



NetStream 5x250

NetStream 5x250 is a carrier-class radio that supports 4.9 to 6.0 GHz and complies with FCC, IC (Canada), MII (China), WPC (India) and Universal regulations (factory default: 5.8 GHz FCC/IC).

NetStream 5x250 provides 250 Mbps net aggregate throughput at a range of up to 40 km/25 miles.

NetStream 5x250 comes with an integrated antenna.

Product Highlights

- 250 Mbps Ethernet net throughput
- Long range – up to 40 km/25 miles
- Supports intra-site and inter-site TDD synchronization to maximize network capacity
- Configurable asymmetric throughput – dynamic allocation between uplink and downlink
- Advanced OFDM and MIMO technologies for operation in nLOS/NLOS and dense radio environments
- Robust and reliable to operate in tough conditions and extreme temperatures



Product Specifications

Configuration

Architecture	Outdoor Unit with integrated antenna
PoE to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m for 10/100BaseT and 75 m for 1000BaseT

Radio

Capacity	250 Mbps net aggregate throughput
Range	Up to 40 km / 25 miles
Channel Bandwidth	Configurable: 5, 10, 20 or 40 MHz (for the default band)
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported upon power up
DFS	Not Supported (for the default band)
Diversity	Supported
Spectrum View	Supported
Max Tx Power	25 dBm
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128; FIPS 197; AES 256 optional (via Software License Key)
Supported Indoor Units	NetStream PoE device
Bandwidth Allocation	Configurable: Symmetric or Asymmetric
QoS	Packet classification to 4 priority queues according to 802.1p and Diffserv
VLAN Support	802.1Q, QinQ, 4094 VLANs
TDD Intra Site Synchronization	Supported
TDD Inter Site Synchronization	Supported through common GPS receiver per site

Supported Bands

Band	Channel BW 5 MHz	Channel BW 10 MHz	Channel BW 20 MHz	Channel BW 40 MHz	Radio Compliance
5.8 GHz FCC/IC*	5.7275 - 5.8475	5.725 - 5.850	5.725 - 5.850	5.725 - 5.850	FCC 47CFR Part 15.247; IC RSS-210
4.9 GHz FCC/IC	4.9425 - 4.9875	4.940 - 4.990	4.940 - 4.990	-	FCC 47CFR Part 90 Subpart Y; IC RSS-111
4.9 GHz Universal	4.8975 - 4.9925	4.895 - 4.995	4.890 - 5.000	4.880 - 5.000	Universal
5.0 GHz Universal	4.9975 - 5.1525	4.995 - 5.155	4.990 - 5.160	4.980 - 5.170	Universal
5.1 GHz Universal	5.1475 - 5.3375	5.145 - 5.340	5.140 - 5.345	5.130 - 5.355	Universal
5.2 GHz FCC/IC	5.2525 - 5.3475	5.255 - 5.345	5.255 - 5.345	5.255 - 5.345	FCC 47CFR Part 15.407; IC RSS-210
5.4 GHz FCC/IC	5.4775 - 5.7175	5.480 - 5.715	5.480 - 5.715	5.480 - 5.715	FCC 47CFR Part 15.407; IC RSS-210
5.4 GHz IC	5.4775 - 5.7175	5.480 - 5.715	5.480 - 5.715	5.480 - 5.715	IC RSS-210
5.4 GHz Universal	5.4725 - 5.7225	5.470 - 5.725	5.465 - 5.730	5.455 - 5.740	Universal
5.8 GHz MII China	5.7375 - 5.8375	5.735 - 5.840	5.730 - 5.845	5.720 - 5.855	CMIIT RTA
5.8 GHz WPC	5.8275 - 5.8725	5.825 - 5.875	5.825 - 5.875	5.815 - 5.885	WPC (India) G.S.R 38(E) dated 19 January, 2007 Notification
5.9 GHz Universal	5.7275 - 5.9525	5.725 - 5.955	5.720 - 5.960	5.710 - 5.970	Universal
6.0 GHz Universal	5.6975 - 6.0525	5.695 - 6.055	5.690 - 6.060	5.680 - 6.070	Universal

* Default Band

Mechanical

ODU Dimensions	30(w) x 30(h) x 10(d) cm
ODU Weight	2.9 kg / 6.39 lbs

Power

Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<20 W

Environmental

Operating Temperatures	-35°C to 60°C / -31°F to 140°F
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1 m)

Safety

FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
ETSI	EN/IEC 60950-1, EN/IEC 60950-22

EMC

FCC	CFR47 Class B, Part15, Subpart B
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4
CAN/CSA-CEI/IEC	CISPR 22-04 Class B



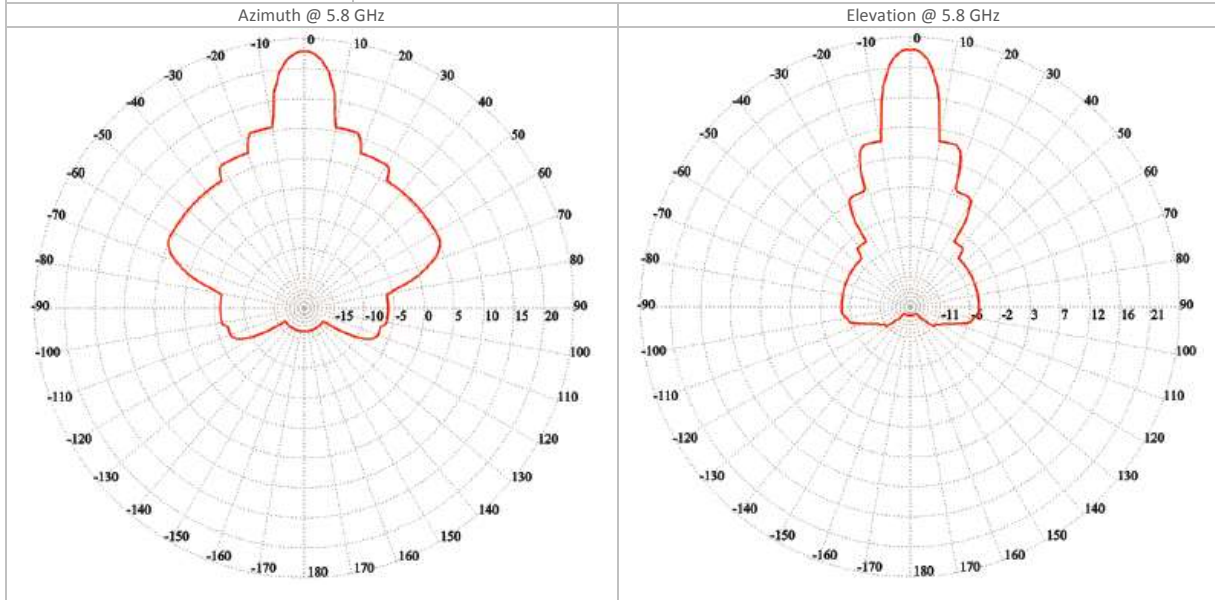
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Integrated Antenna

Gain	23 dBi
VSWR	1.5 :1 (typ)
3 dB Beam width	10° (typ)
AZ & EL Beam Squint	0
Polarization	Dual Linear (Vertical and Horizontal)
Side lobes Level	ESTI EN 302 326-3 V1.1.2 DN3
Cross Polarization	ESTI EN 302 326-3 V1.1.2 DN3
F/B Ratio	-30 dB
Port To Port Isolation	30 dB (max)
Lightning Protection	DC grounded

Antenna Pattern



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