Fortinet Antenna Portfolio

Indoor and Outdoor Antennas

Fortinet offers many different antenna options that can be used with our FortiAP line of products. These antennas can help to optimize coverage and overall wireless performance in a range of installation settings. Antennas come in a variety of patterns and with various numbers of antenna elements to help installers find the best match for their equipment.

FANT-04ABGN-2504-O-R	FANT-04ABGN-0606-O-R FANT-04ABGN-0606-O-N	FANT-06ABGN-0606-O-N	FANT-06ABGN-2504-O-R	FANT-06ACAX-8509-D-N	FANT-02ACAX-0505-D-N

FANT-04ABGN-8065-P-N	FANT-04ABGN-1414-P-N	FANT-04ABGN-0606-P-R	FANT-08ABGN-1213-D-R	FANT-10ACAX-1213-D-N	FANT-04ACAX-0505-D-R FANT-04ACAX-0606-D-R

Available Models

| SKU	PATTERN	GAIN	LEADS	APPLICATION
FANT-04ABGN-2504-O-R	Omni	2.5 dBi (2.4 GHz) / 4 dBi (5 GHz)	4 RPSMA	Indoor / Outdoor
FANT-04ABGN-0606-O-R	Omni	6 dBi	4 RPSMA	Indoor / Outdoor
FANT-04ABGN-0606-O-N	Omni	6 dBi	4 N-Type	Indoor / Outdoor
FANT-06ABGN-0606-O-R	Omni	6 dBi	6 RPSMA	Indoor / Outdoor
FANT-06ABGN-0606-O-N	Omni	6 dBi	6 N-Type	Indoor / Outdoor
FANT-06ABGN-2504-O-R	Omni	2.5 dBi (2.4 GHz) / 4 dBi (5 GHz)	6 RPSMA	Indoor Plenum
FANT-04ABGN-0606-P-R	Patch	6 dBi	4 RPSMA	Indoor / Outdoor
FANT-04ABGN-1414-P-N	Patch	14 dBi	4 N-Type	Indoor / Outdoor
FANT-04ABGN-8065-P-N	Patch	8 dBi (2.4 GHz) / 6.5 dBi (5 GHz)	4 N-Type	Indoor / Outdoor
FANT-08ABGN-1213-D-R	Directional	12 dBi (2.4 GHz) / 13 dBi (5 GHz)	8 RPSMA	Indoor / Outdoor
FANT-06ACAX-8509-D-N	Directional	2.4-2.5 GHz @ 6 × 8.5 dBi │ 5.15-5.875 GHz @ 6 × 9 dBi	6 N-Type	Indoor / Outdoor
FANT-10ACAX-1213-D-N	Directional	12dBi / 13dBi	10 N-Type	Indoor / Outdoor
FANT-04BEAX-0606-P-R	Directional	6 dBi (2.4 GHz / 5GHz / 6GHz)	4 RPSMA	Indoor / Outdoor
FANT-02ACAX-0505-D-N	Directional	5dBi	2 N-Type	Indoor
FANT-02ACAX-0505-D-R	Directional	5dBi	2 RPSMA	Indoor
FANT-02ACAX-0606-P-R	Patch	6dBi	2 RPSMA	Indoor / Outdoor
FANT-04ACAX-0505-D-R	Directional	2.4/5GHz 5dBi (2.4GHz) / 5dBi (5GHz)	4 RPSMA	Outdoor
FANT-04ACAX-0606-D-R	Directional	6dBi	4 RPSMA	Outdoor
FANT-04BEAX-1313-D-N	Directional	13 dBi (2.4 GHz / 5GHz / 6GHz)	4 N-Type	Indoor / Outdoor

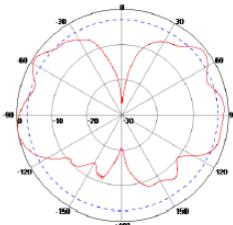# Highlights

FANT-04ABGN-2504-O-R

This aesthetically pleasing micro omni antenna is optimized for small form factor, aesthetically sensitive, or mobile Wi-Fi applications. This antenna includes four dual band pigtails and RPSMA connectors. This antenna is perfect for wireless installations where low profile and looks are a major consideration. Alternatively, this antenna can be used in vehicles for communication, presence detection, and fleet management.

| SPECIFICATIONS		
Frequency Range	2400-2500 MHz	4900-5850 MHz
Bandwidth	100 MHz	950 MHz
Gain	2.5 dBi	4 dBi
Horizontal Beamwidth	360°	360°
VSWR	≤2	
Nominal Impedance	50 ohms	
Polarization	Vertical	
Max Power	50 Watts	
Connectors	4 x RPSMA Male	
Pigtail length	36 in. with Connector / 91.44 cm with Connector	
Dimensions	3.54 in. x 1.57 in. (9.0 cm x 4.0 cm)	
Weight	0.27 lbs (124.7 g)	
Environment	Indoor / Outdoor	
Operating Temperature	-40°F to +158°F (-40°C to +70°C)	
Mounting Method	Surface Mount	

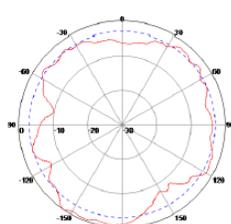Port 1: 2450MHz
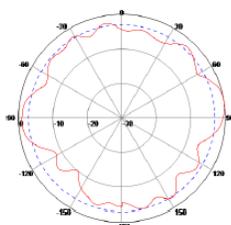
H Plane

E Plane
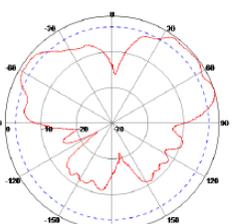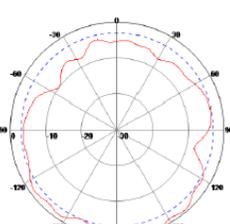
Port 2: 5500MHz
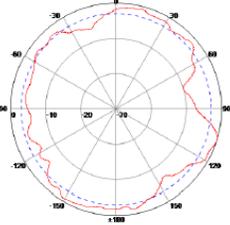
H Plane
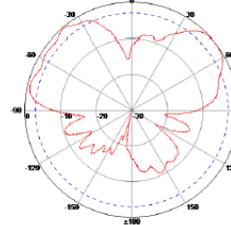
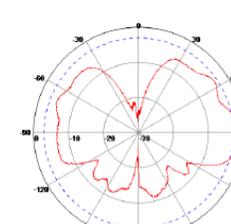E Plane

Port 4: 2450MHz
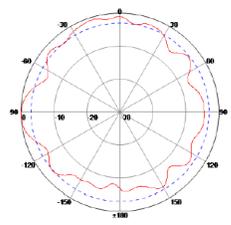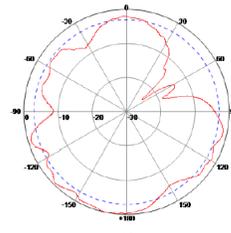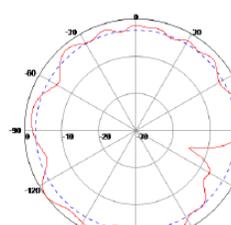
H Plane

Port 1: 5500MHz
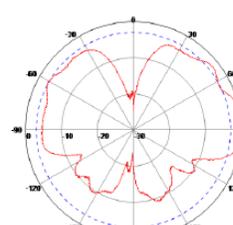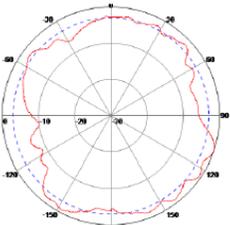
H Plane

E Plane

Port 3: 2450MHz
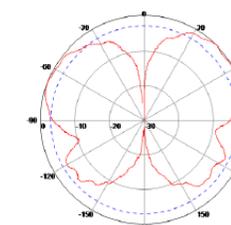
H Plane

E Plane

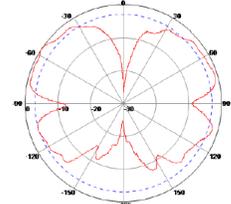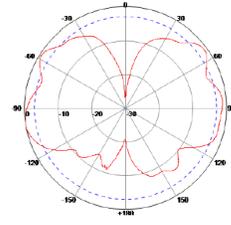Port 4: 5500MHz

H Plane

Port 2: 2450MHz

H Plane

E Plane

Port 3: 5500MHz

H Plane

E Plane

E Plane

Highlights

FANT-04ABGN-0606-O-R / FANT-04ABGN-0606-O-N

This ruggedized 6 dBi omnidirectional antenna is perfectly suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. This antenna includes four dual band pigtails. Includes an L-Bracket for mast and/or wall mounting.

The FANT-04ABGN-0606-O-R version of this antenna (pictured) features RPSMA connectors while the FANT-04ABGN-0606-O-N version of this antenna features N-Type connectors.

SPECIFICATIONS		
Frequency Range	2400-2500 MHz	5150-5850 MHz
Bandwidth	100 MHz	700 MHz
Gain	6 dBi	6 dBi
Vertical Beamwidth	45°	20°
Horizontal Beamwidth	360°	360°
VSWR	≤2.0	≤2.2
Nominal Impedance	50 ohms	
Polarization	Vertical	
Isolation	≤-15dB	
Max Power	10 Watts	
Lightning Protection	Not DC Grounded	
Connectors	4 x RPSMA Male or 4 x N-Type Male	
Dimensions	5.9 in. x 7 in. (14.99 cm x 17.78 cm)	
Pigtail Length	36 in. with Connector / 91.44 cm with Connector	
Weight	2.64 lbs. (1.2 kg)	
Environment	Indoor / Outdoor	
Mast Mount Diameter	1.37 in. - 1.97 in. (3.48 cm x 5.0 cm)	
Operating Temperature	-40°F to +158°F (-40°C to +70°C)	
Wind Load	134 mph (216 km/h)	
Mounting Method	Mast and/or Wall Mounting	
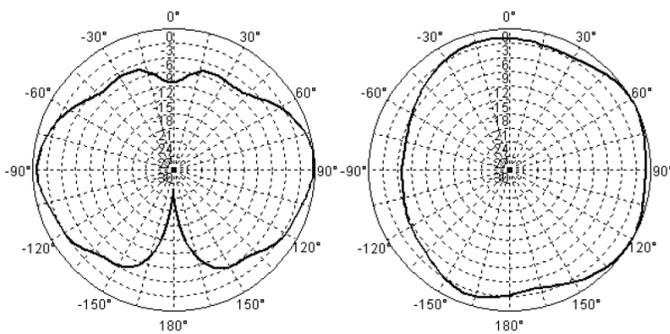
E-Plane Pattern   H-Plane Pattern

2.4 GHz
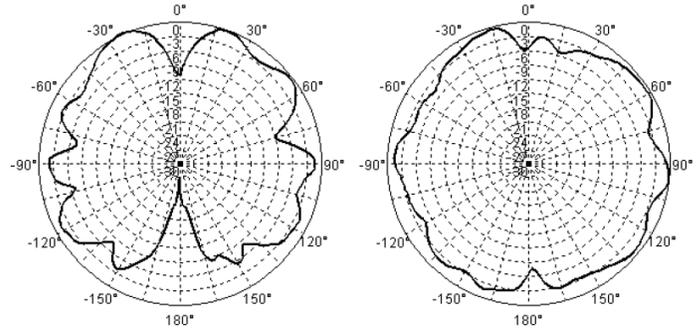
E-Plane Pattern   H-Plane Pattern

5 GHz

How to Install Antenna FANT-04ABGN-0606-O-R / FANT-04ABGN-0606-O-N

The FANT-04ABGN-0606-O-R is a four-lead dual-band omni-directional antenna with RPMA male connectors. Each lead of the antenna operates in the 2.4/5 GHz band. The antenna leads are labeled as follows:

- 1/A Vertical

- 2/B Vertical

- 3/C Vertical

- 4/D Vertical

The antenna is vertically polarized and if the radio ports are dual band any lead on the antenna can be connected to any port of the radio since the antenna leads are dual band. For simplicity's sake, match port numbers on the radio with the same lead number on the antenna (i.e. Radio Port #1 to Antenna Lead #1 and Radio Port #2 to Antenna Lead #2). When FANT-04ABGN-0606-O-R is being used with the Fortinet FAP-433F, the connection scheme is as follows:

| RADIO PORT	RADIO OPERATION	ANTENNA LEAD	ANTENNA OPERATION
A1 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	1/A	2.4/5 GHz Vertically Polarized Antenna
A2 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	2/B	2.4/5 GHz Vertically Polarized Antenna
A3 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	3/C	2.4/5 GHz Vertically Polarized Antenna
A4 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	4/D	2.4/5 GHz Vertically Polarized Antenna
A5 - Scanning	Radio3 – 2.4/5.0 GHz Scanning	N/A	N/A

Highlights

### FANT-06ABGN-0606-O-R / FANT-06ABGN-0606-O-N

This ruggedized 6 dBi omnidirectional antenna is perfectly suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. This antenna includes six dual band pigtails and RPSMA connectors (-R model) or N-Type connectors (-N model). Includes an L-Bracket for mast and or wall mounting.

SPECIFICATIONS		
Frequency Range	2400-2500 MHz	5150-5850 MHz
Bandwidth	100 MHz	100 MHz
Gain	6 dBi	6 dBi
Vertical Beamwidth	35°	25°
Horizontal Beamwidth	360°	360°
VSWR	Typical ≤1.5 - 2.0	
Nominal Impedance	50 ohms	
Polarization	Vertical	
Isolation	≤-15dB	
Max Power	10 Watts	
Lightning Protection	Not DC Grounded	
Connectors	6 x RPSMA Male	
Pigtail Length	36 in. with Connector / 91.44 cm with Connector	
Dimensions	5.9 in. x 7 in. (14.99 cm x 17.78 cm)	
Weight	3.15 lbs. (1.43 kg)	
Environment	Indoor / Outdoor	
Mast Mount Diameter	1.37 in. - 1.97 in. (3.48 cm x 5.0 cm)	
Operating Temperature	-40°F to +158°F (-40°C to +70°C)	
Wind Load	134 mph (216 km/h)	
Mounting Method	Mast and/or Wall Mounting	
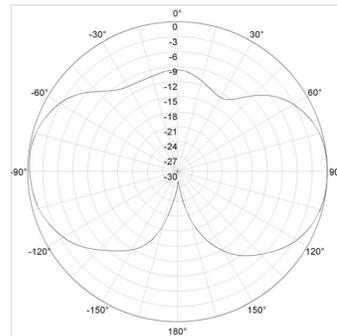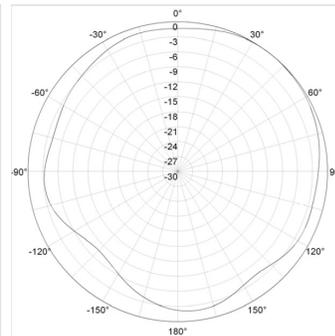
E-Plane Pattern   H-Plane Pattern

2.4 GHz

E-Plane Pattern   H-Plane Pattern

5 GHz

Highlights

FANT-06ABGN-2504-O-R

This ceiling mount 2.5 dBi (2.4GHz) / 4 dBi (5GHz) omnidirectional antenna is well suited to ceiling installations where looks matter. This antenna includes six dual band pigtails and RPSMA connectors.

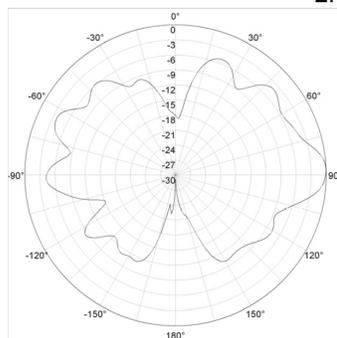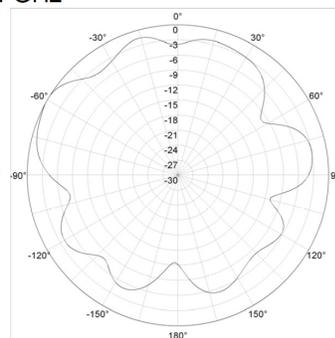| SPECIFICATIONS		
Frequency Range	2400-2483 MHz	5150-5850 MHz
Bandwidth	83 MHz	700 MHz
Gain	2.5 dBi	4 dBi
Vertical Beamwidth	55°	60°
Horizontal Beamwidth	360°	360°
VSWR	≤2.0	≤2.5
Nominal Impedance	50 ohms	
Polarization	Vertical	
Max Power	50 Watts	
Connectors	6 x RPSMA Male	
Pigtail Length	36 in. with Connector / 91.44 cm with Connector	
Dimensions	7.1 in. x 5.1 in. x 1.9 in. (18.03 cm x 12.95 cm x 4.83 cm)	
Weight	0.68 lbs. (0.31 kg)	
Environment	Indoor - Plenum rated	
Operating Temperature	-40°F to +158°F (-40°C to +70°C)	
Mounting Method	Ceiling	
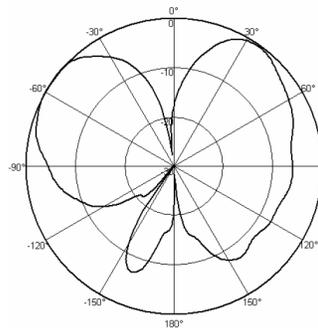
E-Plane Pattern   H-Plane Pattern
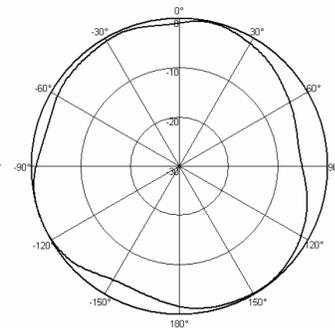
2.4 GHz

E-Plane Pattern   H-Plane Pattern

5 GHz

Highlights

FANT-04ABGN-0606-P-R

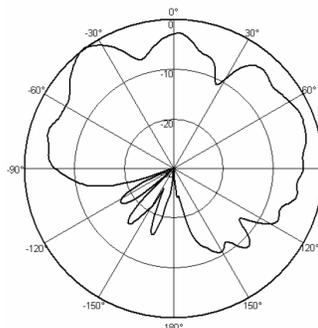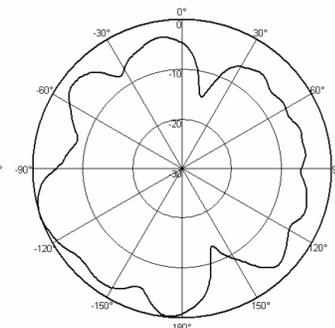This 6 dBi patch antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. This antenna includes four dual band pigtails and RPSMA connectors. An articulating mount is included with the antenna.

SPECIFICATIONS		
Frequency Range	2400-2500 MHz	5150-5850 MHz
Gain	6 dBi	6 dBi
Vertical Beamwidth	80±20° / 45±20°	80±20° / 45±20°
Horizontal Beamwidth	80±20° / 45±20°	80±20° / 45±20°
VSWR	≤2.0	≤2.5
Front-to-back ratio	≤18	
Nominal Impedance	50 ohms	
Polarization	Vertical	
Max Power	100 Watts	
Connectors	4 x RPSMA Male	
Pigtail Length	36 in. with Connector / 91.44 cm with Connector	
Dimensions	9.2 in. x 9.0 in. x 1.1 in. (23.37 cm x 22.86 cm x 2.79 cm)	
Weight	2.65 lbs. (1.2 kg)	
Environment	Indoor / Outdoor	
Operating Temperature	-40°F to +140°F (-40°C to +60°C)	
Mounting Style	Wall or Mast/Pole	

2.4 GHz
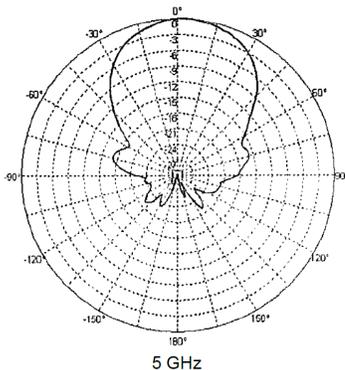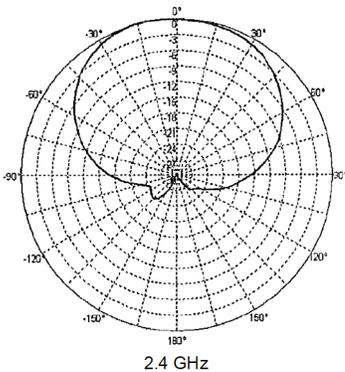
How to Install Antenna FANT-04ABGN-0606-P-R

The FANT-04ABGN-0606-P-R is a four-lead dual-band directional antenna with RPMA male connectors. Each lead of the antenna operates in the 2.4/5 GHz band. The antenna leads are labeled as follows:

• 1/A Vertical

• 2/B Horizontal

• 3/C Vertical

• 4/D Horizontal

The antenna is vertically polarized and if the radio ports are dual band any lead on the antenna can be connected to any port of the radio since the antenna leads are dual band. For simplicity's sake, match port numbers on the radio with the same lead number on the antenna (i.e. Radio Port #1 to Antenna Lead #1 and Radio Port #2 to Antenna Lead #2).

When FANT-04ABGN-0606-P-R is being used with the Fortinet FAP-433F, the connection scheme is as follows:

5 GHz

| RADIO PORT	RADIO OPERATION	ANTENNA LEAD	ANTENNA OPERATION
A1 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	1/A	2.4/5 GHz Vertically Polarized Antenna
A2 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	2/B	2.4/5 GHz Vertically Polarized Antenna
A3 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	3/C	2.4/5 GHz Vertically Polarized Antenna
A4 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	4/D	2.4/5 GHz Vertically Polarized Antenna
A5 - Scanning	Radio3 – 2.4/5.0 GHz Scanning	N/A	N/A

Highlights

FANT-04ABGN-1414-P-N

This high density 14 dBi patch antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. The antenna features a 35-degree beamwidth at both the 2.4GHz and 5GHz bands which helps to minimize co-channel interference. This antenna features four dual band N-Type jacks on the back of the antenna.

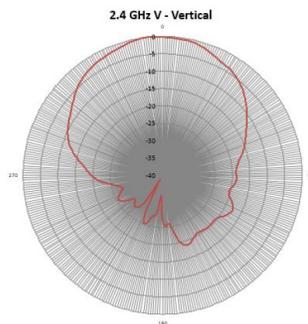| SPECIFICATIONS		
Frequency Range	2400-2500 MHz	5150-5850 MHz
Bandwidth	100 MHz	700 MHz
Gain	14 dBi	14 dBi
Vertical Beamwidth	35°	35°
Horizontal Beamwidth	35°	35°
VSWR	≤2	
Nominal Impedance	50 ohms	
Polarization	Vertical / Linear	
Isolation	≤28dB	
Max Power	50 Watts	
Connectors	N-Type Female	
Pigtail Length	Need to order separately	
Mounting Method	Mast Mounting	
Dimensions	14.96 in. x 14.96 in. x 1.3 in. (38 cm x 38 cm x 3.3 cm)	
Weight	7.5 lbs. (3.4 kg)	
Pole Diameter	1.97 in. - 4.7 in. (5 cm to 11.94 cm)	
Environment	Indoor / Outdoor	
Operating Temperature	-22°F to +158°F (-30°C to +70°C)	
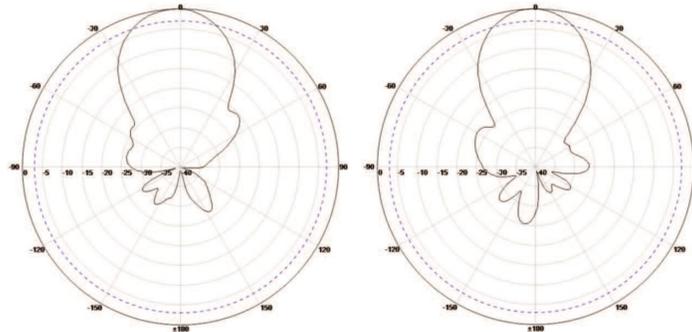
H Plane   E Plane
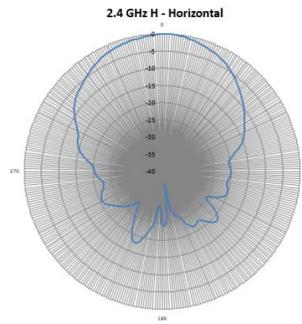
Highlights

FANT-04ABGN-8065-P-N

This 8 dBi (2.4 GHz) / 6.5 dBi (5GHz) patch antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. The antenna pattern and beamwidth facilitate specific coverage planning. This antenna features four dual band pigtails and N-Type connectors.

SPECIFICATIONS		
Frequency Range	2.4-2.5 GHz	5.1-5.9 GHz
Gain	8 dBi	6.5 dBi
Vertical Beamwidths	65°	70°
Horizontal Beamwidths	60°	65°
Nominal Impedance	50 ohms	50 ohms
VSWR	<2	
Front-to-Back Ratio (dB)	>13	>15
Port-to-Port Isolation (dB)	>25	>30
Connectors	4 x N-Type Male	
Cable Length	24 in. (60.96 cm)	
Dimensions	7.5 in. x 7.5 in. x 1.5 in. (19.05 × 19.05 × 3.81 cm)	
Weight	2.5 lb. (1.134 kg)	
Environment	Indoor / Outdoor	
Ingress Protection	IP-66 Compliant	
Operating Temperature	-40°F to +140°F (-40°C to +60°C)	

2.4 GHz V - Vertical

Vertical Pattern

E-Plane Pattern

2.4 GHz H - Horizontal

Horizontal Pattern

H-Plane Pattern

5 GHz V - Vertical
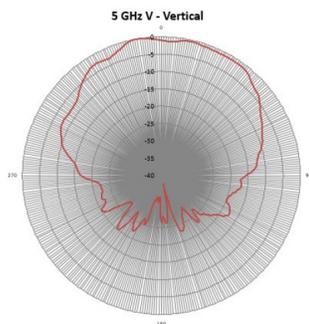
Vertical Pattern

E-Plane Pattern
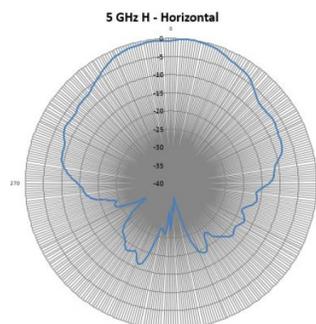
5 GHz H - Horizontal

Horizontal Pattern

H-Plane Pattern

How to Install Antenna FANT-04ABGN-8065-P-N

The FANT-04ABGN-8065-P-N is a four-lead dual-band antenna with N-male connectors. Each lead of the antenna operates in the 2.4/5 GHz band. The antenna leads are labeled as follows:

• 1/A Vertical

• 2/B Horizontal

• 3/C Vertical

• 4/D Horizontal

The antenna is dual polarized with two antenna ports vertically polarized and two antenna ports horizontally polarized. It should be noted that if the antenna is connected to a radio four single-band ports (two at 2.4 GHz and two at 5 GHz), a vertically polarized and a horizontally polarized antenna should be connected to the single band ports of the radio operating in the same frequency band. If the radio ports are dual band any lead on the antenna can be connected to any port of the radio. For simplicity's sake, match port numbers on the radio with the same lead number on the antenna (i.e. Radio Port #1 to Antenna Lead #1, Radio Port #2 to Antenna Lead #2).

When FANT-04ABGN-8065-P-N is being used with the Fortinet FAP-432F, the connection scheme is as follows:

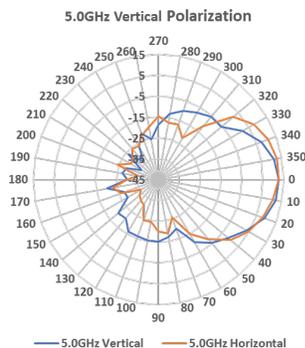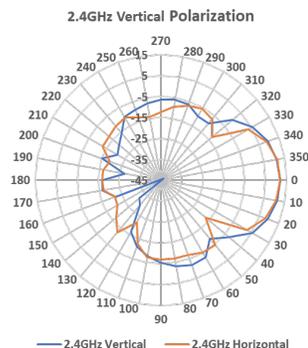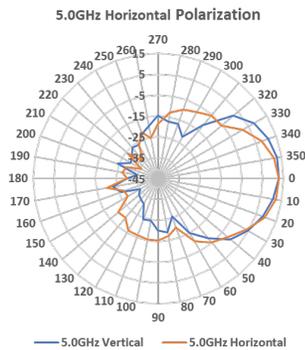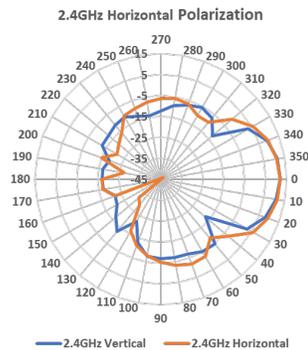| RADIO PORT	RADIO OPERATION	ANTENNA LEAD	ANTENNA OPERATION
A1 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	1/A	2.4/5 GHz Vertically Polarized Antenna
A2 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	2/B	2.4/5 GHz Vertically Polarized Antenna
A3 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	3/C	2.4/5 GHz Vertically Polarized Antenna
A4 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	4/D	2.4/5 GHz Vertically Polarized Antenna

Highlights

FANT-08ABGN-1213-D-R

This high gain directional antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. The antenna features narrow beamwidth to help minimize co-channel interference in dense deployments and facilitate highly specific coverage planning. This antenna features eight dual band pigtails and RPSMA connectors. An articulating mount is included with the antenna.

SPECIFICATIONS		
Frequency Range	2400-2500 MHz	5150-5850 MHz
Bandwidth	100 MHz	700 MHz
Gain	12 dBi	13 dBi
VSWR	≤2.25	
Nominal Impedance	50 ohms	
Polarization	4x Horizontal / 4x Vertical	
Vertical Beamwidth	45° / 28° (Ports 1-4); 50° / 40° (Ports 5-8)	
Horizontal Beamwidth	50° / 40° (Ports 1-4); 45° / 28° (Ports 5-8)	
Front-to-Back Ratio (dB)	≤19	
Port-to-Port Isolation	≤18	≤25
Max Power	50 Watts	
Connectors	8 x RPSMA Male	
Pigtail length	36 in. with Connector / 91.44 cm with Connector	
Dimensions (LxWxH)	12 in. x 12 in. x 1.5 in. (30.48 cm x 30.48 cm x 3.81 cm)	
Weight	2.1 lbs. (0.95 kg)	
Environment	Indoor / Outdoor	
Ingress Protection	IP-54 Compliant	
Wind Load	100 mph (160 km/h)	
Operating Temperature	-40° to 140° F (-40° to 60° C)	

2.4GHz Horizontal Polarization

2.4GHz Vertical — 2.4GHz Horizontal

5.0GHz Horizontal Polarization

5.0GHz Vertical — 5.0GHz Horizontal

2.4GHz Vertical Polarization

2.4GHz Vertical — 2.4GHz Horizontal

5.0GHz Vertical Polarization

5.0GHz Vertical — 5.0GHz Horizontal

How to Install Antenna FANT-08ABGN-1213-D-R

The FANT-08ABGN-1213-D-R is an eight-lead dual-band antenna with RPSMA male connectors. Each lead of the antenna operates in the 2.4/5 GHz band. The antenna leads are labeled as follows:

- 1/A V-Pol 2.4/5GHz

- 2/B H-Pol 2.4/5GHz

- 3/C V-Pol 2.4/5GHz

- 4/D H-Pol 2.4/5GHz

- 5/E V-Pol 2.4/5GHz

- 6/F H-Pol 2.4/5GHz

- 7/G V-Pol 2.4/5GHz

- 8/H H-Pol 2.4/5GHz

The antenna is dual polarized with four antenna ports vertically polarized and four antenna ports horizontally polarized. It should be noted that if the antenna is connected to a radio with eight single-band ports of the same frequency (four at 2.4 GHz and four at 5 GHz), two vertically polarized and two horizontally polarized antennas should be connected to the single band ports of the radio operating in the same frequency band. If the radio ports are dual band any lead on the antenna can be connected to any port of the radio. For simplicity's sake, match port numbers on the radio with the same lead number on the antenna (i.e. Radio Port #1 to Antenna Lead #1, Radio Port #2 to Antenna Lead #2).

When FANT-08ABGN-1213-D-R is being used with the Fortinet FAP-U433F, the connection scheme is as follows:

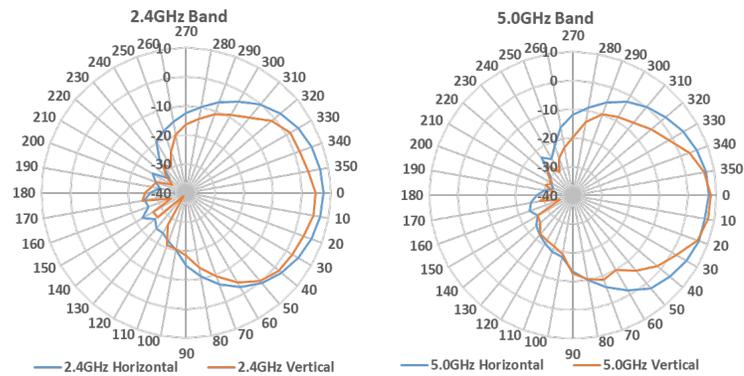| RADIO PORT	RADIO OPERATION	ANTENNA LEAD	ANTENNA OPERATION
A1 - 5.0 GHz	Radio1 - 5.0 GHz Service	1/A	2.4/5 GHz Vertically Polarized Antenna
A2 - 5.0 GHz	Radio1 - 5.0 GHz Service	2/B	2.4/5 GHz Vertically Polarized Antenna
A3 - 5.0 GHz	Radio1 - 5.0 GHz Service	3/C	2.4/5 GHz Vertically Polarized Antenna
A4 - 5.0 GHz	Radio1 - 5.0 GHz Service	4/D	2.4/5 GHz Vertically Polarized Antenna
A5 - 2.4/5.0 GHz	Radio2 - 2.4/5.0 GHz Service	5/E	2.4/5 GHz Vertically Polarized Antenna
A6 - 2.4/5.0 GHz	Radio2 - 2.4/5.0 GHz Service	6/F	2.4/5 GHz Vertically Polarized Antenna
A7 - 2.4/5.0 GHz	Radio2 - 2.4/5.0 GHz Service	7/G	2.4/5 GHz Vertically Polarized Antenna
A8 - 2.4/5.0 GHz	Radio2 - 2.4/5.0 GHz Service	8/H	2.4/5 GHz Vertically Polarized Antenna
A9 – 2.4/5.0 GHz	Radio3 - 2.4/5.0 GHz Service/ Scanning + BLE	N/A	N/A

Highlights

FANT-06ACAX-8509-D-N

This 8.5 dBi (2.4 GHz) / 9 dBi (5GHz) vertically polarized antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. This antenna features six dual band pigtails and N-Type connectors.

SPECIFICATIONS		
Frequency Range	2.4-2.5 GHz	5.15-5.875 GHz
Gain	8.5 dBi	9 dBi
Vertical Beamwidths	65°	70°
Horizontal Beamwidths	60°	65°
Nominal Impedance	50 ohm	50 ohm
VSWR	2.0: 1 max	
Front-to-Back Ratio (dB)	-20 dB	-20 dB
Port-to-Port Isolation (dB)	20	30
Connectors	6x N-Type Male	
Cable Length	47.2 in. (120 cm)	
Dimensions	11.8 in. x 11.8 in. x 1.77 in. (300 × 300 × 45 mm)	
Weight	TBD	
Environment	Indoor / Outdoor	
Ingress Protection	IP-65 Compliant	
Operating Temperature	-40°F to +149°F (-40°C to +65°C)	

2.4GHz Band

— 2.4GHz Horizontal   — 2.4GHz Vertical

5.0GHz Band

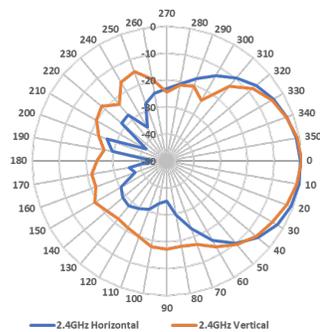— 5.0GHz Horizontal   — 5.0GHz Vertical

Highlights

FANT-10ACAX-1213-D-N

This high gain directional antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. The narrow beam widths of this dual-polarized antenna are ideal for high-density environments including large public venues. This antenna features ten dual band pigtails and Type N connectors. An articulating mount is included with the antenna.

| SPECIFICATIONS		
Frequency Range	2.4-2.5 GHz	5.1-5.9 GHz
Gain	12 dBi	13 dBi
Vertical Beamwidths	65°	70°
Horizontal Beamwidths	60°	65°
Nominal Impedance	50 ohms	50 ohms
VSWR	≤2.0	
Front-to-Back Ratio (dB)	≤18	≤25
Port-to-Port Isolation (dB)	≤28	
Connectors	10 x N-Male	
Cable Length	36 in. RG58 (91.4 cm)	
Dimensions	14.6 in. x 14.6 in. x 1.5 in. (37.1 × 37.1 × 3.81 cm)	
Weight	2.6 lb. (1.18 kg)	
Environment	Indoor / Outdoor	
Ingress Protection	IP-54 Compliant	
Operating Temperature	-40°F to +140°F (-40°C to +60°C)	

2.4GHz Band Horizontal Polarization

5.0GHz Band Horizontal Polarization
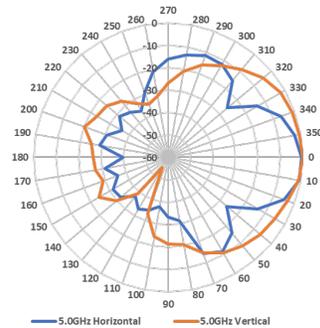
2.4GHz Band Vertical Polarization
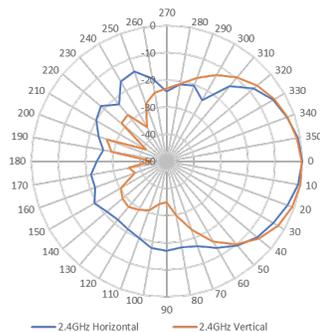
5.0GHz Band Vertical Polarization
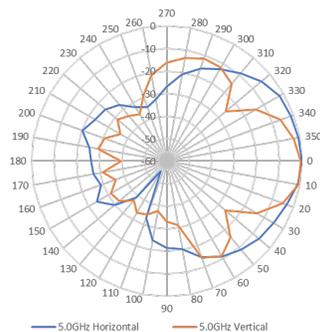
Highlights

FANT-04BEAX-0606-P-R

Antenna

This Tri-band 2.4/5/6 GHz 6 dBi antenna is designed for use with Wi-Fi6, Wi-Fi 6E and Wi-Fi 7 access points. A small form factor Femto Patch Antenna with 4 RPSMA Male Connectors offers outstanding performance, making it ideal for applications where performance and aesthetics are equally important. The antenna includes a Medium Strength Articulating Mount that articulates horizontally and vertically for precise positioning. Both the antenna and the mount are designed for use indoors or outdoors.
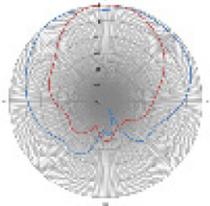
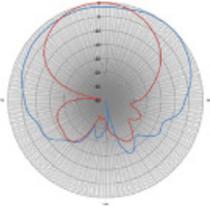**Radiation Pattern**
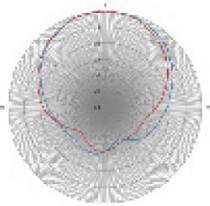
| SPECIFICATIONS	
Frequency Range	2.4/5/6 GHz
Gain	6 dBi (2.4 GHz / 5GHz / 6GHz)
Vertical Beamwidths	80°/50°
Horizontal Beamwidths	80°/ 120°
Nominal Impedance	50 Ohms
VSWR	≤2.0
Front-to-Back Ratio (dB)	10 dBi / 15 dBi
Port-to-Port Isolation (dB)	≥10 / ≥22
Connectors	RPSMA Male
Number of Ports	4
Male Cable Length	36 in.
Dimensions	3.4 × 3.4 × 1.4 in.
Weight	1.0 lb.
Environment	Indoor / Outdoor
Ingress Protection	IP54 rated
Operating Temperature	-40°F to 158°F (-40°C to +70°C)
Mounting Bracket	**Included**
Dimensions	6 × 3 × 3 in.
Weight	0.5 lb
Material	Zinc-Plated Steel
Operating Temperature Range	-40°F to 158°F (-40°C to +70°C)
Mounting Options	Pole or Wall
Mast Diameter	2.125 to 2.5 in.
Maximum Load	25 lbs. (including antenna weight)
Wind Speed Range	≤100 mph

2.4 GHz

5 GHz

6 GHz
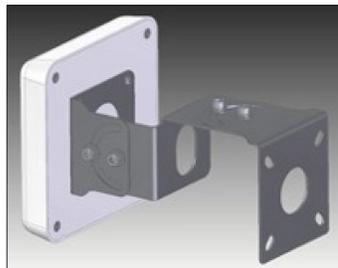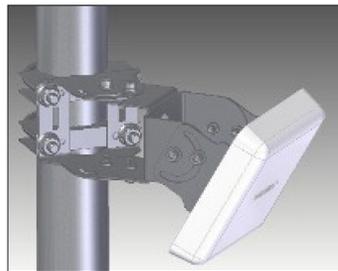
Highlights

### FANT-02ACAX-0505-D-N / FANT-02ACAX-0505-D-R

FANT-02ACAX-0505-D-R and FANT-02ACAX-0505-D-N are dual-band two-element 120° sector antennas for use in 2×2 MIMO applications. The antennas offer RPSMA and N-Type connectors respectively. The antennas provide coverage of 2.4–2.5 GHz and 4.9–5.9 GHz in a single antenna radome. The lightweight and durable construction and UV-protected radome made of plastic allow indoor and outdoor installation. This antenna is suitable for coverage of large rectangular areas like shopping centers, courtyards, and hallways.

Frequency 2500 MHz

E-Plane Pattern

H-Plane Pattern

Frequency 5500 MHz

E-Plane Pattern

H-Plane Pattern
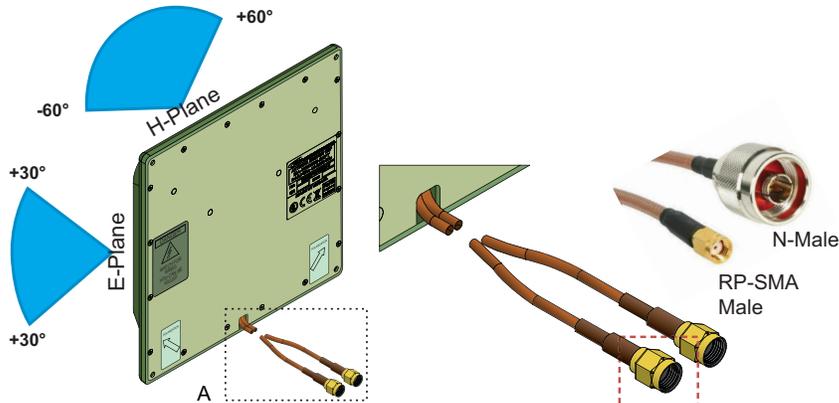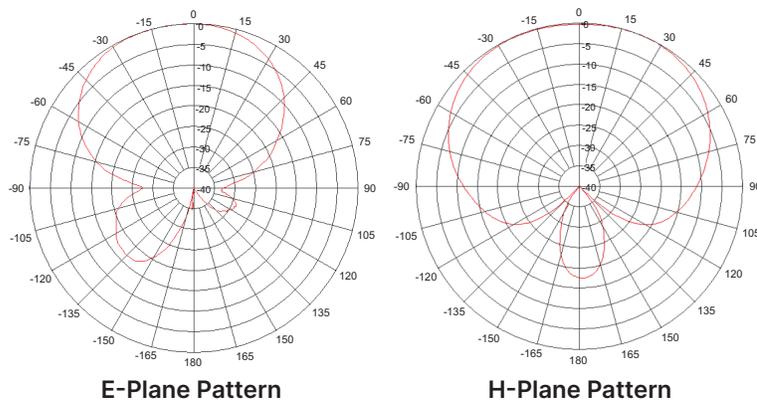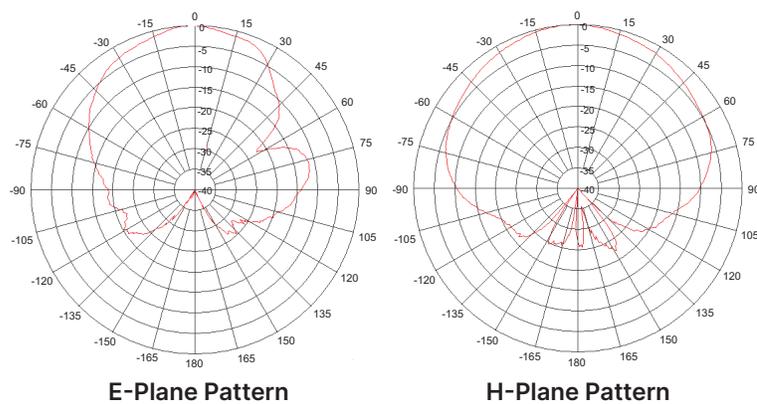
Highlights

FANT-02ACAX-0606-P-R

This 6 dBi (2.4 GHz and 5GHz) patch antenna is well suited for use outdoors, in warehouses, or in manufacturing environments where it must withstand exposure to moisture and dust. The antenna pattern and beamwidth facilitate specific coverage planning. This antenna features two dual band pigtails and RPSMA connectors.

The dual-band 6 dBi MIMO Panel Antenna is a low profile, medium gain antenna with dual-band leads and RPSMA connectors. It is optimized for high density indoor and outdoor applications where narrow vertical and horizontal beamwidths are required. Connects to all access points with two RPSMA connectors. A universal articulating mount is included for wall or mast mounting.

| SPECIFICATIONS		
Frequency Range	2.4-2.5 GHz	5.1-5.9 GHz
Gain	6 dBi	6 dBi
Vertical Beamwidths	40°	40°
Horizontal Beamwidths	40°	40°
Nominal Impedance	50 ohms	50 ohms
VSWR	≤1.5	≤2.3
Impedance	50 Ω	
Polarization	Vertical	
Max Power	20 W	
Connectors	2×RPSMA Plug	
Pigtail Length	35 in (90 cm)	
Dimensions	10.3 × 10.3 × 1.4 in. (261 × 261 × 35 mm)	
Weight	2.3 lbs. (1.05 kg)	
Mounting	Mast Mounting	

Elevation
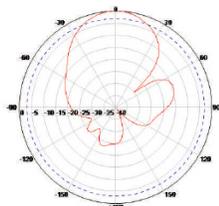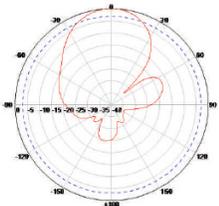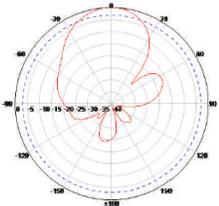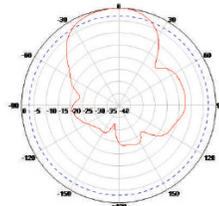
Horizontal

Elevation

Horizontal

2400 MHz
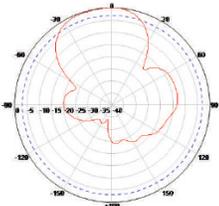
2400 MHz
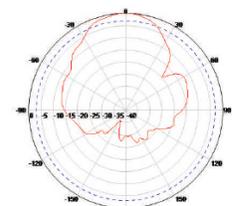
5150 MHz

5150 MHz

2450 MHz

2450 MHz
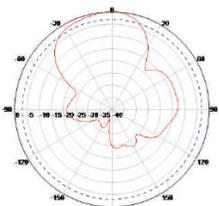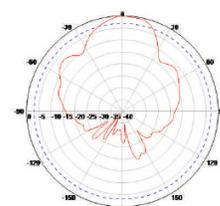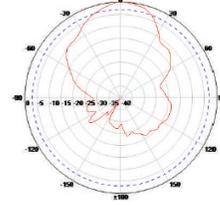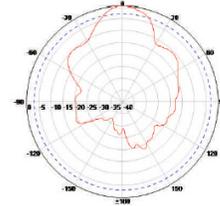
5500 MHz

5500 MHz
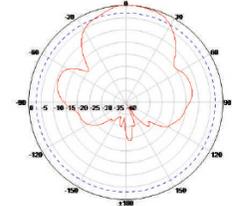
2500 MHz

2500 MHz
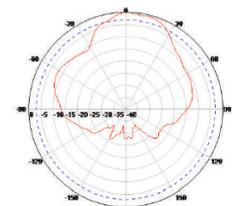
5850 MHz

5850 MHz

How to Install Antenna FANT-02ACAX-0606-P-R

The FANT-02ACAX-0606-P-R is a two-lead dual-band antenna with RPSMA male connectors. Each lead of the antenna operates in the 2.4/5 GHz band. The antenna leads are labeled as follows:

- 1

- 2

The antenna is vertically polarized and if the radio ports are dual band any lead on the antenna can be connected to any port of the radio since the antenna leads are dual band. For simplicity's sake, match port numbers on the radio with the same lead number on the antenna (i.e. Radio Port #1 to Antenna Lead #1 and Radio Port #2 to Antenna Lead #2) as follows:

RADIO PORT	RADIO OPERATION	ANTENNA LEAD	ANTENNA OPERATION
A1 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	1	2.4/5 GHz Vertically Polarized Antenna
A2 - 2.4/5.0 GHz	Radio3 – 6G Service + 2.4/5.0/6.0 GHz Scanning	N/A	Non-Detachable Antenna
A3 - 2.4/5.0 GHz	Radio3 - 6G Service + 2.4/5.0/6.0 GHz Scanning	N/A	Non-Detachable Antenna
A4 - 2.4/5.0 GHz	Radio1/Radio2 - 2.4/5.0 GHz Service	2	2.4/5 GHz Vertically Polarized Antenna

Highlights

FANT-04ACAX-0505-D-R

FANT-04ACAX-0505-D-R is a sector 120° 5 dBi wall mount indoor 4×4 MIMO sector panel antenna that provides coverage of 2.3–2.7 GHz and 4.9–6.1 GHz in a single antenna radome. This antenna has four RP-SMA connectors attached to 1.2 meter cables.

Frequency 2500 MHz

E-Plane Pattern   H-Plane Pattern

Frequency 5500 MHz

E-Plane Pattern   H-Plane Pattern
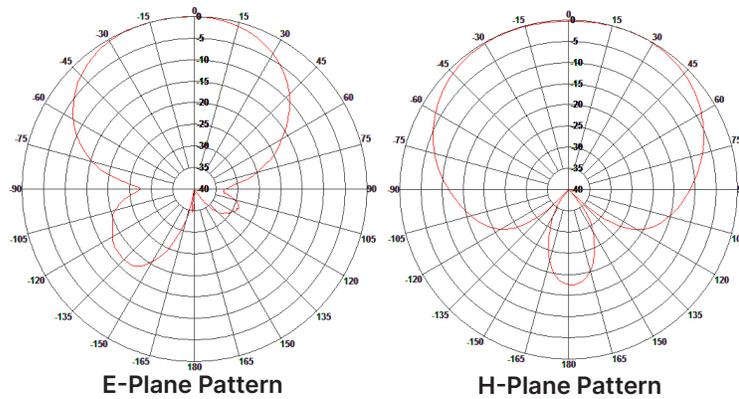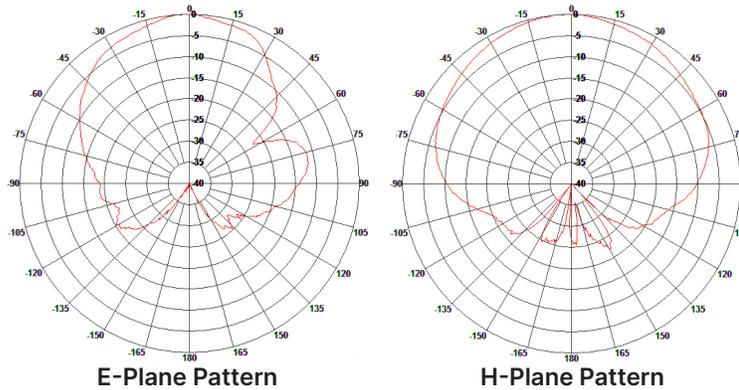
Highlights

FANT-04ACAX-0606-D-R

FANT-04ACAX-0606-D-R is a 60° 6 dBi dual-band 4×4 MIMO sector panel antenna with four connectors that provide coverage of 2.4–2.5 GHz and 5.15–5.875 GHz in a single antenna radome. This antenna has four RP-SMA connectors attached to 75 cm cables.

A (1 : 1)

Frequency 2450 MHz

E-Plane Pattern   H-Plane Pattern

Frequency 5300 MHz

E-Plane Pattern   H-Plane Pattern
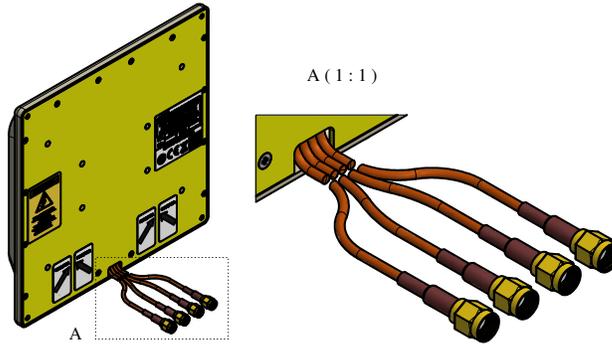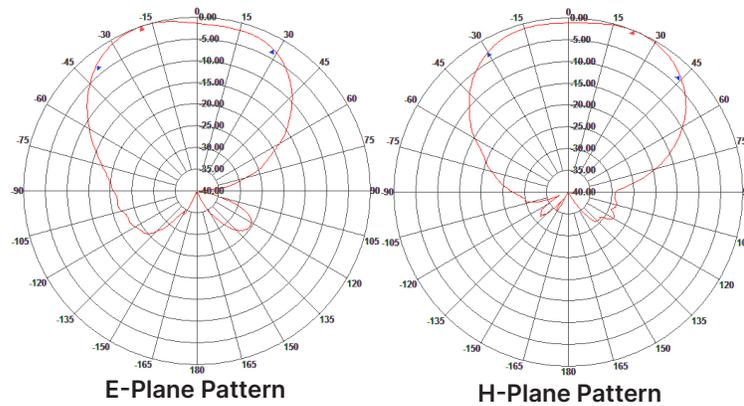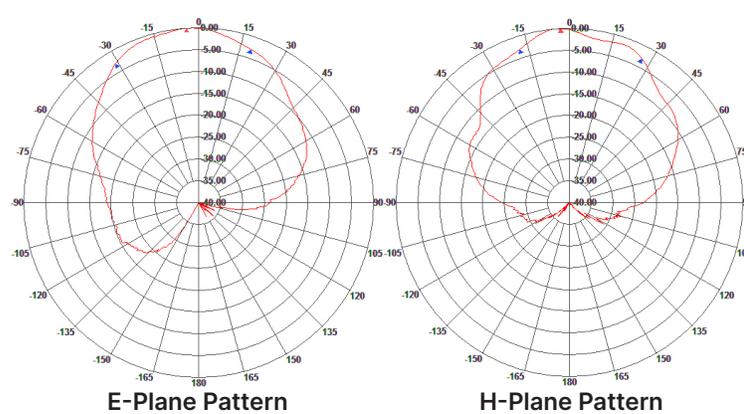
Highlights

FANT-04BEAX-1313-D-N

The FANT-04BEAX-1313-D-N is a 2.4/5/6 GHz 13 dBi Wi-Fi Directional Antenna which can connect to any manufacturer's Wi-Fi 6E/7 access points (APs) with four ports. The antenna provides a high gain with narrow vertical and wide horizontal beamwidths which allows concise coverage for aisles and makes it ideal for warehouse deployments. The antenna ships with a 10 inch Strong Arm Mount (SAM). Optional mounts compatible with this antenna include: Industrial Articulating, Universal Articulating and High Strength Universal.

Radiation Patterns

Vertical 2.4 GHz
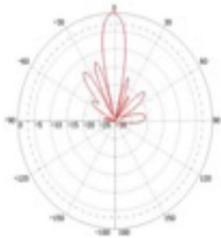
Horizontal 2.4 GHz
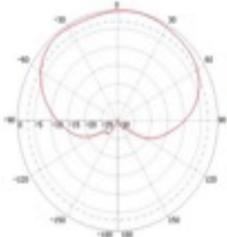
Vertical 5/6 GHz
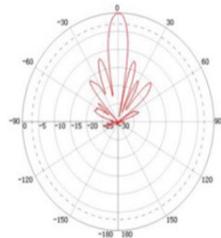
Horizontal 5/6 GHz
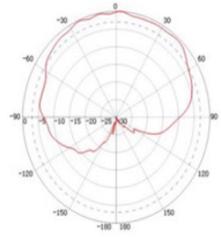
SPECIFICATIONS	FANT-04BEAX-1313-D-N
Operating Frequency Range	2.4/5/6 GHz
Gain	13 dBi
Polarization	Vertical
Vertical Beamwidth	11°
Horizontal Beamwidth	115°
VSWR	2:1
Nominal Impedance	50 Ohms
Max Input Power	50 W
Number of Ports	4
RF Connector	N-Female
Application	Industrial/Warehouse
Operating Temperature	-40°F to 158°F
Dimensions	24 × 14 × 2.8 inches
Weight	9.5 lbs

Parts List
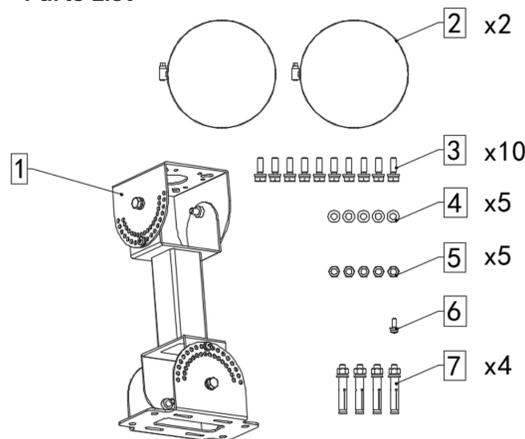
No.	Item
1	10 in. Strong Arm Mount
2	Hose Clamps D32-D127
3	M6 Screws
4	M6 Washers (Spare)
5	M6 Hex Nuts (Spare)
6	M4 Screw (Spare)
7	Expansion Bolts M6 for Wall Mount Option

Supporting Cables

CABL-3FT-N-NType

CABL-3FT-N-RPSMA

Detailed dscriptions follow on next page.

FANT-04BEAX-1313-D-N

Supporting Cables for FANT-04BEAX-1313-D-N

- CABL-3FT-N-NType
- CABL-3FT-N-RPSMA

3 ft 195 Series Cable Assembly with N Male - RPSMA Female Connectors

SPECIFICATIONS	CABL-3FT-N-RPSMA
Cable Type	195 coax
Length	3 ft
CABLE ASSEMBLY SPECIFICATIONS	
Connector 1 Body	Straight
Connector 1 Gender	Male
Connector 1 Type	N
Connector 2 Body	Straight
Conector 2 Gender	Female
Connector 2 Type	RPSMA

3 ft 195 Series Cable Assembly with N Male - N Male Male Connectors

SPECIFICATIONS	CABL-3FT-N-RPSMA
Cable Type	195 coax
Length	3 ft
CABLE ASSEMBLY SPECIFICATIONS	
Connector 1 Body	Straight
Connector 1 Gender	Male
Connector 1 Type	N
Connector 2 Body	Straight
Conector 2 Gender	Male
Connector 2 Type	N

Mounting Hardware

SKU	MOUNTING HARDWARE INCLUDED	MOUNTING BRACKET BOLT PATTERN	MOUNT STAND OFF ANTENNA DISTANCE
FANT-04ABGN-2504-O-R	Nut (Ceiling Mount)	N/A	N/A
FANT-04ABGN-0606-O-R	L-Bracket	1.97 in. x 2.36 in.	1.5 in.
FANT-04ABGN-0606-O-N	L-Bracket	1.97 in. x 2.36 in.	1.5 in.
FANT-06ABGN-0606-O-R	L-Bracket	1.97 in. x 2.36 in.	1.5 in.
FANT-06ABGN-2504-O-R	Nut (Ceiling Mount)	N/A	N/A
FANT-04ABGN-0606-P-R	Universal Articulating Mount	2 in. x 2 in.	3.3 in.
FANT-04ABGN-1414-P-N	Industrial Articulating Mount	Multiple (incl. 2 in. x 2 in.)	5.91 in.
FANT-04ABGN-8065-P-N	Universal Articulating Mount	2 in. x 2 in.	3.3 in.
FANT-08ABGN-1213-D-R	10 in. Strong Arm Mount	2 in. x 2 in.	10 in.

L-Bracket
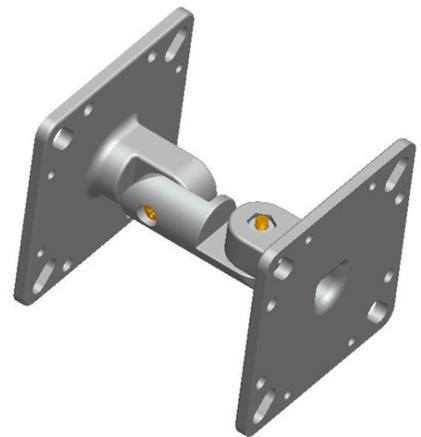
Universal Articulating Mount

Strong Arm Mount

Industrial Articulating Mount

Optional Mounting Hardware

FAN-M22 and FAN-M22Z-5 are versatile adjustable mounts that can be used with antennas in the antenna portfolio. The mount is made of die-cast aluminum, and is suitable for pole and wall mounting.
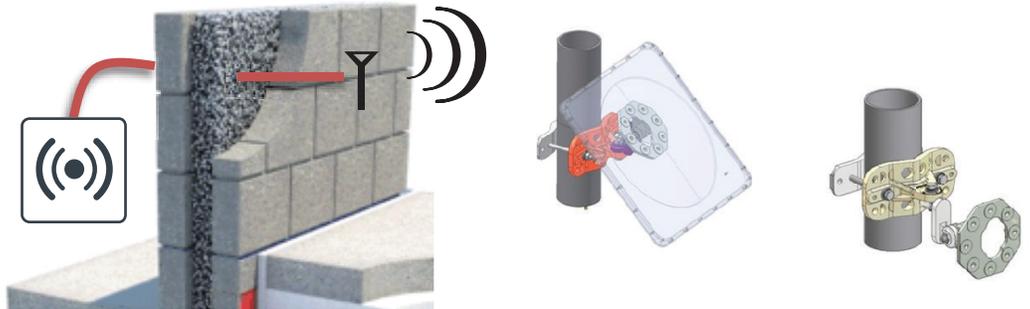
Antenna Hardware Compatibility

ANTENNA	OPTIONAL MOUNT
FANT-04ABGN-0606-P-R	FAP-BRKT-MNT-5
FANT-04ABGN-1414-P-N	FAP-BRKT-MNT-5
FANT-04ABGN-8065-P-N	FAP-BRKT-MNT-5
FANT-08ABGN-1213-D-R	FAP-BRKT-MNT-5
FANT-04ACAX-0606-D-R	FAN-M22, FAP-BRKT-MNT-5
FANT-02ACAX-0505-D-N	FAN-M22Z-5
FANT-02ACAX-0505-D-R	FAN-M22Z-5
FANT-04ACAX-0505-D-R	FAN-M22Z-5
FANT-06ACAX-8509-D-R	FAN-M22, FAP-BRKT-MNT-5
FANT-10ACAX-1213-D-R	FAP-BRKT-MNT-5

SKU Comparison

SKU	FANT-04ABGN-2504-O-R	FANT-04ABGN-0606-O-R / FANT-04ABGN-0606-O-N	FANT-06ABGN-0606-O-R FANT-06ABGN-0606-O-N	FANT-06ABGN-2504-O-R	FANT-04ABGN-0606-P-R	FANT-04ABGN-1414-P-N	FANT-04ABGN-8065-P-N
Frequency	2400-2500 MHz 4900-5850 MHz	2400-2500 MHz 5150-5850 MHz	2400-2500 MHz 5150-5850 MHz	2400-2483 MHz 5150-5850 MHz	2400-2500 MHz 5150-5850 MHz	2400-2500 MHz 5150-5850 MHz	2400-2500 GHz 5100-5900 GHz
Bandwidth	100 MHz & 950 MHz	100 MHz & 700 MHz	100 MHz	83 MHz & 700 MHz	--	100 MHz & 700 MHz	100 MHz & 800 MHz
Gain	2.5 dBi / 4 dBi	6 dBi	6 dBi	2.5 dBi / 4 dBi	6 dBi	14 dBi	8 dBi / 6.5 dBi
Vertical Beamwidth	--	45° / 20°	35° / 25°	55° / 60°	80±20° / 45±20°	35°	65° / 70°
Horizontal Beamwidth	360°	360°	360°	360°	80±20° / 45±20°	35°	60° / 65°
VSWR	≤2	≤2.2	Typical ≤1.5 - 2.0	≤2.0 / ≤2.5	≤2.0 / ≤2.5	≤2	<2
Front-to-back ratio	--	--	--	--	≤18	--	>13 dB / >15 dB
Port to Port Isolation	--	--	--	--	--	--	>25 dB / >30 dB
Nominal Impedance	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
Polarization	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical / Linear	--
Isolation	--	≤-15dB	≤-15dB	--	--	≤28dB	--
Max Power	50 Watts	10 Watts	10 Watts	50 Watts	100 Watts	50 Watts	--
Lightning Protection	--	Not DC Grounded	Not DC Grounded	--	--	--	--
Connectors	4 x RPSMA Male	4 x RPSMA Male or 4 x N-Type Male	6 x RPSMA Male	6 x RPSMA Male	4 x RPSMA Male	N-Type Female	4 x N-Type Male
Cable Length	4X Cable RPSMA Plug D12mm-hole	4X 36in-Cable RPSMA Plug 4X 36in-Cable N-Plug	6X 36in-Cable RPSMA Plug	6X 36in-Cable RPSMA Plug	4X 36in-Cable RPSMA Plug	--	4X 24in-Cable N-Plug
Pigtail Length	36 in. with Connector 91.44 cm with Connector	36 in. with Connector 91.44 cm with Connector	36 in. with Connector 91.44 cm with Connector	36 in. with Connector 91.44 cm with Connector	36 in. with Connector 91.44 cm with Connector	Need to order separately	--
Environment	Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor	Indoor - Plenum rated	Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor
Ingress Protection	--	--	--	--	--	--	IP-66 Compliant
Operating Temperature	-40°F to +158°F -40°C to +70°C	-40°F to +158°F -40°C to +70°C	-40°F to +158°F -40°C to +70°C	-40°F to +158°F -40°C to +70°C	-40°F to +140°F -40°C to +60°C	-22°F to +158°F -30°C to +70°C	-40°F to +140°F -40°C to +60°C
Wind Load	--	134 mph 216 km/h	134 mph 216 km/h	--	--	--	--
Mounting Method	Surface	Mast or Wall	Mast or Wall	Ceiling	Wall or Mast/Pole	Mast	--

SKU Comparison

SKU	FANT-08ABGN-1213-D-R	FANT-06ACAX-8509-D-N	FANT-10ACAX-1213-D-N	FANT-2ACAX-0505-D-R	FANT-2ACAX-0505-D-N	FANT-4ACAX-0505-D-R	FANT-4ACAX-0606-D-R
Frequency	2400-2500 MHz 5150-5850 MHz	2400-2500 GHz 5150-5875 GHz	2400-2500 GHz 5100-5900 GHz	2400-2500 GHz 4900-5900 GHz	2400-2500 GHz 4900-5900 GHz	2400-2500 GHz 4900-5900 GHz	2400-2500 GHz 5150-5875 GHz
Bandwidth	100 MHz & 700 MHz	100 MHz & 725 MHz	100 MHz & 800 MHz	100 MHz & 1000 MHz	100 MHz & 1000 MHz	100 MHz & 1000 MHz	100 MHz & 725 MHz
Gain	12 dBi / 13 dBi	8.5 dBi / 9 dBi	12dBi / 13dBi	5dBi / 5dBi	5dBi / 5dBi	5dBi / 5dBi	6dBi / 6dBi
Vertical Beamwidth	45° / 28° (Ports 1-4) 50° / 40° (Ports 5-8)	65° / 70°	45° / 28° (Ports 1-5) 50° / 40° (Ports 6-10)	70° / 70°	70° / 70°	70° / 70°	60° / 60°
Horizontal Beamwidth	50° / 40° (Ports 1-4) 45° / 28° (Ports 5-8)	60° / 65°	50° / 40° (Ports 1-5) 45° / 28° (Ports 6-10)	120° / 120°	120° / 120°	120° / 120°	60° / 60°
VSWR	≤2.25	2.0: 1 max.	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Front-to-back ratio	≤19 dB	-20 dB	≤18 dB / ≤ 25 dB	≤17 dB / ≤ 20 dB	≤17 dB / ≤ 20 dB	≤17 dB / ≤ 20 dB	≤25 dB / ≤ 25 dB
Port to Port Isolation	≤18 dB / ≤ 25 dB	20 dB / 30 dB	≤28 dB	≤20 dB	≤20 dB	≤20 dB	≤25 dB
Nominal Impedance	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
Polarization	4x Horizontal / 4x Vertical	Vertical	5x Horizontal / 5x Vertical	Dual Slant +/-45°	Dual Slant +/-45°	Dual Slant +/-45°	Dual Slant +/-45°
Isolation	--	--	--	--	--	--	--
Max Power	50 Watts	10 Watts	50 Watts	20 Watts	20 Watts	20 Watts	20 Watts
Lightning Protection	--	DC Grounded	--	--	--	--	--
Connectors	8 x RPSMA Male	6 x 1.2m Pigtail with N-Type Male	10x N-Male	2 x RPSMA Male	2 x N-Male	4 x RPSMA Male	4 x RPSMA Male
Cable Length	8X 36in-Cable RPSMA Plug	not included	36 in. RG58 91.4 cm	24 in. RG 316	24 in. RG 316	47.2 in. RG 316	29.5 in. RG 316
Pigtail Length	36 in. with Connector 91.44 cm with Connector			--	--	--	--
Environment	Indoor / Outdoor			Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor
Ingress Protection	IP-54 Compliant	IP-65	IP-54	IP-67	IP-67	IP-67	IP-67
Operating Temperature	-40° to 140° F -40° to 60° C	-40° to 149° F -40° to 65° C	-40° to 140° F -40° to 60° C	-40° to 158° F -40° to 70° C	-40° to 158° F -40° to 70° C	-40° to 158° F -40° to 70° C	-40° to 158° F -40° to 70° C
Wind Load	100 mph 160 km/h	124 mph 200 km/h	100 MPH 160 kmh	-	-	-	220 km/h
Mounting Method	--	Mast or Wall	Mast or Wall	Wall	Wall	Wall	Wall

Ordering Information

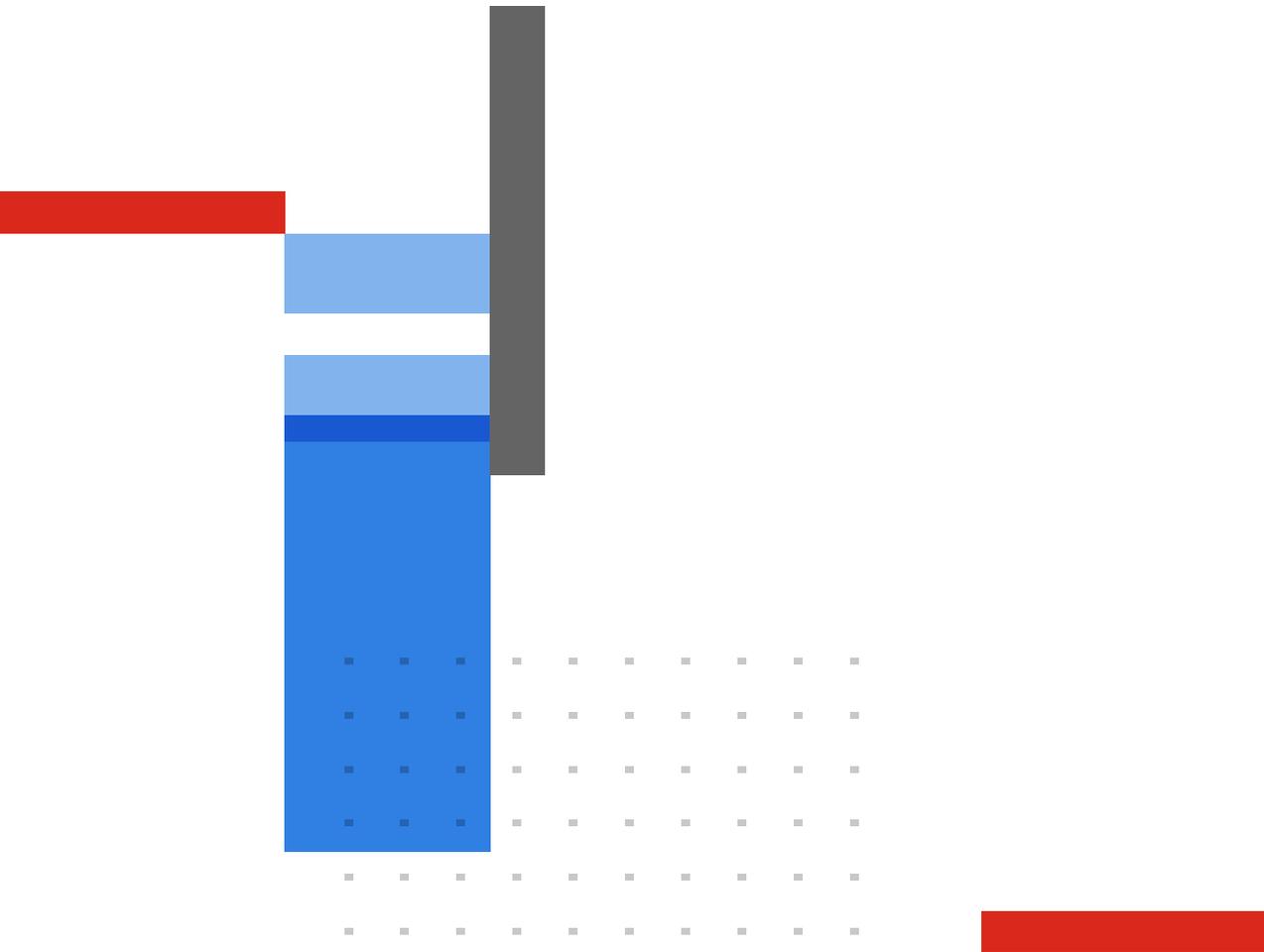| Product	SKU	Description
Fortinet Antennas	FANT-04ABGN-2504-O-R	2.4/5GHz 2.5/4dBi Wi-Fi Omni Micro Antenna with 4 RPSMA Connectors.
	FANT-04ABGN-0606-O-R	2.4/5GHz 6dBi Wi-Fi Omni Antenna with 4 RPSMA Connectors.
	FANT-04ABGN-0606-O-N	2.4/5GHz 6dBi Wi-Fi Omni Antenna with 4 N-Style Connectors.
	FANT-06ABGN-0606-O-R	2.4/5GHz 6dBi Wi-Fi Omni Antenna with 6 RPSMA Connectors.
	FANT-06ABGN-0606-O-N	2.4/5GHz 6dBi Wi-Fi Omni Antenna with 6 N-Type Connectors.
	FANT-06ABGN-2504-O-R	2.4/5GHz 2.5/4 dBi Wi-Fi Omni Antenna with 6 RPSMA Connectors (Ceiling Mount).
	FANT-04ABGN-0606-P-R	2.4/5GHz 6dBi Wi-Fi Patch (H:80/45/V:45/80) Antenna with 4 RPSMA Connectors.
	FANT-04ABGN-1414-P-N	2.4/5GHz 14dBi Wi-Fi Patch (H:35/V:35) Antenna with 4 N-Style Connectors.
	FANT-04ABGN-8065-P-N	2.4/5GHz 8/6.5dBi Wi-Fi Patch (H:60/65/V:65/70) Antenna with 4 N-Style Connectors.
	FANT-08ABGN-1213-D-R	2.4/5 GHz 12/13 dBi Wi-Fi Directional Antenna (H:50/40/V:45/28) with 8 RPSMA Connectors.
	FANT-06ACAX-8509-D-N	2.4/5 GHz 8.5/9 dBi Wi-Fi Directional Antenna with 6 N-Type Male Connectors.
	FANT-10ACAX-1213-D-N	2.4/5 GHz 12/13 dBi Wi-Fi Directional Antenna with 10 N-Male Connector.
	FANT-04BEAX-0606-P-R	2.4/5/6GHz 6dBi/6dBi/6dBi Wi-Fi Directional (H:65/55/55 V:60/60/60) Antenna with 4 RPSMA Connectors.
	FANT-02ACAX-0505-D-N	2.4/5GHz 5dBi/5dBi Wi-Fi directional Sector Antenna with 2 N-Style Connectors.
	FANT-02ACAX-0505-D-R	2.4/5GHz 5dBi/5dBi Wi-Fi directional Sector Antenna with 2 RPSMA Connectors.
	FANT-02ACAX-0606-P-R	2.4/5GHz 6dBi/6dBi Wi-Fi Patch (H:40/40 V:40/40) Antenna with 2 RPSMA Connectors.
	FANT-04ACAX-0505-D-R	2.4/5GHz 5dBi/5dBi Wi-Fi directional Sector Antenna with 4 RPSMA Connectors.
	FANT-04ACAX-0606-D-R	2.4/5GHz 6dBi/6dBi Wi-Fi directional High gain Narrow Beam width Sector Antenna with 4 RPSMA Connectors.
	FANT-04BEAX-1313-D-N	13dBi (2.4/5/6GHz) Wi-Fi Directional Antenna with 4 N-Type Connectors.

Visit https://www.fortinet.com/resources/ordering-guides for related ordering guides.

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Fortinet is committed to driving progress and sustainability for all through cybersecurity, with respect for human rights and ethical business practices, making possible a digital world you can always trust. You represent and warrant to Fortinet that you will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving illegal censorship, surveillance, detention, or excessive use of force. Users of Fortinet products are required to comply with the Fortinet EULA and report any suspected violations of the EULA via the procedures outlined in the Fortinet Whistleblower Policy.

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