

# Atom ODo4-19.5 Outdoor UE



## INTRODUCTION

The Baicells Atom OD04-19.5 Outdoor User Equipment (UE), based on Long-Term Evolution (LTE) Time Division Duplexing (TDD) technology, provides superior wireless access performance and comprehensive routing capabilities to bring wireless broadband data and voice services to end-users. Wireless and wired devices, including mobile phones, laptops, tablets and other smart devices, can access the UE simultaneously.

## FEATURES

- Supports LTE TDD bands 38, 40, 41, 42, 43, 48
- Complies with 3GPP Release 9 CAT 4 standards
- 100 Mbps Ethernet interface
- Simple local and remote Web GUI management
- Built-in LTE bipolar directional high-gain 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 button 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)	9.8 x 9.8 x 3.2 Inches 248 x 248 x 80 millimeters
Weight	4 lbs (1800 g)

## RF SPECIFICATIONS

LTE Mode	TDD
Channel Bandwidth	5/10/15/20 MHz
MAX Output Power	23± 2dBm
TXRX	1T2R
Frequency Bands	TDD 38, 40, 41, 42, 43, 48
Antenna Gain	• 14 dBi @ 2.x GHz, 2 ports • 19.5 dBi @ 3.x GHz, 2 ports
Peak Rate	DL 100 Mbps, UL 10 Mbps (2:7)

Modulation	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	≤ -20dB
VSWR	≤ 2.5
Horizontal Beamwidth (3 dB)	<ul style="list-style-type: none"> <li>• 35 ±5° @ 2.x GHz, 2 ports</li> <li>• 25 ±5° @ 3.x GHz, 2 ports</li> </ul>
Vertical Beamwidth (3 dB)	<ul style="list-style-type: none"> <li>• 35 ±5° @ 2.x GHz, 2 ports</li> <li>• 25 ±5° @ 3.x GHz, 2 ports</li> </ul>

## 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, VLAN
VPN	L2TP, GRE, PPTP, L2 VxLAN
NAT	Port forwarding, port trigger, DMZ, ALG
Statistics	<ul style="list-style-type: none"> <li>• LTE status / connection time / system up time</li> <li>• Device status</li> <li>• DHCP client list</li> <li>• Wi-Fi station list</li> <li>• LTE status</li> <li>• Firewall status</li> </ul>
Firewall	<ul style="list-style-type: none"> <li>• IP / MAC / URL filter</li> <li>• Access control</li> <li>• Block port scanner / SYN flood</li> <li>• SPI filter</li> </ul>
Network Management	TR069, SNMP
Diagnostics	TCP dump, ping, traceroute
Maintenance	<ul style="list-style-type: none"> <li>• Date and time setting</li> <li>• Reboot &amp; restore factory settings</li> <li>• Restore / back up configuration files</li> <li>• Firmware upgrade locally or OTA</li> </ul>
System Logs	Operating Run-time Filter / select / display / export

## 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"> <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 style="list-style-type: none"> <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 ± 3 dBm
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	IP67

## GLOBAL PART NUMBERS

EG7035E-M1	Atom Outdoor Cat4 UE, 2.5 GHz, 14 dBi, B41, Gen 2
EG7035E-M2	Atom Outdoor Cat4 UE, 3.65 GHz, 19.5 dBi, B42/43, Gen 2
EG7035E-M11	Atom Outdoor Cat4 UE, 1T2R, 1FE, PoE 24V, IP67, TDD Bands 42/43/48