Indoor nCELL Solution

5GNR PicoCell

- Full Digitalization & Multi-MNO Support
- Octo-Band and Maximum 25dBm output power
- Flexible Configuration, 2x2/4x4 MIMO
- Supports Public and Private Hybrid Network
- Integrated Antenna Design, Plug&Play

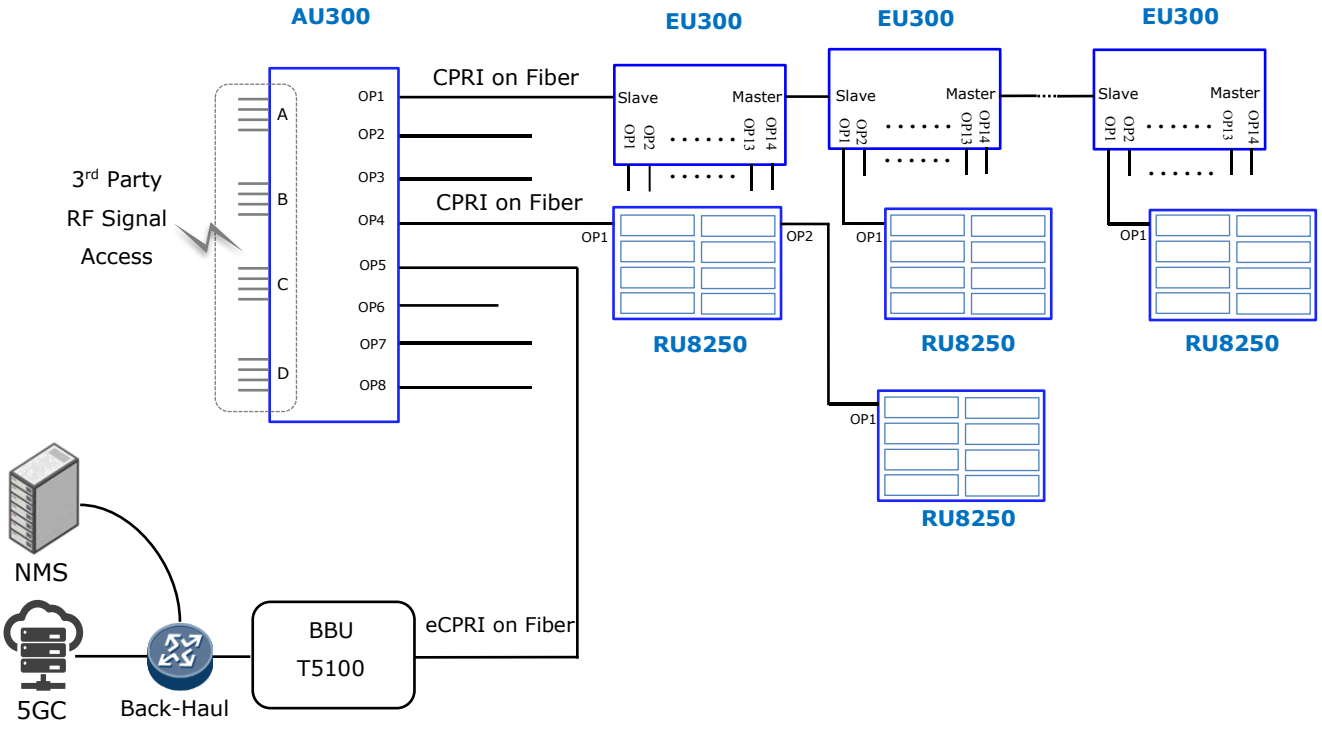
Overview

The Indoor nCELL Solution from Sunwave mainly used for indoor scenario coverage, with sufficient hardware ability can provide flexible capability. It consists of Access Unit, Extension Unit and Remote Radio Unit.

KEY FEATURES

- Supports up to 25dBm output power
- Supports remote upgrade and management
- Supports Cascading
- Supports 2 x 2 MIMO and 4 x 4 MIMO
- MTBF > 150,000 hours
- Simple structure and easy installation
- Supports 3rd party cellular signal feed-in
- Supports multi-band

System Block Diagram



Access Unit and Extension Unit

APPEARANCE	
	
nCELL-AU300	**nCELL-EU300**

SYSTEM TECHNICAL SPECIFICATIONS	
Maximum NR Carriers support	2 x 4T4R or 4 x 2T2R
NR Carriers Bandwidth support	10/20/40/50/60/70/80/90/100 MHz
Interface	Between AU300 and T5100: 25G eCPRI Among AU300, EU300 and RU8250: 25G CPRI
Maximum RF Bands per AU300	4 (A/B/C/D)
RF interface of AU300	4 x QMA female per band, supports SISO/2x2 MIMO/4x4 MIMO
Power of RF Input	0~+15dBm
Maximum EU300 per AU300	6 (OP1-OP4, OP7-OP8)
Maximum RU8250 per EU300	14 (OP1-OP14)
Cascade	EU300&RU8250 support a 6-level cascade topology
VSWR	1.6 (AU300)
Multi-Vendor	AU300 supports multiple vendors and multiple technologies wireless signal feed-in

HARDWARE and ENVIRONMENT	nCELL-AU300	nCELL-EU300
Installation Method	Wall or 19” Rack installation	
Size (L*W*H)	440mm / 88mm / 329mm | 17.32in / 3.46in / 12.95in	440mm / 44mm / 220mm | 17.32in / 1.73in / 8.66in
Weight	8.5 kg | 18.74 lbs	6 kg | 13.23 lbs
Heat Dispersion	Fan cooling	Natural cooling
Power Consumption	< 85W	< 65W
Power Supply	100-240V AC, 50/60Hz | -48VDC±20%	
Operating Temperature	-10°C to +45°C / 14°F to +113°F	
Storage Temperature	-40°C to +70°C / -40°F to +158°F	
Humidity	5% ~ 85% (Non-Condensing)	
Ingress Protection Degree	IP30	
Electromagnetic and Environment Compliance	EN 55032, EN55035, EN61000-3 Series IEC 60321 Series	

Remote Radio Unit - nCELL-RU8250

APPEARANCE

The nCELL-RU8250 from Sunwave is a 4G/5G multi-RAT Remote Radio Unite, which is operating in 3GPP defined bands with Octa RF transmitters and receivers.

SYSTEM TECHNICAL SPECIFICATIONS	
Complies with	3GPP TS38.113
Bandwidth per Channel (DL & UL)	⩽ 100 MHz (Contiguous)
Digital Bandwidth per Channel (DL & UL)	10/20/40/50/60/80/100 MHz
Maximum Output Power	25dBm, 8 Channels
MIMO	SISO, 2x2 MIMO, 4x4 MIMO
Error Vector Magnitude	<3.5% @ 256 QAM
Mean Time Between Failure (MTBF)	>150,000 hours

HARDWARE and ENVIRONMENT	
Installation Method	Wall or Ceiling Mount
Antenna	Internal or External (QMA Female)
Optical Interface	SFP28, Standard LC, 24.33024Gb/s
Optical Fiber Length	1.2 km
Maintenance Interface	Ethernet RJ45
Size (L*W*H)	280mm / 80 mm / 280mm | 11.02in / 2.95in / 11.02in
Weight	4.5 kg | 9.92lb
Heat Dispersion	Natural cooling
Power Consumption	<80W
Power Supply	-48VDC±20%
Operating Temperature	-10° C to +45° C / 14° F to +113° F
Storage Temperature	-40° C to +70° C / -40° F to +158° F
Humidity	5% ~ 85% (Non-Condensing)
Ingress Protection Degree	IP30
Environmental	IEC 60321 Series
Safety	EN IEC 62368-1
Electromagnetic Compliance	EN 55032, EN55035 Series

SUPPORTED P5G BANDS					
Band Frequency	**3GPP Band**	**DL Frequency**	**UL Frequency**	**Max Output Power**	**Max Bandwidth**
2300 MHz TDD	N40	2300-2400	2300-2400	23 dBm	100
2500 MHz TDD	N41	2496-2690	2496-2690	25 dBm	100
3600 MHz TDD	N78-1	3450-3800	3450-3800	25 dBm	100
3300 MHz TDD	N78-2	3300-3600	3300-3600	25 dBm	100
3800 MHz TDD	N77-1	3700-3980	3700-3980	25 dBm	100
3900 MHz TDD	N77-2	3600-3900	3600-3900	25 dBm	100
4200MHz TDD	N77-3	3800-4200	3800-4200	25 dBm	100
SUPPORTED 3rd PARTY RF ACCESS BANDS (INCLUDING P5G BANDS)					
Band Frequency	**3GPP Band**	**Downlink Frequency**	**Uplink Frequency**	**Max Output Power**	**Max Bandwidth**
600 MHz FDD	B71	617-652	663-698	17 dBm	35
700 MHz FDD	B28	758-803	703-748	17 dBm	45
700 MHz Lower FDD	B12&13&14	728-768	698-716 | 776-798	17 dBm	40
800 MHz FDD	B20	791-821	832-862	17 dBm	30
850 MHz FDD	B26	859-894	814-849	17 dBm	35
900 MHz FDD	B8	925-960	880-915	17 dBm	35
1800 MHz FDD	B3	1805-1880	1710-1785	23 dBm	75
1900 MHz FDD	B25	1930-1995	1850-1915	20 dBm	65
2100 MHz FDD	B66E	2110-2200	1710-1780	23 dBm	90
2100 MHz FDD	B1	2110-2170	1920-1980	23 dBm	60
2300 MHz FDD	B30	2350-2360	2305-2315	23 dBm	10
2600 MHz FDD	B7	2620-2690	2500-2570	23 dBm	70

Contact Us Today
en.sunwave.com