

IX30:4 4-channel DSP power amplifier, 3kW



- 4-channel networked DSP amplifier with 3 kW powerTANK for Hi-Z and Lo-Z operation
- 8 x 8 Dante with OCA/AES70 remote control, 4 mic/line inputs usable as Dante break-in
- 96 kHz fully featured DSP matrix mixer and MXE-style TaskEngine for system logic, automation, scheduling and integration
- ghostPOWER via PoE to maintain DSP, Dante network and mic/line inputs
- High efficiency ecoRAIL technology for lower operating costs

The IX30:4 is a 4-channel networked DSP amplifier with 3 kW total output power. Able to drive Hi-Z or Lo-Z loads with powerTANK technology, the IX30:4 is ideal for a wide range of applications including sports venues, houses of worship, live performance spaces and hospitality.

IX30:4 features eight (8) Dante inputs, eight (8) Dante outputs and four (4) mic/line inputs, that can be used as Dante break-in points. The natively operating 96 kHz DSP features a full equipped 12 x 12 matrix mixer, EQs, dynamics, Dynacord FX and FIR-Drive capability. All 12 inputs feature pilot-tone detection, while the eight (8) Dante and four (4) amplifier outputs allow to add pilot tones up to 30 kHz. The IX30:4 uses Dynacord's patented ecoRAIL technology for optimizing energy consumption. ghostPOWER via POE maintains the entire DSP, the Dante network and all mic/line inputs active, independent of the mains power. The integrated MXE-style TaskEngine allows for system automation, scheduling, control, and integration to third party devices.

IX series is fully integrated in Dynacord's SONICUE Sound System Software and can be used as a SONICUE control server, for direct use with the WPN1 wall controller as well as TPC-1, iOS and Windows devices.

Technical specifications

| OUTPUT POWER | | | | |
|--|--------|--------|-----------------------|--------|
| Total rated output power ¹ | 3000 W | | | |
| Number of amplifier channels | 4 | | | |
| Load | 2 Ω | 2.7 Ω | 4 Ω | 8 Ω |
| Maximum Output Power ¹ | | | | |
| All channels equally driven | 750 W | 750 W | 600 W | 750 W |
| Max. per channel | 1000 W | 800 W | 600 W | 1000 W |
| Bridge | 1000 W | 1300 W | 1500 W | 1200 W |
| Direct Drive | 70 V | | 100 V | |
| Maximum Output Power ¹ | | | | |
| All channels equally driven | 750 W | | 750 W | |
| Max. per channel | 750 W | | 1000 W | |
| Maximum Output Voltage, Hi-Z/8 Ω mode, per channel | | | 145 V _{peak} | |
| Maximum Output Current, Lo-Z/4 Ω mode, per channel | | | 33 A _{peak} | |

¹ Test signal for max. output power according IHF-A-202 (Dynamic-Headroom, burst 1 kHz / 20 ms on / 480 ms off / low level -20 dB)

AMPLIFIER

| | |
|--|----------------------------------|
| Voltage Gain Low-Z mode, ref. 1 kHz | 32 dB, adjustable 20.0 - 44.0 dB |
| Input sensitivity Direct Drive mode | +6 dBu (1.55 V), fixed |
| THD+N 3 dB below max, AES17, 1 kHz | < 0.1 % |
| Crosstalk ref. 1 kHz, 12 dB below max, 8 Ω | < -80 dB |
| Frequency Response ref. 1 kHz, Analog In to Speaker Out | 20 Hz to 20 kHz (±1 dB) |
| Damping Factor 20 Hz to 200 Hz, 8 Ω | > 250 |
| Output Stage Topology | Class D, fixed frequency |

Output Noise

| | |
|---|-----------|
| Analog input (A-weighted, eco mode) | < -67 dBu |
| Digital input (A-weighted, eco mode) | < -70 dBu |

DIGITAL SIGNAL PROCESSING

| | |
|--|---|
| Sampling rate | 96 kHz internal, Dante 48/96 kHz switchable |
| Signal delay/latency (Analog In to Speaker Out) | 0.77 ms |

Signal Processing

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|------------------|---|
| Input processing | HPF 24 dB, 4 filters per channel, selectable as PEQ, Lo-/Hi-Shelv, Lo-/Hi-ShelvQ, Hi-/Lo-Pass and Notch; Noise Gate, Compressor or AGC; input pilot supervision |
| Mix Matrix | 12 x 12 matrix mixer with stereo FX |
| User EQ | 12 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass and Notch; 2 filters of them with additional asymmetric filter type |
| User Delay | 0 to 2000 ms per channel |
| Array EQ | 5 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass, and All-Pass |
| Array Delay | 0 to 500 ms per channel |
| Speaker EQ | 10 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Hi-Pass, Lo-Pass, and All-Pass |
| Speaker X-Over | Hi-Pass, and Lo-Pass per channel, 6/12/18/24/30/36/42/48 dB Bessel/Butterworth, 12/24/36/48 dB Linkwitz-Riley; Alignment Delay, 0 to 20 ms per channel |

DIGITAL SIGNAL PROCESSING

| | |
|---------------------------------|--|
| Speaker FIR | Up to 1025 taps |
| Speaker Limiters | Peak Anticipation Limiter and RMS/TEMP Limiter per channel |
| Load Supervision | Pilot tone up to 30 kHz |
| Other Functions | Source Selection, Level, Mute, Polarity, Sine and Noise Generator, Pilot Tone Generator and Detection, Level Meters, Impedance Measurement and Load Monitoring |
| DSP Presets | 1 Factory + 20 User |
| Source Supervision and Fallback | Pilot Tone supervision at Analog and Dante inputs, switchover to FAILOVER source selection |

CONNECTIVITY**Mic/Line Input**

| | |
|--|-----------------------------|
| Type | 2 x 5-pin Euroblock, male |
| Channels | 4 |
| Gain | 0 to 60 dB |
| Maximum Input Level (balanced) | +18 dBu |
| Maximum Input Level (unbalanced) | +12 dBu |
| Phantom power | +48 V, switchable per input |
| Input Impedance, active balanced | >10 kΩ |
| EIN (A-weighted) @ 150 Ω | -127 dBu |
| Reference level equal to digital input | +22 dBu for 0 dBFS |

Speaker Output

| | |
|----------|------------------------------|
| Type | 1 x 8-pin Euroblock |
| Diameter | 2.5 mm ² / 12 AWG |

Network

| | |
|----------------------------------|--|
| Type | 2 x RJ45 |
| General | 1000base-T/100base-TX, integrated switch |
| Redundancy Modes | Glitchfree (PRIMARY/SECONDARY), RSTP |
| Backup power supply (ghostPOWER) | 1 x PoE (IEEE 802.3af) on PRIMARY port |
| Network Audio Inputs | 8 ch, 48/96 kHz, Dante |
| Network Audio Outputs | 8 ch, 48/96 kHz, Dante |

| | |
|-------------|-------------|
| Mains Input | 1 x IEC C14 |
|-------------|-------------|

Control Port

| | |
|--------------------|---|
| GPIO Control Port | 3 x GPIO, switchable Analog In/Digital In/Digital Out |
| Type | 1 x 8-pin Euroblock, male |
| Analog Input Range | 0 V to +13 V, 133 kΩ input resistance |

CONNECTIVITY

| | |
|--------------------------|--|
| Digital Input Limits | ON: < 1.5 V OFF: > 2.0 V, internal Pull Up (10 k Ω / 10 V) |
| Digital Outputs | ON: Output switched to GND, max. 200 mA OFF: Open Collector |
| Reference Voltage Output | +10 V, max. 200 mA, supervised, short circuit protected |
| READY/FAULT | Galvanic isolated relay, max. 30 VDC/500 mADC |
| Front panel indicators | 6 x status LEDs (POWER, STANDBY, FAULT, OMNEO, PoE, AC), signal/ peak LED per MIC/LINE input and AMPLIFIER output |
| Rear panel indicators | 2 x status LEDs (INFO, STATUS) |
| Rear panel operation | 1 x INIT button (recessed) |

GENERAL**Power consumption**

| | |
|-----------------------------------|---|
| Rated power consumption | 550 W |
| Idle/Eco mode (output power <1 W) | 26 W |
| Standby mode | <15 W |
| Power Requirements | 100 V to 240 V, 50 Hz to 60 Hz AC |
| Power Supply Topology | Switching Mode Power Supply with digitally controlled power factor correction (PFC) |
| Protections | Audio Limiters, High Temperature, DC, HF, Short Circuit, Back-EMF, Peak Current Limiters, Inrush Current Limiters, Mains Current Limiter, Mains Over-/Under Voltage Protection |
| Cooling | Front-to-rear, temperature controlled fans, supervised |
| Ambient Temperature Limits | +5 °C to +40 °C (+40 °F to +105 °F) |
| IEC Protection Class | Class I (grounded) |
| Electromagnetical Environment | E1, E2, E3 |
| Color | Black |
| Dimensions (W x H x D) | 483 mm x 44.1 mm x 447 mm (19 in x 1.74 in x 17 in) |
| Weight | 7.5 kg (16.4 lb) |
| Shipping weight | 9.3 kg (20.5 lb) |

Amplifier at rated conditions, Lo-Z/4 Ω normal operation mode, all channels driven, 4 Ω loads, analog input, 32 dB Gain, 48 kHz sample rate, unless otherwise specified.

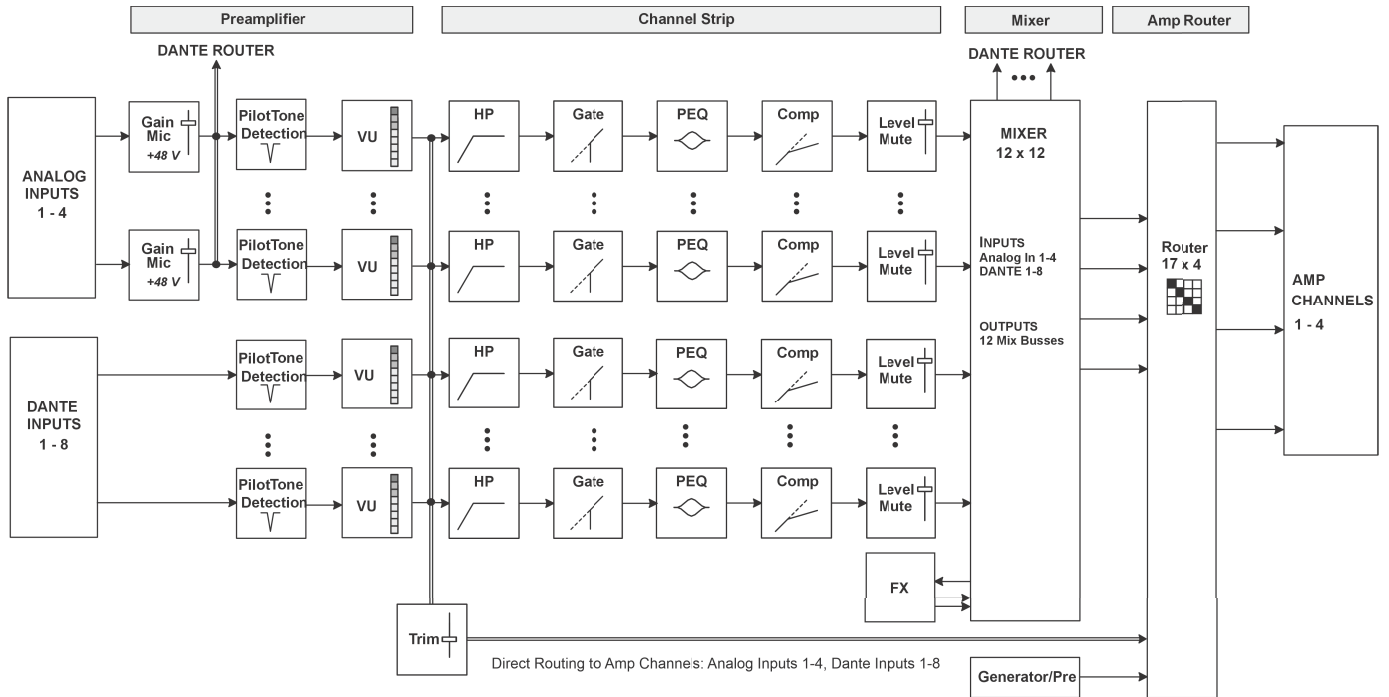


Fig. 1: Block diagram for inputs

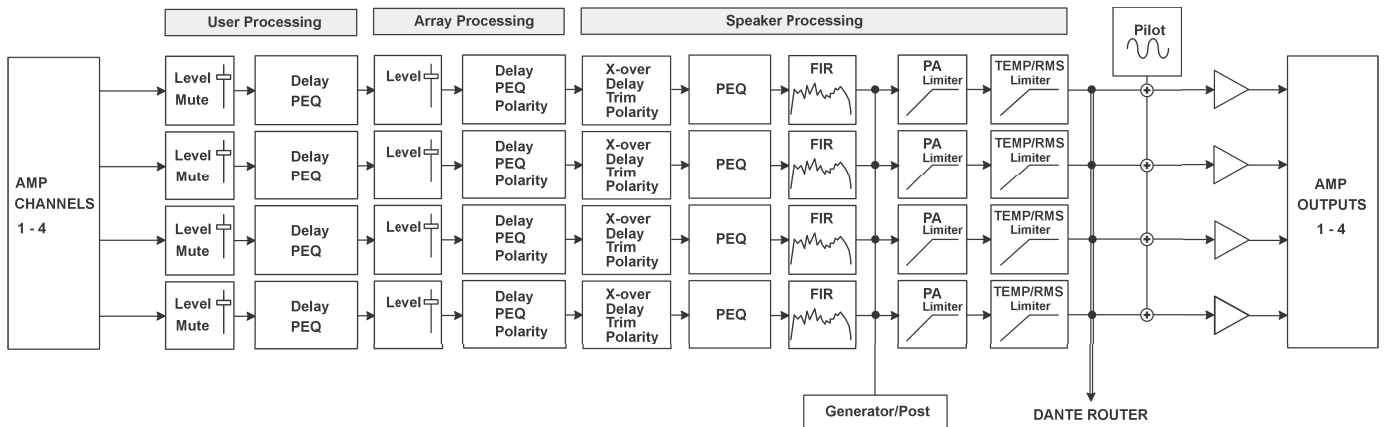


Fig. 2: Block diagram for amplifier channels

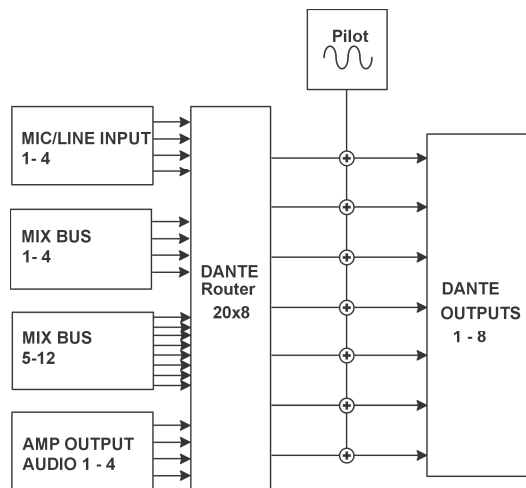
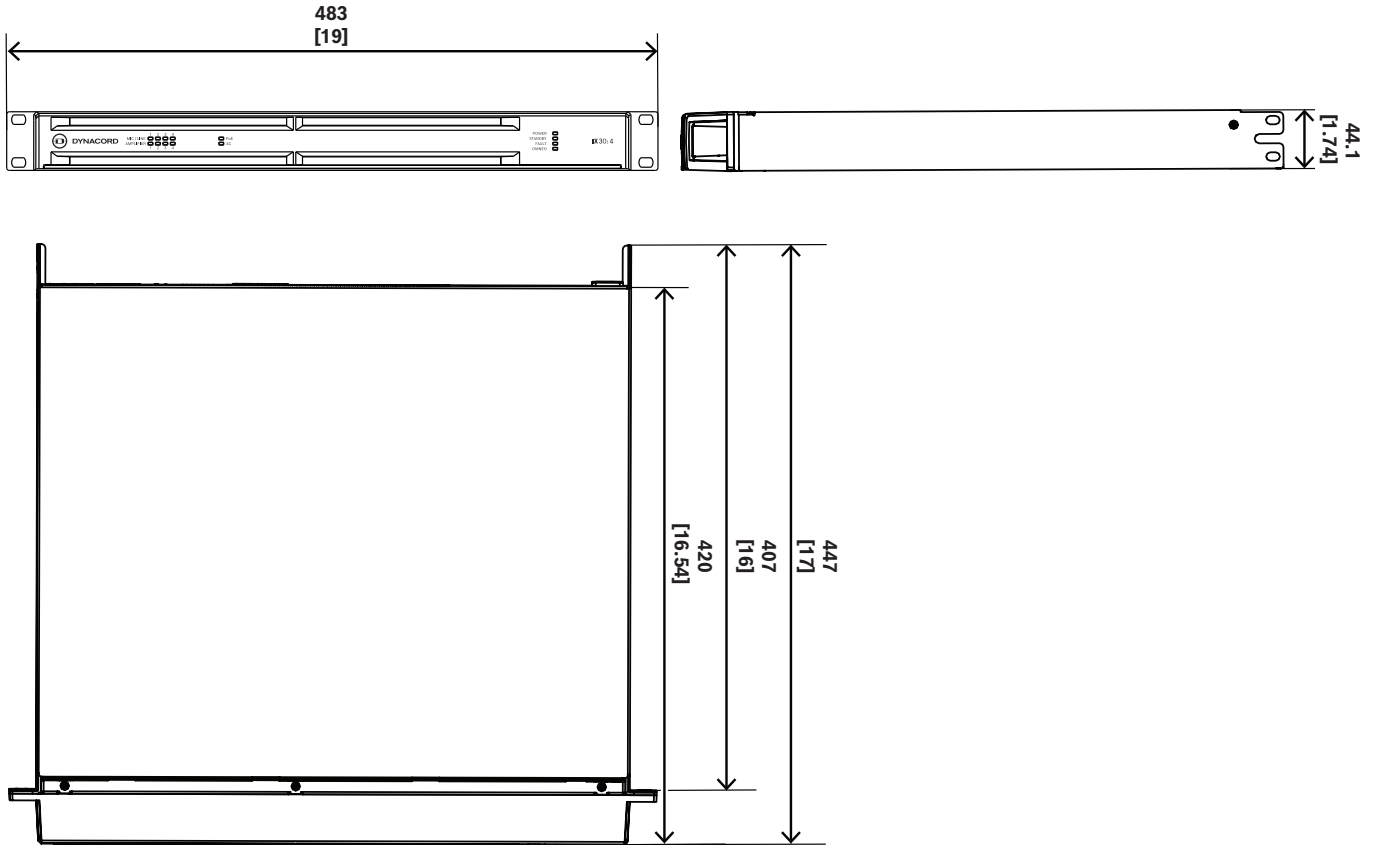


Fig. 3: Dante router



mm [in]

Fig. 4: Dimensions

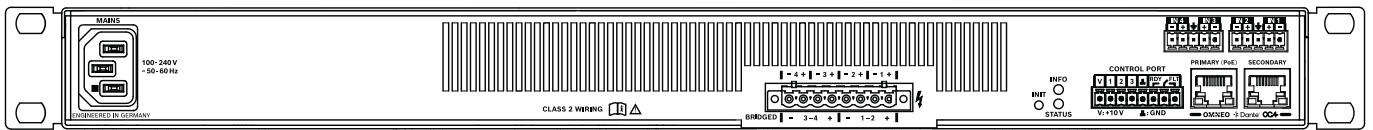


Fig. 5: Rear panel

Ordering information

IX30:4 4-channel DSP power amplifier, 3kW

4-channel DSP networked amplifier, 3kW powerTANK, 8x8 Dante, OCA, 4 mic/line inputs
Order number **IX30:4** | **F.01U.411.087**

IX30:4-US 4-channel DSP power amplifier, 3kW, US

4-channel DSP networked amplifier, 3kW powerTANK, 8x8 Dante, OCA, 4 mic/line inputs, US power cord
Order number **IX30:4-US** | **F.01U.425.390**

Accessories

DC-RMK15 Rear rackmount kit for amplifiers

Rack Mount Kit for amplifiers, Length 15,5"; 1L/1R
Order number **DC-RMK15** | **F.01U.135.402**

TPC-1 Touch panel controller 5.7"

Full HD TFT touch panel, POE, for control panels created in SONICUE sound system software
Order number **TPC-1** | **F.01U.384.715**

WPN1-EU Wall panel controller networked, EU

Wall panel controller with 1.77-inch display and encoder for use with SONICUE Control Server devices, PoE, ships with white and black front covers and wall plates
Order number **WPN1-EU** | **F.01U.388.087**

WPN1-US Wall panel controller networked, US

Wall panel controller with 1.77-inch display and encoder for use with SONICUE Control Server devices, PoE, ships with white and black front covers
Order number **WPN1-US** | **F.01U.394.578**



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