RFI
TECHNOLOGY SOLUTIONS

Panel Antenna Solutions

Low Profile, Low PIM, Directional Antennas

About RFI

RFI is a global technology solutions company, specialising in wireless coverage. RFI has one of the largest, most innovative and experienced wireless solutions teams with dedicated engineers, product managers, deployment engineers, logistics, distribution and R&D staff.

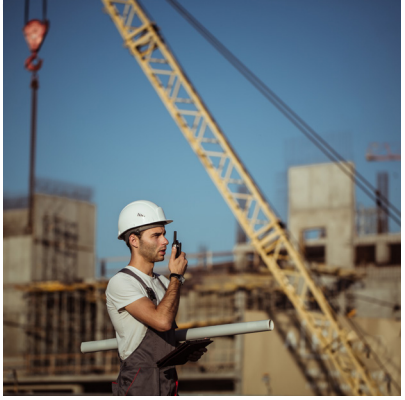
Our network of international sales offices means that all customers get the attention and advice they require, providing local support on a global scale. This includes our 16,000 ft² American office and distribution center with local product stock and engineering services for the Americas region.

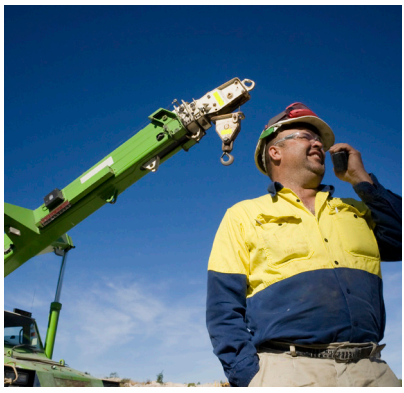
RFI develops, manufactures and distributes world-class, high performance, wireless products including; antenna systems, rebroadcast & monitoring equipment, power systems and cabling and connectors. RFI is recognised as a market leader in wireless products and offers the best products backed with outstanding technical support.

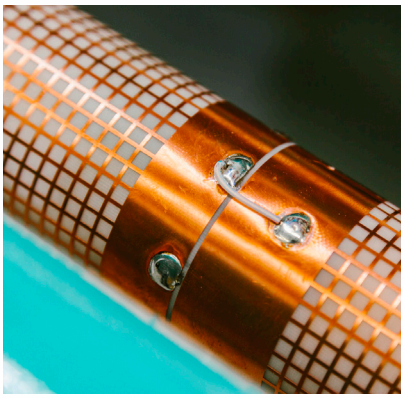
RFI is continually strengthening its technology solutions portfolio, including the recent acquisition of Maxon Australia, allowing us to offer industry leading M2M solutions.

Award Winning Manufacturing

RFI is proud to be an award winning manufacturer with wireless coverage products that perform on a global stage. RFI Technology solutions are manufactured in Australia and exported to 80 + countries. RFI operates manufacturing sites in Victoria and South Australia, both with a proud history in quality, safety and environmental performance. Our two sites include Australia's largest antenna manufacturing facility, producing world class Antenna and Multicoupling Systems for both Domestic and International Markets and the only Australian manufacturing site producing frequency translating repeater systems.





RFI Panel Antenna Solutions

RFI panel antennas feature a low profile design with site-adaptable mounting capability, excellent -150dBc PIM performance, 25kW PIP rating and a 500 watt power rating to cater for the demands of multi-channel network deployment requirements. Models are available in a range of gain and beamwidth variations, with integrated adjustable manual electrical tilt, to adapt to differing site and coverage requirements. These antennas provide enhanced performance across their operating frequency range of 746 to 960MHz, including UHF options covering 330-430MHz.

Features include:

- Fully enclosed design performance and reliability
- High gain
- Sectorised coverage
- Multiple options in gain and beamwidth
- Manually adjustable Electrical Tilt, allows for ultimate flexibility
- Mechanical tilt mounting bracket
- Individually verified, proof of which must be requested upon order
- -150dBc PIM and 25kW PIP ratings cater to the rigors of multi-channel network deployment
- A range of panel solutions covering UHF, 700/800/900 MHz, with full band operation

Panel Antenna Solutions

BPA7496-12 **746-960 MHz**

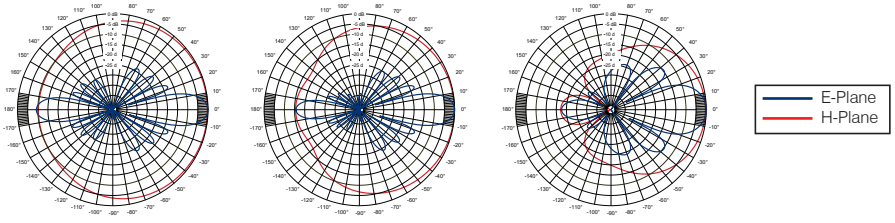
The BPA series panel antennas provide excellent gain with a range of directional radiation patterns, ideal for coverage requirements in “corridor” and sectorised applications. These panel antennas are fully enclosed to aid installation, provide waterproofing, and to resist bird attack. The main lobe of these antennas is strong, offering excellent beam control, upper side lobe suppression and front to back ratio, ensuring the integrity of the pattern.

Proven design and construction techniques provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. IM performance is -150dBc based on a two-carrier test. The antenna rests at ground potential and offers excellent lightning protection and reduced precipitation noise.

Features:

- Analogue and digital technology compatible
- Choice of 60° 120° or 180° beamwidth models
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics
- 25kW Peak instantaneous (PIP) rating
- Convenient mounting style suits various pole, mount and wall installation locations
- Manually adjustable electrical tilt (MET)
- DC grounded for superior lightning protection

Radiation Patterns



BPA-7496-180-11 BPA7496-120-12 BPA7496-60-13

Electrical Specifications

Model Number	BPA7496-180-11	BPA7496-120-12	BPA7496-60-13
Nominal Gain *dBi (dBd)*	11 (9)	12 (10)	13 (11)
Frequency *MHz*	740-960		
Tuned Bandwidth *MHz*	Entire Band		
Polarity	Vertical		
VSWR (Return Loss)	<1.5:1 (14dB)		
Nominal Impedance Ω	50		
Downtilt	2° to 16° adjustable		
Vertical Beamwidth°	13	14	25
Horizontal Beamwidth°	180	120	60
Upper Side Lobe Suppression *dB*	<-12		
Front to back Ratio *dB*	≥7	≥12	≥24
Input Power *W*	500		
Passive IM 3rd order *dBc*	<-150		
Peak Instantaneous Power kW	25		

Mechanical Specifications

Model Number	BPA7496-180-11	BPA7496-120-12	BPA7496-60-13
Construction	Fully enclosed in radome		
Length x Width x Depth mm *(in)*	1525 x 265 x 145 (60 x 10.4 x 6)		900 x 265 x 145 (35.4 x 10.4 x 6)
Weight kg *(lbs)*	8 (17)		5 (11)
Weight (Packed) kg *(lbs)*	16 (35)		13 (29)
Termination	1 x DIN female		
Clamps (Provided)	Adjustable mechanical downtilt style (0-8°)		
Clamp Diameter mm *(in)*	Ø70 to Ø120 (Ø2.8 to Ø4.7)		

Panel Antenna Solutions

BPA7496 **746-960 MHz**

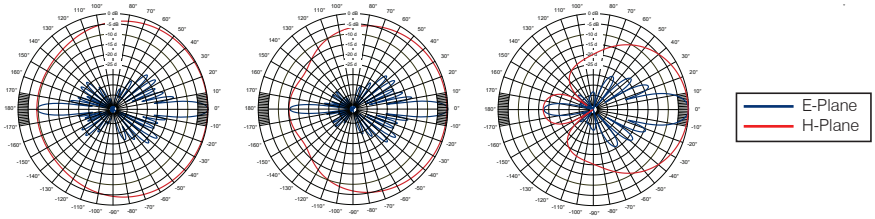
The BPA series panel antennas provide excellent gain with a range of directional radiation patterns, ideal for coverage requirements in “corridor” and sectorised applications. These panel antennas are fully enclosed to aid installation, provide waterproofing, and to resist bird attack. The main lobe of these antennas is strong, offering excellent beam control, upper side lobe suppression and front to back ratio, ensuring the integrity of the pattern.

Proven design and construction techniques provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. IM performance is -150dBc based on a two-carrier test. The antenna rests at ground potential and offers excellent lightning protection and reduced precipitation noise.

Features:

- Ideal for highly populated sites requiring “corridor” or sectorised coverage
- Choices of 60° 120° or 180° beamwidth models
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics
- 25kW Peak instantaneous (PIP) rating
- Convenient mounting style suits various pole, mount and wall installation locations
- Manually adjustable electrical tilt (MET)
- DC grounded for superior lightning protection

Radiation Patterns



BPA-7496-180-14 BPA7496-120-15 BPA7496-60-15

Electrical Specifications

Model Number	BPA7496-180-14	BPA7496-120-15	BPA7496-60-15
Nominal Gain *dBi (dBd)*	14 (12)	15 (13)	
Frequency *MHz*	740-960		
Tuned Bandwidth *MHz*	Entire Band		
Polarity	Vertical		
VSWR (Return Loss)	<1.5:1 (14dB)		
Nominal Impedance Ω	50		
Downtilt	0° to 8° adjustable		2° to 16° adjustable
Vertical Beamwidth°	7		14
Horizontal Beamwidth°	180	120	60
Upper Side Lobe Suppression *dB*	<-16		
Front to back Ratio *dB*	≥7	≥12	≥24
Input Power *W*	500		
Passive IM 3rd order *dBc*	<-150		
Peak Instantaneous Power kW	25		

Mechanical Specifications

Model Number	BPA7496-180-14	BPA7496-120-15	BPA7496-60-15
Construction	Fully enclosed in radome		
Length x Width x Depth mm *(in)*	2825 x 265 x 145 (111 x 10.4 x 6)		1500 x 265 x 145 (35.4 x 10.4 x 6)
Weight kg *(lbs)*	17 (38)		8 (17)
Weight (Packed) kg *(lbs)*	20 (44)		16 (35)
Termination	1 x DIN female		
Clamps (Provided)	Mechanical downtilt style (0-8°)		
Clamp Diameter mm *(in)*	Ø70 to Ø120 (Ø2.8 to Ø4.7)		

Panel Antenna Solutions

BPA3843 **380-430 MHz**

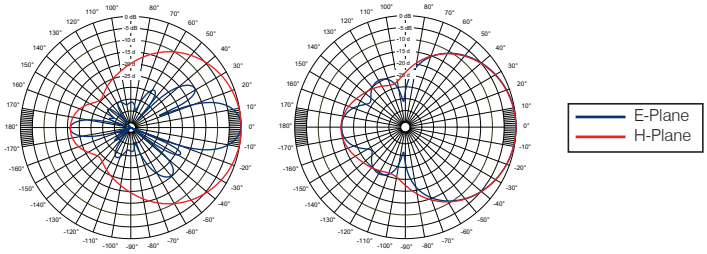
The BPA series panel antennas provide excellent gain with a range of directional radiation patterns, ideal for coverage requirements in “corridor” and sectorised applications. These panel antennas are fully enclosed to aid installation, provide waterproofing, and to resist bird attack. The main lobe of these antennas are strong, offering excellent beam control, upper side lobe suppression and front to back ratio, ensuring the integrity of the pattern.

Proven design and construction techniques provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. IM performance is -150dBc based on a two-carrier test. The antenna rests at ground potential and offers excellent lightning protection and reduced precipitation noise.

Features:

- Analogue and digital technology compatible
- Ideal for highly populated sites requiring “corridor” or sectorised coverage
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics
- Convenient mounting style suits various pole, mount and wall installation locations
- Mechanical tilt mounting brackets supplied
- DC grounded for superior lightning protection

Radiation Patterns



BPA3843-65-14 BPA3843-65-8

Electrical Specifications

Model Number	BPA3843-65-14	BPA3843-65-8
Nominal Gain *dBi (dBd)*	14 (12)	8 (6)
Frequency *MHz*	380-430	
Tuned Bandwidth *MHz*	Entire Band	
Polarity	Vertical	
VSWR (Return Loss)	<1.5:1 (14dB)	
Nominal Impedance Ω	50	
Vertical Beamwidth°	18	65
Horizontal Beamwidth°	65	
Upper Side Lobe Suppression *dB*	<-15	-
Front to back Ratio *dB*	≥23	≥16
Input Power *W*	500	
Passive IM 3rd order *dBc*	<-150	
Peak Instantaneous Power kW	25	

Mechanical Specifications

Model Number	BPA3843-65-14	BPA3843-65-8
Construction	Fully enclosed in radome	
Length x Width x Depth mm *(in)*	1525 x 265 x 145 (60 x 10.4 x 6)	700 x 560 x 200 (27.5 x 22 x 8)
Weight kg *(lbs)*	22 (48.4)	13 (29)
Weight (Packed) kg *(lbs)*	26 (57.4)	16 (35)
Termination	1 x DIN female	
Clamps (Provided)	Adjustable mechanical downtilt style (0-8°)	
Clamp Diameter mm *(in)*	Ø70 to Ø120 (Ø2.76 to Ø4.72)	

Panel Antenna Solutions

BPA3338-65 **380-430 MHz**

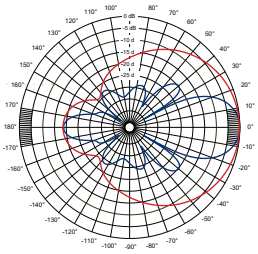
The BPA series panel antennas provide excellent gain with a range of directional radiation patterns, ideal for coverage requirements in “corridor” and sectorised applications. These panel antennas are fully enclosed to aid installation, provide waterproofing, and to resist bird attack. The main lobe of these antennas are strong, offering excellent beam control, upper side lobe suppression and front to back ratio, ensuring the integrity of the pattern.

Proven design and construction techniques provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. IM performance is -145dBc based on a two-carrier test. The antenna rests at ground potential and offers excellent lightning protection and reduced precipitation noise.

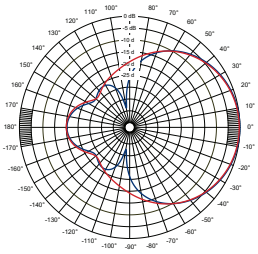
Features:

- Analogue and digital technology compatible
- Ideal for highly populated sites requiring “corridor” or sectorised coverage
- Industry leading PIM ratings providing low IM and low noise characteristics
- Convenient mounting style suits various pole, mount and wall installation locations
- Mechanical tilt mounting brackets supplied
- DC grounded for superior lightning protection

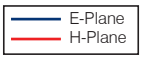
Radiation Patterns



BPA3338-65-12



BPA3338-65-7

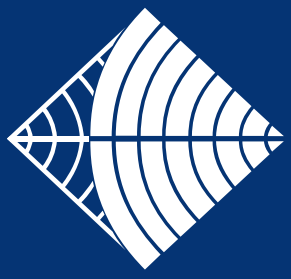


Electrical Specifications

Model Number	BPA3338-65-12	BPA3338-65-7
Nominal Gain *dBi (dBd)*	12 (10)	7 (5)
Frequency *MHz*	330-380	
Tuned Bandwidth *MHz*	Entire Band	
Polarity	Vertical	
VSWR (Return Loss)	<1.8:1 (10dB)	
Nominal Impedance Ω	50	
Downtilt	0° to 10 adjustable	
Vertical Beamwidth°	20	65
Horizontal Beamwidth°	65	
Upper Side Lobe Suppression *dB*	<-15	-
Front to back Ratio *dB*	>23	>16
Input Power *W*	500	
Passive IM 3rd order *dBc*	-150	
Peak Instantaneous Power kW	25	

Mechanical Specifications

Model Number	BPA3338-65-12	BPA3338-65-7
Construction	Fully enclosed in radome	
Length x Width x Depth mm *(in)*	1525 x 265 x 145 (86.6 x 22 x 7)	700 x 560 x 180 (27.5 x 22 x 7)
Weight kg *(lbs)*	32 (70)	14 (31)
Weight (Packed) kg *(lbs)*	36 (80)	18 (40)
Termination	1 x DIN female	
Clamps (Provided)	Adjustable downtilt style	
Clamp Diameter mm *(in)*	Suits Ø70 to Ø120 (Ø2.76 to Ø4.72)	



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