



NetStream 5x10 S1

NetStream 5x10 is a carrier-class radio supporting the 5.x GHz bands FCC, IC (Canada), MII (China) and WPC (India) regulations (factory default: 5.8 GHz FCC). The multi-band radio is part of the NetStream Series that delivers 10 Mbps throughput and extended range.

Providing Ethernet over a single wireless link, the NetStream 5x10 provides 10 Mbps net aggregate throughput.

NetStream 5x10 comes with an integrated antenna.

Product Highlights

- 10 Mbps Ethernet net throughput
- Adaptive asymmetric throughput – dynamic allocation between uplink and downlink
- Single radio supporting multiple bands (5.x GHz)
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable to operate in tough conditions, extreme temperatures and non line-of-sight scenarios



Product Specifications

Configuration

Architecture	Outdoor Unit with Integrated Antenna
PoE to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m

Radio

Capacity	10 Mbps net aggregate throughput
Range	Up to 40 km / 25 miles
Channel Bandwidth	Configurable: 5,10 and 20 MHz
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported
Diversity	Supported
Spectrum View	Supported
Min Tx Power	10 dBm adjustable in 1 dB steps
Max Tx Power	25 dBm adjustable in 1 dB steps
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
Ethernet Interface	10/100BaseT
Supported Indoor Units	IDU-NetStream RM 2xGBE and IDU-NetStream RM 4xE1 2xEth; ODU NetStream 5836 POE; NetStream PoE device
QoS	Packet classification to 4 queues according to 802.1p and Diffserv, Dynamic scheduling according to air interface changes
VLAN	Supported
Ethernet Ring Protection	Supported, including Ethernet 1+1
Monitored Hot Standby (MHS)	1+1 with NetStream links

Supported Bands

Band	Occupied Frequency Range			Radio Compliance
	Channel BW 5 MHz	Channel BW 10 MHz	Channel BW 20 MHz	
5.8 GHz FCC/IC*	5.7275-5.8475 GHz	5.725-5.850 GHz	5.725-5.850 GHz	Non FCC certified
5.9 GHz Universal	5.7375-5.9525 GHz	5.735-5.955 GHz	5.730-5.960 GHz	
5.8 GHz MII China	5.7375-5.8375 GHz	5.735-5.840 GHz	5.730-5.845 GHz	MII for 5.8 GHz
5.8 GHz WPC India	5.8325-5.8675 GHz	5.830-5.870 GHz	5.825-5.875 GHz	WPC GSR-38
5.4 GHz Universal	5.4725-5.7225 GHz	5.470-5.725 GHz	5.465-5.730 GHz	
5.3 GHz Universal	5.1475-5.3375 GHz	5.145-5.340 GHz	5.140-5.345 GHz	
4.9 GHz Universal	4.8975-4.9925 GHz	4.895-4.995 GHz	4.890-5.000 GHz	

* Default Band

Mechanical

ODU Dimensions	24.1(w) x 19.7(h) x 7.7(d) cm
ODU Weight	1.3 kg / 2.8 lbs

Power

Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<10 W

Environmental

Operating Temperatures	-35°C - 60°C / -31°F - 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
AS/NZS	CISPR 22-2004 Class B



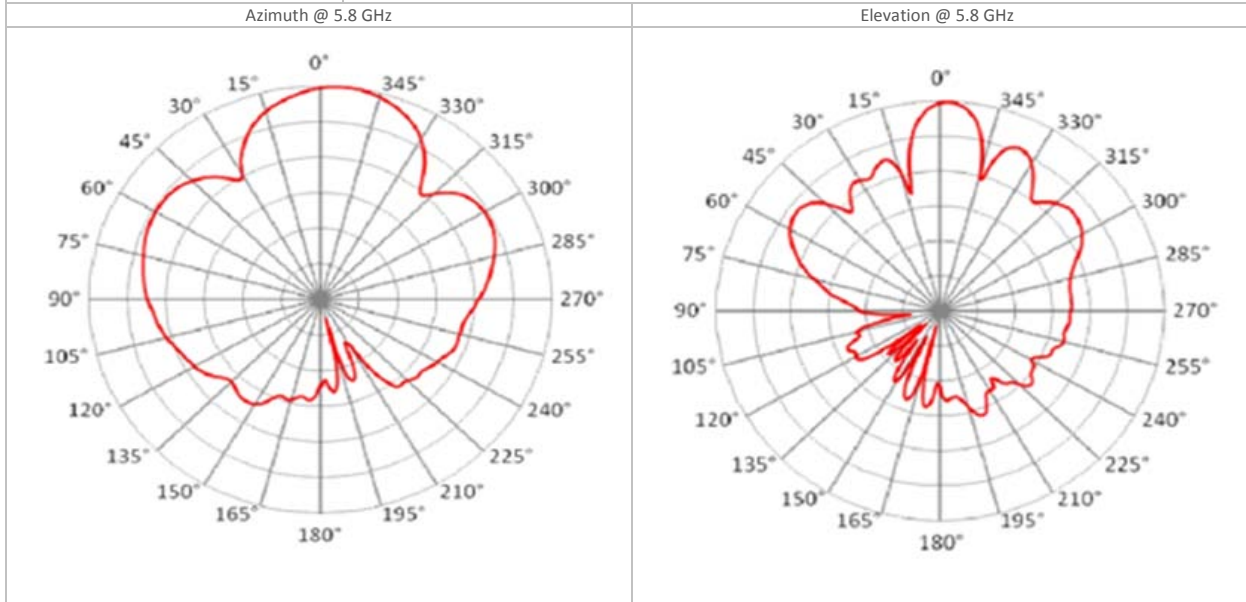
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Integrated Antenna

Minimum Peak Gain	15.5 ± 1.0 dBi @ 5.47-5.875 GHz
VSWR	1.5 : 1 (typ) 1.7 : 1 (max)
3 dB Beam width	15° (typ)
AZ & EL Beam Squint	± 2.5° Port V & Port H
Polarization	Dual Linear (Vertical and Horizontal)
Side lobes Level	ETSI EN 302 085 V1.1.2, TS1-TS3
Cross Polarization	ETSI EN 302 085 V1.1.2, TS1-TS3
F/B Ratio	20 dB (max)
Port To Port Isolation	40 dB (min)
Lightning Protection	DC grounded

Antenna Pattern



Part Number	Description
NS 5x10 S1	Outdoor unit with Integrated antenna



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