



Televes 563852 TWIN HDMI/YPbPr/IP MPEG2/4 Encoder/Modulator Installation Guide

[Home](#) » [Televes](#) » Televes 563852 TWIN HDMI/YPbPr/IP MPEG2/4 Encoder/Modulator Installation Guide 

Televes 563852 TWIN HDMI/YPbPr/IP MPEG2/4 Encoder/Modulator Installation Guide



Contents

[1 Important safety instructions](#)

[2 LED indicators](#)

[3 Installation](#)

[4 Menu flow chart](#)

[5 IP menu](#)

[6 Technical specifications](#)

[7 Documents / Resources](#)

[7.1 References](#)

[8 Related Posts](#)

Important safety instructions

Caution Statements

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

11. Refer all servicing to qualified service personnel.

Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning

- Reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Safe operation

- Should any liquid or object fall into the equipment, please refer to qualified personnel for service.

Safe installation

- Ambient temperature should not be higher than 45°C.
- Do not place the equipment near heat sources or in a highly humid environment.
- Do not place the equipment in a place where it can suffer vibrations or shocks.
- Please allow air circulation around the equipment.
- Do not place naked flames, such as lighted candles on or near the product.

Symbiology



Equipment designed for indoor use.



The equipment complies with the CE mark requirements.

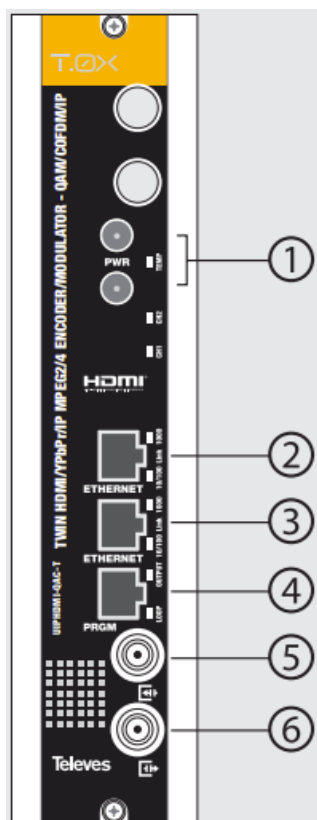


This symbol indicate the maximum and minimum temperature limits at which the equipment shall be used.



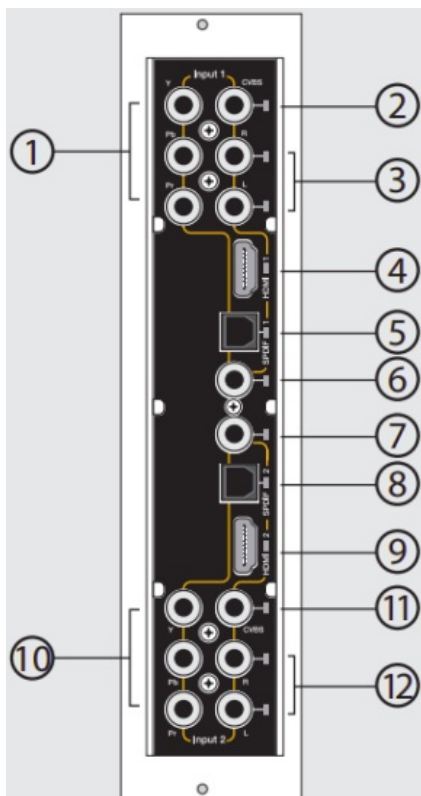
The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI Trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.
Description of connectors

Front view



1. Power connectors
2. Ethernet connector
3. Ethernet connector
4. Programmer connector
5. RF loop through input
6. RF output

Rear view



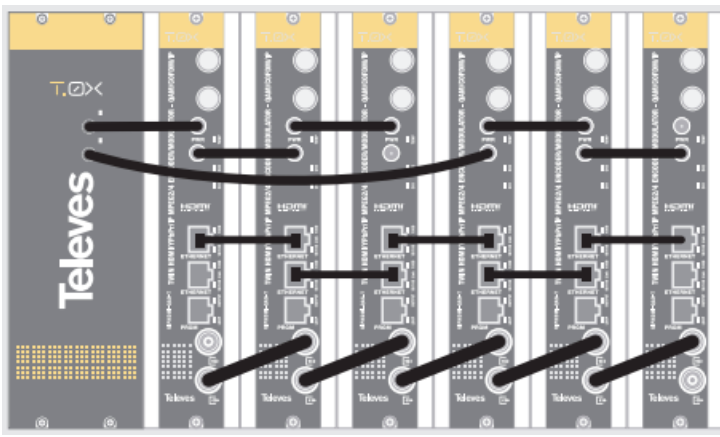
1. YPbPr component input. Channel 1
2. CVBS input. Channel 1
3. Analog (L/R) audio input. Channel 1
4. HDMI® input. Channel 1
5. SPDIF digital optical audio input. Channel 1
6. SPDIF digital coaxial audio input. Channel 1
7. SPDIF digital coaxial audio input. Channel 2
8. SPDIF digital optical audio input. Channel 2
9. HDMI® input. Channel 2
10. YPbPr component input. Channel 2
11. CVBS input. Channel 2
12. Analog (L/R) audio input. Channel 2

LED indicators

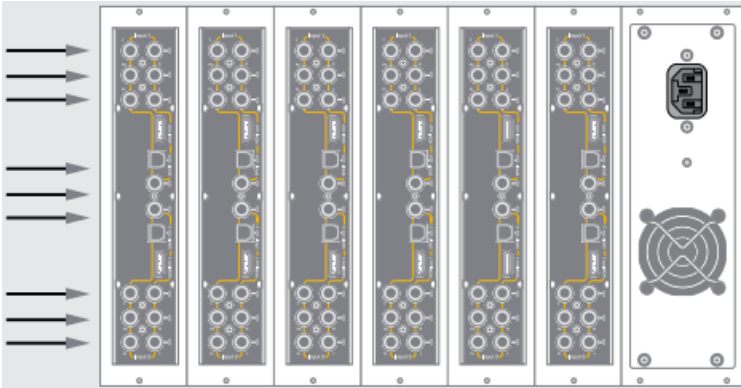
Front LED alarms	TEMP	Color	Internal temp	Comment
		Solid green	Normal	Safe
		Slow blink orange	High	Warning *
		Fast blink red	Very High	Danger
	CH1 – CH 2	Color	Channel status	Comment
		Off	Disabled	Channel disabled
		Solid green	Lock	Input locked and unit encoding audio/video
		Solid red	Unlock	Input unlocked and unit not encoding audio/video
		Blinking red	Boot	Unit starting up.
	OUTPUT	Color	Output mode	Comment
		Solid green	Normal	Output RF channel is ON, broadcasting audio/video (normal mode)
		Slow blinking green	Carrier wave, null, or muted	Output RF channel is OFF or in an alternate signal mode
		Solid orange/red	Normal	Config bitrate doesn't fit in output
	LOOP	Color	Output loop status	Comment
		Solid green	ON	Output loop-through enabled. Units may be daisy-chained using the internal combiner
		Off	OFF	Output loop-through disabled. Units must be combined using an external combiner.
Back LED indicators	A/V inputs	Indicate the currently selected audio and video inputs and where the input signals should be connected.		

Installation

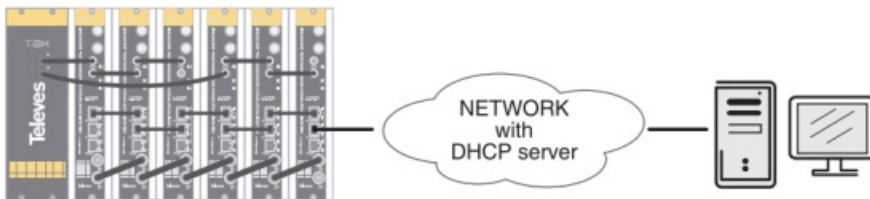
1. Install all units in the rack and connect them as shown in Fig. 1.



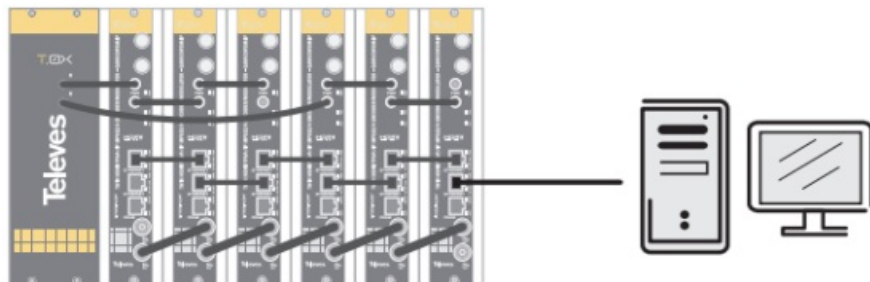
2. The audio and video input signals connect to the back of the modules (Fig. 2).



3. If a network is available that provides IP addresses through DHCP, connect the encoders to the network as shown in Fig 3.

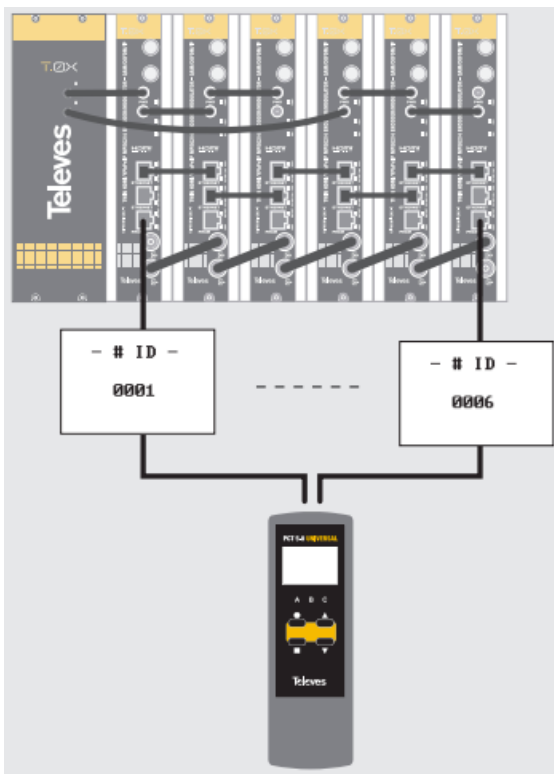


If such a network is not available, then a computer will need to be connected as shown in Fig. 4.

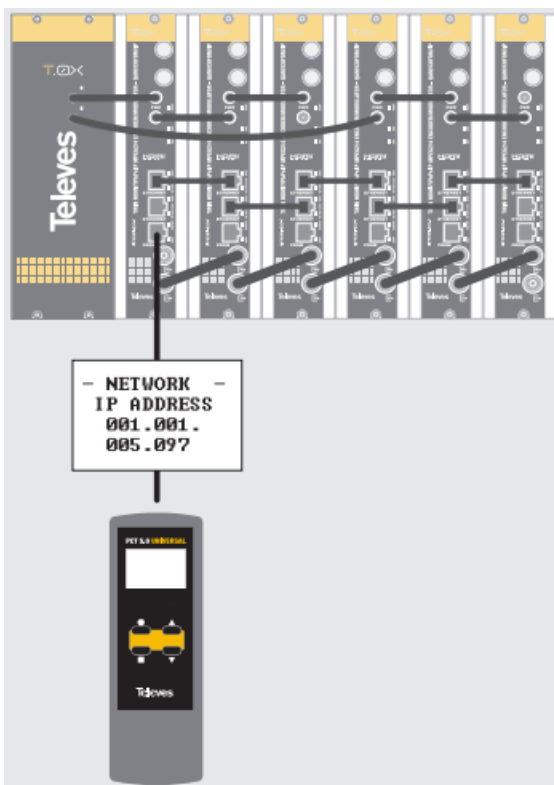


4. Power on the units.

5. Connect the programmer to each unit and set a unique number in the “# ID” field according to the order of installation of the units in the rack (Fig. 5).



6. Connect the programmer to a unit, usually the first one, and read the IP address (Fig. 6).



Each unit can work as a master controller for the other units. All units can be configured by connecting to only one.

7. If a network was connected in Step 3 then proceed to step 8. If not, set the address of you computer as follows:

IP value = 172.20.0.2

netmask = 255.0.0.0

gateway = 172.20.0.3

NOTE: The default factory configuration of the units has an IP address in this range (it should be different for each unit). If a unit was ever provided an address before, manually or through DHCP, this unique address may no longer exist. Resetting to IP factory defaults, will return the original unique private address though.

8. In your web browser, enter the IP address from Step 6 as the URL.

A login prompt will appear. By default the parameters are:

Login: encoder

Password: encode

The Status > Summary page (Fig. 7) should appear as the first page.

STATUS CONFIGURATION ADVANCED															
SUMMARY		DEFAULT													
#	Model #	Type	Temp	CH1	CH2	CH3	CH4	CH5	CH6	RF Level	Output Type	Output Channel	IP	Watermarking ID	STATUS
2	543852 - Dual Component/HDMI/SP with connected	Normal	LOCK	LOCK	N/A	N/A	Normal	LOCK	LOCK	CC	CCIR H.2.344	CC2	N/A	DISABLED	OK
3	543853 - Dual Component/HDMI/SP	Normal	DISABLED	LOCK	N/A	N/A	Normal	LOCK	LOCK	CC	CCIR H.2.344	CC3	N/A	DISABLED	OK

This provides a summary of all the units installed in the network and the units will be sorted by the number entered in Step 5.

Fig. 8 shows an example of a detailed “status” page.

STATUS CONFIGURATION ADVANCED							
SUMMARY		DETAILED					
#	Model #	SN #	Serial Number	Type	Resolution/FrameRate	Version Info	Upgrade Options
2	543852 - Dual Component/HDMI/SP with connected	557753		SPC 1080P	C1 1080/30 C2 1080/30	Hardware - 1.0.0.00007 Software - 1.0.0.00017 Boot - 1.0.0.00002 S.R. - 1.0.0.00011 User Interface - 1.0.0.00004	DEFAULT (No upgrade)
3	543853 - Dual Component/HDMI/SP	557754		SPC 1080P	C1 1080/30 C2 1080/30	Hardware - 1.0.0.00008 Software - 1.0.0.00017 Boot - 1.0.0.00002 S.R. - 1.0.0.00011 User Interface - 1.0.0.00004	DEFAULT (No upgrade)

9. Configure all units:

Select “CONFIGURATION”. This page has 5 tabs:

INPUT, TRANSPORT, OUTPUT, IP and NETWORK shown in Fig. 9 to 14.

STATUS CONFIGURATION ADVANCED													
INPUT		TRANSPORT	OUTPUT	IP	NETWORK								
#	Unit #	Enabled	Video Input	Video Codec	Video Status (Frame)	Audio Input	Audio Status	Audio Input	Audio Input Type	Audio Level	Audio PID	Audio	Audio
2	543852 - Dual Component/HDMI/SP with connected	<input checked="" type="checkbox"/>	Comp	H264	30.00	PKBS	OK	OPTICAL	30M	34	34	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	543853 - Dual Component/HDMI/SP	<input checked="" type="checkbox"/>	HDMI	H264	30.00	PKBS	OK	HDMI 48 kHz	30M	34	34	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

STATUS CONFIGURATION ADVANCED													
INPUT		TRANSPORT	OUTPUT	IP	NETWORK								
#	Unit #	TS ID	MT ID	NETWORK NAME	CH1 MT ID	CH2 MT ID	CH3 MT ID	CH4 MT ID	CH5 MT ID	CH6 MT ID	CH7 MT ID	CH8 MT ID	CH9 MT ID
2	543852 - Dual Component/HDMI/SP with connected	01	02	TS010000	01	02	03	04	05	06	07	08	09
3	543853 - Dual Component/HDMI/SP	01	02	TS010000	01	02	03	04	05	06	07	08	09

STATUS CONFIGURATION ADVANCED													
INPUT		TRANSPORT	OUTPUT	IP	NETWORK								
#	Unit #	Type	Channel	Pixel AS	Level	Mode	RF	Quant Interval	PRC	Cell ID	Bandwidth	Output	RF Level
2	543852 - Dual Component/HDMI/SP with connected	CCIR H.2.344	C1	N/A	30	CURR/PAUSE	8 MHz	1/2	3/4	01	N/A	NORMAL	30
3	543853 - Dual Component/HDMI/SP	CCIR H.2.344	C2	N/A	30	ZIGZAG	N/A	N/A	N/A	N/A	N/A	NORMAL	30

STATUS CONFIGURATION ADVANCED													
INPUT		TRANSPORT	OUTPUT	IP	NETWORK								
#	Unit #	IP Mode	IP Output Type	Enabled	Network	IP	Port	MTS Data Package	MTS	MTS	MTS	MTS	MTS
2	543852 - Dual Component/HDMI/SP with connected	Output	MTS	<input checked="" type="checkbox"/>	TS010000	192.168.1.1	1000	1	1	1	1	1	1
3	543853 - Dual Component/HDMI/SP	Output	MTS	<input checked="" type="checkbox"/>	TS010000	192.168.1.2	1000	1	1	1	1	1	1

Apply Selected

INPUT 1 SERVICE LIST

Select	CH. Name	SERVICE ID
<input checked="" type="checkbox"/>	ZDF	28006
<input checked="" type="checkbox"/>	3sat	28007
<input checked="" type="checkbox"/>	KIKA	28008
<input checked="" type="checkbox"/>	ZDFinfo	28011
<input checked="" type="checkbox"/>	OKULTUR	28012
<input type="checkbox"/>	DLF	28013
<input type="checkbox"/>	zdf neo	28014
<input type="checkbox"/>	DRadio DokDeb	28015
<input type="checkbox"/>	zdf kultur	28016
<input type="checkbox"/>	DRadio Wissen	28017

Only Selected Services will be present in the output!

Store Changes

(close this page and save the configuration in the "web connected" unit to be sent clicking "Apply Selected" button in any of the configuration pages)

Discard Changes and Close

The last column of each configuration page is "Select". Any changes made will be saved only in the units with the "Select" option checked when you click "Apply Selected". This applies to the five tabs that exist under the "Configuration" menu.

Some items have a choice of automatic configuration. For example, the Network Configuration page allows you to change the number assigned in step 5 of the installation process.

The "Auto" option will request confirmation to have changed the parameters of all units set in step 5 and order probably will not correspond with the position of the units in the rack.

INPUT

Configuration of the physical inputs audio and video. It will be necessary to select the encoding H.264 if the resolution is 1080p.

TRANSPORT

Changing the parameters of the output Transport Stream. The TS ID, SID and LCN of each service shall not overlap with those of another service the same unit.

OUTPUT

Setting the RF output channel. The unit will restart, if you switch between QAM and COFDM mode.

IP

The unit can work in 3 different modes IP, Input, Output and Disabled.

Input: To receive IP services, It's necessary that the unit is in Input mode and you set the IP addresses and ports. Allowed IP addresses between 224.0.0.0 y 239.255.255.255.

If not, make changes on the IP tab (Fig. 12) and click "Apply Selected".

If you try to configure two IP addresses and ports equal the Web will warn you that is not a valid configuration and will not let you apply settings.

Once everything is set up, press the "Select" button associated with each IP address and a window appears like Fig. 13. If no appear any service, wait until the end of the scan.

Here you can see the services available to the corresponding IP.

Select the services you want to display and click on "Store Changes".

Finally, to apply the configuration, click "Apply Selected". The selected services will appear in the "Transport" tab next to the services of the physical inputs.

Output: For services transmissions of physical inputs via IP, the unit must be in "Output" mode; if you want, you can choose between MPTS or SPTS output types and configure IP addresses and ports.

In SPTS mode, the physical input 1 will exit through the IP 1 and physical input 2 by the IP 2.

In MPTS mode, the two physical inputs will exit by a single IP.

If any of the physical inputs is disabled, its corresponding IP service will not have transport.

NETWORK

Configuring network options. Both the IP address and the network mask may only be changed if DHCP mode is disabled (Fig. 14).



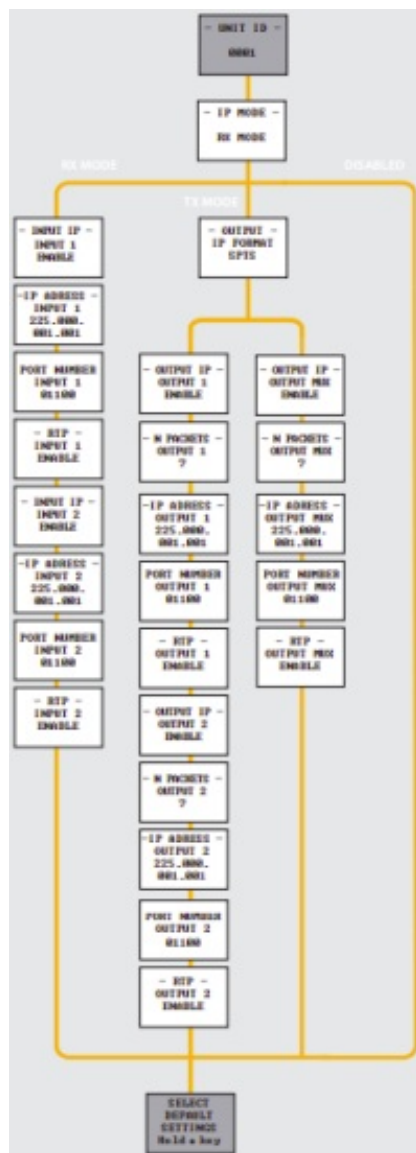
10. Complete configuration window:

To change any encoder value from a single window, select “CONFIGURATION”. Click on the name of the unit and the page Fig. 15, is displayed. From this page, you can modify any parameter settings for the selected unit.



Menu flow chart

For programming Unit operation



Technical specifications

Reference			563852
INPUT S	VIDEO	Connectors	2 sets – 3x RCA for Video (Y, Pb, Pr)
			2 sets – 1x RCA for CVBS Video
	AUDIO	Connectors	2 sets – 2x RCA for Analog Audio (L, R)
			2 sets – 1x RCA for Digital Audio
			2 sets – 1x Toslink for Digital Audio (Optical)
	VIDEO + AUDIO	Connectors	2 sets – 1x HDMI®
	IP MULTICAST	Connectors	2x RJ45 (Switch Gigabit)
		Formats	SPTS or MPTS (UDP/RTP)

ENCODING PROFILE	VIDEO	Output Format		MPEG-2 / H.264 (1)
		Resolution		480i, 480p, 576i, 576p, 720p, 1080i & 1080p (2) Supports auto-scan for input resolution
		Aspect Ratio		4:3, 16:9, and pass through
		GOP		10, 12, 15, 16, 18, 20, 24 or 30
		Transport rate		Variable
		Video bit rate		Variable
	AUDIO	Output format		Dolby Digital AC-3 (only digital passthrough) or MPEG1 Layer2 (analog input or HDMI uncompressed PCM audio)
		Sampling rate	kHz	48 or 44.1
		Output bitrate		Variable

OUTPUT	RF	Connectors		1x "F" Female
		Frequency Range	MHz	46 ... 862
		Max output level	dB μ V	+110 (+100 with loop-through)
		MER	dB	>40 (typ)
		Spurious	dBc	-60
		Impedance	Ω	75
		I/Q Phase Error	°	<1
		I/Q Amplitude Imbalance	%	<1
	QAM	Modulation format		16, 32, 64, 128, 256
		BaudRate	Mbaud	6,9
		Roll-off	%	15
		Code		Reed Solomon
		Spectrum Mode		Normal / Inverted
		Frequency Step	KHz	250
	COFDM	Modulation format		QPSK, 16QAM, 64QAM
		Guard Interval		1/4, 1/8, 1/16, 1/32
		FEC		1/2, 2/3, 3/4, 5/6, 7/8
		Bandwidth	MHz	6, 7, 8
		Cell_id		Editable
		Frequency Step	KHz	125 / 166
	IP MULTICAST	Connectors		2x RJ45 (Switch Gigabit)
		Formats		SPTS or MPTS (UDP/RTP)

PSI PARAMETERS	Transport Stream ID	Editable
	Original Network ID	Editable
	Network ID	Editable
	Logical Channel Number	Editable
	NIT Version	Manual / Automatic
	SDT Version	Manual / Automatic
	Type LCN	Generic / UK / NorDig V1 / NorDig V2
	Network Name	Editable
	Service PID	Editable
	Service Name	Editable
	Service ID	Editable

MONITORING / CONTROL	Local control	Full configuration with LCD handheld programmer
	Local monitoring	LOOP status LED
		OUTPUT status LED
		TEMP status LED
		CH1/CH2 status LEDs
		Ethernet status LEDs
	Remote monitoring	Centralized web based remote control, management, alarms, and software upgrades
	Control	Daisy-chain integrated ethernet switch

GENERAL	Power supply	Vdc	24
	Power dissipation	W	<20.4
	Operating Temperature	°F / °C	32 to 95 / 0 to 35

The technical specifications are defined for an ambient temperature of 35 °C (95 °F). It shall always be installed with forced ventilation.

1. The reference 563852 is intended to be used to feed several receivers utilizing only an HDMI source. The output quality of the image cannot be considered analogous as that of the original HDMI source.
2. 1080p resolution is only supported with MPEG-4 video codec.

ENCODER DISCLAIMER

1. TELEVÉS states that the following references:

563803, 563805, 56380501, 56380502, 56380503, 56380504, 56380505, 56380506, 56380507, 56380508,

56380509, 56380510, 563831, 563832, 563833, 563852, 566001, 585301, 585401, hereinafter referred as “Encoder Equipment” or products.

have as sole purpose to provide a technical solution to the need to transfer audiovisual content, originally generated in a device provided with an HDMI® interface, to one or more receivers located at distances greater than 100 linear meters within a room or building. According to the currently available technology, it is not possible to conduct the HDMI® signal at that distance or greater to a multiplicity of receivers, except through a complex and commercially non-viable network deployment, which in no case could ensure the protection of the original audio visual content.

2. TELEVÉS, as the holder of an HDCP license, is not entitled to include in a product such as the aforementioned Encoder Equipment any interface, switch, plug, conductor, button, push-button or other equivalent software solution that allows the output of said content device HDCP decrypted in any analogous form.
3. In order, a) to comply with the license, and b) at the same time provide the purchaser of the product with a technical, legal and feasible solution for the transfer to a multiplicity of receivers at distances greater than 100 linear meters from the audiovisual signal transmitted with HDMI® interface and HDCP encryption, the Encoder Equipments do not allow the output of decrypted audiovisual content in a representation analogous to the HDMI® format, but instead compresses the content of the audiovisual signal, converting it into MPEG format. This compressed format allows the transfer of the signal through the use of coaxial cables and its reception through the use of DVB-T / DVB-C / ISDB-T or similar analog tuning interfaces.
4. The user of the products may use the compressed audiovisual format, not analogous to the original HDMI content, in which any of the references cited as Encoders emits its output signal, solely and exclusively for the purpose and conditions defined as follows:
 - 1st) In order to transfer the signal to content displays (monitors, televisions, projectors) located more than 100 linear meters from the one receiving the HDMI® signal with the HDCP encrypted content.
 - 2º) Provided that the devices that allow the user to view content to which the signal is directed within the premises or building (monitors, televisions, projectors) allow normal viewing of HDMI® content while keeping HDCP encryption.
5. Any other use other than that defined in the previous paragraph is expressly prohibited. In particular, the user may not:
 - a) Reproduce the signal on content viewers not authorized to reproduce HDMI® content while maintaining HDCP encryption; nor,
 - b) Carry out conducts or operations aimed at copying, manipulating or transforming, in whole or in part, the audiovisual signal emitted by the products listed in section 1.
6. The user will be solely responsible in the event of improper use of any of the Encoder Equipments or of the audiovisual signal emitted by them. The user will indemnify and hold TELEVÉS harmless, to the maximum extent permitted by applicable law, against any claim, action or claim, judicial or extrajudicial, from third parties, holders of intellectual or industrial property rights, derived from prohibited actions of in accordance with the previous provisions.

www.televes.com

Responsible party: Televes USA LLC.

16596 E.


2nd Avenue Aurora,

CO 80011 USA

Telephone: +1 (720) 379 3748 televes.usa@televes.com



Documents / Resources

	<p>Televes 563852 TWIN HDMI/YPbPr/IP MPEG2/4 Encoder/Modulator [pdf] Installation Guide 563852 TWIN HDMI YPbPr IP MPEG2 4 Encoder Modulator, 563852, TWIN HDMI YPbPr IP M PEG2 4 Encoder Modulator, HDMI YPbPr IP MPEG2 4 Encoder Modulator, YPbPr IP MPEG2 4 Encoder Modulator, MPEG2 4 Encoder Modulator, Encoder Modulator, Modulator</p>
---	--

References

- [T TELEVES](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.