

# 2.4GHz Radio Transceiver Product Specifications

CRT-2400 / CRT-2400CE\*

#### **Overview**

The Radio Transceiver (RT) houses a radio (2.4GHz) with corresponding antennas and serves as an access point, enabling RF communications with CrewCom Radio Packs. Using CrewNet as a backbone, RTs can be positioned throughout a wide coverage area by being connected to a Control Unit either directly or through a Hub(s), or connected in a daisy-chain configuration.

## **Key Features**

- Supports up to 6 Radio Packs
- CrewNet connections (etherCon or duplex LC Single Mode Fiber) with network status indicators
- Status indicators for data RX/TX, operation mode, and error
- Easy expandability from one RT to up to seven additional RTs in a daisy chain via the RT Loop connection (total of eight)
- Micro USB connection for firmware updates
- Integrated Ping function, which uses an LED to physically identify a target device
- Dual powering options
  - » Network power (Power over CrewNet)
  - » External power (48VDC) (sold separately)

| Specification***   | CRT-2400   |
|--|--|
| RF Frequency (MHz)                                       | 2400–2483 MHz  |
| RF Scheme  | FHSS with TDMA   |
| Effective Radiated Power                                 | 100 mW (+20dBm)  |
| Receiver Sensitivity                                     | -100dBm at 10 <sup>-5</sup> BER  |
| Radio Certification                                      | FCCID: HSW-CCT24 and IC: 4492A-CCT24   |
| Transmission Range                                       | 150 m (500 ft.) under typical conditions; 450 m (1500 ft.) line of sight. Note: Functional range depends on many variables, including RF signal absorption, reflection, and external interference. |
| Number of Radio Packs Supported (when RT in Normal mode) | 6  |
| Number of Antenna Connections per RT                     | 2  |
| Antenna Connector Type                                   | RP-TNC   |
| Supplied Antenna   | +2dBi Omni-directional (whip)  |
| CrewNet In Port (supports 1 connection)                  | (1) RJ-45 for copper; (1) duplex LC for Single Mode Fiber  |
| RT Loop Port   | (1) RJ-45  |
| Maximum CrewNet Line Length                              | Copper 100 m (330 ft.); Fiber 10,000 m (32,800 ft.)  |
| Network Power (Power over CrewNet)                       | CrewNet RJ-45 only   |
| External Power   | 48VDC Power Supply (Sold Separately)   |
| Dimensions without Antennas (L x W x H)                  | 16 cm $\times$ 19.7 cm $\times$ 4.6 cm (6.30 in. $\times$ 7.74 in. $\times$ 1.81 in.)  |
| Weight   | 567 g (1.25 lbs)   |
| Operating Environment                                    | -20° to 50° C (-4° to 122° F); 10% to 90%<br>Humidity  |
| Maximum Altitude   | 2,000 m (6,562 ft.)  |
| RoHS   | Yes  |
| Compliance Model Number                                  | RT2505   |

## What's in the Box?

CRT-2400 / CRT-2400CE
00003402
PC-CAT5-15BL
00003585
Radio Transceiver
USB A to Micro B cable
Cat 5e cable, 4.6 m (15 ft.)
RT Flat Mounting Bracket

00003976 Single RT Adapter Mounting Bracket
00001339, 00003530, 00003683 Bracket Mounting Hardware

PAC-ANT2-2DB0 Omni-Directional Antenna (x2)
00004021 Microphone Stand Adapter
D0000286 Product Overview Guide

D0000219 Warranty Extension Registration Card

### **Accessories**

• TMA-ANTSYS-09C 2.4GHz 9dBi Directional Corner Reflector Antenna Kit

PAN-CP24-KIT\*\*
2.4GHz 12dBi CP Beam Antenna Kit
PPS-48V
48VDC External Power Supply



CRT-2400 / CRT-2400CE\* 2.4GHz Radio Transceiver (Front View)



CRT-2400 / CRT-2400CE\* 2.4GHz Radio Transceiver (Bottom View)

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<sup>\*\*\*</sup> Notice About Specifications: While Pliant makes every attempt to maintain the accuracy of the information contained in this document, this information is subject to change without notice, and published device/system functions and features are subject to firmware version. Please check our website for the latest system specifications and certifications.