NANP30X5AUW2R442G1F

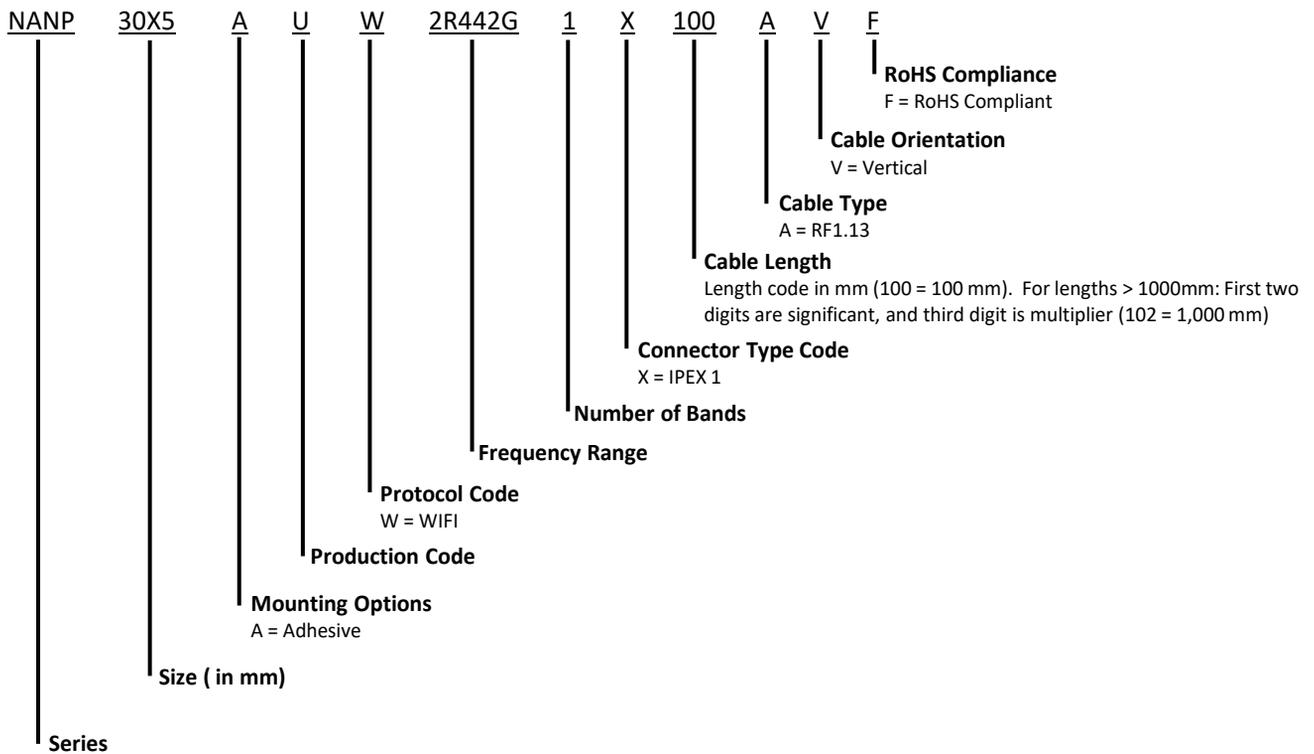## 2.4 GHz WIFI PCB Anntenna

Features

- Supports 2.4 GHz WIFI Band
- Customizable Cable Length and Type
- RoHS & REACH Compliant

Applications

- IEEE802.11 (b/g/n)
- Hand-held devices when WiFi (802.11 b/g/n) functions are needed

Part Number Breakdown

NANP 30X5 A U W 2R442G 1 X 100 A V F

RoHS Compliance
F = RoHS Compliant

Cable Orientation
V = Vertical

Cable Type
A = RF1.13

Cable Length
Length code in mm (100 = 100 mm). For lengths > 1000mm: First two digits are significant, and third digit is multiplier (102 = 1,000 mm)

Connector Type Code
X = IPEX 1

Number of Bands

Frequency Range

Protocol Code
W = WIFI

Production Code

Mounting Options
A = Adhesive

Size (in mm)

Series

Standard Part Number Breakdowns

Part Numbers	Connector Type	Cable Length	Cable Type
NANP30X5AUW2R442G1X100AVF	IPEX (X)	100 mm	RF1.13 (A)

The table represents assembled part numbers available on www.niccomp.com from standard connector and cable options. For options not listed above please contact NIC"

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ROHS/REACH COMPLIANT HALOGEN FREE
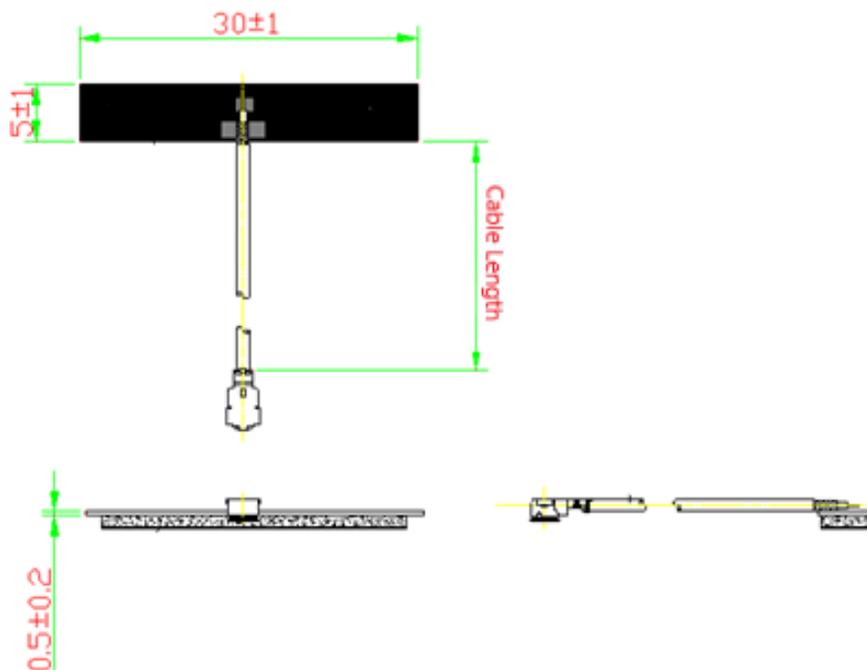
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Specifications

Electrical	
Frequency Range	2400~2484MHz
Center Frequency	2442 MHz
Bandwidth (MHz)	84 MHz Min.
Efficiency	79.3%
Peak Gain	3.3 dBi
V.S.W.R	2 Max.
Polarization	Linear
Impedance	50Ω

Environmental	
Operating Temperature & Storage Temperature	-10°C~+85°C (with double-sided tape)
	-40°C~+85°C (without double-sided tape)
Relative Humidity	10 - 95%
RoHS Compliant	Yes

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Dimension Drawing

Dimensions (mm) & Mechanical

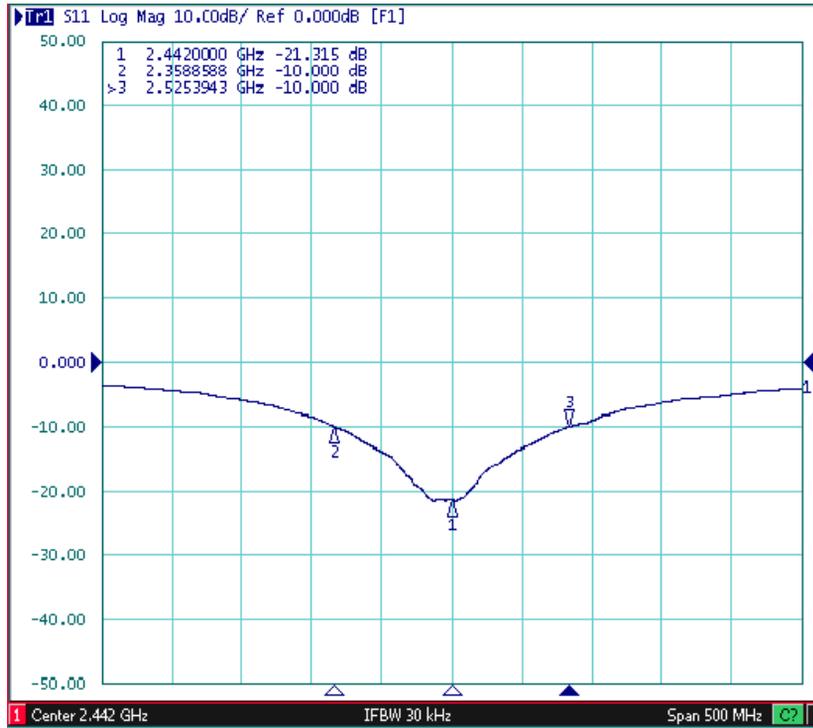| Length	30.0 ± 1.0
Width	5.0 ± 1.0
Thickness	0.5 ± 0.2
Mounting	Adhesive
Marking	NANP2R4W1A

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Return Loss

Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]

1	2.4420000 GHz	-21.315 dB
2	2.3588588 GHz	-10.000 dB
>3	2.5253943 GHz	-10.000 dB

Center 2.442 GHz   IFBW 30 kHz   Span 500 MHz

Smith Chart

Tr1 S11 Smith (R+jX) Scale 1.000U [F1]

1	2.4420000 GHz	42.341 Ω	-2.0902 Ω	31.181 pF
2	2.3588588 GHz	26.008 Ω	1.5354 Ω	103.60 pH
>3	2.5253943 GHz	28.385 Ω	-12.790 Ω	4.9273 pF

Center 2.442 GHz   IFBW 30 kHz   Span 500 MHz

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Radiation Patterns: 3D Gain Patterns @ 2442 MHz

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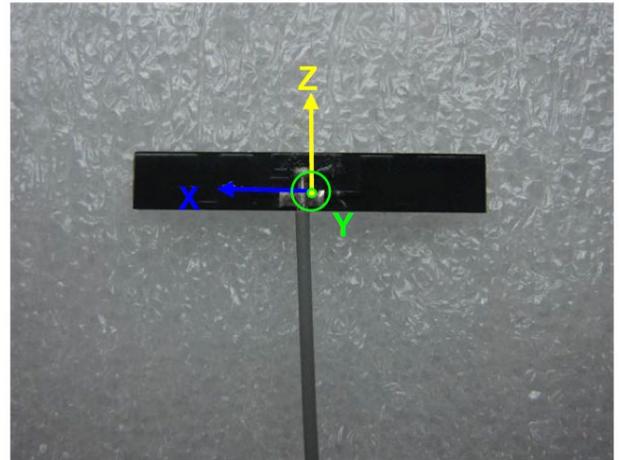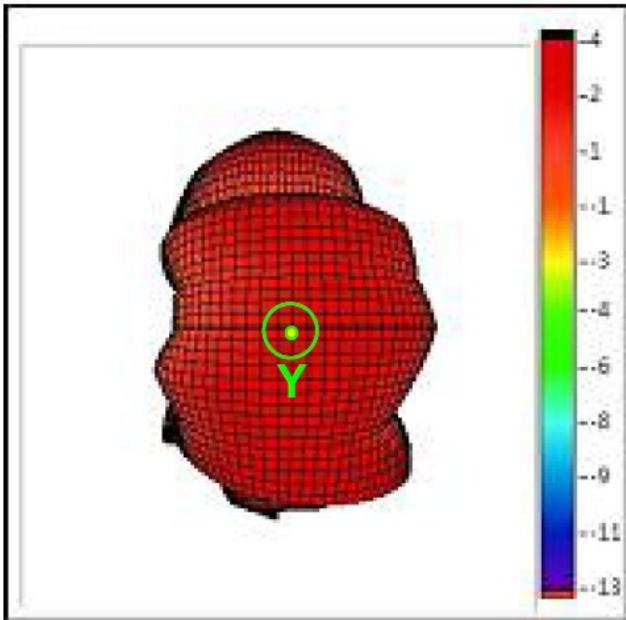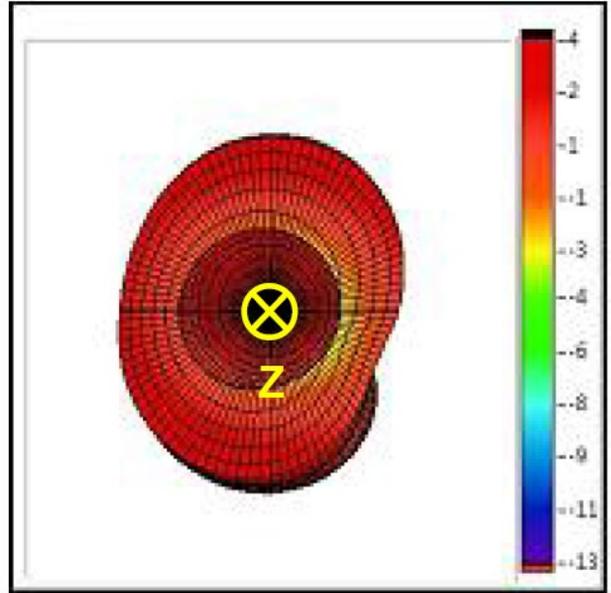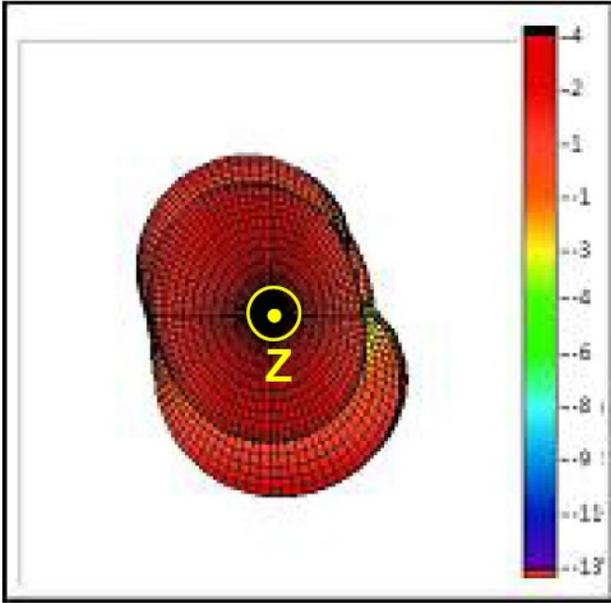
Efficiency Table :

Frequency (MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency (dB)	-1.5	-1.3	-1.2	-1.1	-1.1	-1.0	-0.9	-1.0	-1.1	-1.0	-0.9	-0.8	-0.8	-0.9	-1.0
Efficiency (%)	70.6	74.8	75.7	77.1	77.8	79.6	81.3	79.3	78.3	78.7	81.9	83.4	82.8	82.0	79.8
Gain (dBi)	2.8	3.0	3.0	3.1	3.2	3.2	3.3	3.3	3.2	3.3	3.4	3.6	3.6	3.6	3.5

Efficiency vs Frequency:

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