

Ogier Electronics Multichannel ML1000-SEC Links

The Multichannel ML1000-SEC can receive video simultaneously from up to 500 cameras and can support up to 10,000 from a single base station.

RF Band	Downstream	Band 1 10.168 - 10.196 GHz Band 2 10.196 - 10.224 GHz Band 3 10.224 - 10.252 GHz
	Upstream	Band 1 10.518 - 10.546 GHz Band 2 10.546 - 10.574 GHz Band 3 10.574 - 10.602 GHz
Bandwidth	Basic System 28 MHz, Expanded System 84 MHz	
Sectorization	Four 90 degree sectors per Base Station	
Channel Size	Downstream	14 x 6 MHz channels with 2:1 re-use
	Upstream	DOCSIS 1.1 and 2.0
		26 x 3.2 MHz channels with 2:1 re-use per Base Station
		52 x 1.6 MHz channels with 2:1 re-use per Base Station
		104 x 0.8 MHz channels with 2:1 re-use per Base Station
	Upstream	DOCSIS 2.0 only
		13 x 6.4 MHz channels with 2:1 re-use per Base Station
Data Capacity per Channel	Downstream	30 Mbps total, 20 Mbps usable
	Upstream (DOCSIS 2.0)	10 Mbps total 8 Mbps usable
	Upstream (DOCSIS 1.1)	5 Mbps total, 4.6 Mbps usable
Camera Data Rate	Up to 10 Mbps, 9.2 Mbps of which is usable with DOCSIS 2.0	
Max cameras per Sector	Up to 5 Mbps in total, 4 Mbps of which is usable with DOCSIS 1.1	
Base Station Capacity	2,600	
	Downstream	840 Mbps total, 560 Mbps usable
	Upstream (QPSK)	260 Mbps total, 240 Mbps usable
	Upstream (16QAM)	520 Mbps total, 480 Mbps usable
Radius Cell Coverage	QPSK (DOCSIS 1.1)	Standard CPE 10 km, Long Range 25 km
	16QAM (DOCSIS 2.0)	Standard CPE 5 km, Long Range 10 km
Modulation	Downstream	64QAM
	Upstream	QPSK and 16QAM
Availability	99.9% to 99.99%	
Packet Loss	Less than 0.1%	
Access Method	DOCSIS 1.0, 1.1 or 2.0	
PHY	Downstream	PHY format is TDM
	Upstream	PHY format is FDMA/TDMA
MAC Protocol	MAC protocol is DOCSIS	
Spectrum Efficiency	Downstream	5 Mbps / MHz total, 4 Mbps / MHz net
	Upstream	1.6 Mbps / MHz total (QPSK) 1.4 Mbps / MHz net (QPSK) 3.2 Mbps / MHz total (16QAM) 2.8 Mbps / MHz net (16QAM)
Base Station Interfaces	Note: The spectrum efficiency is increased by 2:1 by frequency re-use	
	Ethernet 10BASE-TX and 10BASE-FX, Fast Ethernet 100BASE-TX and 100BASE-FX Gigabit Ethernet with transceiver options	
	Serial; multiport T1, E1, T3, E3, HSSI	
	Multichannel T1, E1, T3, E3	
	Packet Over SONET (POS), Dynamic Packet Transport (DPT), ATM	
Camera unit Interfaces	Ethernet 10 baseT and USB, E1 and T1 with additional multiplexers	
Redundancy	Stand-alone or fully redundant configuration at Base Stations	
QoS	The network management system allocates different Quality of Service levels, data rates and bandwidths to different types of user	
Power Input and Consumption	CPE	
	Voltage 12V+/-5% with 40m of CT100. Current drain < 600 mA	
	Base Station Transceiver (per downstream channel)	
	Voltage -48 V +/-5%. Current drain < 1.25A	
Mechanical Characteristics		
Standard CPE	Connector	Single 75 ohm F-type Female
	Mass	<2.5 kg excluding Long Range Antenna
	Dimensions	210 x 220 x 50 mm excl Long Range Antenna
Long Range CPE Antenna	Manufacturer	Andrew Corp
	Type	VHPX2-102
	Mass	31 kg
	Dimensions	651 dia x 699 mm
Base Station Transceiver	Connectors	2 x 75 Ohm N Type Female
		1 Multipole for power and BIT
	Built in Test	Single Contact closure pair
	Mass	20 kg approx
	Dimensions	500 x 350 x 350 mm
Environmental Characteristics	Environmental compliance	ETS 300 019-1-4, ETS 300 019-2-4 Class 4.1
	EMC and radio compliance	EN 301 489-1, EN 301 489-4 & EN 301 021
Antenna compliance	Base Station	EN 302 085 CS Class 1
	Standard CPE	EN 302 085 TS4 Range 3
Operating Temperature	-20 to +55 degree C	
Water and dust	IP66	