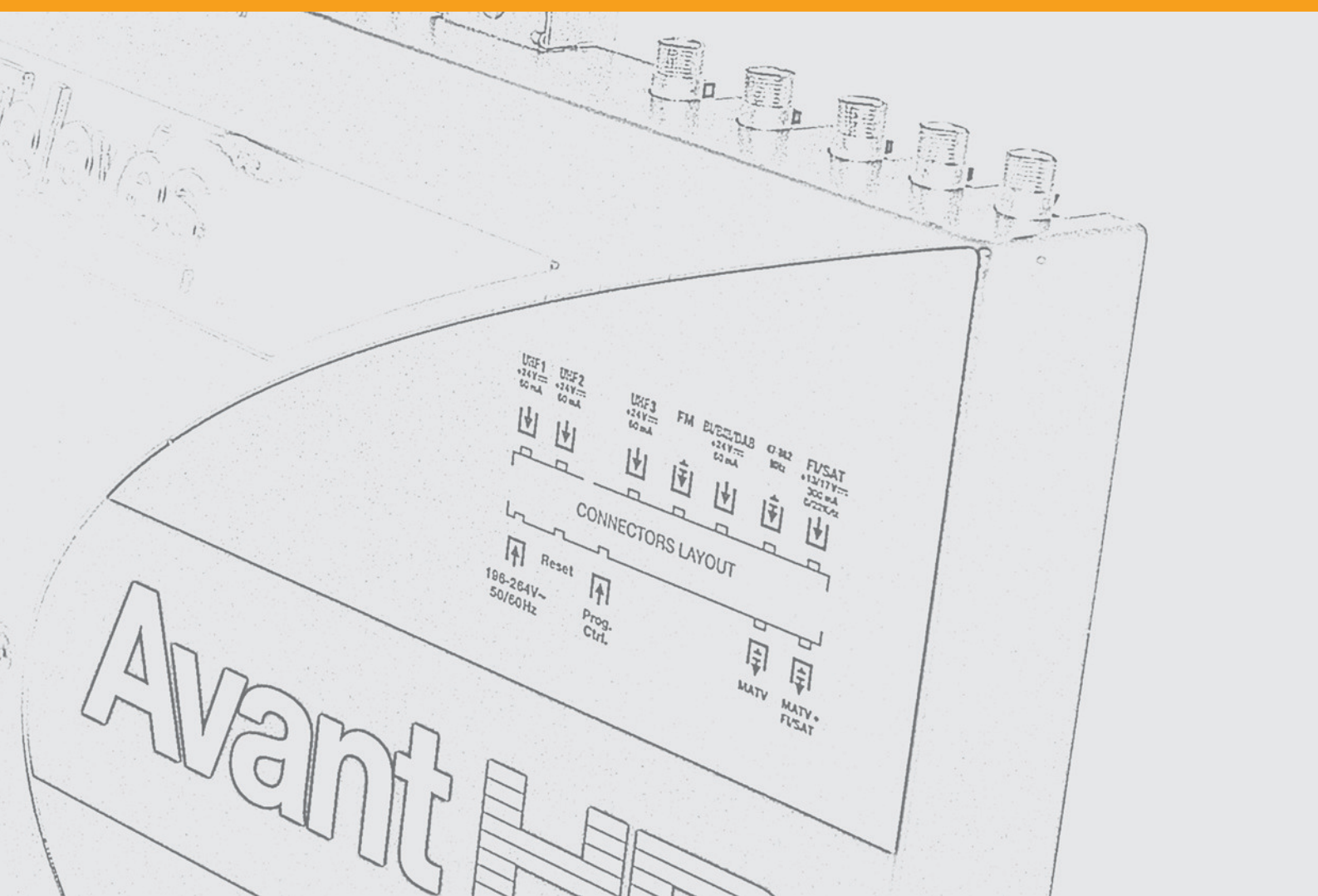


# AMPLIFICATION





### LTE Filters



QR-A00155

- ▶ Range of products to protect the UHF band allocated to TV services from interferences caused by the data transmission on the LTE band.
- ▶ Two types of LC filters with different performance in terms of rejection and performance for applications where channels above Ch58 are in use.
- ▶ Three type of product for outdoor & indoor use, "F", "IEC" and "EasyF".

REF.	DESCRIPTION
<b>"EasyF" for Outdoor Use</b>	
405101	470...774MHz LTE Filter (C21-58)
405401	5...790MHz LTE Selective Filter
<b>"F" for Indoor Use</b>	
403101	470...774MHz LTE Filter (C21-58)
403401	5...790MHz LTE Selective Filter
<b>"IEC" for Indoor Use</b>	
404411	470...774MHz LTE Filter (C21-58)
404412	5...790MHz LTE Selective Filter

### EASY F FOR OUTDOOR USE



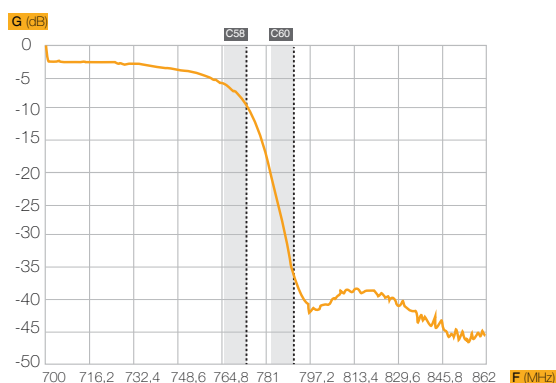
▲ 405101  
405401

### PLUG IN TYPE INDOOR USE

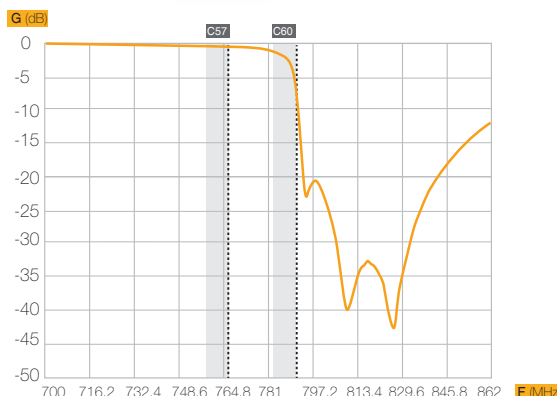


▲ 403401  
403101

LTE Filter Ch58



LTE Filter Ch60



Reference	405101	405401	403101	403401	404411	404412
Connector type	EasyF		F		IEC	
Bandwidth	470-774	5-790	470-774	5-790	470-774	5-790
Through Loss	1					
Through loss at the edge of the frequency range	7	6	7	6	7	6
Rejected band	791-862	793-862	791-862	793-862	791-862	793-862
Isolation in the rejected band	>25	>20	>25	>20	>25	>20
Dimensions (Wid x Hei x Dep)	88 x 79 x 42			64 x 34 x 22,5		
Protection Index	23			20		

FILTERS



## Microcavities Filters



QR-A00154

Breakthrough technology using microcavities and High Q resonant elements. The ultimate solution for any system where DTT and LTE signals coexist:

- ▶ Very high rejection to LTE signals, potentially disturbing DTT.
- ▶ Very low degradation of the DTT band.
- ▶ High stability to temperature changes and vibration.
- ▶ For indoor or outdoor use (using weatherproof case ref. 4163).

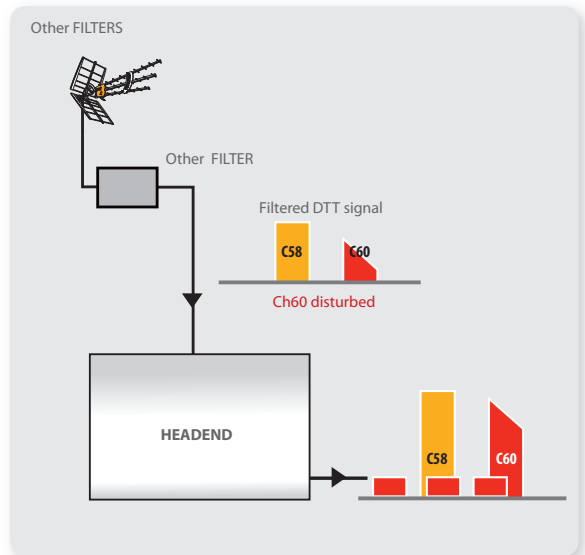
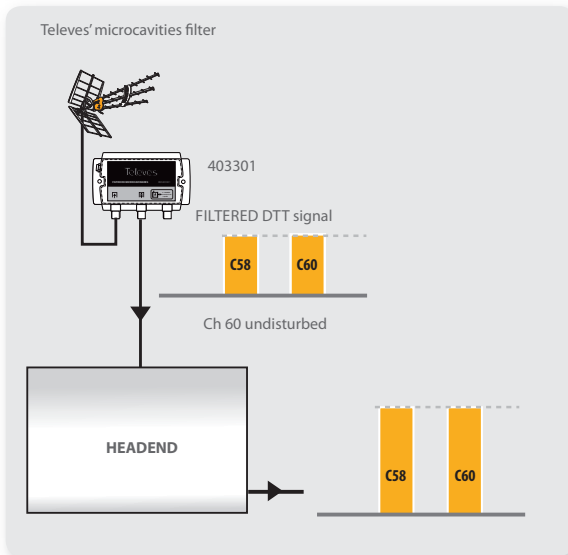
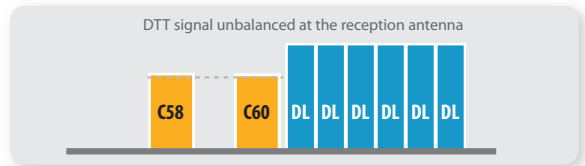
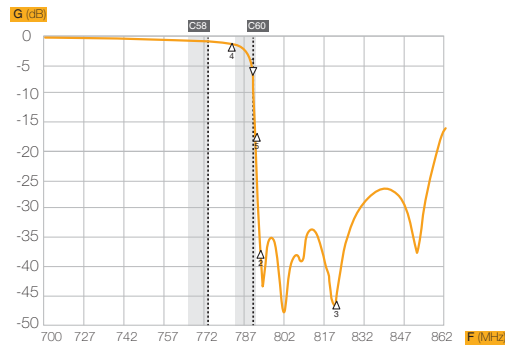


▲ 403301

REF.	DESCRIPTION
403301	Microcavities filter LTE "F" 5...790MHz
403302	Microcavities filter LTE "F" 5...782MHz

Reference		403301	403302
Frequency range	MHz	5-790	5-782
Through loss (Typ)		0,5	0,5
Through loss at the edge of the frequency range	dB	2	1
Rejected frequency range	MHz	793-821	791-821
Attenuation in the rejected band	dB	>30	>35
Dimensions (Wid x Hei x Dep)	mm	97 x 75 x 26	
Protection Index	IP	20	

Microcavities filter LTE Ch60



## MIXERS

### Universal mast mixers



QR-A00037

Passive devices for mixing signals coming from different antennas and characterized by:

- ▶ **Low insertion losses.**
- ▶ EasyF connection system.
- ▶ Being housed in a weather proof box made of ABS plastic. Should be installed indoor, their die-cast chassis features the holes that allow for wall mounting



▲ 4041

REF.	DESCRIPTION
4040	BI/FM-BIII/DAB-UHF[dc] Or
404001	BI/FM-BIII/DAB-UHF[dc] B
4041	VHF-UHF[dc]-UHF Or

Reference	4040 / 404001			4041		
Mixed bands	BI/FM	BIII/DAB	UHF	VHF	UHF1	UHF2
Frequency range	MHz	47-108	174-254	470-862	47-254	470-862
Insertion losses		1			1	5
Isolation between inputs	dB	>20			> 40 (VHF-UHF) / >18 (UHF1-UHF2)	
DC pass (max.)	mA	-	100	-	100	-
Dimensions (Wid x Hei x Dep)	mm	126 x 136 x 41			126 x 136 x 41	
Protection index	IP	23				

### SAT IF and MATV Mixers/Diplexers



QR-A00094

- ▶ Are housed in a die-cast chassis with "F" connectors.
- ▶ Allow the passage of current from the SAT IF output to the input.
- ▶ The 7452 reference may also be used as a filter for GSM telephony, thanks to its high rejection TV-IF.
- ▶ Mast mounting for ref. 7452 using the outdoor case ref. 4163
- ▶ "F" Connection.



▲ 7452



▲ 7407

REF.	DESCRIPTION
7452	Combiner MATV-IF 5..862-950..2050MHz[dc]
7407	Combiner/splitter MATV+2IF 3 In /2 out 5..862-950..2400MHz[dc]

Reference	7452		7407	
Mixed bands	MATV	IF	MATV	2 IF
Frequency range	MHz	5-862	950-2150	5-862
Insertion losses	dB	2	2	4
Isolation between inputs		>20		>20
DC pass (max.)	mA	-	1000*	-
Dimensions (Wid x Hei x Dep)	mm	98 x 65 x 27		98 x 75 x 27
Protection Index	IP	20		

\*Bidirectional

MIXERS

Mixers/Diplexers accessories



QR-A00038

- ▶ Weatherproof cases made of ABS plastic.
- ▶ They can be installed on both the mast (using a nylon flange provided) or onto the wall.

REF.	DESCRIPTION
4163	Weatherproof case, large model (hinged lid)
4177	Weatherproof case, small model (sliding lid)

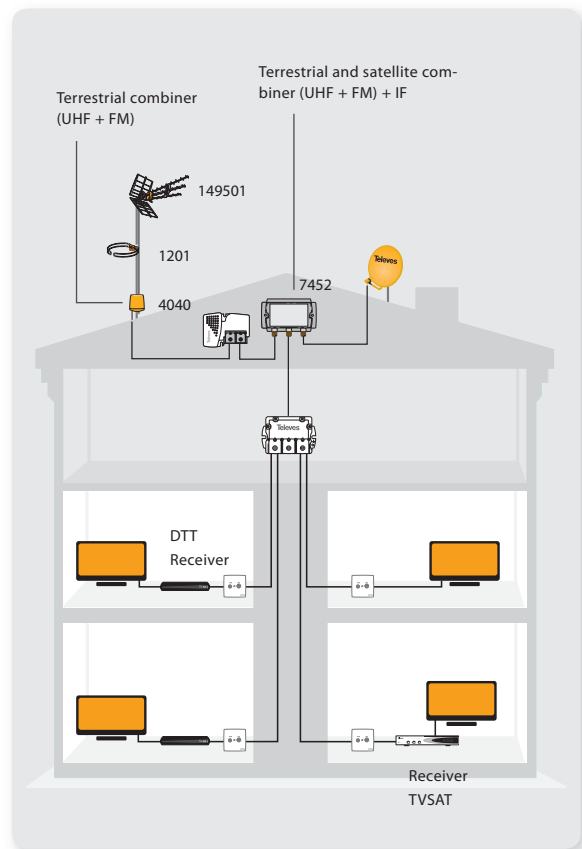
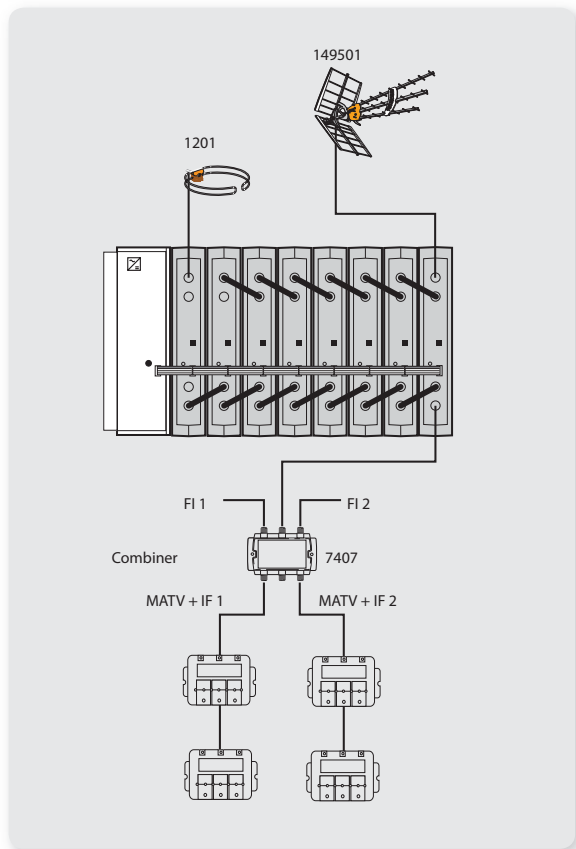
Reference		4163	4177
Inner Dimensions (Wid x Hei x Dep)	mm	125 x 97 x 35	92 x 66 x 27
Outer Dimensions (Wid x Hei x Dep)		136 x 127 x 45	113 x 88 x 35



▲ 4163



▲ 4177





### NanoKom preamplifiers

**NanoKom**  
Series



QR-A00161

Breakthrough technology "USOS" for a range of amplifiers with outstanding design.

- ▶ **USOS** (User Selectable Output Signal). The user adjusts the required output level and the device will adapt dynamically to the changing received signal.
- ▶ **Ch60/C69** switch to activate LTE filter.
- ▶ ON/OFF switch to activate DC bypass.
- ▶ Very low noise figure.
- ▶ User friendly design for very small size and easy of use.
- ▶ **EasyF connection type.**
- ▶ Weatherproof cases made of ABS plastic.



REF.	DESCRIPTION
<b>TERRESTRIAL - Dc Power . 12...24V - w/o USOS</b>	
561701	3in/1out UHF[dc]-UHF-VHFmix
<b>TERRESTRIAL - Dc Power - with USOS</b>	
561801	3in/1out BIII-UHF-FMmix
<b>SAT MIX SERIE - Dc Power with USOS</b>	
561501	3in/1out BIII/UHF[dc]-FMmix-SATmix[dc]
561601	3in/1out UHF-VHFmix-SATmix[dc]



Reference	561701			561801			561501				561601			
Inputs/ Bands	UHF1	UHF2	VHF	UHF	BIII	BI/FM	UHF/BIII	BI/FM	SAT	UHF	VHF	SAT		
Frequency range	MHz	470-862 470-790*	47-254	470-862 470-790*	174-254	47-108	470-862 470-790*	174-254	47-108	950-2150	470-862 470-790*	47-254	950-2150	
Gain <sup>(1)</sup>	dB	27	27	-1,5	29	21	-2	29	20	-2	-2	30	-1,5	-2,5
Output level DIN45004B	dBμV	107	107	-	10	5	10	107	105	-	-	107	-	-
Automatic gain margin	dB	-	-	-	0-15	0-15	-	0-15	0-15	-	-	0-15	-	-
Output level regulation margin Vout	dBμV	-	-	-	0-12	0-12	-	0-12	0-12	-	-	0-12	-	-
Automatic output level (10 DTT channels)	dBμV	-	-	-	94	-	-	94	-	-	-	94	-	-
Gain adjustment range	dB	0-20	0-20	-	-	-	-	-	-	-	-	-	-	-
Noise figure	dB	6	6	-	1	3	-	1,5	3,5	-	-	1	-	-
Power supply	V <sub>dc</sub>	12-24			12-24			12-24				12-24		
Current consumption	mA	45			40			45				40		
Max current through input <sup>(2)</sup>	mA	-	40	-	-	-	-	40	-	300	40	-	300	
Protection index	IP	23			23			23				23		
Dimensions (Wid x Hei x Dep)	mm	88 x 79 x 42			88 x 79 x 42			88 x 79 x 42				88 x 79 x 42		

1 - Gain is 2dB less when LTE filter is set to ON.

2 - Through the input selectable by a switch.

\* - LTE ON.

MAST AMPLIFIERS

**MATV Amplifiers**



QR-00175

Wide range of mast amplifiers offering solutions for both terrestrial and satellite reception. Supplied in a weatherproof box made of ABS plastic.

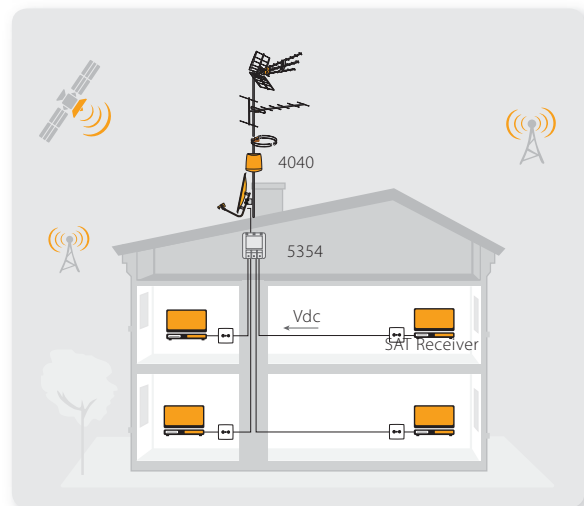
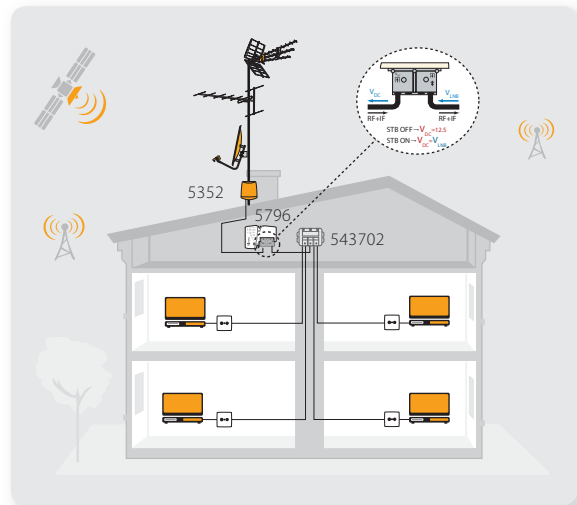
- ▶ High / Low gain versions. Products with satellite input.
- ▶ **Automatic DC bypass to the inputs.**
- ▶ User friendly design for easy of use.
- ▶ **EasyF connection type.**
- ▶ Weatherproof cases made of ABS plastic.



▲ 5357

REF.	DESCRIPTION
<b>High Gain - High Output level - 24Vdc</b>	
5356	1 In /1Out BI/BIII/DAB/FM/UHF[dc]
5357	3 In /1 Out BI/BIII/DAB-FM-UHF[dc]
535802	4 In /1Out BI/BIII/DAB-FM-UHF-UHF[dc]
5359 <sup>(1)</sup>	5 In /1Out BI/BIII/DAB-FM-UHF[dc]-BIV[dc]-BV[dc]
<b>Low Gain - High Output level - 12Vdc</b>	
5370	3 In /1Out BIII/DAB-UHF-UHF[dc]
5377	1 In /1Out BIII/DAB/UHF[dc]
536001	3 In /1Out BIII/DAB[dc]-UHF-UHF[dc]
<b>SAT MIX SERIES - 12...24Vdc</b>	
5354	2 In /4Out UHF/Vmix[dc]-SATmix[dc]
5350	3 In /1Out UHF-Vmix-SATmix[dc]
5351	4 In /1Out BI/BIII/DAB-FM-UHF-SATmix[dc]
5352	4 In /1Out UHF[dc]-UHF-Vmix-SATmix[dc]
5353	4 In /1s UHF(1ch)-UHFmix[dc]-Vmix-SATmix[dc]
<b>KITS</b>	
4386	Mast Amplifier 3 In/1Out VHF-UHF-SATmix[dc] + PicoKom PSU 12V
4388	Mast amplifier 4 In/1Out BI/BIII/DAB-FM-U-SATmix[dc] + PicoKom PSU 12V

(1) Order an specific channel



## MAST AMPLIFIERS

Reference		5356			5357		
Inputs/ Bands		BI/BIII/DAB	FM	UHF	BI/BIII-DAB	FM	UHF
Frequency range	MHz	47-68/175-254	88-108	470-862	47-68/175-254	88-108	470-862
Gain	dB	25/30	15	41	25/30	15	41
Output level DIN45004B	dBμV	112	112	114	112	112	114
Gain adjustment range	dB	20	20	15	15	20	15
Noise figure		4			4		
Power supply	V <sub>dc</sub>	24			24		
Current consumption		70			70		
Max current through inputs <sup>(2)</sup>	mA	-		40	-		40
Protection index	IP	23			23		
Dimensions (Wid x Hei x Dep)	mm	120 x 130 x 40			120 x 130 x 40		

Reference		535802				5359				
Inputs/ Bands		BI/BIII-DAB	FM	UHF1	UHF2	FM	BI/BIII	UHF	UHF1	UHF2
Frequency range	MHz	47-68/175-254	88-108	470-862	88-108	47-68/175-254	470-862	470-... <sup>(1)</sup>	...	862 <sup>(1)</sup>
Gain	dB	25/30	15	38	15	30	40	38		
Output level DIN45004B	dBμV	112	112	114	112	112	114	114		
Gain adjustment range	dB	15	20	15	15	20	15	15	15	15
Noise figure		4		7,5		4	4	7	8	
Power supply	V <sub>dc</sub>	24				24				
Current consumption		70				70				
Max current through inputs <sup>(2)</sup>	mA	-	-	-	40	-	-	40	40	
Protection index	IP	23				23				
Dimensions (Wid x Hei x Dep)	mm	120 x 130 x 40				120 x 130 x 40				

1 - Crossover channels Ref 5359: Min: 28, Max:60.  
2 - Automatic detection.

Reference		5370			5377			536001		
Inputs/ Bands		BIII/DAB	UHF1	UHF2	BI/BIII/DAB	FM	UHF	BIII/DAB	UHF1	UHF2
Frequency range	MHz	174-254	470-862	470-862	174-254	470-862	174-254	470-862	470-862	470-862
Gain	dB	18	21	21	20	26	25	27	27	27
Output level DIN45004B	dBμV	111	114		111	114	111	114		
Gain adjustment range	dB	18	13	13	15	15	18	13	13	
Noise figure		8,5	7,5		6,5	7,5	6,5	7,5		
Power supply	V <sub>dc</sub>	12			12			12		
Current consumption		100			100			100		
Max current through inputs <sup>(1)</sup>	mA	40	-	40	40			40	-	40
Protection index	IP	23			23			23		
Dimensions (Wid x Hei x Dep)	mm	120 x 130 x 40			120 x 130 x 40			120 x 130 x 40		

1 - Automatic detection.

Reference		5354			5350			5351			
Inputs/ Bands		VHF	UHF	SAT	VHF	UHF	SAT	BI/BIII	FM	UHF	SAT
Frequency range	MHz	47-254	470-862	950-2200	47-254	470-862	950-2150	47-68/175-254	88-108	470-862	950-2150
Gain	dB	-9	20	12	-1,5	29	-2	18	18	29	-2
Output level DIN45004B	dBμV	-	93	-	-	103	-	103			-
Gain adjustment range	dB	-	15	-	-	15	-	15	20	15	-
Noise figure		-	2,5	-	-	2,5	-	4,5	4,5	2,5	-
Power supply	V <sub>dc</sub>	12...24			12...24			12...24			
Current consumption		40			40			40			
Max current through inputs <sup>(2)</sup>	mA	-	40	350	-	-	350	-	-	-	350
Protection index	IP	23			23			23			
Dimensions (Wid x Hei x Dep)	mm	120 x 130 x 40			120 x 130 x 40			120 x 130 x 40			

1 - Order specific channel.  
2 - Automatic detection.



MAST AMPLIFIERS

Reference	5352				5353				
Inputs/ Bands	VHF	UHF1	UHF2	SAT	VHF	UHF	UHF (1C)	SAT	
Frequency range	MHz	47-254	470-862	950-2150	47-254	470-862	channel <sup>(1)</sup>	950-2150	
Gain	dB	-1	27	-2	-1.5	-5	30	-2	
Output level DIN45004B	dBμV	-	103	-	-	-	113	-	
Gain adjustment range	dB	-	15	-	-	-	20	-	
Noise figure	dB	-	6,5	-	-	-	2,8	-	
Power supply	V <sub>dc</sub>	12...24				12...24			
Current consumption	mA	40				40			
Max current through inputs <sup>(2)</sup>	mA	-	40	-	350	-	40	-	350
Protection index	IP	23				23			
Dimensions (Wid x Hei x Dep)	mm	120 x 130 x 40				120 x 130 x 4			

1 - Order specific channel.  
2 - Automatic detection.

Quick selection guide for amplifiers												
Band	Amplified and/or mixed bands (MHz)								Voltage Consumption	DC through inputs		
	FM	BI	BIII/DAB	UHF 1	UHF 2	UHF	IF SAT	Vdc				mA
	88-108	47-68	175-254	470-862	470-862	470-862	950-2150	mA	Inputs			
Ref. 5354	-9 - - -	-9 - - -	-9 - - -	20 93 15 2,5	-	-	-12 - - -	12...24 40	40	350	UHF IF	
Ref. 5350	-1,5 - - -	-1,5 - - -	-1,5 - - -	29 103 15 2,5	-	-	-2 - - -	12...24 40	350	IF		
Ref. 5351	-9 - - -	-9 - - -	-9 - - -	29 103 15 2,5	-	-	-2 - - -	12...24 40	350	IF		
Ref. 5352	-1 - - -	-1 - - -	-1 - - -	27 103 15 6,5	-	-	-2 - - -	12...24 40	40	350	UHF IF	
Ref. 5353	-1,5 - - -	-1,5 - - -	-1,5 - - -	-5 - - -	30(1CH) - -	-	-2 - - -	12...24 40	40	350	UHF IF	
Ref. 5356	15 112 20 4	25 112 20 4	30 112 20 4	41 114 15 4	-	-	-	24 70	40	UHF		
Ref. 5357	15 112 20 4	25 112 15 4	30 112 15 4	41 114 15 4	-	-	-	24 70	40	UHF		
Ref. 535802	15 112 20 4	25 112 15 4	30 112 15 4	38 114 15 7,5	-	-	-	24 70	40	U1-U2		
Ref. 5359	15 112 20 4	27 112 15 4	30 112 15 4	37 114 15 7	37 114 15 8	39 114 15 8	-	24 70	40	U1-U2-U		
Ref. 5370	-	-	18 111 18 8,5	21 114 13 7,5	21 114 13 7,5	-	-	12 100	40	BIII/DAB-U2		
Ref. 536001	-	-	25 111 18 6,5	27 114 13 7,5	27 114 13 7,5	-	-	12 100	40	BIII/DAB-U2		
Ref. 5377	-	-	20 111 15 6,5	26 114 15 7,5	-	-	-	12 100	40	BIII/UHF1		

Common specifications for all amplifiers				
Description	Value	Meaning of the table and values.		
Protection Index	IP 23	Unique input for several bands		Gain (dB)    Output level (dBμV)
Dimensions (Wid x Hei x Dep)	mm 126x135x38			
Working temperature range	°C -5... +45	Separate inputs for each band		Attenuation (dB)    Noise Figure (dB)

## POWER SUPPLY UNITS

Any active device installed on a mast needs to be powered in order to perform its function. These power supplies are designed to be installed inside the house, and benefit from the download to send voltage to the device.

### "F" Series



QR-A00200

- ▶ High performance switched-mode power supplies, up to 40% less energy consumption than traditional PSUs.
- ▶ Aesthetic design and small size
- ▶ **Possibility of being fixed to the wall.**
- ▶ "F" connectors.

REF.	DESCRIPTION
5504	1In/2 Out 5...862MHz 24V-130mA
550402	1In/2 Out 5...862MHz 24V-130mA (Blister)
550101	1In/2 Out 5...862MHz 12V-220mA
5501	1In/2 Out 5...862MHz 12V-220mA (UK plug)
550104	1In/2 Out 5...862MHz 12V-220mA (110Vac & US Plug)



▲ 5504

### Picokom Series



QR-A00068

- ▶ High performance **switched-mode** power supplies, up to 40% less energy consumption than traditional PSUs.
- ▶ A esthetic design **and small size** (86x65x26 mm). Fits into 100x100 mm connection boxes.
- ▶ **Possibility of being fixed to the wall.**
- ▶ **EasyF connection.** Complies with the bending radius of the coaxial cable.

REF.	DESCRIPTION
579401	1 In/2 Out 5...2400MHz 12Vdc-200mA
5795	1 In/2 Out 5...862MHz 24Vdc-130mA
5796	1 In/1 Out 5...2500MHz 12Vdc-220mA

**PicoKom**



**easyF**

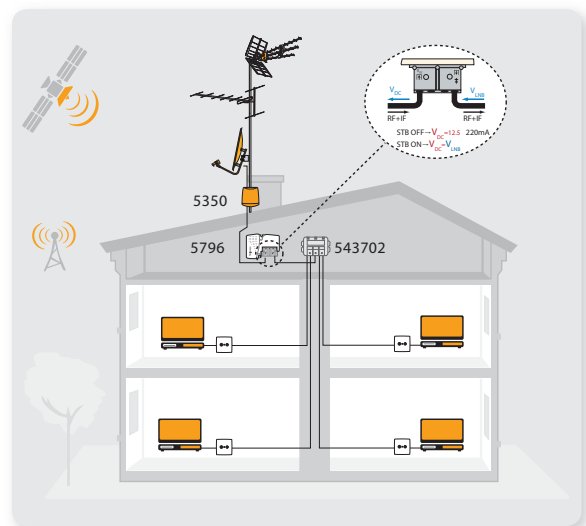
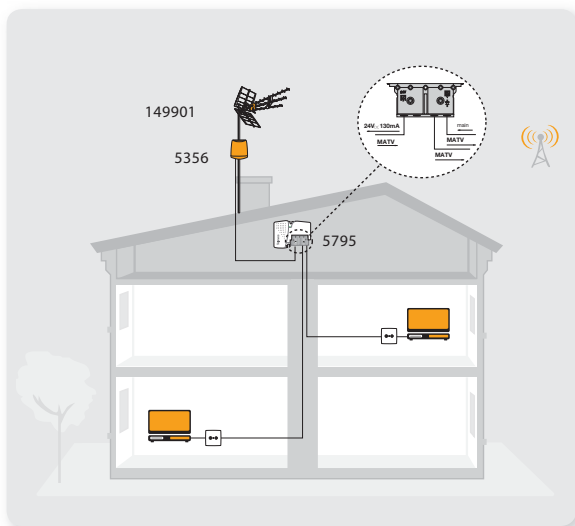
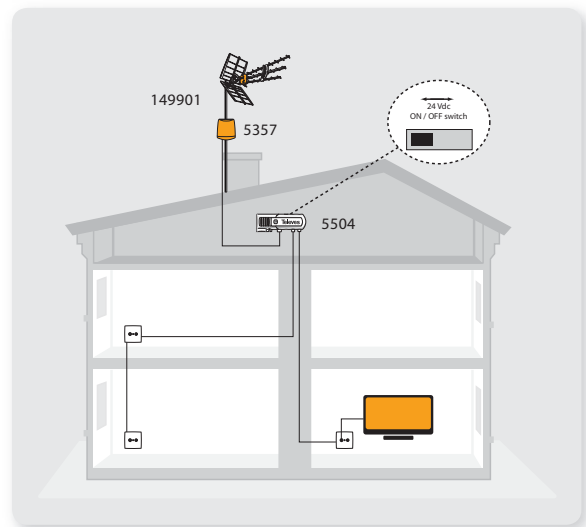
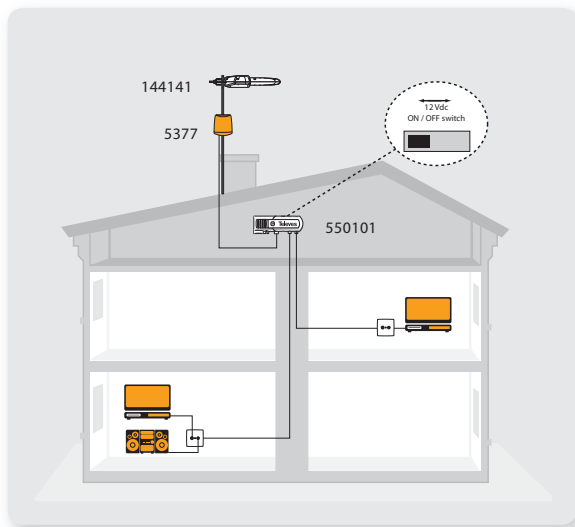


▲ 5795

## POWER SUPPLY UNITS

Reference	550101 / 5501 / 550104	5504/ 550402	579401	5795	5796
Outputs	2		2	2	1
Frequency range	MHz		5-2400	5-862	5-2500
Insertion losses	using 1 output	dB	-4	MATV: < 2 SAT IF: < 10	MATV: ≤ 1 SAT IF: 1.5 typ.
	using 2 outputs		-6	MATV: < 4 SAT IF: < 6,5	
Mains voltage (50/60 Hz)	Vac		196 - 264 *		
Output voltage	Vdc	12	24	12	24
Output current	mA	220	130	200	130
Connection type	F-female		easyF		
Working temperature range	°C		-10 ... +45		
Protection Index	IP		20		
Dimensions (Wid x Hei x Dep)	mm		145 × 45 × 35		

\*108-132 Vac for ref. 550104.





### NanoKom Series

NanoKom  
Series



QR-A00166

Breakthrough technology "USOS" for a range of domestic amplifiers with outstanding design.

- ▶ **USOS** (User Selectable Output Signal). The user adjusts the required output level and the device will adapt dynamically to the changing received signal.
- ▶ **Ch60/C69** switch to activate LTE filter.
- ▶ **ON/OFF** switch to activate DC bypass (for preamplifiers).
- ▶ **Powered through the outputs.**
- ▶ **External power supply unit** (excluded in ref. 562711, 562712, 562713).
- ▶ User friendly design for very small size and easy of use (64x45x28mm).
- ▶ TV Output.
- ▶ Possibility of being fixed to the wall.
- ▶ **EasyF** connection type.

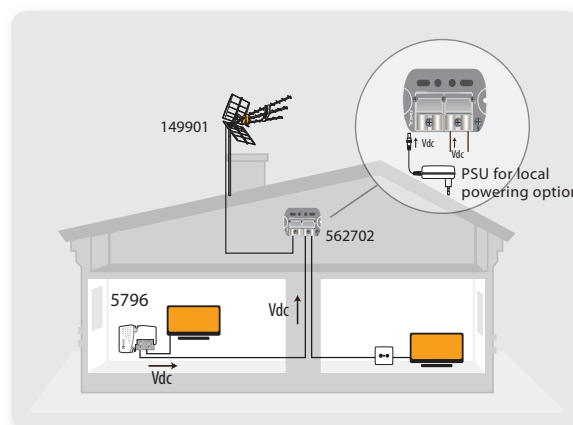


REF.	DESCRIPTION
562701	1 In/1 Out VHF/UHF
562711	1 In/1 Out VHF/UHF*
562702	1 In/2 Out VHF/UHF
562712	1 In/2 Out VHF/UHF*
562703	1 In/(2 Out+TV) VHF/UHF
562713	1 In/(2 Out+TV) VHF/UHF*
579901	PSU "Jack" 12V - 0,2A

\*PSU not included



▲ 579901



Reference	562701 / 562711				562702 / 562712				562703 / 562713			
Number of outputs	1				2				3 (2 + TV)**			
Input bands	UHF	VHF	BI	FM	UHF	VHF	BI	FM	UHF	VHF	BI	FM
Frequency range	MHz 470-862 470-790*	174-400	47-68	87-108	MHz 470-862 470-790*	174-400	47-68	87-108	MHz 470-862 470-790*	174-400	47-68	87-108
Gain	dB 26	13	12	-20	23	10	9	-20	22	9	8	-20
Output level DIN45004B	dBμV 106	98	98	-	103	95	95	-	102	94	94	-
Automatic gain margin	dB 0-20			-	0-20			-	0-20			-
Output level regulation margin Vout	dB 0-12			-	0-12			-	0-12			-
Automatic output level (10 DTT channels)	dBμV 96	-	-	-	93	-	-	-	92	-	-	-
Noise figure	dB 4,5	5,5	7	-	4,5	5,5	7	-	4,5	5,5	7	-
DC power through input <sup>(1)</sup>	V <sub>dc</sub> 0/12				0/12				0/12			
Max current through inputs	mA 50				50				50			
AC/DC Mains	V <sub>ac</sub> 196-264 (only ref. 562701)				196-264 (only ref. 562702)				196-264 (only ref. 562703)			
Adaptader Output	V <sub>dc</sub> 12 (only ref. 562701)				12 (only ref. 562702)				12 (only ref. 562703)			
AC Power consumption	W 0,93											
Protection index	IP 20											
Dimensions (Wid x Hei x Dep)	mm 64 x 45 x 28											

1 - ON/OFF through integrated switch

\*: LTE ON / \*\*: TV output with 9 dB attenuation.



## MATV DOMESTIC AMPLIFIERS

### PicoKom Series



QR-A00130

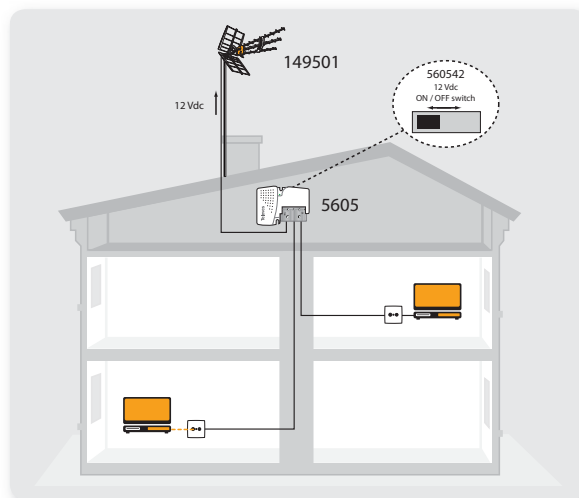
Plug&Play series for home use.

- ▶ No need of gain adjustment. The product includes an advanced system that automatically adjusts the gain for optimal output level.
- ▶ **Different products including LTE filter in "790 version".**
- ▶ ON/OFF switch to activate DC power to the input (for preamplifiers).
- ▶ Aesthetic design and small size (86x65x26 mm). Fits into 100x100 mm connection boxes.
- ▶ **Possibility of being fixed to the wall.**
- ▶ **EasyF connection.** Complies with the maximum bending radius of the coaxial cable.



▲ 5605

REF.	DESCRIPTION
5605	1 In/2 Out 47...862MHz w/Self-adjustment
560510	1 In/(2 Out+TV) 47...862MHz w/Self-adjustment + TV Output
560541	1 In/1 Out 47...790MHz w/Self-adjustment "790 version"
560542	1In/2 Out 47...790MHz w/Self-adjustment "790 version"
560543	1 In/2 Out+TV 47...790MHz w/Self-adjustment "790 version"



Reference	5605		560510		560541		560542		560543	
Number of outputs	2		3(2 + TV)		1		2		3(2 + TV)	
Bands	UHF	VHF	UHF	VHF	UHF	VHF	UHF	VHF	UHF	VHF
Frequency range	MHz		470-862	47-400	470-862	47-400	470-790	47-400	470-790	47-400
Gain	Output TV	dB	20	10	20	10	24	12	20	10
			-	-	8	-2	-	-	-	-
Output level DIN45004B	dBμV		105	100	105	100	105	100	105	100
AGC range	dB		0-20							
Output level (10 chTDT)	dBμV		92	88	92	88	92	88	92	88
Noise figure	dB		4,5	5	4,5	5	4,5	5	4,5	5
DC power through input	V <sub>dc</sub>		12							
Max current through input	mA		150							
Power consumption AC	W		3,7							
Protection index	IP		20							
Dimensions (Wid x Hei x Dep)	mm		86 x 65 x 26							

## MATV DOMESTIC AMPLIFIERS (47...862MHz)

### "IEC" Series

Wide range of domestic amplifiers for MATV applications, featuring high output level and low power consumption.

- ▶ Fully automatic production.
- ▶ **50% lower power consumption than a standard amplifier.**
- ▶ **Low noise figure.**
- ▶ Adjustable gain.
- ▶ Up to 5 outputs.



QR-A00059



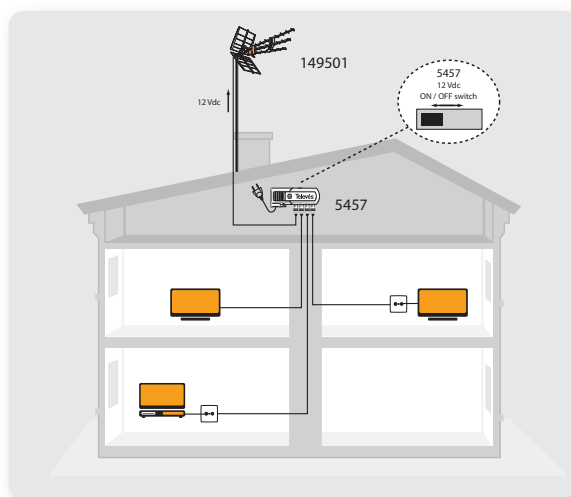
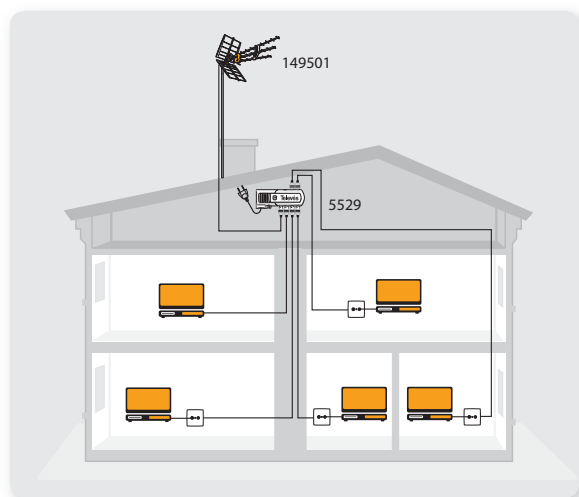
▲ 5528



▲ 5527

REF.	DESCRIPTION
5527	1In/1Out 47...862MHz
552701	1In/1Out 47...862MHz (UK Plug)
5528	1In/(2 Out+TV) 47...862MHz
5529	1In/(4 Out+TV) 47...862MHz
5457	1In/(2 Out+TV) 47...862MHz [dc]

References		5527 / 552701	5528	5529	5457
Frequency range	MHz	47-862			
Gain	outputs 1~4	25	20	16	20
	TV output	-	12	11	12
Gain adjustment		12			
Output level DIN45004B	dBμV	112	106	102	106
Noise figure	dB	5			
Power on inputs	Vdc	-			12
Max current through inputs	mA	-			100
AC Power consumption	W	2			4
Protection index	IP	20			
Dimensions (Wid x Hei x Dep)	mm	145 x 45 x 35	145 x 60 x 35		145 x 45 x 35



MATV DOMESTIC AMPLIFIERS (47...862MHz)



"F" Series

Domestic amplifiers for MATV applications, featuring high power and low consumption.

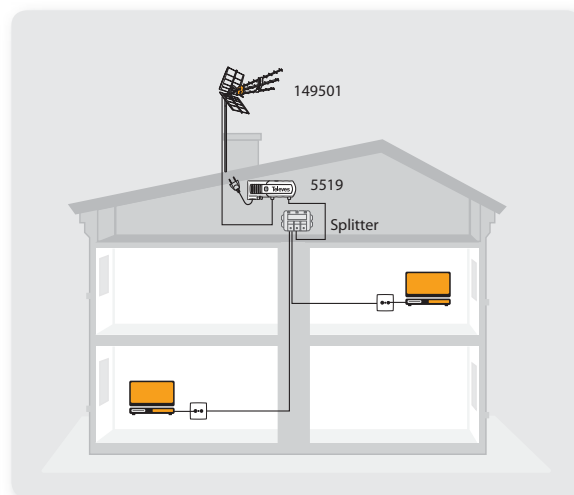
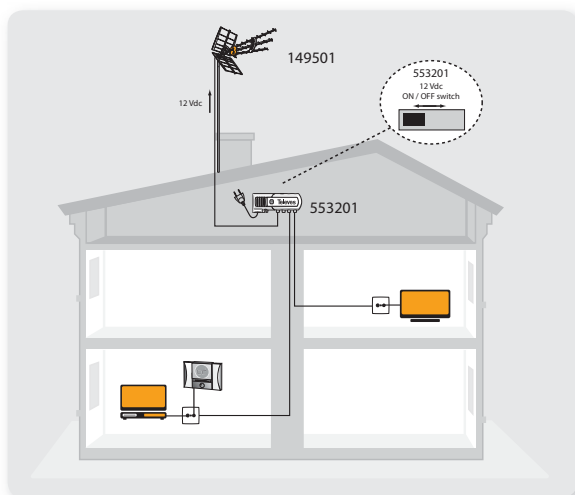
- ▶ Fully automatic production.
- ▶ **50% lower power consumption than an standard amplifier.**
- ▶ **Low noise figure.**
- ▶ Adjustable gain.
- ▶ Up to 6 outputs.



▲ 5531

REF.	DESCRIPTION
5519	1 In/(1 Out+TV) 47...862MHz
5522	1 In/(2 Out+TV) 47...862MHz
5523	1 In/(4 Out+TV) 47...862MHz
552301	1 In/(4 Out+TV) 47...862MHz (UK Plug)
5531	1 In/6 Out 47...862MHz
553101	1 In/6 Out 47...862MHz (UK Plug)
5518	1 In/1 Out 47...862MHz, 12V-100mA (UK Plug)
553201	1 In/2 Out 47...862MHz [dc]
5532	1 In/2 Out 47...862MHz [dc] (UK Plug)

References		5522	5523 / 552301	5531 / 553101	5519	5518	5532 / 553201
Frequency range	MHz	47-862			47-320 / 470-862	47-862	
Gain	Outputs	20	16	16	17/27	25	20
	TV	12	11	-	-3/7	-	-
Gain adjustment		12	12	12	12	12	12
Output level DIN45004B	dBµV	106	102	103	105	114	106
Noise figure	dB	5					
Power on inputs	Vdc					12	
Max current through inputs	mA					100	
AC Power consumption	W	2				<4	
Protection index	IP	20					
Dimensions (Wid x Hei x Dep)	mm	145 x 45 x 35	145 x 60 x 35		145 x 45 x 35		



## SMATV DOMESTIC AMPLIFIERS (47...2150MHz)

### PicoKom Series

**PicoKom**



QR-A00131

Plug&Play series for domestic use.

- ▶ No need of gain adjustment. The product includes an advanced system that automatically adjusts the gain for optimal output level.
- ▶ ON/OFF switch to activate DC power to the input (for preamplifiers).
- ▶ Aesthetic design and small size (86x65x26 mm). Fits into 100x100 mm connection boxes.
- ▶ Possibility of being fixed to the wall.
- ▶ Complies with the maximum bending radius of the coaxial cable.



**easyF**

**PLUG & PLAY**

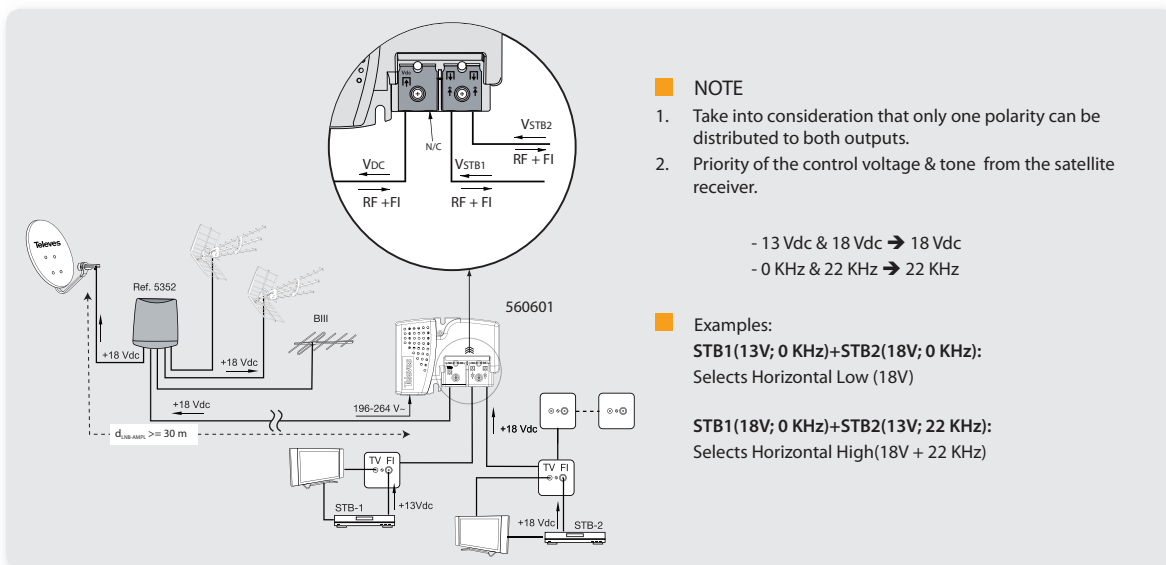
▲ 560601

REF.	DESCRIPTION
560601	1 In/2 Out 47..2150MHz w/Self-adjustment [dc]
560610	1In/2 Out 47..2150MHz w/Self-adjustment [dc] (110Vac & US Plug)

Reference	560601 / 560610	
Frequency range	MHz	47-862    950-2150
Gain	dB	15        23
AGC range		0-12      -
Output level (10 ch DTT)	dBμV	85        -
Noise figure	dB	7         9
Power on inputs	Vdc	12
Max current through inputs		160
Max through current Out → In	mA	300
Mains voltage (50/60 Hz)	Vac	196 - 264 *
AC Power consumption	W	3,7
Protection index	IP	20
Dimensions (Wid x Hei x Dep)	mm	86 x 65 x 26

\*108-132 Vac for ref. 560610.

Configuration		Vdc - In	
V STB-1	V STB-2	Vdc	I <sub>dc</sub> max.
OFF	OFF	+12V	160 mA
+13V / +18V	OFF	V STB-1	300 mA
+13V	+18V	+18V	300 mA
+18V	+13V	+18V	300 mA
OFF	+13V / +18V	V STB-2	300 mA



**NOTE**

1. Take into consideration that only one polarity can be distributed to both outputs.
2. Priority of the control voltage & tone from the satellite receiver.

- 13 Vdc & 18 Vdc → 18 Vdc  
 - 0 KHz & 22 KHz → 22 KHz

**Examples:**

**STB1(13V; 0 KHz)+STB2(18V; 0 KHz):**  
 Selects Horizontal Low (18V)

**STB1(18V; 0 KHz)+STB2(13V; 22 KHz):**  
 Selects Horizontal High(18V + 22 KHz)



SMATV DOMESTIC AMPLIFIERS (5...2150MHz)

“F” Series



QR-A00062

Domestic amplifier for SMATV applications.

- ▶ Fully automatic production.
- ▶ **Low Noise figure.**
- ▶ Adjustable gain.
- ▶ Passive **return path.**
- ▶ Up to 3 outputs. Allows power from outputs to input.

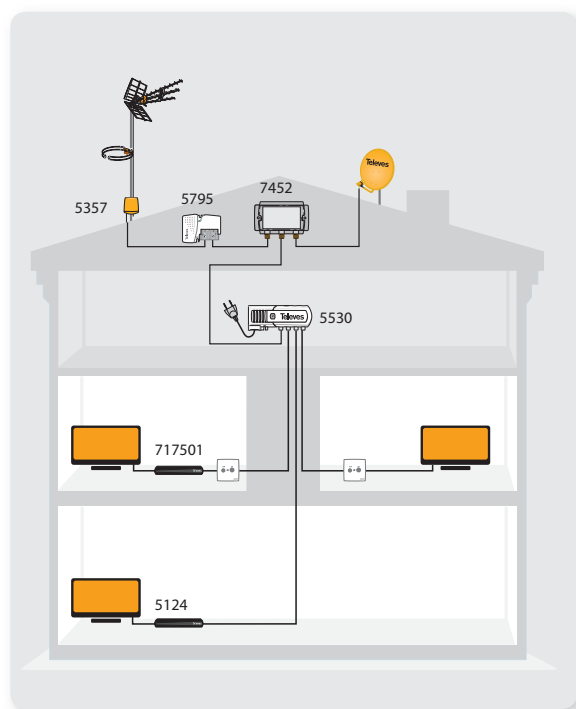
REF.	DESCRIPTION
5530	1 In/(2 Out+TV) 5...2150MHz
553010	1 In/(2 Out+TV) 5...2150MHz (110Vac & US Plug)



▲ 5530

Reference		5530 / 553010	
Number of outputs		3(2+ TV)	
Foward path			
Frequency range	MHz	47-862	950-2150
Gain	Outputs	dB	18
			TV
Output level	dBµV	105 <sup>(1)</sup>	110 <sup>(2)</sup>
Gain adjustment	dB	0-12	-
Noise figure	dB	5	3,5
Return path			
Frequency range	MHz	5-30	
Gain	Outputs	dB	-9
			TV
Power supply			
Main voltage	Vac	196-264 *	
Max through current Out → In	mA	300	
AC Power consumption	W	6	
Protection index	IP	20	
Dimensions (Wid x Hei x Dep)	mm	145 x 45 x 35	

1.- DIN 45004B;  
 2.- 2 tones, -35 dB.  
 \*108-132 Vac for ref. 553010.



## CATV DOMESTIC AMPLIFIERS (5...862MHz)

### "F" Series



QR-A00143

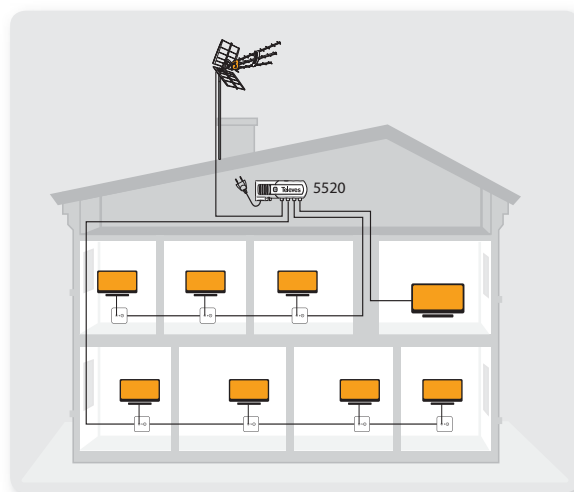
Wide range of domestic amplifiers for CATV applications. Featuring high output level and low power consumption.

- ▶ Fully automatic production.
- ▶ **50% lower power consumption than an standard amplifier.**
- ▶ **Low Noise figure.**
- ▶ Adjustable gain.
- ▶ **Adjustable cable equalizer.**
- ▶ Active or passive return path.
- ▶ Up to 3 outputs.



▲ 5533

REF.	DESCRIPTION
5520	1 In/(2 Out+TV) 5...65-87,5...862MHz
5525	1 In/(2 Out+TV) 5...65-87,5...862MHz
5526	1 In/(2 Out+TV) 5...65-87,5...862MHz
5533	1 In/1 Out 5...30-47...862MHz
5535	1 In/1 Out 5...30-47...862MHz



Reference		5520	5526	5525	5533	5535
Number of outputs		3 (2 + TV)			1	
Forward path						
Frequency range	MHz	87,5-862			47-862	
Gain	Outputs	20		18	24	34
	TV	13		12	-	-
Adjustable equalizer		-		18	18	-
Output level DIN45004B	dBμV	107		106	112	-
Output level EN50083-3		87		87	95	-
Gain adjustment	dB	12		18	18	-
Noise figure (typ.)		5	5,5	6,5	6	-
Return path						
Frequency range	MHz	5-65			5-30	
Gain	dB	-7	+9	-7	-1	
Output level DIN 45004B	dBμV	-	109	-6	-	
Noise figure (typ.)	dB	-	10	-	-	
Power supply						
Mains power	Vac	196-264				
AC Power consumption	W	2			3,5	
Protection index	IP	20				
Dimensions (Wid x Hei x Dep)	mm	145 x 45 x 35				

DOMESTIC AMPLIFIERS

Selection table for domestic amplifiers

Specifications			Classification of domestic amplifiers										
			Outputs		Connectors			← Ch.		EQ	SAT	mA	
					CEI	F	EasyF						
MATV	NANOKOM	Ref. 562701 / 562711	1				✓					150 12Vdc	
		Ref. 562702 / 562712	2				✓					150 12Vdc	
		Ref. 562703 / 562713	2	✓			✓					150 12Vdc	
	PICOKOM	Ref. 5605	2				✓					150 12Vdc	
		Ref. 560510	2	✓			✓					150 12Vdc	
		Ref. 560541	1				✓					150 12Vdc	
		Ref. 560542	2				✓					150 12Vdc	
		Ref. 560543	2	✓			✓					150 12Vdc	
	"iec"	Ref. 5527 / 552701	1		✓								
		Ref. 5528	2	✓	✓								
		Ref. 5529	4	✓	✓								
		Ref. 5457	2	✓	✓								100 12Vdc
	"F"	Ref. 5519	1			✓							
		Ref. 5518	1			✓							100 12Vdc
		Ref. 5532 / 553201	2			✓							100 12Vdc
		Ref. 5522	2	✓		✓							
Ref. 5523 / 552301		4	✓		✓								
Ref. 5531 / 553101		5	✓		✓								
SMATV	PICOKOM	Ref. 560601 / 560610	2				✓				✓	160 12Vdc	
CATV	"F"	Ref. 5530 / 553010	2	✓		✓			5-30		✓		
		Ref. 5520	2	✓		✓			5-65				
		Ref. 5526	2	✓		✓		5-65					
		Ref. 5525	2	✓		✓			5-65	✓			
		Ref. 5533	1			✓			5-30	✓			
Ref. 5535	1			✓			5-30	✓					
Signs:	Main outputs	Direct output for TV	Return path	Passive return path	Power supply for preamplifiers								



### “EasyF” Minikom Series



QR-A00164

Compact amplifiers with the possibility of low or high gain, multiple inputs, to be deployed in small and medium size systems.

- ▶ New compact design.
- ▶ Different versions available with & without LTE filter.
- ▶ Switch mode power supply guaranteeing low power consumption.
- ▶ ON/OFF Switch to select DC bypass.
- ▶ LED's indicating output signal and power supply.
- ▶ Test output (-30dB).
- ▶ Gain switch: high/low.
- ▶ Possibility of being fixed to the wall.



REF.	DESCRIPTION
<b>MATV (Terrestrial)</b>	
562501	3 In/1 Out FM-V-U
562401	4 In/1 Out FM-V-U-U
562301	5 In/1 Out FM-V-U-21...35-39...60/69
562302	5 In/1 Out FM-V-U-21...32-36...60/69

REF.	DESCRIPTION
<b>SMATV (Terrestrial + Satellite)</b>	
562601	4 In/1 Out FM-V-U-SAT

COMMON SPECIFICATIONS		
Mains Voltage	Vac	196-264
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	100 X 100 X 50

Reference		562501			562401				562301/562302 <sup>(1)</sup>				
Inputs	Band	FM	VHF	UHF	FM	VHF	UHF1	UHF2	FM	VHF	BIV	BV	UHF
Frequency range	MHz	88-108	174-400	470-862 470-790*	88-108	174-400	470-862 470-790*		88-108	174-400	470-590 470-566 <sup>(1)</sup>	614-862 614-790* 590-862 <sup>(1)</sup> 590-790 <sup>(1)</sup> *	470-862 470-790*
Gain (low/high)	dB	15	21/31	34/44	15	21/31	30/40		15	21/31	28/38		30/40
Gain adjustment range	dB	0-20	0-20	0-20	0-20	0-20	0-20		0-20	0-20	0-20	0-20	0-20
Output level	DIN45004B	113	114	117	113	114	117		113	114	117	117	117
	EN50083	IMD3	-	111	114	-	111	114	-	111	114	114	114
		IMD2	-	103	-	-	103	-	-	103	-	-	-
Noise figure	dB	9	7	5	9	7	8		9	7	9		8
Power on inputs	Vdc	-	12	12	-	12	12		-	12	12	12	12
Max current through inputs	mA	-	200	200	-	200	200		-	200	200	200	200
Max current available	mA	-	400		-	400			-	400			
AC Power consumption	W	11,5											

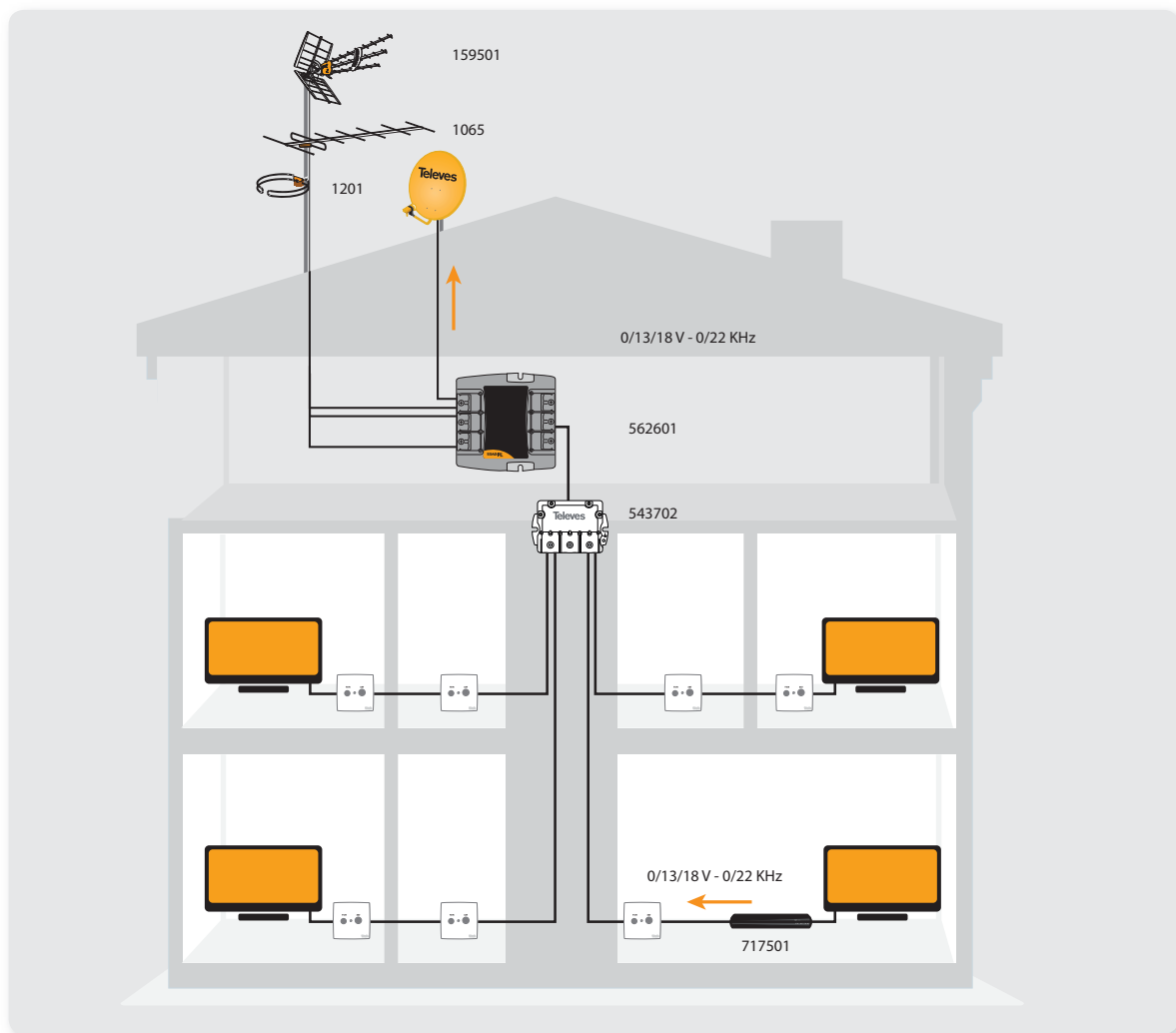
\*LTE ON

LAUNCH AMPLIFIERS

“EasyF” MiniKom Series

Reference		562601			
Inputs	Band	FM	VHF	UHF	SAT
Frequency range	MHz	88-108	174-400	470-862 470-790*	950-2150
Gain <sup>(1)</sup> (low/high)	dB	15	20/30	30/40	33...40
Gain adjustment range		0-20	0-20	0-20	0-25
Input equalizer		-	-	-	0-15
Output level	DIN45004B	114	114	115	-
	EN50083	IMD3	111	111	-
		IMD2	-	103	-
Noise figure	dB	8	6,5	6	-
Power on inputs	Vdc	-	12	12	12
Max current through inputs	mA	-	200	200	400
Max current through inputs		-	-	400	-
Max current through inputs (LNB Powering)		-	-	-	500
AC Power consumption	W	11,5			

\*LTE ON



## LAUNCH AMPLIFIERS

### "F" MiniKom Series

Serie **MiniKom**



QR-A00122

MATV launch amplifiers, designed for small and medium size distribution networks. To be used as MATV headend. Featuring a Low/High gain switch guaranteeing a wide dynamic margin with low noise figure.

- ▶ Split-band amplification.
- ▶ 20 dB independent attenuators (PIN diode) for each band.
- ▶ Gain switch: high/low..
- ▶ Automatic DC power through inputs (selectable).
- ▶ Test output (-30 dB).
- ▶ Low power consumption.



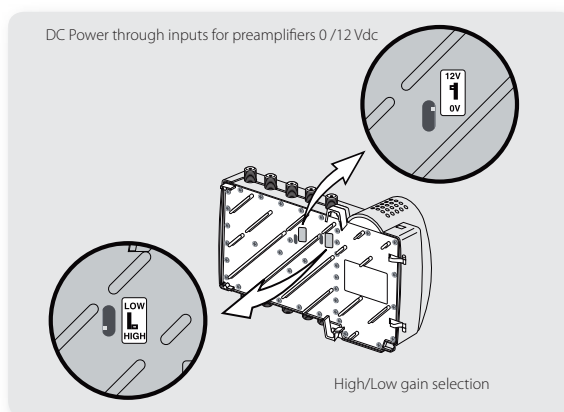
▲ 539201

REF.	DESCRIPTION
<b>MATV (Terrestrial)</b>	
537302	1 In/1 Out V/U
537201	2 In/(7+1) Out FM/V-U + Return P.
5372	2 In/(7+1) Out FM/V-U + Return P. (UK Plug)
5399	2 In/1 Out V-U
531201	3 In/1 Out FM-BIII/DAB-U
539201	4 In/1 Out FM-BIII/DAB-U-U
539104	5 In/1 Out FM-BIII/DAB-21...35-39...69-U
539105	5 In/1 Out FM-BIII/DAB-21...32-36...69-U

Reference		5372 / 537201		
Inputs	Band	Ret.P. <sup>(1)</sup>	FM/VHF	UHF
Frequency range	MHz	5-7	47-230	470-862
Gain	out. 1 to 7	0,5	5	15
	out. +1	15	16	27
Output level	out. 1 to 7	108	89	
	out. +1	(at 1 dB gain compression)	101	
Noise figure	dB	2.5		
Line power (UHF input) (30mA)	Vdc	12		
Line power IR (10mA) to output				
Main supply voltage 50Hz	Vac	230 ± 10%		

1.- Return Path compatible with both inputs (FM/VHF & UHF)

Reference		537302		5399	
Inputs	Band	VHF/UHF		VHF	UHF
Frequency range	MHz	47-454	470-862	47-232	470-862
Gain (low/high)	dB	20/30	27/37	35	40
Gain adjustment range		0-20	0-20	0-20	0-15
Output level	DIN45004B	114	116	116	117
		111	113	-	-
	EN50083	103	-	115	-
Noise figure	dB	7		6	4
Power on inputs	Vdc	24		-	24
Max current through inputs	mA	70		-	100
Max current available		-		-	60
AC Power consumption	W	7		9	

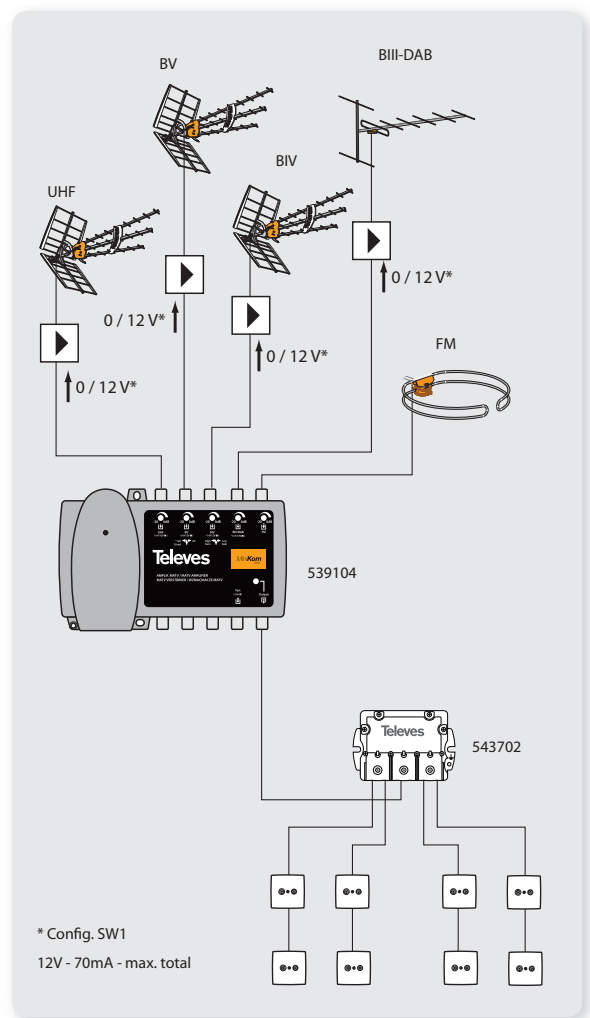
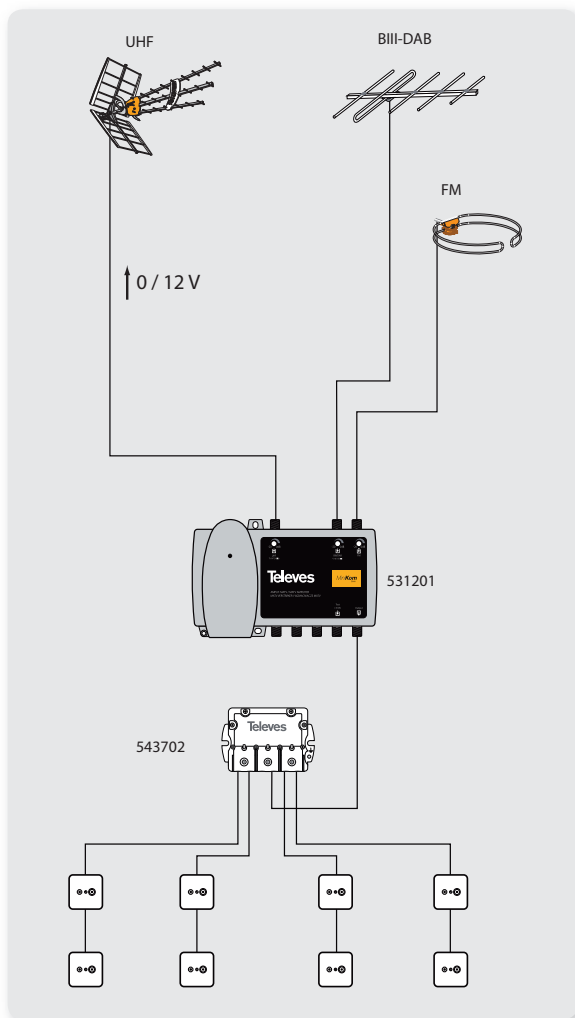


COMMON SPECIFICATIONS		
Mains Voltage	Vac	207-253
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	180x110x55

LAUNCH AMPLIFIERS

“F” MiniKom Series

Reference		531201			539201				539104 / 539105 <sup>(1)</sup>					
Inputs		Bands	FM	BIII/DAB	UHF	FM	BIII/DAB	UHF1	UHF2	FM	BIII/DAB	BIV	BV	UHF
Frequency range		MHz	88-108	174-400	470-862	88-108	174-400	470-862		88-108	174-400	470-590 470-566 <sup>(1)</sup>	614-862 590-862 <sup>(1)</sup>	470-862
Gain (low/high)			15	20/30	30/40	15	20/30	27/37		15	20/30	25/35		27/37
Gain adjustment range		dB	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20
Output level	DIN45004B (low/high)	dBμV	112/114		116/117	112/114		116/117		112/114		115/116	116/117	
	EN50083		109/111		113/114	109/111		113/114		109/111		112/113	113/114	
	IMD2		103		-	103		-		103		-		
Noise figure (Low/High)		dB	9	6/6,5	5/6,5	9	6,5/7	8/9,5		9	6,5/7	9/ 10,5		8/ 9,5
Power on inputs		Vdc	-	12	12	-	12	12	-	-	12	12	12	12
Max current through inputs		mA	-	70	70	-	70	70	-	-	70	70	70	70
AC Power consumption		W	9			9				9				



### "F" MiniKom Series

Serie **MiniKom**



QR-00056

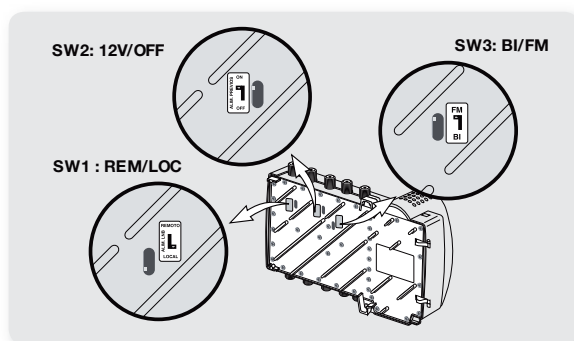
REF.	DESCRIPTION
<b>SMATV (Terrestrial + Satellite)</b>	
5396	4 In/1Out BI/FM-BIII-U-SAT
5363	2 In/1Out Mix MATV-SAT
536310	2 In/1Out Mix MATV-SAT (110Vac & US Plug)
5317	2 In/2 Out MATV/SAT-MATV/SAT



▲ 5317

COMMON SPECIFICATIONS		
Mains Voltage	Vac	196-264 *
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	180x110x55

\* 108-132 Vac for ref. 536310



▲ 5396

Reference		5396				5363 / 536310		5317			
Inputs	Band	BI/FM	BIII	UHF	SAT	MATV	SAT	MATV/SAT1	SAT2		
Outputs		MATV/SAT				MATV/SAT		MATV/SAT1 – MATV/SAT2			
Frequency range	MHz	47-68 88-108 (1)	174-254	470-862	950-2150	47-862	950-2150	5-30	47-862	950-2150	
Gain	dB	33/20	35	40	35 (950MHz) 42 (2150MHz)	-1,5	35 (950MHz) 45 (2150MHz)	-5	30	33 (950MHz) 38 (2150MHz)	
Gain adjustment range	dB	0-20	0-20	0-20	0-20	-	0-20	-	0-20	0-20	
Input equalizer		-			0-15	-	0-12	-	0-20	0-15	
Output level	DIN45004B	112	112	115	-	-	-	-	117	-	
	EN50083	IMD3		109	112	121	-	≥124	-	114	123
		IMD2 CTB,CSO,XMOD		-		-	-	-	-	112	119
		96		-	-	-	-	96	-		
Noise figure	dB	8	6	14	-	9	-	8	10		
Rejection UHF- IF SAT	dB	> 40				-	-	-	-		
Power on inputs	Vdc	12 (2)	12 (2)	12 (2)	12 Local 12/17 Remote	-	13/17	-	-		
Max current through inputs	mA	70	70	70	300 Local	-	300	-	-		
Max current available	mA	300				300		-			
Max through current Out → In	mA	-	-	-	500 Remote	-		-			
22KHz tone amplitude	Vpp	-				-	0,6	-			
AC Power consumption	W	10				14		12			

1 - SW BI/FM: FM  
2 - Automatic



LAUNCH AND DISTRIBUTION AMPLIFIERS

DTKom Series

Range of high performance amplifiers, offering functionality and power, and designed to have direct access to all configuration parameters of the equipment.

- ▶ Push-pull and power-doubling technology amplifiers. (123 o 129 dBμV).
- ▶ Specific components for optimal performance in terms of noise figure.
- ▶ LED signaling the presence of RF signal.
- ▶ DC line power for preamplifiers.
- ▶ Gain switch: high/low..
- ▶ High efficiency power supply unit.



▲ DTKom

POWER DOUBLING RANGE

- ▶ Up to 129 dBμV both in the VHF & UHF band.
- ▶ Configurable with two outputs.

PUSH-PULL RANGE

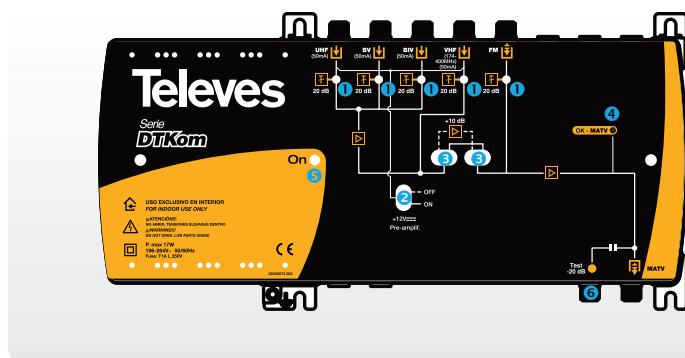
- ▶ Up to 123 dBμV both in the VHF & UHF band.
- ▶ Configurable line power.



Detailed of the cooling stripes.



Block diagram of the amplifier for easy of use and configuration.



- 1 Input attenuators
- 2 DC line power switch
- 3 Gain switch Low/High
- 4 LED indicating presence of RF.
- 5 Power supply LED ON/OFF
- 6 Test output(-20 dB)

## LAUNCH AMPLIFIERS

### DTKom Series - MATV



QR-A00054

REF.	DESCRIPTION	TYPE
<b>MATV (Terrestrial) Launch amplifier</b>		
5340	3 In/1 Out BI/FM-BIII-U	PP
5341	5 In/1 Out BI/FM-BIII-21...35-39...69-U	PP
534101	5 In/1 Out BI/FM-BIII-21...32-36...69-U	PP
4507	3 In/1s Out FM-V-U	PD
4508	4 In/1 Out FM-V-U-U	PD
4509	5 In/1 Out FM-V-BIV-BV-U	PD
<b>MATV (Terrestrial) Distribution amplifier</b>		
5338	1e/1s V/U (line powered configurable)	PP

PP: Push-Pull; PD: Power Doubling

COMMON SPECIFICATIONS		
Test output	dB	-20
Mains Voltage	Vac	196-264
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	264 x 142 x 50

Reference		5338	
Inputs	band	MATV	
Frequency range	MHz	47-862	
Gain (low/high)		41/53	
Gain adjustment range		0-18	
Input equalizer	dB	0-18	
Interstage attenuator		0-10	
Slope adjustment		0-10	
Output level	DIN45004B	123	
	EN50083	IMD3	120
		IMD2	116
	CTB, CSO, XMOD	106	
Noise figure	dB	10	
Power supply input/output <sup>(2)</sup>	Vdc	9	
Max through current Out ↔ In	mA	700	
AC Power consumption	W	11	

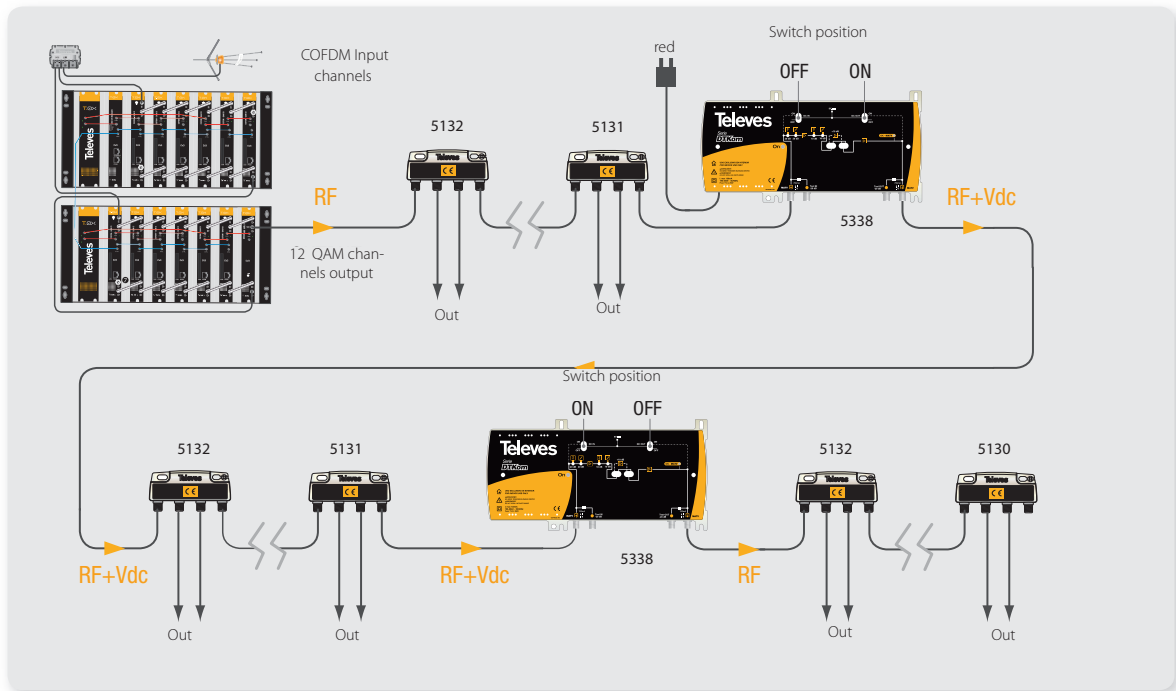
Reference		5340			5341 y 534101 <sup>(1)</sup>				
Inputs	bands	BI/FM <sup>(1)</sup>	BIII	UHF	BI/FM <sup>(1)</sup>	BIII	BIV	BV	UHF
Frequency range	MHz	47-68 / 88-108	174-370	470-862	47-68 / 88-108	174-370	470-590 470-566 <sup>(1)</sup>	614-862 590-862 <sup>(1)</sup>	470-862
Gain (low/high)	dB	25/39-21/31	36 / 44	43 / 53	25/39-21/31	36 / 44	39 / 48	40 / 50	40 / 50
Gain adjustment range	dB	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20
Output level	DIN45004B	123		123	123		123		
	EN50083	120		120	120		120		
		110		-	110		-		
	CTB, CSO, XMOD	-		-	-		-		
Noise figure	dB	10	6,5	5,5	10	6,5	9	9	8
Power on inputs <sup>(2)</sup>	Vdc	12							
Max current through inputs	mA	50							
AC Power consumption	W	10			10				

Reference		4507			4508				4509				
Inputs	bands	FM	VHF/S <sub>Band</sub>	UHF	FM	VHF/BS	UHF1	UHF2	FM	VHF/S <sub>Band</sub>	BIV	BV	UHF
Frequency range	MHz	88-110	174-400	470-862	88-110	174-400	470-862		88-110	174-400	470-590	614-862	470-862
Gain (low/high)	dB	30	32/45	42/55	30	32/45	40/52		30	32/45	38/50	38/50	40/52
Gain adjustment range	dB	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20	0-20
Output level	DIN45004B	129											
	EN50083	126											
		120											
	CTB, CSO, MOD	113											
Noise figure	dB	12	7		12	7	10		12	7	11	11	10
Power on inputs <sup>(2)</sup>	Vdc	-	12	12	-	12	12	-	-	12	12	12	12
Max current through inputs	mA	-	50	50	-	70	70	-	-	50	50	50	50
AC Power consumption	W	16			16				17				

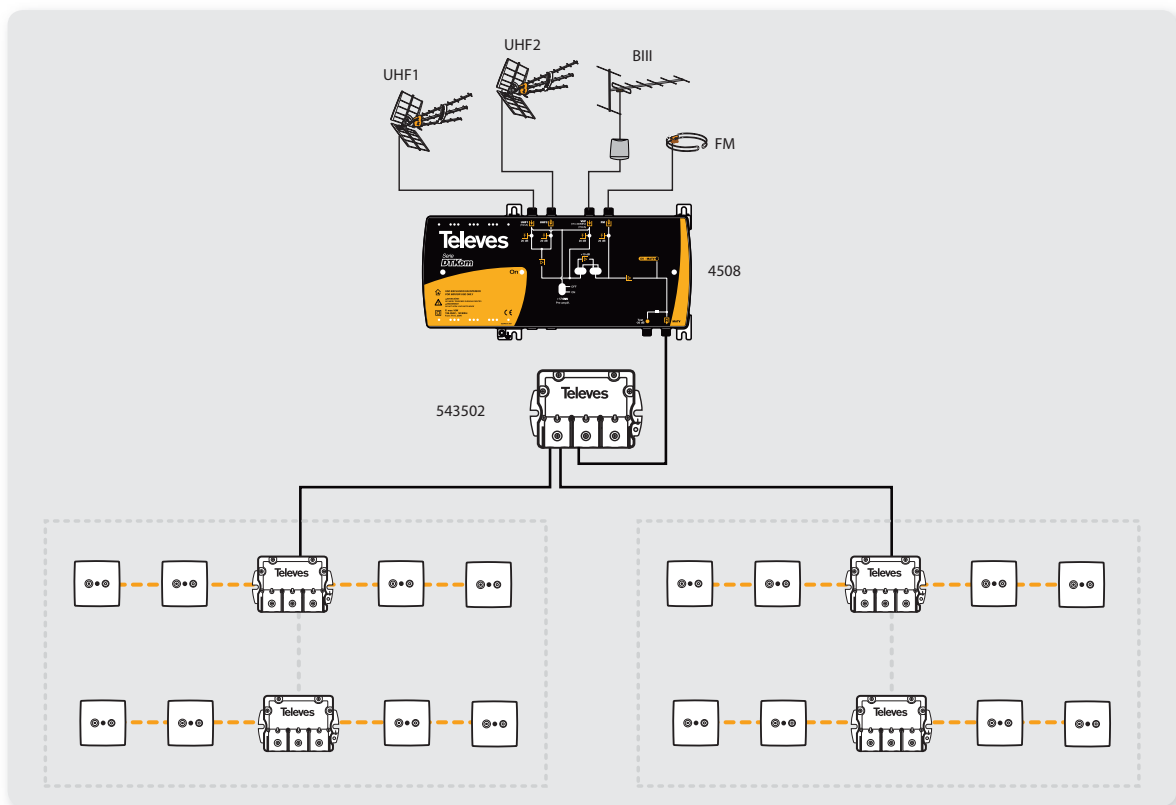
(1): BI/FM switch (2): Preamp switch: ON

LAUNCH AMPLIFIERS

DTKom Series - MATV



Ref. 5338 when the switch is in ON position can power through the coaxial line another amplifier ref 58338.



## LAUNCH AMPLIFIERS

### DTKom Series - SMATV

Serie  
**DTKom**



QR-A00053

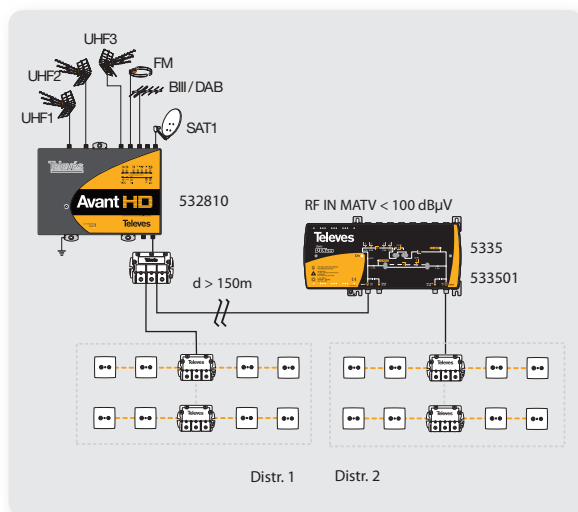
REF.	DESCRIPTION	TYPE
<b>SMATV (Return path + MATV + Satellite band)</b>		
5335	1In/1 Out Return path (5...30MHz)/MATV/SAT	PP
533501	1In/1 Out Return path (5...65MHz)/MATV/SAT	PP
5337	2 In/2 Out Return path (5...30MHz)/MATV/2SAT	PD

PP: Push-Pull; PD: Power Doubling



▲ DTKom

COMMON SPECIFICATIONS		
Test output	dB	-20
Mains Voltage	Vac	196-264
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	264 x 142 x 50



References		5335 / 533501*				5337				
Transmission Path		Return		Forward		Return		Forward		
		Passive	Active	MATV	IF SAT	Passive	Active	MATV	IF1 SAT	IF2 SAT
Frequency range	MHz	5-30/5-65*		47-862/87-862*	950-2150	5-30		47-862	950-2150	
Gain (low/high)	dB	-4	20	40/53	42	-5	17	34/47	42	
Gain adjustment range		-	0-20	0-18	-	-	0-20	0-20	-	
Input equalizer		-	-	0-18	0-12	-	-	0-20	0-12	
Interstage attenuator		-	-	0-10	0-18	-	-	0-10	0-20	
Slope adjustment		-	-	0-10	-	-	-	0-10	-	
Output level	DIN45004B	-	116	124	-	-	116	123	-	
	EN50083	IMD3	-	113	119	121	-	113	120	120
			IMD2	-	92	114	115	-	89	114
CTB, CSO, XMOD	-	-	106	-	-	-	104	-		
Noise figure	dB	-	10	10	13	-	15	10	12	
Power on inputs	Vdc	-				-				
Max current through inputs	mA	-				-				
AC Power consumption	W	11				18				

## LAUNCH AMPLIFIERS

### DTKom Series - CATV



QR-A00116

REF.	DESCRIPTION	TYPE
<b>CATV (Return path + MATV)</b>		
5339	1 In / 1 Out Return path (5...30MHz)/MATV	PP
533901	1 In/1 Out Return path (5...65MHz)/MATV	PP
451201	1 In/1 Out Return path (5...65MHz)/MATV	PD
451202	1 In / 1 Out Return path (5...30MHz)/MATV	PD

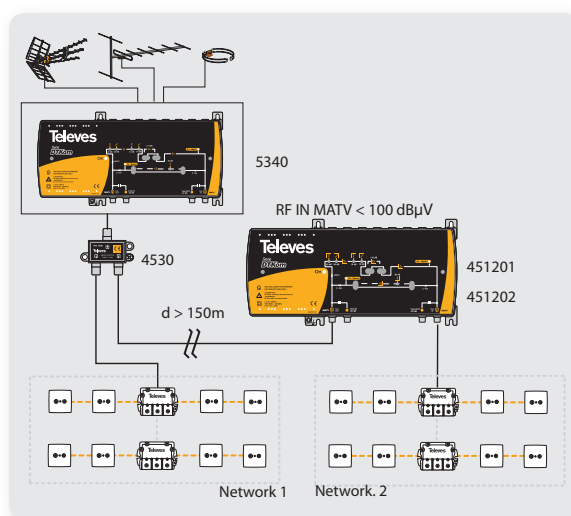
PP: Push-Pull; PD: Power Doubling

Serie  
**DTKom**



▲ DTKom

COMMON SPECIFICATIONS		
Test output	dB	-20
Mains Voltage	Vac	196-264
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	264 x 142 x 50



Reference		5339 / 533901*			451202 / 451201**			
Transmission Path		Return		Forward	Return		Forward	
		Passive	Active	MATV	Passive	Active	MATV	
Frequency range	MHz	5-30 / 5-65*		47-862/87-862*	5-30/5-65**		47-862/87-862**	
Gain (low/high)	dB	4	20	41/53	-3	20	40/53	
Gain adjustment range		-	0-20	0-18	-	0-20	0-20	
Input equalizer		-	-	0-18	-	-	0-20	
Interstage attenuator		-	-	0-10	-	-	0-10	
Slope adjustment		-	-	0-10	-	-	0-10	
Output level	DIN45004B	-	115	122	-	116	129	
	EN50083	IMD3	-	113	119	-	113	126
			IMD2	-	92	114	-	92
CTB, CSO, XMOD		-		-	106	-	-	109
Noise figure	dB	-	9	10	-	10	10	
Power on inputs	Vdc	-			-			
Max current through inputs	mA	-			-			
AC Power consumption	W	10			15			

## LAUNCH AMPLIFIERS

### OUTDOOR Series



QR-A00138

Amplifier for outdoor CATV applications. The devices have to be powered through the coaxial line.

- ▶ Outdoor weatherproof aluminium chassis.
- ▶ Amplifier configuration options:
  - ▶ Line power input/output.
  - ▶ Extra selectable amplifier module (gain 10 dB).
  - ▶ Pre-emphasis, attenuation, gain, both in the Forward and return path.
- ▶ 5/8 connectors.



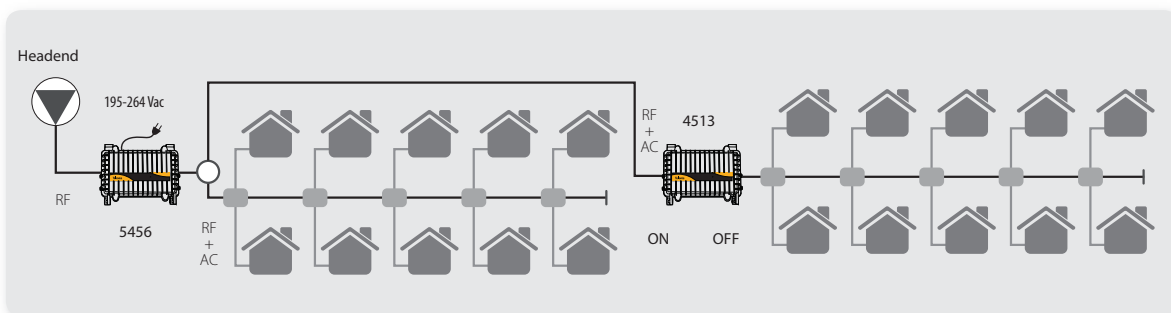
▲ 4513/5456

REF.	DESCRIPTION
<b>CATV (Return path + MATV)</b>	
4513	Outdoor amplifier 5...65/87,5...862MHz
5456	Outdoor CATV Power supply with power injector

References		4513	
Transmission path		Return	Forward
Frequency range	MHz	5-65	87,5-862
Gain		12	36 <sup>(1)</sup>
Gain adjustment range	dB	0-20	0-20
Input equalizer		-	0-20
Slope adjustment		-	0-20
Out-put level	DIN45004B	112	121
	EN50083 IMD2	-	113
	CTB, CSO, XMOD	-	105
Noise figure	dB	-	8
Power supply	Vac	40 ... 60	
Through current Max Out ↔ In	A	5	
AC Power consumption	W	15	
Protection Index	IP	67	
Dimensions (Wid x Hei x Dep)	mm	278 x 207 x 100	

1.- With amplifier module; 26 dB without module.

References		5456
Frequency range	MHz	5-860
Output voltage	Vac	57
Max current	A	5
Power supply	Vac	195-264
AC Power consumption	W	375
Protection Index	IP	67
Dimensions (Wid x Hei x Dep)	mm	278 x 207 x 100



LAUNCH AMPLIFIERS

MicroKom Series

Serie **MicroKom**



QR-A00123

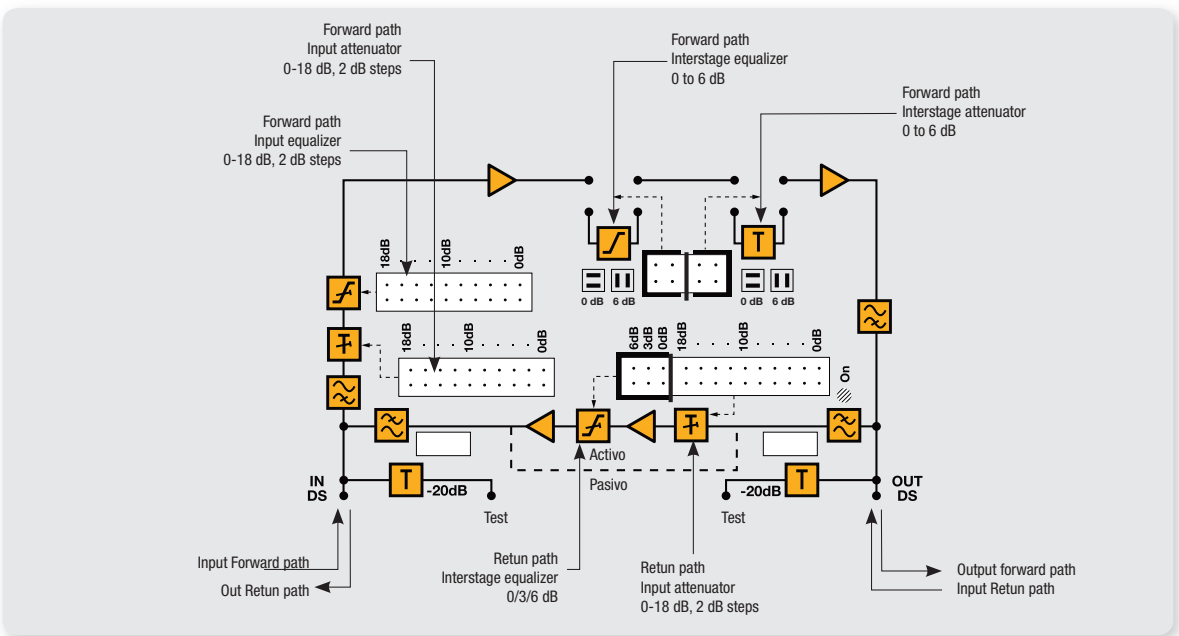
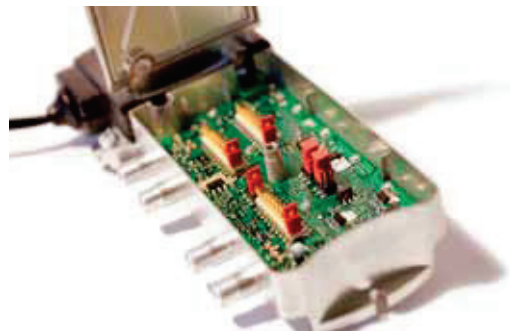
Range of amplifiers designed for multimedia distribution in small/medium size buildings. These amplifiers feature forward and active return path.

- ▶ C3 (Modular return path) and C4 (Built-in return path) distributions amplifiers.
- ▶ Die cast chassis.
- ▶ High efficiency power supply.
- ▶ Input / Output test connectors (-20dB)



▲ 534602

REF.	DESCRIPTION
<b>C3 Amplifiers with modular return path 5-65 MHz.</b>	
534602	Forward path 20 dB. Return 20 dB
534702	Forward path 24 dB. Return 20 dB
536602	Forward path 30 dB. Return 25 dB
536702	Forward path 35 dB. Return 28 dB
<b>Accessories - Return path modules 5-65 MHz</b>	
455320	Return path 20 dB
455325	Return path 25 dB
455328	Return path 28 dB
<b>C4 Amplifiers with built in return path 5-65 MHz</b>	
534202	Forward path 20 dB. Return 20 dB
534302	Forward path 30 dB. Return 25 dB
534402	Forward path 35 dB. Return 28 dB



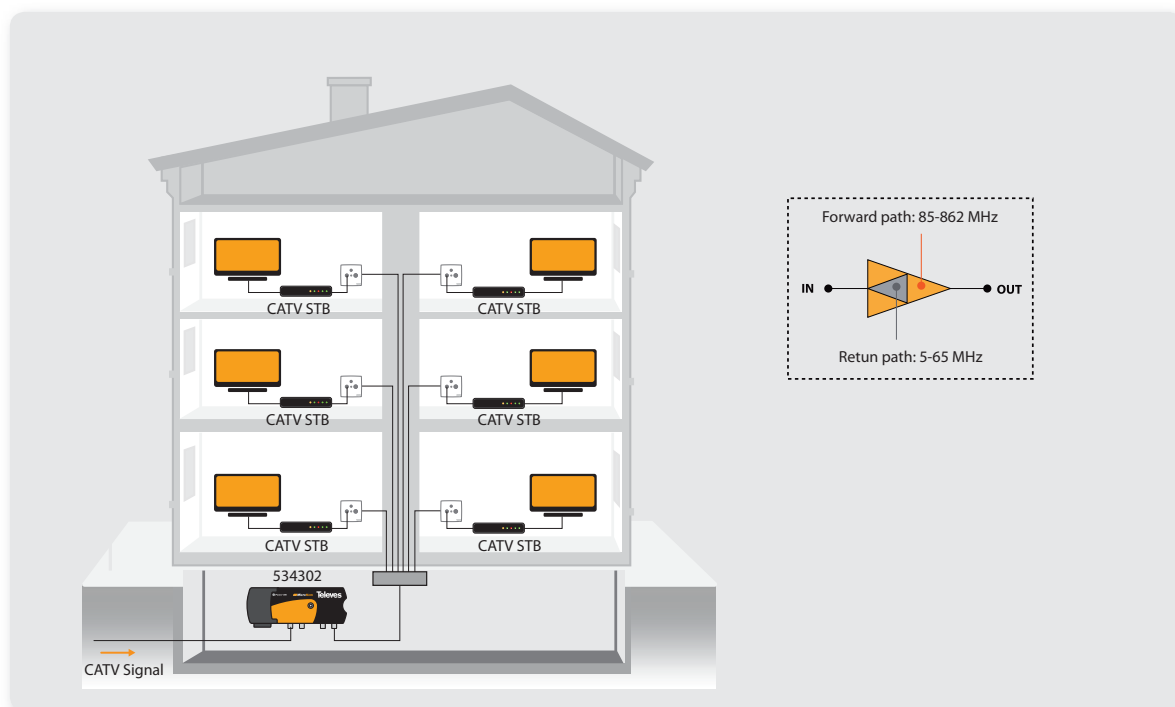
## LAUNCH AMPLIFIERS

### MicroKom Series

Reference	534602	534702	536602	536702	
<b>Forward path</b>					
Frequency range	MHz 85 ... 862				
Gain	20	24	30	35	
Gain adjustment range	0...18				
Interstage attenuator	dB 0/6				
Input equalizer	0...18				
Interstage equalizer	0/6				
Noise figure	7,5				
Output level	DIN 45004B	118			
	CTB, CSO	100			
<b>Return path</b>					
Frequency range	MHz 5...65				
Gain	20	20	25	28	
Gain adjustment range	0...18				
Interstage equalizer	0/3/6				
Noise figure	6				
Output level	DIN 45004B	118			
<b>General</b>					
AC Power consumption	W	5	5	5,5	6

Reference	534202	534302	534402	
<b>Forward path</b>				
Frequency range	MHz 85...862			
Gain	20			
Gain adjustment range	0...18			
Interstage attenuator	dB 0/6			
Input equalizer	0...18			
Interstage equalizer	0/6			
Noise figure	7,5			
Output level	DIN 45004B	118		
	CTB, CSO	100		
<b>Return path</b>				
Frequency range	MHz 5...65			
Gain	20	25	28	
Gain adjustment range	0...18			
Interstage equalizer	0/3/6			
Noise figure	6			
Output level	DIN 45004B	118		
<b>General</b>				
AC Power consumption	W	5	5,5	6

COMMON SPECIFICATIONS		
Test output	dB	-20
Mains Voltage	Vac	207-253
Working temperature range	°C	-10 a +45
Protection Index	IP	20
Dimensions (Wid x Hei x Dep)	mm	185 x 80 x 35







PROGRAMMABLE HEADEND AMPLIFIERS

Avant 3

Avant3



QR-A00156

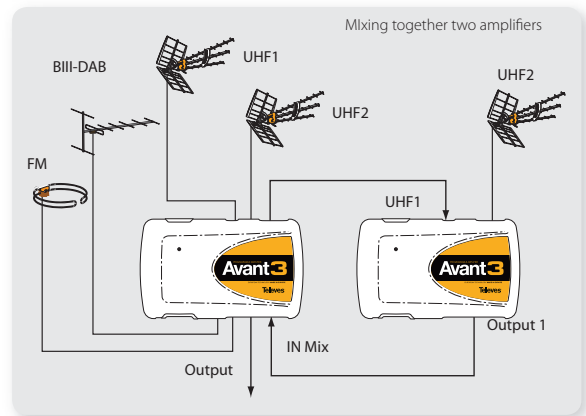
Programmable headend amplifier intended for a wide range of TV distribution networks, either single family or residential buildings.

- ▶ **Automatic level equalization.**
- ▶ **Independent adjustment of each filter.**
- ▶ **Two configurable inputs(5 filters in total).** Each filter can be tuned from Ch21 to Ch 69 ( Ch21 to Ch 60 for Ref 532740). Bandwidth of each filter can be programmed between 8 and 40 MHz in BIV (Ch21-Ch30) and between 8 and 56 MHz in BV (Ch31-Ch69), ( Ch31-Ch60 ref 532740).
- ▶ **VHF Broadband input** 174 to 406MHz.
- ▶ **FM Input.**
- ▶ Each filter features an input signal LED, showing detection of input RF signal.
- ▶ **12 Vdc line power to the inputs.**
- ▶ RF Mix input to combine a second amplifier.
- ▶ Configurable by means of controller ref. 7234 or PC Software through serial port.



▲ Avant 3

REF.	DESCRIPTION
532701	Avant 3 5 In/2 Out BI/FM-V-U-U-INmix (862MHz)
532740	Avant 3 5 In/2 Out BI/FM-V-U-U-INmix (790MHz)



Inputs		UHF1	UHF2	BI/FM	VHF	IN MIX
Bands	MHz	470 - 862 470 - 790 <sup>(1)</sup>		47-68 / 87-108	174 -406	47 - 406 / 470-862
Gain	dB	52		32/15	35	3
Filters per input	No.	5-2	0-3	-	-	-
Channels per filter		1-5 (BIV) / 1-7 (BV)		-	-	-
Gain adjustment range		-		0-18	0-15	-
Filter AGC range	dB	0-20		-	-	-
Output level adjustment range		0-15		-	-	-
Max input level		95		-	-	-
Output level	DIN45004B	116		114		114/116
	IMD3	113		111		111/113
Filter selectivity	dB	20 (±16MHz)		20 (±20MHz)	15 (±40MHz)	-
Noise figure		7		7	7	-
Power on inputs	Vdc	12	12	-	12	-
Max current through inputs	mA	50	50	-	50	-
AC Power consumption	W	9				
Protection Index	IP	20				
Dimensions (Wid x Hei x Dep)	mm	198 x 119 x 65				

(1) Ref. 532740



### Avant 7



QR-A00157

Programmable headend amplifier intended for a wide range of TV distribution networks, either single family or residential buildings.

- ▶ **3 configurable inputs (10 filters available).**
- ▶ Each filter can be tuned from Ch21 to Ch 60. Bandwidth of each filter can be programmed between 8 and 40MHz.
- ▶ **Independent selfadjusting filters. Possibility of slope adjustment.**
- ▶ **Broadband input (47-862MHz)** for expansions such as a satellite head-end system.
- ▶ **Ref. 532840 include IF amplification (950 to 2.150 MHz, a selectable single band).**
- ▶ **Pre-configurable without input signal. Automatic on site setting.**
- ▶ Configurable by means of controller ref. 7234 or PC Software (ref. 216801) through serial port.



▲ Avant 7



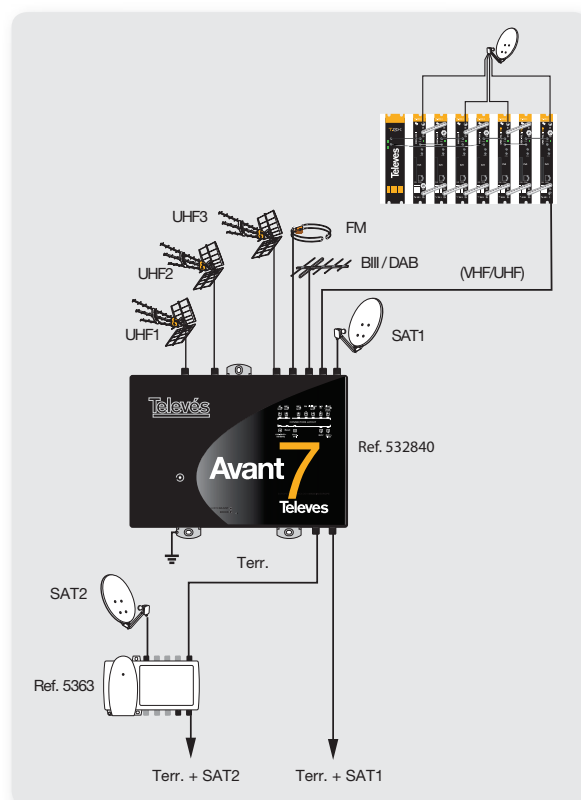
▲ 7234

REF.	DESCRIPTION
532840	Avant 7, 7 In/2 Out FM-BIII/DAB-TB-U-U-U-FI (790 MHz)
532940	Avant 7, 6 In/1 Out FM-BIII/DAB-TB-U-U-U (790 MHz)
532810	Avant HD, 7 In/2 Out FM-BIII/DAB-TB-U-U-U-FI (862 MHz)
532910	Avant HD, 6 In/1 Out FM-BIII/DAB-TB-U-U-U (862 MHz)



▲ Avant HD

COMMON SPECIFICATIONS		
Mains Voltage	Vac	196 - 264
Working temperature range	°C	-5 a +45
Protection Index	IP	20
Weight	gr	2.800
Dimensions (Wid x Hei x Dep)	mm	320 x 258 x 60





PROGRAMMABLE HEADEND AMPLIFIERS

Avant 7 / Avant HD

Reference		532840 / 532810								
Inputs		UHF1	UHF2	UHF3	FM	BIII/DAB	47-862 MHz 47-790 <sup>(1)</sup> MHz		IF SAT	
Frequency ranges		MHz			470 - 790 <sup>(1)</sup>	87 - 108	174 - 260	47 - 370	370 - 862	950-2150
Gain		dB			Auto (max. 51 ± 3)	Auto (max. 41 ± 3)	Auto (max. 44 ± 3)	Auto (max. 36 ± 2)	Auto (max. 39 ± 2)	42...45
Filters configuration		10	0	0	-	-	-	-	-	-
		9	0	1	-	-	-	-	-	-
		7	2	1	-	-	-	-	-	-
		6	3	1	-	-	-	-	-	-
		5	3	2	-	-	-	-	-	-
Selectable bandwidth (No. of channels)		0 - 5 <sup>(2)</sup>			-	-	-	-	-	-Sele
Slope adjustment		dB			0 - 9 <sup>(2)</sup>			-	-	0-12 <sup>(2)</sup>
Optimal input level		dBμV			60 - 105	60 - 85	62 - 87	69 - 73	70 - 74	-
Automatic adjustment range		dB			0 - 20 <sup>(3)</sup>	0 - 25-OFF <sup>(3)</sup>	0 - 25-OFF <sup>(3)</sup>	-	-	0-24-OFF <sup>(2)</sup>
Manual adjustment range		± 9 (per filter)			± 9	± 9	± 9	-	-	-
Output level DIN45004B		dBμV			120					123
Output level		96-111			86-101	91-106	91-106	96-111	-	-
Noise figure		9			10	10	-	-	9	
Filter selectivity		dB			20 (±16 MHz)			-	-	40 (on 862MHz)
Power on inputs		Vdc			24	-	24	-	-	13/17(22KHz)
Max current through inputs		mA			60	-	-	-	-	300
AC Power consumption		W			26					

1 - 470-862MHz for ref.532840  
 2 - Programmable adjustment  
 3 - Automatic adjustment

Reference		532940 / 532910							
Inputs		UHF1	UHF2	UHF3	FM	BIII/DAB	47-862 MHz		
Frequency ranges		MHz			470 - 790 <sup>(1)</sup>	87 - 108	174 - 260	47 - 370	370 - 862
Gain		dB			Auto (max. 55 ± 3)	Auto (max. 45 ± 3)	Auto (max. 48 ± 3)	Auto (max. 40 ± 2)	Auto (max. 43 ± 2)
Filters configuration		10	0	0	-	-	-	-	-
		9	0	1	-	-	-	-	-
		7	2	1	-	-	-	-	-
		6	3	1	-	-	-	-	-
		5	3	2	-	-	-	-	-
Selectable bandwidth (N. of channels)		0 - 5 <sup>(2)</sup>			-	-	-	-	-
Slope adjustment		dB			0 - 9 <sup>(2)</sup>			-	-
Optimal input level		dBμV			60 - 105	60 - 85	62 - 87	69 - 73	70-74
Automatic adjustment range		dB			0 - 20 <sup>(3)</sup>	0 - 25-OFF <sup>(3)</sup>	0 - 25-OFF <sup>(3)</sup>	-	-
Manual adjustment range		± 9 (per filter)			± 9	± 9	± 9	-	-
Output level DIN45004B		dBμV			124				
Output level		100-115			90-105	95-110	95-110	100-115	
Noise figure		9			10	10	-	-	
Filter selectivity		dB			20 (±16 MHz)			-	-
Power on inputs		Vdc			24	-	24	-	-
Max current through inputs		mA			60	-	60	-	-
AC Power consumption		W			16				

1 - 470-862MHz for ref. 532910  
 2 - Programmable adjustment  
 3 - Automatic adjustment



### T12 Series

# T.12



QR-A00119

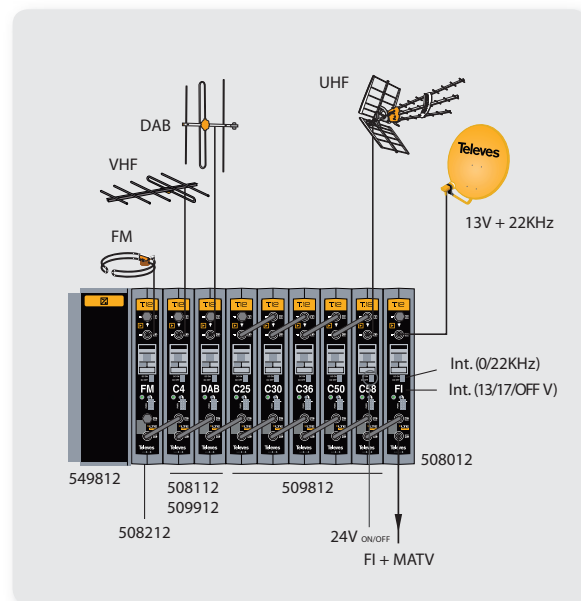
High performance channel amplifiers.

- ▶ Modular expandable system.
- ▶ **High reliability**, due to the full automatic manufacturing process.
- ▶ Improved screening efficiency.
- ▶ Up to 24 amplifiers can be powered by the switch mode power supply ref. 549812.
- ▶ **Line power switch allowing the powering of preamplifiers.**
- ▶ Gain adjustment.
- ▶ Full compatible with previous versions.
- ▶ **All accessories included (RF links, power leads, etc)**
- ▶ Installation both in DIN rail or 19" rack.
- ▶ Zamak chassis .
- ▶ IF Amplifier available.



▲ T12

REF.	DESCRIPTION
508112	BI/SubB 47...100MHz
508212	FM 88...108MHz
508712	S-Low 104...174MHz
508312	BIII 174...230MHz
509912	DAB 195...232MHz
508812	S-High 230...300MHz
508912	Hyperband 302...470MHz
508612	UHF 470...862MHz (single/multi channel) DTT
509712	UHF 470...862MHz (AGC) DTT
509812	UHF 470...862MHz (high selectivity)
509512	UHF 470...862MHz (high selectivity AGC)
508012	SAT 950...2150MHz



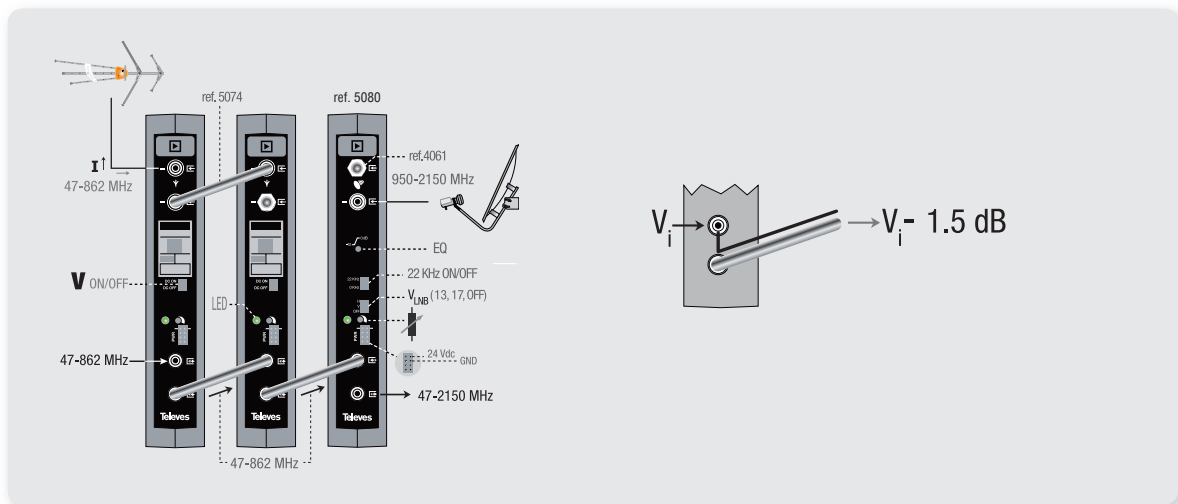


CHANNEL AMPLIFIERS

T12 Series

References		508112	508212	508712	508312	509912	508812	508912	508612	509712	509812	509512	508012	
	$f_w$ MHz	47-100	87,5-108	104-174	174-230	195-232	230-300	302-470	470-862				950-2150	
	BW MHz	7	-	7	7	37	7	8	8→56	8	8	8	950-2150	
	G	50	35	58	45	45	58	58	50	57	55	57	35→50	
	dB	35	35	35	35	35	35	35	30	30	30	30	20	
	EQ	-	-	-	-	-	-	-	-	-	-	-	0→12	
	$V_{out}$ dBμV	A	123 <sup>(1)</sup>	114 <sup>(1)</sup>	125 <sup>(1)</sup>	123 <sup>(1)</sup>	-	124 <sup>(1)</sup>	125 <sup>(1)</sup>	125→111 <sup>(1)</sup>	125 <sup>(1)</sup>	125 <sup>(1)</sup>	121 <sup>(1)</sup>	124 <sup>(2)</sup>
	D	-	-	-	-	114 <sup>(3)</sup>	-	-	-	118→102 <sup>(1)</sup>	118 <sup>(1)</sup>	118 <sup>(1)</sup>	114 <sup>(1)</sup>	-
	I mA	100												
	v V <sub>dc</sub>	24												
Hz	-													
$I_c$ mA	70				95				-				130	
	P dB	<1	<3	<3	<1	<3	<1	<1	<3	<1	<2	<2	-	
	$R_{n+1}$	-	-	-	-	-	-	-	>3	>3	>18	>18	-	
	$R_{n+2}$ dB	>40	-	>30	>30	>20	>25	>30	>15	>25	>50	>50	-	
	$R_{n+3}$	-	-	-	-	-	-	-	>20	>50	-	-	-	
Noise figure	NF dB	<9								<9				
AGC	dB	-								30				
Dimensions (Wid x Hei x Dep)	mm	35 x 198 x 107												

(1): EN 50083-5; (2): DIN VDE0855/12; (3):  $d_i = 50$  dB (2 ch. 4 MHz)



### T12 Power supply unit

# T.12



QR-A00126

REF.	DESCRIPTION
549812	Switch-mode PSU

Reference		549812
Mains power (50/60 Hz)	Vac	195 - 264
Output power	Vdc	24
Output current Max	A	2,5
Max Power	W	60
Power consumption AC Max	W	70
Working temperature range	°C	-10 ... +45
Protection index	IP	20
Dimensions (Wid x Hei x Dep)	mm	70 x 198 x 92



▲ 549812

### Cabinets and supports



QR-A00139

REF.	DESCRIPTION
5071	Wall mount 498 mm (PSU + 10 x T12)
5239	Wall mount 560 mm (PSU + 12 x T12)
5301	19" 5U high Subrack (PSU + 10 x T12)
5072	Lockable cabinet 498 mm (PSU + 10 x T12) Dimensions (Wid x Hei x Dep): 610 x 295 x 235
507202	Lockable cabinet with fans 498 mm (PSU + 10 x T12) Dimensions (Wid x Hei x Dep): 610 x 295 x 235
5069	Lockable cabinet 648 mm (1 PSU + 14 T12) Dimensions (Wid x Hei x Dep): 760 x 295 x 235
506901	Lockable cabinet 648 mm (1 PSU + 14 T12) w/Back plate & Link F-F Dimensions (Wid x Hei x Dep): 760 x 295 x 235
5334	Fans unit for Ref 5069 .
5235	Lockable cabinet 948 mm (1 PSU + 22 T12) Dimensions (Wid x Hei x Dep): 1060 x 295 x 235
5333	19" Rack 15U, glass door, fans and wheels Dimensions (Wid x Hei x Dep): 540 x 740 x 400
5331	19" Rack 28U, glass door, fans and wheels Dimensions (Wid x Hei x Dep): 600 x 1400 x 600
5332	19" Rack 37U, glass door, fans and wheels Dimensions (Wid x Hei x Dep): 600 x 1800 x 600
507312	T12 Blank plate 35mm-5U



▲ 5331/5332/5333



▲ 5071/5239



▲ 5334



▲ 5069/506901/5072

▲ 5334



▲ 5301

ACCESSORIES

T12 Accessories



QR-A00039

REF.	DESCRIPTION
5074	T03/T12 RF Link
4221	T03/T12 Power injector



▲ 5074



▲ 4221

Programming unit



QR-A00080

Handheld programmer allowing full configuration of any programmable device such as Avant amplifiers, T0X, T05 modules etc.

- ▶ Featuring built in memory to allow copy & paste of configurations.
- ▶ Backlit display.
- ▶ **Easy of use menus.**
- ▶ RJ45 patch cable included.

REF.	DESCRIPTION
7234	Programming unit



▲ 7234

TSuite control software



QR-A00150

Software allowing the configuration of all programmable products (Except AVANT 3 ).

Including :

- ▶ **TSuite software.**
- ▶ (RS232 - RJ45) Cable from Computer to device.
- ▶ USB - COM (RS232) Adapter (ref. 5838)
- ▶ USB extender cable.

REF.	DESCRIPTION
216801	TSuite control software



▲ 216801

Headend cabinet



QR-A00067

REF.	DESCRIPTION
5750	Headend cabinet 440x440x140mm



▲ 5750

## ACCESSORIES

### Line amplifiers



QR-A00146

- ▶ **Powered through the coaxial cable**, from the receiver or using a power injector.
- ▶ Chassis made of Zamak.
- ▶ **Plastic cases** ref. 4163 (hinged lid) and 4177 (sliding lid) are **weatherproof**, and can be used for mounting these amplifiers in locations like masts, walls, ...
- ▶ "F" connection.

REF.	DESCRIPTION
7485	1i/1o UHF/SAT
4006	1i/1o UHF

Reference		7485	4006
No. of inputs / outputs		1 / 1	1 / 1
Frequency range	MHz	47-862	950-2150
Gain	dB	-2,5	20
Output level	dBμV	-	112,5 <sup>(2)</sup>
Gain adjustment range	dB	-	0-13
Noise figure		-	5,5
Max. current pass Out → In	mA	500	-
Power supply	Vdc	12...18	24
Current consumption	mA	60	28
Dimensions (Wid x Hei x Dep)	mm	100 x 65 x 27	63 x 33 x 22

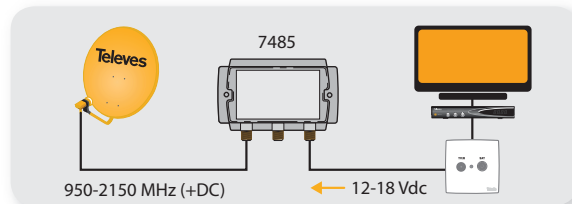
(1): DIN 45004B; (2): 2 tones, -35 dB



▲ 7485



▲ 4006



### Notch filters



QR-A00137

REF.	DESCRIPTION
4162	Notch filter "IEC" BI/FM/BIII/UHF 2 Channels
4007	Notch filter "F" UHF 1 Channel
4163	Weatherproof case, large model (hinged lid)

Reference		4162	4007
Adjustments		2	1
No. of channels		1	2
Insertion losses	UHF	< 1	< 1
	BIII	< 2	-
	FM	< 10	-
	BI	< 15	-
Attenuation	VCn	> 35	15-20
	VCn±1	-	< 3
	VCn±2	< 3	-
Connectors		IEC	F
DC pass		yes	
Dimensions (Wid x Hei x Dep)	mm	74 x 55 x 23	63 x 33 x 22

VC: video carrier; N: channel in tune



▲ 4162



▲ 4007



▲ 4163



ACCESSORIES

Plug-in attenuators

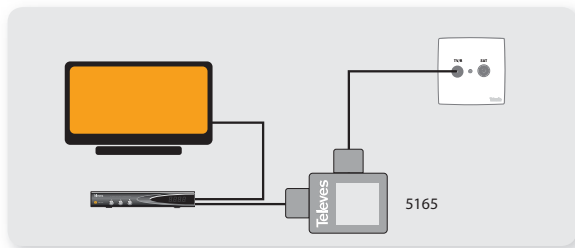


QR-A00135

- ▶ Plug-in male "F" connectors
- ▶ IEC connectors.
- ▶ Chassis made of zamak.

REF.	DESCRIPTION
5165	Adjustable attenuator "IEC" M-F [dc]
4005	Adjustable attenuator "F" M-F [dc]

Reference		5165	4005
Frequency range	MHz	47-862	5-2200
Attenuation margin	dB	0 - 20	
Connectors		IEC	F
Dimensions (Wid x Hei x Dep)	mm	47 x 35 x 19	63 x 33 x 22



▲ 5165



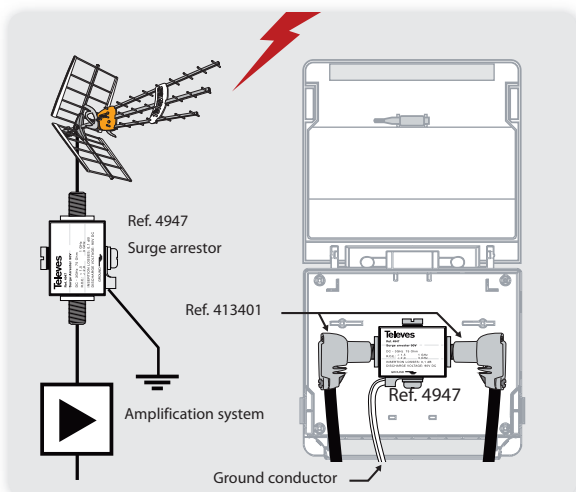
▲ 4005

Atmospheric Surge Arrestor



QR-A00045

REF.	DESCRIPTION
4947	Coaxial Atmospheric Surge Arrestor 90V



▼ 4947

Reference		4947
Frequency range	MHz	0-3000
Insertion losses	dB	0,1
Discharge voltage	V <sub>dc</sub>	90
Connectors	type	F
Impedance	Ohm	75
Dimensions (Wid x Hei x Dep)	mm	72 x 41 x 21

