

INTRODUCTION

The Gamma430 is a 5G Remote Radio Unit (RRU) product independently developed by Baicells with independent intellectual property rights. The product can work in multiple bands of NR, supporting 2TR/4TR, single mode or dual-mode configuration.

The Gamma430 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 Gamma430 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	NR
Mode	TDD
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)*
Channel Bandwidth	NR: 100MHz
OBW	NR: maximum 100MHz
IBW	NR: - n41: 160MHz - n78: 300MHz

Gamma430

Indoor Remote Radio Unit Datasheet

Carrier Config.	1 carrier
Multiplexing	2x2, 4x4

* 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*
Max Output Power	NR: 24dBm(250mW) per antenna
Rx Sensitivity	NR: -94 dBm

* for future version

PHYSICAL

Power Consumption	2T2R NR: 25W 4T4R NR: 39W
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, TSSI (transmission signal strength), temperature, etc.
Cooling Method	Natural convection cooling / passive heat dissipation
DU/RU SW Interface	SWIF
1588 Function	Supported

syncE	Supported
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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	Gamma430 5G TDD Indoor Pico RRU – Remote, n41(2515MHz-2675MHz), 4x250mW, 48VDC, build-in antenna (3dBi L polar H360°), CPRI, 1xOPT (SFP+ 10G), IP31
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

NOTE: Customized versions can be requested.