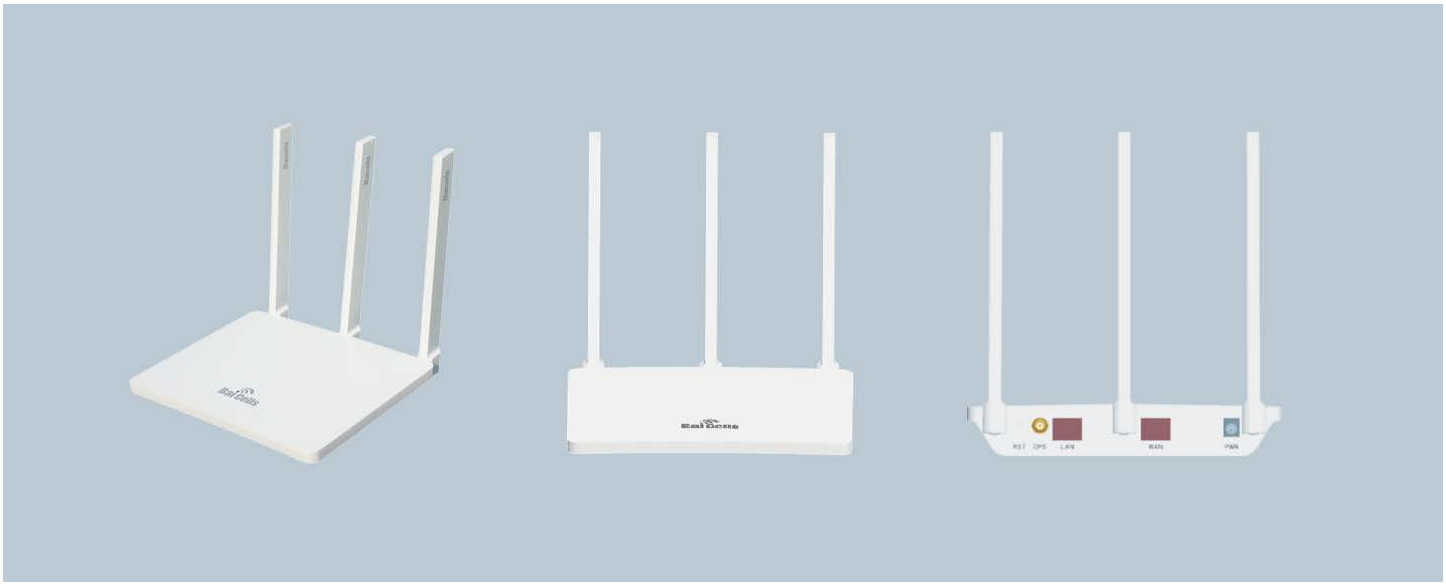
Neutrino-224 Indoor FDD/TDD eNB



INTRODUCTION

As the mobile broadband data market continues to boom and the traffic requirements are soaring day by day, the capacity pressure on mobile operators is also increasing. The most effective way to address this challenge is small cell.

The Baicells Neutrino-224 Indoor eNodeB (eNB) is a 2x125mW wireless broadband access solution based on Long-Term Evolution (LTE) Frequency Division and Time Division Duplexing (FDD and TDD) that employs the efficient System on Chip (SoC) technology. The eNB is easy to deploy and can help mobile operators to provide better coverage and higher capacity with minimal effort.

FEATURES

- Standard LTE network modes:
  - FDD bands 1, 2, 3, 4, 5, 7, and customized
  - TDD bands 40, 41, 42, 43, 48, and customized
- Peak rate with 20 MHz spectrum:
  - FDD: 150 Mbps DL, 50 Mbps UL
  - TDD: 110 Mbps DL, 20 Mbps UL
- Maximum 48 (FDD) and 32 (TDD) concurrent users per cell
- Supports 5/10/15/20 MHz operation bandwidth
- Plug-and-play with SON capabilities
- Power over Ethernet (PoE) supported. Lower power consumption to reduce OPEX.
- Integrated antenna, with flexibility to replace with external antenna
- Local and Web GUI, network management through BaiOMC

HARDWARE SPECIFICATIONS

LTE Mode	FDD/TDD
Frequency Bands	FDD: Bands 1/2/3/4/5/7 and custom TDD: Bands 40/41/42/43/48 and custom
Channel Bandwidth	FDD Bands 1/2/3/4/7: 5/10/15/20 MHz FDD Band 5: 5/10 MHz TDD: 5/10/15/20 MHz
Max Output Power	21 dBm / antenna
Receive Sensitivity	FDD: -102 dBm TDD: Bands 40/41: -101 dBm TDD Bands 42/43/48: -100 dBm
Synchronization Mode	• GPS • Network listening • 1588v2 (TDD only)
Backhaul Mode	1 RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2*2
Dimensions (HxWxD)	6.9 x 5.1 x 1.2 Inches 175 x 130 x 30 millimeters
Installation Method	Desktop, ceiling or wall mount
Antenna	5 dBi omni antenna

Power Consumption	FDD: < 15W TDD: < 12W
Power Supply	12V DC, AC adaptor (multiple standards optional) POE+, IEEE 802.3at standard
Weight	1.1 lb (500 g)

Note 1: Different models support different frequency bands.

Note 2: The test method of receiving sensitivity is proposed by the 3GPP TS 36.104, which is based on 5 MHz bandwidth, FRC A1-3 in Annex A.1 (QPSK , R=1/3 , 25RB) standard.

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9	
Peak Rate	20 MHz	FDD: DL 150 Mbps UL 50 Mbps
		TDD: SA1: DL 80 Mbps, UL 20 Mbps SA2: DL 110 Mbps, UL 10 Mbps
	10 MHz	FDD: DL 75 Mbps UL 25 Mbps
		TDD: SA1: DL 40 Mbps, UL 7 Mbps SA2: DL 55 Mbps, UL 5 Mbps
User Capacity	48 (FDD) and 32 (TDD) concurrent users per cell	
QoS Control	3GPP Standard QCI	
Modulation Mode	UL: QPSK, 16QAM DL: QPSK, 16QAM, 64QAM	
Voice Solution	CSFB, VoLTE, eSRVCC	
Traffic Offload	• Local IP Access (LIPA) • Selected IP Traffic Offload (SIPTO)	
SON	Self-organizing network: • Automatic setup • Automatic Neighbor Relation (ANR) • PCI confliction detection	
UL Interference Detection	Supported	
RAN Sharing	Supported	
Network Management Interface	TR069 interface protocol	
Northbound Interface	Web service, socket, FTP, and other interface modes	
MTBF	≥ 100000 hours	
MTTR	≤ 1 hour	

Maintenance	Remote/local maintenance, based on SSH protocol Remote maintenance Online status management Performance statistics Fault management Configuration management Local or remote software upgrade, loading Logging Connectivity diagnosis Automatic start and configuration Alarm reporting KPI recording User information tracing

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	32°F to 104°F/0°C to 40°C
Humidity	5% to 95%

GLOBAL PART NUMBERS

TBD	