

INTRODUCTION

The Gamma632 is a 4G&5G dual-mode Remote Radio Unit (RRU) product independently developed by Baicells with independent intellectual property rights. The product can work in multiple bands of LTE and NR, supporting 2TR/4TR/6TR, single mode or dual-mode configuration.

The Gamma632 combined with Baicells or third-party Base Band Unit (BBU) and Radio Hub (rHub) to form an extended pico base station or indoor distribution solution, providing customers with advanced high-performance, suitable for various scenarios of distributed wireless solutions. The product is easy to deploy and configure flexibly, supporting interconnectivity among different manufacturers to provide wireless indoor coverage solutions. It can help operators enhance indoor coverage, improve network capacity and cell edge rate, and meet the requirements of indoor wireless network capacity and coverage very well.

The Gamma632 supports O-RAN OTIC Option8 standard, which has been jointly promoted as an official standard of the O-RAN Alliance by Baicells and operators.

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



TECHNOLOGY

Standard	LTE/NR
NR Mode	TDD/FDD
RF Standard	3GPP 38.104 / Category B
Frequency Band	NR: - n41 (2515 MHz – 2675 MHz) - n78 (3300 MHz – 3600 MHz) - n79 (4800 MHz – 4960 MHz)* LTE+NR: - B3 (UL1710MHz-1735MHz/DL1805MHz-1830MHz) + n41 (2515MHz – 2675MHz) - B3 (UL1735MHz-1785MHz/DL1830MHz-1880MHz) + n78 (3300MHz – 3600MHz)
Channel Bandwidth	LTE: 5/10/15/20MHz

	NR: 100MHz
IBW	LTE: maximum 20MHz NR: maximum 100MHz
OBW	LTE: 25MHz/50MHz NR: - n41: 160MHz - n78: 300MHz
Carrier Config.	1 carrier
Multiplexing	2x2, 4x4
Dual mode	LTE+NR

* for future version

INTERFACE

Interface Type	CPRI (O-RAN OTIC Option8)
Data Interface	1 x 10GE optical fiber interface (SFP+)
Power Supply	-40VDC ~ -57VDC, nominal -48VDC
LED Indicators	2 x status LED RUN/PWR

LINK BUDGET

Antenna	4T4R/2T2R built-in antenna or external antenna with SMA connector 3dBi@n41 4dBi@n78 2dBi@n79* 1.5dBi@B3
Max Output Power	LTE: 21dBm(125mW) per antenna NR: 24dBm(250mW) per antenna
Rx Sensitivity	LTE: -100 dBm NR: -94 dBm

* for future version

PHYSICAL

Power Consumption	2T2R NR: 25W 2T2R NR+LTE: 35W 4T4R NR: 39W
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	4T4R NR+LTE: 49W
Weight	6.6 lbs / 3.0kg
Dimensions (HxWxD)	8.1 x 8.1 x 2.3 inches 205 X 205 X 59.4 millimeters
Installation	Ceiling or wall mount
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Basic report function	RSSI, VSWR, TSSI (transmission signal strength), temperature, etc.
Cooling Method	Natural convection cooling / passive heat dissipation
DU/RU SW Interface	SWIF
1588 Function	Supported
syncE	Supported

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	23°F to 131°F / -5°C to 55°C
Humidity	5% to 95%
Ingress Protection Rating	IP31
Seismic Specification	Telcordia GR-63-CORE, Section 4.4, Zone 4
Wind Resistance	ETSI300019-1-4
EMC	ETSI EN 301 489-4 ETSI EN 301 908-1
ESD	Contact Discharge 8kV (Criteria B) Air Discharge 15kV (Criteria B)
Safety	EN 60950-1 Last edition EN 60950-22 Last edition
RF	EN 301 908-1 V6.2.1 EN 301 908-14 V5.2.1

MODEL NUMBERS

pRUL841x	Gamma632 5G TDD Indoor Pico RRU – Remote, n41(2515MHz-2675MHz), 4x250mW, 48VDC, build-in antenna (3dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
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Gamma632

Indoor Remote Radio Unit Datasheet

pRUL878x	Gamma632 5G TDD Indoor Pico RRU – Remote, n78(3300MHz-3600MHz), 4x250mW, 48VDC, build-in antenna (4dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
pRUL854x	Gamma632 4G& 5G FDD&TDD Indoor Pico RRU – Remote, B3+n41(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+(2515MHz-2675MHz), 2x125mW+2x250mW, 48VDC, build-in antenna (1.5dBi L polar H360°)+ (3dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
pRUL855x	Gamma632 4G&5G FDD&TDD Indoor Pico RRU – Remote, B3+n78(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+ n78(3300MHz-3600MHz), 2x125mW+2x250mW, 48VDC, build-in antenna (1.5dBi L polar H360°)+ (4dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
pRUL854B14	Gamma632 4G& 5G FDD&TDD Indoor Pico RRU – Remote, B3+n41(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+(2515MHz-2675MHz), 2x125mW+4x250mW, 48VDC, build-in antenna (1.5dBi L polar H360°)+ (3dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
pRUL854B14e	Gamma632 4G& 5G FDD&TDD Indoor Pico RRU – Remote, B3+n41(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+(2515MHz-2675MHz), 2x125mW+4x250mW, 48VDC, external antenna, CPRI, 1xOPT (SFP+ 10G), IP31
pRUL855B14	Gamma632 4G&5G FDD&TDD Indoor Pico RRU – Remote, B3+n78(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+ n78(3300MHz-3600MHz), 2x125mW+4x250mW, 48VDC, build-in antenna (1.5dBi L polar H360°)+ (4dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
pRUL855B14e	Gamma632 4G&5G FDD&TDD Indoor Pico RRU – Remote, B3+n78(DL1805MHz-1830MHz/UL1710MHz-1735MHz)+ n78(3300MHz-3600MHz), 2x125mW+4x250mW, 48VDC, external antenna, CPRI, 1xOPT (SFP+ 10G), IP31

NOTE: Customized versions can be requested.