

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)

Sku Code	4G FDD LTE	LTE TDD LTE	3G WCDMA	2G GSM/EDGE	Region
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

 $2 \times AI$

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

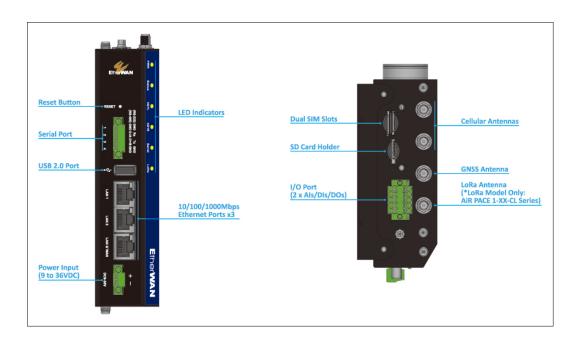
EN 62368-1: 2014

Emissions/Immunity

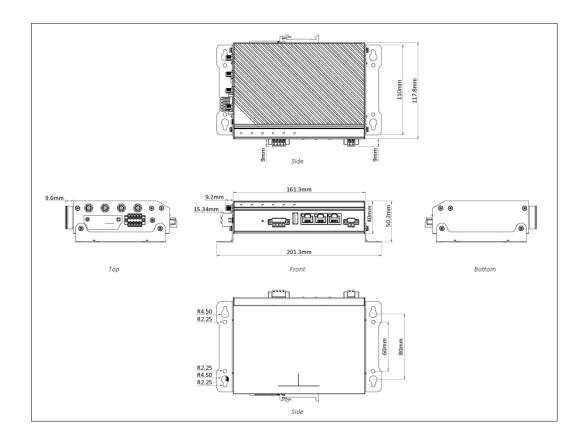
CE/NCC BSMI



Appearance



Dimensions





Ordering Info

+ 4G LTE Gateway

Model Description RF Region

AiR PACE 1-TA-CX Industrial Smart IoT Edge Computing GatewayCellular LTE Cat. 4Taiwan & Australia AiR PACE 1-EA-CX Industrial Smart IoT Edge Computing GatewayCellular LTE Cat. 4EU & APAC



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