EC SYSTEM
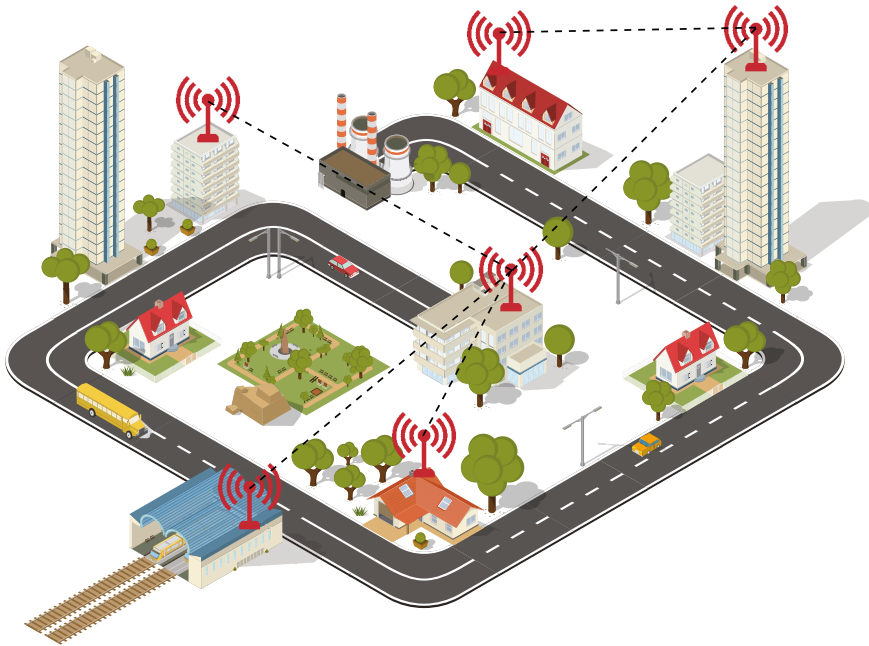
EC-Multipoint

3.1 – 4.0 GHz Frequency Bands

EC SYSTEM professional High Capacity point to multipoint microwave units allow radio data transmition up to 300 Mb throughput per sector. All models use MIMO technology with Adaptive Multipoint Acces Protocol to improve the communication performance. The units have incorporated L2/L3 routers, allows GPS synchronization. Our base stations and subscriber terminal software gives to the customer the possibility of upgrade their networks adding transmition capability.

EC SYSTEM is the choice of excellence for Public Safety Authorities, all type of operators and professional applications that require guaranteed bandwidth per subscriber. The models with integrated antennas and a dedicated PoE port for video camera connectivity reduce the cost and simplify the CCTV camera installation.

EC SYSTEM is a unique solution for operators to deliver Fast Ethernet data, voice and video services over long distances providing a wide range of networking features and maintaining strict QoS control.

Applications

- ✓ Triple-play services for Wireless ISPs operating in licensed bands
- ✓ Guaranteed-availablity CCTV and video surveillance networks
- ✓ Long-range rural connectivity

Key Features

- ✓ Frequency bands 3,1 - 4,0 GHz
- ✓ Spectral efficiency of 6,5 Bit/s/Hz
- ✓ Supports channel width 3,5/5/7/10/14/15/20/28/30/40 MHz
- ✓ Advanced network features VLAN, 16 priority QoS
- ✓ Enhanced Non Line of Sight range
- ✓ High power base stations
- ✓ Integrated sector antenna base stations allows maximum performance and quick and easy installation
- ✓ Wide range of subscriber terminals with license upgrade option
- ✓ Subscriber terminal optimized for CCTV installations with integrated PoE fvor camera supply

Benefits

- ✓ Best in class Price/Functionality ratio
- ✓ Faster ROI using more capacity in less spectrum
- ✓ Savings on third party networking equipment
- ✓ Full control of simultaneous data, voice and video services
- ✓ Very low latency and jitter
- ✓ Easy and fast deployment
- ✓ High MTBF, less OPEX

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3.1 – 4.0 GHz Frequency Bands

Technical Specifications

	3 GHz Base Station			3GHz Subscriber Terminals	
Model	**H3B-A**	**H3B-C**	**S3B-A**	**S3T-A**	**S3T-C**
Antenna	• integrated 14 dBi dual-pol 90° sector antenna	• 2 x N-type connectors for external antenna	• integrated 14 dBi dual-pol 90° sector antenna	• 19 and 22 dBi dualpol integrated antenna	• 2 x N-type connectors for external antenna
Performance	• Up to 240 Mbps sector net throughput		• 40 Mbps (up to 40 Mbps net per sector) • 300 Mbps (up to 150 Mbps net per sector) • License upgradeable	• 8 Mbps (up to 8 Mbps net) • 50 Mbps (up to 50 Mbps net) • 300 Mbps (up to 180 Mbps net) • License upgradeable	
Distance	• Middle-to-long range (in excess of 20 km)	• Middle-to-long range (in excess of 20 km)	• Short-to-Middle range (up to 12 km)	• Short-to-Middle-range (up to 12 km)	• Middle-to-long range (in excess of 20 km)
Radio	• Transmit power: up to 23 dBm • Receiver sensitivity: -67..-97 dBm • Frequency bands: › 3.1-3.4 GHz › 3.4-3.7 GHz › 3.7-3.9 GHz › 3.9-4.0 GHz • Channel bandwidth: 3.5/5/7/10/14/15/20/28/30/40 MHz • Centre frequency adjustment step: 125 kHz • Channel duplex: TDD				
Wired interfaces	• Gigabit Ethernet port (10/100/1000 Base-T) RJ-45 connector • Serial port (RS-232)		• 2x Fast ethernet (10/100 Base-T) PoE output at the second Ethernet port RJ-45 connector	• 2x Fast ethernet (10/100 Base-T) PoE output at the second Ethernet port RJ-45 connector	
Power consumption	• Consumption: Up to 12 Watts • Power options: 110-240 VAC @ 50/60 Hz ±43..56 VDC IEEE 802.3 at		• Consumption: Up to 7 Watts • Power options: 110-240 VAC @ 50/60 Hz +9..56 VDC	• Consumption: Up to 7 Watts • Power options: 110-240 VAC @ 50/60 Hz +9..56 VDC	

EC-Multipoint

**3.1 – 4.0 GHz
Frequency Bands**

Specification

RADIO

- ✓ Voice/RTP Aware Superpacketing
- ✓ Automatic Bitrate Control
- ✓ Automatic Transmit Power Control
- ✓ Automatic Distance Learning
- ✓ Channel Time Adjustment
- ✓ Spectrum Analyser mode
- ✓ Channel testing tools

MAC

- ✓ Dynamic adaptive polling
- ✓ Pseudo-radio Interface
- ✓ Unique feature to join EC SYSTEM networks via third party equipment (Wired Ethernet segments, IP clouds)
- ✓ Automatic over-the-air firmware upgrade

QUALITY-OF-SERVICE

- ✓ 16 priority queues
- ✓ IEEE 802.1p support
- ✓ IP TOS / DiffServ support
- ✓ Full voice support
- ✓ Traffic limiting (absolute, relative, mixed)
- ✓ Traffic redirection

ENVIRONMENTAL

- ✓ Outdoor Units: -40..+60°C, 100% humidity, condensing
- ✓ Indoor Unit: 0..+40°C, 95% humidity, non-condensing

MANAGEMENT FEATURES

- ✓ Command-line interface for in-depth configuration and diagnostics
- ✓ SNMPv1 / SNMPv3 support (MIB II, private MIB)
- ✓ Configurable SNMP Traps

SECURITY FEATURES

- ✓ Storm / flood protection
- ✓ Password protection
- ✓ Secure command-line access via SSH protocol