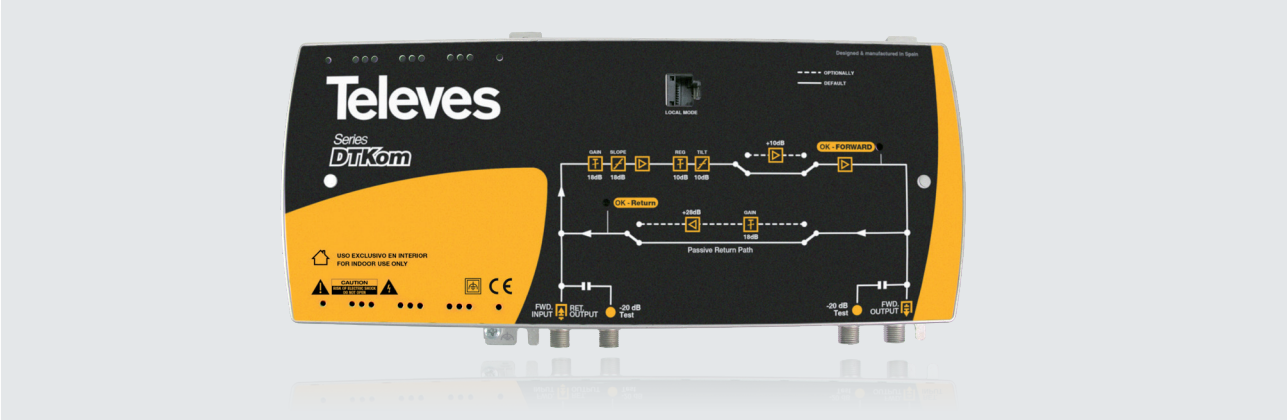
Broadband Indoor Distribution Amplifier / *Central Amplificadora - DTKom Series*

Refs. 451282



Description

The DTKom Series Amplifiers are professional quality, completely selfcontained, two way broadband indoor distribution amplifiers designed for multi-channel RF distribution systems where the input source is a cable drop or the output of a MATV/SMATV/CATV headend. The Ref. 451282 is a high output level, power doubling amplifier, with an RF bandwidth of 1002MHz, equipped for 2-way operation with a 36/49MHz split that can operate in passive or active return configurations.

The ref. 451282 have an user selectable gain of 30dB or 40 dB. It has 18dB attenuator-slope control and 10dB regulator-tilt control.

It has a return gain of 28dB when in active mode and 18dB attenuator.

Two -20dB test points are provided to allow testing without interruption of service.

The unit can be controlled:

- Via local - With an external programmer 7234, allowing to test, modify and save the unit parameters; it can be assigned an address 1..254.
- Via remote - According to B_LAN standards by commands via cable, allowing to test, modify and save parameters of the unit.

The unit 451282 has a tuner and can test (via local and via remote), channels according to ITU standard J.83 QAM B.

The DTKom Series amplifiers incorporate a built in switched 110-230V~ power supply and are characterized by their exceptionally low power consumption for a long and trouble-free operating life. The cast Zamak chassis has been optimized to be compact and easy to install. It also provides excellent heat dissipation, allowing its operation with high environmental temperatures, without degradation of performance/ reliability.

Descripción

La Serie Amplificadores DTKOM contiene centrales profesionales de calidad, en las que se combinan dos amplificadores de banda ancha independientes para una distribución interior. Esta Serie ha sido diseñada para sistemas de distribución multicanal RF, en los que la entrada puede ser la bajante principal de cable o la salida de una cabecera MATV/SMATV/CATV. La ref. 451282 es un amplificador de gran potencia y alto nivel de salida con un ancho de banda RF de 1002MHz, con capacidad para funcionar en dos bandas separadas en 36/49MHz. El retorno es configurable, pudiendo ser activo o pasivo.

Las ref. 451282 ofrece una ganancia de 30dB-40dB, seleccionable por el usuario. Dispone de atenuador-ecualizador 18dB, y de regulador-preacentuador 10dB.

El canal de retorno gana 28dB en modo activo. Dispone de atenuador 18dB.

Se dispone de test entrada-salida a -20dB para testear el equipo en funcionamiento.

La unidad puede comandarse:

- *Vía local con un programador externo 7234, permite testear, modificar y guardar los parámetros de la unidad; puede asignársele una dirección 1..254.*
- *Vía remoto según los estándares B_LAN; mediante órdenes vía cable, permite testar, modificar y guardar parámetros de la unidad.*

La unidad 451282 dispone de Tuner y puede testar (vía local y vía remoto), canales según la norma ITU J.83 QAM B.

Los amplificadores de la Serie DTKOM integran una fuente de alimentación conmutada de 110-230V~ de bajo consumo que alarga la vida útil del equipo. El chasis, realizado en Zamak, resulta muy compacto y fácilmente instalable. Además, proporciona una excelente disipación de calor, permitiendo su funcionamiento en entornos con temperaturas elevadas sin que su rendimiento o fiabilidad se vean degradados.

Features & Benefits

- Front connection RJ45 for local control 7234 connection, easy access to modify parameters, input attenuator, input equalizer, interstage regulations, gain modes, return configuration and channel levels.
- Two-way capability with a user selectable active/passive return path.
- Power doubling technology for distortion-free, high output level operation.
- Externally accessible -20 dB input/output test ports provide convenient in-service performance monitoring.
- Optimized consumption: Approx. 20% less when configured as 30dB FWD/-3dB RET for cost-effective and trouble-free operation.
- Cast Zamak chassis with large heat sinks providing exceptional heat dissipation.
- Exceptional conducted and radiated interference performance at full output level.
- Enclosure provides excellent shielding performance, reducing leakage and ingress.
- Built-in, high quality switched power supply.

Características y Ventajas

- *Conexión frontal RJ45 para conexión mando local 7234, fácil acceso a modificación de parámetros, atenuador entrada, ecualizador de entrada, regulaciones interstage, modos de ganancia, configuracion retorno y niveles de canales.*
- *Canal de retorno activo o pasivo, seleccionable por el usuario.*
- *Tecnología "power doubling" de potencia mejorada que genera altos niveles de salida sin distorsión.*
- *Puntos de entrada/salida TEST a -20dB, accesibles externamente, que permiten controlar el rendimiento del servicio sin interrumpirlo.*
- *Consumo optimizado: aprox. 20% menor en configuración 30dB FWD/-3dB RET para un funcionamiento más eficiente y seguro.*
- *Chasis en Zamak con ranuras amplias que favorecen una buena disipación de calor.*
- *Comportamiento excepcional en términos de interferencias radiadas, funcionando al máximo nivel de salida.*
- *La carcasa proporciona un blindaje excelente, reduciendo las fugas y radiación.*
- *Fuente de alimentación conmutada de alta calidad integrada en la central.*

EN Important Safety Instructions

Safe installation

1. Read these instructions before handling or connecting the equipment. Keep these instructions. Heed all warnings. Follow all instructions.
2. Clean only with dry cloth.
3. Do not use this apparatus near water. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as glasses, shall be placed on the apparatus.
4. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Please allow air circulation around the equipment.
5. Do not place the equipment in a highly humid environment.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place naked flames, such as lighted candles on or near the product.
7. Do not place the equipment in a place where it can suffer vibrations or shocks.

Safe operation of equipment connected to the mains supply

It is strictly needed to ground the amplifier before powering up and operation. In case not, the amplifier could be severely damaged!

- Ambient temperature should not be higher than 45ºC.
- Power requirements for this product are: 110 - 230V~ 50/60Hz.
- Do not connect mains power before the housing of the amplifier is connected to GND at the GND-screw at the housing or by means of a grounded RF-cable.
- The socket outlet shall be installed near the equipment and shall be easily accessible.
- To disconnect the equipment from the mains supply pull the plug never the cable.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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.
- Do not take the cover off the equipment without disconnecting it from the mains supply.
- Connect the shield of the coax cables to the earth at the building entrance.

ES Importantes instrucciones de seguridad

Instalación segura

1. Lea las instrucciones antes de manipular o conectar el equipo. Conserve estas instrucciones. Preste atención a todas las advertencias. Siga todas las instrucciones.
2. Limpie la unidad sólo con un paño seco.
3. No utilice este aparato cerca del agua. El aparato no debe ser expuesto a caídas o salpicaduras de agua, no situar objetos llenos de líquidos sobre o cerca del aparato tales como vasos si no tiene la suficiente protección.
4. No bloquee las aberturas de ventilación. Realizar la instalación de acuerdo con las instrucciones del fabricante. Dejar un espacio libre alrededor del aparato para proporcionar una ventilación adecuada.
5. No situar el equipo en ambientes de humedad elevada.
6. No instalar cerca de fuentes de calor tales como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor. No situar sobre el aparato fuentes de llama desnuda, tales como velas encendidas.
7. No situar el equipo donde pueda estar sometido a fuertes vibraciones o sacudidas.

Utilización segura de equipos conectados a la red eléctrica

¡Es estrictamente necesario poner a tierra el amplificador antes de encenderlo y manipularlo. En caso contrario, el amplificador podría dañarse severamente!

- La temperatura ambiente no debe superar los 45ºC.
- La tensión de red de este producto ha de ser: 110 - 230V~ 50/60Hz.
- No conectar la fuente de alimentacion antes de la puesta a tierra del amplificador, bien mediante el tornillo de tierra provisto en el chasis o por medio de un cable RF puesto a tierra.
- La toma de red eléctrica debe estar cerca del equipo y ser fácilmente accesible.
- Para desenchufar el equipo de la red eléctrica, tire siempre de la clavija, nunca del cable.
- No pise ni pellizque el cable de red, tenga especial cuidado con las clavijas, tomas de corriente y en el punto del cual salen del aparato.
- Desenchufe este aparato durante las tormentas eléctricas o cuando no lo utilice durante largos períodos de tiempo.
- Solicite todas las reparaciones a personal de servicio cualificado. Solicite una reparación cuando el aparato se haya dañado de cualquier forma, como cuando el cable de red o el enchufe están dañados, se ha derramado líquido o han caído objetos dentro del aparato, el aparato ha sido expuesto a la lluvia o humedad, no funciona normalmente, o haya sufrido una caída.

Advertencia

- Para reducir el riesgo de fuego o choque eléctrico, no exponer el equipo a la lluvia o a la humedad.
- No quitar la tapa del equipo sin desconectarlo de la red eléctrica.
- Conecte la malla de los cables coaxiales a tierra en la entrada del edificio.



ES Descripción de símbolos		
	1	Precaución, peligro de descarga eléctrica. No abrir.
	2	Este símbolo indica que el equipo cumple los requerimientos de seguridad para equipos de Clase II con tierra funcional.
	3	Uso exclusivo en el interior.
	4	Este símbolo indica que este producto ha sido probado y cumple con los requisitos de seguridad de UL. La marca cULus indica el cumplimiento de las normas de seguridad canadienses y estadounidenses.
	5	Este símbolo indica que el equipo cumple los requerimientos del marcado CE.

EN Symbols description		
	1	To avoid the risk of electric shock, do not open the unit.
	2	The equipment meets the safety requirements specified for Class II equipment with funcional earthing.
	3	Indoor use only.
	4	This symbol indicates this product has been safety tested and meets UL requirements. The cULus Listed Mark indicates compliance with Canadian and U.S. safety standards.
	5	This symbol indicates that the equipment complies with the CE mark requirements.

Televes Limited Warranty

Televes S.A guarantees this product as per legislation applicable for this type of product at the time and in the country of purchase.

(A) Televes warrants, only to the original Purchaser, all Products be free from any defect in materials or workmanship for a period of two (2) years from the date of original purchase, unless otherwise specified.

(B) Televes shall, free of charge and in its sole discretion, either repair, replace with a new or factory reconditioned equivalent, or refund the purchase price of the Product(s), that has been determined by Televes to be defective in material or workmanship, subject to the limits of this warranty.

(C) This warranty excludes any damage or inoperability resulting from:
(I) use or installation that is not in strict compliance with the written instructions and specifications;
(II) any modification or alteration performed by any third party not authorized in writing by Televes;
(III) service or repair performed by any third party not authorized in writing by Televes;
(IV) misuse, abuse, intentional harm, or lack of reasonable care;
(V) fire, ice, snow, rain, wind, water, volcano, excessive heat or cold, lightning, flood, power surge, earthquake, or any other acts of God;
(VI) war, crime, strike, riot, electro-magnetic pulse, or any other acts beyond the control of Televes;
(VII) shipping.

(D) All claims under the terms of this warranty must be made in writing, by the original Purchaser, within fourteen (14) days of the defect being known to the Purchaser. Such claims shall be accompanied by a description of any material facts related to the claimed defect and the invoice or other proof of original purchase date and price. If Televes so requests, the Purchaser shall, at Purchaser's expense, deliver the claimed Product(s) to Televes, within 14 days of the date of the return authorization. Under no circumstances shall the Product(s) be returned to Televes without a return authorization.

(E) Any refund to the Purchaser, shall be limited to the purchase price of the Product(s), excluding any applicable taxes, duties, freight costs, removal costs, installation costs, or any other charges incident to the purchase of the product.

(F) Any damage caused by shipper shall be claimed with the shipper in accordance with the shipper's policies and procedures.

(G) Televes shall in no event and under no circumstances be liable or responsible for any consequential, indirect, incidental, punitive, direct or special damages based upon breach of warranty, breach of contract, negligence, strict tort liability or otherwise or any other legal theory, arising directly or indirectly from the sale, use, installation or failure of any product acquired by Purchaser from Televes.

(H) This limited warranty extends to the original Purchaser and cannot be assigned or transferred to any other party without the prior express written permission of Televes, which permission Televes may withhold for any reason or for no reason at all.

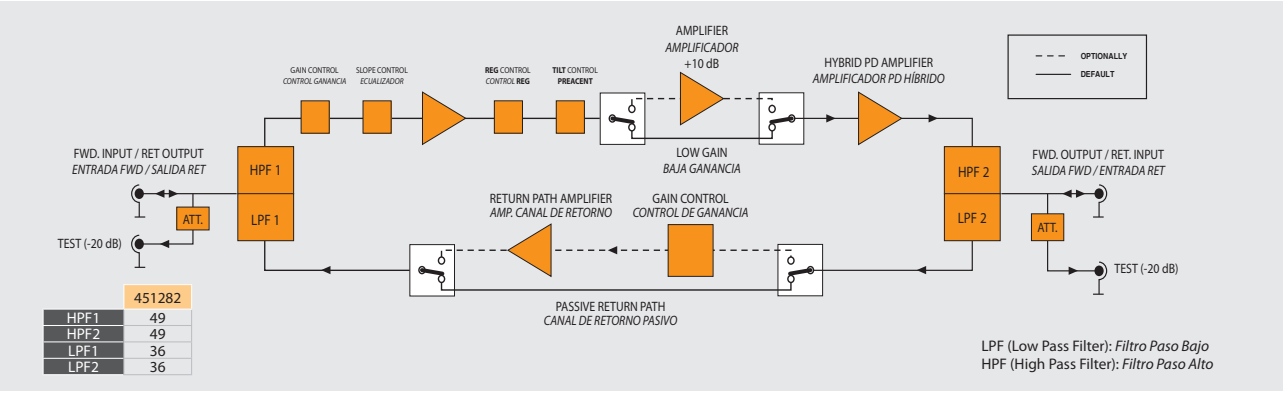
(I) Televes will not assume any liabilities for any other warranties, whether statutory, express or implied, made by any other person.

(J) Televes reserves the right to modify or discontinue this warranty at Televes' sole discretion without notification. No other warrantees are expressed or implied.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used inaccordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Block diagram / *Diagrama de bloques*



	451282
HPF1	49
HPF2	49
LPF1	36
LPF2	36

LPF (Low Pass Filter): *Filtro Paso Bajo*
HPF (High Pass Filter): *Filtro Paso Alto*

Technical specifications	*Características técnicas*	Units *Unidades*	451282	
			Forward path *Canal Directo*	Return path *Canal de retorno*
Frequency Range	*Margen de frecuencia*	MHz	49... 1002	5... 36
Gain	*Ganancia*	dB	30 / 40 (selec.)	-3 / 28 (selec.)
Flatness	*Planicidad*	dB	±1.5	
Gain Control Range	*Atenuación entrada*	dB	18	
Slope Control Range	*Ecualización entrada*	dB	18	-
Reg Control Range	*Regulación*	dB	10	
Tilt Control Range	*Preacentuación*	dB	10	
Noise Figure	*Figura de ruido*	dB	8	6
Output Level (42CH)*	*Nivel de salida (42CH)**	dBmV (dBµV)	52 (112)	-
Output Level	*Nivel de salida (DIN 45004B)*		69 (129)	56 (116)
Impedance	*Impedancia*	Ohm	75	
Input/Output Test Port Level	*Atenuación Test Entrada/Salida*	dB	-20 (±2)	
Input/Output Test Port Return Loss	*Pérdidas retorno Entrada/Salida Test*	dB	14	12
Powering requirements	*Alimentación*	V~	110 - 230	
		Hz	50/60	
		mA	270	
		W	16.5	
Operating Temperature Range	*Temperatura de funcionamiento*	ºF (ºC)	14... 113 (-10...45)	
Size (LxWxH)	*Tamaño (LxAnxAl)*	in (mm)	11 x 5.6 x 1.9 (280 × 142 × 48)	
Shipping Weight	*Peso*	lb (kg)	5.4 (2,4)	
IP code	*Índice de protección*		IP 20	

*CSO, CTB, XMOD = 60dB

Total # of Channels *Nº total de canales*	Input level / *Nivel de entrada* dBmV / dBµV (Gain 40dB)	Output level / *Nivel de salida* dBmV / dBµV
12	18 / 78	58 / 118
24	15 / 75	55 / 115
36	13 / 73	53 / 113
48	12 / 72	52 / 112
72	10 / 70	50 / 110
96	9 / 69	49 / 109
144	8 / 68	48 / 108
158	7 / 67	47 / 107

Possible accessories / *Accesorios posibles*

- USA mains power cord / *Cable de alimentación de EE. UU.*
- EU mains power cord / *Cable de alimentación UE*

Additional information / *Información adicional*

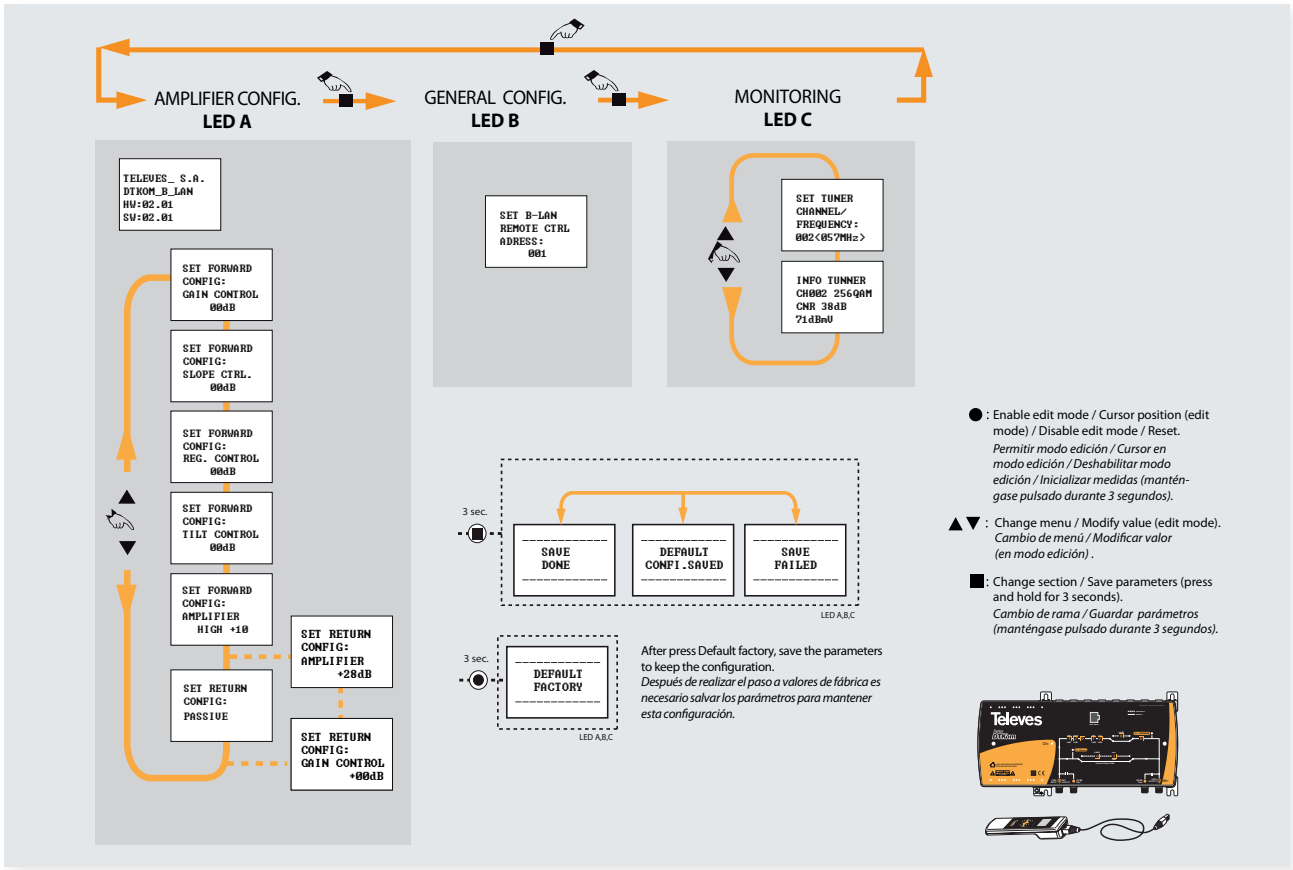
Adjust for replacement 750 MHz units (all in dB): Max. Slope: 13,3 Máx Tilt 7,4 / *Ajuste para remplazar unidades a 750 MHz (todo en dB): Ecualizador máx: 13,3*. Preacentuación 7,4 máx.

SLOPE 1002 MHz	SLOPE 750 MHz	Gain 1002 MHz	Gain 750 MHz	TILT 1002 MHz	Gain 750 MHz	Gain 1002 MHz	Gain 750 MHz
0	0	40	40	0	0	40	40
2	1,5	40	39,5	2	1,5	40	39,5
4	3	40	38,9	4	3	40	38,9
6	4,4	40	38,4	6	4,4	40	38,4
8	5,9	40	37,9	8	5,9	40	37,9
10	7,4	40	37,4	10	7,4	40	37,4
12	8,9	40	36,9				
14	10,3	40	36,3				
16	11,8	40	35,8				
18	13,3	40	35,3				

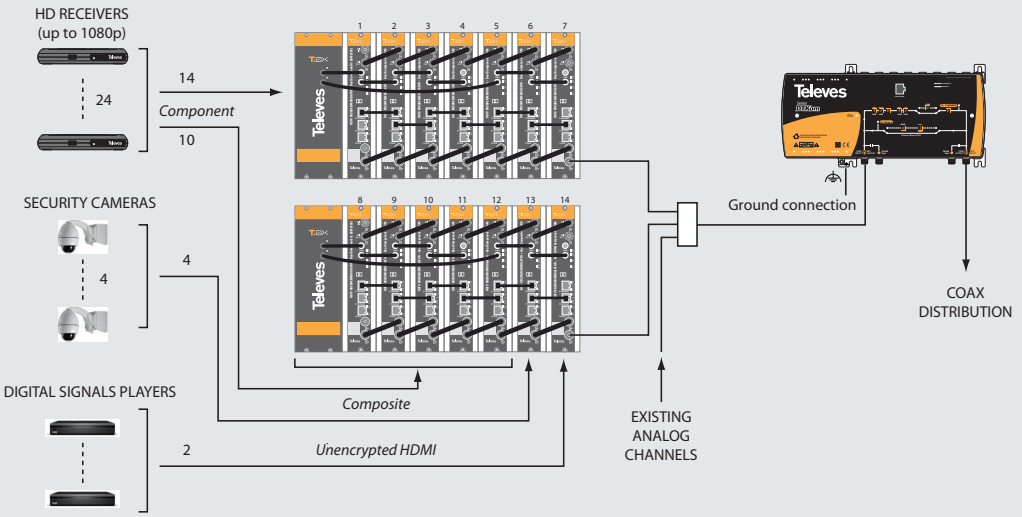
Cascadable amplifiers, 42CH, see table below / *Amplificadores en cascada, 42CH, ver la siguiente tabla:*

Recomm. Max. Amp. Cascade	1	2	3	4	5	6	7	8	9	10
Gain 40 dB	X	X	X							
Gain 35 dB	X	X	X	X	X					
Gain 30 dB	X	X	X	X	X	X	X	X	X	X

Chart Menu / *Estructura de menú*

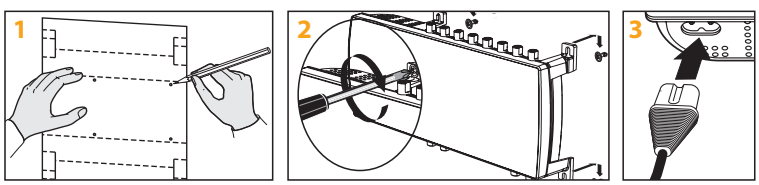


Typical Application / *Aplicación típica*



1 ... 12: Dual Component to QAM / **13**: QUAD Composite to QAM / **14**: Dual HDMI to QAM

Installation and level setting / *Instalación y ajustes de nivel*



DECLARACIÓN DE CONFORMIDAD ■ DECLARATION OF CONFORMITY ■ DECLARAÇÃO DE CONFORMIDADE ■ DECLARATION DE CONFORMITE ■ DICHIARAZIONE DI CONFORMITÀ ■ DEKLARACJA ZGODNOŚCI ■ KONFORMITÄTSERKLÄRUNG ■ ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΣΥΜΜΟΡΦΩΣΗΣ ■ FÖRSÄKRAN OM ÖVERENSSTÄMMELSE ■ ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ ▸ **https://doc.televes.com**

1 - Vertical installation (height ≤ 2 m) / *Montaje vertical (altura ≤ 2 m)*
2 - 4 screws size 4x45mm / *4 tornillos tamaño 4x45mm*

Manufacturer / *Fabricante*: Televes S.A.U. Rúa B. de Conxo, 17 - 15706 Santiago de Compostela, A Coruña. Spain www.televes.com
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