



CEL

For improved marine mobile and land based communications. Suitable for mobile phone networks including NextG, 2G, 3G, 4G, 4GX

KEY FEATURES

- Broad bandwidth
- Efficient
- Durable
- Fully Marinated
- Long Service Life
- Over 45 years antenna design experience

Moonraker products represent the pinnacle of antenna design. With over 45 years' experience supplying Defence, Commercial and Recreational industries. Moonraker antennas are individually tuned and manufactured to our stringent extreme marine quality standards that ensure maximum performance and service life.

CEL is a high gain, high strength vertically polarised collinear array antenna designed for use in the marine mobile and land environments.

This antenna system is ideal for fringe area operation being suitable for both inshore marine and land communications including remote building sites, temporary bases and vehicles. The efficiency of both reception and transmission is improved over the mobile network, especially when operating in fringe areas where signal power is significantly reduced and the fading of signal strength causes communication difficulties. Signals are transmitted at the required field intensity using less power, thus significantly reducing drain on the mobile battery.

Antennas are fully marinated, with a fibreglass radome providing high strength protection for the radiating element. This together with a powder coated aluminium mounting tube ensures a high degree of strength and long operational life. It can be supplied for side or base mounting or with a strong, multi-angled nylon swing down mount. Five meters of low loss UHF co-axial cable is supplied to connect to the mobile telephone.

Also available with a heavy duty stainless steel spring base and fastening bolt for vehicle mounting and a special compact flexible Stripline design which can be attached to a structure or vehicle or incorporated into RF transparent outer materials.

Frequency Range	600MHz – 2.5GHz
Polarisation	Vertical , Omnidirectional
Power	50 watts maximum
VSWR	Less than 3:1 between 600 MHz – 2.5 GHz (typically 2.5 :1) Less than 2.5:1 between 700 MHz – 800 MHz Less than 2:1 between 800 MHz – 1.0 GHz (typically 1.5 :1)
Gain	+5 dBi
Impedance	50 ohms (nominal)
Length	1.6m with standard mounting pole (alternate lengths on request) Minimum 500 mm (18 in) with 1" or 12mm base mount options
Wind Survival	Standard radome unit is designed to withstand wind speeds up to 200 km/h (125 mph)
Temperature	-50 to +55°C 100% humidity
Connection	FME female crimp connector -other connectors to order 5m of RG58 extra low loss coaxial cable
Mounting (see illustration)	U : Connector in base (no cable), Side mounted via insulators or clamps 1 : Base fed cable with connector, Side mounted via insulators or clamps 2 - Side fed cable with connector, Base mount with M12 bolt 3 - Side fed cable with connector, Base mount with 1" x 14 TPI 4 - Base fed cable with connector, Base mount with 1" x 14 TPI SM - Spring base version for vehicle mounting (not shown) see CEL-SM (Options 3 & 4 are compatible with standard marine swing down mounts)
Colour	Standard is Black. Optional White.
Weight	Unpacked : 1.5kg , Packed : 2kg
Warranty	12 Months

Specifications subject to change. Issued : 24/05/16





CEL

For improved marine mobile and land based communications. Suitable for mobile phone networks including NextG, 2G, 3G, 4G, 4GX

INSTALLATION INSTRUCTIONS

MOUNTING

SWINGDOWN MOUNT

- Place the base plate (of the mount) in the desired position and use it as a template.
- Mark the position of the mounting holes.
- Drill 4 x 6.4mm (1/4 in) diameter holes.
- Bolt the mount/antenna in place

M12 BASE MOUNT ADAPTOR

- Mark the mounting position on a horizontal surface or bracket that allows a minimum of 38mm (1.5 in) diameter surface area.
- Drill a 13mm (1/2 in) hole in the marked position.
- Using a 12mm stainless steel or galvanised bolt fastens the antenna down firmly. DO NOT OVERTIGHTEN AS THREAD MAY STRIP IN NYLON BASE.

SIDE MOUNTING

- Use heavy duty clamps or strong hose clamps.
- Space them 300mm (12 in) apart...
- Do not over tighten.
- Do not drill stainless steel mounting tube.

IMPORTANT FACTORS

- The top 80 cm (32 in) of the antenna must be in free space, well away from other objects, antennas, etc. Mounting it as high as possible will assist performance. Vertical is best.
- The base/mounting tube section of the antenna must not be drilled or damaged.
- Supplied cable may be shortened. It may be lengthened but performance will be degraded due to signal/coaxial losses.
- Due to internal arrangements the antenna will exhibit an open circuit if tested with an ohm meter or DC tester.
- When using a swingdown mount allow sufficient cable to permit the antenna to swingdown without cable strain.



Specifications subject to change. Issued : 24/05/16

Moonraker Australia Pty. Ltd. ABN 70 162 868 475
Tasmanian Technopark, 52 Innovation Drive, Dowsing Point, Tasmania, Australia 7010
Website: www.moonraker.com.au Tel: 61 (0)3 6273 1533 Fax: 61 (0)3 6273 1749 Email: radiocom@moonraker.com.au

