

ET Industries

ET Net II

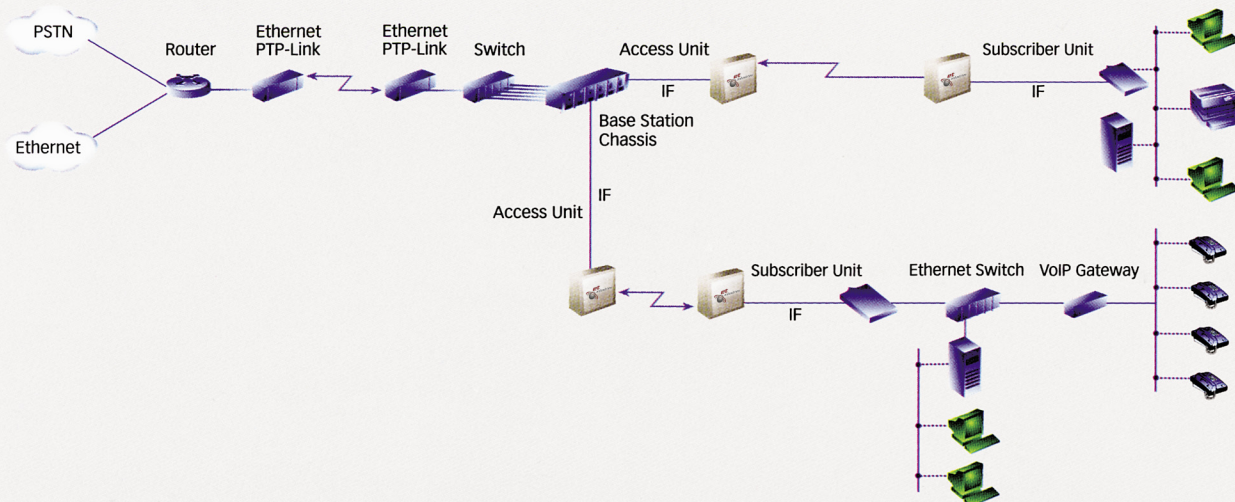


Utilising the strength of Orthogonal Frequency Division Multiplexing (OFDM), the ET Net II can provide excellent performance in near and non-line-of-sight (NLOS) radio conditions. Improved spectral efficiency, coverage and high capacity strengthens the operator business case for fixed wireless access networks.

Based on the rich feature set inherited from ET Net I, but with increased capacity and improved coverage, operators can realize even more profitable business cases.

Product Highlights

- Orthogonal Frequency Division Multiplexing (OFDM) technology ensures high data rates, high spectral efficiency and immunity to interference and multi-path conflicts.
- Near and non-line-of-sight (NLOS) capabilities.
- Demand-based build-out, easy installation and low cost of ownership enables rapid market penetration, increased subscription and enhanced value-added services.
- High base station data capacity:
 - through the inherent ability of OFDM technology for high data rates and high spectral efficiency paired with the ET Net II system capability for frequency re-usability.
 - raw data capacity of 72/192 Mbps over typical frequency allocations of 10.5/28 MHz respectively.
- Packet switching technology optimized for IP-based applications and “always on” connectivity.
- Independent uplink/downlink transmission settings for CIR/MIR, enabling assured and differentiated SLA.
- Adaptive modulation -maximize throughput according to radio performance:
 - BPSK, QPSK, 16QAM sub-carrier modulation
 - Automatic multi-rate selection
- Advanced filtering capabilities, such as:
 - IP filtering
 - Protocol-based filtering
 - Broadcast filtering
- End to end QoS with 802.1p and IP ToS
- VPN support with 802.1Q VLANs
- Carrier grade features including a rack mount chassis base station with redundancy, hot swap capability and UPS facilities.
- Highly cost effective infrastructure and customer premises equipment.
- Easy-to-use SNMP-based remote management system, enabling simple unit configuration and multiple simultaneous unit upgrading.



Technical Data

Base Station	Terminal Station		
Radio			
Frequency	Band	3.5a1	3.5b
	Uplink (GHz)	3.400-3.4535	3.450-3.500
	Downlink (GHz)	3.500-3.5535	3.550-3.600
Radio Access Method	TDMA FDD		
Standard Compliance	ETSIEN 301 021		
Channel Spacing	1.75 MHz/3.5 MHz		
Central Frequency Resolution	125 KHz @ Channel Spacing 1.75 MHz		
	250 KHz @ Channel Spacing 3.5 MHz		
Antenna (SU-RA)	17 dBi, 20°, vertical polarization, compliant with EN 302 085 Class, TS2		
Antenna (AU-RA)	16.5 dBi, 60°, vertical polarization, ETSI CS2 compliant (3.4-3.7 GHz)		
Antenna Port (SU-RE, AU-RE) 50 ohm			
Output Power (at antenna port)		Max Nominal Average Power (dBm)	Max. Peak Power (dBm)
			Control Range (dB)
	SU	20+/-1	30+/-1
	AU	20+/-1	30+/-1
	AU-HP	25+/-1	35+/-1
	(band 3.5a1 only)		
Maximum input Power (at Antenna Port)	SU		AU
	25 dBm before receiver saturation		-50 dBm before receiver saturation
	-20 dBm for damage		-25 dBm for damage
Sensitivity, typical (dBm at antenna port, BER 10E-6)	@ 3.5MHz Channel spacing		@ 1.75MHz Channel Spacing
	2 Mbps	-94	1 Mbps
	4 Mbps	-91	2 Mbps
	8 Mbps	-85	4 Mbps
	12 Mbps	-79	6 Mbps
Data Rate	2, 4, 8, 12 Mbps		1, 2, 4, 6 Mbps
Modulation	OFDM modulation, 64 FFT points, BPSK, QPSK, 16QAM, 64QAM		
OFDM symbol rate	55.5 Ksymbol/sec @ Channel Spacing 3.5MHz		
	22.8 Ksymbol/sec @ Channel Spacing 1.75 MHz		
Error Correction	Convolutional encoder, Viterbi decoder, Coding rate: 3/4		
Data Communication			
Standard Compliance	IEEE 802.3 CSMA/CD		
Vlan support	IEEE 802.1Q		
Layer-2 Traffic Prioritisation	IEEE 802.1p		
Layer-3 Traffic Prioritisation	IP ToS according to RFC791		
Outdoor Unit to Indoor Unit Communication			
IF Frequency	140 MHz		
IF Cable Impedance	50 ohm		
Maximum IF Cable Attenuation	10 dB		
Maximum IF Cable DC Resistance	2.7 ohm		
Configuration and Management			
Local Management	Via MON port, Monitor program using terminal emulation		
Remote Management	SNMP, Telnet		
Remote Management Access	From the wired LAN or from the wireless link		
SNMP agents	SNMP ver 1 client, MIB II, Bridge MIB, Private NetLink 1 OFDM MIB		
Security	RC4 Authentication and filtering		
Software upgrade	TFTP download		
Interfaces			
IF	TNC jack, lightning protected		Indoor Unit
ANT (AU-RE)	N-Type jack, lightning protected		TNC jack, lightning protected
Ethernet			10/100Base-T (RJ-45) with 2 embedded LEDs
Monitor			3-pin low Profile
Power Supply	24 VDC from indoor unit		SU-NI: 3-pins DC jack for the SU-PS power
	Via the IF cable		KYCON DP-J-3S-S
	BS-PS: D-type 3 Power pin male		
	Amphenol 717TWA3W3PHP2V4RRM6		
Power	24 VDC from indoor unit via the IF cable		SU: 38W max.
	SU-NI: 24 VDC/2A from SU-PS		
	SU-PS: 100 - 240 VAC, 50-60 Hz		
	BS: -48 VDC, 420W max.		
	AU: 35W max. for each AU (indoor + outdoor).		
	45W max. for each AU-HP (indoor + outdoor)		
Mechanical	SU-RA 306x306x72 mm, 2.5 kg		SU-NI: 305x182x54 mm, 1.6 kg
	SU-RE: 306x117x55 mm, 1.7kg		SU-PS: 110x60x35 mm, 0.4 kg
	AU-RE: 306x117x.55, 1.7kg		BS-SH: 19", 4U, 483x177x265 mm, 4 kg
	AU-RA: 500x117x70 mm 2.9 kg		AU-NI-BS: 260x129x36 mm, 0.28kg
			BS-PS: 257x129x71 mm, 1.12 kg
Operating temp.	-40°C to 55°C		0°C to 40°C
Operating Humidity	5%-95% NON CONDENSING Weather protected		5%-95% non condensing
Standards Compliance, General			
Type Standard			
EMCETS 300 385			
Safety	EN 60950 (CE), IEC 60 950 US/C(TUV)		
Environmental	ETS 300 019 part 1-3 class 3.1 for indoorunits, ETS 300 19 part 1-4 class 4.1E for outdoor units		
Radio	ETSI EN 301 021 v.1.4.1, ETSI EN 301 753 V.1.1.1		

ET Industries

50 Intervale Rd. Unit 15, Mailstop II Boonton, NJ 07005

Tel: 973-394-1719 Fax: 973-394-1710

Email: main@etiworld.com

www.etiworld.com

