

LD SERIES

LD1.0/2.0/3.0

Simple loop driver
Class D Amplifier



LDx.0 amplifiers from Opus Technologies are next generation induction loop Class-D amplifiers. The one channel amplifiers offer all the functionalities (AGC, MLC, compressor, etc) to ensure room installations up to 250m² (LD1.0), 450m² (LD2.0) or 1000m² (LD3.0).

Thanks to high frequency switching mode proprietary solutions, the amplifiers are one of the most compact on the market and do not need any active cooling. They include a LEDs indicator fault synthesis on the driver's front panel to control the integrity of both loop and amplifier. Informations can be deported thanks to a dry contact relay.

The high-grade power supply and output voltage capability (48Vpk) ensure outstanding sound quality with high dynamic and extremely low distortion.

The amplifiers can also be used in a low diaphonic phased loop system or an ultra high coverage system with a built-in 90 ° or 0 ° phase shift module (2 amplifiers).

Amplifiers have been developed with strict and rigorous specifications that allow us to offer a 5 year warranty and meet the IEC 60118-4. LD1.0, LD2.0, LD3.0 amplifiers follow strict specifications required for UL compliance.

- ✓ One channel amplifier
- ✓ High frequency switching mode
- ✓ Efficiency up to 92%
- ✓ Natural cooling
- ✓ AGC: Automatic Gain Control optimized for speech
- ✓ 3 inputs with selectable gain
- ✓ 70/100V priority alarm input
- ✓ Phantom supply for microphone
- ✓ Slave amplifier input, output and 90° dephased output
- ✓ Adjustable metal losses correction
- ✓ 1U wall mounting available
- ✓ Compact and light
- ✓ 5-Year warranty
- ✓ LEDs indicator
- ✓ Relay fault synthesis
- ✓ IEC 62368/UL compliant
- ✓ Over current, over temperature and short circuit protections



Coverage

Cover meets the IEC 60118-4 standard

Loop	No metal loss			Moderate metal loss			High metal loss		
	Perimeter loop	Single array in 8	Low overspill*	Perimeter loop	Single array in 8	Low overspill*	Perimeter loop	Single array	Low overspill*
LD1.0	250m ² (10x25m)	450m ² (15x30m)	450m ² (15x30m)	130m ² (10x13m)	180m ² (10x18m)	450m ² (15x30m)	Use Multi Loop Systems LDx.2 and/or Contact us		
LD2.0	450m ² (15x30m)	650m ² (20x32,5m)	650m ² (20x32,5m)	160m ² (10x16m)	280m ² (8x35m)	650m ² (20x32,5m)			
LD3.0	1 000m ² (16x62m)	1 400m ² (35x40m)	1 400m ² (35x40m)	250m ² (10x25m)	360m ² (10x36m)	1 400m ² (35x40m)			

*with 2 amplifiers

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	LD1.0	LD2.0	LD3.0
Coverage surface	250 m ² (10*25 m ²)	450 m ² (15*30 m ²)	1000 m ² (20*45 m ²)
Power input			
Voltage	100-240Vac, 50-60Hz	100-240Vac, 50-60Hz	100-240Vac, 50-60Hz
Consumption at idle with 1Ω loop connected	9W at 230Vac and 25°C ambient temperature	9W at 230Vac and 25°C ambient temperature	9W at 230Vac and 25°C ambient temperature
Nominal power consumption at 1Ω	25W	50W	90W
Maximum power consumption	<250 VA	<300 VA	<350 VA
Connector	IEC C13	IEC C13	IEC C13
Audio input			
Input channels with separated adjustable gain	Input 1: 70/100V signal (priority signal) Input 2: Microphone or line Input 3: Microphone or line	Input 1: 70/100V signal (priority signal) Input 2: Microphone or line Input 3: Microphone or line	Input 1: 70/100V signal (priority signal) Input 2: Microphone or line Input 3: Microphone or line
Phantom supply	Available on microphone inputs: 12V	Available on microphone inputs: 12V	Available on microphone inputs: 12V
Sensitivity	- Microphone: -50 dB - Line: -10 dB - 100V: +40 dB	- Microphone: -50 dB - Line: -10 dB - 100V: +40 dB	- Microphone: -50 dB - Line: -10 dB - 100V: +40 dB
Connector	MTSB terminal block and/or Combo Neutrik for input 3	MTSB terminal block and/or Combo Neutrik for input 3	MTSB terminal block and/or Combo Neutrik for input 3
Audio output			
Loop impedance	0.5 Ω to 3 Ω	0.5 Ω to 3 Ω	0.5 Ω to 3 Ω
Max output current	5 Arms, 7 Apeak	7.5 Arms, 10Apeak	10 Arms, 14Apeak
Max output voltage	34 Vrms, 48 Vpeak	34 Vrms, 48 Vpeak	34 Vrms, 48 Vpeak
THD	<0.5% at nominal output current, 1Ω loop, -3 dB	<0.5% at nominal output current, 1Ω loop, -3 dB	<0.5% at nominal output current, 1Ω loop, -3 dB
Bandwidth	80 Hz to 9.5 kHz, -3 dB	80 Hz to 9.5 kHz, -3 dB	80 Hz to 9.5 kHz, -3 dB

	LD1.0	LD2.0	LD3.0
Audio output			
Dynamic	>36 dB	>36 dB	>36 dB
Metal loss correction	0 to 3dB per octave filter	0 to 3dB per octave filter	0 to 3dB per octave filter
Connector	MTSBA terminal block	MTSBA terminal block	MTSBA terminal block
Slave Amplifier			
Input / outputs	One input, one direct output and one 90° dephased output	One input, one direct output and one 90° dephased output	One input, one direct output and one 90° dephased output
Connectors	Jack 6.35 mm	Jack 6.35 mm	Jack 6.35 mm
LEDs indicator			
« Power »	Switched on when module powered	Switched on when module powered	Switched on when module powered
« Protect »	Switched on when signal clipping, too high temperature reached or in case of loop failure		
« Loop »	Switched on when the loop is in working conditions	Switched on when the loop is in working conditions	Switched on when the loop is in working conditions
« Clip »	Switched on when signal clipping	Switched on when signal clipping	Switched on when signal clipping
Vu meters « Input »	Input signal level after ajustement	Input signal level after ajustement	Input signal level after ajustement
Vu-meters « output »	Percentage of maximum current drawn	Percentage of maximum current drawn	Percentage of maximum current drawn
NO/NC fault relay synthesis (contact closed once one fault is detected)			
Detected faults	Too high temperature raised and loop failure	Too high temperature raised and loop failure	Too high temperature raised and loop failure
Maximum electrical rating	0.5A/125Vac or 1A/24Vdc	0.5A/125Vac or 1A/24Vdc	0.5A/125Vac or 1A/24Vdc
Connector	MTSB terminal block	MTSB terminal block	MTSB terminal block
General			
Protections	Over current, over temperature, short circuit	Over current, over temperature, short circuit	Over current, over temperature, short circuit
Operating temperatur	0 to + 45°C	0 to + 45°C	0 to + 45°C
Storage temperature	-30 to +70°C	-30 to +70°C	-30 to +70°C
Size	42x200x215 mm / 1.6x7.9x8.5 inch	42x200x215 mm / 1.6x7.9x8.5 inch	42x200x215 mm / 1.6x7.9x8.5 inch
Weight	1,56kg / 3,43lbs	1,56kg / 3,43lbs	1,56kg / 3,43lbs