

## Collinear Omni Antennas 2, 4.5, 6 dBi



Peak Antennas' slimline omni antennas are highly efficient, wideband, groundplane independent 1,2 or 3 tier arrays of balanced center-fed collinear dipoles, housed in rugged fibreglass tubes.

High performance with consistent gain and radiation patterns across their wide operating bands results from a unique conical dipole and double isolating choke design preventing stray currents on the feed system.

*The antennas feature new internal structural enhancements for improved shock and vibration resistance in extreme environments. Superior RF performance is now matched by extra mechanical ruggedness.*

The antennas are available in all frequency bands from UHF to 8GHz with a choice of mounting styles and connectors as below.

**Connector Mount:** The antenna is supported by means of its connector, usually type N or TNC, male or female. SMA and reverse SMA are also available.

**Flexi:** The antenna is supported above the connector mount base by means of a stainless steel spring. An internal clamp and 'lost length' inside the spring prevents stress on the cable when the antenna bends.

**Flange Mount:** The antenna has a through hole flange at the base. There are two standard flanges, see over for details.

**Mag-Mount:** The antenna is supplied with a powerful rare-earth magnet base. RF connection is through an LMR195 cable from the side of the base. Cable lengths up to 6 feet can be specified.

### **PEAK ANTENNAS LLC**

200, Main St., Unit 3A, Monroe, CT 06468 USA

Tel. +12032683688

Email: [info@peakantennas.com](mailto:info@peakantennas.com)

[MDPeakantennas@aol.com](mailto:MDPeakantennas@aol.com)

Web: [www.peakantennas.com](http://www.peakantennas.com)

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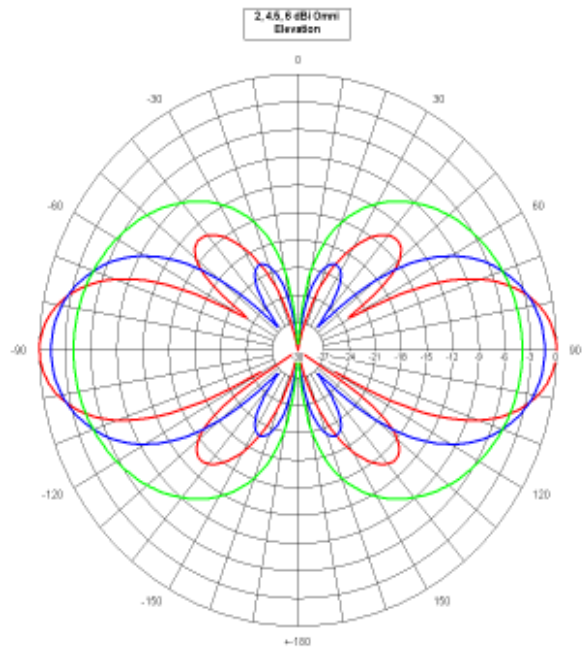


-S1 Large flange extended length omni. Small flange omni (above) Mag-mount omni (below).

## Specifications:

Gain:	2, 4.5 or 6 dBi
Frequency:	See schedule
Elevation -3dB B/W	75, 35 or 27 degrees
Azimuth -3dB B/W:	360 degrees (omni)
Polarization:	Vertical
Return loss:	14dB typical (1.5 to 1 VSWR)
Power:	10W
Diameter:	0.7" (17mm)
Length:	See schedule
Color:	Black or white (specify)
Connector:	N, TNC or SMA male or female
Radome:	Fibreglass
Mount:	Connector mount, Flexi, Flange mount or Mag-Mount.

Elevation radiation patterns (below) show trade-off between coverage angles and gains for 1, 2 and 3 tier (2, 4.5 and 6 dBi) omnis.



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Description	Frequency	Gain	Elevation B/W	Length
CO34-2	325-350 MHz	2dBi	75 degrees	757mm /29.8"
CO42-2	390-440 MHz	2dBi	75 degrees	612mm/24.1"
CO44-2	425-465 MHz	2dBi	75 degrees	595mm/23.4"
CO63-2	590-660 MHz	2dBi	75 degrees	450mm/17.7"
CO64-2	600-680 MHz	2dBi	75 degrees	450mm/17.7"
CO80-2	760-840 MHz	2dBi	75 degrees	350mm/13.8"
CO110-2	1.0-1.2 GHz	2dBi	75 degrees	284mm/11.2"
CO110-4.5	1.0-1.2 GHz	4.5dBi	35 degrees	471mm/18.5"
CO125-6	1.2-1.3 GHz	6dBi	27 degrees	575mm/22.6"
CO130-2	1.2-1.4 GHz	2dBi	75 degrees	251mm/9.9"
CO130-4.5	1.2-1.4 GHz	4.5dBi	35 degrees	410mm/16.1"
CO140-2	1.3-1.5 GHz	2dBi	75 degrees	250mm/9.8"
CO150-2	1.4-1.6 GHz	2dBi	75 degrees	239mm/9.4"
CO150-4.5	1.4-1.6 GHz	4.5dBi	35 degrees	375mm/14.8"
CO180-2	1.7-1.9 GHz	2dBi	75degrees	215mm/8.5"
CO180-4.5	1.7-1.9 GHz	4.5dBi	35 degrees	331mm/13.0"
CO178-6	1.71-1.85 GHz	6dBi	27 degrees	444mm/17.5"
CO194-2	1.71-2.17 GHz	2dBi	75 degrees	201mm/7.9"
CO194-4.5	1.71-2.17 GHz	4.5dBi	35 degrees	308mm/12.1"
CO205-4.5	1.98-2.11 GHz	4.5dBi	35 degrees	302mm/11.9"
CO205-6	1.98-2.11 GHz	6dBi	27 degrees	402mm/15.8"
CO225-2	1.98-2.50 GHz	4.5dBi	75 degrees	185mm/7.3"
CO225-4.5	1.98-2.50 GHz	4.5dBi	35degrees	277mm/10.9"
CO235-2	2.0-2.7 GHz	2dBi	75 degrees	195mm/7.7"
CO216-6	2.08-2.24 GHz	6dBi	27 degrees	390mm/15.3"
CO230-6	2.22-2.38 GHz	6dBi	27 degrees	377mm/14.8"
CO240-6	2.3-2.5 GHz	6dBi	27 degrees	349mm/13.7"
CO250-2	2.3-2.7 GHz	2dBi	75 degrees	172mm/6.8"
CO250-4.5	2.3-2.7 GHz	4.5dBi	35 degrees	252mm/9.9"
CO260-6	2.5-2.7 GHz	6dBi	27 degrees	315mm/12.4"
CO330-2	3.1-3.5 GHz	2dBi	75 degrees	158mm/6.2"
CO330-4.5	3.1-3.5 GHz	4.5dBi	35 degrees	218mm/8.6"
CO330-6	3.15-3.45 GHz	6dBi	27 degrees	278mm/10.9"
CO350-2	3.3-3.7 GHz	2dBi	75 degrees	154mm/6.1"
CO350-4.5	3.3-3.7 GHz	4.5dBi	35 degrees	212mm/8.3"
CO470-4.5	4.4-5.0 GHz	4.5dBi	35 degrees	179mm/7.0"
CO520-6	5.0-5.3 GHz	6dBi	27 degrees	214mm/8.4"
CO560-4.5	5.2-5.9 GHz	4.5dBi	35 degrees	165mm/6.5"
CO580-4.5	5.6-6.0 GHz	4.5dBi	35 degrees	162mm/6.4"
CO580-6	5.6-6.0 GHz	6dBi	27 degrees	197mm/7.8"
CO640-4.5	5.7-7.1 GHz	4.5dBi	35 degrees	152mm/6.0"
CO655-6	6.4-6.7 GHz	6dBi	27 degrees	182mm/7.2"
CO675-4.5	6.4-7.1 GHz	4.5 dBi	35 degrees	152mm/6.0"
CO695-6	6.8-7.1 GHz	6dBi	27 degrees	182mm/7.2"
CO705-4.5	6.5-7.4 GHz	4.5dBi	35 degrees	152mm/6.0"
CO740-4.5	7.1-7.7 GHz	4.5dBi	35 degrees	146mm/5.7"

Notes: Please ask us if you require a frequency band not listed here. We can center the designs at any frequency at no extra charge. Flexi versions are 40mm (1.6") longer than dimensions here.

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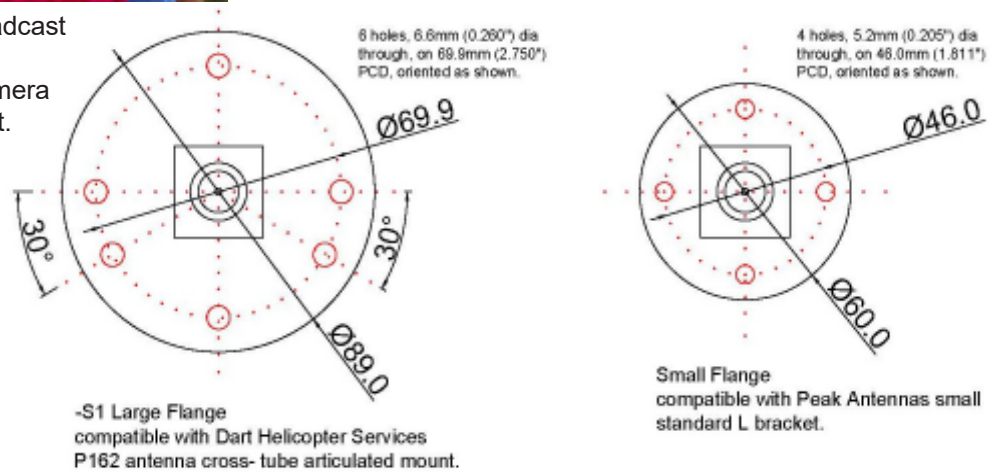
# Collinear Omni Antennas 2, 4.5, 6 dBi



Upper: SMA flexi-omnis on broadcast steady cam.

Lower: N male flexi-omni on camera transmitter, for sports broadcast.

Right: Large and small flange, outline and hole pattern detail.



Below: 2GHz omni on Cessna fuselage.



## Applications.

- Wireless cameras  
Peak's flexi omnis are used on roaming cameras at a wide variety of sports events and for general ENG operations.
- Broadcast trucks, tactical vehicles and cars  
Mag-mount antennas can be readily deployed on car roofs, and flange and connector mount omnis are suitable for permanent vehicle roof installation. Improved shock and vibration resistance ensures long term reliability.
- Helicopters and light aircraft  
Flange mount versions are suitable for either installation with the Dart P162 Cross-tube mount or direct to the fuselage. Extended length versions can allow for improved sight lines.
- UAV's and robots
- Fixed installations

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