Cobham Antenna Systems

Microwave Antennas

C-Band Antennas

Data Links, WLAN, Telemetry and Video

The most important thing we build is trust

Antennas for Base Stations

Antennas for Light Vehicles

Antennas for Armoured Vehicles

Antennas for Vehicles on Patrol

Tactical Communications
C-band, 4.4 to 5.0GHz Antennas
Directional Antennas

High gain, directional flat panel antenna with vertical polarisation, 26dBi gain and 6° by 6° focused radiation pattern

FPA26-47V/1157

Directional Antennas

A directional antenna radiates in one direction giving increased gain. These antennas are usually very slim, giving the added benefit of a discreet profile where either a covert or aesthetic appearance is required. The gain of the antenna is determined by the number of elements and can range from 7dBi gain to 26dBi gain. Flat panel antennas can be highly directional with narrow azimuth and elevation radiation patterns for pinpoint accuracy in a communication network.

If the application requires a robust, discreet antenna mounted flat against a wall, or on a mast where a smaller antenna would be beneficial, this type of antenna provides the best option. They can be painted to blend in with the surroundings.

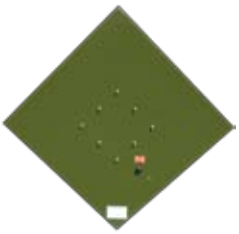
Low wind loading and robust construction enable our antennas to be mounted in the most demanding of environments.

FPA21-10A-47R/591

FPA20-47R-TNC/1183

FPA20-47V/1162

FPA24-4.7R/1509



FPA26-47V/1157

FPA23-5.5V/9507

Examples of our C-band Antennas

Model	Frequency GHz	Gain dBi	Beamwidth az°	Beamwidth el°	Polarisation	Dimensions mm	Connector/Cable	Photo ▲
DIRECTIONAL								
LPA7-47R-TNC/1182	4.40 - 5.00	7	65	65	Right Circular	10x84 Ø	TNC(F)	
FPA21-10-47V/1153	4.40 - 4.85	20	10	19	Vertical	386x216x10	SMA(F)	
FPA21-10-47R/591	4.40 - 4.85	21	10	20	Right Circular	386x256x10	SMA(F)	▲
FPA20-47R-TNC/1183	4.40 - 5.00	19	14	14	Right Circular	265x265x22	TNC(F)	▲
FPA20-4.7V/9701	4.40 - 5.00	20	14	14	Vertical	265x265x23	TNC(F)	
FPA20-47V/1162	4.40 - 5.00	20	14	14	Vertical	265x265x22	TNC(F)	▲
FPA20-47V/1323	4.40 - 5.00	20	14	14	Vertical	265x265x22	N(F)	page 5
FPA24-4.7R/1509	4.40 - 5.00	24	8	8	Right Circular	445x445x23	N(F)	▲
FPA26-47V/1157	4.40 - 5.00	26	6	6	Vertical	600x600x24	N(F)	▲
FPA26-47V/1322	4.40 - 5.00	26	6	6	Vertical	600x600x24	N(F)	page 5
DPA1-47R/1163	4.40 - 5.00	3	62.5	61.5	Right Circular	9x62 Ø	SMA(M)	
DPA1-47VH/1164	4.40 - 5.00	3	70	51	Dual V&H	9x62 Ø	SMA(M)	
LPA7-47R/542	4.40 - 5.00	7	75	75	Right Circular	10x84 Ø	SMA(F)	
FPA18-48R/751	4.60 - 5.00	17	20	20	Right Circular	201x20x10	N(F)	
LPA7-51V/322	4.80 - 5.40	7	90	70	Vertical	35x35x8	SMA(F)	
LPA7-51R/454	5.00 - 5.20	7	52	55	Right Circular	12x70 Ø	SMA(F)	
FPA23-5.5V/9507	4.90 - 5.90	23	8	8	Vertical	450x450	N(F)	▲

Multi-sector antenna as base station

Sector and Multi-Sector Antennas for Base Stations

Sector

Sector antennas are normally used as part of a base station. They have a narrow elevation beamwidth that may be designed with null-fill, electrical downtilt and sidelobe suppression. Clearly defined, wide, azimuth coverage ranges from 30° to 210° in the horizontal plane with profiled vertical coverage.

SA14-60-47R/1165

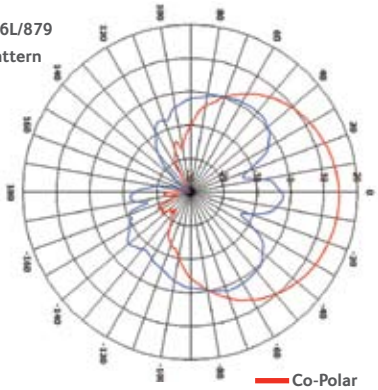
SA17-60-4.7V/1419

Multi-Sector

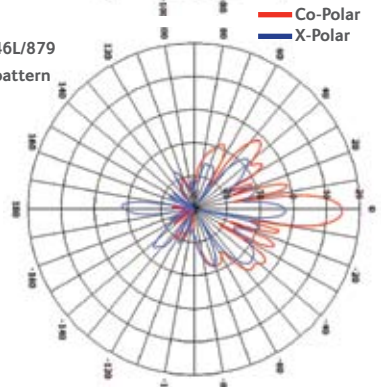
Multi-sector arrays provide high gain and wide area coverage, and are contained in a single radome.

MSA6-15-46L/879
Antenna with 6 sectors and 1 directional overhead, with and without radome. Azimuth polar pattern (top), and elevation pattern for one sector (page 3)

MSA6-15-46L/879
Azimuth pattern

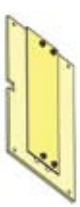


MSA6-15-46L/879
Elevation pattern



Examples of our C-band Antennas

Model	Frequency GHz	Gain dBi	Beamwidth az°	Beamwidth el°	Polarisation	Dimensions mm		
MULTI-SECTOR								
MSA6-15-46L/879	4.40 - 4.80	15 sector	70	8				
		8.5 o/head	60	55	Left Circular	527x158 Ø	N(F)	▲
MSA6-4.7V/1484	4.40 - 5.00	15 sector	70	8	Vertical			
		8 o/head	70	65	Right Circular	527x161 Ø	N(F)	
MSA6-4.7V-5.5V/1622	4.40 - 5.00							
	5.25 - 5.85	12.5	70	20	Vertical	627x161 Ø	SMA(F) x12, +Multipin & N	
SECTOR								
SA14-60-47R/1165	4.40 - 5.00	14	60	9	Right Circular	408x76x9	TNC(F)	▲
SA17-60-4.7V/1419	4.40 - 5.00	17	55	8.5	Vertical	470x106x23	N(F)	▲
SA12-120-4.8V/1659	4.40 - 5.10	13	120	16	Vertical	409x79 Ø	TNC(F)	
SA12-60-4.8H/1464	4.60 - 5.00	14	17	63	Horizontal	207x106x12	SMA(F)	▲
SA11-180-4950V/619	4.80 - 5.10	11	180	10	Vertical	616x57 Ø	N(F)	▲
SA5-180-49V/620	4.80 - 5.10	5	180	30	Vertical	120x41x44	SMA(F)	▲
SA17-60-5.5V/9501	4.90 - 5.90	17	60	6.5	Vertical	650x200x100	N(F)	
SA16-90-5.5V/9502	4.90 - 5.90	16	90	6.5	Vertical	650x200x101	N(F)	▲
SA15-120-5.5V/9503	4.90 - 5.90	15	120	6.5	Vertical	650x200x101	N(F)	



SA12-60-4.8H/1464

SA11-180-4950V/619

SA5-180-49V/620

SA16-90-5.5V/9502

Vertically Polarised, Omni-directional Antenna

VOA6-47/914

Omni-directional Antennas with High Gain and Extended Performance

Light weight and rugged for full environment protection, our vertically polarised omni antennas function to full specification over the whole band.

High gain omnis - up to 9dBi - cover designated parts of the band.

Circular polarised omni antennas are used for specialist applications including mounting on vehicles, helicopters and UAVs for ground to air communications.

Collinear omni antennas are centre-fed making them ground-plane independent. They provide stable radiation patterns across the frequency band.

Multiple omni antennas can be developed for housing in a single structure for high isolation.

OA8-4.7V/1592

EVD2-47-TNC/1181

OA6-4.7V/1481

OA3-4.8V/1465

DHDA-5.7V/1584

Examples of our C-band Antennas

Model	Frequency GHz	Gain dBi	Beamwidth az°	Beamwidth el°	Polarisation	Dimensions mm	Connector/Cable	Photo ▲
OMNI								
OA9-4.5V/1566	4.30 - 4.70	8	360	12	Vertical	603x36 Ø	N(F)	
SVD2-4550/477	4.30 - 5.00	2	360	80	Vertical	70x9 Ø	SMA(F)	
LCO6-4600/875	4.40 - 4.80	6	360	22	Left Circular	221x190 Ø	N(F)	
LCO6-4600-D1/908	4.40 - 4.80	6	360	22	Left Circular	342x109 Ø	N(F)	
LCO6-4600-D2/918	4.40 - 4.80	6	360	22	Left Circular	234x102 Ø	SMA(F)	
OA6-4.7L/1593	4.40 - 4.80	6.5	360	22	Left Circular	362x109 Ø	N(F)	
OA6-4.7R/1594	4.40 - 4.80	6.5	360	22	Right Circular	362x109 Ø	N(F)	
OA8-4.7V/1592	4.40 - 5.00	8	360	17	Vertical	379x70 Ø	N(F)	▲
EVD2-4.7/1471	4.40 - 5.00	2	360	80	Vertical	110x45 Ø	N(F)	
EVD2-47-TNC/1181	4.40 - 5.00	2	360	80	Vertical	120x14 Ø	TNC(F)	▲
EVD2-4700/1174	4.40 - 5.00	2	360	80	Vertical	120x29 Ø	N(F)	
EVD2-4700/1334	4.40 - 5.00	2	360	80	Vertical	120x25 Ø	N(M)	
OA6-4.7V/1481	4.40 - 5.00	6	360	23	Vertical	329x38 Ø	TNC(F)	▲
VOA6-4.7V/1489	4.40 - 5.00	6	360	24	Vertical	226x32 Ø	N(M)	
VOA6-47/914	4.40 - 5.00	6	360	23	Vertical	224x31 Ø	N(F)	above
VOA7-4700-DTC/1175	4.40 - 5.00	7	360	18	Vertical	184x31 Ø	TNC(F)	page 5
VOA8-47/1170	4.40 - 5.00	8	360	17	Vertical	375x70 Ø	N(F)	page 5
OA4-4.7V/1643	4.40 - 5.00	5	31	360	Vertical	152x14 Ø	-	
OA6-4.7V/1621	4.40 - 5.00	6	360	25	Vertical	236x31 Ø	N(F)	
OA3-4.8V/1465	4.40 - 5.20	3	360	48	Vertical	44x76 Ø	SMA(F)	▲
OA4-4.4-5.8V/1662	4.40 - 5.80	5	36	38	Vertical	154x45 Ø	N(F)	
OA4-4.4-5.8V/1623	4.40 - 5.80	3.5	360	40	Vertical	153x14 Ø	N(M)	
OA9-4.6V/1701	4.49 - 4.80	9	360	12	Vertical	600x36 Ø	N(F)	
SBA-49/621	4.80 - 5.10	2	360	80	Vertical	100x3x2	SMA(F)	
DHDA-5.7V/1584	5.00 - 6.30	1	160	90	Vertical	82x46, 2	SMA(M) 450mm cable	▲

Tactical Communications
C-band, 4.4 to 5.0GHz Antennas

Vehicle mount omni antenna with 6dBi gain, for fixed or mobile Wireless LAN

VOA6-47/914

- Military and Security
- Fixed and Mobile
- Data Links
- WLAN
- Telemetry
- Video and Voice Links

C-band directional, sector and omni antennas are available for defence and security applications. Many countries have adopted this frequency range for high data rate point-to-point or point to multipoint applications. The restrictive use of this band ensures a greater level of security.

Commercially available radio systems based on WLAN and WiMAX technologies can be used in conjunction with our antennas, enabling systems to be developed rapidly.

COTS Designs

Our antennas have robust construction and glass fibre radomes and most are available in white, tan, olive green or black. Radiation pattern documentation is available for all antennas.

Two high gain directional COTS antennas 'one-foot' and 'two-foot', 25mm (1 inch) depth, with well defined, low sidelobe patterns. For point-to-point single-hop data links and as the subscriber in point-to-multipoint systems.

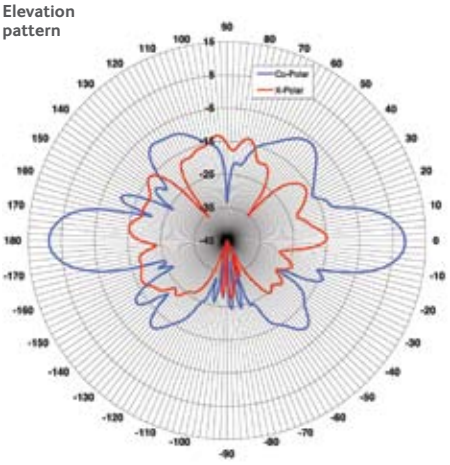
FPA26-47V/1322, 26dBi gain, 600cm², (two-foot)

FPA20-47V/1323, 20dBi gain, 265 cm², (one-foot)

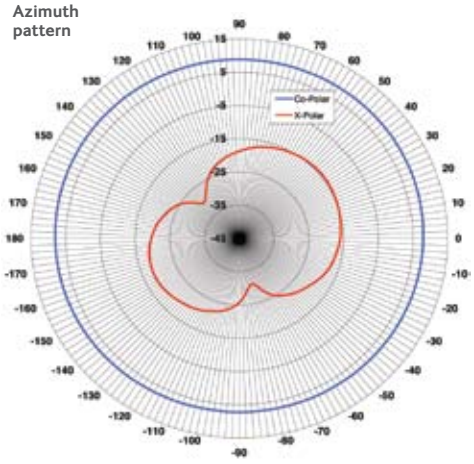
(page 2)

Radiation pattern examples for omni antenna, VOA8-47/1170

Elevation pattern



Azimuth pattern



High gain, vertically polarised omni (page 4)

VOA8-47/1170

High gain, vertically polarised omni (page 4)

VOA7-4700-DTC/1175

Other antenna brochures

Commercial -
Vector and LTE

Defence -
Unmanned Systems

Defence -
Link16

Defence -
IED Countermeasures

Antenna Catalogue

Cobham Antenna Systems, Microwave Antennas

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