



The Netronics NetPrecis point-to-point back haul radio provides robust wireless transmission of Internet, voice and data traffic over distances of up to 250 kilometers.

NetPrecis is the flexible, functional answer to the low-medium capacity challenges in today's wireless networks.

Easy to use and customer-configurable, NetPrecis provides solutions from simple trunk applications to complete complex network designs.

Our design priority is to reduce network operators' costs. In all NetPrecis terminals we engineered high-performance characteristics, and operating features that deliver.

NetPrecis built-in multiplexer and cross-connect eliminate external equipment and minimize the over-the-air requirements, with customer-configurable interface slots integrating all IP, voice and data traffic. Configuration, performance monitoring and diagnostics are easy with the Netronics embedded web-based element management system.

NetPrecis links are engineered to achieve 'five 9s' availability, benefiting from state of the art forward error correction and inherent low latencies, for unrivalled quality of service.

NetPrecis hardware is extremely reliable and has a record of zero out-of-the-box failures in 2008. It can be relied upon to perform in the harshest and most remote environments.

NetPrecis

**Long Range Point-to-Point Links
(Up to 250 Km and up to 65 Mbps)**

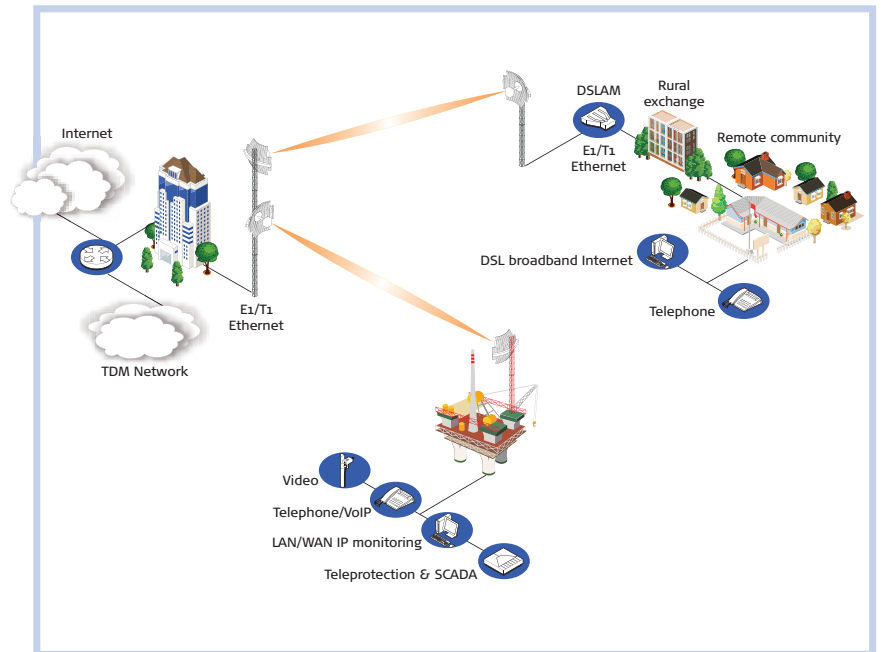
Product Highlights

- Long range (up to 250 km)
- High capacity (up to 65.4 Mbps) thanks to 128 QAM modulation
- Available in different licensed bands from 300 MHz to 2.7 GHz
- Built in cross connect and multiplexer
- Monitored Hot Standby and Hitless Space Diversity
- Wide temperature and environmental ratings
- MTBF of more than 95 years



Key Benefits

- Eliminates running cost of VSAT connections
- Modular future proof architecture
- Highly reliable
- Carrier class performance
- Superior spectral efficiency
- Customer-configurable interfaces
- Low total cost of ownership, quick ROI



Speed
65.4 Mbps

Net Throughput

Distance
250 Km

Max., LOS

Frequency
0.3-2.7 GHz

Variety of channel sizes

Connectivity
IP+TDM

Modular future proof architecture

Ant. Tech.
Grid Dish

High gain directional

Specifications

RF	BAND	TUNING RANGE	SYNTHESIZER STEP SIZE
Frequencies	300 MHz	330 – 400 MHz	6.25 kHz
	400 MHz	394 – 460 MHz	5.0 kHz
	400 MHz	400 – 470 MHz	6.25 kHz
	600 MHz	620 – 715 MHz	12.5 kHz
	800 MHz	805 – 890 MHz	12.5 kHz
	900 MHz	850 – 960 MHz	12.5 kHz
	1400 MHz	1350 – 1550 MHz	12.5 kHz
	1800 MHz	1700 – 2100 MHz	62.5 kHz
	2000 MHz	1900 – 2300 MHz	62.5 kHz
	2500 MHz	2300 – 2700 MHz	62.5 kHz
Modulation Types	Software configurable: QPSK/16/32/64/128 QAM		
Frequency Stability	Short term ± 1 ppm (environmental effects and power supply variations) Long term ± 2 ppm (aging of crystal oscillators = over 5 years)		
Antenna Connection	N-type female 50 ohm		
Transmitter Power Output	300 – 1800 MHz	2000 – 2500 MHz	
QPSK	+21 to +35 dBm	+20 to +34 dBm	
16 QAM	+17 to +31 dBm	+17 to +31 dBm	
32 QAM	+16 to +30 dBm	+16 to +30 dBm	
64 QAM	+15 to +29 dBm	+15 to +29 dBm	
128 QAM	+15 to +29 dBm	+15 to +29 dBm	
Receiver			
Maximum Input Level	-20 dBm		
Dynamic Range	58 to 87 dB at 10-6 BER		
C/I Ratio	Co-channel	QPSK	better than 16 dB
		16 QAM	better than 20 dB
		32 QAM	better than 23 dB
		64 QAM	better than 27 dB
		128 QAM	better than 30 dB
	First adjacent channel	better than -5 dB	
Second adjacent channel	better than -30 dB		
Duplexer (bandpass)	TX / RX Split	Frequency Bands	
500 kHz	5 MHz	300, 400 MHz	
2.0 MHz	9.45 MHz	300, 400 MHz	
3.5 MHz	20 MHz	300, 400 MHz	
7.0 MHz	45 MHz	600 MHz	
	40 MHz	800, 900 MHz	
	48 MHz	1400 MHz	
14.0 MHz	47.5 MHz	1800 MHz	
	91 MHz	2000 MHz	
	74 MHz	2500 MHz	
Power Supply			
Input Range	115/230 VAC, 50/60 Hz		
	± 12 VDC (10.5 – 18 VDC), ± 24 VDC (20.5 – 30 VDC), ± 48 VDC (40 – 60 VDC)		
	+12 VDC (10.5 – 18 VDC) Low Power Option		
Power Consumption	53 – 180 W input power (dependent on interface cards fitted and transmitter output power level)		
Low Power Option (12 VDC)	41 – 53 W input power (dependent on interface cards fitted and transmitter output power level)		
Interfaces			
Ethernet	Integrated 4-port 10/100Base-T switch with port-based rate limiting, VLAN tagging and QoS Support		
E1 / T1	Quad 120 ohm G.703/G.704		
Data	Quad asynchronous V.24		
	Single synchronous X.21/V.35/RS-449/RS-530		
Analogue	Dual 2-wire FXS/FXO (POTS); Quad 4-wire E&M		
Auxiliary Interfaces			
Alarms	4 external alarm outputs, 2 external alarm inputs		
Configuration	Embedded web server with SNMP		
Management	Ethernet interface for SuperVisor and SNMP, V.24 setup port		
RSSI	Front panel test point		
Environmental			
Operating	-10° C to +50° C (+14° F to +122° F)		
Storage	-20° C to +70° C (-4° F to +158° F)		
Humidity	Maximum 95 % non-condensing		
Mechanical			
Rack Mount	19" 2U high (internal duplexer)		
Weight	10 kg (23 lbs) typical		
Protected Options			
MHSB	4 dB splitter/cable loss, 1 dB TX relay/cable loss(system gain reduced by a maximum of 5 dB)		
HSD	1 dB TX relay/cable loss, < 25 ms TX switching/hitless RX switching		
Compliance			
Radio	EN 302 217		
EMI /EMC	EN 301 489 Parts 1 & 4		
Safety	EN 60950-1:2006		
Environmental	ETS 300 019 Class 3.2, EN 50385, WEEE		



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