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Streamer with remultiplexing DVBT/T2 - IP, with CI and Pro:Idiom Re-encrypt

Streamer generating an IP encapsulated output from the multiplexing of the services available in 4 different DVB-T or DVB-T2 muxes.

The encrypted satellite channels are transformed into free IP services through the CI interface and the appropriate CAM module. Depending on the CAM type used (standard/professional), one or several services may be opened for free visualization.

The module has the option to re-encrypt the IPservices decrypted by the CAM with a DRM Pro:Idiom solution (Digital Rights Management),for secure delivery of contents.

The system will encompass a power supply and some streamer modules depending on the number of services to be distributed.

Ref.565740

Art.Nr	U4CIP-CI-PRO
EAN13	8424450209752

Highlights

- 32 IP streams SPTS
- DiSEqC 1.0 for multiswitches control
- Service decryption by insertion of a PCMCIA module
- DRM (Pro:Idiom) encryption of the output IP streaming
- Access to the headend configuration through a self-created WiFi network (using the kit with ref.216802)
- Internal switch for IP out Daisy chain of serveral modules
- External to the headend services signaling, such as those coming from a HE-21 headend
- Equipment monitoring using basic SNMP protocol, which allows behavior values to be indicated through the network (network information, unit turn-on times, etc ...)
- Embedded user web interface for module configuration:

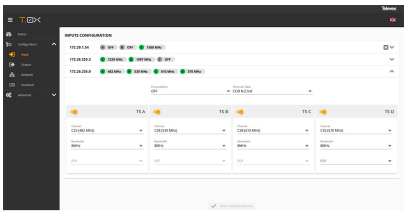
- Configuration of the entire headend selecting one of the module as a master
- Automatic detection of the modules that are connected to the master
- Cloning function to replicate configurations between modules and headends
- UDP or RTP output protocol selection, for greater compatibility with IPTV sistems
- Headend control indicators: module temperature, CAM status ...

Main features

- Selection of services among the 4 input muxes to distribute in streaming
- Includes EPG information (Electronic Program Guide) in the headend output stream
- Provides flow information of each service to estimate the global output flow of the module
- Device monitoring and signal status LEDs

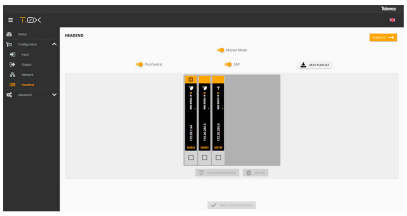
Functionalities

Remultiplexing of services



The unit has four demodulators (TS A, TS B, TS C, TS D), connected to a single signal input. The unit always operates in loop mode.

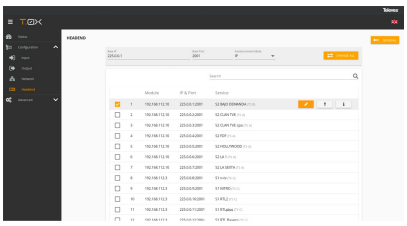
Programming of the entire headend selecting one of the module as a master



Configure one of the modules as a master of the entire headend. Any module can be selected as the master. Once the master mode is activated, the unit searches for other units connected to the network (ETH2).

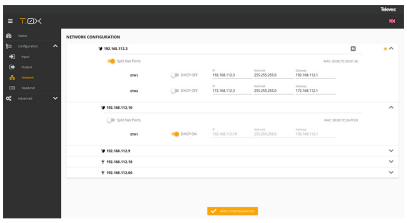
The units can be visually ordered in the web interface to identify them more easily with the real position in the headend. Each of the modules can be identified by temporarily activating the flash of the front LED.

Multiple addition of services



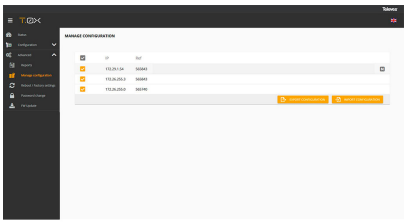
Multiple services can be added at once by selecting one base IP address and one base port, such as the wanted services, and an IP address or port auto-increment The web interface will automatically generate rhe IP multicast addresses of each of the services, in terms of the selected parameters.

Separated networks in each module



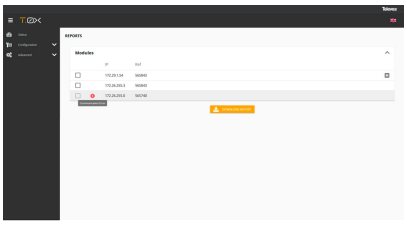
Each unit has two Ethernet RJ45 connectors, which can be used on an single network or on two separate networks, one for control and the other for video distribution. Users can be enable the separation of these networks (Split Net Ports) and configure the IP address, subnet mask, and default port link, as well as the DHCP client mode.

Cloning of headends configurations



The web interface allows to export/image files for duplicating units (or complete headends) configurations. This function helps to reduce time in typical installations, due of having previously a configured file. The exportation of these files also allows to have a headend configuration backup.

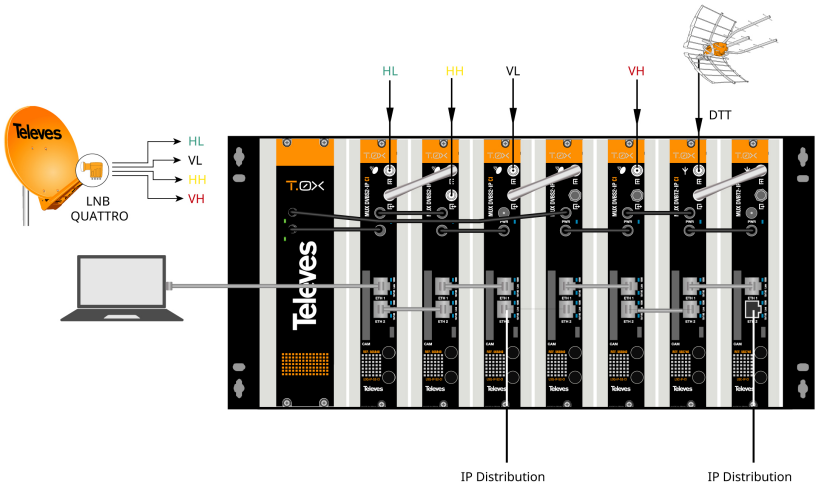
Status reports generation



Users can download report files on the selected unit, or of the complete headend, to make easier debugging in the event of an incident.

Application example

(Click to see the picture)

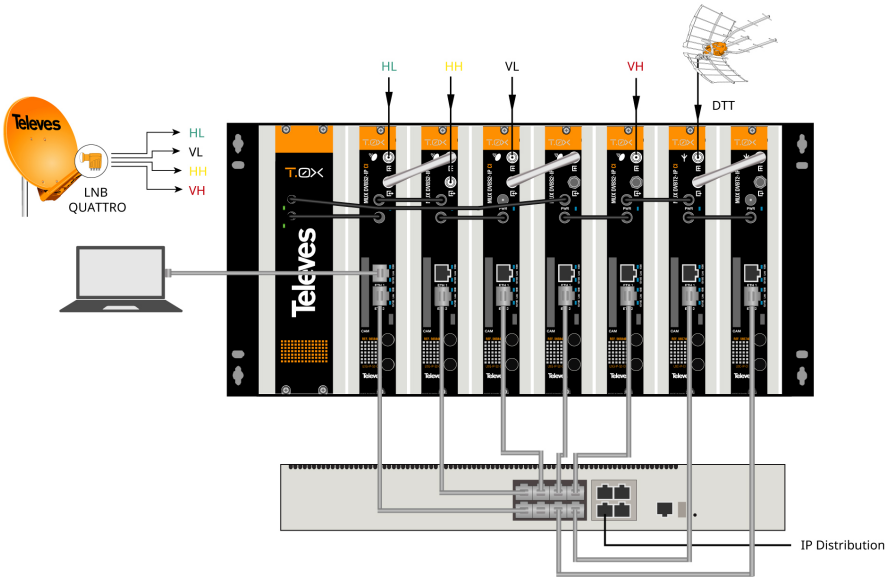


HEADEND CONFIGURATION WITH ETHERNET CABLE

The unit's IP must be known to access its control web interface. By default, this code is printed on the rear label.

1. Connect a PC directly to the module's ETH1 port with an Ehternet cable.
2. Configure the PC's IP address on the same subnetwork as the module.
3. Open a browser and go to the URL https://ip_module

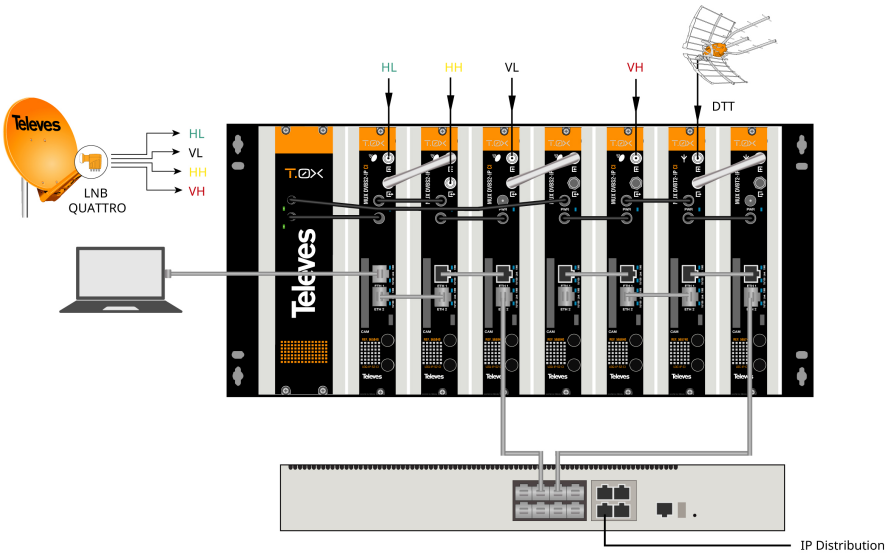
(*) Maximum Bitrate per unit is 150 Mbps. Maximum Bitrate with looped units is 500 Mbps.



DISTRIBUTION NETWORK CONNECTION

Connect the units' ETH2 outputs to the external video distribution switch with Ethernet CAT6 cables.

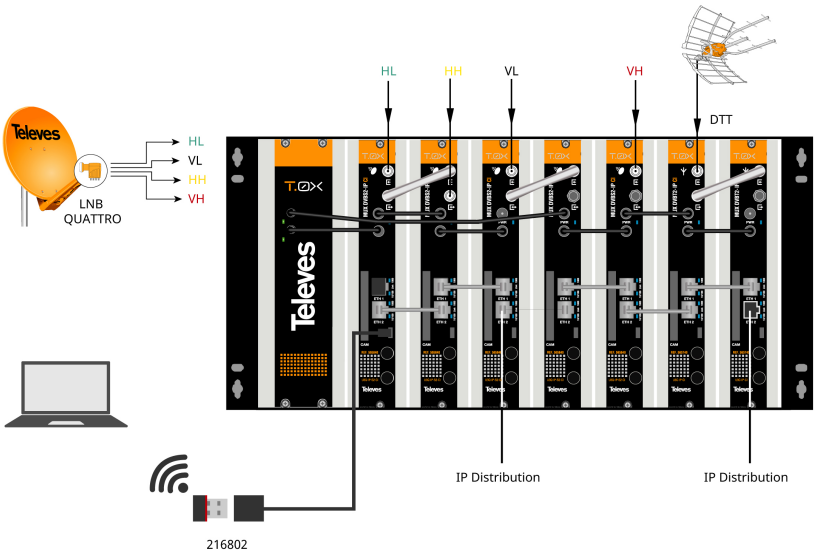
(*) Maximum Bitrate per unit is 150 Mbps. Maximum Bitrate with looped units is 500 Mbps.



DISTRIBUTION NETWORK CONNECTION (2)

Another option is to create a loop between one unit's ETH2 connectors and the ETH1 of the next unit, and only connect the ETH2 connector of the last module as shown. This solution is the most recommended due to the separation between control and distribution networks (Split Net Ports mode).

(*) Maximum Bitrate per unit is 150 Mbps. Maximum Bitrate with looped units is 500 Mbps.



HEADEND CONFIGURATION WITH WIFI ADAPTER

The unit can also be connected via Wi-Fi using the adapter kit Ref. 216802. This adapter must be connected to the micro USB port on the front of the unit. After an automatic initialization process, connection to a Wi-Fi network will be possible, provided its SSID has the following format: Televes_mng_XXYYZZ. To go to the configuration website, open a browser and go to the URL "config.t0x".

(*) Maximum Bitrate per unit is 150 Mbps. Maximum Bitrate with looped units is 500 Mbps.

Technical specifications

DVB-T/DVB-T2 INPUT	Input frequency		MHz	150...862
	Frequency steps		MHz	125, 166 (Select.)
	In/Out connectors			"F" female
	Input impedance		Ω	75
	Preamplifiers power supply		Vdc	0, 12, 24 (Select.)
	Input level		dBm	-60 to -20
	Through losses (typ.)		dB	< 1,5
	Bandwidth	DVB-T	MHz	6, 7, 8
		DVB-T2		1.7, 5, 6, 7, 8
	Input SWR		dB	10
IP OUT	Mode			Multicast/Unicast
	Format			SPTS
	Protocol			IPv4, UDP/RTP, DHCP
	Number of IP services			Max. 32 (unencrypted) Max. 8 (Pro:Idiom DRM)
	Connectors			2 X RJ45 (1 GB Ethernet 1000 BaseT)
GENERAL	Consumption 24Vdc (Base+CAM+Previous)		mA	700 (500+100+100)
	Protection index		IP	IP20
	Temperature range		ºC	0...45