



Raven's patented GPS Down/Up converter makes it possible for long cable runs of 450 meters up to 1.6 kilometers.

Raven's Down/Up converter product line includes the Copper-DUC and Fiber-DUC antenna remoting systems. Raven's line of Down/Up converters are the perfect add-on for L1 GPS installations where long antenna cables are needed and a simple in-line amplifier will not suffice.

A DUC consists of a down converter at the GPS antenna and an up converter at the RF input of the GPS receiver. Raven's patented technology phase locks the converter pair to provide high fidelity signal transport. This technique uses the same reference for up and down conversion, eliminating frequency error.

The Copper-DUC product is optimized for generic RG-58 cable and can be used for lengths of up to 450 meters.

Raven's DUC can also provide a fiber optic solution for cable runs up to 1.6 kilometers. The Fiber-DUC is optimized for low-cost simplex multimode optical fiber. Much more expensive types of optical fiber and interface equipment are required if you don't use a DUC.



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DOWNCONVERTER SPECIFICATIONS



APPLICATIONS

- Low emissions.
- Replaces long cable runs & high gain antennas.
- Easy installation, since cable length is not critical.
- Decreased susceptibility to lightning strike damage.

SPECIFICATIONS

- Frequency: GPS L1
- Gain Combined: 35 (min)
- Axial Rate: 3 dB (max)
- Noise Figure: 2.5 dB (max)
- Termination: 50 Ω

SIZE & WEIGHT

- Height: 89 mm (3.5")
- Diameter: 114 mm (4.5")
- Weight: < .45 kg (1.0 lbs)

ENVIRONMENTAL

- Relative Humidity: 0-100% condensing
- Storage Temperature: -55°C to +85°C
- Operating Temperature: -40°C to +65°C
- Altitude: 6,096 m (20,000 ft)

OTHER

- Connection: TNC, Female
- Packaging: Waterproof enclosure
- Mounting: Standard marine mount, 1" - 14 or 3/4" NPT

UPCONVERTER SPECIFICATIONS



SIZE AND WEIGHT

- Dimensions: 44 x 130 x 170 mm (1.75 x 5.12 x 6.68 in)
- Weight: 0.6 kg (1.3 lbs)

POWER

- Power Requirements: 9-12 VDC via antenna bias or 12 ±10% VDC external
- Power Consumption: < 250 mA @ 12 VDC (Both Units)

ENVIRONMENTAL

- Relative Humidity: 0-95% non-condensing
- Storage Temperature: -50°C to +85°C
- Operating Temperature: 0°C to +50°C
- Altitude: 6,096 m (20,000 ft)

OTHER

- Connection: BNC connector to downconverter, TNC to GPS receiver.
- Indications: Power
Fault for Downconverter
Cable open or short

ANTENNA CABLE LENGTHS (MAX.)

- Copper DUC 450 m (1,500 ft)*
- Fiber optic DUC 1.6 km (1 mi)
- Uses Simplex Multi-Mode Cable (62/125) Connector type ST

*RG-58 cable

US patent 5,999,795



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