



INTRODUCTION

The Baicells AtomOD04H Outdoor Customer Premise Equipment (CPE) provides superior performance and excellent routing capabilities, which delivers broadband data and voice services to end-users. It operates on standard LTE FDD or TDD to enable high-speed, wireless communications.

The AtomOD04H enables improved wireless coverage in environments where there is blockage or partial blockage, like dense trees or buildings, in the wireless signal path between the CPE and eNBs.

Wireless and wired devices, including mobile phones, laptops, tablets, and other smart devices, can simultaneously access the Customer Premise Equipment (CPE).

The product comes with a standard one-year warranty; an extended warranty is available.

HIGHLIGHTS

NOTE: Features can vary based on model or region.

- Supports LTE FDD and TDD Bands 7/38/40/41/42/43/48
- Complies with 3GPP Release 9 CAT4 standards
- 100 Mbps Ethernet interface
- Peak data rate of up to DL 100 Mbps, UL 10 Mbps
- 64QAM for DL and 16QAM for UL as the highest order modulation formats.
- Built-in bipolar directional LTE antenna
- GUI-based local and remote Web management
- Excellent Non-Line-of-Sight (NLOS) coverage
- Supports TR069 network management protocol
- Cell lock, SIM lock, and pin lock
- User-friendly LED status indicators
- Pole or wall mounted
- Wi-Fi assisted alignment
- Transparent bridge mode* (L2 Support).

TECHNOLOGY

LTE Standard	3GPP Release9, CAT4
LTE Mode	TDD/FDD
Channel Bandwidth	5/10/15/20 MHz
Frequency Bands	<ul style="list-style-type: none"> FDD Mode: B7 (UL: 2500 MHz - 2570 MHz, DL:2620 MHz - 2690 MHz) TDD Mode: B38 (2570 MHz - 2620 MHz) B40 (2300 MHz - 2400 MHz) B41 (2496 MHz - 2690 MHz) B42 (3400 MHz – 3600 MHz) B43 (3600 MHz – 3800 MHz) B48 (3550 MHz – 3700 MHz)
Multiplexing	DL 2x2MIMO
Security	Firewall: IP/MAC/URL filter; ACL rule

INTERFACE

Ethernet Interface	1 RJ-45 port 10/100 auto-sensing, auto-MDX, PoE
Protocols Used	IPv4/IPV6, UDP, TCP, IP, ICMP, SNMPv2c, SNMPv3c, HTTPS, SSH, TELNET, TR069, CBSD
Network Management	Web GUI, ACS, OMC, SNMP
VLAN	802.1Q

PERFORMANCE

Peak Rate	20MHz	DL (2x2 MIMO, 64QAM)	UL (16QAM)
	FDD		100 Mbps
TDD UL/DL Config. 1		80 Mbps	20 Mbps
TDD UL/DL Config. 2		100 Mbps	10 Mbps
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM		

Receive Sensitivity	<-94 dBm @QPSK, 20MHz, 25°C
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MODULATION LEVELS (TDD UL/DL CONFIG 2)

DL MCS	DL Modulation	CQI Index	Theoretical Data Rate
0 - 9	QPSK	1 - 6	3Mbps - 21Mbps
10 - 16	16QAM	7 - 9	21Mbps - 41Mbps
17 - 28	64QAM	10 - 15	41Mbps - 100Mbps

UL MCS	UL Modulation	Theoretical Data Rate
0 - 10	QPSK	0.5Mbps - 3.5Mbps
11 - 20	16QAM	3.5Mbps - 10Mbps

FEATURES

Network Mode	NAT or Bridge
SIM	PIN management, SIM lock
Network Connection	Auto or manual
LTE Scan Mode	Full band scan or frequency lock
VPN	L2TP L2/L3, GRE L2/L3, PPTP, L2 VxLAN, OpenVPN
NAT	Port forwarding, port trigger, DMZ, ALG
Diagnostics	Ping, traceroute
Statistics	LTE status; connection/system up time; device status; DHCP client list; Wi-Fi station list; firewall status
Maintenance	Date and time setting; reboot; restore factory settings; restore or back up configuration file; firmware upgrade locally or OTA

LINK BUDGET

Antenna Type	Internal directional, 1T2R
Antenna Gain	M1/M10:14dBi M11:19.5dBi
Max Transmit Power	23dBm
Maximum EIRP	M1/M10:37Bm

	M11:42.5dBm
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PHYSICAL

IP Protection Rating	IP65
LED Indicators	MIU, 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
Temperature	<ul style="list-style-type: none">Operating Temperature: -40°F to 131°F / -40°C to 55°CStorage Temperature: -40°F to 158°F / -40°C to 70°C
Humidity	5%~95%
Power Consumption	<10 W
Power Supply	With PoE Adaptor: <ul style="list-style-type: none">INPUT 100-240VACOUTPUT 24VDC 0.5A
Weight	About 4.4lbs / 2 kg
Dimensions	9.8 x 9.8 x 3.2 inches / 248 x 248 x 80 millimeters

WI-FI ALIGNMENT SPECIFICATIONS

Standard	IEEE 802.11b/g/n
Channel Bandwidth	20/40 MHz
Frequency	2.4 GHz
MIMO	1x1
Peak Rate	802.11b: 11 Mbps 802.11g: 54 Mbps 802.11n: 150 Mbps
Modulation	DSSS/CCK, OFDM
Receive Sensitivity	-64 dBm @ 65 Mbps, typical for 802.11n -65 dBm @ 54 Mbps, typical for 802.11g -76 dBm @ 11 Mbps, typical for 802.11b
Max Output Power	10 ± 3 dBm
Antenna Type	Internal omni, 1T1R
Antenna Gain	<1 dBi

GLOBAL PART NUMBERS

EG7035E-M1	Atom Outdoor Cat4, 1T2R, 14 dBi, Band40/41, internal directional antenna, 1 FE, PoE 24V, IP67 <ul style="list-style-type: none"> FCC certification: 2AG32EG7035E (2496-2690 MHz) IC certification: 20982-EG7035EM1 (2570-2620 MHz)
EG7035E-M10	Atom Outdoor Cat4, 1T2R, 14 dBi, Band7/38, internal directional antenna, 1 FE, PoE 24V, IP67
EG7035E-M11	Atom Outdoor Cat4, 1T2R, 19.5 dBi, Band42/43/48, internal directional antenna, 1 FE, PoE 24V, IP67 <ul style="list-style-type: none"> FCC certification: 2AG32EG7035E (3650-3700 MHz) IC certification: 20982-EG7035E (3450-3700 MHz)

NOTE: Customized versions can be requested.

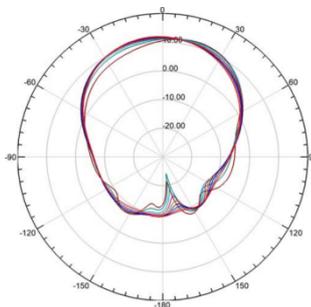
* Planned for future release

ANTENNA PATTERN

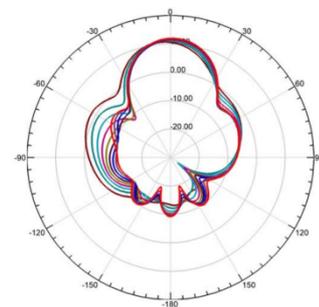
EG7035E-M1

EG7035E-M10

3701000256



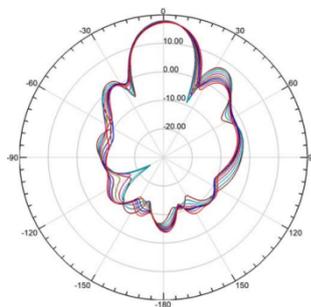
H-Pattern



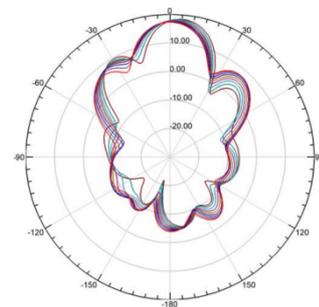
V-Pattern

EG7035E-M11

3701000141



H-Pattern



V-Pattern