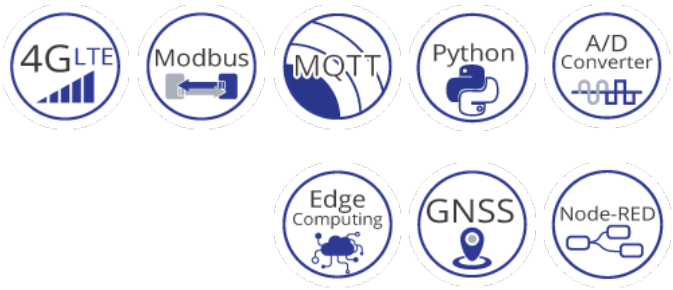
AiR PACE CX Series

Industrial Smart IoT Edge Computing Gateway (Project base with quantity requirement)



Highlights

Highly-reliable network connection

» Offers multiple Internet access methods: Gigabit Ethernet, Global 3G/LTE Cat. 4 networks
» With support of Dual-SIM, redundant link backup, and VRRP hot standby, the gateway ensures continuous connection by seamless transition to a backup link when main link fails

Powerful edge computing capabilities

» ARM Cortex-A53 processor, 1GHz main frequency, up to 1GB DDR3 RAM and 8GB eMMC FLASH give the gateway powerful Edge computing capabilities to perform data optimization, real-time response, agile connection, smart applications, security and privacy protection at the IoT Edge

Compatible with multiple industrial protocols

» Modbus RTU, Modbus TCP
» MQTT

Overview

AiR PACE, the EtherWAN Industrial Smart IoT Edge Computing Gateway for Internet of Things (IoT), is a configurable and manageable wireless gateway. The AiR PACE features various interfaces and supports useful user application tools to meet IoT applications. It provides real-time data analysis and intelligent processing at the fieldbus edge, which is more effective and secure. The AiR PACE is both Microsoft Azure IoT edge certified and AWS IoT Greengrass qualified. Quick-to-deploy, the AiR PACE smart gateway can be tailored to any IoT application needs.

EtherWAN — "When Connectivity is Crucial."

Frequency Bands

Cellular (*AiR PACE 1-XX-CX Series)

	4G LTE		3G	2G	Region
Sku Code	FDD LTE	TDD LTE	WCDMA	GSM/EDGE	
TA	B1(2100)/ 3(1800)/ 4(AWS)/ 5(850)/ 7(2600)/ 8(900)/ 28(700 APT)	B40(2300)	B1(2100)/ 2(1900)/ 5(850)/ 8(900)	B2(1900)/ 3(1800)/ 5(850)/ 8(900)	Taiwan & Australia
EA	B1(2100)/ 3(1800)/ 7(2600)/ 8(900)/ 20(800) /B28A (700)	B38(TD 2600)/ 40(TDV 2300)/ 41(TD 2500)	B1(2100)/ 8(900)	B3(1800)/ 8(900)	EU & APAC

Features

Functions

Cellular

3GPP, 3G/4G, IP Pass-through, IPv4

Band management for band lock

Ether-WAN

Dynamic IP, Static IP, PPPoE, PPTP, L2TP

Protocols

DHCP Server/Relay

Port-based, Tag-based VLAN

QoS

LLDP

Port Forwarding

NAT 1-1, 1-Many, transversal, Virtual Server/Computer, DMZ, VPN Pass-through

Network Management

Configuration

Web Console, CLI, Command Script, Python

Management

SNMP v1/v2c/v3, AiR PACE MIB

System

Upgrade, Backup & Restore, Reboot & Reset, SysLog

Diagnostic

Ping, Traceroute, Packet Analyzer, Sniffer (Field communicating data logging), Diagnostic tool

Security

VPN

IPSec (Up to 16 Tunnels), OpenVPN, PPTP, L2TP, GRE

Firewall

SPI Firewall with Stealth Mode, IPS

Access Control

URL Blocking, URL Blocking, MAC Filter

Field Communication

Virtual COM

RFC2217, TCP Client, TCP Server, UDP

Modbus

Gateway for Modbus TCP, Modbus RTU/ASCII

Master/Slave Access

Slave for Device Status/Information Access

Data Interchange

MQTT Broker, MQTT Client

Data Logging

Sniffer, Off-line/Full-time Proxy, Mixed modes

Service

Cellular Toolkit

Data Usage, SMS, SIM PIN, USSD, Network Scan

Event Handling

User Defined Manage/Notify Event; Action & Trigger by SMS, Mail, Syslog, SNMP Trap, Modbus, I/O

Development Platform

Python Customization Development

Amazon AWS Greengrass

Microsoft Azure IoT Edge

User Application Tool

Node-RED

Specifications

Platform

CPU: ARM Cortex A53 1.35GHz Dual Core
DRAM: 1GB DDR3 Memory
Storage Pre-installed: 8GB eMMC
Storage Slot: MicroSD Slot x 1 for SD 3.0 (SDXC) Compliant Storage Expansion

Cellular

Standards
4G LTE: FDD-LTE, TDD-LTE, Transfer rate (max): LTE FDD: 150Mbps down; 50Mbps up; LTE TDD: 130Mbps down; 35Mbps up
3G: WCDMA, Transfer rate (max): 42Mbps down; 5.76Mbps up
2G: GSM/EDGE, Edge Transfer rate (max): 236.8Kbps down & up

SIM Slot
2 x microSIM card slots

Ethernet

Standards
IEEE 802.3 10/100/1000BASE-T
IEEE 802.3u 100BASE-T(X)
IEEE 802.3ab 1000BASE-T(X)
IEEE 802.1x Flow control
Full/Half duplex mode
Auto MDI/MDI-X connection
Auto negotiation speed

Ports
1 x RJ-45 GbE (WAN/LAN Configurable) +2 x RJ-

45 GbE

Serial

Ports

1 x RS-232/RS485 (4-pin Terminal Block)

Signal

RS-232: TxD, RxD, GND

RS-485: D-/A, D+/B, GND

I/O

Analog Input

2 x AI

Conversion: 12bit ADC

Input Range: 0-10V

Resolution: 2.5mV

Digital Input

2 x DI (Isolated, "Logic 0": 0-2V, "Logic 1": 5-30V)

Digital Output

2 x DO (Isolated, Non-Relayed Output, 24V/300mA for each port)

Connector

10-pin Terminal Block

USB

Standards

USB 2.0 Host

Ports

1 x USB Type A

Antennas

Cellular

2 x SMA Female (Main & Aux.)

LED Indicators

System

PWR x 1; Status x 1

Data

LAN1, LAN2, LAN3/WAN, 4G1L, Serial, LoRa* (*LoRa Model Only)

Cellular Signal

4G1S

Power

Input

9-36VDC

AiR PACE 1-XX-CX: 14.5Watts (Max.), 8.5Watts (Typical)

AiR PACE 1-XX-CL: 17Watts (Max.), 11Watts (Typical)

Physical

Casing Material

Metal Case

IP Rating

IP30

Dimension

40 x 117.8 x 161.3mm (W x D x H)

40 x 127.4 x 161.3mm with DIN-Rail kit (W x D x H)

Weight

0.76kg (1.67lbs)

Installation Type

DIN-Rail mounting

Wall mounting Bracket* (*Optional)

Environment Limits

Operating Temp.

-30 to 70°C (-22 to 158°F)

Storage Temp.

-40 to 85°C (-40 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

Regulatory Approvals

Safety

EN 60950-1

EN 62368-1: 2014

Emissions/Immunity

CE/NCC BSMI

Appearance

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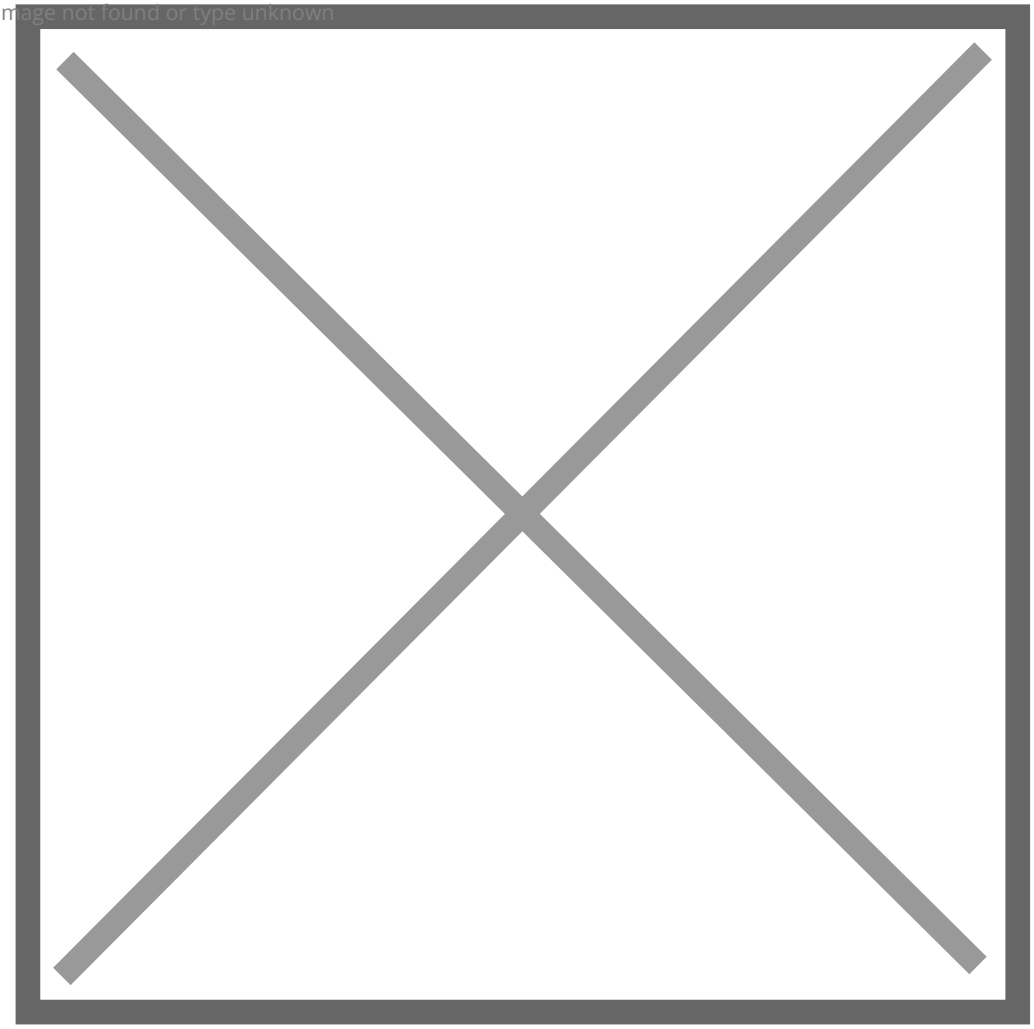

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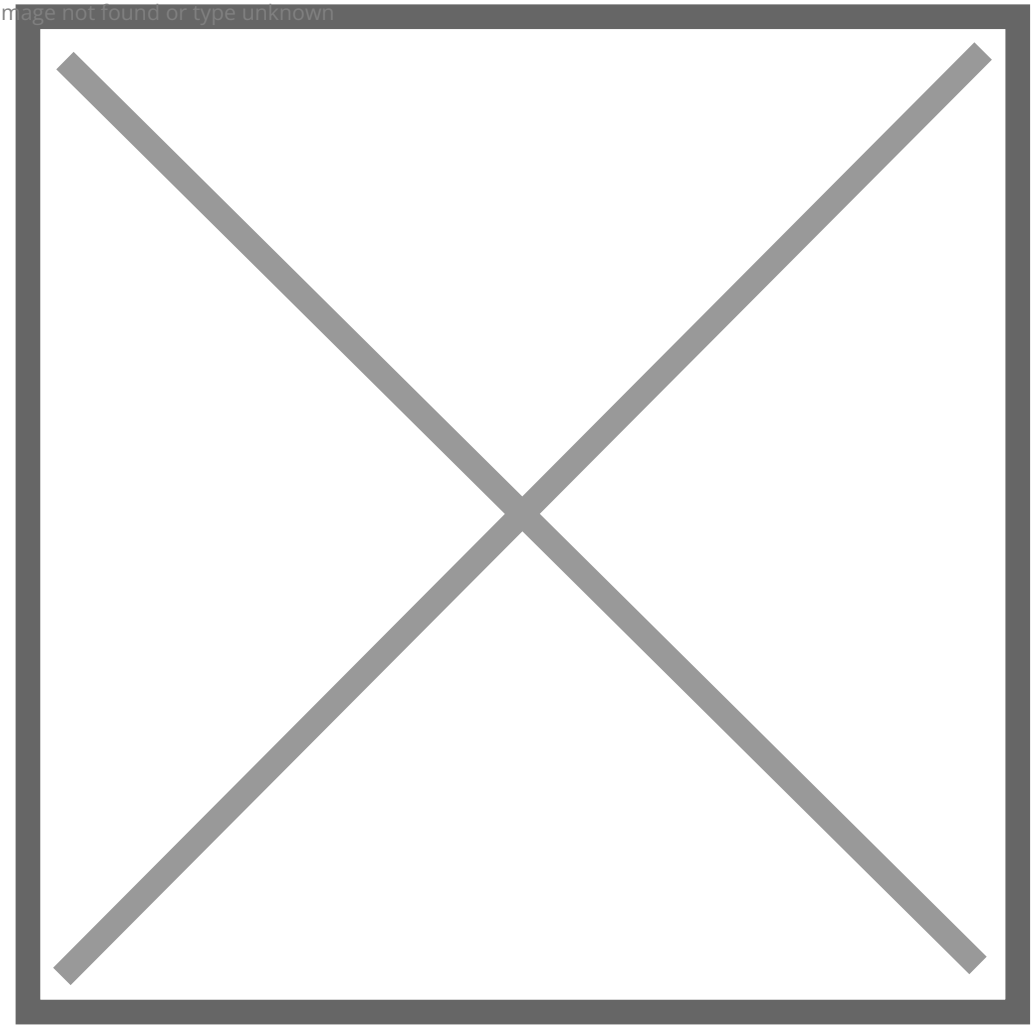

Ordering Info

4G LTE Gateway

Model	Description	RF	Region
AiR PACE 1-TA-CX	Industrial Smart IoT Edge Computing Gateway	Cellular LTE Cat. 4	Taiwan & Australia
AiR PACE 1-EA-CX	Industrial Smart IoT Edge Computing Gateway	Cellular LTE Cat. 4	EU & APAC

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