

Configurable Line and Distribution Amplifiers

TAL883

REF. 3948

TAL884

REF. 3949

TAL886

REF. 3950

TAL893

REF. 3975

TAL894

REF. 3973

TAL896

REF. 3974

- Aluminium die-cast housing with exceptional cooling characteristics. Weatherproofing IP67 grade and maximum RFI shielding. Stainless steel screws.
- Wall- and strand-fixing.
- Input and output RF connections by 5/8" – 24 UNEF 2A pin connectors.
- Transient protected connection ports.
- Switch-mode power supply with automatic transient protection, output overvoltage protection and current limiting.
- 75 ohms test points on F type connectors.
- Earthing facility.



General Description

The line amplifiers «TAL-800» Series includes line and mains powered models for 862 MHz systems, with three available splits: 30/45 MHz, 42/54 MHz and 66/86 MHz. Advanced GaAsFET amplification technology is used providing excellent output levels at high channel capacities.

The «TAL-800» amplifiers come in a tough housing with drop-down front lid. The RF amplification block and the power supply are modular and can be taken out and replaced, when required, without removing the amplifier from its location and without the need of disconnection. Both modules are available as spare parts. At the bottom of the housing four separate 5/8" cable connections can be located; please note that alternatively both input and main output connections to the amplifier can be made to the side entry ports located at the bottom left and bottom right sides of the housing.

The amplifiers come fully optioned and do not require the purchase of additional modules, with the exception of the ALSC. By simply changing the internal plug-in links to the desired position, the amplifier can be configured to include a splitter or a tap at the input and output ports. Some of the other built in options are: add pre-amplification at the forward path, disable the return path, enable or disable both input and output power passing ports, just to name a few. An Automatic Level and Slope Control module, which will deliver a constant output level over temperature, can be simply plugged into the amplifier module if required.

HEADQUARTER

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Technology		GaAsFET					
Powering Mode		Line			Mains		
Bandwidth - Forward way	MHz	45 – 862	54 – 862	86 – 862	45 – 862	54 – 862	86 – 862
Bandwidth - Reverse way	MHz	5 – 30	5 – 42	5 – 66	5 – 30	5 – 42	5 – 66
Forward way							
Input bypass	dB	-2.7 (if tap is implemented), -4.5 (if splitter is implemented)					
Response flatness	dB	± 0.75					
Nominal gain without input bypass	1 output	27 [37 if preamplification is implemented]					
	2 symmetrical outputs	dB	(2x) 22.5 [(2x) 32.5 if preamplification is implemented]				
	2 asymmetrical outputs	26 and 16 [36 and 26 if preamplification is implemented]					
Nominal gain with input bypass -2.7dB	1 output	16 [26 if preamplification is implemented]					
	2 symmetrical outputs	dB	(2x) 11.5 [(2x) 21.5 if preamplification is implemented]				
	2 asymmetrical outputs	15 and 5 [25 and 15 if preamplification is implemented]					
Nominal gain with input bypass -4.5dB	1 output	22.5 [32.5 if preamplification is implemented]					
	2 symmetrical outputs	dB	(2x) 18 [(2x) 28 if preamplification is implemented]				
	2 asymmetrical outputs	21.5 and 11.5 [31.5 and 21.5 if preamplification is implemented]					
Input attenuat.	without preamplification implemented	dB	0, 3, 6, 9, 12 or 15 (4 cells or 0, 3, 6 and 9 dB)				
	with preamplification implemented	dB	0, 3, or 6 (3 cells of 0, 3, and 6 dB)				
Interstage attenuation	dB	0 to 8					
Input equalization	dB	-6 to 18 (3 cells of -6, -3 and 0 dB, and 1 variable equalizer of 0-18 dB)					
Sloped response	dB	0, 6 or 12 (3 cells of 0, 6 and 12 dB)					
Output level (-60dB IMD3, DIN 45004B)	dBµV	≥ 124 (1 output), ≥ (2x) 119.5 (2 symmetrical outputs), ≥ 123 and 113 (2 asymmetrical outputs)					
Output level (-60dB IMD2, EN 50083-3)	dBµV	≥ 115 (1 output), ≥ (2x) 110.5 (2 symmetrical outputs), ≥ 114 and 104 (2 asymmetrical outputs)					
Output level (-60dB CTB, 42 ch, EN 50083-3)	dBµV	≥ 110 (1 output), ≥ (2x) 105.5 (2 symmetrical outputs), ≥ 109 and 99 (2 asymmetrical outputs)					
Output level (-60dB CSO, 42 ch, EN 50083-3)	dBµV	≥ 114 (1 output), ≥ (2x) 109.5 (2 symmetrical outputs), ≥ 113 and 103 (2 asymmetrical outputs)					
Noise figure	dB	≤ 7					
Input/Output return loss	dB	> 14					
Input test (on internal F port)	dB	-30 ±1					
Output-1 test	dB	-19 ±1					
Test salida-1	dB	-19 ±1					

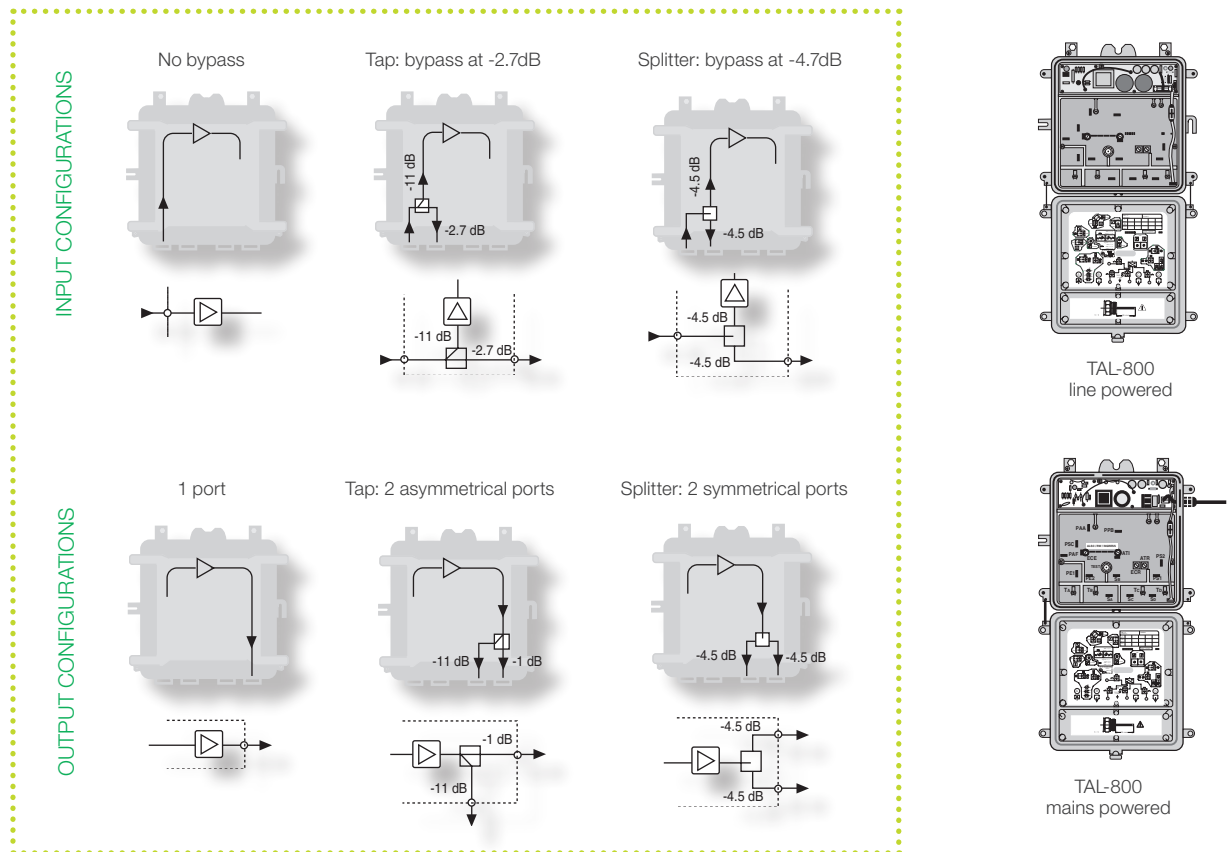
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Reverse Way

Nominal gain	dB	26
Input attenuation	dB	0 to 18
Interstage attenuation	dB	0 or 6 (2 cell of 0 and 6)
Output level (-60dB IMD3, DIN 45004B)	dB μ V	118 (without input bypass)
Output level (-60dB IMD2, EN 50083-3)	dB μ V	106 (without input bypass)
Noise figure	dB	≤ 7
Input/Output impedance	Ω	75
Input/Output return loss	dB	≥ 16
Output test	without input bypass	-30 \pm 1
	with input bypass -2.7 dB	-18 \pm 1
	with input bypass -4.5 dB	-25.5 \pm 1
Test salida (en puerta "F" interna)	sin bypass de entrada	-30 \pm 1
	con bypass de entrada -2,7 dB	-18 \pm 1
	con bypass de entrada -4,5 dB	-25,5 \pm 1

General

Powering voltage	V _{AC}	24 – 90 (line powered models)/100 – 264 (mains powered models)
Consumption	W	21
Maximum AC/DC through current	A	7
Hum modulation, @ 7A	dB	< -70
Screening factor	dB	> 80
Dimensions		215 x 215 x 80
Weight	kg	2,1

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