



## 4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna

### Antennas Technical Data Sheet

PE51FP1011

#### Features

- MIMO - Multiple-Input and Multiple-Output
- Dual Polarity feed system in single enclosure
- Two integrated diversity antennas
- UV-resistant radome for all-weather operation

#### Applications

- 4.9-5.8 GHz Wireless LAN systems
- Supports 1x2, 2x2 MIMO AP/Router
- Supports IEEE 802.11 a/n applications
- WiMAX, WISP, WiFi, Mobile Communication
- Homeland Security and Public Safety band

#### Description

The HyperLink PE51FP1011 Flat Panel Antenna combines vertical and horizontal polarization with high gain over broadband frequency in a single enclosure. It is a professional quality antenna designed primarily for MIMO point-to-multipoint and point-to-point applications in the 4.9 GHz to 5.8 GHz frequency bands. The PE51FP1011 supports 802.11a/n and MIMO applications.

This aesthetically pleasing antenna features a heavy-duty UV-resistant plastic radome ideal for all-weather indoor and outdoor operation. The PE51FP1011 antenna is supplied with a tilt and swivel mast mount kit. This allows quick installation at various degrees of up/down tilt for easy alignment.

#### Configuration

Design	Panel
Band Type	Wide
Radiation Pattern	Directional
Polarization	Vertical or Horizontal
Connector Type	N Female
Interface 2	N Female
Number of Ports	2
Lightning Protection	DC Ground

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			1.8:1	
Impedance		50		Ohms
Gain		19		dBi
Front to Back Ratio		25		dB
Input Power			10	Watts

#### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	4,900-5,850					MHz
Gain	19					dBi
Horizontal Beam Width	80					Degees
Vertical Beam Width	23					Degees

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna PE51FP1011](#)



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Maximum Input Power	10	Watts
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#### Mechanical Specifications

Radome Material

ASA

#### Size

Overall Length

12.4 in [314.96 mm]

Width

12.4 in [314.96 mm]

Height

0.98 in [24.89 mm]

Mounting Mast Diameter

0.75 to 2 in [19.05 to 50.80 mm]

Weight

3.96 lbs [1.8 kg]

#### Environmental Specifications

Wind Loading

130 MPH [209.21 KPH]

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

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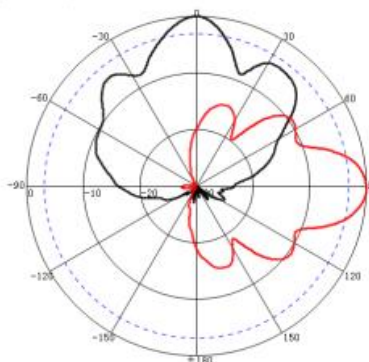
## 4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna

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#### Typical Radiation Pattern

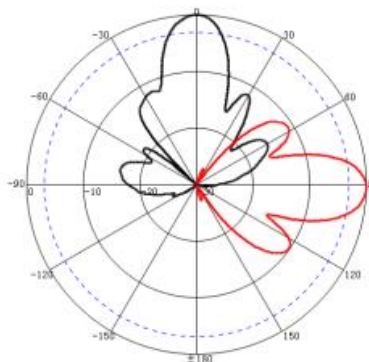
##### RF Antenna Patterns – H-Pol



Freq: 4900MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar: Across Main  
Polarization: V-plane  
Max: 16.33dB  
HPBW(3dB): 23.77°  
FBR: 27.01dB

Freq: 4900MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar: Across Main  
Polarization: Horizontal  
Max: 18.20dB  
HPBW(3dB): 23.54°  
FBR: 27.25dB

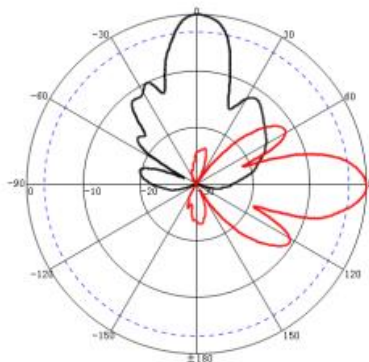
Gain: 13.13dB



Freq: 5400MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar: Across Main  
Polarization: V-plane  
Max: 19.24dB  
HPBW(3dB): 19.58°  
FBR: 22.24dB

Freq: 5400MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar: Across Main  
Polarization: Horizontal  
Max: 19.78dB  
HPBW(3dB): 19.62°  
FBR: 21.27dB

Gain: 17.22dB



Freq: 5950MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar: Across Main  
Polarization: V-plane  
Max: 20.68dB  
HPBW(3dB): 19.48°  
FBR: 22.05dB

Freq: 5950MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar: Across Main  
Polarization: Horizontal  
Max: 23.02dB  
HPBW(3dB): 17.64°  
FBR: 27.07dB

Gain: 17.30dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna PE51FP1011](#)

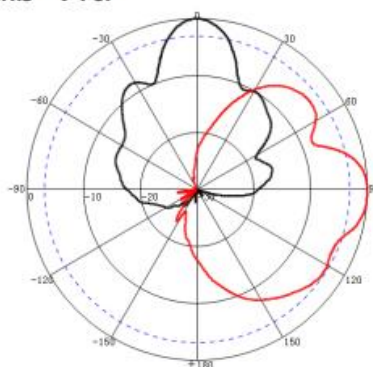


## 4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna

### Antennas Technical Data Sheet

PE51FP1011

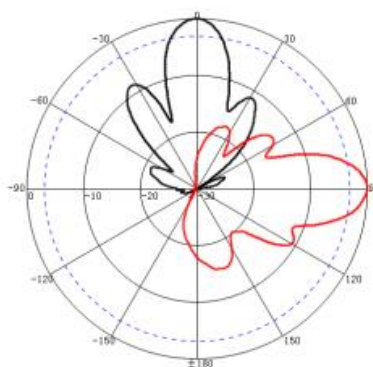
**RF Antenna Patterns – V-Pol**



Freq: 4900MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -18.84dB  
HPBW(3dB): 22.60°  
FBR: 27.59dB

Freq: 4900MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -17.31dB  
HPBW(3dB): 31.39°  
FBR: 29.49dB

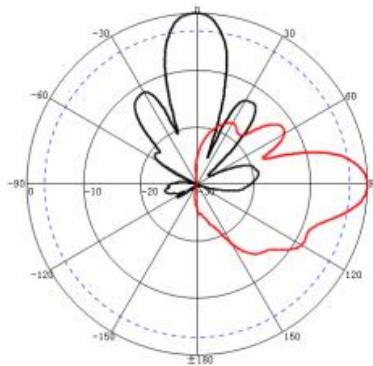
Gain: 12.37dBi



Freq: 5400MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -18.61dB  
HPBW(3dB): 18.99°  
FBR: 31.50dB

Freq: 5400MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -18.43dB  
HPBW(3dB): 19.43°  
FBR: 30.05dB

Gain: 17.07dBi



Freq: 5950MHz  
Date: 2013-11-20  
Elevation: H-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -21.09dB  
HPBW(3dB): 19.29°  
FBR: 31.32dB

Freq: 5950MHz  
Date: 2013-11-20  
Elevation: V-plane  
Polar-Across: Main  
Polarization: Vertical  
Max: -21.33dB  
HPBW(3dB): 19.54°  
FBR: 31.72dB

Gain: 17.13dBi

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna PE51FP1011](#)



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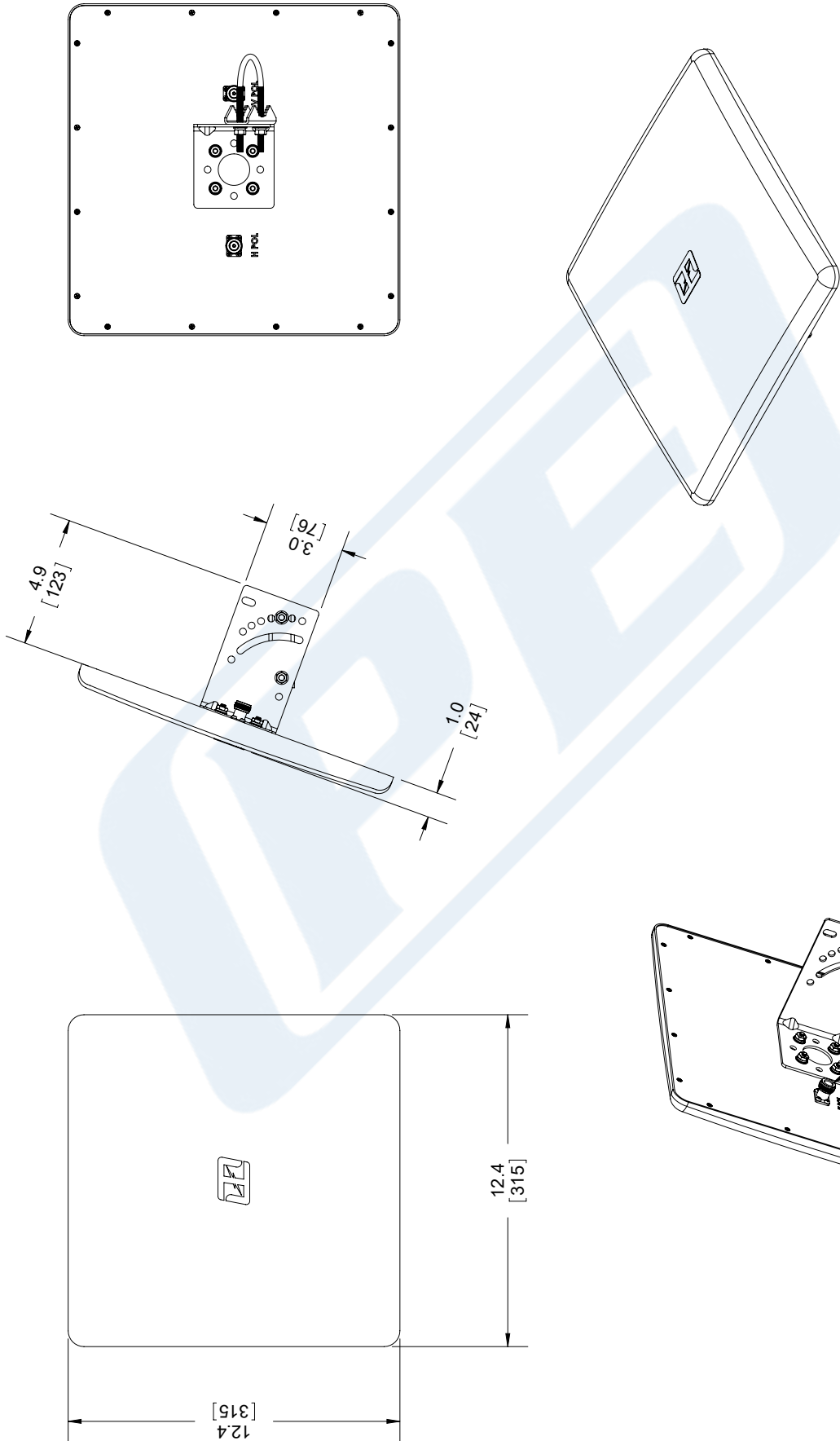
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna PE51FP1011](https://www.pasternack.com/wide-antenna-19-dbi-gain-n-pe51fp1011-p.aspx)

URL: <https://www.pasternack.com/wide-antenna-19-dbi-gain-n-pe51fp1011-p.aspx>

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PE51FP1011 CAD Drawing  
4.9-5.8 GHz 19dBi Dual Polarized Panel Antenna

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	2/12/2020
		APPROVED M.MILLER



UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ± .2	[5.08]	FRACTIONS
.XX = ± .02	[.51]	± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	= +1 [25] / -0
12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
300 [7620] < L =	+5% / -0

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

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