

Modulator Encoder QAM (Annexes A and B)

HDTV Encoder/Modulator range providing MPEG-2 or H.264 encoding with rates up to 1080 p. The range includes several modules equipped with 2 HMDI and component video inputs, one module equipped with 2 component video inputs, and one module equipped composite video inputs; all of them produce a single RF QAM output channel in HDTV to be distributed on a coaxial infrastructure. They support Dolby® Digital audio and include the Closed Captioning service, as well as an optional EAS interface with ASI input and output. The units are also equipped with an RF combiner and an integrated Ethernet switch to manage the whole system without the need for additional accessories.

Ref.	563802
EAN13	8424450170946

Other features	
Encoder inputs	Composite Video (4 inputs)

Packaging info	
Box	1 pcs.

Physical data	
Net weight	1,243.00 g
Gross volume	5.50 dm³
Gross weight	1,500.00 g
Width	50.00 mm
Height	219.00 mm
Depth	200.00 mm
Main product weight	1,105.00 g

Highlights

- Perfect image and audio synchronization
- Compatible with multiple formats, resolutions, and TV set sizes
- Editing of all the modulation and encoding parameters
- Configurable via web interface or PCT5.0 programmer
- High output power without the need for extra amplification

- Multi-standard output format
- Excellent output quality (MER>40 dB)
- Device monitoring and signal status LED diodes
- Energy-efficient thanks to their low power consumption
- Integrated RF combiner and Ethernet switch
- Remote firmware update
- Configuration via a web interface embedded in the encoder

Discover

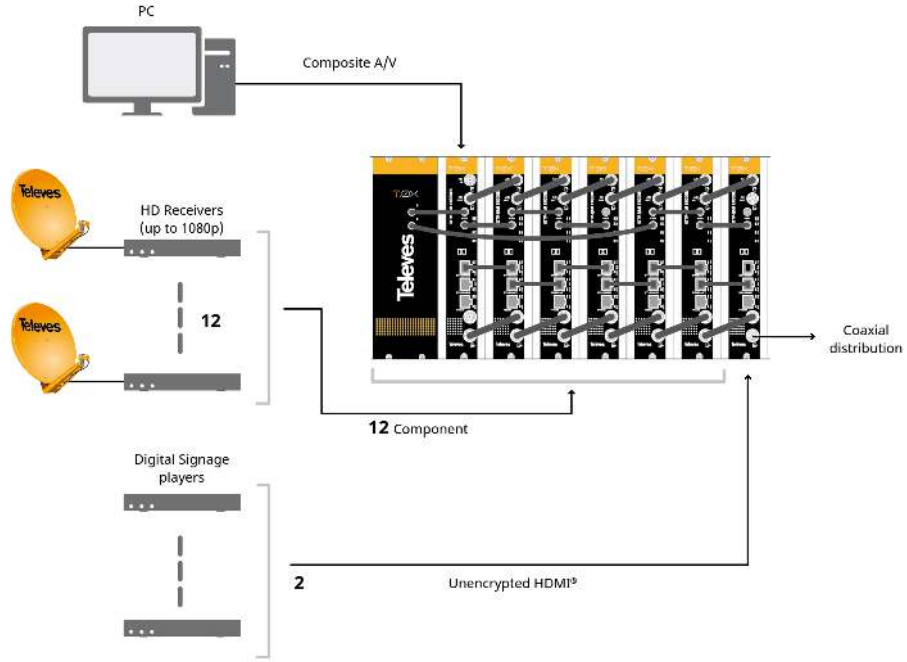
Considerations

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.

Application example

RESTAURANTS & BARS (WITH EAS)

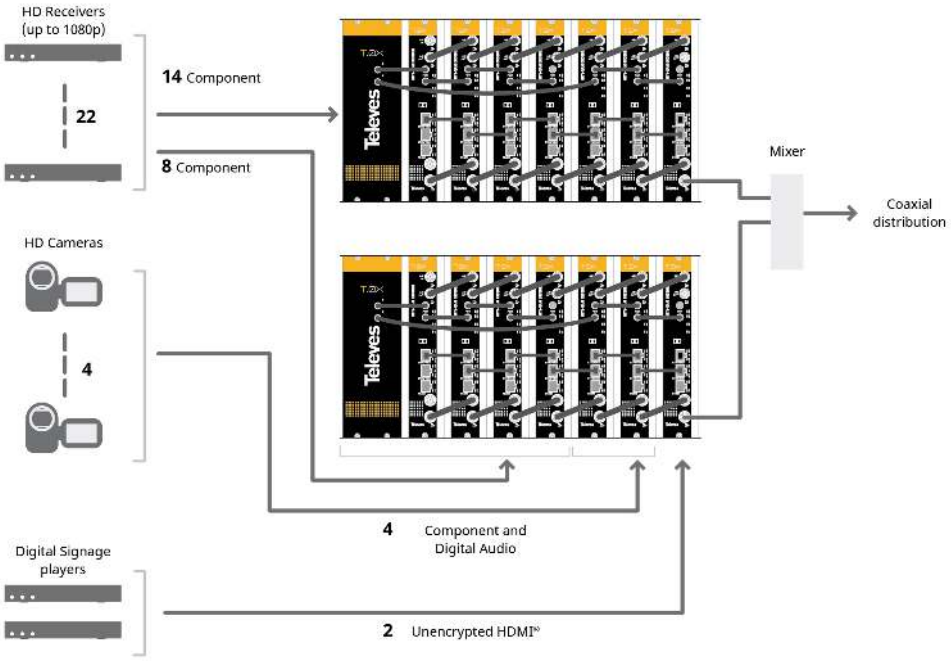
Use the existing coax wiring to distribute full HD programming in restaurants and bars without rewiring or using component matrix switchers. Easily add high definition in-house content using HDMI® digital signage players, and take advantage of a simple PC connected to an EAS encoder to display special promotion announcements on every screen at the same time.



1: Twin component to QAM (EAS) / 2...6: Twin component to QAM / 7: Twin HDMI⁵ to QAM

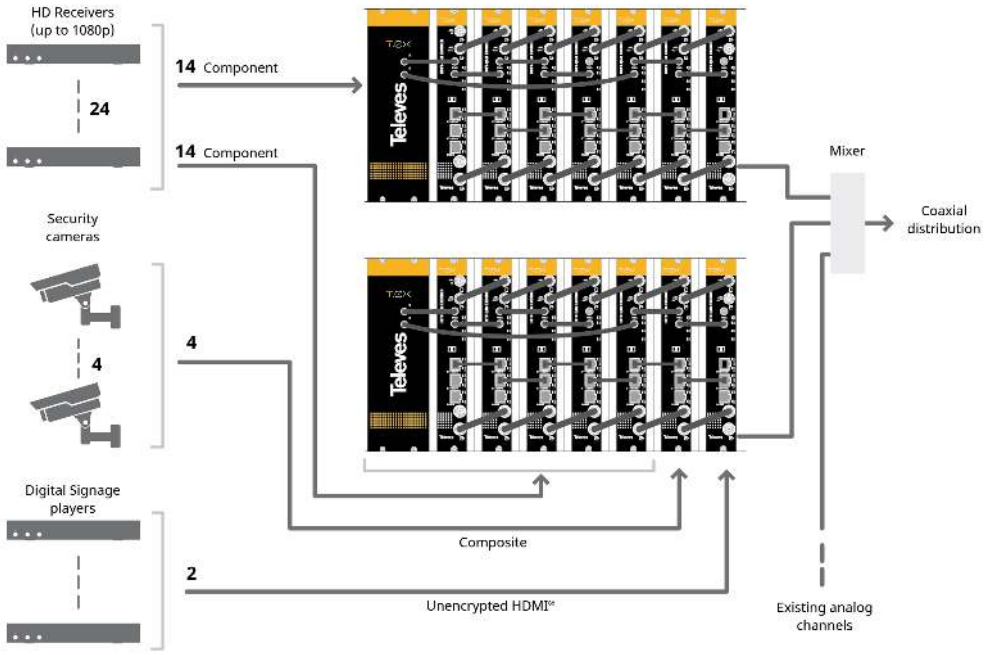
BALLPARKS, ARENAS & STADIUMS

Hundreds of inexpensive HDTV displays installed accross the stadium can be operated from a rack of HDTV Encoder/Modulators providing live HD video content from other games via cable or satellite receivers, live TV game action from the field HD cameras, and even additional digital signage channels displaying trivia, statistics or special announcements, all of it **using the already existing cable distribution.**



MULTIPLE DWELLING UNITS

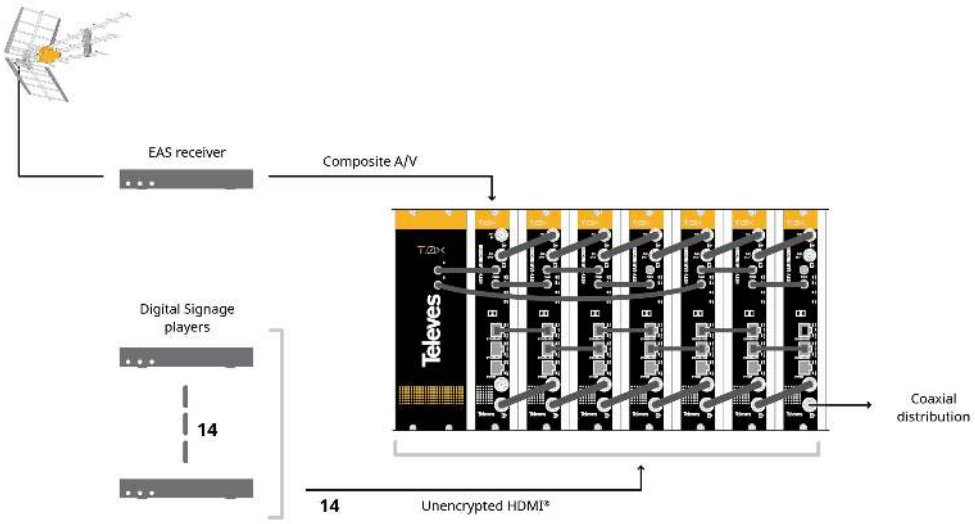
This example shows various inputs including up to **1080p HD programming, security camera content, and locally generated digital signage announcement channels,** delivered over the building's single wire coax infrastructure without set top boxes to every existing and future HDTV in the property.



1...12 : Dual component to QAM / 13: Quad composite to QAM / 14: Twin HDMI® to QAM

DIGITAL SIGNAGE (WITH EAS)

Broadcast an easily scalable number of digital signage channels to a potentially **unlimited number of displays without using any additional devices at the HDTVs**. Adding a single EAS module to the system provides plant-wide alert announcement capability, with builtin EAS signal distribution and RF combination.



1: Twin HDMI® to QAM (EAS) / 2...7: Twin HDMI® to QAM

Technical specifications

References				QUAD COMPOSITE TO QAM		DUAL COMPONENT TO QAM		DUAL HDMI®/ COMPONENT TO QAM	
				563802	563821	563801	563811	563803	563831
INPUTS	VIDEO	Connectors		4 sets – 1x RCA for video (CVBS)		2 sets – 3x RCA for video (Y, Pb, Pr)		2 sets – 3x RCA for video (Y, Pb, Pr) 2 sets – 2x HDMI® (unencrypted)	
	AUDIO	Connectors		4 sets – 2x RCA for analog audio (L, R)		2 sets – 2x RCA for analog audio (L, R)			
						2 sets – 1x RCA for digital audio (PCM)			
						2 sets – 1x toslink for digital audio (Optical)			
	CLOSED CAPTIONING	Connectors		4 sets – 1x RCA (CVBS in)		2 sets – 1x RCA (CC in)			
	EAS	Connectors		n/a	3x RCA (CVBS,L,R)	n/a	3x RCA (CVBS,L,R)	n/a	3x RCA (CVBS,L,R)
		Trigger	Vdc	n/a	5-12 (Dry contact closure)	n/a	5-12 (Dry contact closure)	n/a	5-12 (Dry contact closure)
	ASI	Connectors		1x BNC					
		Format		DVB-ASI					
		Standard		ETSI EN 50083-9					
	QAM	Connectors		1x “F” Female (loop-through mix input)					
ENCODING PROFILE	VIDEO	Output Format		MPEG-2, H.264					
		Resolution		480i & 576i		480i, 480p, 576i, 576p, 720p, 1080i (MPEG-2/H.264) & 1080p (H.264)			
				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 or MPEG-1 Layer 2					
		Sampling rate	KHz	48					
		Output bitrate		Variable					
	CLOSED CAPTIONING	Format		EIA-608		EIA-608, EIA-708			

SALIDAS	QAM	Connectors		1x “F” Female
		Modulation standards		ITU-A: 16, 32, 64, 128, 256, 512, 1024 QAM
				ITU-B: 64, 256 QAM
		Frecuency Range	MHz	5 – 1002 MHz (supports return path applications)
		Channel plans		CATV STD, HRC, IRC, Broadcast, Frequency
		Max output level	dBmV	55 (43 with loop-through)
		MER	dB	>40 (Typ)
		Spurious	dBc	-60
		Impedance	Ω	75
		I/Q Phase Error	º	< 1
		I/Q Amplitude Imbalance	%	< 1
	ASI	Connectors		1x BNC
		Format		DVB-ASI
ALARMS / MONITORING / CONTROL		Local control		Full configuration with LCD handheld programmer
		Local monitoring		EAS status LED
				LOOP status LED
				QAM status LED
				TEMP status LED
			CH1/2 – CH3/4 status LEDS	CH1/2 status LED
				Ethernet status LEDS
		Remote monitoring		Centralized web based remote control, management, alarms, and software upgrades
		Control		Daisy-chain built-in ethernet switch
GENERAL		Power supply	Vdc	24
		Power disipation	W	< 19.2 (@1080p)
		Operating Temperature	ºF/ ºC	32 ... 122 / 0 ... 50
		Storage Temperature		-13 ... 158 / -25 ... 70