# EKI-6333AC-M12 Series

# **EN50155 Industrial M12 Wi-Fi AP**



# **Features**

- Supports IEEE802.11ac MIMO 2T2R
- Supports WLAN transmission rates up to 867 Mbps
- Supports secure access with WEP, 802.1x, WPA/WPA2-Personal, WPA/WPA2-Enterprise
- Provides web-based configuration
- Supports dual bands 2.4/5GHz concurrent
- Designed with dual radio modules
- Anti-vibration M12 design
- Wide range power input 24/48/72/96/110 V<sub>DC</sub>



# Introduction

EKI-6333AC-M12 Industrial Wi-Fi AP is designed for railway applications, including rolling stock. EKI-6333AC-M12 supports AP/Bridge/Client modes and is designed with dual 2.4GHz/5GHz wireless modules. It also supports IEEE 802.11 a/b/g/n/ac concurrent dual bands with M12 connector to provide a reliable wireless connectivity for Industrial environments.

EKI-6333AC-M12 has high wireless connectivity performance for devices in remote locations where cable connections are impractical. EKI-6333AC-M12 provides ample bandwidth, even for video applications.

# **Specifications**

### **Ethernet Communications**

Port Type
 M12 X-Code (EKI-6333ACX)
 M12 D-Code (EKI-6333ACD)

No. of Ports

Speed 2 x 100/1000 Mbps EKI-6333ACX)
 2 x 10/100 Mbps (EKI-6333ACD)

#### **Wireless LAN Communications**

• **Compatibility** IEEE 802.11a/b/g/n/ac

No. of Radio

**Date Rates** 11b: 11M, 5.5M, 2M, 1Mbps

11a/g: 54M, 48M, 36M, 24M, 18M, 12M, 9M, 6Mbps

11n: HT20 MCS0 ~ 7 / HT40 MCS0 ~ 7 11ac: VHT20 MCS0 ~ 8 / VHT40 MCS0 ~ 9 / VHT80

MCS0 ~ 9

Antenna Connector
 2 x RP-SMA connectors (female) for RP-SMA antenna

(male)

No. of Antenna
 Free Space Range
 4 (supports 2T2R)
 Open space 100 m

Wireless Security Open System , Shared Key, Lagacy 8021X, WPA/WPA2,

WPA-PSK (TKIP), WPA2-PSK(AES)

Software

Management Web UI

Wireless
 Radio on/off, WMM/Regatta Mode, Output Power

Control, Fragmentation Length, Beacon Interval,

RTS/CTS threshold, DTIM Interval

• Protocol ARP, ICMP, IPv4, IPv6, TCP, UDP, DHCP Client, DNS,

HTTP, SNTP

Mechanics

• Enclosure Metal shell with solid mounting kits

Mounting Wall

■ **Dimensions (W x H x D)** 186 x 50.1 x104.8 mm (7.32" x 1.97" x 4.13")

• Weight 1.5 Kg

Interface

Console Port M12 A-Code female
 USB Port M12 A-Code female
 Power Connector M12 A-Code male (5-pin)

**Modulation Techniques** 

• IEEE 802.11a/n OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

■ **IEEE 802.11b** DSSS (DBPSK, DQPSK, CCK)

• IEEE 802.11g OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

**Channel Support** 

**IEEE 802.11b/g/gn** HT20

FCC: CH1 ~ CH11; ETSI: CH1 ~ CH13

• **IEEE 802.11gn** HT40

FCC: CH3 ~ CH9; ETSI: CH3 ~ CH11

• **IEEE 802.11a/an/ac** FCC: 5.15~5.25GHz;5.725~5.85GHz

ETSI: 5.15~5.25GHz;5.47~5.725GHz

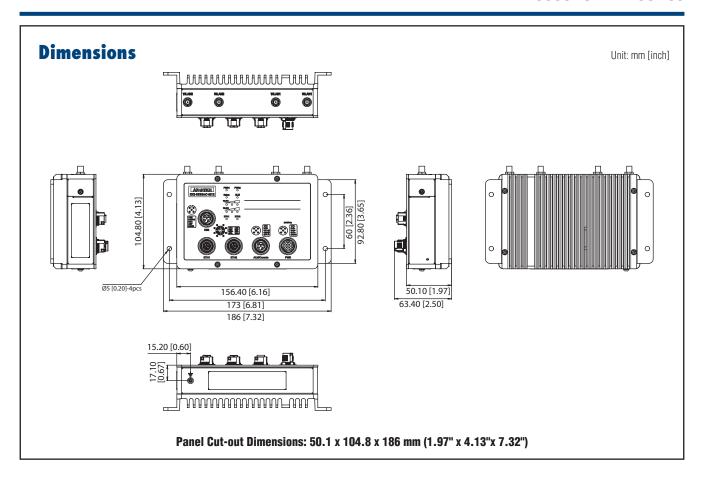
# **Wireless Transmission Rates**

• Transmitted Power 802.11b 20dBm

802.11a 18dBm @ 6 Mbps, 15dBm @ 54 Mbps 802.11g 21dBm @ 6 Mbps, 18dBm @ 54 Mbps 802.11n HT20 21dBm @ MCS0/8, 16dBm @ MCS7/15 802.11n HT40 20dBm @ MCS0/8, 16dBm @ MCS7/15 802.11ac VHT20 18dBm @ MCS0; 13dBm @ MCS8 802.11ac VHT40 18dBm @ MCS0; 13dBm @ MCS9 802.11ac VHT40 18dBm @ MCS0; 13dBm @ MCS9

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# **Power Requirements**

■ **Power Input** 24-48V<sub>DC</sub> (LV model), 72/96/110V<sub>DC</sub> (HV model)

Power Consumption 14W (LV model)/ 21W (HV model)

Power Type
 Dual Power

# **Environment**

Operating Temperature -20 ~ 60°C (-4 ~ 140°F)
 Storage Temperature -40 ~ 80°C (-40 ~ 176°F)

■ Operating Humidity 10 ~ 95% RH

# **Regulatory Approvals**

• EMC CE, FCC Part 15 Subpart B (Class B)

• Rail Traffic EN 50155

### **Receiver Sensitivity**

- 802.11b Sensitivity -95 dBm @ 1 Mbps; -80 dBm @ 11 Mbps - 802.11a/g Sensitivity -94 dBm @ 6 Mbps; -80 dBm @ 54 Mbps - 802.11n HT20 -93 dBm @ MCS0; -76 dBm @ MCS7 - 802.11n HT40 -92 dBm @ MCS0; -73 dBm @ MCS7 - 802.11ac VHT20 -93 dBm @ MCS0; -71 dBm @ MCS8 - 802.11ac VHT40 -90 dBm @ MCS0; -66 dBm @ MCS9 - 802.11ac VHT80 -88 dBm @ MCS0; -65 dBm @ MCS9

# **Ordering Information**

■ EKI-6333ACXL-M12-A IEEE802.11 a/b/g/n/ac AP/Bridge/Client with 24/48V<sub>DC</sub>, X-code Ethernet

■ EKI-6333ACXH-M12-A IEEE802.11 a/b/g/n/ac AP/Bridge/Client with 72/96/110V<sub>DC</sub>, X-code Ethernet

■ EKI-6333ACDL-M12-A IEEE802.11 a/b/g/n/ac AP/Bridge/Client with 24/48V<sub>DC</sub>, D-code Ethernet

• EKI-6333ACDH-M12-A IEEE802.11 a/b/g/n/ac AP/Bridge/Client with 72/96/110V<sub>DC</sub>, D-code Ethernet

• 1750008001-01 5dBi WIFI Antenna 2.4G/5GHz (not included)