

CNPC-1000 UAS command and control data link



Safe and secure unmanned aircraft system (UAS) command and control data link for UAS operations in shared airspace.

Safe UAS operation is key to operations in shared airspace. Reliable communications between the control station and the aircraft are essential for operators to have positive control. The CNPC-1000 data link implements the Control and Non-Payload Communications (CNPC) waveform in an optimized package for the small to large unmanned aircraft.

The CNPC-1000 evolved from our proven commercial VHF and robust military data links to solve the challenges of high-density unmanned aircraft operations in a safe environment. It provides both point-to-point communications and growth to fully networked communications for unmanned aircraft control, and can be installed in either the aircraft or the control station.

It operates within the L-band (growth to C-band) terrestrial aviation safety spectrum, cooperatively with ADS-B transponders and other systems operating simultaneously on the unmanned aircraft.

The CNPC waveform provides command-and-control services between a control station and an unmanned aircraft, in addition to providing higher bandwidth weather radar and video downlink services.

The waveform supports point-to-point modes between a single control station and a single unmanned aircraft, as well as network modes. The network modes enable positive handoffs of the aircraft between multiple control stations or multiple ground towers, and communications with multiple unmanned aircraft from a single ground data link.

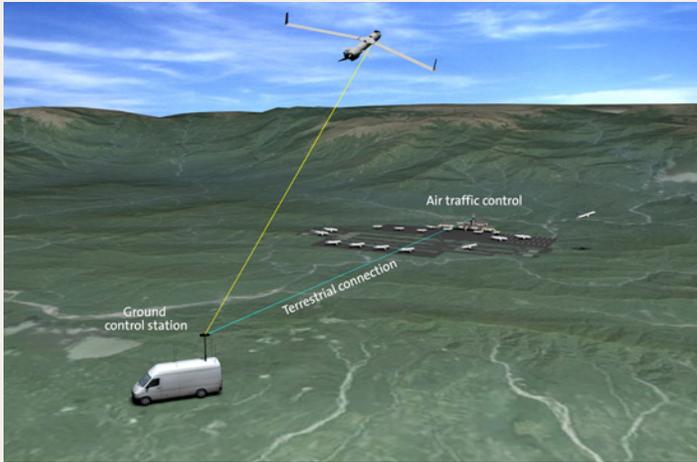
KEY FEATURES/ BENEFITS

- ▶ Provides safe and secure communications in the aviation safety spectrum
- ▶ Offers full CNPC waveform functionality in a package optimized for sUAS, but delivers the performance required for the large unmanned aircraft
- ▶ Supports both point-to-point and networked communication modes
- ▶ Provides control, telemetry and higher-bandwidth weather radar and video downlink services

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Point-to-point mode



PHYSICAL CHARACTERISTICS

Length	5.52 in (14.02 cm)
Width	2.91 in (7.39 cm)
Height	0.83 in (2.11 cm)
Weight	.45 lb (203 g)
Input power	14/28 VDC
Power draw	< 8 watts
Operating temperature	-40 to 60°C
Storage temperature	-55 to 85°C

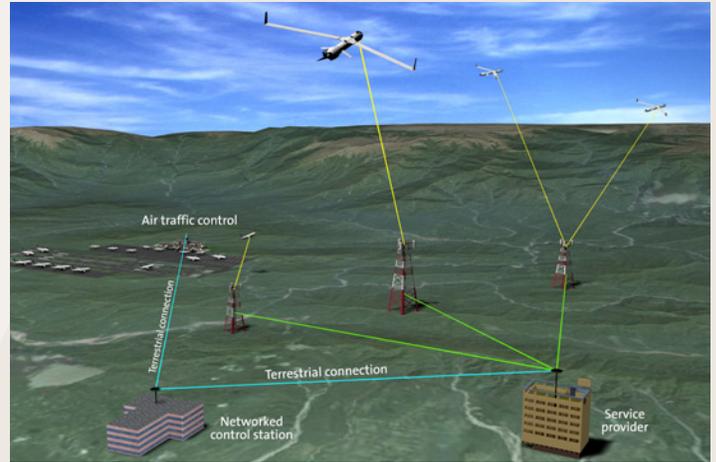
PERFORMANCE CHARACTERISTICS

Frequency	960-977 MHz
Output power	1.6 watts
Waveform	CNPC

KEY CAPABILITIES

- Ethernet interface
- RS-232 interface for external time input
- RS-485 interface for controlling ancillary equipment
- 25 kHz frequency tuning resolution
- Power supply designed for DO-160 compliance for both 14 and 28 VDC nominal inputs
- Operation at 60°C ambient air up to a 46% duty cycle

Networked mode



OPTIONAL INSTALLATION EQUIPMENT

- L-band antennas
- Mounting bracket
- Cosite filters

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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