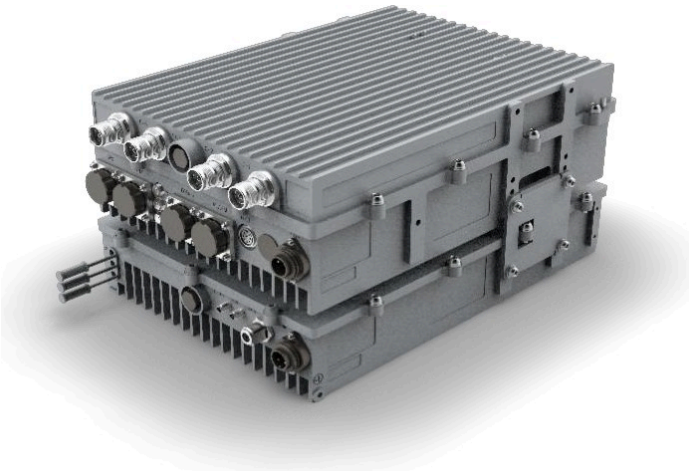


CompactOne 5G

5G Integrated Base Station

4 × 5 W

4T4R

All-in-one design

Clock synchronization

The CompactOne 5G from EdgeNectar is an all-in-one 5G base station that combines the baseband unit (BBU) and the radio unit (RRU) in one weatherproof enclosure. Built on multi-core ARM and FPGA technology, with an independently developed protocol stack and system software, it provides complete 5G NR wireless access and fast, reliable outdoor coverage. Its low power consumption, compact size and simple installation make it suitable for a wide range of industries.

CompactOne 5G

Outdoor gNodeB Datasheet

SYSTEM FUNCTIONS	
Standard	3GPP R15 / R16*
Number of Cells	1 × 4T4R or 2 × 2T2R*
Cell Capacity	400 RRC users per cell
Cell Throughput	DL 1.5 Gbps, UL 260 Mbps (DDDSU) DL 658 Mbps, UL 669 Mbps (DSUUU)
Frequency Band	n77 / n78: 3500–3800 MHz; other bands on request
Channel Bandwidth	20 / 40 / 50 / 60 / 100 MHz
RF Power	4 × 5 W
Duplex Mode	TDD
Subcarrier Spacing	30 kHz
Clock Synchronization	GPS, IEEE 1588 v2
Power Supply	–48 V DC, or 100–240 V AC with an additional power supply
Power Consumption	< 230 W

* On the roadmap

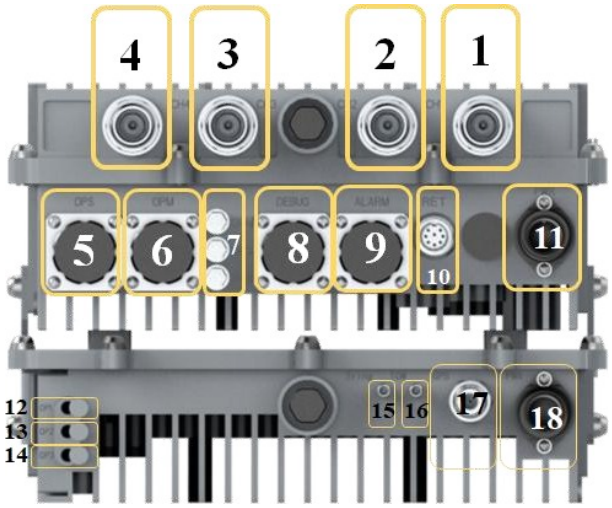
HARDWARE INTERFACES	
Fronthaul / Backhaul / Cascade	10G SFP+ optical port
Debug / RGPS Interface	Cable port
Power Input	Waterproof aviation plug
RF Interfaces ANT1–ANT4	4.3-10
GPS Antenna Connector	N-type

MECHANICAL	
Weight	< 17 kg I 28.67 lb
Dimensions	378.5 × 278.5 × 182 mm I 14.90 × 10.96 × 7.17 in
Installation	Pole, hanging or wall mount

ENVIRONMENTAL SPECIFICATIONS

Protection Rating	IP67
Operating Temperature	–40 °C to +55 °C I –40 °F to +131 °F
Operating Humidity	5% to 95%
Operating Pressure	70 kPa to 106 kPa

INTERFACES



1. RF port 1 (DL/UL duplex)	2. RF port 2 (DL/UL duplex)
3. RF port 3 (DL/UL duplex)	4. RF port 4 (DL/UL duplex)
5. Optical port to DU	6. Optical port for cascading (reserved)
7. LED indicators (optical port and system)	8. RU maintenance port
9. External alarm port	10. AISG port
11. RU power socket	12. DU optical port 1
13. DU optical port 2	14. DU optical port 3
15. Debug interface	16. 10M SMA, for debugging
17. GPS port (N-type)	18. DU power socket