

LCPF600

Amplifier Module

Features

- 600 W LLC universal power supply with two-phase PFC
- 3-channels of Class D amplification can be configured as SE + BTL or SE to give 2 or 3 output channels
- Extensive protection and monitoring systems
- Simple connectivity, built-in EMC filtering and auxiliary power supply for easier system integration and certification
- 80% system efficiency and <0.3W standby consumption

- 600 W, 3-channel amplifier
- Active PFC + LLC SMPS
- Current, voltage, and temperature monitoring

Applications

Medium-sized touring loudspeakers, PA loudspeakers, portable loudspeakers, fixed installation loudspeakers (conference facilities, bars, distributed audio systems, etc.), larger and mid-sized studio monitors and home subwoofers, other self-powered loudspeakers. Bass, guitar, and keyboard amplifiers, and lower-power rack amplifiers.



Specifications

Configuration	Output
2 channels	600 W BTL + 165 W into 4 Ω [1]
3 channels	3 x 165 W SE into 4 Ω [1]

Mode	Peak output
BTL	80 V, 20 A
SE	40 V, 20 A

Efficiency (SMPS + Amp) / PFC	80% @ 600 W (2 x 4 Ω) / 0.9
Frequency response	20-20k Hz (±2 dB)
Input impedance / sensitivity	20k Ω / 2.7 V (10 V max)
Voltage gain (BTL / SE)	26 dB / 20 dB
Dynamic range / THD+N (1 kHz)	120 dBA / 0.002%
Self-generated noise, SE (20-20k Hz)	35 μV(A)
Protection	Mains under voltage, output over current, dc output, thermal, ESD
Monitoring	Power rail voltage, amplifier fault, mains frequency sense, power supply and amplifier temperatures, amplifier output current and voltage
Control	Standby and mute
Auxiliary power supply	±15 V (300 mA), +3V3 (500 mA), total available power 10 W
Mains power requirements	85-265 VAC
Connectivity	I/O signals: 36p, dual row, 2mm, ribbon Amplifier output and mains power: JST locking connectors
Pre-tested standards	Safety, EMI, Immunity, and Environmental (RoSH, ErP)
Robustness testing	3-axis unpackaged vibration, 3-axis packaged drops
Dimensions	218 x 109 x 56.6 mm
Net weight	930 g

Details on this datasheet are for reference only and should not be used for setting production limits. Specifications and product cosmetics are subject to change without notice. All measurements conducted in test lab at 25°C. [1] with no clipping.

LCPF1200

Amplifier Module

Features

- 1200 W LLC universal power supply with two-phase PFC
- 4-channels of Class D amplification can be configured as SE + BTL or SE to give 2, 3, or 4 output channels
- Extensive protection and monitoring systems
- Simple connectivity, built-in EMC filtering, and auxiliary power supply for easier system integration and certification
- 80% system efficiency and <0.3W standby consumption

- 1200 W, 4-channel amplifier
- Active PFC + LLC SMPS
- Current, voltage, and temperature monitoring

Applications

Larger touring loudspeakers, PA loudspeakers, portable loudspeakers, fixed installation loudspeakers (conference facilities, bars, distributed audio systems, etc.), larger studio monitors and home subwoofers, other self-powered loudspeakers. Bass, guitar, and keyboard amplifiers, and mid-powered rack amplifiers.



Specifications

Configuration	Output
2 channels	1350 W BTL + 1350 W into 4 Ω [1]
3 channels	1350 W BTL + 2 x 370 W SE into 4 Ω [1]
4 channels	4 x 370 W SE into 4 Ω [1]

Mode	Peak output
BTL	120 V, 30 A
SE	60 V, 30 A

Efficiency (SMPS + Amp) / PFC	81% @ 600 W (2 x 4 Ω) / 0.9
Frequency response	20-20k Hz (±2 dB)
Input impedance / sensitivity	26k Ω / 2.7 V (10 V max)
Voltage gain (BTL / SE)	27 dB / 21 dB
Dynamic range / THD+N (1 kHz)	120 dBA / 0.002%
Self-generated noise, SE (20-20k Hz)	35 μV(A)
Protection	Mains under voltage, output over current, dc output, thermal, ESD
Monitoring	Power rail voltage, amplifier fault, mains frequency sense, power supply and amplifier temperatures, amplifier output current and voltage
Control	Standby and mute
Auxiliary power supply	±15 V (300 mA), +3V3 (500 mA), total available power 10 W
Mains power requirements	85-265 VAC
Connectivity	I/O signals: 36p, dual row, 2mm, ribbon Amplifier output and mains power: JST locking connectors
Pre-tested standards	Safety, EMI, Immunity, and Environmental (RoSH, ErP)
Robustness testing	3-axis unpackaged vibration, 3-axis packaged drops
Dimensions	295 x 109 x 58 mm
Net weight	1420 g

Details on this datasheet are for reference only and should not be used for setting production limits. Specifications and product cosmetics are subject to change without notice. All measurements conducted in test lab at 25°C. [1] with no clipping.