



# Pacific Wireless

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## PMANT / PMPF

## DATA SHEET

### Directional Antenna Systems

### 1700 to 2700 MHz Operation

#### Features

- 50 Ω Passive Feed Dipole
- Integrated N Female Connector or  
Optional 24" pigtail with N Male or N Female Connector
- Horizontal or Vertical Polarity
- 15, 19, 21 or 24 dBi Antenna Gain
- Rugged, Lightweight and Waterproof
- Heavy Duty Adjustable Tilt Bracket



19 dBi Antenna System\*

#### Applications

- 2.4 GHz ISM Band Applications
- Point to Point Repeaters
- Wireless Local Loop
- Point to Multipoint Receive Sites
- Wireless Internet Access
- Streaming Video
- Wireless Bridges
- MMDS Applications

#### Description

The directional antenna systems offered by Pacific Wireless incorporate parabolic grid type antenna reflectors with the PMPF, patented 50 ohm passive feed dipole. Dipoles come in 2 basic configurations, PMPF-xx with integral Female N type connector and PMPF-xxP with 24" pigtail equipped with an N Male or PMPF-xxPF with an N Female type connector. The antenna reflectors and PMPF dipole can be bought separately for maximum system flexibility. Installation is simple with the Pacific Wireless adjustable tilt "Heavy Duty" bracket which is standard on all antennas. The bracket accommodates poles from 1" up to 2.5" OD. Brackets are full galvanized for extreme corrosion protection and each reflector assembly comes complete with Stainless Steel hardware and complete assembly instructions.

#### Specifications

Parameter	Model	Min	Typ	Max	Units
<i>Frequency Range</i>	PMPF-1 PMPF-2 PMPF-19 PMPF-18 PMPF-18S	2300 2500 1880 1750 1700		2500 2685 1930 1850 1850	MHz
<i>Input Return Loss (S<sub>11</sub>)</i>			-12		dB
<i>VSWR</i>			1.5:1		
<i>Impedance</i>			50		OHM
<i>Input Power</i>			50		W
<i>Pole Diameter (OD)</i>		1 25		2.5 60	inch mm
<i>Operating Temperature</i>		-45		+70	Deg C

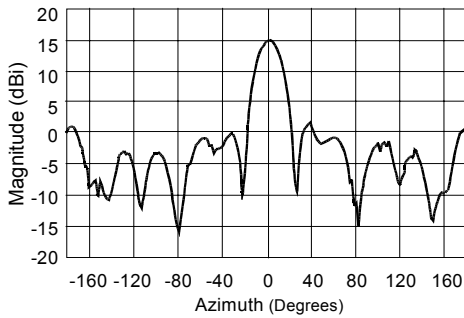
\*Note: Pacific Wireless does not supply the mounting pole or coax cable. Antenna system assembly is required.

1700 – 2700 MHz	PMANT15	PMANT19	PMANT21	PMANT25
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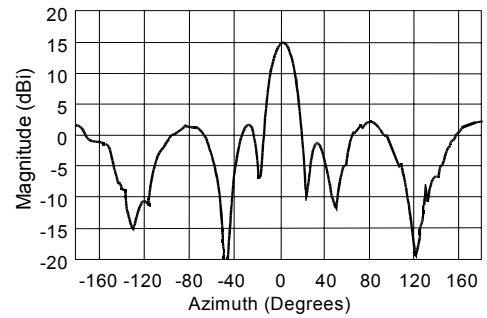
<b>Gain</b>		15 dB	19 dB	21 dB	24 dB
<b>3dB Beam Angle</b>		19 deg	17 deg	12 deg	8 deg
<b>Cross Pole</b>		21 dB	32 dB	26 dB	26 dB
<b>Front to Back</b>		> 19 dB	> 22 dB	>25 dB	> 24 dB
<b>Side Lobe</b>		-15 dB	-17 dB	-25 dB	-20 dB
<b>Wind Loading</b>	<i>100MPH</i>	8.2 Lbs	16.6 Lbs	22.7 Lbs	40 Lbs
	<i>140MPH</i>	16.1 Lbs	32.5 Lbs	40.6 Lbs	78 Lbs
	<i>100MPH: ½" Radial Ice</i>	33.2 Lbs	72.4 Lbs	136.8 Lbs	166 Lbs
<b>Weight</b>		2.6 Lbs	3.9 Lbs	4.2 Lbs	8.2 Lbs
<b>Dimension (LxW)</b>		14" x 11.5"	23.6" x 16.7"	30" x 22"	34" x 28"
<b>Focal Length</b>		7"	9.5"	11.5"	16"

### Integrated Antenna Patterns

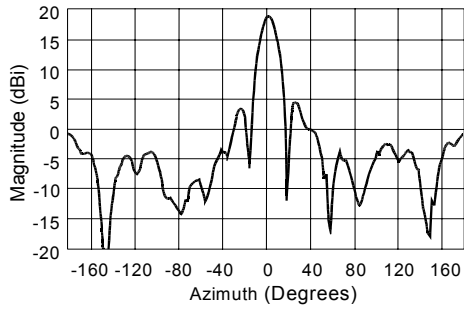
PMANT15 (Horizontal)



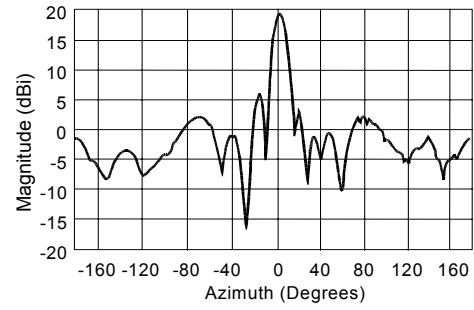
PMANT15 (Vertical)



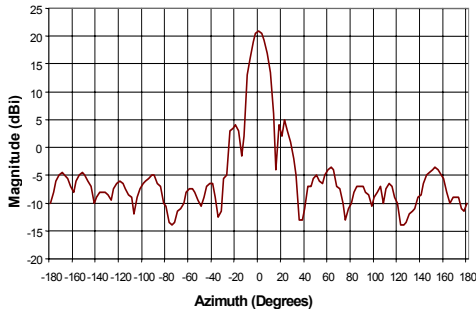
PMANT19 (Horizontal)



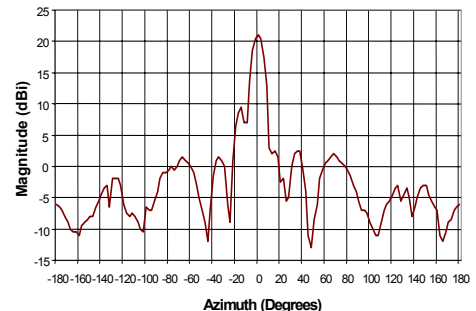
PMANT19 (Vertical)

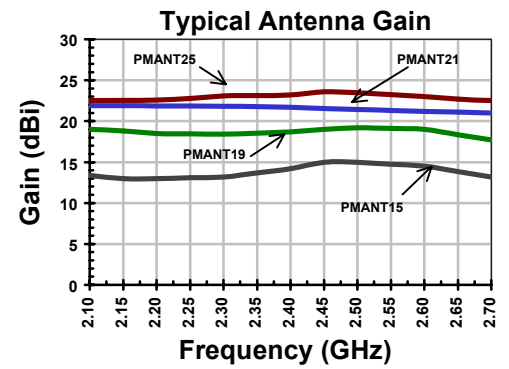
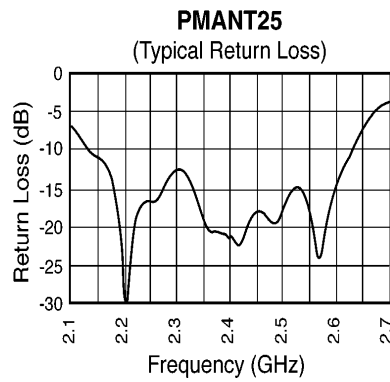
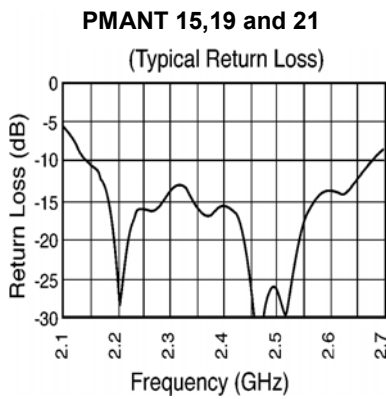
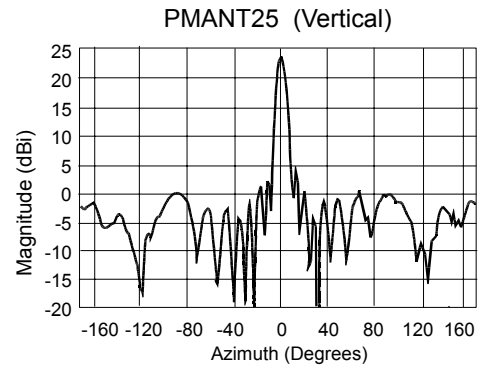
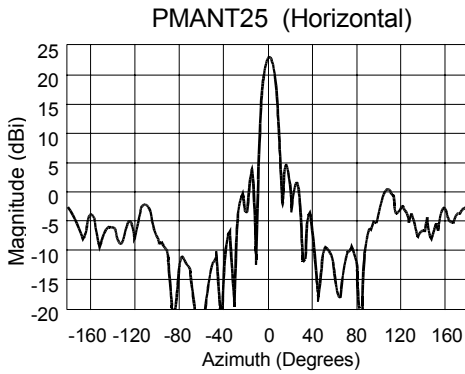


PMANT21 (Horizontal)



PMANT21 (Vertical)

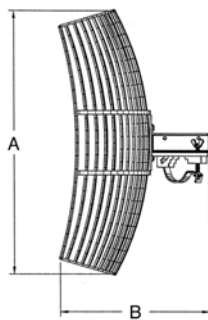




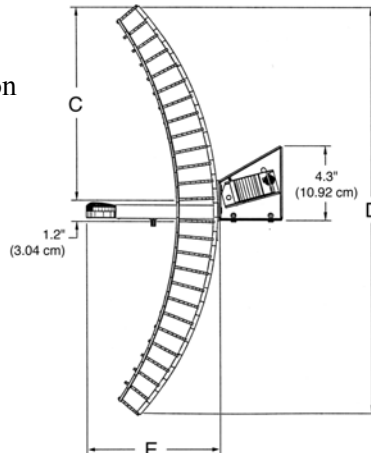
**Note:** Above are typical return loss and gain using PMPF-1 Dipole

## Mechanical Specifications

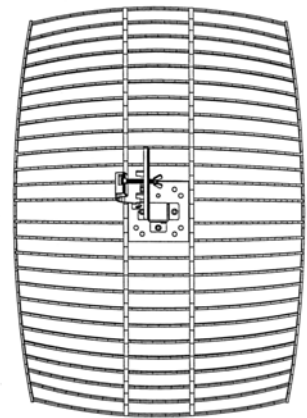
Antenna Reflector: Welded Wire Construction



Top View



Side View



Rear View

	A		B		C		D		E	
	in.	cm.	in.	cm.	in.	cm.	in.	cm.	in.	cm.
PMANT15	11.5	29.21	6.5	16.51	6.4	16.26	14.0	35.56	7.2	18.29
PMANT19	16.7	42.42	9.4	23.88	11.2	28.45	23.6	59.95	9.4	23.87
PMANT21	22	55.88	13.5	34.29	9.25	23.5	30.1	76.45	9.35	23.75
PMANT25	28.0	71.12	11.4	28.96	16.4	41.66	34.0	86.36	16.0	40.64

### Approximate Installed Weight

- including PMPF Dipole

PMANT15	2.6 lbs (1.18 kg)
PMANT19	3.9 lbs (1.77 kg)
PMANT21	6.0 lbs (2.72 kg)
PMANT25	8.2 lbs (3.72 kg)

**Heavy Duty bracket fits up to 2.5" (60mm) dia. Pole**

*Ships standard with all models*



**Notes:**

- Mounting brackets are disassembled from the antenna reflectors so the reflectors stack compactly, which saves volume in both shipping and warehouse storage.
- A complete antenna system includes one PMPF-xx, one antenna reflector assembly and bracket with all necessary hardware for pole mounting.
- All shipments F.O.B. Pacific Wireless Midwest Warehouse in Portage, Michigan 49002
- All antennas carry a 2 Year Warranty

**Standard Packaging:**

Model	Units per box	L x W x H	Weight	Dimensional Weight (For Air Freight Calculations)
PMANT15	10 Pack	20" x 16" x 12"	39 Lbs.	39 Lbs.
PMANT19	5 Pack	26" x 23" x 10"	31 Lbs.	37 Lbs.
PMANT21	5 Pack	32" x 23" x 11"	40 Lbs.	49 Lbs.
PMANT25	5 Pack	38" x 31" x 11"	59 Lbs.	74 Lbs.

**System Ordering:** PMANT□□-HD-PF□□ □□

**Antenna Gain**

- 15 – 15dBi
- 19 – 19dBi
- 21 – 21dBi
- 25 – 24dBi

**Bracket Type**

- HD – Heavy Duty

**Feed Type**

- Blank – No Feed
- PF1** – PMPF-1 2.4 GHz ISM Band
- PF2** – PMPF-2 2.5 GHz MMDS Band
- PF18** – PMPF-18 1.75 to 1.85 GHz
- PF18S** – PMPF-18S 1.70 to 1.85 GHz
- PF19** – PMPF-19 1.88 to 1.93 GHz DECT

**Feed Option**

- Blank – Standard – N Type Integrated Connector
- P** – Pigtail with N Male connector
- PF** – Pigtail with N Female connector

**For further information contact:**



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