

SUNSEA IOT

Sunspeed2000 Outdoor Small Cell

Product Description

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1. Product Overview

Sunspeed2000 small cell is a high performance outdoor small cell based on LTE FDD technology. It supports access to the LTE backbone network through wired backhaul to provide LTE access for end users and complete voice and data service transmission.

Sunspeed2000 small cell reduce the investment of operators over existing transmission resources, realize low-cost and rapid construction of LTE networks, enhance outdoor coverage, provide high-speed broadband data access services for users in densely populated places and rapidly improve user experience in the field of telecom operators, broadband operators, enterprises, video surveillance.

2. Product Features

- High integration by baseband and RF integrated design
- High-speed data services based on 3GPP LTE-FDD/TDD technology, with peak DL rate of 150Mbit/s and peak UL rate of 50Mbit/s.
- 5Mhz, 10MHz, 15MHz, 20MHz working bandwidth
- Support electricity and optical backhaul, easy networking and flexible deployment
- External high-gain antenna suitable for different scenarios
- Abundant security services that provide instant protection against potential security risks and unlawful intrusion.
- Convenient and intuitive Web-based management
- On-demand Integration to achieve accurate coverage and quickly increase the capacity of the existing network.
- Perfect network management functions, to complete the system management, monitoring and maintenance in the network management system.
- Humanized indicator light, convenient for observing equipment status.

3. Product Appearance

Appearance and interface of Sunspeed2000 small cell are as shown below:

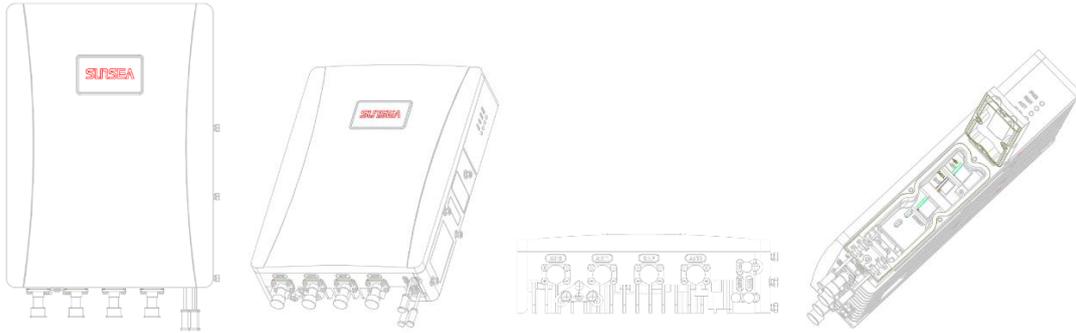


Figure 3-1. Sunspeed2000 appearance and interface

Table 3-1. Sunspeed2000 interface description

Interface	Description
PWR	DC48V (DC42V~60V)
OPT	Gigabit optical fiber interface
ETH	RJ-45 interface
GPS	External GPS antenna, N head
SNF	Sniffer interface for network monitoring
ANT0	External antenna interface 1, N head
ANT1	External antenna interface 2, N head

Table 3-2. Indicator light instructions

Indicator	Color	Status	Meaning
PWR	Green	On	Power on
		Off	Power off
RUN	Green	On	Reserved
		Fast flash: 0.125s on, 0.125s off	Data transmission
		Slow flash: 1s on, 1s off	Cell is established
		Off	Reserved
ALM	Red	On	Reserved
		Fast flash: 0.125s on, 0.125s off	S1 alarm
		Slow flash: 1s on, 1s off	Other alarm
		Off	Reserved
ACT	Green	On	Reserved
		Fast flash: 0.125s on, 0.125s off	Reserved
		Slow flash: 1s on, 1s off	Reserved
		Off	Reserved

4. Technical Specification

4.1 Hardware Specification

Item	Description
Working standard	LTE FDD
Working frequency	Band 3 UL: 1710MHz~1785MHz, DL: 1805MHz~1880MHz
Working bandwidth	5 MHz/10 MHz/15MHz/20 MHz
Tx power	33dBm
Sensitivity	-102dBm
Synchronous mode	GPS, Air interface (same frequency or different frequency)
Backhaul mode	Electricity or optical
MIMO	2*2
Dimension	347mm (L) * 245mm (W) * 77mm (H)
Installation mode	Pole mounting/wall mounting
Antenna	External high-gain antenna
Power consumption	≤ 70 W
Power supply	48V DC
Weight	≤ 5.8kg

Remark:

Sensitivity testing method follows 3GPP TS 36.104 on 5MHz bandwidth, FRC A1-3 in Annex A.1(QPSK, R=1/3, 25RB).

4.2 Service Specification

Item	Description
Technical standard	LTE FDD 3GPP Release 9
Max throughput	20MHz: 150Mbps DL, 50Mbps UL 10MHz: 75Mbps DL, UL 25Mbps UL
Service capability	128 active user
Modulation mode	Uplink: QPSK, 16QAM Downlink: QPSK, 16QAM, 64QAM
Voice service	CSFB, VoLTE, eSRVCC
Traffic offloading	LIPA(local IP access) SIPTO(Select IP traffic offloading technology)
SON	Plug and play, self-starting, automatic optimization, automatic configuration
RAN Sharing	Support
Network management	TR069 interface protocol

Item	Description
interface	
North Interface	WebService, Socket, FTP etc..
MTBF	≥ 150000 h
MTTR	≤ 1 h
Operation & maintenance	Support remote/local maintenance
	Support online status management
	Support performance statistics
	Support fault management
	Support configuration management
	Support for local or remote software upgrade and loading
	Support log
	Support connectivity diagnostics
	Support self-start self-configuration deployment
Support alarm reporting	

4.3 Environmental Specification

Item	Description
Operating temperature	-40°C ~ 55°C
Relative humidity	5% ~ 95%
Temperature changing rate	1°C/min
Atmosphere pressure	70kPa ~ 106kPa
Protection grade	IP66
Lighting protection of power supply interface	Differential mode ± 10KA Common mode ± 20KA

Statement

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