Antenna
Product Guide

2006

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Introduction

Technology

Oceanmicrowave is a leading supplier of high performance antenna devices based on a high qulity group and modern tech—nology. Through innovation and continuous improvement in antenna design, Oceanmicrowave delivers products with the high quality, reliability and performance available to satisfy your most demanding design.

Products

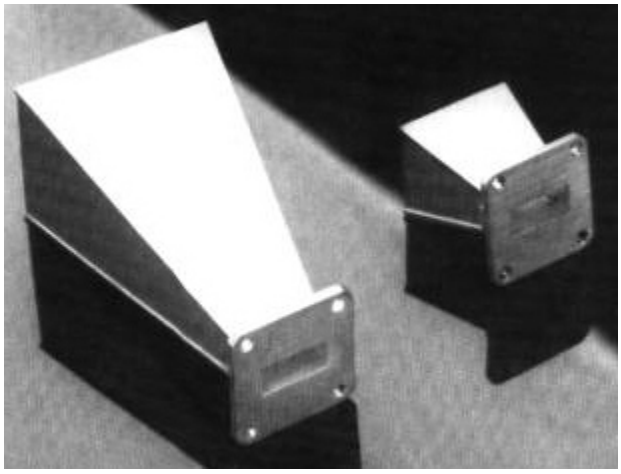
Oceanmicrowave has a broad product line of ANTENNA within the C, X and Ku frequency bands. These products address the high power infrastructure markets of radar as well as broadband receiving or transmitting. Specific supported applications include wireless local area network (WLAN), fixed wireless access (FWA), terrestrial radio, GPS, satellite earth station and radar.

Service

Oceanmicrowave Science & Technology Co., Ltd. is the engineering, manufacturing, marketing and sales arm for Oceanmicrowave antennas. It has established customer service, engineering support sales offices and sales representatives throughout Beijing Sichuan Jiangsu Xian and Hongkong to provide the best possible service.

Inquire Please visit our website at http://www.oceanmicrowave.com for detailed datasheets on the products contained in this catalog and for news on the latest product offerings. For availability and pricing, please contact the sales office (listed on back) or the sales representative nearest you. For technical inquiries, please email:info@oceanmicrowave.com

STANDARD GAIN AND OCTAVE HORN ANTENNAS 260M-18GHz



Our series Standard Gain Horn antennas are available in contiguous waveguide bands from 260 MHz to 18 GHz. All horns have equal beamwidth in both E and H-planes. Characterized by antenna factors that are flat to within ±0.5 dB, Standard GainHorns make an excellent choice as reference standards for emissions testing around and above 1 GHz as outlined in ANSI C63.4.

Some horn is supplied with a etachable coax-to-waveguide adapter and an interface for mounting to a standard tripod in both vertical and horizontal polarizations. For high power applications such as immunity testing, standard waveguide flanges mate directly to the waveguide output of the amplifier/transmitter.

When used as radiators for immunity testing, Standard Gain Horns are unparalleled due to their high gain, low VSWR (<1.5:1) and their ability to handle high levels of RF power.

Octave Band Horns are essentially standard waveguide horns (equal beamwidth in both planes) described above. However, some horns are supplied with waveguide-to-coax adapters optimized for an octave band to match with the frequency range of operations of commonly used power amplifiers.

	FREQUENCY RANGE(GHz)	WAVEGUIDE	TYPICAL GAIN (dB)	MECHANICAL SPECIFICATIONS A×B×H	MENUFACTURED
HORN026041	0.26～0.41	BJ－3	13	1700×1300×675	Aluminium
HORN032049	0.32～0.49	BJ－4	13		Aluminium
HORN041062	0.41～0.62	BJ－5	13		Aluminium
HORN049075	0.49～0.75	BJ－6	14	1230×990×1220	Aluminium
HORN064098	0.64～0.98	BJ－8	14		Aluminium
HORN077114	0.77～1.14	BJ－9	15.5	827×613×610	Aluminium
HORN096146	0.96～1.46	BJ－12	15.5	600×300×1000	Aluminium
HORN114172	1.14～1.72	BJ－14	15.5	557×413×410	Aluminium
HORN145220	1.45～2.2	BJ－18	15.5	446×345×350	Aluminium
HORN172260	1.72～2.6	BJ－22	15.5	365×28.2×270	Aluminium
HORN217330	2.17～3.3	BJ－26	15.5	309×238.5×235	Aluminium
HORN260395	2.6～3.95	BJ－32	20	380×260×450	Aluminium
HORN330490	3.3～4.9	BJ－40	20	350×270×390	Aluminium
HORN395585	3.95～5.85	BJ－48	20	280×215×320	Aluminium
HORN495705	4.95～7.05	BJ－58	20	240×180×280	Aluminium
HORN585820	5.85～8.2	BJ－70	20	200×155×260	Aluminium
HORN705100	7.05～10.0	BJ－84	20	159×122×220	Aluminium
HORN820124A	8.2～12.4	BJ－100	20	135×104×170	Brass
HORN820124B	8.2～12.4	BJ－100	25	300×232×655	Brass
HORN100150	10.0～15.0	BJ－120	20	108×83×135	Brass
HORN124180A	12.4～18.0	BJ－140	20	90×69×115	Brass
HORN124180B	12.4～18.0	BJ－140	24.7	152×125×306	Brass

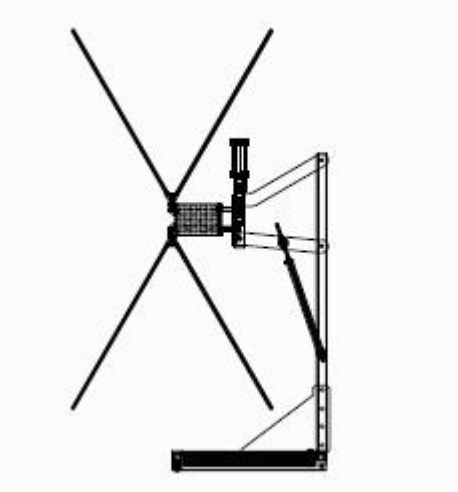
BICONICAL ANTENNAS 20 - 1000 MHz TRANSMIT AND RECEIVE

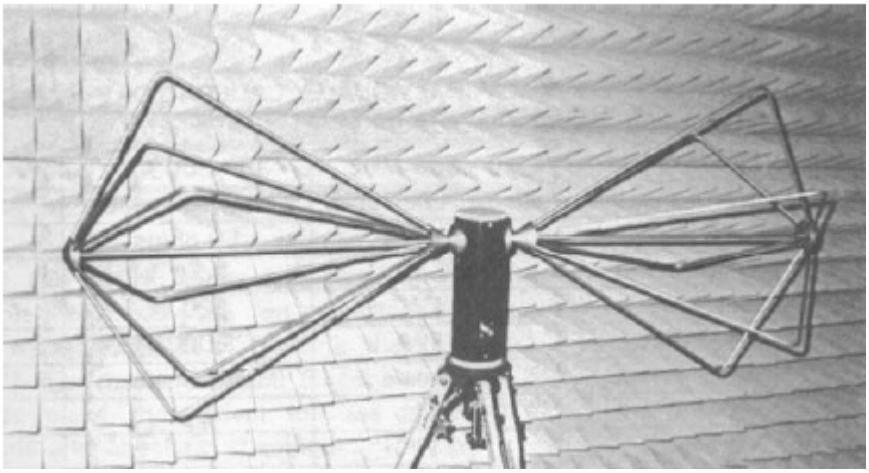
Biconical-dipole antennas are an excellent choice for the generating and measuring of electric fields.

The compact size and broadband characteristics of these antennas, make them ideal for use in shielded rooms and anechoic chambers. Each biconical contains a broadband balun to match the characteristic impedance of the antenna to an unbalanced 50-ohm output.

Features

- **30 MHz to 100 MHz frequency range**
- **Wide beamwidth illuminates a large uniform area**
- **High power balun handles up to 15 kW RF input power**
- **Tilt-angle, height and polarization are easily adjustable**
- **Mounted on wheeled base for easy mobility**





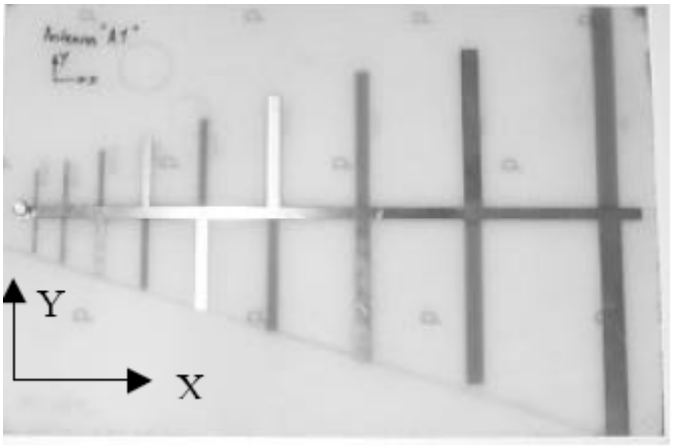
Our biconical-dipole antennas is suitable for measuring radiated emissions as per FCC, EN/CISPR, SAE, MIL-STD and Tempest requirements. They may be supplied with collapsible elements for ease of transport and storage. The elements and the pedestal are made of aluminum to provide a durable,light-weight,corrosion-resis-tant antenna.

These antennas are designed primarily for indoor use and can be used outdoors in favorable weather.

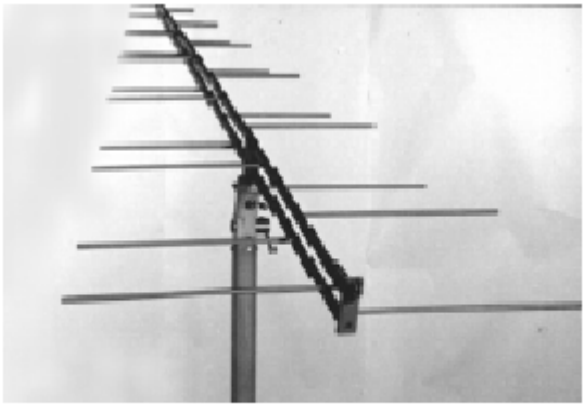
SPECIFICATIONS

	FREQUENCY RANGE(GHz)	POLARIZATION	VSWR	Gain (dBi)	CONTINUOUS POWER
VBC0510	0.05～1	Vertical	3：1	0～2	1kW
VBC0710	0.07～1	Vertical	2.5：1	0～2	1kW
VBC0850	0.08～0.5	Vertical	2.5：1	0～2	1kW
VBC10120	1～12	Vertical	2.5：1	0～2	1kW

LOG PERIODIC ANTENNAS
20 MHz - 18 GHz TRANSMIT - RECEIVE



LOG-PERIODIC antennas are linearly polarized, log periodics designed to transmit and receive signals over a broad frequency range. These antennas are characterized by a high front-to-back ratio, excellent SWR and medium power gain at all frequencies in the band. Polarization adjustment is possible in any plane, with a universal joint.



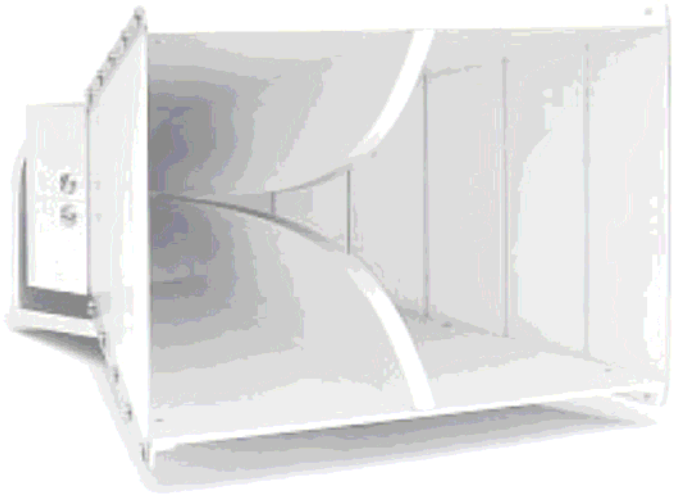
High quality aluminum construction with all stainless steel hardware make for a lightweight, high strength antenna that will provide years of trouble-free operation. For emission testing or low power transmit applications, an assortment of low profile log periodics are available. These antennas are constructed on cost-effective copper clad dielectric materials. log periodics exhibit the same performance standards as our other antennas, but with cost savings to the customer.

Standard log periodics antennas are intended for relatively permanent installations. Log periodics antennas operating below 400 MHz are also supplied in a kit form for storage and transportation.

	FREQUENCY	TYP. GAIN (DBI.)	TYP. FRONT/ BACK (DB)	VSWR	POWER		POLARIZATION
					CW	PEAK	
LP-2010/C	200 - 1000 MHz	7.5	20	1.5 : 1	1 kW	1.4 kW	Linear
LP-8270	80 - 2700 MHz	6.0	20	2 : 1	2 kW	2.6 kW	Linear
LP-2027	200 - 2700 MHz	6.0	20	2 : 1	50 W	75 W	Linear
LP-8130/A1	80 - 1300 MHz	6.0	20	2.5 : 1	1.5 kW	2 kW	Linear
LP-1011	100 - 1100 MHz	6.0	20	2 : 1	1 kW	1.4 kW	Linear
LP-2020/A	200 - 2000 MHz	6.5	20	2 : 1	250 W	500 W	Linear
LP-3500	300 - 5000 MHz	5.0	15	2 : 1	5 W	25 W	Linear
LP-820/A	750 - 2000 MHz	6.5	20	2 : 1	125 W	300 W	Linear
LP-118	1.0 - 18.0 GHz	7.0	18	2 : 1	5 W	25 W	Linear

Double-Ridge waveguide HORN ANTENNAS 1000 MHz - 18GHZ

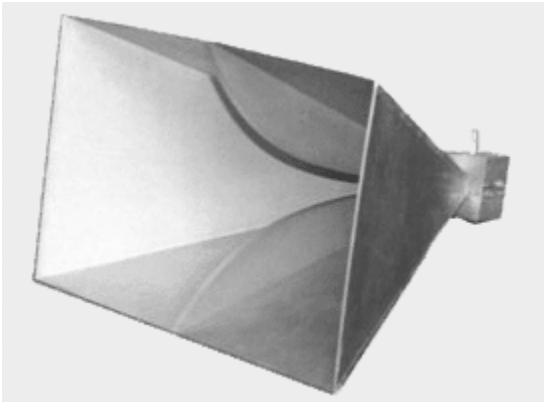
The double-ridge waveguide horns are linearly polarized antennas ideally suited for broadband applications. We have three horns(**DH10180**, **DH20180**, and **DH80180**)to cover the entire test frequency range of 1000 MHz to 18 GHz.



	FREQUENCY (GHz)	POLARIZATION	VSWR	TYP. GAIN (dBi)	Output Connector
DH10180	1～18	Vertical	3：1	10	N-K
DH20180	2～18	Vertical	2.5：1	10	N-K
DH80180	8～18	Vertical	2.5：1	10	N-K

Custom sizes
Larger models for higher gain at lower frequencies are also available.

Double-ridged waveguide antennas are constructed of lightweight corrosion-resistant aluminum and fiberglass, providing years of rouble-free indoor and utdoor service.



GPS ANTENNAS




Antennas are an essential part of all wireless systems. OMC manufactures a variety of high quality antennas for GPS, GLONASS. The antennas include a Low Noise Amplifier to offer finely tuned operation in the harshest environments. The cost effective & robust design of OMC antennas provides a time-to-market best choices for AVL and timing applications.

	FREQUENCY (MHz)	POLARIZATION	VSWR	Antenna TYP. GAIN (dBi)	LNA TYP. GAIN (dB)	Max. AR. (dB)
Aviation L1	1575.42±5	Right-hand circular	1.5: 1	5	27/38	3
Aviation L1 (Higher gain)	1575.42±5	Right-hand circular	1.5: 1	5	48	3
Aviation GPS/GLONASS	1575.42±5/ 1602±10	Right-hand circular	1.5: 1	5	35	4
Aviation GPS/GLONASS (Higher gain)	1575.42±5/ 1602±10	Right-hand circular	1.5: 1	5	48	4
Aviation L1/L2	1575.42±5/ 1227.6±10	Right-hand circular	2.0: 1	N/A	L1:32/ L2:29	4
Survey L1	1575.42±5	Right-hand circular	1.5: 1	N/A	30	3
Survey L1/L2	1575.42±5/ 1227.6±10	Right-hand circular	2.0: 1	N/A	L1:32/ L2:29	3
Ground & Vehicular	1575.42±5	Right-hand circular	1.5: 1	N/A	28±2	N/A