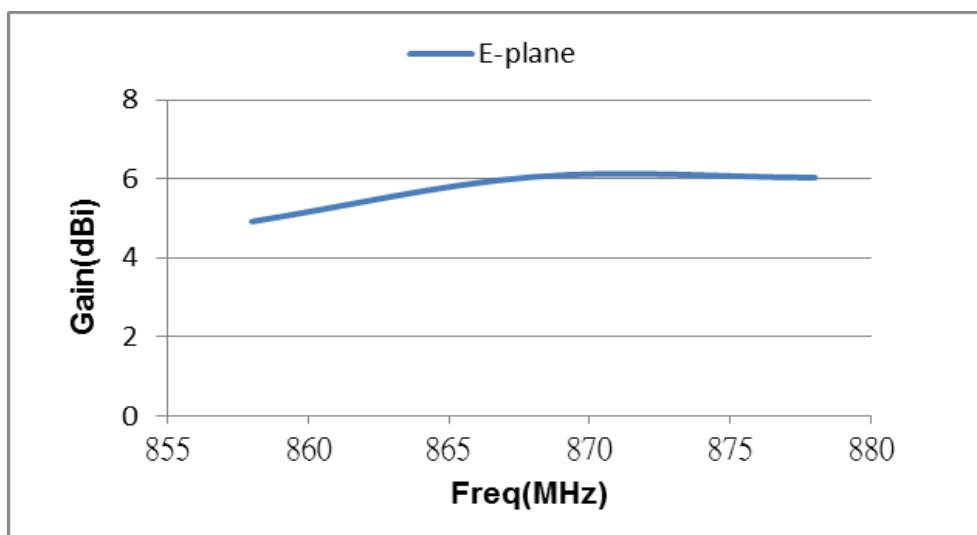


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## Antenna Gain Curve

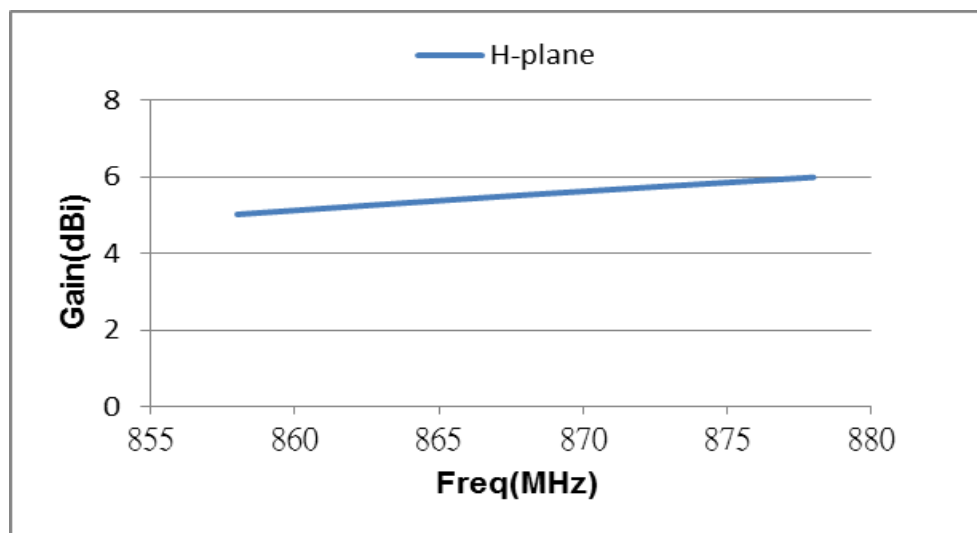
E-Plane

| MHz     | dBi  |
|---------|------|
| 858     | 4.92 |
| 868     | 6.05 |
| 878     | 6.03 |
| Average | 5.67 |



H-plane

| MHz     | dBi  |
|---------|------|
| 858     | 5.02 |
| 868     | 5.53 |
| 878     | 5.99 |
| Average | 5.67 |



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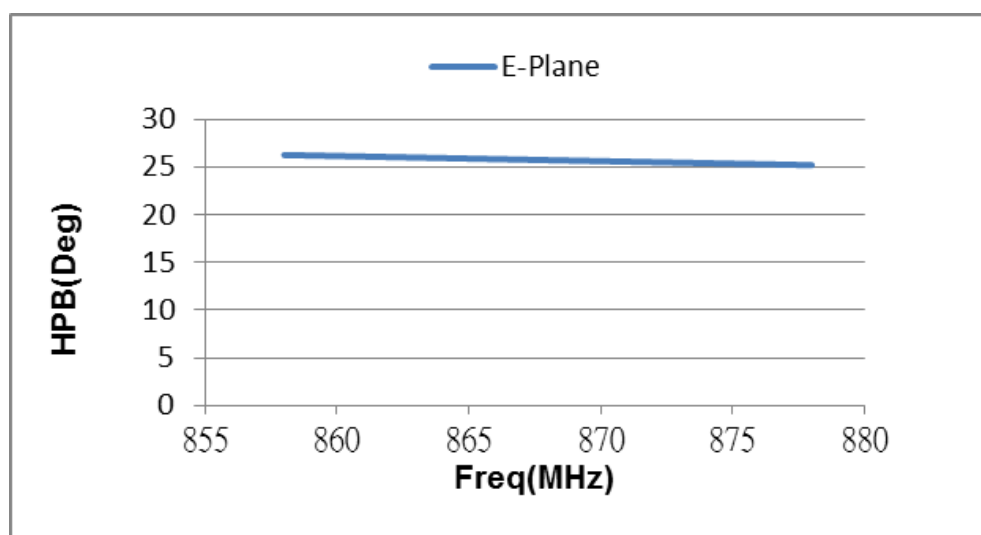
Model: OA-868M06-NF

## Antenna -3dB Beam-width Curve

E-Plane

| MHz | Deg   |
|-----|-------|
| 858 | 26.24 |
| 868 | 25.7  |
| 878 | 25.18 |

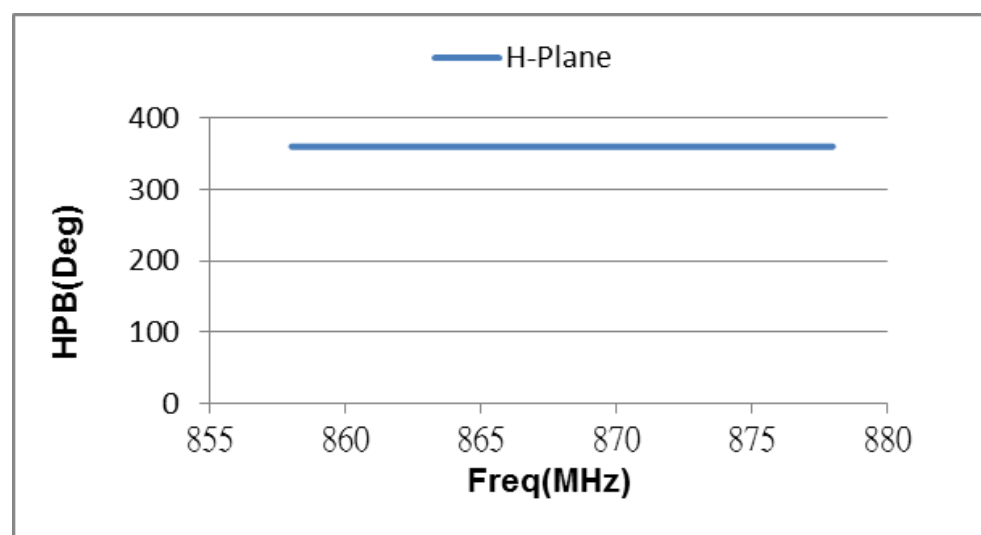
Average 25.71



H-Plane

| MHz | Deg |
|-----|-----|
| 858 | 360 |
| 868 | 360 |
| 878 | 360 |

Average 360



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[e-mail:ft@ft168.com.tw](mailto:ft@ft168.com.tw)

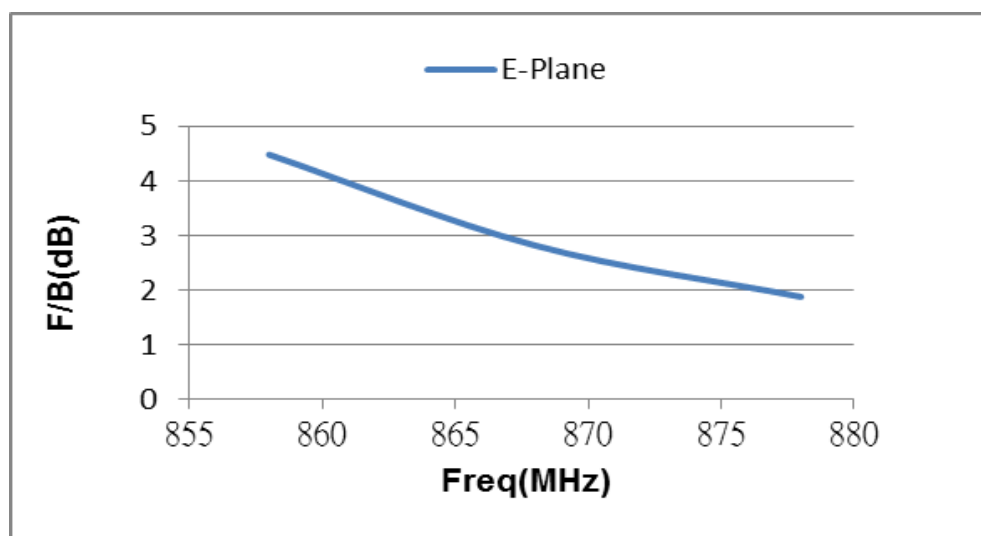
Model: OA-868M06-NF

## Antenna FBR Curve

E-Plane

| MHz | dB   |
|-----|------|
| 858 | 4.48 |
| 868 | 2.82 |
| 878 | 1.88 |

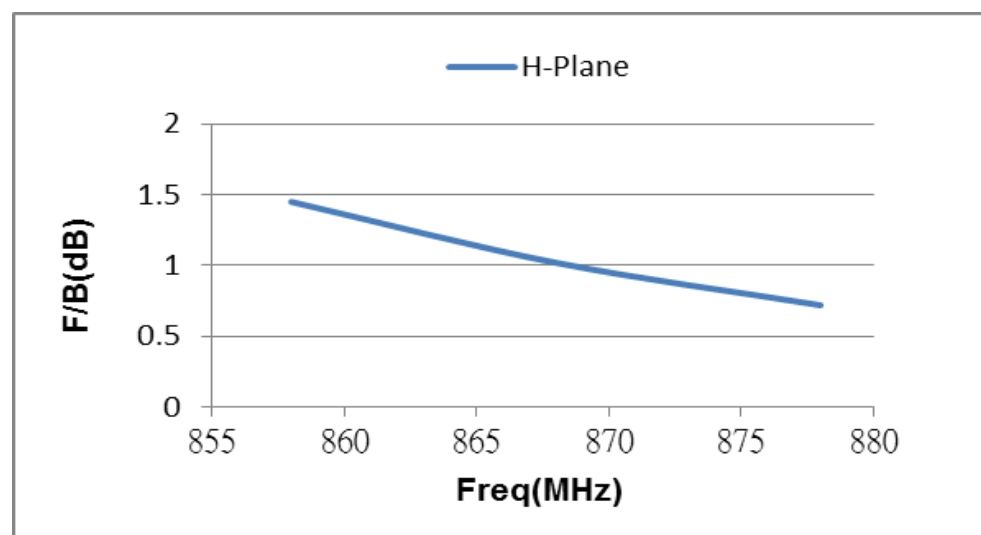
Average 3.06



H-Plane

| MHz | dB   |
|-----|------|
| 858 | 1.45 |
| 868 | 1.02 |
| 878 | 0.72 |

Average 1.06



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**Model:OA-868M06-NF**

## Packing List & Label List

|                                                                                  |                                                                                                                                                                                            |                     |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|  | 1 Set Packing                                                                                                                                                                              |                     |
|                                                                                  | <b>Antenna</b><br><b>Stainless steel "U type" screw</b><br><b>M6 Stainless steel screw mat slice</b><br><b>M6 Stainless steel screw</b><br><b>Water proof tape</b><br><b>Carton(10pcs)</b> |                     |
|                                                                                  | ITEM NO.                                                                                                                                                                                   | OA-868M06-NF 10 set |
|                                                                                  | Q'TY                                                                                                                                                                                       | 10 PCS              |
|                                                                                  | G. W.                                                                                                                                                                                      | 5.6 KG              |
|                                                                                  | N. W.                                                                                                                                                                                      | 3.4 KG              |
|                                                                                  | CARTON                                                                                                                                                                                     |                     |

| 1 set carton Label                                                                 |                            | Antenna Label                                                                                                                   |                  |
|------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------|
| Size                                                                               | 50 x 80 mm(white)          | Size                                                                                                                            | 30 x 50 mm(blue) |
| Customer:                                                                          | Manufacture Data: yy/mm/dd | <b>OA-868M07-NF</b><br><b>Frequency Range: 860MHz - 870MHz</b><br><b>Gain: 6 dBi</b><br><b>Omni-Directional Outdoor Antenna</b> |                  |
| Customer Mode:                                                                     |                            |                                                                                                                                 |                  |
| Order Number:                                                                      |                            |                                                                                                                                 |                  |
| Weight:                                                                            | kg                         |                                                                                                                                 |                  |
| Carton:                                                                            | Box                        |                                                                                                                                 |                  |
| Amount:                                                                            | Pcs                        |                                                                                                                                 |                  |
| Paste Position                                                                     |                            | Paste Position                                                                                                                  |                  |
|  |                            |                                             |                  |

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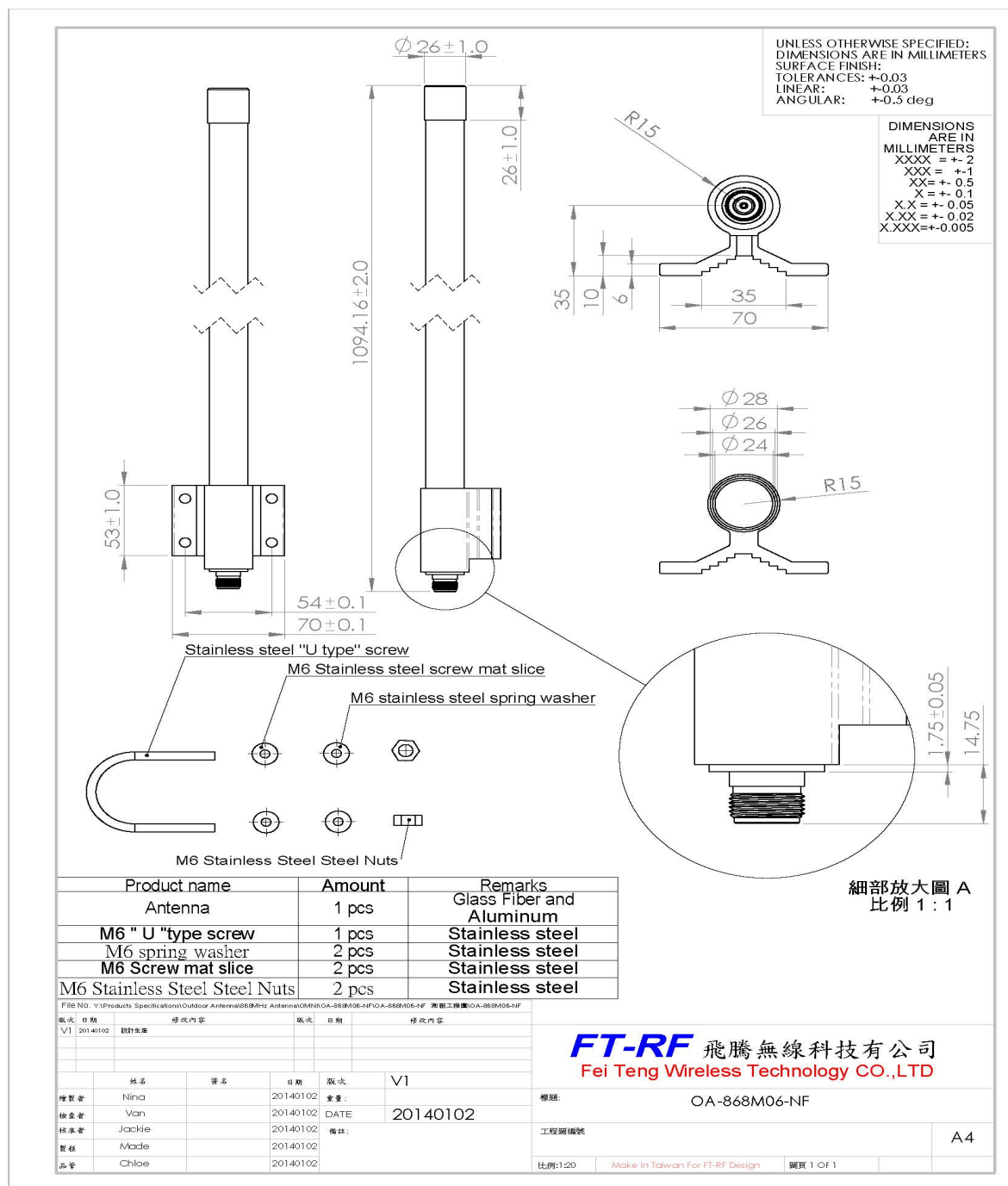
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[e-mail:ft@ft168.com.tw](mailto:ft@ft168.com.tw)



## RoHS Status(RoHS Compliant)

### Certificate of Compliance

Date:

FT-RF hereby certifies that product

| Model       | Product                                              |
|-------------|------------------------------------------------------|
| OA-868M06NF | 860MHz - 870MHz 6Bi Omni-Directional Outdoor Antenna |

Is in conformance with the requirements of the European RoHS Directive 2011/65/EU, and that all materials referenced therein are in concentrations below the maximum allowable levels specified.

Our statements in this letter regarding RoHS compliance do not extend to, or apply to any product subjected to unintended contamination, misuse, neglect, accident, improper installation, or to use in violation of instructions furnished by FT-RF.

Sincerely,

FT-RF (Fei Teng Wireless Technology CO.,LTD)

The information contained in this letter is being provided for informational purposes only and to clarify certain information concerning FT-RF products. Nothing provided in this letter is

- (1) a representation, warranty or agreement to indemnification by FT-RF.
- (2) a statement which may form the basis of reliance by FT-RF,
- (3) a modification of any of the terms and conditions of sale agreed to in writing between FT-RF and its customers with respect to any FT-RF products, whether previously sold or to be sold in the future.

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