

# NANF6X4AUW2R450G1F

## 2.4 GHz WIFI FPC Antenna



### Features

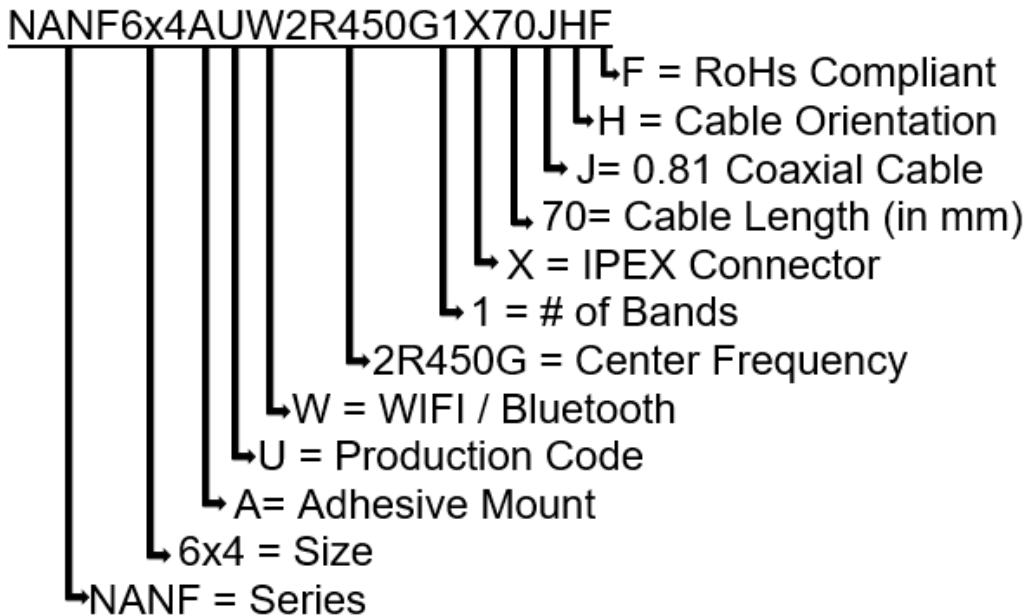
- WiFi/BT/Zigbee 2.4GHz Band Supported
- Flexible PCB with Double Sided Adhesive
- 0.81mm Mini-Coaxial Cable with IPEX MHFI Connector
- RoHS compliant

### Applications

- Smart Home
- Portable IOT Device
- Security and Surveillance



### Part Number Breakdown



### Standard Part Number Breakdowns

| Part Numbers            | Connector Type | Cable Length | Cable Type             |
|-------------------------|----------------|--------------|------------------------|
| NANF6X4AUW2R450G1X70JHF | IPEX (X)       | 70 mm        | 0.81 Coaxial Cable (J) |

The table represents assembled part numbers available on [www.niccomp.com](http://www.niccomp.com) from standard connector and cable options. For options not listed above please contact NIC"

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### Specifications

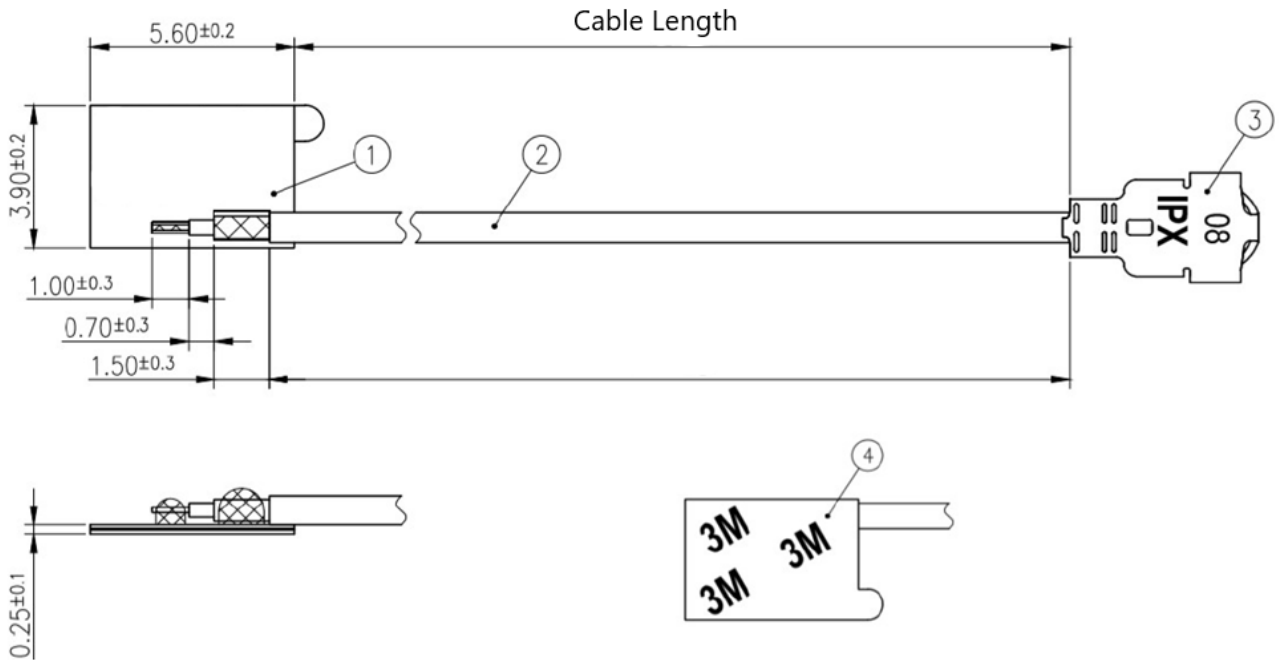
| Electrical            |                    |          |          |
|-----------------------|--------------------|----------|----------|
| Frequency Range       | 2400 ~ 2500 MHz    |          |          |
| Center Frequency      | 2400 MHz           | 2450 MHz | 2500 MHz |
| Efficiency (typ.)     | 59.57%             | 59.98%   | 48.75%   |
| Average Gain (typ.)   | -2.25 dB           | -2.22 dB | -3.12 dB |
| Peak Gain (typ.)      | 5.16 dBi           | 4.94 dBi | 4.07 dBi |
| V.S.W.R               | < 3 typ.           |          |          |
| Return Loss           | < -6 dB            |          |          |
| Polarization          | Linear             |          |          |
| Impedance             | 50Ω                |          |          |
| Environmental         |                    |          |          |
| Operating Temperature | -40°C~+85°C        |          |          |
| Storage Temperature   | -40°C~+85°C        |          |          |
| Relative Humidity     | 95% non-condensing |          |          |
| RoHS Complaint        | Yes                |          |          |

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### Dimension Drawing



### Dimensions (mm) & Mechanical

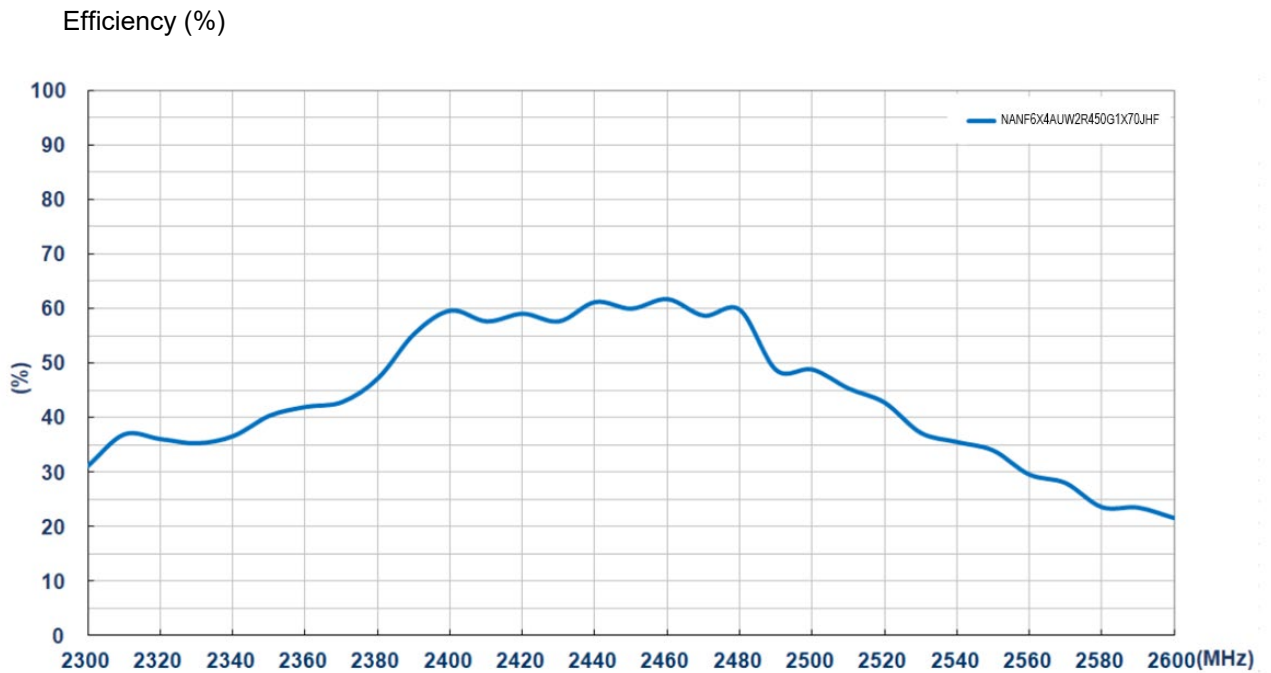
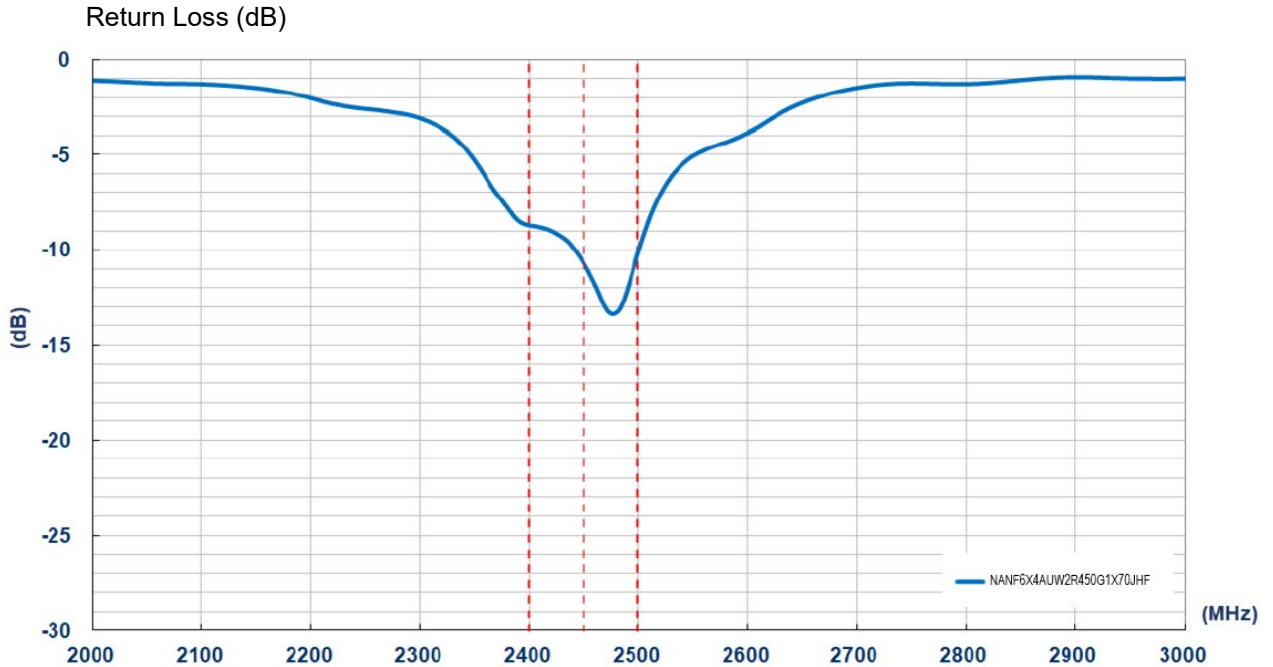
|                     |               |
|---------------------|---------------|
| Body Length         | 5.6 ± 1.0     |
| Width               | 3.9 ± 0.2     |
| Thickness           | 0.25 ± 0.1    |
| Material (1)        | Polymer 0.25t |
| Mounting Method (4) | Adhesive      |

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## Antenna Parameters:



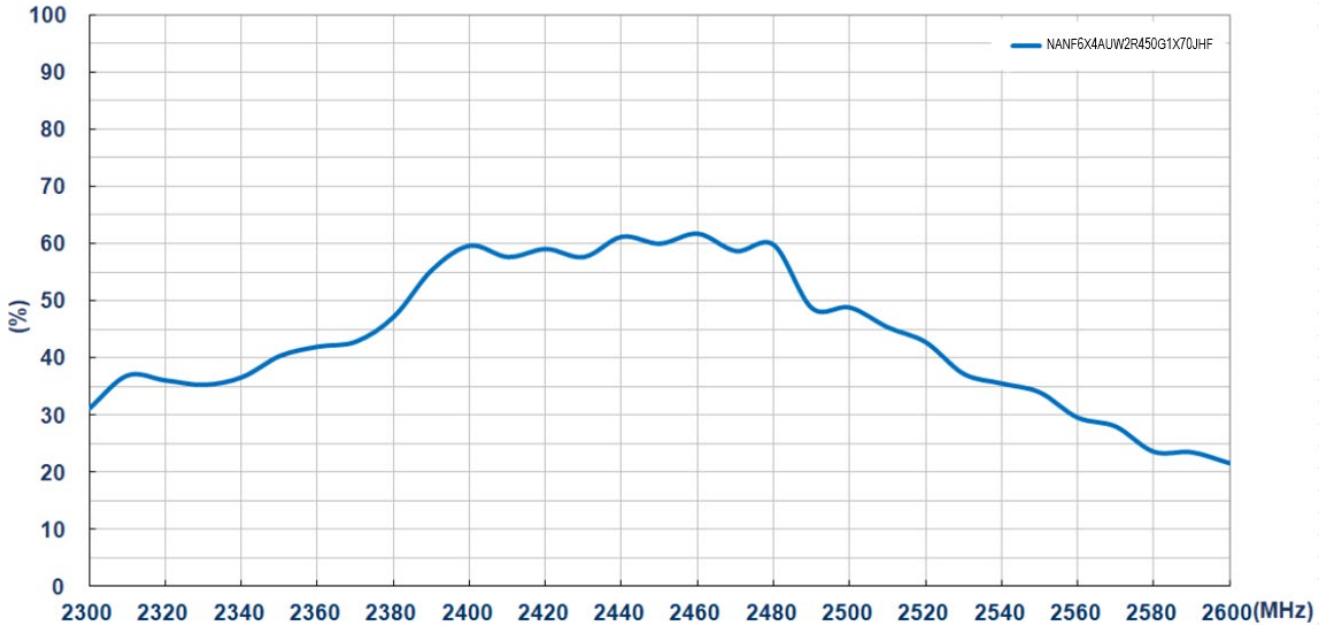
# NANF6X4AUW2R450G1F

2.4 GHz WIFI FPC Antenna

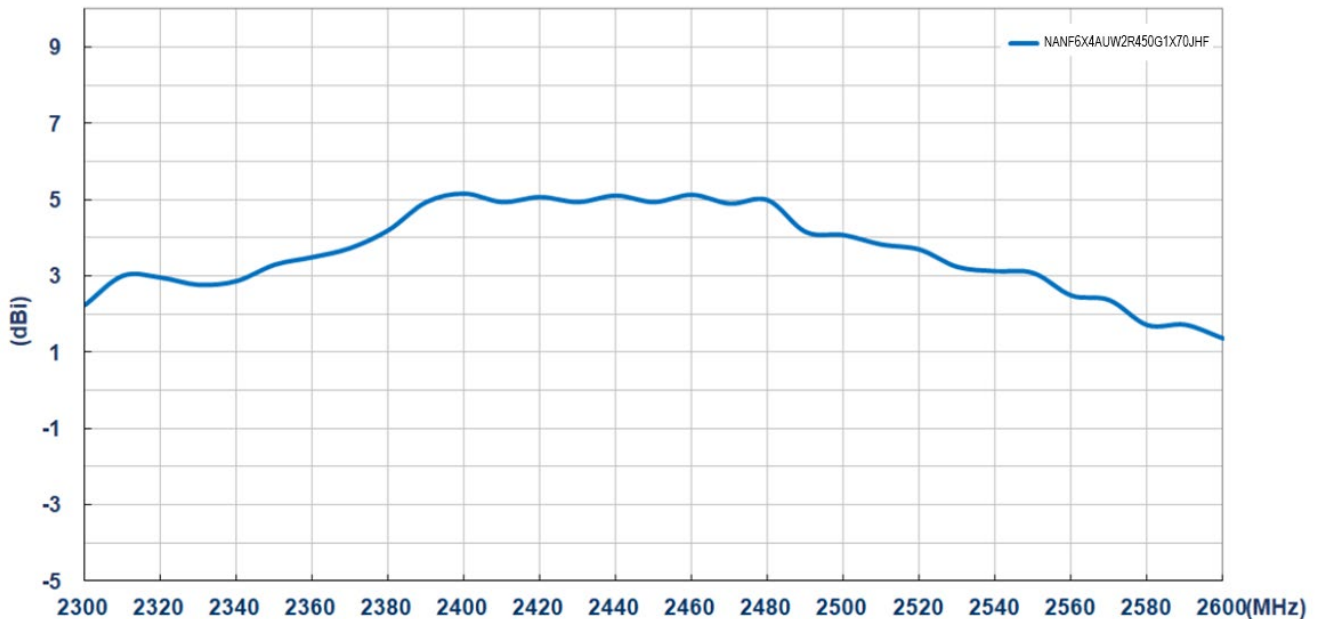


## Antenna Parameters:

Average Gain (dB)

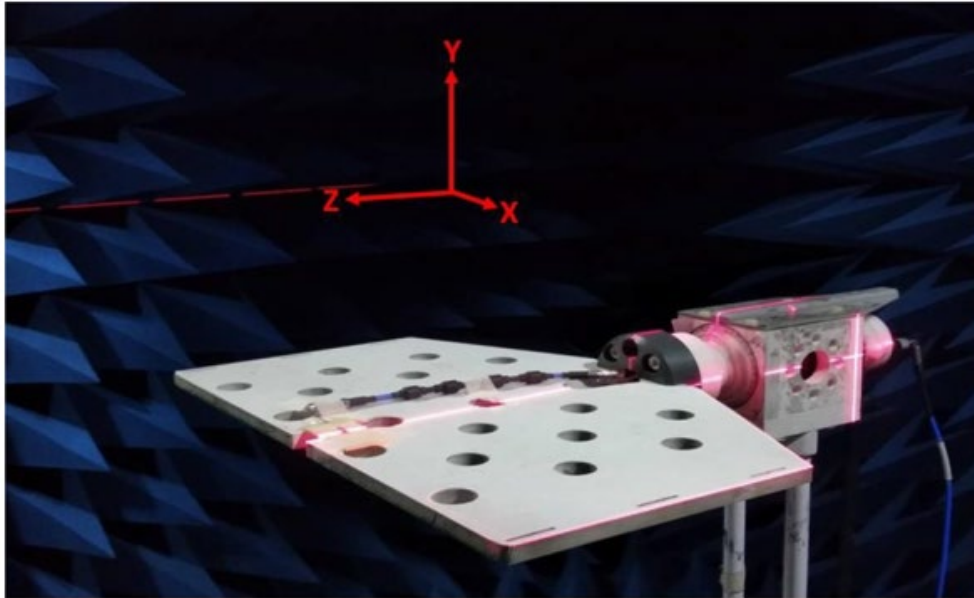


Peak Gain (dBi)



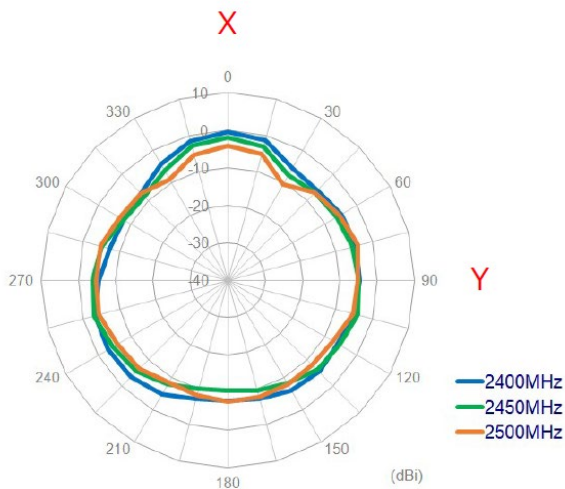
### Radiation Patterns

The antenna radiation patterns are measured in 3D Anechoic Chamber. The measurement setup is as show below:

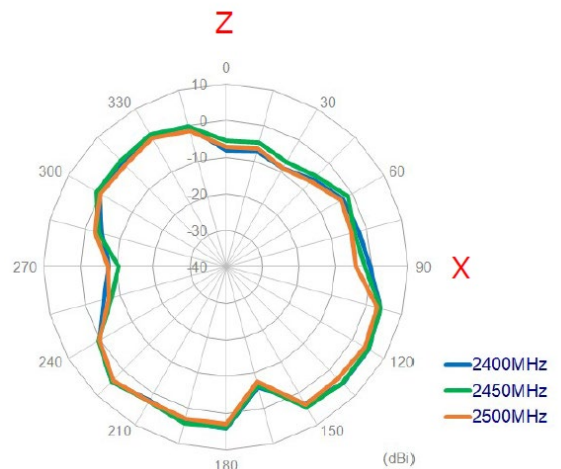


### 2D Radiation Patterns

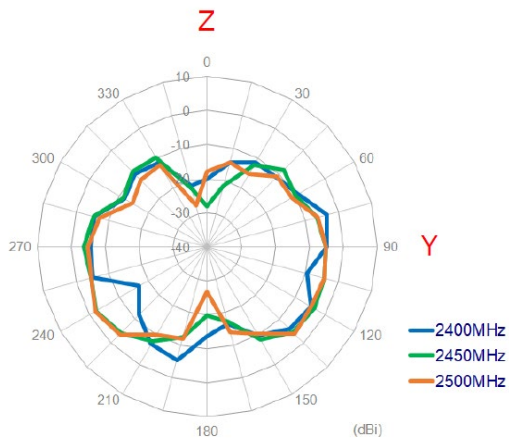
X-Y plane



X-Z plane

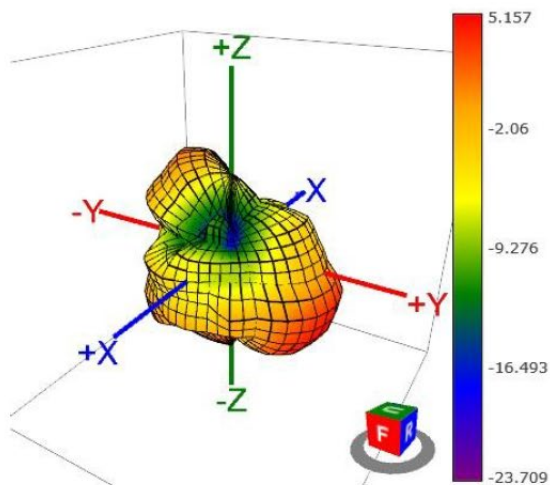


### Y-Z plane

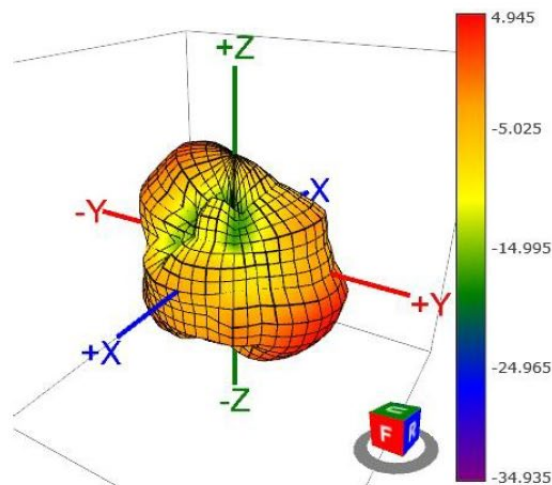


### 3D Radiation Patterns

2400MHz (dBi)



2450MHz (dBi)



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2500MHz (dBi)

