

EKI-6340 Series

IEEE 802.11 a/b/g/n Outdoor Wi-Fi AP



Features

- High throughput multiple hopping (≥ 100 Mbps @10 hops)
- Ease of use installation utilities: antenna alignment, distance calculation and site survey tools
- Compliant with IEEE 802.11 a/b/g/n
- Up to 3 radios for wireless back haul and Access Point
- MIMO 2 x 2, up to 300 Mbps data rate
- Dual 12 ~ 48 V redundant DC input power
- 802.3 at PoE input
- Gigabit Ethernet support
- WEP, WPA, WPA2-PSK/EAP (IEEE 802.1X/RADIUS, TKIP and AES)
- IP67 enclosure, wide operating temperature range
- EN50155 compliant

Introduction

The EKI-6340 series are perfect wireless APs for outdoor deployment. It's especially critical for infrastructures where wired solutions are hard to deploy. The low latency and high throughput multiple hopping features greatly enables the extension of network coverage. This high throughput network perfectly covers the growing number of data demands such as video security, surveillance and entertainment. Comprehensive security features prevent system from intrusion. IP67 sturdy waterproof enclosure with wide-temperature design enables excellent performances under all harsh outdoor environments.

Specifications

Standard Support

- **Wireless** IEEE 802.11a/b/g/n compliant
- **Ethernet** IEEE 802.11i, IEEE 802.3/802.3u/802.3ab, IEEE 802.3at PoE, 802.1d, 802.1w, 802.1q, 802.1p
- **Data Rates** IEEE 802.11b: 1, 2, 5.5, 11 Mbps
IEEE 802.11a, g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
IEEE 802.11n: @ 800ns (400ns) GI
20 MHz BW
1 Nss: 65 (72.2) Mbps maximal
2 Nss: 130 (144.4) Mbps maximal
40 MHz BW
1 Nss: 135 (150) Mbps maximal
2 Nss: 270 (300) Mbps maximal

Physical Specifications

- **Power** Dual redundant 12 ~ 48 V_{DC}
IEEE 802.3at PoE
- **Power Consumption** Normal operation:
EKI-6340-1 Max. 17 W
EKI-6340-2 Max. 21 W
EKI-6340-3 Max. 25 W
Cold start:
EKI-6340-1 Max. 13 W
EKI-6340-2/3 Max. 25 W
- **Dimensions (W x H x D)** 225 x 242 x 65 (8.86" x 9.53" x 2.56")
- **Weight** 2.25 Kg
- **Enclosure** Metal, IP67 protection
- **Mounting** Pole, Wall, VESA

Environment

- **Operating Temperature** -35 ~ 75°C (-31 ~ 167°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Ambient Relative Humidity** 5% ~ 100% (non-condensing)

Interface

- **Antenna** N-type female connector
EKI-6340-1: 2 connectors
EKI-6340-2: 4 connectors
EKI-6340-3: 6 connectors
- **Power** M12 D-code connector
- **LAN** M25 cable gland

System Operation Mode

- Bridge/ Router

Other Features

- DHCP Client/Server, Statistic routing table, RIP v1&v2, WMM, Multi-SSID (up to 16x ESSID for each radio), traffic limitation, IEEE 802.11h DFS, Syslog, L2 management utility, HTTP (s), Telnet, SSH, CLI, SNMP, installation utilities.

Modulation Techniques

- **IEEE 802.11a/n** OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- **IEEE 802.11b** DSSS (DBPSK, DQPSK, CCK)
- **IEEE 802.11g/n** OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

Frequency Range

- **USA** 2.400 ~ 2.483 GHz, 5.725 ~ 5.825 GHz
- **Europe** 2.400 ~ 2.483 GHz, 5.15 ~ 5.35 GHz, 5.47 ~ 5.725 GHz
- **China** 2.400 ~ 2.483 GHz, 5.725 ~ 5.85 GHz

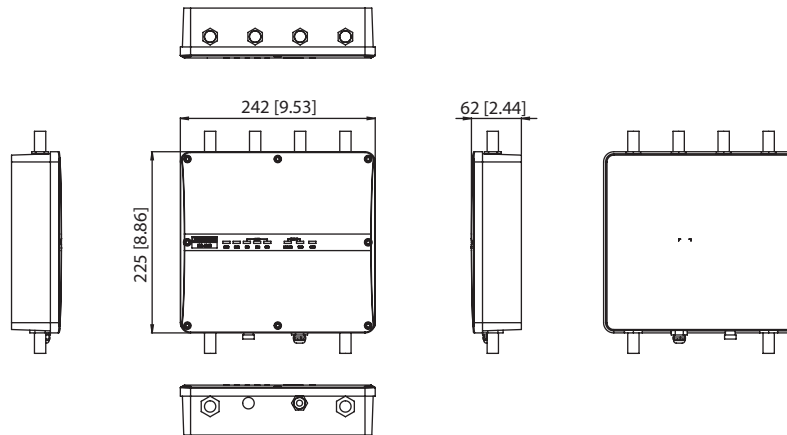
Note: radio is capable to be operated within FCC DFS2 band or ETSI/EC DFS band, or other countries which is regulating or is planning to regulate mid -5 GHz band. The usage of mid -5 GHz band is subject to the regulatory approval status.

Certificates

- **EMC** US FCC Part 15 Class B & C & E, Europe ETSI 301 489-1&17
- **Radio** ETSI 300 328, ETSI 301 893, FCC 15.247
- **Rail Traffic** EN50155, EN50121-1/-4
- **Safety** EN 60950

Dimensions

Unit: mm



Panel Cut-out Dimensions: 242 x 225 x 62 mm (9.53" x 8.86" x 2.44")

Ordering Information

- **EKI-6340-1A** 802.11 a/b/g/n Outdoor Single Radio AP
- **EKI-6340-2A** 802.11 a/b/g/n Outdoor Dual Radio AP
- **EKI-6340-3A** 802.11 a/b/g/n Outdoor Triple Radio AP
- **EKI-6340-1U** 802.11 a/b/g/n Outdoor Single Radio AP (EU)
- **EKI-6340-2U** 802.11 a/b/g/n Outdoor Dual Radio AP (EU)
- **EKI-6340-3U** 802.11 a/b/g/n Outdoor Triple Radio AP (EU)

Transmit Power Settings (Typical Composite Power) Tolerance: +2/-2 dB

| 802.11a | 802.11b | 802.11g | 802.11n 2.4GHz/HT20 | 802.11n 2.4GHz/HT40 | 802.11n 5GHz/HT20 | 802.11n 5GHz/HT40 |
|---------------------------------|---------|---------------------------------|---------------------|---------------------|--------------------|--------------------|
| +19 dBm @ 6, 9, 12, 18, 24 Mbps | +19 dBm | +22 dBm @ 6, 9, 12, 18, 24 Mbps | +20 dBm @ MCS 0/8 | +20 dBm @ MCS 0/8 | +18 dBm @ MCS 0/8 | +17 dBm @ MCS 0/8 |
| +18 dBm @ 36 Mbps | - | +21 dBm @ 36 Mbps | +20 dBm @ MCS 1/9 | +20 dBm @ MCS 1/9 | +18 dBm @ MCS 1/9 | +17 dBm @ MCS 1/9 |
| +17 dBm @ 48 Mbps | - | +20 dBm @ 48 Mbps | +20 dBm @ MCS 2/10 | +20 dBm @ MCS 2/10 | +18 dBm @ MCS 2/10 | +17 dBm @ MCS 2/10 |
| +15 dBm @ 54 Mbps | - | +18 dBm @ 54 Mbps | +20 dBm @ MCS 3/11 | +20 dBm @ MCS 3/11 | +18 dBm @ MCS 3/11 | +17 dBm @ MCS 3/11 |
| - | - | - | +20 dBm @ MCS 4/12 | +19 dBm @ MCS 4/12 | +18 dBm @ MCS 4/12 | +17 dBm @ MCS 4/12 |
| - | - | - | +20 dBm @ MCS 5/13 | +19 dBm @ MCS 5/13 | +18 dBm @ MCS 5/13 | +17 dBm @ MCS 5/13 |
| - | - | - | +18 dBm @ MCS 6/14 | +17 dBm @ MCS 6/14 | +17 dBm @ MCS 6/14 | +16 dBm @ MCS 6/14 |
| - | - | - | +16 dBm @ MCS 7/15 | +15 dBm @ MCS 7/15 | +13 dBm @ MCS 7/15 | +12 dBm @ MCS 7/15 |

Receiver Sensitivity

| | Data Rate | IEEE Spec (1 Rx dBm) | Typical/Maximum (2 Rx dBm) | | Data Rate | IEEE Spec (1 Rx dBm) | Typical/Maximum (2 Rx dBm) |
|----------------|-----------|----------------------|----------------------------|------------------|-----------|----------------------|----------------------------|
| 802.11a | 6M | -80 | -93/-89 | 802.11a/n HT40 | MCS0 | -77 | -89/-85 |
| | 9M | -79 | -93/-89 | | MCS1 | -74 | -88/-84 |
| | 12M | -77 | -92/-88 | | MCS2 | -72 | -85/-81 |
| | 18M | -75 | -90/-86 | | MCS3 | -69 | -82/-78 |
| | 24M | -72 | -86/-82 | | MCS4 | -65 | -80/-76 |
| | 36M | -68 | -83/-79 | | MCS5 | -61 | -76/-72 |
| | 48M | -64 | -79/-75 | | MCS6 | -60 | -74/-70 |
| | 54M | -63 | -77/-73 | | MCS7 | -59 | -72/-68 |
| 802.11b | 5.5M | -79 | -94/-90 | 802.11b/g/n HT20 | MCS0 | -81 | -94/-90 |
| | 11M | -75 | -90/-86 | | MCS1 | -78 | -93/-89 |
| 802.11g | 6M | -81 | -94/-90 | | MCS2 | -76 | -91/-87 |
| | 9M | -80 | -94/-90 | | MCS3 | -73 | -87/-83 |
| | 12M | -78 | -93/-89 | | MCS4 | -69 | -84/-80 |
| | 18M | -76 | -92/-88 | | MCS5 | -65 | -79/-75 |
| | 24M | -73 | -89/-85 | | MCS6 | -64 | -78/-74 |
| | 36M | -69 | -85/-81 | | MCS7 | -63 | -76/-72 |
| | 54M | -64 | -79/-75 | MCS0 | -78 | -89/-85 | |
| 802.11a/n HT20 | MCS0 | -80 | -93/-89 | 802.11b/g/n HT40 | MCS1 | -75 | -89/-85 |
| | MCS1 | -77 | -91/-87 | | MCS2 | -73 | -88/-84 |
| | MCS2 | -75 | -88/-84 | | MCS3 | -70 | -84/-80 |
| | MCS3 | -72 | -85/-81 | | MCS4 | -66 | -81/-77 |
| | MCS4 | -68 | -82/-78 | | MCS5 | -62 | -77/-73 |
| | MCS5 | -64 | -78/-74 | | MCS6 | -61 | -76/-72 |
| | MCS6 | -63 | -77/-73 | | MCS7 | -60 | -73/-70 |
| | MCS7 | -62 | -75/-71 | | | | |