

Carrier Class Outdoor Base Station External Antenna

High performances and quality level

802.11n for data rate up to 300Mbps



Chronolink CHR5000 series consists of highly professional Base stations, whose high performance and indisputable reliability, making it ideal for performing Carrier Class-type wireless networks.

Chronolink systems include 1, 2 or 4 dual band radio modules, in compliance with 802.11a/b/g/n international standards. Thanks to the use of external dual polarity MIMO antennas, each "N" type single radio module, allows signal connection up to 300Mbps.

Following table shows all Chronolink versions

Model	Radio Nr.	Antenna	Data in.	Standard	Band	Data Rate
CHR5010	1	SISO external	LAN	802.11a/b/g/n	2,4 GHz / 5 GHz	150Mbps
CHR5020	2	SISO external	LAN	802.11a/b/g	2,4 GHz / 5 GHz	2 x 150Mbps
CHR5040	4	SISO external	LAN	802.11a/b/g	2,4 GHz / 5 GHz	4 x 150Mbps
CHR5010N	1	MIMO external	LAN	802.11a/b/g/n	2,4 GHz / 5 GHz	300Mbps
CHR5020N	2	MIMO external	LAN	802.11a/b/g/n	2,4 GHz / 5 GHz	2 x 300Mbps

Flexibility



Each Chronolink products can be customized for the most diverse application scenarios by connecting different external antenna types (directive, sectorial, omnidirectional etc.).

Output power limitation allows the use of high-gain antennas while conforming to regulations on radiated energy levels.

Each radio module can be separately configured for Access Point, Bridge or Station operation; the modules are internally connected through IP routing. Chronolink products support a proprietary protocol for the creation and management of mesh networks.

Access Point with bandwidth management



Chronolink appliances allow comprehensive bandwidth management. Both the upstream bandwidth and the resources available to each client, can be monitored, prioritized and limited as required in order to attain the desired Quality of Service levels.

"On board" LCD display

Chronolink is the only radiolan device featuring an on-board LCD interface for link performance monitoring. You can set up and maintain your Chronolink installation without using a computer or any other external instruments.

Features

Small size, structural strength, modularity, attractive aestetich shapes, display "on board", ease of installation, make Chronolink CHR5000 the ideal for all Carrier Class networks wireless connections.

The shelf made entirely of aluminum with the exclusive front heatsink, provides full electromagnetic shielding and high resistance to environmental weathering.



Serie Chronolink CHR5000

Chronolink CHR5000 series, represents the definitive solution to all Carrier Class wireless network requests. The newest solution integrated in the Chronolink equipment, make it easier all the life cycle phases of a wireless network: design, installation, start-up, maintenance. Chronolink is the only RadioLAN equipment worldwide with LCD display on board which allow to install, test and manage the system without use an external device (laptop or other). An efficient testing function, allows to solve the antenna alignment problem. Furthermore, from each site, is possible to check the signal level received on remote equipment. Installation and maintenance became smart and easy.



Frequency scan function, with relevant spectrum analysis , permits free channels identification during start-up phase.

Chronolink equipment are manageable through web interface or dedicate GUI, also via internet.

The equipment can store all the traffic logs regarding access and traffic connection. An FTP server and about 100MByte memory are housed on board to store files and data.

Connection and data security are guaranteed by a WEP key of 104 bit with WPA and WPA2 access control.

802.11n SISO standard complies, allows to reach data rates up to 150Mbps.

Time link worsening as well as latency problem, have been eliminated thanks to a dedicate firmware and hardware project.

Chronolink is the solution for the development of network dedicated to video, data and VoIP transmission.

Intelligent management of the signal's priority and of bandwidth allocation, allows to satisfy all the request in terms of Quality of Service QoS.

Technical Characteristics	CHR5010	CHR5020	CHR5040	CHR5010N	CHR5020N
Nr. radio module	1	2	4	1	2
Frequency	2,400 – 2,483 GHz		5,470 – 5,725 GHz		
IEEE standards	802.11a,b,g,h,n Hiperlan2				
Modulation	DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)				
Channel Bandwidth	5MHz - 10MHz - 20MHz - 2 x 20MHz				
Channel Management	Manual - Automatic - DFS - Radar Free				
Antenna Type	External (50 ohm N Female connector)				
Maximum Output Power	+ 18dBm				
Tx Power Adjustment	From -2 dBm up to +18 dBm step 1 dB				
RX Sensitivity	2,4GHz	5,6GHz		2,4GHz	5,6GHz
	-95 dBm @ 1 Mbps	-90 dBm @ 6 Mbps		-93dBm @ MCS0 20MHz	-96dBm @ MCS0 20MHz
	-90 dBm @ 6 Mbps	-81 dBm @ 24 Mbps		-91dBm @ MCS0 40MHz	-91dBm @ MCS0 40MHz
	-90 dBm @ 11 Mbps	-76 dBm @ 36 Mbps		-77dBm @ MCS7 20MHz	-76dBm @ MCS7 20MHz
	-73 dBm @ 54 Mbps	-73 dBm @ 54 Mbps		-74dBm @ MCS7 40MHz	-73dBm @ MCS7 40MHz
Wireless Mode	Access Point, Bridge, Repeater, WDS, Station, Hot Spot, Virtual A.P.				
MIMO Standard	N.A.			2 x 2	
Data Encryption	WEP 64/128 bit; WPA, WPA2, TKIP, AES-CCM-TKIP, PSK/EAP, Mac Filtering, IP Filtering, Radius Server, Proprietary WDS, Firewall Integrato				
Ethernet Standards	10/100 Base-T — Auto MDI/X — std.802.3			10/100/1000 Gigabit Auto-MDI/X-std. 802.3	
VLAN Support	802.1q - Multiple VLAN interface – Inter VLAN routing				
VPN Support	IPSEC, PPPoE, EoIP, PPTP, L2TP				
QoS Support	802.1p - IPToS RFC791 - CBQueueing - PCQ, RED, SFQ, FFO queue – CIR – MIR – peer-to-peer management				
Network Routing	OSPF – RIP - BGP - STP - RSTP - NAT – MPLS – IPv6 - MME				
Mesh	HWMP+ , proprietary layer 2 wireless mesh routing protocol				
Management	Telnet, SSH, FTP, Proprietary GUI, http, WEB				
Power Supply Type	Power Over Ethernet (POE) Technology				
Power Supply	18 V dc / 600 mA				
Operating Temperature	-35°C / + 65°C				
Weight	3.0 Kg	3.1 Kg	3.5 Kg	3.1 Kg	3.5 Kg
Dimension mm (H x L x D)	260 x 230 x 70		300 x 180 x 70	260 x 230 x 70	
Signalling	LCD Display				
Protection	IP67				
Standards	EN301893 EN301489-17 EN60950-1 ERC70-03				