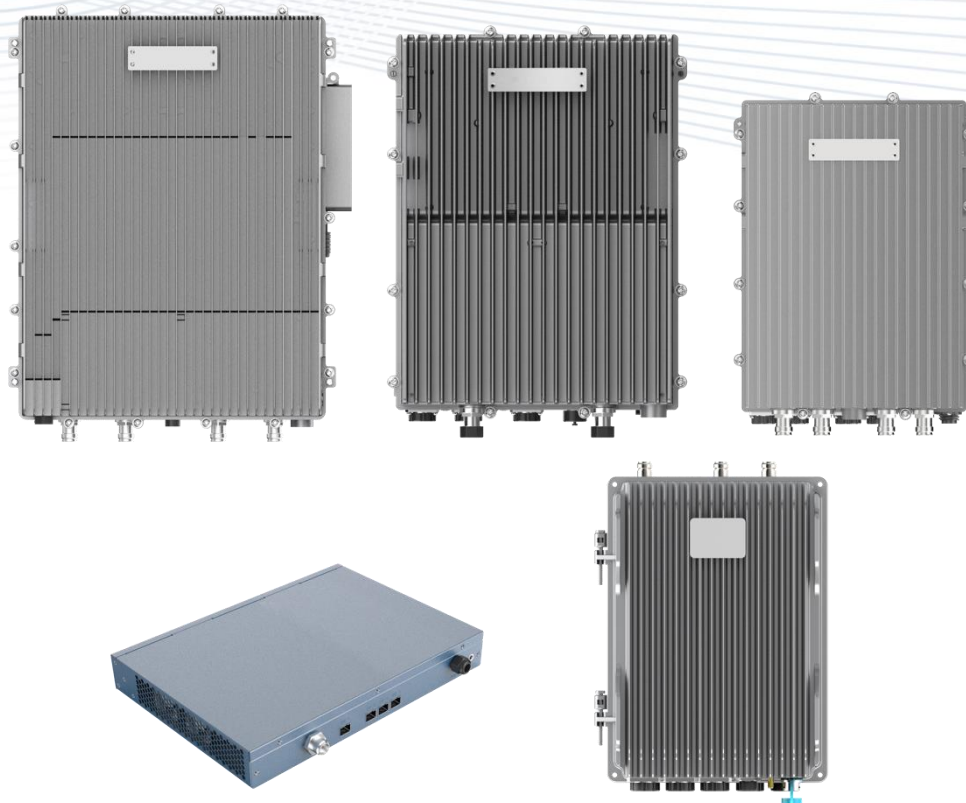


# sCELL-T4000

## LTE Distributed Base Station

- LTE 2\*2 MIMO/4\*4 MIMO
- 5W / 20W / 40W RRU
- Max 3 LTE Carriers
- Max 768 RRC/384 RRC-Connected
- GPS and 1588v2 Clock synchronization



## 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).

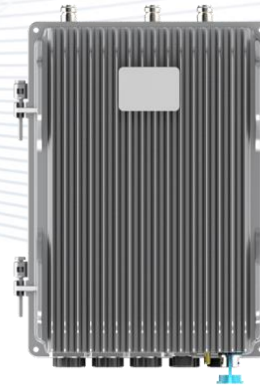
### KEY FEATURES

- Supports 3 x 20MHz LTE carriers
- Supports remote upgrade and management
- Supports IPsec function to ensure data security
- Supports 2 x 2 MIMO and 4 x 4 MIMO
- Supports 768 RRC/384 RRC-Connected
- MTBF > 100000 Hours
- Simple structure and easy installation
- Supports GPS/RGPS/1588v2 synchronization

## Indoor and Outdoor BaseBand Unit (BBU)



sCELL-T4000-ID



sCELL-T4000-OD

### TECHNICAL SPECIFICATIONS

#### SYSTEM

<b>Frequency Range</b>	700 MHz – 3800 MHz / (3800MHz – 4200MHz Roadmap in 2021 H2)
<b>3GPP</b>	Release 12
<b>LTE Technology</b>	TDD/FDD
<b>Bandwidth</b>	5/10/15/20 MHz
<b>MIMO</b>	3 Carriers, 2T2R 2 Carriers, 4T4R
<b>Operational Capacity</b>	Each cell supports 128 active users and 256 RRC connected users Supports 3 x 2T2R cells or 2 x 4T4R cells
<b>VoLTE Performance</b>	Each cell supports up to 128 active VoLTE users

Throughput	<b>TDD</b>		
	<b>20 MHz@2TRX</b> SA0: DL 50 Mbps UL 42 Mbps SA1: DL 80 Mbps UL 28 Mbps SA2: DL 110 Mbps UL 14 Mbps	<b>20 MHz@4TRX</b> SA0: DL 90 Mbps UL 42 Mbps SA1: DL 150 Mbps UL 50 Mbps SA2: DL 210 Mbps UL 20 Mbps	<b>10 MHz@2TRX</b> SA1: DL 40 Mbps UL 14 Mbps SA2: DL 55 Mbps UL 7 Mbps
	<b>FDD</b>		
	<b>20 MHz@2TRX</b> DL 150 Mbps; UL 75Mbps	<b>20 MHz@4TRX</b> DL 300 Mbps; UL 150Mbps	

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

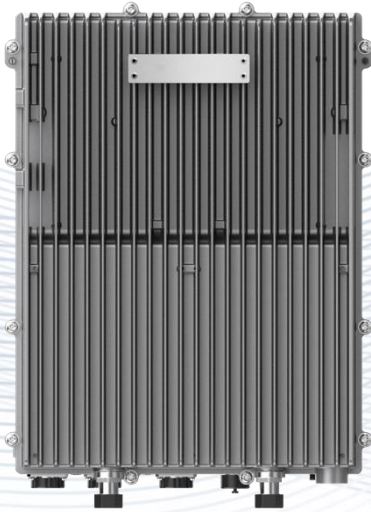
ENVIRONMENTAL SPECIFICATIONS	sCELL-T4000-ID	sCELL-T4000-OD
Operating Temperature	-10 °C ~ +45 °C   -14 °F ~ +113 °F	-40 °C ~ +55 °C   -40 °F ~ +131 °F
Storage Temperature	-40 °C ~ +70 °C   -40 °F ~ +158 °F	
Humidity	15% ~ 85%	5% ~ 98%
Ingress Protection Degree	IP20	IP65

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

Dual Band Digital Radios  
20W (43dBm) Output Power  
Passive Cooling  
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.

## KEY FEATURES

- Single Band 2T2R / Dual Band SISO
- Up to 20W (43dBm) Output Power
- Supports Cascading & Fiber Loopback
- Supports 700 to 2700 MHz TDD & FDD
- Supports External Alarm

## TECHNICAL SPECIFICATIONS

## SYSTEM

Frequency Range (Non-Contiguous)	700 MHz – 2700 MHz
Bandwidth per Channel (Downlink & Uplink)	≤ 80 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20/30/40/60/80 MHz
Redundancy	Cascading & Fiber Loopback

## SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
700 MHz	28 (APT/ Brazil)	758-798/763-803	703-743/708-748	40
800 MHz	20	791-821	832-862	30
850 MHz/ Extended	5/ 26	869-894/859-894	824-849/ 814-849	35
900 MHz	8	925-960	880-915	35
1800 MHz	3	1805-1880	1710-1785	75
1900 MHz	25	1930-1995	1850-1915	65
2100 MHz	1	2110-2170	1920-1980	60
2100 MHz AWS	66	2110-2180	2110-2180	70
2300 MHz TDD	40	2300-2400	2300-2400	80
2300 MHz	30	2350-2360	2305-2315	10
2500 MHz TDD	41 (LOWER/UPPER)	2496-2576/2610-2690	2496-2576/2610-2690	80
2600 MHz	7	2620-2690	2500-2570	70
2600 MHz TDD	38	2570-2620	2570-2620	50

## 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**

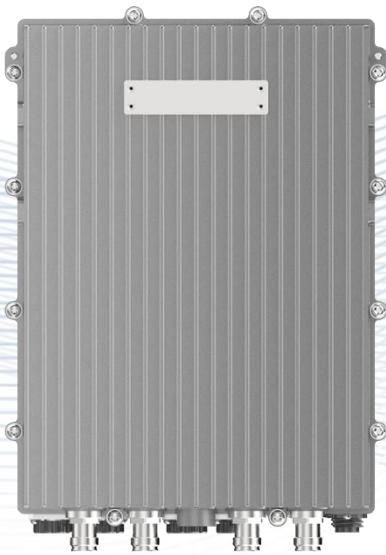
<b>Complies with</b>	3GPP TS36.106   3GPP TS25.106
<b>EMC</b>	EN 301489-1 / -50, EN 50121-4, EN 55032, EN 61000-4 series
<b>Safety</b>	EN 60950-1, EN 60950-22, EN 62368-1, EN 50385
<b>Maximum Power Consumption</b>	250W

**ENVIRONMENTAL**

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

**MECHANICAL**

<b>Size (Width x Height x Depth)</b>	400 mm x 135 mm x 300 mm   15.75 in x 5.31 in x 11.81 in
<b>Weight</b>	18.0 kg   39.68 lbs



## RU4370

### MID POWER RRU

4T4R Digital Radios  
5W (37dBm) Output Power  
5G NR 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.



## KEY FEATURES

- Single Band 4T4R / Dual Bands 2T2R, 5G NR Compliant
- Up to 5W (37dBm) Output Power and 100MHz IBW
- Supports Cascading & Fiber Loopback
- Supports Sub-6GHz TDD & FDD and External Alarm

## TECHNICAL SPECIFICATIONS

## SYSTEM

Frequency Range (Non-Contiguous)	600 MHz – 4200 MHz
Bandwidth per Channel (Downlink & Uplink)	≤ 100 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20/30/40/50/60/80/100 MHz
Redundancy	Cascading & Fiber Loopback

## SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
3500 MHz TDD	42	3400-3600	3400-3600	100
3600 MHz TDD	48	3550-3700	3550-3700	100
3700 MHz TDD	43	3600-3800	3600-3800	100
3500 MHz	N78	3450-3650	3450-3650	100
3600 MHz	N78	3542.5-3700	3542.5-3700	100
1800 MHz	3	1805-1880	1710-1785	75
1900 MHz	25	1930-1995	1850-1915	65
2100 MHz	1	2110-2170	1920-1980	60
2100 MHz AWS	66	2110-2180	2110-2180	70
2300 MHz TDD	40	2300-2400	2300-2400	80
2600 MHz TDD	38	2570-2620	2570-2620	50
2600 MHz	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

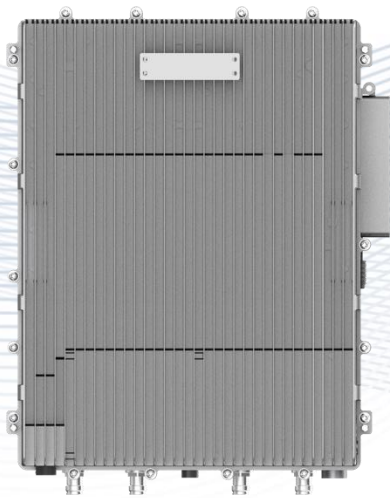
Mean Time Between Failure (MTBF)	> 100,000 hours
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sCELL-T4000  
LTE Distributed Base Station

<b>Operating Temperature</b>	-40 °C ~ +55 °C   -40 °F ~ +131 °F
<b>Humidity</b>	5% ~ 100% (Non-Condensing)
<b>Cooling</b>	Passive
<b>Installation</b>	Wall or Pole
<b>Ingress Protection Rating</b>	IP67 (Outdoor)
<b>Complies with</b>	EN 300019-1-1, EN 300019-1-2, EN 300019-1-4

**MECHANICAL**

<b>Size (Width x Height x Depth)</b>	360 mm x 115 mm x 260 mm   14.17 in x 4.53 in x 10.24 in
<b>Weight</b>	12.0 kg   26.46 lbs



## RU4460

### EXTRA POWER RRU

4T4R Digital Radios  
40W (46dBm) Output Power  
5G NR Compliant  
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.

## KEY FEATURES

- Single Band 4T4R / Dual Bands 2T2R, 5G NR Compliant
- Up to 40W (46dBm) Output Power and 100MHz IBW
- Supports Cascading & Fiber Loopback
- Supports Sub-6GHz TDD & FDD and External Alarm

## TECHNICAL SPECIFICATIONS

## SYSTEM

Frequency Range (Non-Contiguous)	600 MHz – 4200 MHz
Bandwidth per Channel (Downlink & Uplink)	≤ 100 MHz (Contiguous)
Digital Bandwidth per Channel (Downlink & Uplink)	3/5/10/20/30/40/50/60/80/100 MHz
Redundancy	Cascading & Fiber Loopback

## SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
3500MHz TDD	42	3400-3600	3400-3600	100
3600MHz TDD	48	3550-3700	3550-3700	100
3700MHz TDD	43	3600-3800	3600-3800	100
2500MHz TDD	41	2496-2690	2496-2690	100
2600MHz TDD	38	2570-2620	2570-2620	50
1800MHz	3	1805-1880	1710-1785	75
2100Mhz	1	2110-2170	1920-1980	60
2600Mhz	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



sCELL-T4000  
LTE Distributed Base Station

Power Supply	48VDC $\pm$ 20%
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**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 mm x 135 mm x 415 mm   17.52 in x 5.31 in x 16.34 in
Weight	23.0 kg   50.71 lbs

Contact us  
[www.sunwave.com](http://www.sunwave.com)