

Network Timing, Test, and Access Solutions



DUC GPS ANTENNA EXTENDER KIT

Key Features:

- *Increases antenna cable length up to 1500 ft (457 m) for StarClock™ or StarSync™ Timing Systems using low cost generic RG58 type cable*
- *Excellent signal to noise immunity*
- *Eliminates need for expensive large diameter low loss coaxial cable or amplifiers*
- *Transparent signal conversion*

Overview:

L1 frequency GPS Signal up/down conversion is required when signal losses in the antenna cable exceed the receive threshold of the timing system's GPS receiver, and utilizing large diameter coaxial runs are sometimes a very expensive solution. Typically when cable distances exceed 50 feet (16 m), the RG58 type coax is replaced in the installation with more expensive RG213 type coax. When cable distances exceed 250 feet (76 m), very expensive large diameter low loss coaxial cable is generally called for, which can also create many installation headaches. In-line amplifiers can sometimes introduce noise into the GPS signal, compromising signal quality. The CXR/Larus DUC GPS Antenna Extender is the perfect solution to this problem, providing both installation and cost benefits.

The CXR/Larus DUC GPS Antenna Extender consists of a downconverter at the GPS antenna and an upconverter at the GPS input of the timing system. Patented technology phase locks the converter pair to provide high quality signal transport. This technique uses the same reference for both up and down conversion, which eliminates frequency error.

Specifications:

Antenna/Down Converter

- Size: 4.4" W x 2.1" H (11.17 cm W x 6.85 cm H)
- Weight: < 1.3 lbs (< 2.86 kg)
- Cable: RG58, connectorized TNC male/BNC male, length to be specified by customer
- Power: +12 Vdc @ 135 mA ± 10%
- Antenna frequency: 1575.42 MHz (L1)
- I/O Connector: Female TNC
- Operating temperature: -40°C to +65°C
- Storage temperature: -55°C to +85°C
- Humidity: 100% condensing (weatherproof)
- Mounting: Standard Marine, ¾ in. NPT

Upconverter Module

- Size: 6.8" L x 4.2" W x 1.8" H (11.27 cm x 10.67 cm W x 4.57 cm H)
- Weight: 1.5 lb (0.68 kg)
- Cable: RG58, 25 ft supplied, equipped with TNC male connectors
- Power: +12V ±10% @ 200 mA, including antenna/downconverter
- Output frequency: 1575.42 MHz (L1)
- Operating temperature: 0°C to +50°C
- Storage temperature: -40°C to +85°C
- Humidity: 95% , non condensing
- I/O Connection: Female BNC to antenna, Female TNC to Timing System

Certifications: FCC, CE, UL

Ordering Information: 007-02319-004 DUC GPS Antenna Extender. Customer to specify antenna/downconverter to upconverter module coax length

Kit includes: Antenna/downconverter, Upconverter module, 110VAC power converter, antenna bracket, 25 feet (8.3 m) of TNC male connectorized RG58 coax, mounting hardware for antenna bracket, and installation instructions. Also included is up to 1500 feet (457 m) of BNC male/TNC male connectorized RG58 cable, length to be specified by the customer.

