

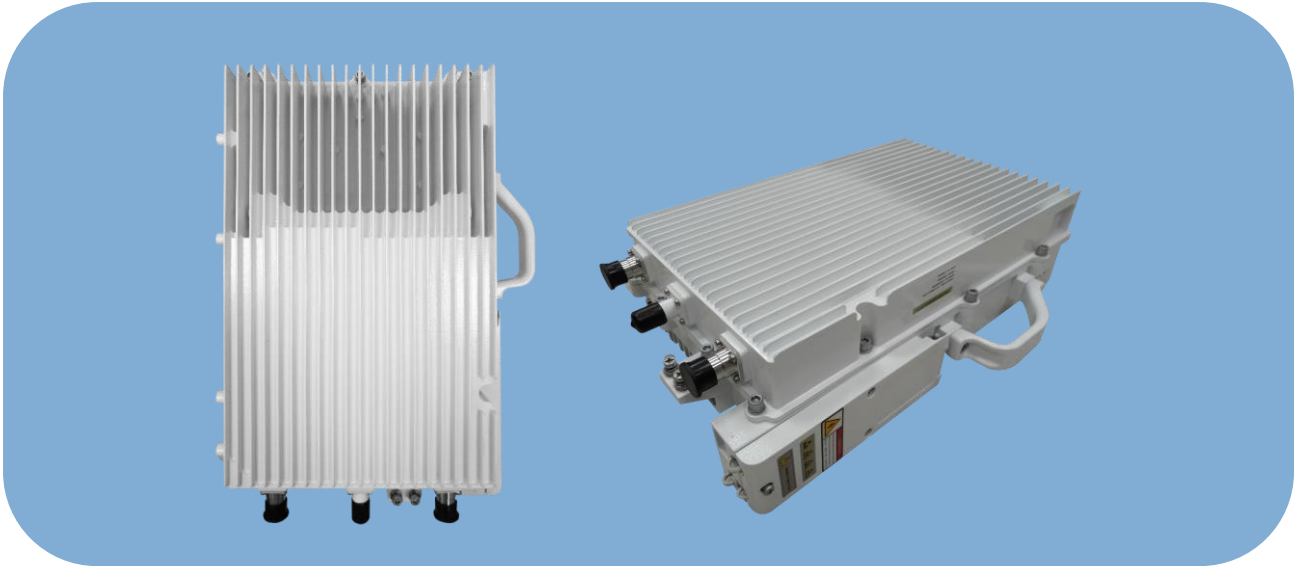


JRL-111BF

Outdoor LTE FDD Base Station Specification

Introduction

JRL-111BF is outdoor LTE FDD base station with 2x20 watts output power (2x2 MIMO with 20 watts output each channel), which is compact, light and has excellent performance.



With high capacity and easy deployment, the JRL-111BF FDD series eNB can help mobile operators to provide better coverage and higher capacity with minimal effort. It can realize data access for MBB (Mobile Broadband) network. The typical topology of JRL-111BF deployment is as follows.

Highlights

Easy Deployment

- Super compact and beautiful design, suitable for private and public deployments.
- Higher transmission power for extended coverage.
- Any IP based backhaul can be used, including public transmission.
- Support GPS synchronization.
- Lower power consumption to reduce OPEX.
- Plug-and-Play with SON capabilities.
- IoT with most EPC vendors.

Better Performance

- Excellent Non-Line-of-Sight (NLOS) coverage performance.
- Peak rate 150Mbps@ Downlink, 50Mbps@Uplink with 20MHz spectrum.
- Maximum 256 concurrent users.
- Support eGW (optional) for S1 aggregation to reduce signaling load of MME.
- Support local traffic offload and charging in cooperation with eGW.
- Support 5MHz/10MHz/15MHz/20MHz operation bandwidth
- Support RET function AISG 2.0.

Easy Management

- Efficient remote configuring, monitoring, and maintaining operations with JRC network management system (EMS).
- Highly secured with equipment certification against potential intrusion risk.

Hardware Specifications

Item	Description
LTE Mode	FDD
Frequency Bands ^a	Band1/3/7/13/20/28
Channel Bandwidth	5MHz, 10MHz, 15MHz, 20MHz
MAX Output Power	43dBm/Ant
Receive Sensitivity ^b	-102dBm
Synchronization	GPS
Backhaul	1 Optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2 x 2
Dimensions	Band1/3/7: 430mm (H) x 275mm (W) x 113mm (D) Band13/20/28: 430mm (H) x 275mm (W) x 137mm (D)
Installation Type	Pole, wall
Antenna	External high gain antenna
Power Consumption	< 180W
Power Supply	-48V DC (-57V to -42V DC) AC adaptor (multi-national standards)
Weight	Band1/3/7: About 12kg Band13/20/28: About 15kg

^a Different models support different frequency band.

^b 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

Item	Description
LTE Standard	3GPP Release 12
Peak Rate	20MHz: DL 150Mbps, UL 50Mbps 10MHz: DL 75Mbps, UL 25Mbps
User Capacity	256 concurrent users
QoS Control	3GPP standard QCI
Modulation	UL: QPSK, 16QAM DL: QPSK, 16QAM, 64QAM
Voice Solution	CSFB, VoLTE, eSRVCC
Traffic Offload	LIPA (Local IP Access) SIPTO (Selected IP Traffic Offload)
SON	Automatic setup PCI confliction detection
UL Interference Detection	Supported
RAN Sharing	Supported
Network Management Interface	TR069
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Maintenance	Remote/local maintenance
	Online status management
	Performance statistics
	Fault management
	Local or remote software upgrade
	Logging



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	Connectivity diagnosis
	Automatic start and configuration
	Alarm reporting
	KPI Recording
	User information tracing

Environmental Specifications

Item	Description
Operating Temperature	-40°C to 55°C
Storage Temperature	-45°C to 70°C
Humidity	5% to 95%
Atmospheric Pressure	70 kPa to 106 kPa
Ingress Protection Rating	IP66
Power interface Lightning Protection	Differential mode: ± 10 KA Common mode: ± 20 KA

Model List

Filter Range	Models	Description
UL:1920 MHz~1980 MHz DL: 2110 MHz~2170 MHz	JRL-111BF01	FDD Outdoor Pico cell, Band1, UL:1920 MHz-1980 MHz/DL: 2110 MHz-2170 MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS
UL:1710 MHz~1785 MHz DL: 1805 MHz~ 880 MHz	JRL-111BF03	FDD Outdoor Pico cell, Band3, UL:1710 MHz-1785 MHz/DL: 1805 MHz-1880 MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS
UL:2500 MHz~2570 MHz DL: 2620 MHz~2690 MHz	JRL-111BF07	FDD Outdoor Pico cell, Band7, UL:2500 MHz-2570 MHz/ DL: 2620MHz-2690MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS
UL: 777 MHz~787 MHz DL: 746 MHz~756 MHz	JRL-111BF13	FDD Outdoor Pico cell, Band13, UL:777 MHz-787 MHz/ DL: 746MHz-756MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS
UL: 832 MHz~862 MHz DL: 791 MHz~821 MHz	JRL-111BF20	FDD Outdoor Pico cell, Band20, UL:832 MHz-862 MHz/ DL:791MHz-821MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS
UL: 703 MHz~748 MHz DL: 758 MHz~803 MHz	JRL-111BF28	FDD Outdoor Pico cell, Band28, UL:703 MHz-748 MHz/ DL:758MHz-803MHz, 2T2R, 2*20W, 48V DC, external antenna/GPS