Intelligent LED Street Lighting

Apollo LED + Broadband Wireless – Apollo WiFi is an intelligent lighting option that has the capability to provide street wide or campus wide wireless access. The Apollo Metro Solutions design has the ability to have an all-in-one housing that incorporates a wireless MIMO radio to allow for WiFi Hotspots, remote backhaul for security cameras, and serves numerous other applications.

- Under the glass non obtrusive antenna option
- Supports 2.4GHz and 5GHz spectrum
- Standard 802.11a,b,g,n compatibility supporting speeds up to 1 Gbit/s
- External antenna option
- Mil-Spec components and IP67 rated
- Relay to overcome LOS issues

### General Comparison

<table>
<thead>
<tr>
<th>Color Temperature</th>
<th>Number of LEDs</th>
<th>Im/W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>2700K</td>
<td>9072</td>
<td>13608</td>
</tr>
<tr>
<td>3000K</td>
<td>10487</td>
<td>15717</td>
</tr>
<tr>
<td>3500K</td>
<td>11231</td>
<td>15717</td>
</tr>
<tr>
<td>4000K</td>
<td>11231</td>
<td>1647</td>
</tr>
<tr>
<td>4500K</td>
<td>11231</td>
<td>1647</td>
</tr>
<tr>
<td>5000K</td>
<td>11231</td>
<td>1647</td>
</tr>
<tr>
<td>Power in Watt at 1.4A</td>
<td>100.8</td>
<td>151.2</td>
</tr>
</tbody>
</table>

HPS in Watt | LED in Watt
---|---
400 | 135
250 | 80
150 | 50

General rule as Color Recognition Index (CRI), efficacy, secondary lenses and other factors play a role.

Learn more at [www.apollometro.com](http://www.apollometro.com) | [sales@apollometro.com](mailto:sales@apollometro.com) | +1 239 444 6934
Wireless Specifications

**Mechanical**
Luminaire Dimensions:
- 26x12x3” (660x305x76 mm)
Weight:
- 20 lbs (9 kg)
Mounting:
- 1.25-3” Mast Mount

**Environmental**
Operating temperature:
- -40º C to +85º C
Storage Temperature:
- -40º C to +90º C
Cooling:
- Convection cooled (no fans)
Humidity:
- 5% - 95% non-condensing

**Antenna**
- Internal 3dbi dipole antenna
- External Omni or Panel (optional)

**Power**
- Voltage:
  - 12 to 48 VDC
  - POE Passive / 802af optional
  - Refer to SL Spec Sheet for LED

**Networking**
- IP Compatibility:
  - IPv4 and IPv6
  - Integrated DHCP and DNS

**Wireless**
- SW Configurable Access Point, Client, Point to Point, Relay

**Security**
Encryption:
- AES-CTR-128/192/256
- AES-GCM-128/256
- AES-CCM-128
- WPA2 (802.11i)
VPN:
- PPTP Server & Client
- IPSEC
- DES, 3DES, 256-bit AES
- Encryption

**Management**
Access:
- Secure Browser-based GUI
- Serial CLI (physical access)
- SSH (network)
- SNMP monitoring

**Interfaces**
Ethernet:
- 2 x RJ45 Ethernet 10/100BT
Fiber: (optional)
- SFP
- Giga
- Full/Half Duplex
N Type Female Connector (optional)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>900 MHz</td>
<td>2.4 GHz 2x2 MIMO</td>
<td>3.65GHz</td>
<td>4.9 GHz</td>
<td>5GHz 2x2 MIMO</td>
</tr>
<tr>
<td>Avg. TX Power</td>
<td>28dBm, +/-1.5dB</td>
<td>26dBm, +/-1dB</td>
<td>26dBm, +/-1dB</td>
<td>26dBm, +/-1dB</td>
<td>27dBm, +/-2dB</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-20º C to +70º C</td>
<td>-40º C to +70º C</td>
<td>-40º C to +70º C</td>
<td>-40º C to +70º C</td>
<td>-20º C to +70º C</td>
</tr>
<tr>
<td>Internal Dipole Antenna</td>
<td>Up to 100m</td>
<td>Up to 100m</td>
<td>Up to 100m</td>
<td>Up to 100m</td>
<td>Over 100m</td>
</tr>
<tr>
<td>Outdoor Range (Antenna dependent)</td>
<td>1-5KM</td>
<td>1-5KM</td>
<td>1-5KM</td>
<td>1-5KM</td>
<td>1-5KM</td>
</tr>
</tbody>
</table>

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Networking Examples

**EXAMPLE 1**
- Access Point w/ Fiber Interface
- LED Driver 90-528VAC
- Fiber Optic Cable
- Standard Router or Media Converter

**EXAMPLE 2**
- Access Point w/ Ethernet Interface
- LED Driver 90-528VAC
- 24-48VDC POE UP TO 300 Ft Ethernet
- Standard POE Injector

**EXAMPLE 3**
- 2.4GHz Access Point w/ 5GHz Wireless Backhaul
- LED Driver 90-528VAC