Introduction

The EKI-6340 series are perfect wireless Mesh AP for your outdoor deployment. With self-healing & self-forming capabilities, the wireless network is free from interruption even part of Mesh nodes failed. It's especially critical to infrastructures where wired solutions are hard to deploy. The ultra-fast roaming seamlessly enables the applications of high-speed mobility. The low latency and high throughput multiple hopping features greatly enables the extension of network coverage. This high throughput Mesh network perfectly covers growing rich 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 802.3/802.3u/802.3ab, IEEE 802.3af 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 VDC
  IEEE 802.3af PoE
- Power Consumption Normal operation:
  EKI-6340-1 Max. 17 W
  EKI-6340-2 Max. 21W
  EKI-6340-3 Max. 25 W
  Cold start:
  EKI-6340-1 Max. 13W
  EKI-6340-2/3 Max. 25W
- 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/ Mesh

Other Features

- DHCP Client/Server, Static 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.
## EKI-6340 Series

### 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

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

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

<table>
<thead>
<tr>
<th>802.11a</th>
<th>802.11b</th>
<th>802.11g</th>
<th>802.11n 2.4GHz/HT20</th>
<th>802.11n 2.4GHz/HT40</th>
<th>802.11n 5GHz/HT20</th>
<th>802.11n 5GHz/HT40</th>
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</thead>
<tbody>
<tr>
<td>+19 dBm @ 6, 9, 12, 18, 24 Mbps</td>
<td>+19 dBm</td>
<td>-</td>
<td>+20 dBm @ MCS 0/8</td>
<td>+18 dBm @ MCS 0/8</td>
<td>+17 dBm @ MCS 0/8</td>
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<tr>
<td>+18 dBm @ 36 Mbps</td>
<td>-</td>
<td>+21 dBm @ 36 Mbps</td>
<td>+20 dBm @ MCS 1/9</td>
<td>+18 dBm @ MCS 1/9</td>
<td>+17 dBm @ MCS 1/9</td>
<td></td>
</tr>
<tr>
<td>+17 dBm @ 48 Mbps</td>
<td>-</td>
<td>+20 dBm @ 48 Mbps</td>
<td>+20 dBm @ MCS 2/10</td>
<td>+18 dBm @ MCS 2/10</td>
<td>+17 dBm @ MCS 2/10</td>
<td></td>
</tr>
<tr>
<td>+15 dBm @ 54 Mbps</td>
<td>-</td>
<td>+18 dBm @ 54 Mbps</td>
<td>+20 dBm @ MCS 3/11</td>
<td>+18 dBm @ MCS 3/11</td>
<td>+17 dBm @ MCS 3/11</td>
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<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+18 dBm @ MCS 4/12</td>
<td>+19 dBm @ MCS 4/12</td>
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<td>+20 dBm @ MCS 5/13</td>
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<td>+18 dBm @ MCS 6/14</td>
<td>+17 dBm @ MCS 6/14</td>
<td>+16 dBm @ MCS 6/14</td>
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<tr>
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<td>-</td>
<td>-</td>
<td>+16 dBm @ MCS 7/15</td>
<td>+15 dBm @ MCS 7/15</td>
<td>+13 dBm @ MCS 7/15</td>
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### Receiver Sensitivity

<table>
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<tr>
<th>Data Rate</th>
<th>IEEE Spec (1 Rx dBm)</th>
<th>Typical/Maximum (2 Rx dBm)</th>
<th>Data Rate</th>
<th>IEEE Spec (1 Rx dBm)</th>
<th>Typical/Maximum (2 Rx dBm)</th>
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<tbody>
<tr>
<td>802.11a</td>
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<tr>
<td>802.11b</td>
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<td>802.11g</td>
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Introduction

The EKI-6351-A are perfect wireless AP/stations for your deployment. With self-healing & self-forming capabilities, the wireless network is free from interruption even if part of the Mesh node fails. Ultra-fast roaming seamlessly enables the applications to achieve high-speed mobility. This high throughput Mesh network covers the increasing data demands of applications such as video security, surveillance and entertainment.

Comprehensive security features prevent the system from intrusion whilst the wide operating temperature range enables excellent performances in harsh outdoor environments.

Features

Unique features of EKI-6351-A
- Highly secured self-healing & self-forming Mesh capability
- Ultra-fast roaming (hand-over switch time ≤ 20 ms)
- High throughput multiple hopping (≥ 100 Mbps @ 10 hops)

Common features:
- Ease of use installation utilities: antenna alignment, distance calculation and site survey tools
- Compliant with IEEE 802.11a/b/g/n
- MIMO 2 x 2 11n, up to 300 Mbps data rate
- Dual 12 ~ 48 V redundant DC input power
- 802.3at PoE input
- Gigabit Ethernet support
- WEP, WPA, WPA2-PSK/TKIP (IEEE 802.1X/RADIUS, TKIP and AES)
- Wide operating temperature range from -35°C to 75°C
- EN50155 compliant

Specifications

Standard Support
- Wireless: IEEE 802.11a/b/g/n compliant
- Ethernet: IEEE 802.3u/802.3ab
- Data Rates: 802.11b: 1, 2, 5.5, 11 Mbps, 802.11a, g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- Passive 15 V PoE, max. distance: 20 meters
- IEEE 802.11n: @ 800ns (400ns) GI, 20 MHz BW, 1 Nss: maximal, 2 Nss: 130 (144.4) Mbps maximal, 2 Nss: 270 (300) Mbps maximal

Physical Specifications
- Power: Dual redundant 12 ~ 48 Vdc
- Power Consumption: Normal operation: Max. 17 W, Cold start: Max. 13 W
- Dimensions (W x H x D): 37 x 140 x 95 mm (1.46” x 5.51” x 3.74”)
- Weight: 0.63 Kg
- Enclosure: Metal, IP30 protection
- Mounting: DIN-rail, Wall

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: 2 x RSMA connector
- Power: Terminal block
- LAN: RJ45

System Operation Mode
- EKI-6351-A - Bridge/Router/Mesh

Other Features
- DHCP Client/Server*, Static 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.

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- Safety: EN 60950

Ordering Information
- EKI-6351-A: 802.11 a/b/g/n Wi-Fi Mesh AP/Station
- EKI-6351-U: 802.11 a/b/g/n Wi-Fi Mesh AP/Station (EU)