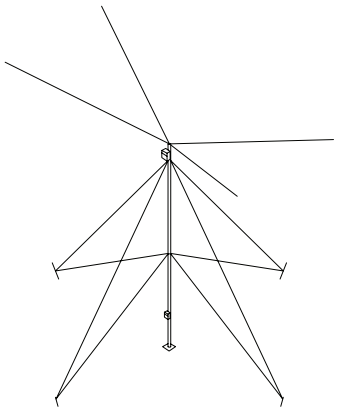
BASE ANTENNA
3048 TUNED DIPOLE ANTENNA

CODAN COMMUNICATIONS



The 3048 Tuned Dipole is a HF antenna solution designed for base station use. When compared to wire broadband antennas the 3048 has a significantly reduced installed footprint, which is especially suitable for installations where space is restricted.

The antenna system comprises a main tuner unit and antenna element assembly mounted on top of a 6 m mast. A control cable and coaxial cable run down from the tuner unit to an interface box mounted at the base of the mast. The interface box provides connection points for the transceiver antenna control, RF cables and ground connection.

KEY FEATURES

- 2.5 to 30 MHz continuous
- 125 W PEP
- Small installed footprint
- Fast tuning 1 sec average
- Memory tune < 150 ms
- Supports ALE and Frequency Hopping modes
- Omni-directional
- Supports NVIS propagation
- MIL-STD-810G Compliance
- Single mast deployment

HIGH PERFORMANCE

With 125 W RF power handling capability the 3048 can be used for voice (including Frequency Hopping) and data operation over the full 2.5 to 30 MHz frequency band. The tuner has an unlimited tune from memory capacity, and using a state-of-the-art tuning algorithm, new frequencies are tuned in typically less than one second.

The 3048's radiation pattern is essentially omni-directional with a combination of NVIS (Near Vertical Incidence Skywave) and medium distance propagation performance. With a guy radius of 4 m and a self supporting antenna span of less than 10 m the antenna system has a compact installation footprint.

ROBUST DESIGN

The high strength, lightweight alloy construction of the 3048 main tuner unit and the interface box ensures that it is capable of withstanding the severe environmental conditions that may be encountered in outdoor environments. The units are designed to meet MIL-STD-810G for dust ingress, and are waterproof to 1 m as per IP67 standard.

INSTALLATION

It is recommended that the 3048's antenna tuner and radiating antenna element assembly be installed at a height of 6 m. Codan offers a dedicated 2 section, 6 m aluminum mast, complete with two guy sets, and installation hardware and instructions. The interface box is mounted at the base of the mast and also acts as the termination point for the antenna ground system.

SPECIFICATIONS

GENERAL

Frequency range	2.5 to 30 MHz
Power rating	125 W PEP (voice and data)
Power consumption	Typically 0.4 A, less than 0.8 A max
Input impedance	50 Ω
VSWR	Typically ≤1.5:1
Tuning speed	New frequency <1 sec average, memory tune <150 ms
Memory channels	Unlimited

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

BASE ANTENNA
3048 TUNED DIPOLE ANTENNA

CODAN COMMUNICATIONS

SPECIFICATIONS

MECHANICAL

Temperature rating	-30°C to 60°C
DC operating range	10 to 16 V DC (12 V DC nominal)
Protection	Open circuit, short circuit, over temperature, voltage transients, high VSWR
MIL-STD-810G	Dust Ingress, Immersion (IP67)
Dimensions	Main tuner unit: 319 mm x 548 mm x 250 mm (includes antenna horns & mast spigot)
Antenna elements	Four 4.8 m long elements (each made up of 3 sections)
Weight	11.5 kg (main tuner unit & interface box)
Colour	White

INTERFACE

RF connector	UHF socket (interface box)
Control	6 pin bayonet (MIL Spec)

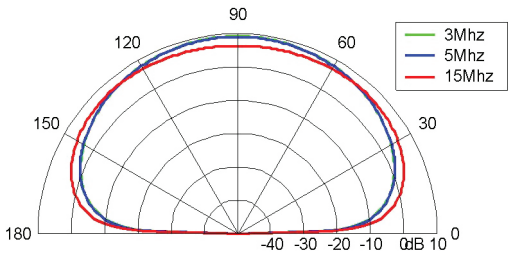
Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

ACCESSORIES

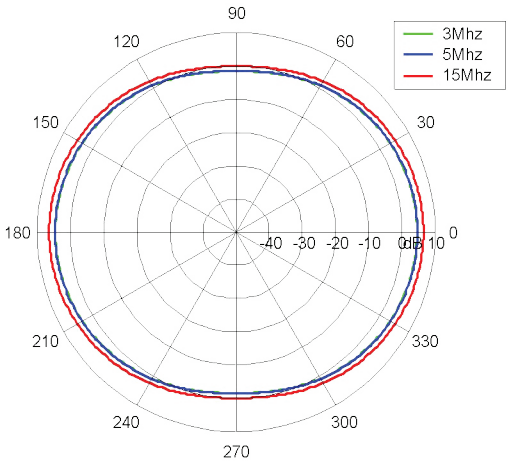
- **Cables**: 20 m RF Coaxial Cable, 20 m Control Cable (maximum length)
- **Mast:** 6m aluminimum mast (2 x 3 m sections, 2 guy sets and installation kit)

RADIATION PATTERNS

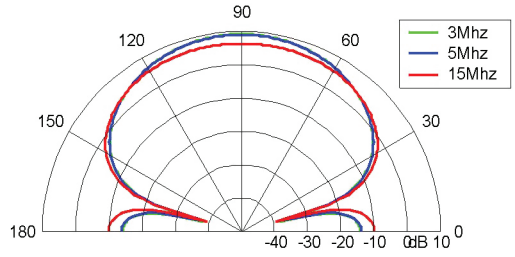
Elevation Pattern (0 degrees)



Azimuth Pattern



Elevation Pattern (90 degrees)



AUSTRALIA +61 8 8305 0528 | **CANADA** +1 250 382 8268 | **US** +1 571 919 6432 | **UAE** +971 44 53 72 01 | **SALES@CODANCOMMS.COM**