

## Dual Band Terminal Bridge Integrated Antenna

### High performances and quality level

CHR7000 family equipment, are composed by a single block including antenna and radio section.

The integrated parabolic dish allows for simplified installation and quicker setup of the wireless connection.

The absence of any external cable connections increases reliability and improves gain and protection against external signals.

Chronolink CHR7000, is the ideal solution for point-to-point long wireless link connections:

- CHR7015 up to 20km;
- CHR7016 up to 50km.

### 802.11n for data- rate up to 150Mbps

Chronolink CHR7000 systems integrate 802.11a/b/g/n radio module.

Bit rate up to 150Mbps are achieved using the integrated SISO parabolic antenna.

Following table shows the available CHR7000.

Model	Antenna	Data Input	Standard	Band	Data Rate
CHR7015	Parabolic dish 45cm	LAN	802.11a/b/g/n	2,4 GHz / 5 GHz	155Mbps
CHR7016	Parabolic dish 60cm	LAN	802.11a/b/g/n	2,4 GHz / 5 GHz	155Mbps

### "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 dimension, structural strength, modularity, attractive aestetich shapes, display "on board", ease of installation, make Chronolink CHR7000 the ideal for all Carrier Class point-to-point type wireless connections.

The integration with directive single focus parabolic antenna, allows the optimization of all major performances required to bridge for long distance connections: stability, reliability, data rate and a real throughput.



## Chronolink CHR7000

Chronolink CHR7000 series, represents the definitive solution to all the request from operator, WISP, System Integrator, Public Administration and Private. 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	CHR7015		CHR7016	
Nr. radio module	1		1	
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	Integrated: 45cm dish		Integrated: 61cm dish	
Antenna Gain	18dB @ 2,4GHz 25dB @ 5GHz		21db @ 2,4GHz 29dB @ 5GHz	
Antenna f/b ratio	> 30 dB			
Antenna Beamwidth	H e V : 2,4GHz 20°@3dB ; 5GHz 9°@3dB		H e V : 2,4GHz 20°@3dB ; 5GHz 6°@3dB	
Maximum Output Power	100mW EIRP @ 2,4GHz ; 1W EIRP @ 5GHz			
Tx Power Adjustment	20dB step 1 dB			
Rx Sensitivity (including antenna gain)	2,4GHz	5,6GHz	2,4GHz	5,6GHz
	-113 dBm @ 1 Mbps	-115 dBm @ 6 Mbps	-116 dBm @ 1 Mbps	-119 dBm @ 6 Mbps
	-108 dBm @ 11 Mbps	-106 dBm @ 24 Mbps	-111 dBm @ 11 Mbps	-110 dBm @ 24 Mbps
	-100 dBm @ 22 Mbps	-101 dBm @ 36 Mbps	-103 dBm @ 22 Mbps	-105 dBm @ 36 Mbps
	-91 dBm @ 54 Mbps	-98 dBm @ 54 Mbps	-94 dBm @ 54 Mbps	-102 dBm @ 54 Mbps
Wireless Mode	Bridge,WDS, Station			
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 Standard	10/100 Base-T — 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, FIFO 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 / + 60°C			
Weight	4,2 Kg		4,6 Kg	
Dimension mm (H x L x D)	460 x 460 x 320		610 x 610 x 320	
Signalling	32 char. , LCD Display			
Protection	IP67			
Standards	EN301893 EN300328 EN301489-17 EN60950-1 ERC70-03			