

Photon OD63H Series

Outdoor Customer Premise Equipment Datasheet

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INTRODUCTION

Baicells 5G outdoor CPE supports 5G Standalone (SA) and Non-Standalone (NSA) architectures. It provides 5G Sub-6 GHz access and is designed for outdoor broadband connectivity, including laptop, gateway, industrial monitoring, telemedicine, UAV, VR and AR scenarios.

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

MODEL OVERVIEW

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
Standard	3GPP Release 15	3GPP Release 16
Ethernet	1× GbE WAN/LAN (PoE In) + 1× GbE LAN (PoE Out)	1× 2.5GbE RJ-45 (PoE)
NR SA peak	DL 4650 Mbps / UL 1250 Mbps	DL 2500 Mbps / UL 900 Mbps
NR NSA peak	DL 4650 Mbps / UL 836 Mbps	DL 3500 Mbps / UL 555 Mbps

HIGHLIGHTS

- 5G SA/NSA dual mode; TDD/FDD operation.
- 256QAM for both downlink and uplink as the highest-order modulation stated in the sources.
- Internal directional 2T4R antenna and Power Class 2 transmit power.
- Web-based local/remote management, TR-069, cell lock, SIM lock and PIN lock.
- NLOS coverage, LED status indicators, and pole or wall mounting.
- NOTE: Features and supported bands can vary by model or region.

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TECHNOLOGY

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
Standard	3GPP Release 15	3GPP Release 16
Mode	TDD/FDD	TDD/FDD
Channel bandwidth	5–100 MHz	NR: 5–100 MHz
NR bands — EU	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/ n71/n75/n76/n77/n78	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/ n71/n75/n76/n77/n78
LTE bands — EU	B1/B3/B5/B7/B8/B20/B28/B32/B71/B38 /B40/B41/B42/B43	B1/B3/B5/B7/B8/B20/B28/B32/B71/B38 /B40/B41/B42/B43
Regional variant	JP: n1/n3/n28/n38/n41/n77/n78/n79; B1/B3/B5/B8/B12/B17/B18/B19/B21/B2 6/B28/B38/B41/B42	CN: n1/n5/n8/n28/n40/n41/n78/n79; B1/B3/B5/B8/B34/B38/B39/B40/B41/B4 2
Multiplexing	NR DL 4×4 MIMO; UL 2×2 MIMO	NR DL 4×4 MIMO; UL 2×2 MIMO
Security	Firewall: IP/MAC/URL filter; ACL rule	Firewall: IP/MAC/URL filter; ACL rule

INTERFACE

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
Ethernet	WAN/LAN: 1× RJ-45 10/100/1000, auto-sensing, auto-MDX, PoE In LAN: 1× RJ-45 10/100/1000, auto- sensing, auto-MDX, PoE Out	1× RJ-45 10/100/1000/2500, auto-sensing, auto-MDX, PoE
Power jack	12/24 VDC	Not stated in source
USIM / eSIM	4FF, 1.8/3.0 V; optional eSIM inside	2FF, 1.8/3 V (listed under Physical)

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Protocols	Not stated in source	IPv4/IPv6, UDP, TCP, IP, ICMP, SNMPv2c, SNMPv3c, HTTPS, SSH, TELNET, TR-069, TR-104, CBSD
Management	GUI-based local and remote Web management; TR-069	Web GUI, ACS, OMC, SNMP
VLAN	Not stated in source	802.1Q

PERFORMANCE

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
NR SA peak rate	DL max. 4650 Mbps UL max. 1250 Mbps	DL max. 2500 Mbps UL max. 900 Mbps
NR NSA peak rate	DL max. 4650 Mbps UL max. 836 Mbps	DL max. 3500 Mbps UL max. 555 Mbps
LTE peak rate	DL max. 1600 Mbps UL max. 211 Mbps	DL max. 1600 Mbps UL max. 211 Mbps
Modulation	DL: QPSK/16QAM/64QAM/256QAM UL: QPSK/16QAM/64QAM/256QAM	DL: QPSK/16QAM/64QAM/256QAM UL: QPSK/16QAM/64QAM/256QAM
Carrier aggregation	NR SA: up to 2DL LTE: 5CC CA	LTE: up to 5DL/4UL EN-DC: up to LTE 5DL + FR1 2DL, or LTE 4DL + FR1 2DL; LTE 3UL + FR1 2UL NR SA: up to 2×FR1
Transmit power	Power Class 2 (26 dBm ±1.5 dBm)	Power Class 2 (26 dBm ±1.5 dBm)
Receive sensitivity	-86 dBm	-86 dBm

All peak-rate values above are model-specific maxima stated in the source documents; actual rates depend on spectrum, network configuration, signal conditions and regional variant.

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FEATURES

Parameter	OD63H-R15-EG8085C / OD63H-R16-EG8562C
Network mode	NAT or Bridge
SIM	PIN management; SIM lock
Network connection	Auto or manual
LTE scan mode	Full-band scan or frequency lock
NAT	Port forwarding, port trigger, DMZ, ALG
Diagnostics	TCP dump, ping, traceroute
Statistics	LTE status; connection/system uptime; device status; DHCP client list; Wi-Fi station list; firewall status
Maintenance	Date/time; reboot; factory reset; configuration restore/backup; local or OTA firmware upgrade

LINK BUDGET

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
Antenna type	Internal directional, 2T4R	
Antenna gain	n78/n48: 11–14 dBi; full band: 2–8 dBi	All band: 2–8 dBi; n79: 11 dBi
Max. transmit power	NR: 26 dBm ×2	

PHYSICAL

Parameter	OD63H-R15-EG8085C	OD63H-R16-EG8562C
IP protection	IP65	
LED indicators	MIU, LTE, SIM, LAN, PWR, LTE Signal	
USIM	1.8/3 V 4FF	1.8/3 V 2FF
Restore button	Press for 10 seconds to restore factory settings	

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Operating temperature	-40°F to 131°F / -40°C to 55°C	
Storage temperature	-40°F to 158°F / -40°C to 70°C	
Humidity	5%–95%	
Power consumption	<24 W	
Power supply	PoE adaptor: input 100–240 VAC; output 24 VDC 1 A; 802.3at	PoE adaptor: input 100–240 VAC; output 24 VDC 1 A
Weight	About 23 oz / 660 g	
Dimensions	9.5 × 6.0 × 3.4 in / 242 × 152 × 86 mm	