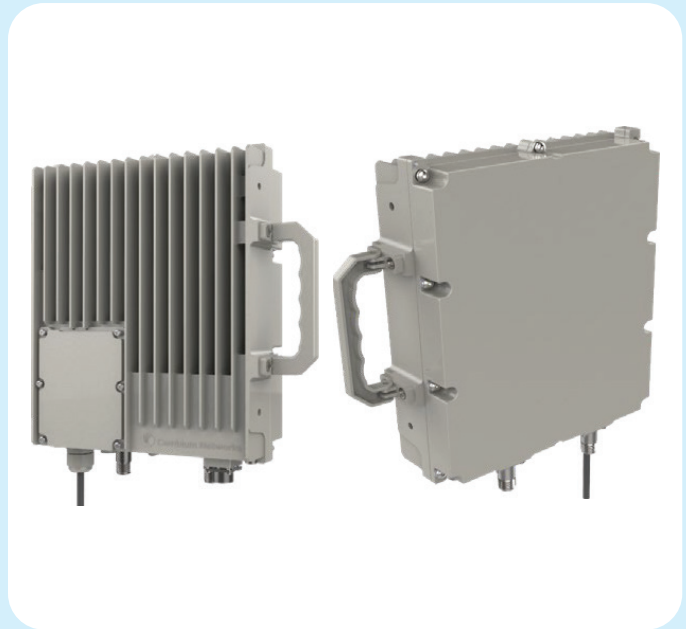


2 GHz and 3 GHz cnRanger Remote Radio Head (RRH)

QUICK LOOK:

The cnRanger™ Fixed LTE wireless platform from Cambium Networks substantially increases range and coverage, while reducing the cost and complexity typically associated with LTE networks.

- **High Power Remote Radio Head (RRH) works through dense foliage where EIRP-limited 5 GHz is not an option.**
- **Fully managed and controlled by Baseband Unit (BBU)**
- **2 LTE carrier support***



Product

	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
Model	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
Model Numbers	LTE-RRH-220	3LTE-RRH-210

Spectrum

	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
Frequency Range	2300 - 2700 MHz, Bands 38, 40, 41	3400 - 3800 MHz, Bands 42, 43, 48
Channel Width	5 MHz*, 10 MHz, 15 MHz, 20 MHz	5 MHz*, 10 MHz, 15 MHz, 20 MHz

2 GHz and 3 GHz cnRanger SPalisade Remote Radio Head (RRH)

Specifications

Interface		
	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
MAC (Media Access Control) Layer	TDD-LTE Advanced Release 10	TDD-LTE Advanced Release 10
Physical Layer	2x2 MIMO OFDMA, SC-FDMA	2x2 MIMO OFDMA, SC-FDMA
BBU Interface	SFP / CPRI v4.2	SFP / CPRI v4.2

Link Budget		
	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
Transit Power Range	42 dB dynamic range (1 dB step)	42 dB dynamic range (1 dB step)
Maximum Transmit Power	33 dBm per chain, 36 dBm combined	30 dBm per chain, 33 dBm combined

Physical		
	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
Antenna Connection	N-Type	N-Type
Surge Suppression	EN61000-4-5: 1.2us/50us, 500 V voltage waveform	EN61000-4-5: 1.2us/50us, 500 V voltage waveform
Environmental	IP67	IP67
Temperature / Humidity	-40°C to +55°C (-40°F to +131°F), 5 to 95% non-condensing	-40°C to +55°C (-40°F to +131°F), 5 to 95% non-condensing
Weight	6kg (13.2 lbs)	4.75kg (10.5 lbs)
Wind Survival	200 Km/Hr	200 Km/Hr
Dimensions (H x W x Depth)	10 3/4" (H) x 3 3/16" (H) x 12 1/2" (D) (273 mm x 81 mm x 318 mm)	10 3/4" (H) x 3 3/16" (H) x 12 1/2" (D) (273 mm x 81 mm x 318 mm)
Mounting	1.5" to 3.0" (38 to 76 mm)	1.5" to 3.0" (38 to 76 mm)
Power Consumption	55 W nominal, 72 W peak	45 W nominal, 60 W peak
Recommended Power Supply	P/N: N000000L129A - XP Power 120 W PSU	P/N: N000000L129A - XP Power 120 W PSU
Input Voltage	-48V DC	-48V DC

2 GHz and 3 GHz cnRanger SPalisade Remote Radio Head (RRH)

Certifications		
	2 GHz Remote Radio Head (RRH) 220	3 GHz Remote Radio Head (RRH) 210
FCC ID	Z8H89FT0045	Z8H89FT0061
ETSI	EN 301 908-1 v11.1.1	
	EN 50385 / EN 62311	TBD
	Draft EN 301 489-50 v2.1.0	
Mean Time Between Failure	Not Measured	Not Measured

ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.