tZT-P4C4

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4 / ZigBee 2007 Pro Specifications
- Wireless Transmission Range up to 300 m
- Adjustable RF Transmission Output Power
- GUI Configuration Software (Windows Version)
- Supports AES-128 Encryption for the Wireless Communication (Passive)
- Supports ZigBee Repeater Function
- 4 Digital Input Channels and 4 Digital Output Channels
- All Digital Input Channels can be used as 16-bit Counters
- Sink-type Digital Output Channels with Overload Protection
- Surge and ESD Protection
- Configurable Power-on Value and Safe Value Settings
- DIN-Rail Mountable

Introduction

The tZT-P4C4 provides 4 channels for digital input and 4 channels for digital output, each of which features photocouple isolation. The tZT-P4C4 supports sink-type output with short circuit protection, while input is source-type. All input channels can be used a 16-bit counters. There are options for configuring power-on and safe digital output values. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided.

The tZT series products of ICP DAS have the advantage of low cost and low power consumption of ZigBee. Provide wireless communication capability up to 300 meters (LOS) standard transmission distance. Coupled with the dynamic mesh network, users can easily catch DIO data in difficult-to-wire environments.

System Specifications

Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	11dBm (Max. 19dBm)
2.4GHz Antenna	2.4 GHz - PCB Antenna (3dBi, 50Ω)
Transmission Range(LOS)	300m
Protocols	Supports DCON and ModBus
Watchdog	Module(1.6seconds), Communication(Programmable)
LED Indicators	
ZigBee Communication	1LED, Green
Power	1LED, Red
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
EFT (IEC 61000-4-4)	±1 kV for Power
Power	
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1W Max.
Mechanical	
Dimensions(W x L x H)	52mm x 98mm x 27mm
Installation	DIN-Rail Mounting
Environment	
Operating Tempertaure	-25 ~ +75℃
Storage Tempertaure	-30 ~ +80℃
Humidity	10 ~ 95% RH(Non-condensing)

I/O Specifications

Digital Input / Counter		
Input Channels		4
Type		Wet Contact (Source)
On Voltage Level		+6 VDC ~ +50 VDC
Off Voltage Level		Max. +5 VDC
Counters	Channels	4
	Max. Counts	65535 (16-bit)
	Max. Input Frequency	100Hz
	Min. Pulse Width	5ms
Input Impedance		10 KΩ , 0.66W
Overvoltage Protection		± 70 VDC
Digital Output		
Output channels		4
Type		Isolated Open Collector (Sink)
Load Voltage		+3.5 ~ +50 VDC
Max. Load Current		700mA / channel
Overvoltage Protection		Yes
Overload Protection		Yes
Power On Value		Yes, Programmable
Safe Value		Yes, Programmable

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Applications

PC
Controller

RS-232
RS-485
Ethernet

Node ID: 00
ZT-2570 (Host)
or
ZT-2550 (Host)

Node ID: 01
tZT-P4C4
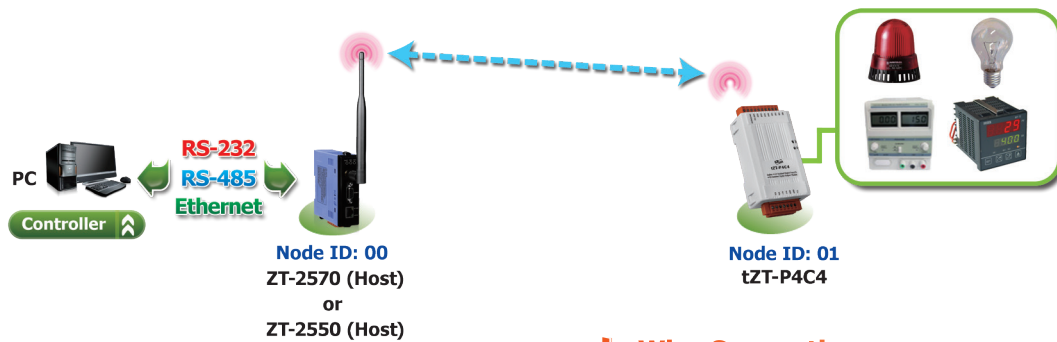
Block Diagram
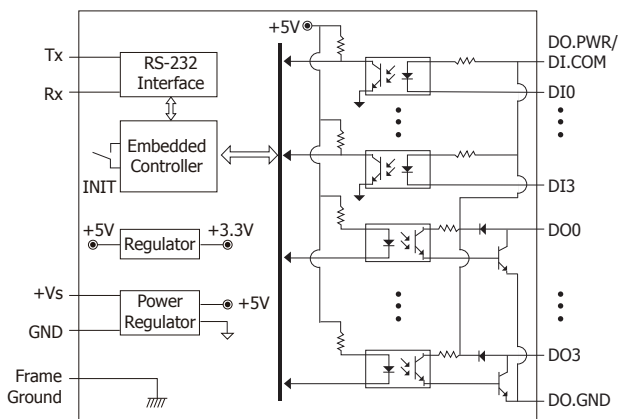
Wire Connections

Digital Input / Counter	ON State Readback as 1	OFF State Readback as 0
Source	+6 ~ +50 VDC	OPEN or <5 VDC

Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Relay	Relay ON	Relay OFF
Resistance Load		

Dimensions (Units: mm)

| Left Side View | Front View | Right Side View | Rear View | Bottom View |

Top View
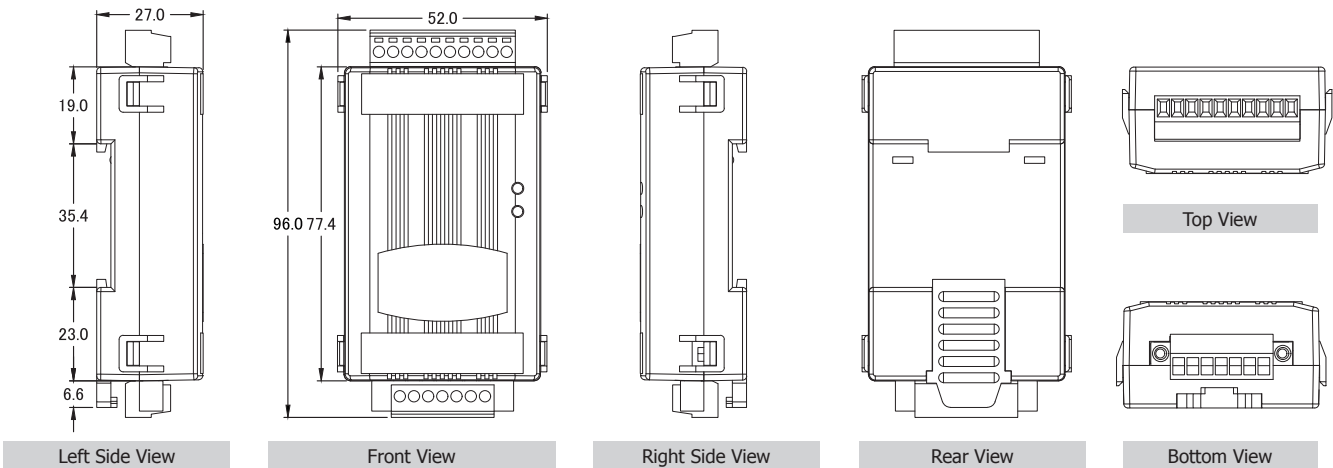
Ordering Information

tZT-P4C4 CR	Wireless 4-channel Isolated Digital Input and 4-channel Isolated Digital Output Module (ZigBee Router) (RoHS)

Important Note:
ZigBee Data Acquisition modules require a ZigBee host converter to coordinate the data transmission path. Remember to order a ZT-2550 or ZT-2570 ZigBee host converter when purchasing ZigBee Data Acquisition Products.

Related Products

MDR-20-24	24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting
ZT-2510 CR	ZigBee Repeater (Slave, ZigBee Router) (RoHS)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)

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ZigBee Products