

APPLICATIONS

- > Structure Health Monitoring
- > Wideband low voltage piezo driver

KEY FEATURES

- > Wideband amplifier
- > Pulse/Echo
- > Pitch/Catch

RELATED PRODUCT

- > Piezo patch
- > Rack RK84F4U-LWDS



SPECIFICATIONS

> Preliminary data

PARAMETER	TYPICAL VALUE	UNIT
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> General

Function	Driver for piezoelectric patches	
Number of channels	4	

> Input

Control Input voltage	-5 ...+5	V
Control Input impedance	10	kΩ

> Output

Output voltage	-15 ...+15	V
Continuous peak output current (1)	440	mA
Transient peak output current (2)	1000	mA

> Power amplifier

Peak output power (3)	15	W
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> Gain

Gain	3	V/V
Gain error	±1	%
Gain linearity error	0,01	%

> Dynamic performance

Small signal bandwidth (-3dB) (4)	1,5	MHz
THD	0,1	%

> Noise performance

Signal to Noise Ratio (5)	100	dB
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ANNOTATIONS

Guaranteed in labs environment. All values are typical.

(1) Electronically limited

(2) With EPC Enhanced Peak Current - During 5.15ms, 10ms cooldown, refer to user manual for more information.

(3) Max. instantaneous output power = $\max(p(t)) = \max(u(t) \times i(t))$, with EPC.

(4) Unloaded

(5) Computed as RMS output signal / RMS output Noise floor. [1; 100]kHz

MISCELLANEOUS

PARAMETER	TYPICAL VALUE	UNIT
Mass	0,46	kg
Front face dimension	8F wide, 3U high	
Cooling	Passive cooling	
Warm up time	15	min
Cooling	Natural Convection	
Operating temperature range	0 ... 40	°C
Storage temperature range	-10 ... 50	°C

INTERFACES

- > **Order input** BNC
- > **Piezo actuator Output** MCX

OPTIONS

- > **Interface Board** Add an Emission-to-Reception switching and a signal conditioning, allowing the Pulse/Echo capability for the 16 first channels (see Schematics)

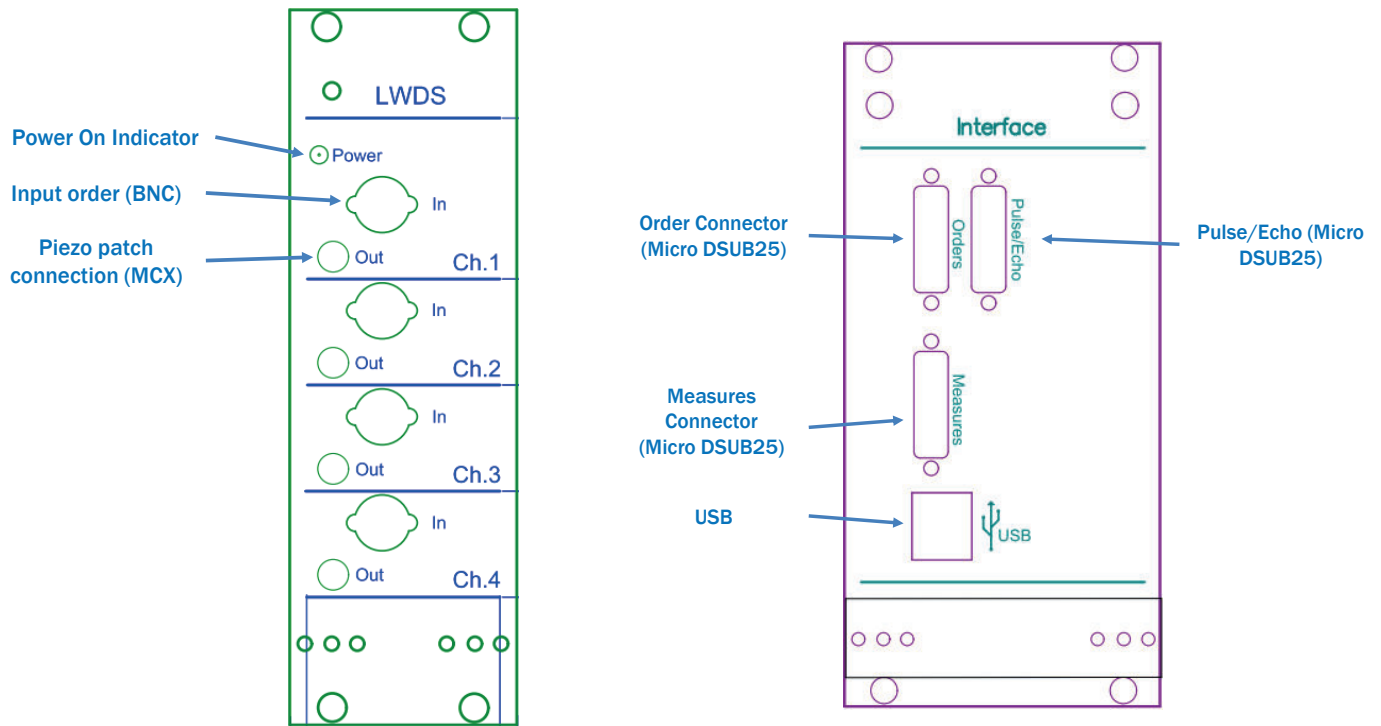
PARAMETER	TYPICAL VALUE	UNIT
Programmable Gain Conditionner	1, 10, 100	V/V
Output connector	Micro DSUB 25	

> Pulse / Echo Mode

PARAMETER	TYPICAL VALUE	UNIT
Pulse to Echo mode delay	1	µs
Echo to Pulse mode delay	0,8	µs
Trigger typical voltage	3.3 ... 5	V

- > **Piezo cable** Specific length on request
Please contact CTEC for more detail

DRAWINGS



SCHEMATIC

