Cobham Antenna Systems

Microwave Antennas

Body Worn Antennas

The most important thing we build is trust









COBHAM



Body Worn Antennas <u>Localised Tactical Communications for Security and Military</u>

Body worn and wearable antennas for foot patrol



Model Frequency Gain Beamwidth Polarisation Dimensions Connector Photo GHz dBi az* el* mm

Tactical Communications

Communication between personnel on the ground and the control centre is vital in today's military and security world.

Constant voice, data and video exchange allows tactical decisions to be made in the control centre and passed to those in the field.

TETRA (Terrestrial Trunked Radio) is an interoperability standard that allows equipment from multiple vendors to operate with each other. It comprises a suite of open digital trunked radio standards used by Private Mobile Radio (PMR) operators for public safety, military and Police. Applications include, transportation, utilities, government, commercial, industrial, oil and gas industries.







Front Line, Live Video Surveillance

A light weight, directional antenna (model DHDA-2.4V/1448) was designed for integration within the Body Worn Video Wireless Solution, developed by Reveal Media and Cobham Surveillance/Domo, providing four live video feeds and GPS data. This system was used at Glastonbury Rock Festival by Avon & Somerset Police foot patrol and mounted officers.

The Body Worn Wireless Video system with helmet-mounted antenna was used in a full scale public order training exercise by Kent Police. The system provided the Police with a real-time situation overview, plus front line and close-up images that may be recorded as part of an evidence gathering system.



Battlefield Communications

Reliable radio communications in theatre are crucial, needing good 360° coverage usually requiring above head-height omni-directional antennas. The alternative to the standard whip antenna are slim, light weight, body-worn antennas which are designed to provide an improved signal pattern for a greater all round coverage.

A further benefit is provided by circular polarisation that reduces the problem of polarisation mismatch when soldiers are in different orientations with respect to each other. These antennas have the added advantage of being less intrusive and more comfortable for the wearer with lower RF energy penetrating the wearer's body.

Body Worn Sector Antennas

These antennas are wide band, with wide-angle sectoral coverage. They have high gain and can be configured in single double or quad format depending on the radio. They are robust and field proven.













HDA-1.2V/1545	1.15 - 1.26	1	120	100	Vertical	82x37x46	SMA(M)
HDA-1.3V/1488	1.26 - 1.40	5	120	70	Vertical	82x37x46	SMA(M)
DHDA-1.4V/1680	1.35 - 1.45	1	160	80	Vertical	82x37x46	SMA(M)
HDA-1.7V/1682	1.55 - 1.70	3.5	123	70	Vertical	82x37x46	SMA(M)
DHDA-2.4V/1448	2.28 - 2.55	1	160	78.5	Vertical	82x37x46	SMA(M)
HDA-2.4V/1423	2.28 - 2.55	4	160	78.5	Vertical	82x37x46	SMA(M)
HDA-3.3V/1543	3.10 - 3.40	5	160	75	Vertical	82x37x46	SMA(M) 250mm cable
DHDA-5.7V/1584	5.00 - 6.30	1	160	90	Vertical	82x37x46	SMA(M) 400mm cable



Narrow band body worn antenna attached to webbing for convenience and reliable coverage for foot patrol



Front line, video surveillance utilising helmet mounted



Model	Frequency	Gain	Beamy	width	Polarisation	n Dimensions Connecto		Photo
	GHz	dBi	az°	el°		mm		

Narrow Band Patch Antennas

Narrow band directional patch antennas are ideal for covert, security applications. This type of antenna is extremely slim, 2 to 4mm in depth and may be sewn into clothing or webbing.

PA5-2344L/701	0.2344	5	90	90	Left Circular	80x65x2	SMA(F)
PA5-915V/370	0.91 - 0.92	5	76	76	Vertical	180x180x2	SMA(F)
PA5-1500R/056	1.48 - 1.52	5	100	100	Right Circular	110x92x2	SMA(F)
PA5-GPS-UE3/277	1.575	5	90	90	Right Circular	2x90 Ø	MCX 90° 232mm cable
PA5-2340V/461	2.33 - 2.345	5	90	90	Vertical	80x65x2	SMA(F)
PA5-2350R/168	2.33 - 2.37	5	90	90	Right Circular	80x65x2	SMA(F)
DPA1-2.3V/1610	2.34 - 2.36	0.5	90	90	Vertical	4x60 Ø	-
PA5-2370L/819	2.35 - 2.39	5	90	90	Left Circular	80x75x3	SMA(F)
PA5-2370R/623	2.35 - 2.39	5	90	90	Right Circular	80x75x3	SMA(F)
PA5-2420L/886	2.42 ±20MHz	5	100	100	Left Circular	80x65x2	SMA(F)
PA5-2420R/264	2.42 - 2.44	5	100	100	Right Circular	80x65x2	SMA(F)
PA5-2460R/133	2.44 - 2.48	5	100	100	Right Circular	80x65x2	SMA(F)
DPA1-2467R-Q/910	2.45 - 2.484	2	85	83	Right Circular	7x75 Ø	SMA(M)

DPA1-2.3V/1610

Narrow Dual Patch
Antenna 4mm thick, with
splitter



Wide Band Patch Antennas

Wide band patch antennas are ideal for covert, security applications. Slightly deeper in construction than narrow band antennas, these can still be disguised within clothing, webbing and baggage. They are directional in coverage.

DPA3-2100R/1125	2.00 - 2.20	3	65	65	Right Circular	17x77 Ø	SMA(M) 90°	
PA6-2.3V/1600	2.25 - 2.35	8	84	66	Vertical	13x80 Ø	SMA(M) 430mm cable	\blacktriangle
DPA2-2.3V/1611	2.28 - 2.55	5	66	79	Vertical	13x80 Ø	SMA(M)	\blacktriangle
DPA1-2440R/1135	2.40 - 2.50	2	80	75	Right Circular	6x75 Ø	SMA(M)	
DPA1-47VH/1164	4.40 - 5.00	3	70	51	Dual V&H	9x62 Ø	SMA(M)	
DPA1-47R/1163	4.40 - 5.00	3	62.5	61.5	Right Circular	9x62 Ø	SMA(M)	

PA6-2.3V/1600 Single Patch Antenna

DPA2-2.3V/1611

Dual Patch Antenna



Wire Style Antennas

These antennas are centre-fed wire dipoles which provide omni coverage in open environments. They are suitable for lower frequency covert applications and may be hidden within clothing, where the beamwidth reduces to 180° if used in body-worn applications. They can be used in pairs to provide 360° coverage.



Centre frequency 350MHz



Centre frequency 380MHz

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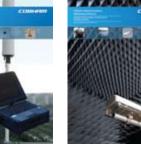
OTHER BROCHURES



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Radar Systems

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