# Atom OD04 Outdoor Low-Gain CPE





#### INTRODUCTION

The Baicells Atom OD04 Outdoor Low-Gain Customer Premise Equipment (CPE) provides superior wireless access performance and routing capabilities to bring broadband data and voice services to end-users. The CPE operates with standardized Long-Term Evolution (LTE) Time Division Duplexing (TDD) to enable highspeed, wireless communications.

Wireless and wired devices, including mobile phones, laptops, tablets, and other smart devices, can access the CPE simultaneously.

The product comes with a standard one-year warranty.

#### **FEATURES**

Note: Features may vary based on model or region.

- Supports LTE TDD Bands 40/41/42/43/48
  - Customization may be requested; contact sales\_na@baicells.com
- 2.5 GHz or 3.5 GHz models
- Complies with 3GPP Release 9 Cat4 standards
- 1000 Mbps Ethernet interface
- GUI-based local and remote management
- TR069 network management protocol support
- Cell lock, SIM lock, and pin lock
- User-friendly LED status indicators
- Built-in bipolar, directional, high-gain LTE antenna
- Power supply with PoE
- Pole or wall mount
- Wi-Fi assisted alignment

### **BASIC SPECIFICATIONS**

| LTE Standard       | 3GPP Release 9, Cat4  |
|--------------------|---|
| ETH LAN Port       | 1 RJ-45 port 10/100/1000 autosensing, auto-MDX, PoE             |
| LED Indicators     | LTE, SIM, LAN, PWR, LTE Signal                                  |
| USIM               | 1.8V/3V 2FF   |
| Restore Button     | Press for 10 seconds to restore the CPE to its factory settings |
| Power Supply       | Input: Universal range 100-240V AC<br>Output: PoE (24VDC, 0.5A) |
| Safe Voltage Range | 24 VDC ± 10%  |
| Dimensions (HxWxD) | 9.5 x 6 x 2 inches<br>241 x 154 x 50 millimeters                |
| Weight             | 2 lbs / 900 g   |

#### **RF SPECIFICATIONS**

| LTE Mode           | TDD                                       |
|--------------------|---|
| Channel Bandwidth  | 5/10/15/20 MHz                            |
| MAX Output Power   | 23 dBm (±2)                               |
| Frequency Bands    | 40/41/42/43/48 and customized             |
| Peak Rate (20 MHz) | DL 100 Mbps, UL 10 Mbps (2:7)             |
| Modulation         | DL: QPSK, 16QAM, 64QAM<br>UL: QPSK, 16QAM |

| Receive Sensitivity         | -94 dBm @ QPSK, 20 MHz, 25°C                               |
|-----------------------------|--|
| Antenna Type                | Internal directional, 1T2R                                 |
| Antenna Gain                | 14 dBi @ 3.x GHz, 2 ports<br>11 dBi @ 2.x GHz, 2 ports     |
| Antenna Polarization        | ±45  |
| Antenna Efficiency          | >70%   |
| Isolation                   | ≤-25dB   |
| VSWR                        | ≤2   |
| Horizontal Beamwidth (3 dB) | • 63 ±3° @ 2.x GHz, 2 ports<br>• 60 ±3° @ 3.x GHz, 2 ports |
| Vertical Beamwidth (3 dB)   | • 35 ±3° @ 2.x GHz, 2 ports<br>• 25 ±5° @ 3.x GHz, 2 ports |

## **SOFTWARE SPECIFICATIONS**

| Network Mode       | NAT or Bridge  |
|--------------------|--|
| IP Protocol        | IPv4/IPv6  |
| SIM                | PIN management. SIM lock   |
| Network Connection | Auto or Manual   |
| LTE Scan Mode      | Full band scan, frequency lock   |
| WLAN               | WPS; MSSID isolation   |
| VPN                | L2TP, GRE, PPTP  |
| NAT                | Port forwarding, DMZ, ALG  |
| Firewall           | IP/MAC/URL filter; access control;<br>block port scanner/SYN flood   |
| Network Mgmt       | TR069, SNMP  |
| Diagnostics        | TCP dump, ping, traceroute   |
| Statistics         | LTE status; connection/system up<br>time; device status; DHCP client list;<br>Wi-Fi station list; LTE status; firewall<br>status |
| Maintenance        | Data and time setting; reboot; restore factory settings; restore or back up configuration file; firmware upgrade locally or OTA  |
| System Logs        | Operating; run-time; filter / select / display / export  |

# WI-FI ALIGNMENT SPECIFICATIONS

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|---------------------|--|--|
| Standard            | IEEE 802.11b/g/n   |  |
| Channel Bandwidth   | 20/40 MHz  |  |
| Frequency           | 2.4 GHz  |  |
| Peak Rate           | <ul><li>802.11b: 11 Mbps</li><li>802.11g: 54 Mbps</li><li>802.11n: 300 Mbps</li></ul>  |  |
| Modulation          | DSSS/CCK, OFDM   |  |
| Receive Sensitivity | <ul> <li>-64 dBm @ 65 Mbps, typical for 802.11n</li> <li>-65 dBm @ 54 Mbps, typical for 802.11g</li> <li>-76 dBm @ 11 Mbps, typical for 802.11b</li> </ul> |  |
| Max Output Power    | 10 ± 3dBm  |  |
| Antenna Type        | Internal omni, 1T1R  |  |
| Antenna Gain        | 0 dBi  |  |

## **ENVIRONMENTAL SPECIFICATIONS**

| Operating<br>Temperature  | -40°F to 131°F / -40°C to 55°C |
|---------------------------|--------------------------------|
| Storage Temperature       | -40°F to 158°F / -40°C to 70°C |
| Operating Humidity        | 5% to 95%                      |
| Ingress Protection Rating | IP65                           |

# **GLOBAL PART NUMBERS**

| EG7035L-M1  | Atom Outdoor Cat4, 1T2R, 2.5 GHz, 11 dBi, B40/41 Gen 2 CPE  FCC certification: 2AG32EG7035L96 (2496-2690 MHz)  IC certification: 20982-EG7035LM1 (2570-2620 MHz)     |
|-------------|--|
| EG7035L-M11 | Atom Outdoor Cat4, 1T2R, 3.5 GHz, 14 dBi, B42/43/48 Gen 2 CPE  FCC certification: 2AG32EG7035L96 (3550-3700 MHz)  IC certification: 20982-EG7035LM11 (3450-3650 MHz) |

## Notes:

- 1 Other models available for other regions. Contact sales\_na@Baicells.com.
- 2 Customized versions may be requested.