Ottocanali 1204 DSP+ETH



8-Channel Power Amplifier with DSP and Ethernet for Lo-Z & Hi-Z Installations

PRELIMINARY



Touring Installation



- Multi-zone venues, incl. smaller rooms in large scale installations
- Emergency systems (IEC 60849)
- Themed entertainment, amusement parks, shopping malls
- Cruise ships
- AV systems, board rooms
- Houses of worship
- Theaters, auditoriums
- Conference & learning centers
- Hotels, restaurants, bars

Ultimately flexible and safe, with a wide range of system control and monitoring capabilities as well as sound shaping options, and a total of up to 1,280 watts output power over 8 amplifier channels for Io-Z or constant voltage systems, all neatly packed into a single rack unit. As 'stand-alone' in corporate board rooms, or along with Powersoft Duecanali models in the largest setups, the **Ottocanali 1204 DSP+ETH** fits any venue.

Powersoft's legendary efficiency saves space and - more importantly - valuable energy, keeping both operational cost and 'carbon footprint' at a minimum. Ancillary technologies, such as the integrated DSP platform and the supercompact BatFormers^{®1}, both developed specifically for the **Ottocanali 1204 DSP+ETH**, are adding immense practical value during system design, installation and use, resulting in substantial savings at any level.

Compliant with IEC 60849, and on par with the Duecanali Series, the Ottocanali 1204 DSP+ETH matches the crucial requirements for sound systems for emergency purposes.

The **Ottocanali 1204 DSP+ETH** is unprecedented in combining efficiency, performance and adaptability.

I) BatFormers are optional, and can be retrofitted anytime.







| 8-channel mode | | | mono-bridged mode | | |
|----------------|----------|------------------------|----------------------|-----------------------|--|
| 4 Ω | 8 Ω | 70/100 V ^{I)} | 8 Ω / ch pair | 16 Ω / ch pair | |
| 8 x 160 W | 8 x 80 W | 8 x 130 W | 320 W | 160 W | |

I) With BatFormer® inserted per channel.

EIAJ Test Standard, I kHz, I% THD

Legendary Powersoft efficiency:

- Green Audio Power®: minimal 'carbon footprint' and operational cost of electricity (Energy Star qualification pending); additional 'Energy Save' function
- Compact and space saving: I RU, and standard depth 360 mm / 14.2"
- Driving low impedance and constant voltage¹) systems:
 - Through a dedicated lid, optional BatFormers[®] can be plugged anytime into any channel to enable 70V or 100V outputs including galvanic isolation; mixed lo-Z/hi-Z systems possible
 - BatFormers are highly efficient: only 1/3 of the size of a regular comparable transformer, yet warranting outstanding audio performance

Ready for voice evacuation systems in compliance with IEC 60849:

- Auxiliary signal inputs, enabled remotely or locally
- I/O signal integrity monitoring for lo-Z/hi-Z
- ► Fault alarm relay output

Top-grade DSP on board:

- Dual 24-bit A/D & D/A with high dynamic range and 1 ms fixed latency; separate input/output EQ's with numerous filters of various types up to 48 dB/oct; peak, RMS, and frequency dependent limiters, time alignment
- Comprehensive system/load monitoring

Direct PC/network connection:

- Ethernet interface for system setup, monitoring and control
- ► Fully manageable via Armonía Pro Audio Suite[™] software
- On the same network as all other actual Powersoft amplifiers
- ✓ Channel output pairs mono-bridgeable (Io-Z), or in series (hi-Z)

✓ Unique Powersoft technology for efficient, reliable, great sounding performance:

- Universal switch mode power supply with PFC (Power Factor Correction), safe up to 400 V
- Fixed frequency switch mode amplifier output stages
- Patented amplifier output filters with ripple cancellation network
- ✓ Front panel safety cover hiding gain pots and 'Energy Save' switch
- ✓ All signal/control connectors Phoenix industry standard
- ✓ Front-to-rear airflow cooling with variable speed fan, temperature controlled
- ✓ Full protection circuitry: Over/under AC voltage; severe signals (clipping, VHF,
 - long-term RMS); DC; over-temperature; short circuit; mute at power on/off Also available without DSP and Ethernet port (Ottocanali 1204)
- ✓ Full four years warranty

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Ottocanali, partially equipped with BatFormers

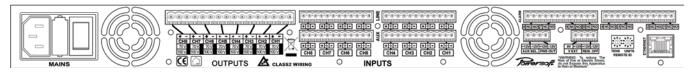


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8-Channel Power Amplifier with DSP and Ethernet for Lo-Z & Hi-Z Installations

PRELIMINARY



Specifications

| General | Number of channels | 8 | | | | | | | |
|------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|-----------------------|--|--|--|
| | ramber of channels | 8 Mono-bridgeable per channel pair. Optional BatFormers® (transformers) per channel for 70 or 100 V constant voltage operation; serial operation of channel pairs equipped with BatFormers for higher voltage possible. | | | | | | | |
| | Output power | 8-channel mode | | | mono-bridged mode | | | | |
| | Output power | 4.0 | | 70/100/1 | | | | | |
| | EIAJ Test Standard, 1 kHz, 1% THD | 4 Ω | 8 Ω | 70/100 V ¹⁾ | 8 Ω / ch pair | 16 Ω / ch pair | | | |
| | | 8 × 160 W | 8 × 80 W | 8 × 130 W | 320 W | 160 W | | | |
| | Max output voltage | 38 \ | /peak | 110/155 V _{peak} | 76 V _p | oeak | | | |
| | Max output current | 15 A | peak | 5/3 A _{peak} | 15 A _p | beak | | | |
| C Mains Po | ower | | | | | | | | |
| | Power supply | Universal, regulated swi | tch mode with PFC (Pow | ver Factor Correction) | | | | | |
| | Operating voltage | 95-265 V +/- 10%, 50/60 Hz, tolerant up to 400 V | | | | | | | |
| | | >0.9 @ >500 W | 112, tolerant up to 100 | * | | | | | |
| | Power factor $\cos(\phi)$ | 20.9 @ 2300 VV | 0 22014 | 0.051 | | | | | |
| | Consumption / current draw | | @ 230 V | @ 115 V | | | | | |
| | Idle | 15 VA | 0.07 A | 0.13 A | | | | | |
| | l/8 of max output power @ 4 Ω | 260 VA | 1.2 A | 2.4 A | | | | | |
| | l/4 of max output power @ 4 Ω | tba | tba | tba | | | | | |
| hermal | | | | | | | | | |
| | Environmental operating temperature | 0-45° C / 32-113° F | | | | | | | |
| | | | | | | | | | |
| | Thermal dissipation | Fan, continuously variable speed, temperature controlled, front to rear airflow | | | | | | | |
| | Idle | tba | | | | | | | |
| | I/8 of max output power @ 4 Ω | tba | | | | | | | |
| | I/4 of max output power @ 4 Ω | tba | | | | | | | |
| udio | | | | | | | | | |
| | Gain | Lo-Z: 32 dB | | | | | | | |
| | | | HR @ 100 V | | | | | | |
| | | Hi-Z: 41 dB @ 70 V, 44 dB @ 100 V | | | | | | | |
| | Input sensitivity @ 8 Ω | 0.63 V / -1.79 dBu | | | | | | | |
| | Max input level | +15 dBu | | | | | | | |
| | Input impedance | 10 kΩ | | | | | | | |
| | Frequency response | 20 Hz - 20 kHz (I W @ 8 Ω, +/-0.5 dB, or 32/65 W @ 70/I00 V, +/-2.5 dB) | | | | | | | |
| | THD+N / SMPTE IMD / DIMI00 IMD | typ. <0.05% (<0.5% @ >I W) ² | | | | | | | |
| | S/N ratio (amplifier section) | 112 dB(A) | | | | | | | |
| | | | | | | | | | |
| | Crosstalk separation >70 dB @ l kHz Slew rate 50 V/μs @ 8 Ω, input filter bypassed | | | | | | | | |
| | | | | | | | | | |
| | Damping factor | >500 @ 20-200 Hz (Lo- | Z) | | | | | | |
| SP | | | | | | | | | |
| | A/D converter | Dual 24-bit 48 kHz Tand | em® architecture, dynam | ic range max. 112 dB(A), T | HD <0.02% (20 Hz - 20 kHz | <u>z)</u> | | | |
| | D/A converter | Dual 24-bit 48 kHz Tand | em® architecture, dynam | ic range max. 115 dB(A). T | HD <0.02% (20 Hz - 20 kHz | z) | | | |
| | Delay for time alignment | Up to 10 ms per output | | | | / | | | |
| | Crossover filters | | | | | | | | |
| | | | Riley, Bessel, 6-48 dB/oct | | 1 . H A | | | | |
| | Output equalizer | | | ng, hi/lo pass, band pass, t | | | | | |
| | Input equalizer | 5 filters max (filter type | s: parametric, hi/lo shelvi | ng, hi/lo pass, band pass, t | band stop, all pass) | | | | |
| | Limiters | Peak, RMS, frequency d | ependent | | | | | | |
| ront Panel | | | | | | | | | |
| | Indicators | 7 x signal level LED per | channel: 4 × green, 2 × ye | ellow I x red | | | | | |
| | Controls | | | | ain nots (per channel) puch | buttons for DSP | | | |
| | Controla | | button for input selection main/aux (globally). Behind safety cover: Gain pots (per channel), pushbuttons for DSP et selection, and 'Energy Save' (per channel pair). | | | | | | |
| | Maintenance | | 0, (1 | | | | | | |
| | maintenance | Dust filter foam behind | salety covers | | | | | | |
| ear Panel | | | | | | | | | |
| | Audio signal input connectors | | | ically balanced, for main a | nd aux | | | | |
| | Loudspeaker output connectors | 8 x 2-pin Phoenix GMS | FB2.5/2-ST | | | | | | |
| | Fault alarm connectors | 8 x 3-pin Phoenix MCI. | 5/2-ST-3.81 24 V₀c relay (| outputs | | | | | |
| | Aux command (triggering aux inputs) | | 5/2-ST-3.81 24 Vpc relay i | | | | | | |
| | | | 5/2-ST-3.81 24 Vpc relay i | | | | | | |
| | Aux front switch enabling | | | | | | | | |
| | Aux voltage for remote on/off switching | | 5/2-ST-3.81 8-24 V _{pc} inpu | IT | | | | | |
| | AC mains | IEC CI3 16 A connector | | | | | | | |
| | | AC mains cord with 3-p | in plug 15 A for U.S., IEC | 'Schuko' 16 A for else | | | | | |
| | Control | Mains power on/off swit | ch | | | | | | |
| onstructio | 2n | | | | | | | | |
| 2 | Dimensions | W/483 mm / 19" ⊔ 447 | 15 mm / 1.75'' / 1 RU, D 3 | 360 mm / 14 2'' | | | | | |
| | | | | | | | | | |
| | Weight | | ending on number of Ba | liformers | | | | | |
| | | | | | | | | | |
| | Chassis | Steel safety/dust covers; | 3 mm steel front panel, | side reinforcement, rear s | upport; I mm steel top & t | pottom lid, rear pan | | | |

2) Guaranteed by design.

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