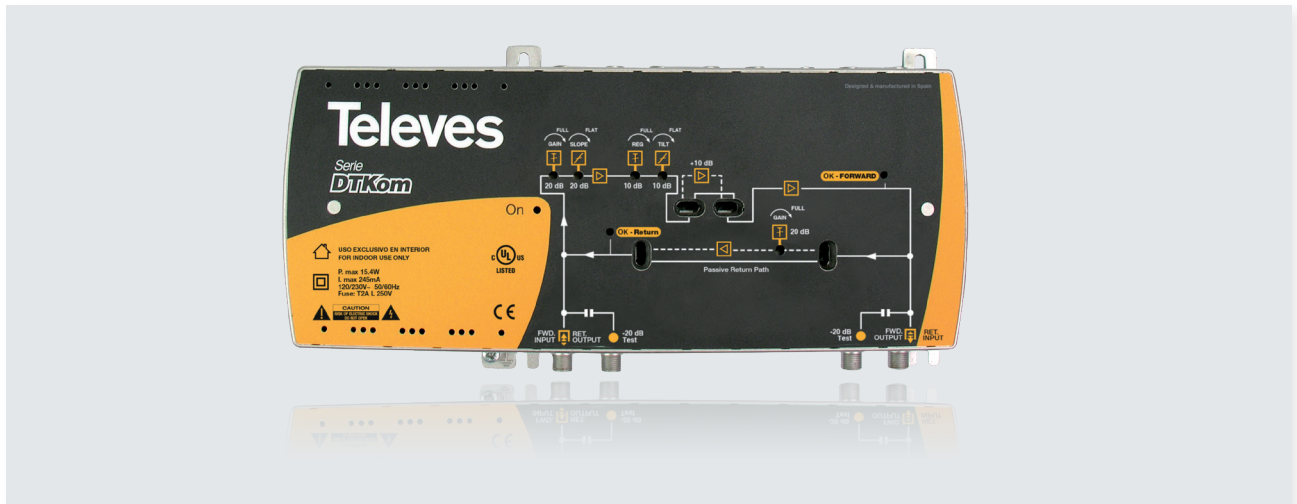


Broadband Indoor Distribution Amplifier / Central Amplificadora - DTKom Series

Refs. 451280, 451281



Description

The DTKom Series Amplifiers are professional quality, completely self-contained, 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. 451280 is a high output level, power doubling amplifier, with an RF bandwidth of 1002MHz, equipped for 2-way operation with a 42/54MHz split that can operate in passive or active return configurations.

The ref. 451280 and 451281 have an user selectable gain of 30dB or 40 dB. It has 20dB attenuator-slope control and 10dB regulator-tilt control.

It has a return gain of 28dB when in active mode and 10dB attenuator.

The gain and slope controls are located on the front panel for easy set-up and adjustment with the provided tool. Two -20dB test points are provided to permit testing without interruption of service.

The DTKom Series amplifiers incorporate a built in switched 120/230V~ 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, while at the same time providing excellent heat dissipation, allowing operation at high ambient temperatures with no degradation of performance/reliability.

Features & Benefits

- Front panel variable reg. and tilt controls (10dB) for easy adjustment.
- 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.

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. 451280 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 42/54MHz. El retorno es configurable, pudiendo ser activo o pasivo.

Las ref. 451280 y 451281 ofrece una ganancia de 30dB-40dB, seleccionable por el usuario. Dispone de atenuador-ecualizador 20dB, y de regulador-preacentuador 10dB.

El canal de retorno gana 28dB en modo activo. Dispone de atenuador 20dB. Los controles y switches están situados en la parte frontal del amplificador, fácilmente accesibles. Se dispone de test entrada-salida a -20dB para testear el equipo en funcionamiento.

Los amplificadores de la Serie DTKOM integran una fuente de alimentación conmutada de 120/230V~ 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.

Características y Ventajas

- Controles de regulación y preacentuación (10dB) situados en el panel frontal para un ajuste sencillo.
- 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

Important safety instructions

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. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. 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.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. 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 glasses, shall be placed on the apparatus.

Safe operation

- Power requirements for this product are 120/230V~ 50/60 Hz.
- Should any liquid or object fall into the equipment, please refer to qualified personnel for service.
- To disconnect the equipment from the mains pull the plug never the cable.
- It is strongly recommended not to connect the equipment to the mains until all connections have been done.
- The socket outlet shall be installed near the equipment and shall be easily accessible.
- Do not take the cover off the equipment without disconnecting it from the mains.

Safe installation

- Ambient temperature should not be higher than 113°F.
- 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.

Class B equipment

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 in accordance 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 equipment off 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.

Simbology



Equipment designed for indoor use.



The equipment meets the safety requirements specified for Class II equipment.



To avoid the risk of electric shock, do not open the equipment.



This symbol indicates that the product displays "dangerous voltage" with a risk of electric shock or personal harm.



This symbol indicates that this product possesses important instructions for use.



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.



The equipment complies with the CE mark requirements.

ES Importantes instrucciones de seguridad

Condiciones generales de instalación

1. Lea las instrucciones.
2. Conserve estas instrucciones.
3. Preste atención a todas las advertencias.
4. Siga todas las instrucciones.
5. No utilice este aparato cerca del agua.
6. Limpie la unidad sólo con un paño seco.
7. No bloquee las aberturas de ventilación. Realizar la instalación de acuerdo con las instrucciones del fabricante.
8. No la instale cerca de fuentes de calor tales como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.
9. No anule la característica de seguridad del enchufe polarizado o con conexión a tierra. Un enchufe polarizado tiene dos patillas planas, una más ancha que la otra. Un enchufe con toma de tierra tiene dos patillas planas y una tercera de conexión a tierra. La patilla ancha o la tercera patilla, están pensadas para su seguridad. Si el enchufe suministrado no encaja en su toma, consulte con un electricista para que reemplace la toma corriente obsoleta.
10. 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.
11. Utilice solamente los aditamentos/accesorios especificados por el fabricante.
12. Use únicamente la carretilla, plataforma, trípode, soporte o tableros especificados por el fabricante, o vendidos con el aparato. Cuando se usa una carretilla, tenga cuidado al mover el conjunto carretilla/aparatos para evitar lesiones en caso de vuelco.
13. Desenchufe este aparato durante las tormentas eléctricas o cuando no lo utilice durante largos periodos de tiempo.

14. Solicite todas las reparaciones a personal de servicio cualificado. Solicite una reparación cuando el aparato se haya dañado de cualquiera 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.

Atención

- Para reducir el riesgo de fuego o choque eléctrico, no exponer el equipo a la lluvia o a la humedad.
- El aparato no debe ser expuesto a caídas o salpicaduras de agua. No situar objetos o recipientes llenos de líquidos, como vasos, sobre o cerca del aparato.

Cómo utilizar el equipo de forma segura

- La tensión de red de este producto ha de ser: 120/230V~ 50/60Hz.
- En el caso de que cualquier líquido u objeto caigan dentro del aparato, debe de ponerse en contacto con el servicio técnico.
- Para desenchufar el equipo de la red, tire siempre de la clavija, nunca del cable.
- No enchufe el equipo a la red eléctrica hasta que todas las demás conexiones hayan sido realizadas.
- La toma de red eléctrica debe estar cerca del equipo y ser fácilmente accesible.
- No quitar la tapa del equipo sin desconectarlo de la red.

Instalación segura

- La temperatura ambiente no debe superar los 45°C.
- No situar el equipo cerca de fuentes de calor o en ambientes de humedad elevada.
- No situar el equipo donde pueda estar sometido a fuertes vibraciones o sacudidas.
- Deje un espacio libre alrededor del aparato para proporcionar una ventilación

adecuada.

- No situar sobre el aparato fuentes de llama desnuda, tales como velas encendidas.

Simbología



Equipo diseñado para uso en interiores.



Este símbolo indica que el equipo cumple los requerimientos de seguridad para equipos de Clase II.



Para evitar el riesgo de choque eléctrico, no abrir el equipo



Este símbolo indica "voltaje peligroso" dentro del producto que puede presentar un riesgo de descarga eléctrica o daños personales.



Este símbolo indica que existen instrucciones importantes para este producto.



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.



El equipo cumple los requerimientos del marcado CE.

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.

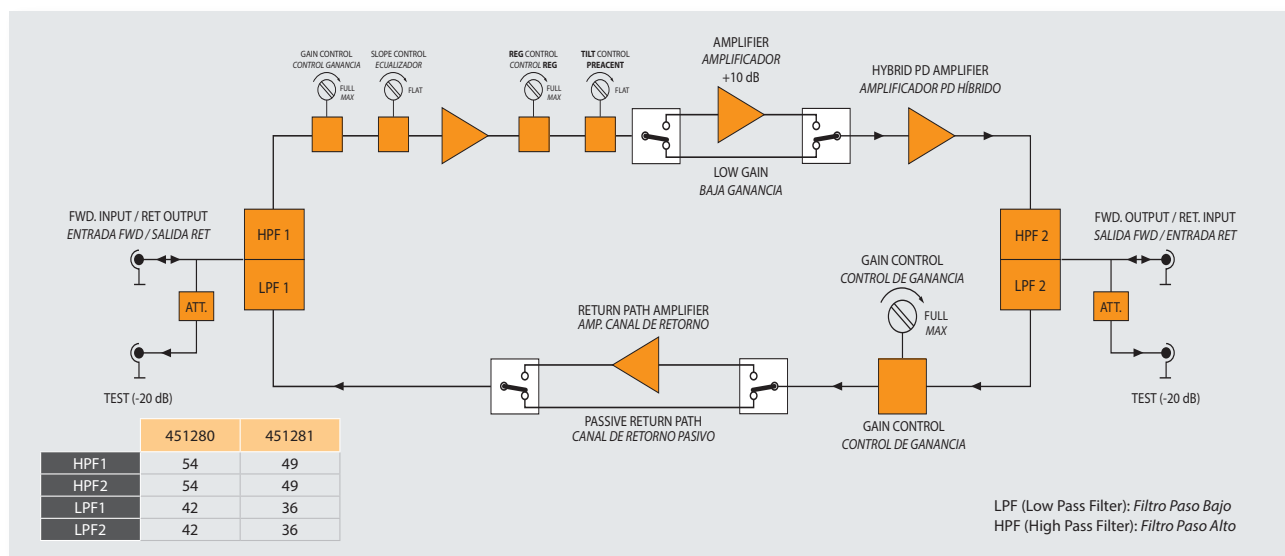
(G) Televes shall in no event and under no circumstances be liable or responsible for any consequential, indirect, incidental, punitive, direct or special damages based upon breach of warranty, breach of contract, negligence, strict tort liability or otherwise or any other legal theory, arising directly 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 warranties are expressed or implied.

Block diagram / Diagrama de bloques



Technical specifications	Características técnicas	Units Unidades	451280		451281	
			Forward path Canal Directo	Return path Canal de retorno	Forward path Canal Directo	Return path Canal de retorno
Frequency Range	Margen de frecuencia	MHz	54 ... 1002	5 ... 42	49 ... 1002	5 ... 36
Gain	Ganancia	dB	30 / 40 (selec.)	28	30 / 40 (selec.)	28
Flatness	Planicidad	dB	±1.5			
Gain Control Range	Atenuación entrada	dB	20			
Slope Control Range	Ecuilización entrada	dB	20	-	20	-
Reg Control Range	Regulación	dB	10			
Tilt Control Range	Preacentuación	dB	10			
Noise Figure	Figura de ruido	dB	8	6	8	6
Channels (for CSO, CTB & XMOD)	Canales (para CSO, CTB & XMOD)	#	42	-	42	-
Output Level (42CH)	Nivel de salida (42CH)	dBmV	52 (112)	-	52 (112)	-
Output Level	Nivel de salida (DIN 45004B)	(dBμV)	69 (129)	58 (118)	69 (129)	58 (118)
Composite Triple Beat (CTB)	Composite Triple Beat (CTB)	dB	-60	-	-60	-
Crossmodulation (XMOD)	Modulación cruzada (XMOD)	dB	-60	-	-60	-
2nd Order Composite (CSO)	2nd Order Composite (CSO)	dB	-60	-	-60	-
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	18	12	18	12
Operating Temperature Range	Temperatura de funcionamiento	°F (°C)	14 - 113 (-10 ... 45)			
Powering requirements	Alimentación	V~	120/230			
		mA	245/156			
		Hz	50/60			
Consumption	Consumo	W	15.4			
Size (LxWxH)	Tamaño (LxAnxAl)	in (mm)	11 x 5.6 x 1.9 (280 x 142 x 48)			
Shipping Weight	Peso	lb (kg)	5.4 (2,4)			

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

Additional information / Información adicional

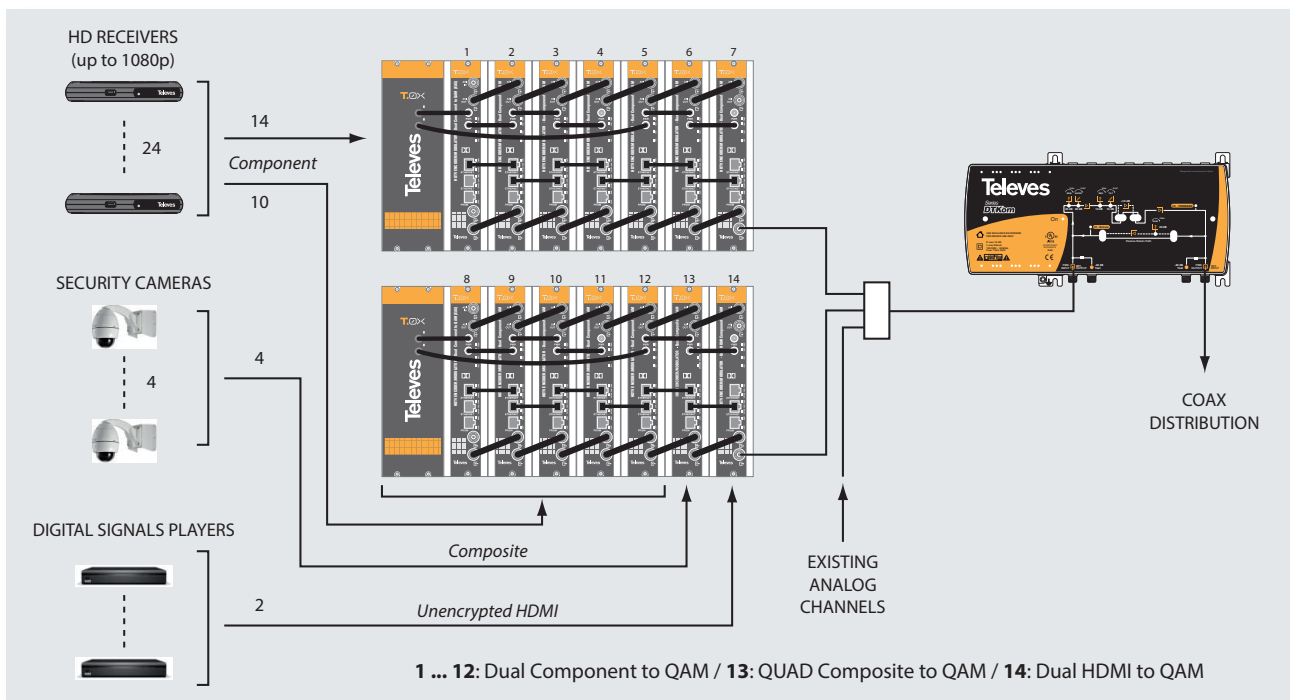
Adjust for replacement 750 MHz units (all in dB): Max. Slope: 14,8 Máx Tilt 7,4 / Ajuste para sustitución de 750 MHz (todo en dB): Máx. Pendiente: 14,8 Máx inclinación 7,4.

SLOPE 1002 MHz	SLOPE 750 MHz	Gain 1002 MHz	Gain 750 MHz	TILT 1002 MHz	Gain 750 MHz	Gain 750 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				
20	14,8	40	34,8				

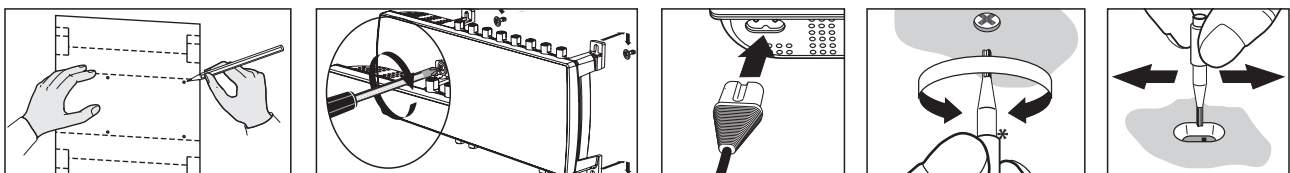
Cascadable amplifiers, 42CH, see table below / Amplificadores en cascada, 42CH, ver la siguiente tabla:

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

Typical Application / Aplicación típica



Installation and level setting / Instalación y ajustes de nivel



* Plastic accessory included / Incluye accesorio de plástico.

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