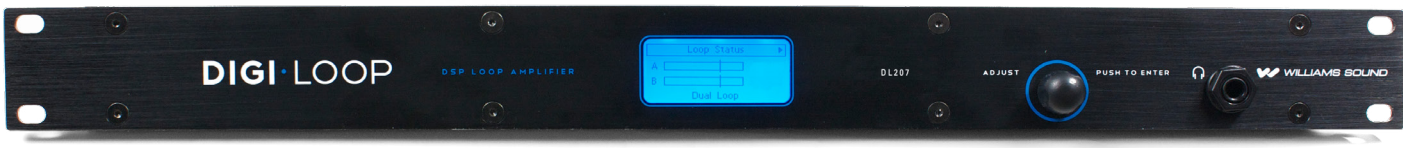
WILLIAMSSOUND

SPECIFICATION DATA

Corporate Venues • Performing Arts • House of Worship • Event Rooms • Conference Rooms • Education

DL107 NET, DL107 NET D
DL207 NET, DL207 NET D

Digi-Loop™ Medium-area single and dual-output loop amplifiers



Digi-Loop is definitely state-of-the-art – the first of its kind to maximize modern amplifier technology. Its network-control capability provides seamless, remote system set-up, operation and monitoring via laptop or tablet. DSP audio processing offers flexible, powerful software control of mixing, equalization, compression and more. Powerful Class D, pulse-width amplifiers maximize efficiency.

The Digi-Loop's amplifier design offers either single or dual 9.5 A rms loop outputs for perimeter loop(s), single array(s), dual loop, or phased-array configuration. A 70-100 V input provides connection to a distributed speaker/paging system, ensuring announcements are heard by loop users.

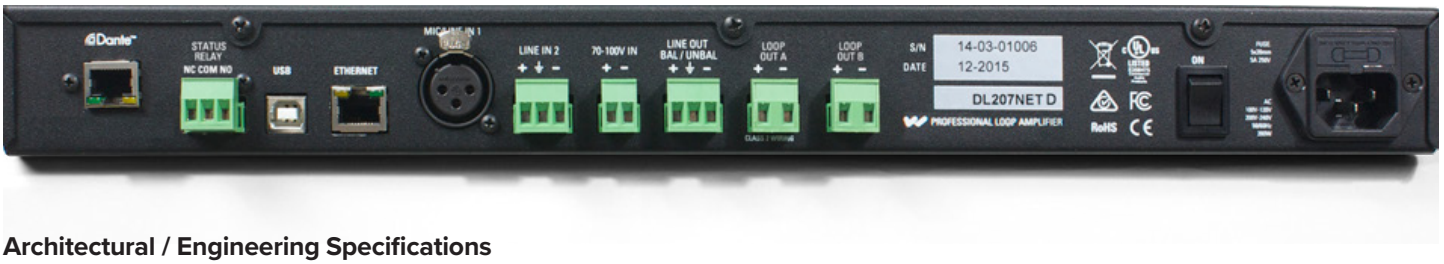
FEATURES / BENEFITS

- Network control - allows control and calibration of unit remotely with application software
- High continuous current 9.5 A_{rms} (13.4 A_{pk}) per output continuous
- LCD Screen with VU metering, easy one-button menu control
- DSP Audio Processing
- Dante™ Input ("D" models)
- USB for firmware updates
- Input mixing, parametric equalization, compression, metal loss compensation, high and low-pass filters, AGC and audio delay
- Power-save mode
- Adjustable output delay for multiple amps in large venues
- Fault warning and active protection against shorted or open circuits and overheating
- Loop fault relay output
- XLR and 3-position terminal block input configurable as microphone input or line-input, balanced or unbalanced.
- Standard 1 RU, 19" rackmount
- Magnetic signal couples directly to devices equipped with telecoils (T-coils) such as hearing aids, cochlear implants, or optional loop receivers.
- DL207 suitable for phased-array or dual-loop systems; DL107 suitable for perimeter loop or single array.
- Phased-array mode automatically produces 90° phase shift in slave loop output
- Meets IEC 60118-4 system performance requirements when integrated into a correctly designed and installed system.
- Test specification provided to IEC 62489-1 standard.
- Meets ADA / ADAAG guidelines.

Digi-Loop™ Medium-area single and dual-output loop amplifiers

Rear View - DL107 NET D

Rear View - DL207 NET D



Architectural / Engineering Specifications

The loop amplifier shall have a RJ-45 ethernet jack to provide configuration capability over an ethernet (10 base T) network.

It shall have an optional RJ-45 Dante ethernet jack (“D” models only).

It shall have a USB jack to provide firmware upgrades to the amplifier using a computer.

It shall have one MIC/LINE LEVEL XLR 3-pin input, balanced or single-ended, with 24 V phantom supply in microphone mode.

It shall have one LINE LEVEL 3-pole terminal block input, balanced or single-ended.

It shall have a configurable PRIORITY INPUT function.

It shall have a 70-100 V, 2-pole terminal block input, to provide a high/speaker-level input connection for use with distributed speaker systems.

It shall have an internal frequency generator for calibration providing 100 Hz, 500 Hz, 1 kHz, 2.5 kHz and 5 kHz tones, and Pink Noise.

It shall have one LINE OUTPUT, balanced or single-ended to provide loop-through connections for line level signals going to other equipment such as recording devices or additional loop amplifiers.

There shall be four model options: single-output, dual-output, single output with Dante™ input, and dual-output with Dante™ input.

It shall have a 1/4” Headphone jack on front panel for monitoring of inputs or outputs, selectable in the menu.

It shall have a loop fault relay (NC,NO) output for triggering external systems when a loop fault occurs.

It shall provide an output drive voltage of up to 16.1 V_{rms}, 22.8 V_{pk} per output.

It shall provide an output current of up to 9.5 A_{rms}, 13.4 A_{pk} per output.

It shall have a front control interface consisting of a backlit LCD screen and control button/dial.

It shall have adjustable settings for input mixing, parametric equalization, compression, frequency-shaping, metal loss compensation, high and low-pass filters, AGC and audio delay.

It shall display warnings for LOOP FAULT (open loop, shorted loop or out of impedance range), OVER TEMP, and CLIPPING. It shall have protection against loop faults and overheating (amplifier shuts down).

It shall be controllable by devices such as a Windows Surface Tablet, or PC, with PC App software installed.

It shall be compatible with either US or international power systems with the appropriate power cord.

Performance shall meet IEC 60118-4 system performance requirements when loop system is designed and installed correctly.

Specifications/testing shall conform to IEC 62489-1 benchmark testing standards

The ***single-output*** loop amplifier shall be the Williams Sound model **DL107 NET**.

The ***dual-output*** loop amplifier shall be the Williams Sound model **DL207 NET**.

The ***single-output loop amplifier with the Dante input*** shall be the Williams Sound model **DL107 NET D**.

The ***dual-output loop amplifier with the Dante input*** shall be the Williams Sound model **DL207 NET D**.

Digi-Loop™ Medium-area single and dual-output loop amplifiers

DL107 NET, DL107 NET D, DL207 NET, DL207 NET D Specifications:

GENERAL	
Dimensions	1 RU Rackmount, 19” W x 1.75” H x 10” D. Chassis is 17” W.
Weight	DL107: 9.2 lbs (4.2 kg) DL207: 9.2 lbs (4.2 kg)
Color	Case: Black, white and blue legends on front, white legends on back. LCD: Backlit Blue.
Fan cooling	Variable Speed, Temperature Controlled
Power supply	Internal, Universal 100-240 VAC, 50/60 Hz, 200 Watt. Fuse: 5 x 20 mm, 5 A, 250 V. AC power plug is IEC 320-C14.
Heat output @ 120 VAC	**DL107** : Sleep State: 63 BTU/hr; Idle State: 71 BTU/hr; Driving one loop @ 9.5 A: 339 BTU/hr
	DL207: Sleep State: 63 BTU/hr; Idle State: 84 BTU/hr; Driving two loops @ 9.5 A each: 638 BTU/hr
Ethernet	(1x) RJ-45; 10-100 MBps.
USB	(1x) standard-B. USB 1.1, 2.0 or 3.0 supported.
Environment	0-35° C (32-95° F), 0-90% relative humidity,
Coverage area*	**DL207** (dual output amplifier): 30,000 sq. ft. (2,786 sq. m.) (Perimeter Loops, 3:1 aspect ratio, both outputs driven) 18,000 sq. ft. (1,672 sq. m.) (Perimeter Loops, 1:1 aspect ratio, both outputs driven)
	DL107 (single output amplifier): 15,000 sq. ft. (1,393 sq. m.) (Perimeter Loop, 3:1 aspect ratio) 9,000sq. ft. (836 sq. m.) (Perimeter Loop, 1:1 aspect ratio)
INPUTS	
Dante input	On “D” models only. (1x) RJ-45;100 Mbps. Minimum latency: 2 ms. Audio sample rates supported: 44.1, 48 kHz. Resolution: 24 bits.
Line inputs	(1x) 3-position terminal block, 10 kΩ input impedance. Configurable/accepts -10 dBV, -4 dBu, +4 dBu, +8 dBu, balanced or unbalanced. Level adjustable 0 to -96 dB.
Mic/Line inputs	(1x) XLR 3-pin jack. Input impedance: 1.5 kΩ Mic, 10 kΩ Line. Configurable/Accepts: Mic, Line -10 dBV, Line +4 dBu, or Line +8 dBu, balanced or unbalanced. Phantom supply (24V).
70-100 V input	(1x) 2-position terminal block; high/speaker-level input (accepts 25 V, 70 V or 100 V) from distributed audio/paging systems.
OUTPUTS	
Line outputs	(1x) 3-position terminal block; loop-through of Mic/Line Input 1 & Line Input 2, +4 dBu, Balanced or Unbalanced. The line outputs mirror the audio of the loop output.
Loop output(s)	(1x) 2-position terminal block per output
Audio output delay	Adjustable from 0 to 165 msec
Headphone output	(1x) 1/4” stereo headphone jack, on front of unit. Monitored input or output selectable in menu.
Loop fault relay	(1x) 3-position terminal block providing NC, NO and Common. Contact rating: 2.0 A @ 30 VDC.
Loop output drive voltage	16.1 V_{rms} (22.8 V_{pk}) continuous
Rated loop output current*	9.5 A_{rms} (13.4 A_{pk}) per output
Loop resistance range	0.5 Ω to 3.0 Ω (DC)
AUDIO	
Rated load*	0.5 Ω DC with 135 µH inductance
Frequency response	45 Hz to 9.0 kHz ± 2 dB (1 kHz ref.)
Rated loop THD*	<1 % at rated output current (1 kHz sine wave).
OTHER	

*Test Specifications provided to the IEC 62489-1 standard.

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

DL107 NET, DL107 NET D, DL207 NET, DL207 NET D Specifications (continued):

Front controls	Front LCD display menu access/adjustment via control button/dial.
Adjustable settings	Input mixing, parametric equalization, compression, metal loss compensation, high and low-pass filters, AGC and audio delay, output levels. See User Manual for adjustment range(s).
Internal calibration tools	Test tone generator with pink noise, loop current adjustment/matching. See User Manual for details.
Other features	Save/load configuration, loop test, priority input selection with adjustable threshold, loop fault relay, open/short and thermal protection. See User Manual for details.
Network control & firmware	Function control and calibration by DigiLoop PC App via ethernet (RJ-45). PC App requires Windows 7 or higher. Firmware updates through USB only.
Warranty	5 years
Approvals	CE, UL, ULC, FCC, Industry Canada, RoHS, WEEE, CB scheme, RCM
Standards compliance	This product is designed to meet the IEC-60118-4 standard when correctly designed, installed and commissioned. Test Specifications provided to the IEC 62489-1 standard.

*Test Specifications provided to the IEC 62489-1 standard.

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Domestic Sales
Williams AV
10300 Valley View Rd
Eden Prairie, MN 55344
Ph: 800-328-6190 / 952-943-2252
FAX: 952-943-2174
Email: info@williamsav.com
Web: www.williamsav.com

International Sales
International Sales Department
Williams AV
10300 Valley View Rd
Eden Prairie, MN 55344 USA
Phone: +1 952 943 2252
Fax: +1 952 943 2174
Email: info@williamsav.com
Web: www.williamsav.com

WILLIAMSAV
info@williamsav.com / www.williamsav.com
800-843-3544 / INTL: +1-952-943-2252

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