

Compact Mini Amplifier 93191 Series

Description

The Compact Mini Amplifier type 93191 is a small, cost-effective amplifier in 28 and 36 dB gain versions that address the divergent needs of today's broadband networks. In addition, GaAs-FET technology is utilized for longer system reach and superior distortion performance. A compact design and reduced power consumption enable this mini amplifier to make significant contributions to efficient end-of-line applications.

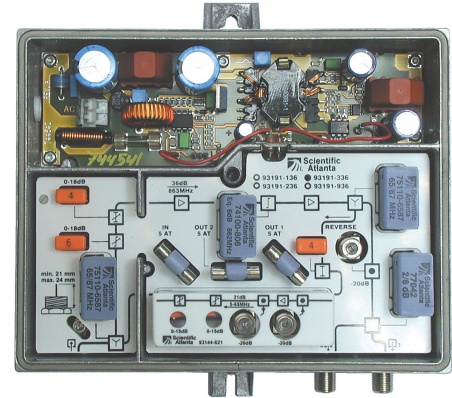
The Compact Mini Amplifiers share common plug-in accessories with the Compact Amplifier Platform to lower your cost of spares. The same plug-in pad is used for both attenuation and equalization, which minimizes the overall number of plug-ins.

Both attenuators and equalizers are plug-in pads with fixed values to provide maximum user friendliness. In case it is necessary to replace the amplifier in the network, this is easily done as the pads are simply moved to the new amplifier.

The amplifier provides a single, high-level forward RF output that can be split to provide two outputs by using an optional splitter/directional coupler plug-in.

The Compact Mini Amplifier 93191 utilizes a reverse amplifier module with push-pull technology, and is equipped with a reverse input attenuator to maximize the cable modem transmitter output levels. The plug-in reverse amplifier module and diplex filters provide a free choice of frequency range.

The Compact Mini Amplifier 93191 is equipped with directional coupler RF test points at the forward output allowing for accurate signal level measurement, and reverse signal injection during setup and alignment. Surge protection is provided for all input and output ports and the mini amplifier are equipped with a double gasket; that includes an RF and a water-dust gasket.

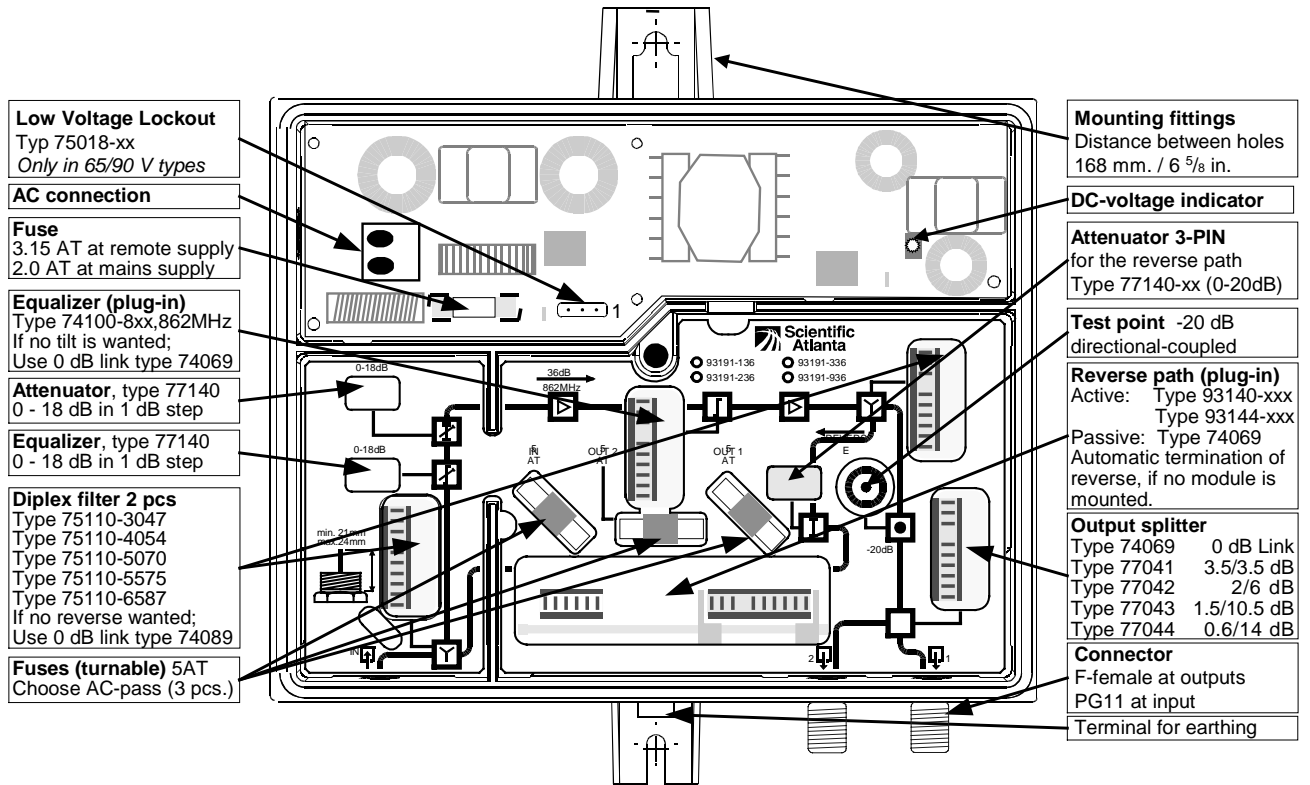


Features

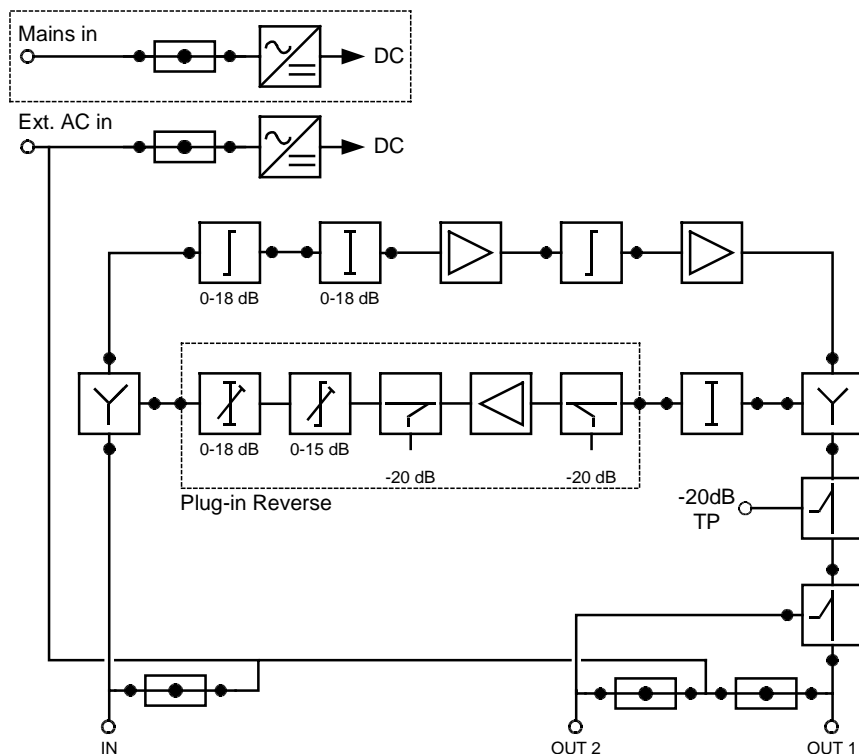
- GaAs-FET gain block technology for improved distortion and lower noise figure
- Optimised for end-of-line applications
- Compact space-saving design
- PG11 at input
- High-level output (a second output is available by means of a splitter)
- Plug-in pads with fixed values
- Plug-in reverse amplifier and diplex filters enable future reverse path upgrades
- Output measuring point for precise setting gives best picture quality
- Transient protection at all inputs and outputs for higher system reliability

Compact Mini Amplifier 93191

Overview 93191



Blok Diagram 93191



Compact Mini Amplifier 93191

Specifications

General Performance	Units	93191-x28	93191-x36	Notes
Forward path	MHz	40 - 862		1
Reverse path	MHz	5 - 80		1
Gain	dB	28	36	
Attenuator, plug-in	dB	0 - 18 (in 1 dB steps)		
Equalizer, plug-in	dB	0 - 18 (in 1 dB steps)		
Output tilt	dB	0 / 3 / 6 / 9		
Number of outputs		2		2
Return loss, 5 - 40 MHz	dB	20		
Return loss, 40 - 862 MHz	dB	20 red. 1.5 / octave		
Passive reverse loss, with 74069	dB	1.8		
Output level: CTB \geq 60 dB, typical	dB μ V	112.0		3
Output level: CSO \geq 60 dB, typical	dB μ V	112.0	116.5	3
Noise figure	dB	\geq 8.5	\geq 7.5	
Electrical				
Remote (coax line)	V AC	24 - 65		
Power consumption, remote powered	W	14.5		4
Current consumption, 24 V AC, fully loaded	mA	< 845		
Current consumption, 40 V AC, fully loaded	mA	< 530		
Current consumption, 60 V AC, fully loaded	mA	< 390		
Max. current, input/output	A AC	3		
Hum modulation, at max. current	dB	< - 65		
Over-voltage protection	μ s	2 kV, 1.2 / 50		
Environmental				
Operating temperature range	$^{\circ}$ C	-20 to + 55		
Enclosure category		IP 64		
Mechanical				
Connectors, input		PG11 (5/8")		
Connectors, output and test point		F		
Housing dimensions excl. mounting fittings	mm	185 W x 145 H x 95 D		
Emission, EN 50083-2	dBpW	< 20		
Screening efficiency	dB	> 85		
Weight	kg	< 2,2		
All specifications are measured with 0 dB link 74089 at the filter connectors.				
Notes:				
1) Frequency range depends on the duplex filters				
2) With plug-in splitter				
3) CTB/CSO is measured with 6 dB pre-equalizer, EN 50083-3.2.				
4) Exclusive active reverse; for active reverse add 1.5 W				

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Ordering Information

Description	Part Number
93191 Compact Mini, 862 MHz, 28 dB, high level output, 65 V, PG11 at input	A93191.11328
93191 Compact Mini, 862 MHz, 36 dB, high level output, 65 V, PG11 at input	A93191.11336

Required Accessories for Compact Mini Amplifier 93191

Below table contains ordering information for required and optional accessories. Please consult your account representative or customer service for ordering assistance.

The following **Required Accessories** must be ordered separately:

Required Accessories	Part Number
Plug-in Pads (attenuators) - Available in 1.0 dB steps from 0 to 20 dB <ul style="list-style-type: none">• 2 required for forward attenuation + equalization• 1 required for reverse input	A77140.00xx A77140.00xx
Plug-in Diplex Filter <ul style="list-style-type: none">• 2 required, xx/yy MHz split	A75110.10xxyy
Plug-in at Interstage - 1 required, chose from below: <ul style="list-style-type: none">• 1 link 0 dB• 1 equalizer x dB	A74069.10 A74100.10xxx
Plug-in Reverse Amplifier <ul style="list-style-type: none">• 1 required x MHz reverse band (passive reverse)	A93140.10x21 or A93144.10x21 A74069.10
Plug-in at output - 1 required, chose from below: <ul style="list-style-type: none">• 1 link 0 dB at output• 1 splitter x/y dB at output	A74069.10 A7704x.10
For more information on the above, see the "Compact Amplifier and Node Accessories" (P/N: A541441) data sheet.	



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