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smartexperience

# Modular Headend amplifier channel TV and Radio

TV amplifiers single-channels, multichannels, modulators and Sat-IF combiner ready for digital dividend.



High Selectivity



Headend adapted to the  
1st digital dividend



Gain adjustment.  
Interstage attenuators



High output level

**SZB Headend**

### Single-channels and multichannels amplifiers:

- TV single-channel amplifiers, Z input de-multiplexing and Z output multiplexing. Adjacent channel operation allowed in UHF band.
- FM Radio and DAB Amplifiers.
- It is advisable to place the amplifiers on the base-plate following an increasing order of number of channel (frequency). The RF output of the headend will be taken from the last one of the modules ordered in this way.
- Especially created for amplification of combined analog and digital channels.
- Output voltage +24 VDC is automatically connected to the RF modules through a connecting bar at the base-plate.
- Toolless mounting.

### SAT-IF Combiner/Amplifier:

- 1 Satellite input 950-2150 MHz with adjustable gain and sloped response to compensate for cable loss; 1 terrestrial coupling input 5-862 MHz; 1 satellite+terrestrial output
- Automatic power connection, either via contact terminal.
- LNB coax line powering. The SZB-190 generates the required voltage/tone signals for the selection of H/V polarisation and high/low frequency sub-band. Programmable values by micro-switches.

### Power supply:

- Electrical safety protection level: Class II. Mains lead with bipolar plug.
- Output voltage is additionally available from two auxiliary jacks, for connection to one or two power inserters (mast-head amplifier remote powering). Banana jumper supplied.

### Single-channels amplifiers

MODEL		SZB-129	SZB-128	SZB-168	SZB-139	SZB-148 *
REF.		2294	2293	3160	3152	2246
Bandwidth		FM	FM	DAB	1 channel BIII <sup>1</sup>	1 channel UHF <sup>2</sup>
Gain <sup>3,4</sup>	dB	57	30	53	56	52
Noise figure	dB	4	7,5	8	7	9
Output level EN 50083-3, -35dB	dBµV	(2x) 113 IMD -50dB			(2x) 121	
Z output return loss	dB	≥ 6				
Consumption	mA	100	80	100	100	100
Dimensions	mm	190 x 38 x 87				

\* SZB-148 high selectivity. Amplification of one analog or digital UHF channel, either non-adjacent or adjacent.

Each amplifier is packed with 1 Z bridge Ref. 2247

1 Also 1 channel S3 to S18.

2 Also 1 channel S19 to S38.

3 Adjustable -20 dB (-30 dB in SZB-148). Interstage attenuator in all models —maintenance of low noise figure—.

4 Subtract 3.5 dB if Z input demultiplexing is used.

Particular ordering instruction: Specify the TV channel for single-channel amplifiers.

### Multichannels amplifiers

MODEL		SZB-180		
REF.		2248		
Bandwidth		2 UHF channels	3 UHF channels	4 UHF channels
Gain	dB	60		
Noise figure	dB	5		
Output level	dBµV	(2x) 118	(2x) 116	(2x) 115
Z Output return loss	dB	≥ 6		
Consumption	mA	100		
Dimensions	mm	190 x 38 x 87		

1 Adjustable -20 dB. Interstage attenuator —maintenance of low noise figure—. The free output ports need to be terminated using a 75Ω terminator.

### SAT-IF Combiner/Amplifier

MODEL		SZB-190
REF.		1346
Sat-IF band	MHz	950 - 2150
Gain (7 dB fixed slope)	dB	33 (950 MHz) 40 (2150 MHz)
Gain adjustment	dB	18
Output level (IMD -35dB, EN 50083-3)	dBµV	120
Noise figure	dB	< 8
Terrestrial band	MHz	5 - 862
Terrestrial coupling loss	dB	< 1
Operating voltage	Voc	+ 24
Consumption	mA	120
Insertable voltage/tone to Sat-IF input port		+13 / +18 Voc ; 0 / 22 kHz
Max LNB power current	mA	350 (at +18 Voc) / 250 (at +13 Voc)

### Power supply

MODEL		SZB-212
REF.		2228
Regulation type		switch mode
Mains supply voltage (50/60 Hz)	Vac	185 - 264
Output voltage	Voc	+24 (±5%)
Max output current	A	2

### Accessories

MODEL	REF.	DESCRIPTION
BAS-919	2225	Base plate with power connecting bar. Capacity: 1 power supply+8 RF modules SZB; or 9 RF modules
BAS-913	2222	Base plate with power connecting bar. Capacity: 1 power supply + 2 modules
COF-809	2224	Housing for 1 BAS-919. Dimensions: 420 x 346 x 180 mm
PZB-453	2247	Z plug bridge, F connectors. Length: 45.3 mm
CTF-075	2221	Charge 75Ω