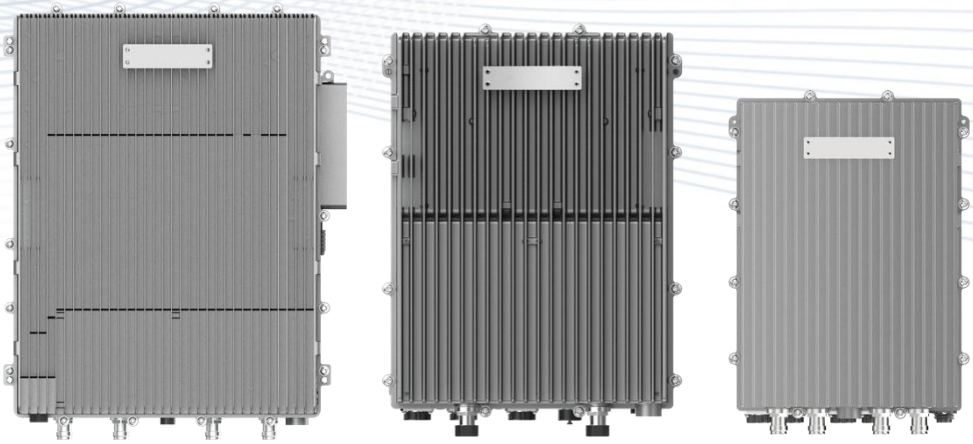
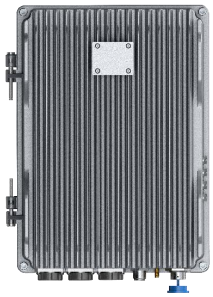
sCELL-T4000

LTE Distributed Base Station

- LTE 2*2 MIMO/4*4 MIMO
- 5W / 20W / 40W RRU
- Max 3 LTE Carriers
- 256 Active-users per Cell
- GPS Clock synchronization





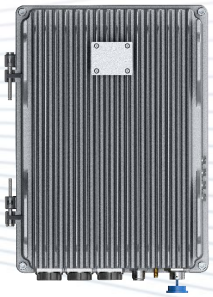
LTE Distributed Base Station

Overview

The sCELL-T4000 from SUNWAVE mainly completes wireless access functions, including management of air interface, access control, mobility control, user resource allocation and other radio resource management and wireless service transmission functions. It consists of BaseBand Unit (BBU) T4000 and Remote Radio Unit (RRU).

KEY FEATURES
• Supports 3 x 20MHz LTE cells • Supports remote upgrade and management • Supports IPsec function to ensure data security • Supports 2 x 2 MIMO and 4 x 4 MIMO • Supports 256 active users per cell • MTBF > 100000 hours • Simple structure and easy installation • Supports GPS synchronization

Indoor and Outdoor BaseBand Unit (BBU)



sCELL-T4000-ID **sCELL-T4000-OD**

TECHNICAL SPECIFICATIONS	
SYSTEM	
3GPP	Release 15
LTE Technology	TDD/FDD
Bandwidth	5/10/20 MHz
MIMO	3 Carriers, 2T2R 2 Carriers, 4T4R
Operational Capacity	Each cell supports 256 active users and 512 RRC connected users Supports 3 x 2T2R cells or 2 x 4T4R cells
VoLTE Performance	Each cell supports up to 256 active VoLTE users
Throughput	**TDD**

	20 MHz@2TRX SA1: DL 80 Mbps UL 17 Mbps SA2: DL 110 Mbps UL 10 Mbps	**20 MHz@4TRX** SA1: DL 160 Mbps UL 17 Mbps SA2: DL 210 Mbps UL 10 Mbps
	FDD	
	20MHz@2TRX DL 125 Mbps UL 46 Mbps	**20MHz@4TRX** DL 242 Mbps UL 46 Mbps

APPEARANCE	sCELL-T4000-ID	sCELL-T4000-OD
Installation Method	Rack installation	Wall or Pole installation
Size (L*W*H)	330 x 238 x 44 mm | 12.99 x 9.37 x 1.73 in	322 x 245 x 136 mm | 12.68 x 9.65 x 5.35 in
Weight	4 kg | 8.82 lbs	< 15 kg | 33.07 lbs
Heat Dispersion	Fan cooling	Natural cooling

ENVIRONMENTAL	sCELL-T4000-ID	sCELL-T4000-OD
Operating Temperature	-10 °C ~ +45 °C | -14 °F ~ +113 °F	-40 °C ~ +55 °C | -40 °F ~ +131 °F
Storage Temperature	-40 °C ~ +70 °C | -40 °F ~ +158 °F	
Humidity	15% ~ 85%	5% ~ 98%
Ingress Protection Degree	IP20	IP65

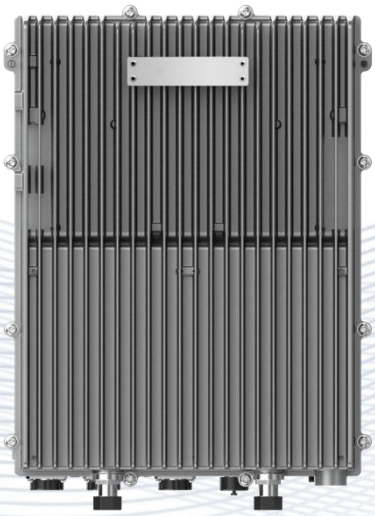
MONITORING AND CONTROL	
LMC (Local Monitoring & Control)	Internet, WEBOMT
Remote Monitoring & Control	TR069 protocol monitoring function
OMT	WEBOMT

ELECTRICAL	sCELL-T4000-ID	sCELL-T4000-OD
Power	DC 48V standard power supply: DC 36V~60V	DC 48V standard power supply: DC 36V~60V (BBU contains a switch to support POE power supply to the bridge)
Power Consumption	< 80W	< 180W
Reset Time	≤ 10 min	
Backup Power	No	

INTERFACES					
No.	**Definition**	**Number**	**Interface Standard**	**Interface ID**	**Function Description**
1	BBU board optical port	3	SFP	SFP1~4	For RRU Cascading
2	BBU board optical port	1	SFP	SFP_ETH	Backhaul optical port
3	Ethernet port 1	1	RJ45	LAN	Local debugging port
4	Ethernet port 2	1	RJ45	WAN	Backhaul network port
5	GPS	1	SMA	GPS	Connect to GPS antenna
6	Indicator Light	4		PWR, RUN, 4G, GPS	Indicator light Indicates BBU status
7	USB	1	USB	USB	Connect USB disk
8	Power Supply	1		Power	AC/DC input
9	Switch	1	Rocker switch	SWITCH	Switching Functions

RU2430

HIGH POWER RRU



2T2R Digital Radios
20W (43dBm) Output Power
5G NR Complaint
IP65 Outdoor Rated

The RU2430 is a digital transport platform supporting cellular technologies on fiber optic cable using the CPRI protocol. The power amplifier technology adopts DPD (Digital Pre-Distortion), allowing for a significant improvement in power consumption compared with analogue technology. This platform is ideal for underground tunnels & outdoor coverage deployments of cellular services.

LTE Distributed Base Station

KEY FEATURES

- Supports Band 2T2R
- Up to 20W (43dBm) Output Power
- Supports Cascading
- Supports TDD/FDD
- Supports External Alarm

TECHNICAL SPECIFICATIONS

SYSTEM

Bandwidth per Channel (Downlink & Uplink)	≤ 80 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20 MHz
Redundancy	Cascading

SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
2500 MHz TDD	41 (LOWER/UPPER)	2496-2576/2610-2690	2496-2576/2610-2690	80
2300 MHz TDD	40	2300-2400	2300-2400	80
2600 MHz TDD	38	2570-2620	2570-2620	50
2100 MHz FDD	1	2110-2170	1920-1980	70
1800 MHz FDD	3	1805-1880	1710-1785	75
900 MHz FDD	8	925-960	880-915	35
2600 MHz FDD	7	2620-2690	2500-2570	70

INTERFACES

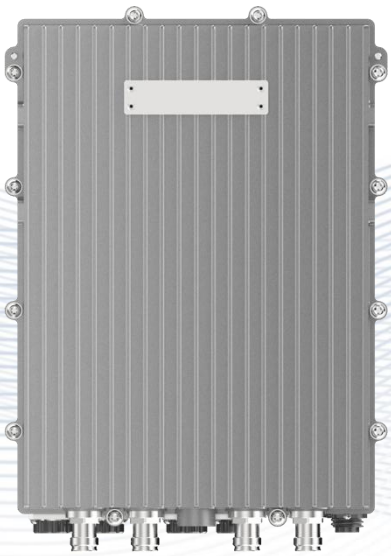
Antenna Interface (All bands)	4.3-10 Female
Optical Connector Type	SFP+, Standard LC
Optical Transmission Rate	9.8304GB/s
Optical Fiber Length	1.4 km/ 10 km/ 30 km 0.87mi / 6.21mi / 18.64mi
Physical Alarms	DB9, Female (4x in, 4x out)
Maintenance Interface	Ethernet RJ45

ELECTRICAL

Complies with	3GPP TS36.106 | 3GPP TS25.106
EMC	EN 301489-1 / -50, EN 50121-4, EN 55032, EN 61000-4 series
Safety	EN 60950-1, EN 60950-22, EN 62368-1, EN 50385
Maximum Power Consumption	250W

ENVIRONMENTAL	
Mean Time Between Failure (MTBF)	> 100,000 hours
Operating Temperature	-40 °C ~ +55 °C | -40 °F ~ +131 °F
Storage Temperature	-40 °C ~ +70 °C | -40 °F ~ +158 °F
Humidity	5% ~ 100% (Non-Condensing)
Cooling	Passive
Installation	Wall or Pole
Ingress Protection Rating	IP65 (Outdoor)
Complies with	EN 300019-1-1, EN 300019-1-2, EN 300019-1-4
Power Supply	100-240V AC, 50/60 Hz | 48VDC ± 20%

MECHANICAL	
Size (Width x Height x Depth)	400 x 135 x 300 mm | 15.75 x 5.31 x 11.81 in
Weight	18.0 kg | 39.68 lbs



RU4370

MID POWER RRU

4T4R Digital Radios
5W (37dBm) Output Power
5GNR Compliant
IP67 Outdoor Rated

The RU4370 is a digital transport platform supporting cellular technologies on fiber optic cable using the CPRI protocol. The power amplifier technology adopts DPD (Digital Pre-Distortion), allowing for a significant improvement in power consumption compared with analogue technology. This platform is ideal for underground tunnels & outdoor coverage deployments of cellular services.

LTE Distributed Base Station

KEY FEATURES

- Supports 4T4R, 5G NR Compliant
- Up to 5W (37dBm) Output Power and up to 100MHz IBW
- Supports Cascading
- Supports Sub-6GHz TDD/FDD and External Alarm

TECHNICAL SPECIFICATIONS

SYSTEM

Bandwidth per Channel (Downlink & Uplink)	≤ 100 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20MHz for LTE 20/40/50/60/80/100 MHz for 5G
Redundancy	Cascading

SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
3600 MHz TDD	48	3550-3700	3550-3700	100
3700 MHz TDD	43	3600-3800	3600-3800	100
3500 MHz	N77/N78	3500-3800	3500-3800	100
3500 MHz	N77	3800-4100	3800-4100	100
3500 MHz	N77/N78	3400-3600	3400-3600	100
2600 MHz TDD	41	2496-2690	2496-2690	100
2300 MHz TDD	40	2300-2400	2300-2400	100
2600 MHz TDD	38	2570-2620	2570-2620	50
2100 MHz FDD	1	2110-2170	1920-1980	70
1800 MHz FDD	3	1805-1880	1710-1785	75
2600 MHz FDD	7	2620-2690	2500-2570	70

** More bands will be supported in the roadmap*

ELECTRICAL

Complies with	3GPP TS36.106, 3GPP TS25.106
EMC	EN 301489-1 / -50, EN 50121-4, EN 55032, EN 61000-4 series
Safety	EN 60950-1, EN 60950-22, EN 62368-1, EN 50385
Maximum Power Consumption	140W
Power Supply	48VDC ± 20%

ENVIRONMENTAL

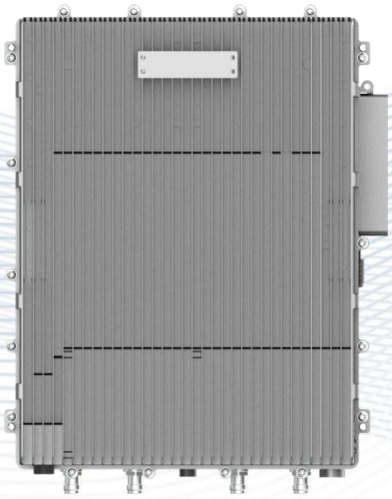
Mean Time Between Failure (MTBF)	> 100,000 hours
Operating Temperature	-40 °C ~ +55 °C | -40 °F ~ +131 °F
Humidity	5% ~ 100% (Non-Condensing)

Cooling	Passive
Installation	Wall or Pole
Ingress Protection Rating	IP67 (Outdoor)
Complies with	EN 300019-1-1, EN 300019-1-2, EN 300019-1-4

MECHANICAL	
Size (Width x Height x Depth)	360 x 115 x 260 mm | 14.17 x 4.53 x 10.24 in
Weight	12.0 kg | 26.46 lbs

RU4460

EXTRA POWER RRU



4T4R Digital Radios
40W (46dBm) Output Power
Passive Cooling
IP67 Outdoor Rated

The RU4460 is a digital transport platform supporting cellular technologies on fiber optic cable using the CPRI protocol. The power amplifier technology adopts DPD (Digital Pre-Distortion), allowing for a significant improvement in power consumption compared with analogue technology. This platform is ideal for underground tunnels & outdoor coverage deployments of cellular services.

LTE Distributed Base Station

KEY FEATURES

- Supports 2T2R & 4T4R
- Up to 40W (46dBm) Output Power
- Supports Cascading
- Supports Sub-6GHz TDD/FDD and External Alarm

TECHNICAL SPECIFICATIONS

SYSTEM

Bandwidth per Channel (Downlink & Uplink)	≤ 100 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20 MHz
Redundancy	Cascading

SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
2300MHz TDD	40	2300-2400	2300-2400	100
2500MHz TDD	41	2496-2690	2496-2690	100
2600MHz TDD	38	2570-2620	2570-2620	50
3500MHz TDD	42	3400-3600	3400-3600	100
3600MHz TDD	43	3600-3800	3600-3800	100
2100 MHz FDD	1	2110-2170	1920-1980	70
1800 MHz FDD	3	1805-1880	1710-1785	75
2600 MHz FDD	7	2620-2690	2500-2570	70

** More bands will be supported in the roadmap*

INTERFACES

Antenna Interface (All bands)	4.3-10 Female
Optical Connector Type	SFP+, Standard LC
Optical Transmission Rate	9.8304GB/s
Optical Fiber Length	1.4km / 10km / 30km 0.87mi / 6.21mi / 18.64mi
Dry Contact	2 Inputs & 2 Outputs, NO and NC Mode
Maintenance Interface	Ethernet RJ45

ELECTRICAL

Complies with	3GPP TS36.106 | 3GPP TS25.106
EMC	EN 301489-1 / -50, EN 50121-4, EN 55032, EN 61000-4 series
Safety	EN 60950-1, EN 60950-22, EN 62368-1, EN 50385
Maximum Power Consumption	700W

Power Supply	48VDC ± 20%

ENVIRONMENTAL	
Mean Time Between Failure (MTBF)	> 100,000 hours
Operating Temperature	-40 °C ~ +55 °C | -40 °F ~ +131 °F
Humidity	5% to 100% (Non-Condensing)
Cooling	Passive
Installation	Wall or Pole
Ingress Protection Rating	IP67 (Outdoor)
Complies with	EN 300019-1-1, EN 300019-1-2, EN 300019-1-4

MECHANICAL	
Size (Width x Height x Depth)	445 x 135 x 415 mm | 17.52 x 5.31 x 16.34 in
Weight	23.0 kg | 50.71 lbs

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