

Exposed Dipole Arrays





# **About RFI Technology Solutions**

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.

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.

#### **LEADING-EDGE TECHNOLOGY**

RFI utilises leading RF design and drafting modeling packages. Our world-class testing environment has an extensive suite of test equipment and custom automated testing.

# **RFI Exposed Dipole Arrays**

RFI's dipole arrays are chosen for durability and strength, resistance to lightning and surge or even rodents or pests. They also offer great electrical performance, with varying gain and tilt options, low PIM, high power, as well as excellent mechanical strength.

A complete range of solutions is offered for everything from short range to wide area coverage, directional options are covered with both offset and screened arrays, as well as bidirectional for more specific applications such as valleys and rail.

#### **PERFORMANCE**

RFI's industry leading dipole arrays offer not only low loss, high power performance, but also, excellent industry leading low PIM performance. These characteristics are tested throughout the manufacturing process, which not only ensures a premium product out of the factory, but a high performance product over its lifetime.

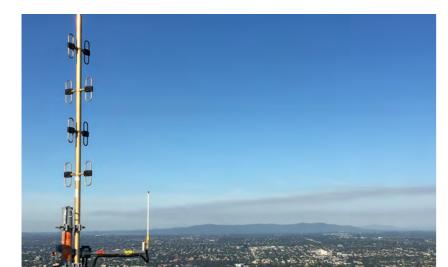
#### **DESIGN**

RFI's unique design has undergone years of continual improvement; improving not only the electrical performance but also the mechanical performance, increasing longevity and durability.

Available in aluminium, offering great electrical performance with high strength to weight ratio and excellent corrosion resistance, or stainless steel with high strength high corrosion resistance. Other options such as black powder coating may assist with heat radiation and ice shedding.

#### **BINARY DIPOLE ARRAYS FEATURES:**

- · PIM Rated, individually tested
- Largest available bandwidth covering full band including band options 136-174MHz (-41 suffix), 330-420MHz (-57 suffix) & 400-520MHz (-67 suffix)
- Exceptional 500W continuous power rating
- Ultimate in lightning protection
- Range of options available including stainless steel, powder coat and down tilt variants
- Available in dual or quad 3dBd and dual 6dBd
- · Ability to mix and match with different gain and collinears



RFI Dipole arrays are chosen for their highly ruggedised Low PIM design. They are DC grounded, withstanding even some lightning and or surge strikes\*, and so are the choice antenna for lightning prone sites such as mountain sites, tall buildings, or critical infrastructure.

Some notable sites where RFI's Dipole arrays were specifically chosen are:

- Petronas Twin Towers Malaysia
- Taipei 101
- · Empire State Building
- Sky Tower NZ

Some notable projects where the ruggedised build, low PIM solution offered by dipole arrays include:

- Samoa Nationwide Emergency Network
- Vietnam National Public Safety Network
- Malaysian National Public Safety Network
- Several Australian Public Safety Networks
- Choice antenna in many public safety networks in the USA



# **Product Applications**

#### **GEORGIA UTILITIES**

RFI Enclosed Arrays Bring a Shared Mission Critical TETRA Network to Georgia Electricity Cooperative.

#### THE CHALLENGE

Diverse Power was seeking to implement a TETRA network to create a mission-critical TETRA radio network for a series of regional electric utilities cooperatives to replace an end-of-life, outdated analog system. The new radio system required dispatch capabilities that could cooperate with existing systems, including the possibility of data applications such as GPS tracking and supervisory control and data acquisition (SCADA) applications. The use of high gain UHF antennas was preferred, and concerns expressed regarding close in coverage and low PIM performance.

#### THE RESULTS

Designed and commissioned by PowerTrunk, the TETRA network infrastructure features a mix of more than 85 RFI BA4040-67 & BA80-67 enclosed dipole arrays and COL45 Meander collinear antennas. RFI's high gain UHF antennas were chosen for their outstanding low PIM characteristics across a mix of technologies to suit wide range of environments and applications.

The area utilities have since joined the network and it became the Georgia Cooperative. It currently covers 67% of the state with 57 sites and continues to grow, with an anticipated coverage of 75%. This was the first utility in the USA to adopt TETRA with great success.





# **VHF Exposed Dipole Array**

- PIM rated, individually tested
- Largest available bandwidth covering full band
- Exceptional 750W continuous power rating
- Ultimate in lightning protection
- Range of options available including Stainless steel, powder coat down tilt variants
- Also available in dual 3dBd
- 4.3-10 Connector



BA	40-41-P	Typical E-Plane	Typical H-Plane
•	3dBd gain, 750W and low -150dBc PIM	120° 100° 0,00 80° 70° 60° 50°	139' 100' 0.00 E0' 79' 60' 100' 100' 40' 50'
•	Binary design providing best Omni-directional coverage	150° 1100 40° 150° 150° 150° 150° 150° 150° 150° 15	160° 1500 40° 20° 160° 20° 20° 20° 20° 20° 20° 20° 20° 20° 2
•	Low loss design	170	150
•	Useful for close in coverage, localised sites and coverage in extreme terrain, including mining, remote sites, mountain sites	-107 -107 -107 -107 -107 -107 -107 -107	-107 -107 -107 -107 -107 -107 -107 -107
•	Dual 3dBd also available, as BA4040-41-P, in a single antenna	-120° -100° -100° -10° -10° -10°	-120° -100° -100° -100° -100° -100°
BA	80-41-P	Typical E-Plane	Typical H-Plane
•	6dBd gain	120° 110° 100° 20° 80° 70° 80° 100° 100° 100° 100° 100° 100° 100	120° 100° 100° 50° 70° 50° 120° 100° 100° 50° 50° 50° 50° 50° 50° 50° 50° 50°
•	Binary design providing best Omni-directional coverage	357 316 317 317 317 317 317 317 317 317 317 317	150° 250 30° 30° 30° 30° 30° 30° 30° 30° 30° 30
•	Great coverage characteristics	1100	100
•	Offers max gain for wide area VHF coverage	107	100
•	Range of downtilt options available	-133° -110° -100° -10° -10° -10°	1207 1107 1007 1007 107
EA	10-41-P	Typical E-Plane	Typical H-Plane
EA4	5dBd gain, 750W and low -150dBc PIM	Typical E-Plane	Typical H-Plane
• •		Typical E-Plane	Typical H-Plane
• •	5dBd gain, 750W and low -150dBc PIM	Typical E-Plane	Typical H-Plane
	5dBd gain, 750W and low -150dBc PIM  Low loss design  Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys,	Typical E-Plane	Typical H-Plane
	5dBd gain, 750W and low -150dBc PIM  Low loss design  Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys, mining and rail	Typical E-Plane  Typical E-Plane	Typical H-Plane  Typical H-Plane
	5dBd gain, 750W and low -150dBc PIM Low loss design Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys, mining and rail Dual 5dBd also available, as EA4040-41-P, in single antenna		
	5dBd gain, 750W and low -150dBc PIM  Low loss design  Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys, mining and rail  Dual 5dBd also available, as EA4040-41-P, in single antenna		
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• • • • • • • • • • • • • • • • • • •	5dBd gain, 750W and low -150dBc PIM  Low loss design  Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys, mining and rail  Dual 5dBd also available, as EA4040-41-P, in single antenna  80-41-P  8dBd gain  Great coverage characteristics		

Band	Model Number	Description	Rated Gain dBd	Frequency	Bandwidth	VSWR	Tilt Options	3dB Be	amwidth	Power W	PIM Spec dBc	Construction	Length mm (in)	Weight kg (lhe)	Projected Area cm² (ft²)	Wind Rating km/h (mph)
Dallu	Model Number	Description	naleu dalii udu	rrequency	Danuwium	vəwn	Till Options	H Plane	E Plane	ruwer w	riwi spec ubc	Construction	Lengui IIIII (III)	Weight kg (lbs)	Projected Area Cili-(II-)	no ice
VHF Omni-D	rectional Dipole Array	S														
	BA40-41-P	3dBd VHF Omni-directional Exposed Dipole Array	3.0						35		-150		3500 (138)	14.5 (32)	4164 (4.5)	>240 (149)
VHF	BA4040-41-P	Dual 3dBd VHF Omni-directional Exposed Dipole Array	2 x 3	136-174MHz	Full Band	1.5:1	0 std	Omni	33	750	-140	All welded Aluminium, Alodined finish	6300 (248)	31 (68)	8294 (8.9)	184 (114)
	BA80-41-P	6dBd VHF Omni-directional Exposed Dipole Array	6.0				0 std, 3		17							
VHF Bi-Direc	tional Dipole Arrays															
	EA40-41-P	5 dBd VHF Bi-directional Exposed Dipole Array	5.0					104	35		-150		3500 (138)	14.5 (32)	4781 (5.1)	>240 (149)
VHF	EA4040-41-P	Dual 5dBd VHF Bi-directional Exposed Dipole Array	2 x 5	136-174MHz	Full Band	1.5:1	0 std	104	33	750	-140	All welded Aluminium, Alodined finish	6300 (248)	31 (68)	9513 (10.2)	175 (109)
	EA80-41-P	8dBd VHF Bi-directional Exposed Dipole Array	8.0					128	17		-140		0300 (240)	31 (00)	9313 (10.2)	173 (109)

# **VHF Directional Antennas**

- PIM rated, individually tested
- Largest available bandwidth covering full band
- Excellent front to back ratios available
- Exceptional 750W continuous power rating
- Ultimate in lightning protection
- Range of azimuth patterns available, to satisfy varying coverage requirements
- 4.3-10 Connector



FSA20-41-DIN

DA Series 180º H Plane	Typical E-Plane	Typical H-Plane
Directional gain, with >7dB F/B	110" 100" 83" TO" 60"	137' 100' 0 de 50' 78' 50'
• Available in 5dBd or 8dBd gain, 750W and low -150dBc PIM	180° 198 60° 100° 100° 100° 100° 100° 100° 100°	1507 - 160 - 167 -
Approx 180° beamwidth (H Plane)	1707	107
Low loss design	-1777	-177
Used in sites requiring directional or localised coverage including mining, public safety	-150° -150°	100
• Dual 5dBd also available, as OA2020-41-P, in a single antenna	-107 -107 -207 -207 -407	-120° -100° -200° -100° -100°
FSA Series 110° H Plane	Typical E-Plane	Typical H-Plane
Directional gain, OA with flat screen attachment	130° 100° 100° 80° 70° 44°	132, 189, 0 (8 60° 73° 60° 133°)
Offers greater F/B >17dB, and 110° H Plane beamwidth	1607 1507 1507 1507 1507 1507 1507 1507 15	1557 1558 1579 207 1507 1509 207 1507 207
Available in 5dBd or 8dBd gain, 750W and low -150dBc PIM	1100	100
Low loss design	-160° -25°	
Used in sites requiring directional or localised coverage with increased front to back	-107 -107 -107 -107 -107 -107 -107 -107	100' 100' 200' 20' 20' 20'
CSA Series 60° H Plane	Typical E-Plane	Typical H-Plane
Directional gain, OA with Corner screen attachment	120 000 000 000 000 000 000 000 000 000	130° 100° 0 db 80° 79° 50° 50° 50° 50°
Offers highest F/B >22dB, and 60° H Plane beamwidth	150° - 160° - 17	100 Aug 200 Au

- Available in 7dBd or 9dBd gain, 750W and low -150dBc PIM
- Low loss design
- Used in sites requiring highly directional coverage with increased front to back requirements

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Donat	MadalNood	Bassintian	Rated Gain	F	D d i dill	VOWD	3dB Be	amwidth	Front / Back	k Power W	PIM Spec	0	Total	Screen Height/depth	Screen Width	Screen Length	Weight	Projected Area	Wind Rating	Dout
Band	Model Number	Description	dBd	Frequency	Bandwidth	VSWR	H Plane	E Plane	Ratio	Power W	dBc	Construction	Length mm (in)	mm (in)	mm (in)	mm (in)	kg (lbs)	cm² (ft²)	km/h (mph) no ice	Parts
180º Nomir	nal Horizontal Beamy	width																'		
	0A20-41-P	5dbd VHF Directional Dipole Array OFFSET, 4.3-10	5					34			-150		3500 (138)				12.5 (28)	3710 (4.0)	>240 (150)	
VHF	0A2020-41-P	Dual 5dbd VHF Directional Dipole Array OFFSET, 4.3-10	2 x 5	136-174MHz	Full Band	1.5:1	174	17	7.3	750	-140	All welded Aluminium, Alodined finish	0000 (040)	-	-	-	00 (04)	7000 (0.0)	101 (110)	- -
	0A40-41-P	9dbd VHF Directional Dipole Array OFFSET, 4.3-10	9					17			-140	/ louillou lilloi!	6300 (248)				29 (64)	7396 (8.0)	191 (118)	
110º Nomir	nal Horizontal Beamy	width																		
VAIE	FSA10-41-P	Flat Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	5	146-174MHz	Full Danid	1.5:1	106	70	17	750	140	All welded	-	40 (4.5)	4040 (44)	1300 (51)	14.5 (32)	5707 (6.1)	>240 (150)	M-8568 + M-8648 (dipole)
VHF	FSA20-41-P	Flat Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	7	148-174MHz	Full Band	1.7:1	108	34	18	750	-140	Aluminium, Alodined finish	2600 (138)	40 (1.5)	1040 (41)	2600 (138)	33.5 (74)	12345 (13.3)	>240 (150)	M-8566 + OA20-41-DIN
60º Nomina	al Horizontal Beamwi	idth																		
	CSA10-41-P	Corner Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	7	440.474041-	Full Band	1.5:1	64	66	23				-	660 (26)	1492 (59)	1300 (51)	22 (47)	10548 (11.4)	>240 (150)	M-8569 + M-8648 (dipole)
VHF	CSA20-41-P	Corner Backscreen complete with RFI OA20-41 Antenna. Screen attached top & bottom to tower	9	148-174MHz	Full Band	1.7:1	00	35	24	750	-140	All welded Aluminium, Alodined finish	3500 (138)	692 (27)	1530 (60)	2600 (102)	78 (110)	44108 (47.5)	>240 (150)	M-8567 + OA20-41-DIN
	CR2	Single dipole on corner screen, 26MHz tunable bandwidth, 136-162MHz or 148-174MHz	7	136-162MHz or 148174MHz*	26MHz	1.5:1	62	69	22				-	615 (24)	1930 (76)	1200 (47)	13 (28)	9170 (9.9)	>240 (150)	-

<sup>\*</sup>Specify required frequency band for CR2 on order.

# **UHF Exposed Dipole Array**

- PIM rated, individually tested
- · Largest available bandwidth covering full band
- Exceptional 500W continuous power rating
- Ultimate in lightning protection
- Range of options available including Stainless steel, powder coat down tilt variants
- Also available in dual or quad 3dBd and dual 6dBd
- Ability to mix and match with different gain and collinears\*
- 4.3-10 Connector
- 2 Band options available covering both 330-420MHz (-57 suffix) & 400-520MHz (-67 suffix)



BA80-67-P

# BA40-67-P 3dBd gain, 500W and low -150dBc PIM Binary design providing best Omni-directional coverage Low loss design Useful for close in coverage, localised sites and coverage in extreme terrain, including mining, remote sites, mountain sites Dual or quad 3dBd also available, as mixes with 6dBd such as BA4040-P or BA40404040-P BA404080-67-P in single antenna BA80-67-P 6dBd gain, 500W, Low -150dBc PIM Binary design providing best Omni-directional coverage Range of downtilt options available

BA8080-P and BA160-67-P with 9dBd and tilt options also available

EA40-67-P

Typical E-Plane

The mix of variants and options on offer, make an ideal solution for UHF multi-carrier environments, in markets such as public safety and government, or useful for critical infrastructure in markets such as

Useful for Bi-directional coverage, in more specific applications like valleys, mining and rail

5dBd gain, 500W and low -150dBc PIM
 Low loss design
 Useful for close in Bi-directional coverage, localised sites and coverage in extreme terrain like valleys, mining and rail

Typical H-Plane

• Dual 5dBd also available, as EA4040-67-P, in single antenna

# EA80-67-P • 8dBd gain • Great coverage characteristics • Offers max gain for wide area UHF coverage • The mix of variants and options on offer, make an ideal solution for UHF multi-carrier environments.

Band	Model Number	Description	Rated Gain dBd	Frequency	Bandwidth	VSWR	Tilt Options	3dB Be	amwidth	Power W	PIM Spec dBc	Construction	Length mm (in)	Weight kg (lbs)	Projected Area cm² (ft²)	Wind Rating km/h (mph)
Dallu	Model Nullibel	Description	Mateu dani ubu	ricquency	Danuwiutii	Vown	The Options	H Plane	E Plane	TOWGI W	r im opec and	Construction	Lengui ilili (ili)	weight ky (ibs)	Projected Area cili (it )	no ice
UHF Omni-Di	irectional Dipole Array	ys														
	BA40-67-P	3dBd VHF Omni-directional Exposed Dipole Array, 4.3-10	3										2100 (83)	5 (11)	1833 (2.0)	
	BA4040-67-P	Dual 3dBd VHF Omni- directional Exposed Dipole Array, 4.3-10	2 x 3				0 Std	Omni	30		-150		3000 (118)	8 (18)	3063 (3.3)	>240 (150)
UHF	BA4040404067-P-	Quad 3dBd VHF Omni- directional Exposed Dipole Array, 4.3-10	4 x 3	400-520MHz	Full Band	1.5:1				500	-130	All welded Aluminium,	5700 (224)	20.5 (45)	6470 (7.0)	
	BA80-67-P	6dBd VHF Omni-directional Exposed Dipole Array, 4.3-10	6				0 Std, 3, 5, 8					Alodined finish	3000 (118)	8 (18)	3063 (3.3)	>240 (150)
	BA8080-67-P	Dual 6dBd VHF Omni- directional Exposed Dipole Array, 4.3-10	2 x 6				0 Std, 3		16		-140		5700 (224)	20.5 (45)	6470 (7.0)	200 (124)
	BA160-67-P	9dBd VHF Omni-directional Exposed Dipole Array, 4.3-10	9						9							
UHF Bi-Direc	ctional Dipole Arrays															
	EA40-67-P	5dBd VHF Bi-directional Exposed Dipole Array, 4.3-10	5				0 Std		34				2100 (83)	5 (11)	2118 (2.3)	>240 (150)
UHF	EA4040-67-P	Dual 5dBd VHF Bi-directional Exposed Dipole Array, 4.3-10	2 x 8	400-520MHz	Full Band	1.5:1	0 Std	74	34	500	-150	All welded Aluminium, Alodined finish	3000 (118)	0 (10)	3633 (3.0)	219 (136)
	EA80-67-P	8dBd VHF Bi-directional Exposed Dipole Array, 4.3-10	8				0 Std, 3, 5		17	-			3000 (118)	8 (18)	3633 (3.9)	219 (130)

# **UHF Directional Antennas**

- PIM rated, individually tested
- Largest available bandwidth covering full band
- Excellent front to back ratios available
- Exceptional 500W continuous power rating
- Ultimate in lightning protection

**ELECTRICAL SPECIFICATIONS** 

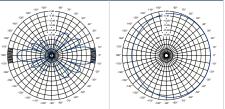
- Range of azimuth patterns available, to satisfy varying coverage requirements
- 4.3-10 connector



CSA40-67-P

OA	Series 180º H Plane
•	Directional gain, with >9dB F/B

- Available in 5dBd, 8dBd or 11dBd gain, 500W and low -150dBc PIM
- Approx 180° beamwidth (H Plane)
- Used in sites requiring directional or localised coverage including mining, public safety
- Dual 5dBd or dual 8dBd also available, as OA2020-67-P or OA4040-67-P, in single antenna



Typical H-Plane

Typical E-Plane

# FSA Series 130° H Plane

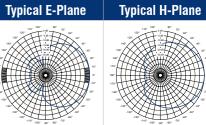
Directional gain, OA with Flat screen attachment

- Offers greater F/B > 20dB, and 110° H Plane beamwidth
- Available in 5dBd or 8dBd gain, 500W and low -150dBc PIM
- Low loss design
- Used in sites requiring directional or localised coverage with increased front to back

Typical L-I lalic	Typical II-I Ialic

#### CSA Series 70° H Plane

- Directional gain, OA with Corner screen attachment
- Offers highest F/B >22dB, and 60° H Plane beamwidth
- Available in 7dBd or 9dBd gain, 750W and low -150dBc PIM
- Low loss design
- Used in sites requiring highly directional coverage with increased front to back requirements



Band	Model Number	Description	Rated Gain dBd	Frequency	Bandwidth	VSWR	Tilt Options		amwidth E Plane	Front / Back Ratio	Power W	PIM Spec dBc	Construction	Total Length mm (in)	Screen Height/depth mm (in)	Screen Width mm (in)	Screen Length mm (in)	Weight kg (lbs)	Projected Area cm² (ft²)	Wind Rating km/h (mph) no ice	Screen
180º Nomir	ıal Horizontal																			<u> </u>	
	0A20-67-P	2-Bay Exposed Dipole Array OFFSET, Fixed bottom only	5				0.044		35					2100 (83)	-	-	-	4 (8)	1646 (1.8)		-
	0A2020-67-P	2 x 2 Bay Exposed Dipole Array OFFSET	2 x 5				0 Std		35	9.5		-150		2000 (119)	-	-	-	6 5 (14)	2600 (2.0)	>240 (150)	-
UHF	0A40-67-P	4-Bay Exposed Dipole Array OFFSET	8	400-520 MHz	Full Band	1.5:1	0 Std, 3, 5, 8	179	17	9.5	500		All welded Aluminium, Alodined finish	3000 (118)	-	-	-	6.5 (14)	2688 (2.9)		-
	0A4040-67-P	2 x 4 Bay Exposed Dipole Array OFFSET	2 x 8				0 Std, 3, 5		17			-140		5700 (224)	-	-	-	20.5 (45)	4732 (5.1)	220 (127)	-
	0A80-67-P	8 Bay Exposed Dipole Array OFFSET	11				0 Std, 3		9	9		-140		3700 (224)	-	-	-	20.5 (45)	4732 (5.1)	220 (137)	-
130º Nomir	nal Horizontal																				
	FSA10-67-P	Flat Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	5					121	71					-		560 (22)	500 (20)	4 (9)	1280 (1.4)		M-8570 + SMD40-67-DIN
UHF	FSA20-67-P	Flat Backscreen complete with RFI OA20-67-P Antenna. Screen attached top & bottom to tower	7	406-512 MHz	Full Band	1.5:1	0 Std	132	35	20	500	-140	All welded Aluminium, Alodined finish	2100 (83)	40 (1.5)	COO (02 E)	1000 (39)	14 (30)	4390 (5.1)	>240 (150)	M-8566 + 0A20-67
	FSA40-67-P	Flat Backscreen complete with RFI 0A40-67-P Antenna. Screen attached top & bottom to tower	9					135	17	21				3000 (118)		600 (23.5)	2000 (79)	18 (40)	5097 (5.5)		M-8572 + 0A40-67
70º Nomina	al Horizontal																				
	CSA10-67-P	Corner Reflector Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	7	400 - 100 111					70	22				-			500 (20)	6 (13)	2704 (2.9)	>240 (150)	M-8571 + SMD40-67-DIN
UHF	CSA20-67-P	Corner Reflector Backscreen complete with RFI 0A20-67-P Antenna. Screen attached top & bottom to tower	9	406-512MHz	Full Band	1.5:1	0 Std	70	35	25	500	-140	All welded Aluminium, Alodined finish	2100 (83)	260 (10)	840 (33)	1000 (42)	19 (42)	5940 (6.4)	>240 (150)	M-8564 + 0A20-67
	CSA40-67-P	Corner Backscreen complete with RFI 0A40-67-P Antenna. Screen attached top & bottom to tower	11	420-520MHz					17	28				3000 (118)			2000 (79)	34 (75)	15334 (16.5)	>240 (150)	M-8565 + OA40-67
40º Nomina	al Horizontal																				
UHF	CR4-67-P	Corner Reflector Backscreen complete with a single dipole Antenna. Screen attached top & bottom to tower	9	400-520 MHz	Full Band	1.5:1	0 Std	40	57	23	500	-140	All welded Aluminium, Alodined finish	-	580 (23)	1160 (46)	608 (24)	6 (13)	3868 (4.2)	>240 (150)	-

# **Special Antennas**

- PIM rated, individually tested
- Exceptional continuous power rating
- Meeting customer and market requirements such as high strength/high survivability and adaptability
- Ultimate in lightning protection
- Range of gain options available, satisfying various coverage requirements
- 4.3-10 connector
- Addition of phasing harness PA22-67-P for 6dBd UHF alternative.



IA404040-41-67-P

IA4U4U4U-41-67-P	Typical E-Plane	Typical H-Plane	
Interleaved VHF and UHF dipole arrays	110° 100° 300 80° 70° 60°	110° 100° 8 48 80° 70° 60°	
Low -150dBc PIM, with 500W UHF and 750W VHF	100 50 45° 100 500 40° 100 500 500 500 500 500 500 500 500 500	140° - 1000 - 10	
Offering dual UHF 3dBd gain, which can be harnessed to provide single 6dBd	170	20° 170° 100°	
Single 3dBd VHF antenna	122	-127 -147	
Binary design providing best Omni-directional coverage	-30 -30	-107 -107 -107 -107 -107 -107 -107 -107	

Useful for sites requiring dual full band coverage, including government and public safety networks

# **ELECTRICAL SPECIFICATIONS**

Dond		PIM Spec	Construction	Length	Weight	Projected Area cm <sup>2</sup>	Wind Rating km/h (mph) no ice															
Dallu	Model Nulliber	Description	VHF	UHF	VHF	UHF	VHF	UHF	vown	THE OPHORS	H Plane E Plane	E Plane	H Plane	E Plane	VHF	UHF	dBc	Construction	mm (in)	kg (lbs)	(ft²)	(mph) no ice
Special Array	s - Combination																					
VHF/UHF	IA404040-41-67-P	Interleaved array, VHF/ UHF, 4.3-10	3	2 x 3	148-174 MHz	400-520 MHz	Full E	Band	1.5:1	0 Std	Omni	23	Omni	41	750	500	-150	Fully welded Aluminium with Alodined finish	4200 (165)	20 (44)	6564 (7.0)	>240 (150)



BA4040-41-P-ICE

BA4040-41-P-ICE	Typical E-Plane	Typical H-Plane
High Strength, high survivability VHF dipole array		
<ul> <li>750W and low -150dBc PIM</li> </ul>	110° 100° 10° 10° 10° 10° 10° 10° 10° 10	110° 100° 000 00° 70° 00°
Dual 3dBd gain, provided on a single boom		130 - 136 - 200 1407 - 136 - 136 - 200 1507 - 136 - 336 - 337
Harness can be provided to increase gain to 6dBd		170 SF
A third 3dBd array can be stacked on top to provide triple 3dBd array	-00	1777
Constructed using 90mm aluminium boom, with stainless steel dipoles	100	-157 -160 -157 -157 -157 -157 -157 -157 -157 -157
Ideal for high rugged application, including ice, snow and extreme wind	conditions	1997 100' 100' 100' 100'
Binary design providing best Omni-directional coverage		

Band	Model Number	Description	Rated Gain dBd	Frequency	Bandwidth	VSWR	Tilt Options	3dB Beamwidth VHF		Dower	PIM Spec	Construction	Length	Weight	Projected Area cm²	Wind Rating km/h
								H Plane	E Plane	Power	dBc	Construction	mm (in)	kg (lbs)	(ft²)	(mph) no ice
Special Arrays - Combination																
VHF	BA4040-41-P-ICE	Dual 3dBd VHF Omni-Directional Rugged Exposed Dipole Array	2 x 3.0dBd	155-174MHz	Full Band	1.5:1	0 Std	Omni	43	750W	-140dBc	24mm Stainless Steel Dipoles Clamped at 90mm Aluminium Boom	5800 (228)	60 (132)	10769 (11.6)	>240 (150)
VHF	BA404040-41-P-ICE	Triple 3dBd VHF Omni-Directional Rugged Exposed Dipole Array	3 x 3.0dBd									24mm Stainless Steel Dipoles Clamped at 90mm Aluminium Boom	8200 (323)	85 (187)	14848 (16.0)	201 (125)

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