T Series

2/4-Channel High-Performance Amplifier Platform with DSP and Dante™

☑ Touring
☐ Installation

2 or 4 channels

SRM

PFC

DSP onboard

channel routing

Armonía+Plus System Manager

Dante™

The T Series is a very flexible and cost effective amplifier platform loudspeaker processor. The range consists of 2 and 4 channel models supporting channel powers from 750 W to 3000W.

All models deliver the same high peak voltage allowing high SPL with single 8/16 ohm cabinets on all models. The high voltage is also good for sharing power between the channels for applications such as bi-amped loudspeakers or subwoofers with passive tops.

The amplifiers feature input via Dante, AES3 and analog. The Dante and AES3 solutions are optimized for daisy-chained distribution of 2-channel audio for distribution to many amplifiers without the need for external switches/repeaters/splitters. A simple Dante system has a daisy chain with the mixing console at one end and a WiFi access point at the other end and the amplifiers in-between.

The loudspeaker processing sets a new benchmark for cost-effective amplification for small and medium sized systems and stage monitors.

The T Series can be controlled and configured in different ways.

- Full control with a PC running Armonía. Here it can be in mixed groups with advanced EQ together with other Powersoft products.
- Control from the front panel display for things like preset recall (also per output), gain, delay, mute. This makes it very easy to use for small systems in a rental company. The display also shows the available headroom with easy to read numbers in dB as well as other status monitoring.
- Web app. Use any device with a browser (e.g. a tablet) and access the amplifier via an external WiFi access point to control EQ etc.

- Group controllable advanced EQ with raised cosine filters
- Large preset library
- Preset compatibility with X Series
- Very long FIR filters (42.6 ms)

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Powersoft AUDIO

T Series

2/4-Channel High-Performance Amplifier Platform with DSP and Dante™

Specifications

Channel Handling	T302 - T602	T304 - T604
Number of output channels	2 (2 Speakon NL4)	4 (2 Speakon NL4)
	(bridgeable per channel pair)	
Number of input channels		
Analog	2 XLR (female) 2 XLR LINK (male)	4 XLR (female)
Digital	AES3 - 1 XLR (female) LINK - 1 XLR (male)	

Audio	Gain	T302	T602	T304	T604	
Input sensitivity @ 8 Ω	32 dB	2.57	2.57	2.57	2.57	Vrms
S/N (20 Hz - 20 kHz @ 8 Ω)		>110	>110	>110	>110	dB(A)

Max input level	24 dBu
Frequency Response	20 Hz - 20 kHz +/-0.5 dB
Crosstalk (1 kHz)	<-70 dB
Input impedance	20kΩ Balanced
CMRR	>65 dB
THD+N (from 0.1 W to Half Power)	< 0.1% (typical < 0.05%)
SMPTE IMD (from 0.1 W to Half Power)	< 0.1% (typical < 0.05%)
Output impedance at 100 Hz	26 mΩ

DSP	
AD converters	24 Bit Tandem™ @ 48 kHz 125 dB-A Dynamic Range - 0.005 % THD+N
DA converters	24 Bit Tandem™ @ 48 kHz 117 dB-A Dynamic Range - 0.003 % THD+N
Sample rate converter	24 Bit @ 44.1 kHz to 192 kHz 140 dB Dynamic Range - 0.0001 % THD+N
Internal precision	32 bit floating point
Latency	2.5 ms fixed latency architecture
Memory/Presets	256 MB (RAM) plus 512 MB flash for presets
Delay	2 s (input) + 100 ms (output) for time alignment
Equalizer	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Crossover	linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters	TruePower™, RMS voltage, RMS current, Peak limiter
Damping control	Active DampingControl™ and LiveImpedance™ measurement

	Output Stage	T302	T602	T304	T604
Maximum output power	per channel @ 8 Ω (symmetrical)*	1200 W	1300 W	750 W	1250 W
	per channel @ 4 Ω (symmetrical)*	1500 W	2500 W	750 W	1500 W
	per channel @ 2 Ω (symmetrical)*	1500 W	3000 W	750 W	1500 W
	per channel @ 8 Ω (asymmetrical)**	1300 W	1400 W	1200 W	1250 W
	per channel @ 4 Ω (asymmetrical)**	2200 W	2500 W	1200 W	2100 W
	per channel @ 2 Ω (asymmetrical)**	1600 W	3800 W	1200 W	1600 W
	@ 4 Ω Bridged	3000 W	6000 W	1500 W	3000 W
	@ 8 Ω Bridged	3000 W	5000 W	1500 W	3000 W
Maximum unclipped output voltage		145 V_{peak}	145 V_{peak}	145 V_{peak}	145 V_{peak}
Maximum output current		50 A_{peak}	100 A_{peak}	50 A_{peak}	50 A_{peak}

*Calculated by driving and loading symmetrically all the channels.
**Calculated by driving all channels, but with every second channel at -6dB

Power & Thermal			T302	T602	T304	T604	
@ 120 V	Standby	Power	13.5	15	15	15	W
	Idle	Power	23	32	32	32	W
	1/8 Power @ 4Ω	Power	517	824	532	1054	W
		Current Draw	4.6	7.6	4.7	9.5	A_{rms}
		Thermal Loss	485	678	537	1039	BTU/h
@ 230V	Standby	Power	14	16	16	16	W
	Idle	Power	23	32	32	32	W
	1/8 Power @ 4Ω	Power	527	839	525	1027	W
		Current Draw	2.7	4.3	2.7	5.2	A_{rms}
		Thermal Loss	517	731	512	944	BTU/h
Power supply			Universal regulated switch mode with PFC, SRM				
Nominal voltage (±10%)			100-240 VAC @ 50-60Hz				
Operating Voltage			90-264 VAC @ 50/60 Hz				
AC Mains connector			IEC C20 inlet (20 A max) region-specific power cord provided				

Networking	
Standards compliance	auto sensing Gigabit Ethernet IEEE 802.3ab
Supported topologies	Star
Remote interface	Armonía Pro Audio Suite™

Construction	T302	T602	T304	T604
Dimensions	484 x 405 x 44.5 mm (19 x 16 x 1.75 in)			
Weight	6.7 kg	7.5 kg	7.1 kg	7.5 kg

2 Channel - T302, T602

4 Channel - T304. T604

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