



Wide Band Compact Size Passive Discone Antenna

CWD-20-500

20-500 MHz

2 dBi Gain

Broadband Passive Discone Performance and Electronic Warfare: The The **Model CWD-20-500** is a **compact wide band discone antenna** meticulously engineered for ultra-wideband signal intelligence across the **20–500 MHz** spectrum, offering a highly stable 2 dBi typical gain. This high-efficiency omni-directional base station antenna operates natively with a **passive loading technique** at its lower frequency edge, significantly reducing physical footprints while preserving an exceptional radiation efficiency of over 96% across the band. Boasting an **ultra-wide vertical beamwidth of 78 degrees**, it provides continuous vertically polarized coverage tailored for complex ground, maritime, and ground-to-air links. With a power handling capacity of **700 Watts** from 40 to 500 MHz (and receive-only capability from 20 to 40 MHz), this multi-role solution eliminates co-site interference and multi-antenna bottlenecks, making it a premier choice for **broadband spectrum monitoring** and high-power tactical electronic jamming.

Industrial-Grade Architectural Design and Weatherproof Integration:

Built to maintain operational survivability in extreme environmental theaters, the CWD-20-500 is constructed from heavy-duty **6063T6 corrosion resistant aluminum alloy** and finished with a resilient, UV-stable powder coating. This specialized outer layer shrugs off abrasive sandstorms, salt spray, acid rain, and extreme temperatures ranging from (-) 30 to +70 °C. The mechanical architecture features a **removable element discone design**, allowing the core disc and cone pieces to be detached for compact transport and fast, tool-less field deployment. The entire 2.1-meter structure is anchored by marine-grade type 316 stainless steel brackets and high-isolation Teflon/Nylon insulators, rated to withstand severe wind loads up to **180 Km/Hr.** For comprehensive environmental protection, the N-Female input termination and primary RF feed cable remain fully enclosed inside the support mast, offering a ruggedized, long-lifespan platform for defense and industrial infrastructure.



Electrical Specifications:

Frequency Range	20 - 500 MHz.
Gain - Typical	2 dBi. Typical
Bandwidth	Entire Band
Polarization	Vertical
Input Impedance	50 Ohms
Radiation Pattern	Omni-Directional
Vertical Beam-width –Half Power Points.	78 Degrees
VSWR – Better Than	See Graph
RF Power Handling Capacity (20-40MHz: Rx Only)	40-500MHz 700 Watts
Input Termination	N-Female

Mechanical Specifications:

Materials	6063T6 Aluminum Alloy
Mounting Hardware -Materials	High Grade Stainless Steel
Weight Approx	18 Kgs.
Wind Rating	180 Km/Hr.
Overall Length	2.1 Meter
Shipping Length	2.2 Meters
No. of Disk & Cone Elements	12 & 9 Nos.
Max. Mount Pipe Diameter	52mm (2 Inches)
Corrosion Protection	Epoxy-Based Powder Coating

Environmental Specifications:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Please contact us for further information like Azimuth & Elevation radiation patterns, Image and frequency Vs VSWR graph.