



EDA100 and EDA400 Series Drop Amplifiers

Description

Long recognized as the industry leader in quality drop amplifiers, the Electroline EDA series offers the most complete range of high-quality, low-noise drop amplifier products available on the market. Within the EDA family, the EDA100 and EDA400 series are the most compact versions in the Electroline offering.

Like all of Electroline's drop amplifiers, these compact one-port and four-port versions offer the same performance and standards compliance as all other versions in the EDA family, which operators have consistently relied on since the first gallium arsenide (GaAs) chips were pioneered by Electroline.

Fully compatible with all signal formats, both analog and digital, the EDA100 and EDA 400 series both offer a low-noise figure (3 dB) and very flat (± 0.5 dB) amplification of the downstream, with a passive upstream.

The optional power inserter provides greater flexibility when installing the EDA100 or EDA400 series and can result in configurations that may reduce the amount of coaxial cable required or offer a more discrete and aesthetic installation.

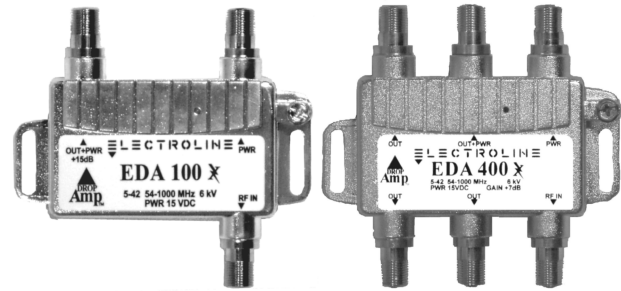
Applications

Today's cable subscriber may have much more than just a simple cable-ready TV set in the home. It is not uncommon to see multiple television sets, set-top boxes, VCRs or other recorders, a cable modem, and so forth.

Since each home has a different set of devices and a different home wiring configuration, you need to evaluate the gain required at the source to be able to provide adequate signal levels to all devices and take into account the presence of splitters and of long cable lengths which reduce the amount of available signal.

The EDA100 one-port drop amplifier is best used in homes where a 15-dB gain is sufficient to provide good signal levels to all the subscriber's devices (TVs, set-top boxes, recorders, etc.), even when this gain is

1-port and 4-Port Amplifiers



The ED400 four-port version is used in homes with a larger number of TVs or other devices requiring amplification. It provides 8.5 dB of gain on each port, which boosts signal levels on each device that is serviced by a dedicated port.

The Electroline Advantage

Being in first place is one thing – staying there is another. Electroline's pioneering experience in drop amplifier technology has meant continually making improvements to each new member of the EDA family, whether it be for more compact footprints, a greater number of ports or reverse path applications. Electroline uses field-proven gallium arsenide integrated circuits and builds surge protection into each unit, thus setting the industry standard for quality and performance.

Features

- Fully compatible with all digital and analog signal formats, forward and reverse
- Proven quality with over 1 million EDA products deployed
- Noise factor of 3 dB
- 6 kV surge protection on all outputs
- Weatherproof housing
- Sealed, 360° contact STCE-compliant F connectors
- Overload protection on wall outlet power adapter
- Operating temperature range -40 to $+60^{\circ}\text{C}$

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EDA100 and EDA 400 Series

Specifications - Electrical

Specification	EDA100 1-port	EDA400 4-port
Forward Passband	54-1000 MHz	54-1000 MHz
Return Passband	5-42 MHz	5-42 MHz
Forward Gain	15 dB	8.5 dB
Forward Flatness	± 0.5 dB	± 0.8 dB
Reverse Insertion Loss	1.3 dB max.	8.2 dB max.
Reverse Flatness	± 0.5 dB	± 0.5 dB
Return Loss (all ports)	20 dB (typ.); 18 dB (min.)	20 dB (typ.); 18 dB (min.)
Composite Second Order (CSO) (See Note)	-62 dBc	-62 dBc
Composite Triple Beat (CTB) (See Note)	-74 dBc	-74 dBc
Cross-modulation (XMOD) (See Note)	-75 dBc	-75 dBc
Noise Figure	3 dB (typ.) , 4 dB (max.)	3 dB (typ.) , 4 dB (max.)
Forward Band Group Delay (3.58 MHz span) :	Channel 2 Channel 3 Other channels	20 ns (max.) 10 ns (max.) 5 ns (max.)
Reverse Band Group Delay (1 MHz span):	5-42 MHz 10-36 MHz	20 ns (max.) 5 ns (max.)
Hum Modulation	-70 dBc	-70 dBc
RFI Isolation	100 dB	100 dB
PWR to RF IN Isolation	80 dB typ.	80 dB typ.
Port-Port Isolation :	7-42 MHz 54-1000 MHz	N/A N/A
DC Power Requirement	12 V - 18 V, 200 mA (max.)	12 V - 18 V, 200 mA (max.)
Operational Temperature Range	-40°C to +60°C	-40°C to +60°C
Surge Protection (IEEE C62.41-1991):	In/Out ports Power Adapter	Combination Wave 6 kV loc. B3 Combination Wave 6 kV loc. B3

Note: Tested with 77 channels at input levels of +10 dBmV (flat), and 200 MHz of broadband noise from 590 to 790 MHz at 6 dB below video carrier.

Specifications - Mechanical

Housing	Zinc alloy casting, weatherproof, tin plated
Mounting slots spacing (for #8 screws)	3.50" (88.9 mm)
Dimensions (including connectors)	3.89" X 3.51" X 0.85" (98.9 mm X 89.2 mm X 21.5 mm)
Weight:	EDA100 0.40 lb (0.182 kg) EDA400 0.49 lb (0.220 kg)
F connectors	SCTE IPS-SP-400 compliant, sealed, 360° contact, 0.44 lb (200 g) contact retention force (min.)

Model Designations

Model	Description
EDA100	One output amplifier with 5-42 MHz passive return path.
EDA101	One output amplifier with 5-42 MHz passive return path. Includes power inserter module.
EDA400	Four output amplifier with 5-42 MHz passive return path.
EDA401	Four output amplifier with 5-42 MHz passive return path. Includes power inserter module.

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