

Atom OD04-14 Outdoor UE



INTRODUCTION

The Baicells Atom OD04-14 Outdoor User Equipment (UE) provides superior wireless access performance and comprehensive routing capabilities to bring wireless broadband data and voice services to end-users. It converts high-speed LTE TDD signals to Wi-Fi signals on the local area network. Wireless and wired devices, including mobile phones, laptops, tablets, laptop computers, printers, and other smart devices, can access the UE simultaneously.

FEATURES

- Supports TDD and FDD LTE network modes:
 - TDD bands 38, 40, 41, 42, 43, and 48
 - FDD band 7
- 10/100 Mbps Ethernet interface
- Simple, local and remote Web GUI management
- Built-in bipolar directional high-gain LTE antenna
- TR069 network management protocol
- Cell lock, SIM lock, and Pin lock
- User-friendly LED indicators
- Power supply with PoE
- Pole or wall mount
- Wi-Fi assisted alignment

BASIC SPECIFICATIONS

LTE Standard	3GPP Release 9, CAT4
Ethernet LAN Port	1 RJ-45 port 10/100 auto-sensing, auto-MDX, PoE
LED Indicators	MIU/LTE/SIM/LAN/PWR/LTE SIGNAL
USIM	1.8V/3V 2FF
Restore Button	Tactile button. Press for at least 10 seconds to restore UE to factory settings
Power Supply	Input: Universal range 100V to 240V AC Output: PoE (24VDC, 0.5A)
Dimensions (HxWxD)	9.5 x 6 x 2 inches 241 x 154 x 50 millimeters
Weight	2 lbs (900 g)

RF SPECIFICATIONS

LTE Mode	TDD/FDD
Channel Bandwidth	5 / 10 / 15 / 20 MHz
MAX Output Power	23 dBm (±2)
TXRX	1T2R
Frequency Bands	Bands 7/38, 40/41, 42/43/48
Antenna Gain	14 dBi @ 3.x GHz, 2 ports 11 dBi @ 2.x GHz, 2 ports
Peak Rate	FDD: DL100 Mbps, UL 50 Mbps TDD: 100 Mbps, UL 10 Mbps (2:7)

Modulation	<ul style="list-style-type: none"> • UL: QPSK, 16QAM • DL: QPSK, 16QAM, 64QAM
Receive Sensitivity	-94 dBm @ QPSK, 20 MHz, 25°C
Antenna Type	Internal directional
Polarization	±45
Antenna Efficiency	>70%
Isolation	≤-25dB
VSWR	≤2
Horizontal Beamwidth (3 dB)	<ul style="list-style-type: none"> • 63 ±3° @ 2.x GHz, 2 ports • 60 ±3° @ 3.x GHz, 2 ports
Vertical Beamwidth (3 dB)	<ul style="list-style-type: none"> • 35 ±3° @ 2.x GHz, 2 ports • 25 ±5° @ 3.x GHz, 2 ports

*Different models support different frequencies, antennas, and Carrier Aggregation configurations.

SOFTWARE SPECIFICATIONS

Network Mode	NAT / Bridge / Tunnel
IP Protocol	IPv4 / IPv6
SIM	PIN management SIM lock
Network Connection Management	Auto / Manual
LTE Scan Mode	Full band scan, frequency lock
WLAN	WPS; MSSID isolation
VPN	L2TP, GRE, PPTP
NAT	<ul style="list-style-type: none"> • Port forwarding • DMZ • ALG
Firewall	<ul style="list-style-type: none"> • IP / MAC / URL filter • Access control • Block port scanner / SYN flood
Network Management	TR069, SNMP
Diagnostics	<ul style="list-style-type: none"> • TCP dump • Ping • Traceroute
Maintenance	<ul style="list-style-type: none"> • Date and time setting • Reboot • Restore factory settings • Restore / back up configuration files • Firmware upgrade locally or OTA
System Logs	<ul style="list-style-type: none"> • Operating • Run-time • Filter / select / display / export
Statistics	LTE status; connection, system up time; device status; DHCP client list; Wi-Fi station list; LTE & firewall status

WI-FI SPECIFICATIONS

Standard	IEEE 802.11b/g/n
Channel Bandwidth	20/40 MHz
Frequency	2.4 GHz
TXRX	1T1R
Peak Rate	<ul style="list-style-type: none"> • 802.11b: 11 Mbps • 802.11g: 54 Mbps • 802.11n: 300 Mbps
Modulation	DSSS/CCK, OFDM
Receive Sensitivity	<ul style="list-style-type: none"> • -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 ± 3dBm
Antenna Type	Internal omni
Antenna Gain	0 dBi

ENVIRONMENTAL SPECIFICATIONS

Operating 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 UE, 2.5 GHz, 14 dBi, B40/41, Gen 2
EG7035L-M2	Atom Outdoor Cat4 UE, 3.5 GHz, 14 dBi, B 42/43, Gen 2