NetStream 5x36

TDM native Point-to-Point wireless links with built in E1/T1 and Ethernet ports delivering carrier class performance at the most competitive price in market

Technology Advantages

- Transmit power of 25 dBM max
- IP traffic capacity up to 36 Mbps (18 Mbps full duplex) and up to 4xE1
- Optional 5, 10 and 20 MHz channel band width
- Automatic Channel Selection for resilience against interference
- Optimized air frame to accommodate high performance on both TDM (E1/T1) and IP traffic
- Hub site synchronization facility providing the possibility of installing many links in close distances on the same tower

Key Benefits

- Industry proven solution; thousands of systems installed at leading carrier sites globally
- Extremely simple to install and maintain (minimal OPEX)
- Available in license exempt frequencies, eliminating regulatory overhead and reducing network ramp-up time
- Lower cost of ownership significantly reduces both CAPEX and OPEX

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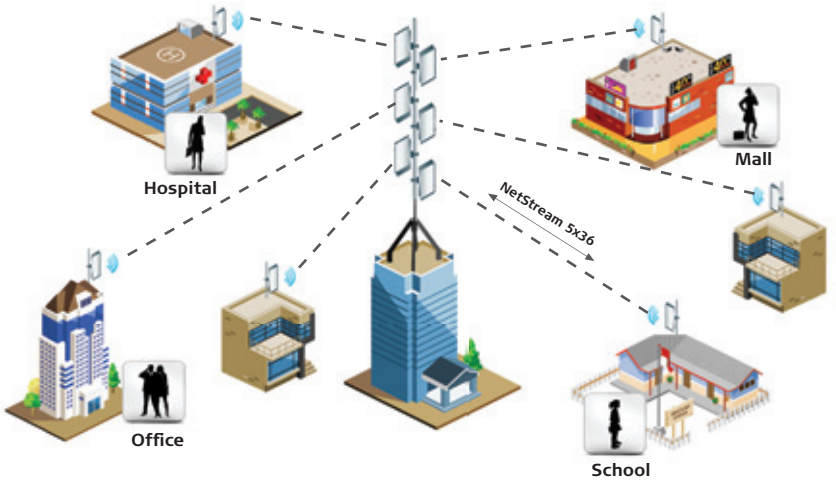
NetStream 5x36 is ideally suited to meet the conectivity needs of cellular operators, service providers, enterprises and private networks, providing high capacity connectivity of up to 36 Mbps at ranges of up to 80 Km/50 miles.

Available in multiple frequency bands and configurations, the cost-effective solutions are extremely simple to install and maintain, and are typically up and running less than an hour.

Netronics NetStream 5x36 solutions can also be installed in a unique Multiple-Point-to-Point architecture; multiple units are deployed in one hub site location, from where they provide a dedicated high-capacity connection to each remote site.

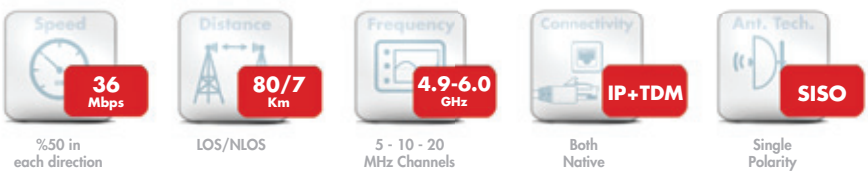


Superior range and link stability

NetStream 5x36 can deliver stable and robust links for transfer of IP traffic as well as TDM lines in E1 or T1 formats over long distances. The actual range is more dependent to the installation site than to the radio characteristics. If a clear line of site is provided distances up to 120 Km/70 Miles can be achieved with lower link capacity.

Hub site synchronization

NetStream 5x36 solutions can also be installed in a unique Multiple-Point-to-Point architecture; multiple units are deployed in one hub site location, from where they provide a dedicated high-capacity connection to each remote site. The Multiple-Point-to-Point Concept builds around Netronics unique Hub Site Synchronization (HSS) feature, which synchronizes the transmission of collocated NetStream 5x36 radios thus removing potential interference commonly experienced with collocated TDD radios.



Specifications

Configuration

Architecture	Indoor Unit: IDU-E (1/2 x 19"; 1U) IDU-C (19", 1U) Outdoor Unit: ODU with integrated antenna, ODU for connection to external antenna
IDU TO ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m

Radio

Frequency Bands	2.3 - 2.7 GHz 4.9 - 6.020 GHz
Data Rate	Configurable up to 48 Mpbs (bi-directional)
Channel Bandwidth	5/10/20 MHz
Duplex Technique	TDD
Modulation	OFDM-BPSK/QPSK/16QAM/64QAM
Max Tx Power	23 dbm; Configurable, Average
Received Dynamic Range	>60 dB
Error Correction	FEC;K=1/2, 2/3, 3/4
Encryption	AES 128

Ethernet Interface

Type	10/100BaseT Interface with Auto-negotiation (IEEE 802.3)
Number of Ethernet Ports	1,2
Framing/Coding	IEEE 802.3/U
Bridging	Self-learning up to 2047 MAC addresses IEEE 802.1Q
Traffic Handling	MAC layer bridging, self-learning
Data Latency	3 msec (typical)
Max Frame Size	1800 Bytes
Line Impedance	100 Ω
VLAN ID for Management	Supported
Connector	RJ-45

E1/T1 Interface

Framing	Unframed (transparent)
Number of E1/T1 Ports	1,2,4
Standard Compliance	ITU-T G.703, G.826
Timing	Independent Tx and Rx timing
Line Code	EI: HDB3 @ 2.048 Mbps T1: B8ZS/AMI @ 1.544 Mbps
Latency	5 - 20 msec (user configurable); default: 8 msec
Impedance	E1: 120 Ω, balanced T1: 100 Ω, balanced
Connector	RJ-45
Jitter & Wander	According to ITU-T G.823, G.824

Management

Protocol	SNMP based; Telnet
Network Management	Kit for SNMPc and HPOV
Software Upgrade	Local and remote
Diagnostics	Local and remote loopback testing

Dimensions

ODU	With 1ft integrated antenna: 30.5 cm(W) x 5.8 cm(D) x 30.5 cm(H) Weight: 1.5 kg/3.3 lbs Without antenna: 13.5 cm(W) x 4.0 cm(D) x 24.5 cm(H) Weight: 1.0 kg/2.2 lbs
IDU-E	23.5 cm(W) x 16.5 cm(D) x 4.5 cm(H) Weight: 0.5 kg/1.1 lbs
IDU-C	43 cm(W) x 29 cm (D) x 4.5 cm(H) Weight: 1.5 kg/3.3 lbs

Power and Mounting

Power Feeding	100 - 240 VAC, 50/60 Hz; 20 - 60 VDC
Power Consumption	IDU-E with ODU, 10 W max IDU-C with ODU, 14 W max
Mounting	Pole or Wall

Environmental

Outdoor Unit Enclosure	All weather cases; IP67 compliant
ODU Operating Temperatures	-35°C to 60°C /-31°F to 140°F
IDU Operating Temperatures	-5°C to 45°C / 23°F to 113°F
Humidity	ODU: Up to 100% non-condensing IDU: Up to 90% non-condensing

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