DATA-LINC GROUP™
The Industrial Data Communication Experts

CIX6530
Wireless Remote I/O
Communication I/O eXtender Discrete/Analog

CIX6530 2.4 GHz Discrete/Analog Wireless I/O

Features

- 12 bit analog resolution
- 256-bit AES encryption
- Expandable for future growth
- 8 discrete inputs, 8 discrete outputs, 4 analog inputs and 4 analog outputs
- 16 km (10+ mile) range– LOS (line-of-sight)
- Single unit configurable as Master, Remote, Repeater or Repeater/Remote
- Easily upgradable to add Ethernet and/or serial devices
- 100 mW EU version also available
- Optional DIN rail mounting

The Data-Linc Group CIX6530 2.4 GHz I/O Communication Interface I/O Extender offers the ability to transmit discrete and analog signals with robust, industrial wireless technology. This allows wireless I/O communication between the Master and one or more Remotes for a distance of a few feet to many miles with implications for use in a variety of industries. For convenience, any unit may be configured as Master, Remote, Repeater or Repeater/Remote. This not only simplifies replacement but also reduces the number of units needed for "spare" inventory.

The CIX6530 offers 12 bit analog resolution for enhanced accuracy and resolution. It therefore provides more precise monitoring and control, allowing data collected at the input to be relayed and reported with greater accuracy to the PLC or sensor.

Diagnostic LEDs provide confidence in the wireless performance along with confidence provided by 256-bit AES encryption for enhanced security.

Each CIX6530 has a total of 24 independent points—eight discrete inputs and eight discrete outputs, as well as four analog inputs and four analog outputs. Its SRM6x30 radio module reliably relays data even in harsh industrial environments. But in the event of a communications failure, the output states of the discrete and analog channels can be configured to retain the last known value or a pre-defined state.

The CIX6530 is ideal for fixed or mobile installations. Its wireless component combines the analog and discrete I/O extender with Data-Linc Group's SRM industrial grade license-free wireless modems. With its updated features and expansion capability, the CIX6530 along with the CIX/EXR expansion non radio Remote provides a simple to implement, cost-effective solution for wireless I/O signal transmission that ensures solid performance and reliability in any RF environment. The CIX6530 is backward compatible with both the legacy CIX6500/R and the DAX6500.

The Communication Interface Extender goes beyond standard I/O devices. If an expanding network requires interfacing with Ethernet or serial devices, the CIX6535 Ethernet or serial Master modem may be added as the "head end". The CIX6535 Master's dual ports— an Ethernet or a serial— allows it to connect to a PC or PLC to easily upgrade your system, providing simplified, low-labor startup, maintenance and growth for I/O in both the 900 MHz (CIX6435) and the 2.4 GHz (CIX6535) ISM license-free bands.

DATA-LINC GROUP™ 1125 12th Ave NW • Suite B-1 • Issaquah, WA 98027 • Phone: 425-882-2206 • Fax: 425-867-0865 • www.data-linc.com •

CIX6530 Specifications

License-free 2.4 GHz I/O Extender

Operating Frequency

License-free, 2.4 GHz ISM band

Included

CD Configuration software, User Manual
Antenna 0 dB bench test antenna
Other Programming Cable, Power Supply, Quick Start

Transmitter

Rated Range 10 miles (16 km), LOS
System gain 129 dB
Output Power 500 mW maximum,
27 programmable steps up to 500 mW (27 dBm)
100 mW EU version available
Modulation Spread Spectrum, GFSK
Spreading Code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver

Sensitivity -105 dBm @ 115.2 Kbps for BER10^{-4};
-102 dBm @ 153.6 Kbps for BER10^{-6}
Selectivity 20 dB at fc +/- 345 kHz

RF Data Transmission

Error Detection 32 Bit CRC
Data Throughput 115.2 Kbps - 153.6 Kbps
Data Encryption 256 bit AES

Interface

Analog 0-20mA, 4-20mA or 0-10VDC,
24VDC max. loop
Voltage 12-bit resolution, self powered-outputs
Discrete Inputs Dry contact closure
Discrete Outputs Open collector (sink to ground),
100mA per channel, 12-24VDC

Connections

I/O Discrete and Analog
Pluggable terminal blocks
Wire size 12-26 AWG
Power 3-pin pluggable terminal block
Diagnostic port RS232 DB9 Female
EX-Linc RS232 DB9 Female or RS485 2-wire

Indicators

General Power (P), Carrier Detect (C), RF Output (O), RF Input (I), Comm Error
Discrete Activity LED for each discrete I/O

Power

Input Voltage 12-28VDC, wall mount 12VDC/ 115-230VAC power supply included
Transmit Current 650mA@12VDC (8W)
Receive Current 100mA@12VDC (1.2W)

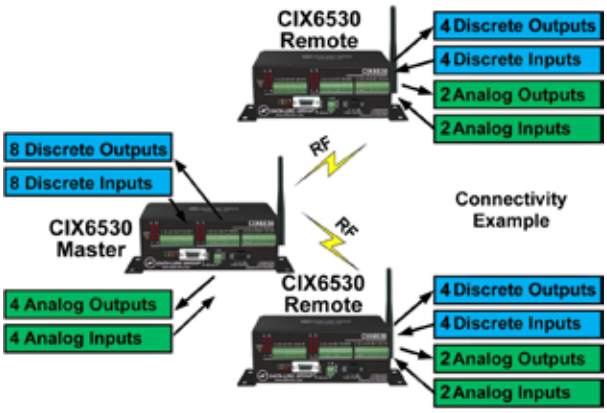
Operating Modes

Master, Remote, Repeater, Repeater/Remote

* Version also available without the radio component for expanding I/O points at an existing CIX Remote location.

Interfacing Diagram

I/O to I/O



CIX6530 (as a Master unit)

- **Supports to up to 8 CIX6530 as Remotes.**
- **Each Master discrete input is replicated on each Remote discrete output.**
- **Discrete inputs from one or more Remote units are wired as active low to appear on Master discrete outputs.**
- **Compatible with existing DDAA1000 8 bit mode Remote devices (8 bit analog only)**
- **Analog outputs are mapped via configuration software from Remote analog inputs (0 to 4 total)**

CIX6530 (as a Remote unit)

- **Remote analog inputs are mapped via setup to Master analog outputs (0 to 4 total)**

Antenna

Standard thread female SMA (for optional external omni directional or yagi antennas)
Supplied bench test antenna
Nominal Impedance 50 Ω 50Ω

Operating Environment

Temperature -40°F to 167°F (-40°C to 75°C)
Humidity 0 to 95% non-condensing

Enclosure

Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (3)
Shipping Weight 1.8 lb (0.82 kg)

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

P/N 155-09873-003 140212