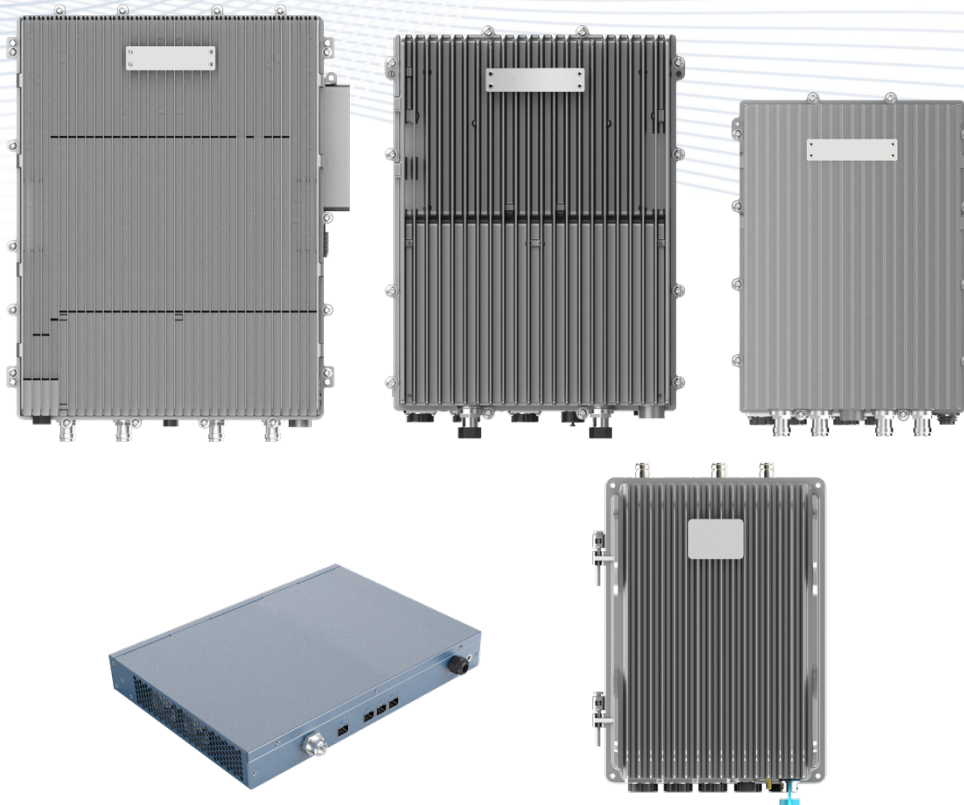


# sCELL-T4000

## LTE Distributed Base Station

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



# LTE Distributed Base Station

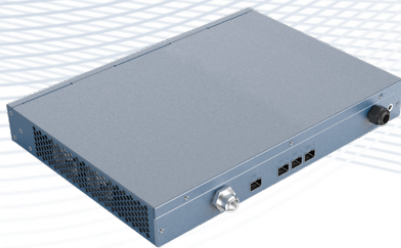
## Overview

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).

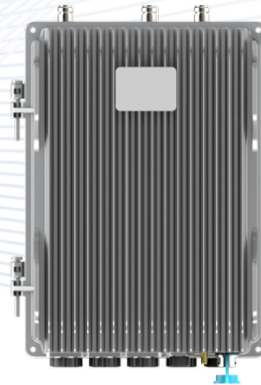
### KEY FEATURES

- 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 128 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

<b>3GPP</b>	Release 13
<b>LTE Technology</b>	TDD
<b>Bandwidth</b>	5/10/20 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
<b>Throughput</b>	<b>TDD</b>

## LTE Distributed Base Station

	<b>20 MHz@2TRX</b> SA1: DL 80 Mbps UL 28 Mbps SA2: DL 110 Mbps UL 14 Mbps	<b>20 MHz@4TRX</b> 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
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APPEARANCE	sCELL-T4000-ID	sCELL-T4000-OD
<b>Installation Method</b>	Rack installation	Wall or Pole installation
<b>Size (L*W*H)</b>	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
<b>Weight</b>	4 kg   8.82 lbs	< 15 kg   33.07 lbs
<b>Heat Dispersion</b>	Fan cooling	Natural cooling

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

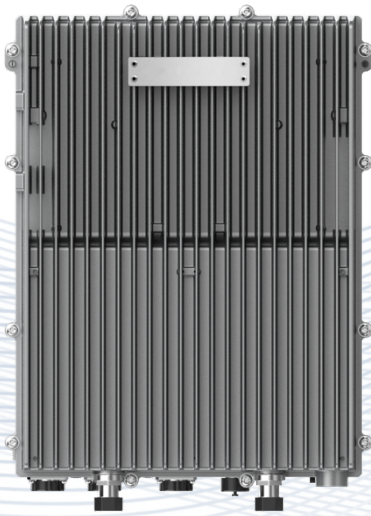
MONITORING AND CONTROL	
<b>LMC (Local Monitoring &amp; Control)</b>	Internet, WEBOMT
<b>Remote Monitoring &amp; Control</b>	TR069 protocol monitoring function
<b>OMT</b>	WEBOMT

ELECTRICAL	sCELL-T4000-ID	sCELL-T4000-OD
<b>Power</b>	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)
<b>Power Consumption</b>	< 80W	< 180W
<b>Reset Time</b>	≤ 10 min	
<b>Backup Power</b>	No	

## LTE Distributed Base Station

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

## LTE Distributed Base Station



## RU2430

## HIGH POWER RRU

2T2R 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.

# LTE Distributed Base Station

## KEY FEATURES

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

## TECHNICAL SPECIFICATIONS

### SYSTEM

<b>Bandwidth per Channel (Downlink &amp; Uplink)</b>	≤ 80 MHz (Contiguous)
<b>Digital Bandwidth per Channel (Downlink &amp; Uplink)</b>	3/5/10/20 MHz
<b>Redundancy</b>	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
2600 MHz TDD	38	2570-2620	2570-2620	50

### INTERFACES

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

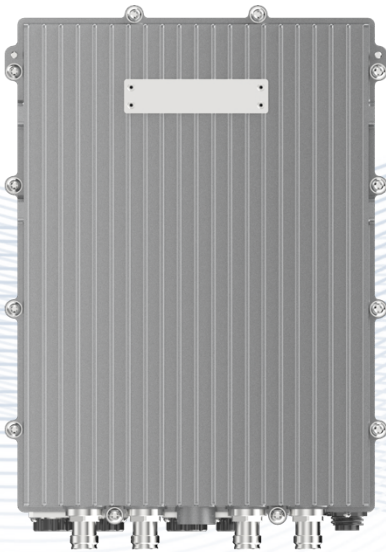
## LTE Distributed Base Station

<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 $\pm$ 20%

**MECHANICAL**

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

## LTE Distributed Base Station



## 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.



# 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 and External Alarm

## TECHNICAL SPECIFICATIONS

### SYSTEM

<b>Bandwidth per Channel (Downlink &amp; Uplink)</b>	≤ 100 MHz (Contiguous)
<b>Digital Bandwidth per Channel (Downlink &amp; Uplink)</b>	3/5/10/20MHz for LTE 20/40/50/60/80/100 MHz for 5G
<b>Redundancy</b>	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
2600 MHz TDD	38	2570-2620	2570-2620	50

\* More bands will be supported in the roadmap

### 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>	140W
<b>Power Supply</b>	48VDC ± 20%

### ENVIRONMENTAL

<b>Mean Time Between Failure (MTBF)</b>	> 100,000 hours
<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)

## LTE Distributed Base Station

**Complies with**

EN 300019-1-1, EN 300019-1-2, EN 300019-1-4

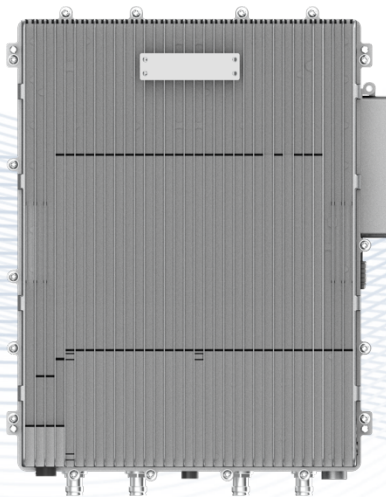
**MECHANICAL****Size (Width x Height x Depth)**

360 x 115 x 260 mm | 14.17 x 4.53 x 10.24 in

**Weight**

12.0 kg | 26.46 lbs

## LTE Distributed Base Station



# 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 and External Alarm

## TECHNICAL SPECIFICATIONS

### SYSTEM

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

### SUPPORTED BANDS

Band Frequency	3GPP Band	Downlink Frequency	Uplink Frequency	Max Bandwidth
2300MHz TDD	40	2300-2400	2300-2400	100

\* More bands will be supported in the roadmap

### INTERFACES

<b>Antenna Interface (All bands)</b>	4.3-10 Female
<b>Optical Connector Type</b>	SFP+, Standard LC
<b>Optical Transmission Rate</b>	9.8304GB/s
<b>Optical Fiber Length</b>	1.4km / 10km / 30km 0.87mi / 6.21mi / 18.64mi
<b>Dry Contact</b>	2 Inputs & 2 Outputs, NO and NC Mode
<b>Maintenance Interface</b>	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>	700W
<b>Power Supply</b>	48VDC ± 20%

### ENVIRONMENTAL

<b>Mean Time Between Failure (MTBF)</b>	> 100,000 hours
<b>Operating Temperature</b>	-40 °C ~ +55 °C   -40 °F ~ +131 °F
<b>Humidity</b>	5% to 100% (Non-Condensing)
<b>Cooling</b>	Passive
<b>Installation</b>	Wall or Pole

## LTE Distributed Base Station

<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>	445 x 135 x 415 mm   17.52 x 5.31 x 16.34 in
<b>Weight</b>	23.0 kg   50.71 lbs

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