iptv

The **ip**coax system has been especially designed to convert the coaxial network into a data network in a very easy manner. The **ip**coax equipment enables the transmission and reception of an internet signal via the existing coaxial cable of a television installation, without having to undertake any actions on the infrastructure.

Simply by adding a headend master equipment (IPC-M) and a slave (IPC-S) at each point where the internet signal has to be carried, the television installation is upgraded to transmit IP data at high speed. The IPC-S slave also acts as a Wi-Fi router allowing the creation of a wireless network easily wherever the IPC-S is installed.

A single IPC-M master equipment supports up to 253 slaves with encrypted communications. It is also possible to increase the number of IPC-S using the same network by simply installing new master equipment in tandem (up to 4 IPC-M for the same coaxial cable).

IPC-M

KEY FEATURES

The master module of the **ip**coax system enables an IP signal to be transmitted via the coaxial cable. With the IPC-M it is possible to create a high-speed data network without producing any type of effect whatsoever on the television signal which is transmitted through the same cable.

Based on the HomePlug AV system, Ethernet signals in RF are transmitted in a bandwidth of 7.5 to 65 MHz, with speeds of up to 600 Mbps on the physical layer. Using a master up to 253 equipment with IPC-S slaves can be controlled, being able to install up to 4 masters on the same coaxial cable. Management and control is undertaken through a very simple WEB interface, which can be accessed remotely so as to control both the IPC-M as well as the IPC-S connected to it.

SPECIFICATIONS

Operating characteristics	
RF parameters	
Frequency	7,5 – 65 MHz
Output level	120 dBuV
Minimum Input level	43 dBuV
Return loss	> 16 dB
Transmission speed	
Physical layer speed	600 Mbps
MAC layer speed	300 Mbps
Modulation	OFDM - 2690 carriers 4096/1024/256/16/8-QAM, QPSK,BOSK, ROBO
Operating mode	RDMA / CSMA
Encryption	AES-128
Standards	
EOC Standard	IEEE P1901. HomePlug AV
Ethernet protocols	IEEE802.3, IEEE802.3x, IEEE802.3u, IEEE802.1P, IEEE802.1Q

Software	
Manner of use	WEB, CLI and SNMP
Software characteristics	VLAN, QoS, bandwidth control, "broadcast storm"
Connections	
RF Connection	1 RF IN-Mix (connector F) 1 RF OUT (connector F)
Ethernet Interface	1 10/100M/1000M Ethernet self adapting (RJ45) port
Power Supply	24 Vdc
Consumption	< 8 W

IPC-S

KEY FEATURES

The IPC-S device enables internet access by capturing the signal transmitted by the master equipment of the **ip**coax system via the coaxial cable. In addition to having four 10/100Mbps LAN ports, it can act as a router to create a wireless Wi-Fi network.

It supports QoS, VLAN configuration on different ports, and manages encrypted signals and are transmitted by the master equipment, ... and furthermore can be managed and controlled remotely for real-time management.

SPECIFICATIONS

Operating characteristics RF parameters	
Frequency	7,5 – 65 MHz
Output level	110 dBuV
Minimum Input level	45 dBuV
Return loss	> 15 dB
Transmission speed	
Physical layer speed	600 Mbps
MAC layer speed	300 Mbps
Modulation	OFDM - 2690 carriers 4096/1024/256/16/8-QAM, QPSK,BOSK, ROBO
Operating mode	TDMA / CSMA
Encryption	AES-128

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Standards	
EOC Standard	IEEE P1901. HomePlug AV
Ethernet protocols	IEEE802.3, IEEE802.3x, IEEE802.3u, IEEE802.1P, IEEE802.1Q
Software	
Manner of use	Network management WEB, CLI and SNMP
Software characteristics	VLAN, QoS, bandwidth control, "broadcast storm"
Connections	
RF Connection	1 RF IN-Mix (connector F) 1 RF OUT (connector F)
Ethernet Interface	4 10/100M Ethernet (connectors RJ45) ports
Power Supply	DC 12 Vdc Connector
Consumption	< 5 W
Wi-Fi Characteristics	
Operating mode	Router or Bridge
Throughput	IEEE802.11b: 11Mbps IEEE802.11g: 54Mbps IEEE802.11n: 135Mbps
Frequency	2.412 GHz - 2.472 GHz
Channel	13. Configurable for various standards
Modulation mode	DSSS, CCK and OFDM
Coding	BPSK, QPSK, 16QAM and 64QAM
RF Reception	802.11b: -82dBm@1Mbps; -80dBm@2Mbps; -78dBm@5.5Mbps 802.11g: -82dBm@6Mbps; -81dBm@9Mbps; -79dBm@12Mbps 802.11n: -65dBm@65MbpsHT40; -61dBm@135MbpsHT40
RF output level	802.11b: 16.5 +/- 1dBm802.11g: 13dBm@54Mbps; 15dBm@6-36Mbps 802.11n: 13dBm@54Mbps; 15dBm@6-36Mbps
Encryption	802.11i Security: WEP-64/128, TKIP(WPA-PSK) and AES(WPA2-PSK)