

Airborne Wireless C-Band Network Transceiver



Description

The nXCVR-3140A-1 IP transceiver is designed for air-to-ground and air-to-air wireless iNET-based communications. Transceivers work together to perform wireless routing functions, two radios transparently connected in a point-to-point configuration. Bandwidth is shared among multiple radios; each radio receives one or more timeslots for transmitting packets. Timeslots can be statically or dynamically allocated during network operation.

The TTC version of the iNET transceiver has a 100/1000BASE-T Ethernet interface for the primary routed interface, multiple serial ports for external device control, a high-speed Reduced Instruction Set Computing (RISC) processor and a power-efficient RF transmitter and receiver module. The transceiver incorporates the latest SOQPSK technology and power-efficient capability to achieve maximum transmission and reception distance under harsh environmental conditions. The nXCVR-3140A-1 transceiver has a fixed signal bandwidth of 15.6 MHz and the bit rate is fixed at 20 Mbps.

The IP transceiver supports the Simple Network Management Protocol (SNMP) for remote management and monitoring.

The nXCVR-3140A-1 transceiver has the following I/O connectors: Gigabit Ethernet, serial console, auxiliary signals, power and an RF antenna.

Features

- High-speed airborne wireless transmission and reception with up to 20 Mbps throughput
- SOQPK technology for efficient transmission & reception in harsh environments
- An RS-232/422 serial console port on J1 for configuration and troubleshooting
- Zeroize, which when connected to digital ground makes any coefficients stored in non-volatile memory read zero
- IP reset, which when connected to digital ground resets the unit to its default configuration
- IEEE 1588 PTP one pulse per second (1PPS) output synchronized to the PTP time
- A Gigabit Ethernet port or J2 that supports 100/1000BASE-T and transfers packet data into and out of the transceiver
- An auxiliary 25-pin diagnostic and serial/Fast Ethernet port. (J3)
 - One 100BASE-T Ethernet port for management, software updates and statistics gathering
 - Two RS-422 receive/transmit channels
 - One RS-232 channel
 - One general-purpose, opto-isolated output and a general-purpose output signal return

Applications

- High-speed airborne networks
- Airborne use for wireless communication with ground systems
- Ground use for wireless communication with multiple airborne test articles

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nXCVR-3140A-1 Datasheet

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Management System
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