Photon ID63M EG3661M

Baicells
Connect More with Less

INTRODUCTION

Baicells 5G indoor CPE supports two network architectures, 5G Standalone (SA) and non-Standalone (NSA), with faster transmission speed, better bearing capacity and lower network delay.

CPE supports 5G Sub6 band access to base station, LAN side supports WIFI6/WIFI6E access, providing perfect experience for customers in laptop, gateway, industrial monitoring, telemedicine, unmanned aerial vehicle, virtual reality and immersive experience (VR and AR).

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

HIGHLIGHTS

NOTE: Features can vary based on model or region.

- 5G SA/NSA Dual mode
- Supports NR Bands
  N1/N2/N3/N5/N7/N8/N12/N13/N14/N18/N20/N25/N26/N28/N29/N30/N38/N40/N41/N48/N66/N70/N71/N75/N76/N77/N78/N79
- Supports TDD Bands
  B34/B38/B39/B40/B41/B42/B43/B46(LAA)/B48(CBRS)
- Supports LTE FDD Bands
  B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
- Complies with 3GPP Release 16 standards
- 1000 Mbps Ethernet interface
- Supports WiFi6 and WIFI6E, Three-bands(WIFI 2.4GHz 5GHz 6GHz)
- Peak data rate of up to NR SA DL 2500 Mbps, UL 900 Mbps; NR NSA DL 3500Mbps, UL 555Mbps
- 256QAM for DL and 256QAM for UL as the highest order modulation formats.
- Built-in Omni-directional 5G and Wi-Fi antennas
- 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
- Transparent bridge mode (L2 Support).
- Support eSIM*

TECHNOLOGY

Standard	3GPP Release16
Mode	TDD/FDD
Channel Bandwidth	NR: 5~100 MHz LTE: 100 MHz as maximum aggravated bandwidth (5 CC) EN-DC: 80+100 MHz (4DL + FR1)
Frequency Bands	N1 (UL:1920 MHz - 1980 MHz)(DL:2110 MHz - 2170 MHz) N2 (UL:1850 MHz - 1910 MHz)(DL:1930 MHz - 1990 MHz) N3 (UL:1710 MHz - 1785 MHz)(DL:1805 MHz - 1880 MHz) N5 (UL:824 MHz - 849 MHz)(DL:869 MHz - 894 MHz) N7 (UL:2500 MHz - 2570 MHz)(DL:2620 MHz - 2690 MHz) N8 (UL:880 MHz - 915 MHz)(DL:925 MHz - 960 MHz) N12 (UL:699 MHz - 716 MHz)(DL:729 MHz - 746 MHz) N13 (UL:777MHz - 787MHz)(DL:746MHz - 756MHz) N14 (UL:788 MHz - 798 MHz)(DL:758 MHz - 768 MHz) N18 (UL:815MHz - 830MHz)(DL:860MHz - 875MHz) N20 (UL:832 MHz - 862 MHz)(DL:791 MHz - 821 MHz) N25 (UL:1850 MHz - 1915 MHz)(DL:1930 MHz - 1995 MHz) N26 (UL:814MHz - 849MHz)(DL:859MHz - 894MHz) N28 (UL:703 MHz - 748 MHz)(DL:758 MHz - 803 MHz) N29 (DL:717MHz - 728MHz) N30 (UL:2305 MHz - 2315 MHz)(DL:2350 MHz - 2360 MHz) N38 (2570 MHz - 2620 MHz) N40 (2300 MHz - 2400 MHz) N41 (2496 MHz - 2690 MHz) N48 (3550 MHz - 3700 MHz) N66 (UL:1710 MHz - 1780 MHz)(DL:2110 MHz - 2200 MHz) N70 (UL:1695 MHz - 1710 MHz)(DL:1995 MHz - 2020 MHz) N71 (UL:663 MHz - 698 MHz)(DL:617MHz - 652 MHz) N75 (DL:1432 MHz - 1517MHz) N76 (DL:1427 MHz - 1432 MHz)

	N77 (3300 MHz - 4200 MHz)
	N78 (3300 MHz - 3800 MHz)
	N79 (4400MHz - 5000MHz)
	B1 (UL:1920 MHz - 1980 MHz)(DL:2110 MHz - 2170 MHz)
	B2 (UL:1850 MHz - 1910 MHz)(DL:1930 MHz - 1990 MHz)
	B3 (UL:1710 MHz - 1785 MHz)(DL:1805 MHz - 1880 MHz)
	B4 (UL:1710 MHz - 1755 MHz)(DL:2110 MHz - 2155 MHz)
	B5 (UL:824 MHz - 849 MHz)(DL:869 MHz - 894 MHz)
	B7 (UL:2500 MHz - 2570 MHz)(DL:2620 MHz - 2690 MHz)
	B8 (UL:880 MHz - 915 MHz)(DL:925 MHz - 960 MHz)
	B12 (UL:699 MHz - 716 MHz)(DL:729 MHz - 746 MHz)
	B13 (UL:777 MHz - 787 MHz)(DL:746 MHz - 756 MHz)
	B14 (UL:788 MHz - 798 MHz)(DL:758 MHz - 768 MHz)
	B17 (UL:704MHz - 716MHz)(DL:734MHz - 746MHz)
	B18 (UL:815MHz - 830MHz)(DL:860MHz - 875MHz)
	B19(UL:830MHz - 845MHz)(DL:875MHz - 890MHz)
	B20 (UL:832 MHz - 862 MHz)(DL:791 MHz - 821 MHz)
	B25 (UL:1850 MHz - 1915MHz)(DL:1930 MHz - 1995 MHz)
	B26 (UL:814MHz - 849MHz)(DL:859MHz - 894 MHz)
	B28 (UL:703 MHz - 748 MHz)(DL:758 MHz - 803 MHz)
	B29 (DL:717 MHz - 728 MHz)
	B30 (UL:2305 MHz - 2315 MHz)(DL:2350 MHz - 2360 MHz)
	B32 (DL:1452 MHz - 1496 MHz)
	B34 (2010MHz - 2025MHz)
	B38 (2570 MHz - 2620 MHz)
	B39 (1880 MHz - 1920 MHz)
	B40 (2300 MHz - 2400 MHz)
	B41 (2496 MHz - 2690 MHz)
	B42 (3400 MHz - 3600 MHz)
	B43 (3600 MHz - 3800 MHz)

	B46 (5150 MHz - 5925 MHz) B48 (3550 MHz - 3700 MHz) B66 (UL:1710 MHz - 1780 MHz)(DL:2110 MHz - 2200 MHz) B71 (UL:663 MHz - 698 MHz)(DL:617 MHz - 652 MHz)
Multiplexing	LTE: DL 4x4 MIMO NR: DL 4x4 MIMO, UL 2x2MIMO
Security	Firewall: IP/MAC/URL filter; ACL rule

INTERFACE

Ethernet Interfaced	3 RJ-45 port 10/100/1000 auto-sensing, auto-MDX, WAN/LAN
Protocols Used	IPv4/IPV6, UDP, TCP, IP, ICMP, SNMPv2c, SNMPv3c, HTTPS, SSH, TELNET, TR069, TR104, CBSD
Network Management	Web GUI, ACS, OMC, SNMP
VLAN	802.1Q

PERFORMANCE

Peak Rate		**DL (Mbps)**	**UL (Mbps)**
	NR SA	Max. 2500	Max. 900
	NR NSA	Max. 3500	Max. 555
	LTE	Max. 1600	Max. 211
Modulation	DL: QPSK, 16QAM, 64QAM, 256QAM UL: QPSK, 16QAM, 64QAM, 256QAM		
Carrier Aggregation	LTE: Up to 5DL / 4UL EN-DC: Up to LTE 5DL + NR 1DL or LTE 2DL + NR 2DL / LTE 3UL + NR 1UL NR SA: Up to 2DL* / 2UL		
Receive Sensitivity	N41 (100MHz), -85.8dBm N48 (20MHz), -96.6dBm N77 (100MHz), -87.4dBm N78 (100MHz), -87.7dBm		

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
NAT	Port forwarding, port trigger, DMZ, ALG
Diagnostics	TCP dump, 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
CBRS	Automatic installation of CBSD certificate*

LINK BUDGET

Antenna Type	Internal **omni**, 2T4R
Antenna Gain	1~6 dBi
Max Transmit Power	LTE: 26dBm for B38/41/42/43*,otherwise 23dBm. NR:29dBm for N41/77/78/79*,26dBm for N38/40,otherwise 23dBm (combined, to regional EIRP limit)
Maximum EIRP	NR6: 25dBm~37dBm

PHYSICAL

LED Indicators	Power, WLAN, 4G, 5G
USIM	1.8V/3V 4FF
Restore Button	Press for 10 seconds to restore the CPE to its factory settings
WPS Button	Press for WPS or Easy Mesh* configuration
Power Switch	Push 1.5s for ON/OFF
Temperature	Operating Temperature: 14°F to 113°F /-10°C to 45°C Storage Temperature: -4°F to 158°F / -20°C to 70°C
Humidity	5%~95%
Power Consumption	<30 W

Power Supply	With DC Adaptor: INPUT 100-240VAC OUTPUT 12VDC 3A
Weight	About 1.98lbs/0.9kg
Dimension	About 3.9 x 4.3 x 9.6 inches / 100 x 110 x 245 millimeters

WI-FI SPECIFICATIONS

Standard	IEEE 802.11b/g/n/ax
Channel Bandwidth	20MHz,40MHz,80 MHz,160MHz
Frequency	2.4 GHz, 5GHz,6GHz
MIMO	2x2
Peak Rate	802.11b: 11Mbps 802.11g: 54Mbps, 802.11n: 300mbps, 802.11ac: 866Mbps 802.11ax 5G: 2400Mbps(160MHz) 802.11ax 6G: 2400Mbps(160MHz) 802.11ax 2.4G: 574Mbps
Modulation	DSSS/CCK, OFDM
Receive Sensitivity	802.11b BW20 : -99.5dBm (1M), -91dBm (11M) 802.11g BW20 : -96dBm (6M), -78dBm (54M) 802.11n: HT20 : -95.5dBm (MCS0), -75dBm (MCS7) 802.11n: HT40 : -93dBm (MCS0), -72dBm (MCS7) 802.11ac: VHT20: -95.5dBm (MCS0), -71dBm (MCS9) 802.11ac: VHT40: -93dBm (MCS0), -69dBm (MCS9) 802.11ax: HE20: -95.5dBm (MCS0), -65.5dBm (MCS11) 802.11ax: HE40: -93dBm (MCS0), -63dBm (MCS11) 802.11ax:HE80：-54dBm@mcs11 802.11ax:HE160：-52dBm@mcs11
Max Output Power	24 dBm

Antenna Type	Internal omni 2T2R
Antenna Gain	3-6 dBi
Active Users	384

MODEL NUMBERS

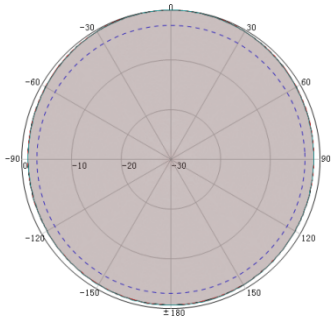
EG3661M-NR6	Photon ID63M Indoor NR CPE, 2T4R, 2~6 dBi, internal directional antenna, 1 GE*3 , DC 12V 3A 5G Sub-6: N1/N2/N3/N5/N7/N8/N12/N13/N14/N18/N20/N25/N26/N28/N29/N30/N38/N40/N41/N48/N66/N70/N71/N75/N76/N77/N78/N79 LTE FDD: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32//66/71 LTE TDD: B34/38/39/40/41/42/43/46(laa)/48 WCDMA: B1/2/4/5/8/19 • FCC certification: TBD • IC certification: TBD

NOTE: Customized versions can be requested.

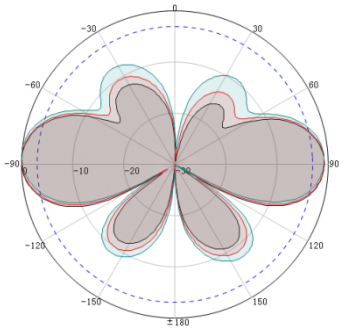
* Planned for future release

ANTENNA PATTERN

EG3661M-NR6



H-Pattern



V-Pattern