STREETN⊙DE
V60-PTP

StreetNode™ 6250 PTP

Indicative finishes:

Light grey   *Charcoal*

Innovative Auto-Aligning Gigabit Radio 60 GHz

Overview

StreetNode™ 6250 PTP, part of the StreetNode™ V60-PTP series, is a mmWave all-outdoor native Ethernet radio operating in the license-free 60 GHz band that is specifically designed to meet the challenges of small-cell backhaul in urban areas and minimize deployment effort and cost. It can be installed on wall surfaces and lamp posts and be flexibly interconnected to form wireless backhaul network topologies that reach challenging small-cell locations and deliver best-in-class connectivity at street level. Its elegant design, compact size and availability in a variety of colors allow this radio to blend unobtrusively in the urban landscape. Featuring innovative "zero-touch" auto-alignment and provisioning (via Bluetooth - connected LCT), as well as, automatic channel interference scanning, StreetNode™ 6250 PTP accelerates street-level deployment, reducing the backhaul site costs significantly.

Radio Specifications

Operating Frequencies, MHz	57,000 to 64,000 (Band Option 0) 58,250 to 63,250 (Band Option 1) 59,000 to 63,000 (Band Option 2) 64,000 to 66,000 (Band Option 3)		
Channel Size, MHz	250 (Band Options 0-2) / 240 (Band Option 3)		
Duplexing Scheme	FDD		
Ethernet Throughput, Gbit/s	up to 1.65		
Modulation (adaptive)	4-QAM Low / 4-QAM High / 16-QAM / 32-QAM / 64-QAM / 128-QAM		
Link Adaptation	Hitless 6-state ACM mechanism based on link quality metrics.		
Integrated Auto-aligning Antenna	Gain, dBi	34	
	RPE Class	ETSI EN 302 217-4-2, Class 2	
	Adjustment Range (Azimuth / Elevation)	±15° / ±10°	

Mechanical & Environmental Specifications

Dimensions (H x W x D), mm	298 x 151 x 176
Weight, kg	3 (excluding the mounting kit)
Power Supply Options	
Direct DC	-40.5 V to -60 V
Direct AC	90 V to 264 V, 47 Hz to 63 Hz
Power over Ethernet (PoE)	Power over Ethernet (PoE)
Power Consumption, W	38
Operating Temperature	-33 °C to +55 °C (normal), -50 °C to +55 °C (extended)

Radio & Modem Performance

Modulation	L1 Rate, Mbit/s (with MHS, 128-Byte)	Max. Tx Power, dBm	ATPC Range, dB	Rx Level @ BER= 10^{-6}, Typ., dBm	System Gain @ BER= 10^{-6}, Typ., dB
128-QAM	1,644	2.5	14.5	-59.5	130.0
64-QAM	1,365	3.5	15.5	-62.3	133.8
32-QAM	1,010	5.5	17.5	-65.8	139.3
16-QAM	809	6.0	18.0	-69.3	143.3
4-QAM High	404	6.0	18.0	-75.7	149.7
4-QAM Low	265	6.0	18.0	-77.6	151.6

Features & Networking Specifications

- **Interfaces**
  - 2 x 100/1000Base-T (RJ45)
  - 1 x 1000Base-SX/LX / 1000Base-T

- **Networking Features**
  - IEEE 802.1Q (VLAN)
  - IEEE 802.1p
  - IEEE 802.1ad (Provider Bridge (Q-in-Q))
  - IEEE 802.1w (RSTP)
  - IEEE 802.3ad (Static LAG)
  - ITU-T G.8032v2 (ERP)
  - MEF Carrier Ethernet (CE) EPL & EVPL, E-LAN & EV-LAN
  - Jumbo Frames: 9,600 bytes

- **Bridge Security**
  - MAC Anti-Spoofing
  - Multicast/Broadcast Storm Control
  - Port Flooding Protection (unknown unicast)

- **Quality of Service (QoS)**
  - Eight QoS classes (8 queues)
  - Packet Classification per Interface / VLAN ID / P-Bits / DSCP / IPv6 TC / MPLS EXP
  - Service Policing: two rate, three-color (MEF compliant)
  - Queue Management:
    › Tail drop
    › WRED
  - Egress shaping
  - Queuing Schemes:
    › Strict Priority (SP)
    › Weighted Round Robin (WRR)
    › Hybrid (2 x Strict Priority (SP) plus 6 x Weighted Round Robin (WRR))
    › Weighted Fair Queuing (WFQ)

- **Ethernet OAM**
  - IEEE 802.1ag (Service OAM (CFM))
  - ITU-T Y.1731 (Performance Monitoring)
  - IEEE 802.3ah (Link OAM (EFM))

- **Synchronization**
  - ITU-T G.8261 / G.8262 / G.8264 (Synchronous Ethernet)
  - IEEE 1588v2 Transparent & Boundary Clock

- **Management**
  - Through uni|MS™ / Web interface / CLI:
    › SNMPv2c, v3
    › RMON (RFC 2819)
    › G.826 (Radio Link Counters)
    › Remote Access, Embedded WebUI, File Transfer
    › SSH, HTTPs, SFTP
    › Bluetooth v2.1 + EDR (Class 1 (100 mW), 9600 bit/s serial baud rate)

- **CE**
  - CE Marked

- **Spectrum**
  - ECC / REC (09)01
  - ECC / REC (05)02
  - ETSI EN 302 217-3

- **EMC / EMI**
  - ETSI EN 301 489-1
  - ETSI EN 301 489-4
  - EN 55022

- **Electrical Safety**
  - EN 60950-1
  - EN 60950-22
  - EN 50385 (RF Exposure)

- **Environmental**
  - ETSI EN 300019-2-4 V2.2.2, Class 4.1/4M5 (Operation)
  - ETSI EN 300 019-2-1 v2.1.2, Class 1.2 (Storage)
  - ETSI EN 300 019-2-2 v2.1.2, Class 2.3 (Transportation)
  - IEC 60529, Class IP67 (Protection against dust and water)