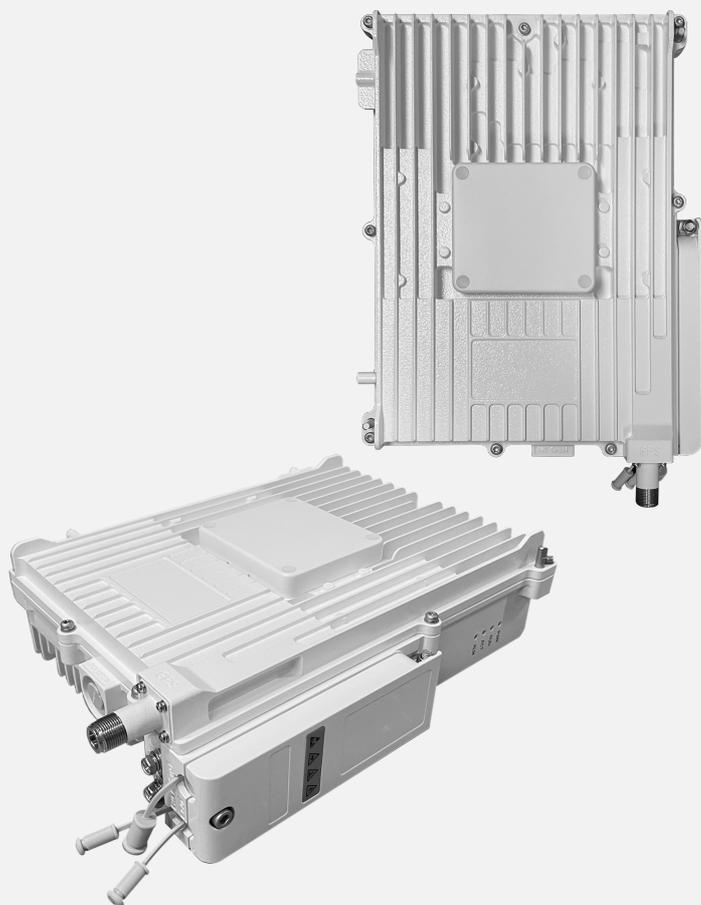


# Aurora6449m mmW

Outdoor Base Station Datasheet

**Baicells**  
Connect More with Less



## INTRODUCTION

The Baicells Aurora6449m mmW is an advanced outdoor millimeter wave integrated base station (gNB), which is designed and developed based on Qualcomm 5G SoC solution. This 49dBm EIRP gNB is low power consumption, subminiature and easy to maintenance.

This product helps operators to enhance the coverage performance of 5G networks effectively, improve the capacity of 5G networks and eliminate the blind district, meanwhile it also can help to reduce the system power consumption.

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

## HIGHLIGHTS

*NOTE: Features can vary based on model or region.*

- Standard NR Band n257, n258 partially, n261
- 5G-NR TDD (3GPP R16 compliant)
- GUI-based local and remote Web management
- Supports up to 4x100MHz bandwidth
- Peak data rate: DL:2Gbps@4CC, UL:140Mbps@2CC (DDDSU)
- Supports 600 RRC connected UEs
- Supports PDU session setting
- Supports cell setting
- Supports Stand Alone (SA) mode: FR2 only, NRDC\*
- Supports Non Stand Alone (NSA) mode: ENDC\*
- Supports SCTP control (IKE SCTP)
- All In One (AIO) small cell form factor for quick and easy installation
- Highly secured with equipment certification against potential intrusion risk
- Supports TR-069 network management interface
- Lower power consumption, which reduces OPEX, can be powered easily by Baicells compact indoor smart UPS

### TECHNOLOGY

Standard	5G NR TDD (3GPP R16 compliant)
TDD UL/DL Configuration	5ms periodicity ( $\mu=1$ ): DDDSU
Frequency Band	n257 (26.5GHz ~ 29.5GHz) n258 (26.5GHz ~ 27.5GHz) n261 (27.5GHz ~ 28.35GHz)
Channel Bandwidth	100MHz x 4CC
Multiplexing	DL:2, UL:1
Security	Radio: SNOW 3G/AES-128 Backhaul: IPsec (X.509 AES-128, AES-256, SHA-128, SHA-256)

\* Planned for future release

### INTERFACE

Ethernet Interface	1 optical (10G SFP+) and 1 RJ-45 Ethernet interface (1 GE)
Power Supply	-40VDC to -57VDC, nominal -48VDC (optional 90VAC ~ 264VAC, nominal voltage 110/220VAC)
Protocols Used	IPv4/v6, UDP, TCP, ICMP, NTP, SSH, IPsec, TR-069, HTTP/HTTPS, DHCP
Network Management	IPv4/v6, HTTP/HTTPS, TR-069, SSH, Embedded 5GC*
VLAN/VxLAN*	802.IQ/VxLAN
LED Indicators	4 x status LED PWR/ACT/RUN/ALM
Antenna	64 dual-polarized antenna elements, built-in with Maximum +/-60 degrees
GPS Antenna	External GPS antenna, N-Type connector

\* Planned for future release

### PERFORMANCE

Peak Data Rate	100 MHz	DL (Mbps)	UL (Mbps)
	5ms periodicity	2000	140
User Capacity	600 RRC connected users		
Latency	<10 milliseconds		

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Receive Sensitivity	-105 dBm EIRP(per polarization)
Modulation	UL: MCS0 (QPSK) to MCS28 (64QAM) DL: MCS0 (QPSK) to MCS27 (64QAM)
Transmit Power Range	n257, n258, n261: 49dBm EIRP Max. (H+V polarization) @ boresight beam
Quality of Service	Complied with 3GPP standard 5G QoS Identifier (5QI)
ARQ/HARQ	Supported
Synchronization	GPS and IEEE1588V2 slave

## FEATURES

Voice	VoNR/EPSFB
SON	Self-Organizing Network <ul style="list-style-type: none"><li>Automatic Neighbor Relation (ANR)</li><li>PCI confliction detection</li></ul>
Traffic Offload	Local breakout
Maintenance	<ul style="list-style-type: none"><li>Local/Remote Web maintenance</li><li>Online status management</li><li>Performance statistics</li><li>Fault management</li><li>Local/Remote software upgrade</li><li>Logging</li><li>Connectivity diagnosis</li><li>Auto startup</li></ul>

## PHYSICAL

Surge Suppression	Network interface: 1KV Power Interface: Differential mode: 2KA; Common mode: 4KA
Lightning Protection	Power Interface: Differential mode: $\pm 10$ KA; Common mode: $\pm 20$ KA
MTBF	$\geq 150000$ hours
MTTR	$\leq 1$ hour
Ingress Protection Rating	IP65
Operating Temperature	-30°C to 50°C

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Storage Temperature	-40°C to 65°C
Humidity	2% to 95% RH
Atmospheric Pressure	70 kPa to 106 kPa
Power Consumption	Typical 100W, Maximum 120W
Weight	Without bracket: 11.5 lbs/5.2kg With bracket: 12.3 lbs/5.6kg
Dimensions (HxWxD)	12.2 x 9.4 x 3.5 inches 310 X 240 X 88 millimeters
Installation	Pole or wall mount

## MODEL NUMBERS

BSC7257A249D	Integrated Outdoor TDD gNB,n257,26500-29500MHz,49dBm EIRP,-48VDC, Internal ANT,1*RJ45(GE)+1*SFP+(10G),GPS,IP65
BSC7258H249D	Integrated Outdoor TDD gNB,n258,26500-27500MHz,49dBm EIRP,-48VDC, Internal ANT,1*RJ45(GE)+1*SFP+(10G),GPS,IP65
BSC7260A243D*	Integrated Outdoor TDD gNB,n260,37000-40000MHz,43dBm EIRP,-48VDC, Internal ANT,1*RJ45(GE)+1*SFP+(10G),GPS,IP65
BSC7261A249D	Integrated Outdoor TDD gNB,n261,27500-28350MHz,49dBm EIRP,-48VDC, Internal ANT,1*RJ45(GE)+1*SFP+(10G),GPS,IP65

\* Planned for future release

NOTE: Customized versions can be requested.