

# The evolution of millimeter wave

The most advanced licensed point-to-multipoint (PMP) solution is now available in millimeter wave - bringing transformational capacity to every major city in the US.

CBNL's market leading VectaStar® platform offers an unparalleled business case - **faster to deploy and up to half the cost for a high capacity licensed link compared to point-to-point (PTP).**



- Up to 550Mb/s per link and up to 13.2Gb/s hub site capacity
- Guaranteed carrier-grade services
- Saves up to 50% CAPEX, OPEX and total cost of ownership compared to PTP\*
- Nationwide spectrum available with products at 28GHz and 39GHz
- Flexible leasing of wide channels available at 39GHz
- The most spectrally efficient route to transform last mile hub throughput to multiple Gigabits per second
- Deployed across nine states, including five networks in New York

#### Use cases:

- Backhaul (macro and small cell)
- Fixed wireless to the enterprise and home
- Utility companies
- Smart cities



## VectaStar ODU-S series

VectaStar ODU-S is the market leading licensed PMP platform which is proven in backhauling wide area 2G, 3G, LTE, Wi-Fi and enterprise access networks.



Pictured: VectaStar ODU-S 28GHz (FCC) RT 20cm antenna

<b>Frequencies</b>	10.5GHz (ETSI) - 26GHz (ETSI) - 27GHz (Anatel) - 28GHz (ETSI) - 28GHz (FCC)
<b>Capacity</b>	300Mb/s per link, 600Mb/s per sector, up to 7.2Gb/s per hub site (utilizing 28MHz channels)
<b>Sector Antennas</b>	30 and 90 degree
<b>RT Antennas</b>	0.8', 1', 2', 3'
<b>Range</b>	10.5GHz: up to 17.7 miles at 99.99% (typical), 26-28GHz: up to 5 miles at 99.99% (typical)
<b>Sites per sector</b>	Up to 8 sites per sector, or up to 30 sites per sector with the VectaStar Radio Controller

## VectaStar 600 series

VectaStar 600 is the latest evolution in the platform which supports 50MHz and 56MHz channels to offer higher capacity and greater flexibility.



Pictured: VectaStar 600 28GHz (FCC) RT 20cm antenna

<b>Frequencies</b>	26GHz (ETSI) - 27GHz (Anatel) - 28GHz (ETSI) - 28GHz (FCC) - 39GHz (FCC)
<b>Capacity</b>	550Mb/s per link, 1.1Gb/s per sector, up to 13.2Gb/s per hub site (utilizing 50MHz channels)
<b>Sector Antennas</b>	30 and 90 degree
<b>RT Antennas</b>	0.8', 1', 2', 3'
<b>Range</b>	26-28GHz: up to 5 miles at 99.99% (typical), 39GHz: 1-3 miles at 99.99% (typical)
<b>Sites per sector</b>	Up to 8 sites per sector, or up to 30 sites per sector with the VectaStar Radio Controller

## VectaStar Metro 600 series

Designed for quick, discreet and easy installation on street furniture, VectaStar Metro 600 provides coverage through urban canyons backhauling multiple small cells.



Pictured: VectaStar Metro 600 28GHz (FCC)

<b>Frequencies</b>	26GHz (ETSI) - 27GHz (Anatel) - 28GHz (ETSI) - 28GHz (FCC) - 39GHz (FCC)
<b>Capacity</b>	550Mb/s per link, 1.1Gb/s per sector, up to 13.2Gb/s per hub site (utilizing 50MHz channels)
<b>Antennas</b>	Fully integrated access point and remote terminal antennas
<b>Range</b>	0.5 to 2 miles at 99.99% (typical)
<b>Sites per sector</b>	Up to 8 sites per sector, or up to 30 sites per sector with the VectaStar Radio Controller