# 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

- $\quad$ 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 $10^{-5} \mathrm{BER}$ |
| 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) | $\begin{aligned} & 16 \mathrm{~cm} \times 19.7 \mathrm{~cm} \times 4.6 \mathrm{~cm}(6.30 \mathrm{in} . \times 7.74 \mathrm{in} . \times \\ & 1.81 \mathrm{in} .) \end{aligned}$ |
| Weight | $567 \mathrm{~g}(1.25 \mathrm{lbs})$ |
| Operating Environment | $-20^{\circ}$ to $50^{\circ} \mathrm{C}\left(-4^{\circ}\right.$ to $122^{\circ} \mathrm{F}$ ); $10 \%$ to $90 \%$ Humidity |
| Maximum Altitude | 2,000 m (6,562 ft.) |
| RoHS | Yes |
| Compliance Model Number | RT2505 |

## What's in the Box?

- CRT-2400 / CRT-2400CE

Radio Transceiver

- 00003402

Cat 5e cable, 4.6 m ( 15 ft .)

- 00003585

RT Flat Mounting Bracket

- 00003976 Single RT Adapter Mounting Bracket
- 00001339, 00003530, $00003683 \quad$ 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** 2.4 GHz 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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C $€$ *The CRT-2400CE model meets the same specifications and complies with ETSI standards ( 300.328 v 1.8 .1 ). Non-CE models are non-compliant with some ETSI standards. **PAN-CP24-KIT is not approved for use in Europe.
${ }^{* * *}$ Notice About Specifications: While Pliant makes every attempt to maintain the accuracy of the information contained in this document, this information is

