



Leading **Innovation,**
Through **Technology**



ADVANCED
CLASS-D
AMPLIFICATION

PROUDLY



About Zypher Labs

Zypher Labs is India's foremost Audio Amplification Technology Company. After over 5 years of extensive Research & Development, Zypher Labs has developed a host of Indigenous Amplification Technologies, ranging from Tube, Class-A, Class-AB, Class-G, Class-H, Class-TD & Class-D.

Our expertise lies in the field of High Efficiency and High Frequency circuits of Pulse Width Modulation (PWM) Amplifiers, Power Factor Correction (PFC) & Switch Mode Power Supplies (SMPS).

Zypher Labs today has its own World-Class Class-D technology, which is not available with any other company in Asia.

Zypher Labs today has the capability to make Amplifiers at par with the best in the world. We also have the capability to make the most powerful amplifiers in the world.

Zypher Labs is also the only Indian Amplification Company to exhibit at some of the Audio Industry's biggest International Shows such as Prolight+Sound Frankfurt (Germany), PALM Beijing & Guangzhou (China).

Heart of the Zypher Labs Class-D Amplifiers - The CoolAmp Module.

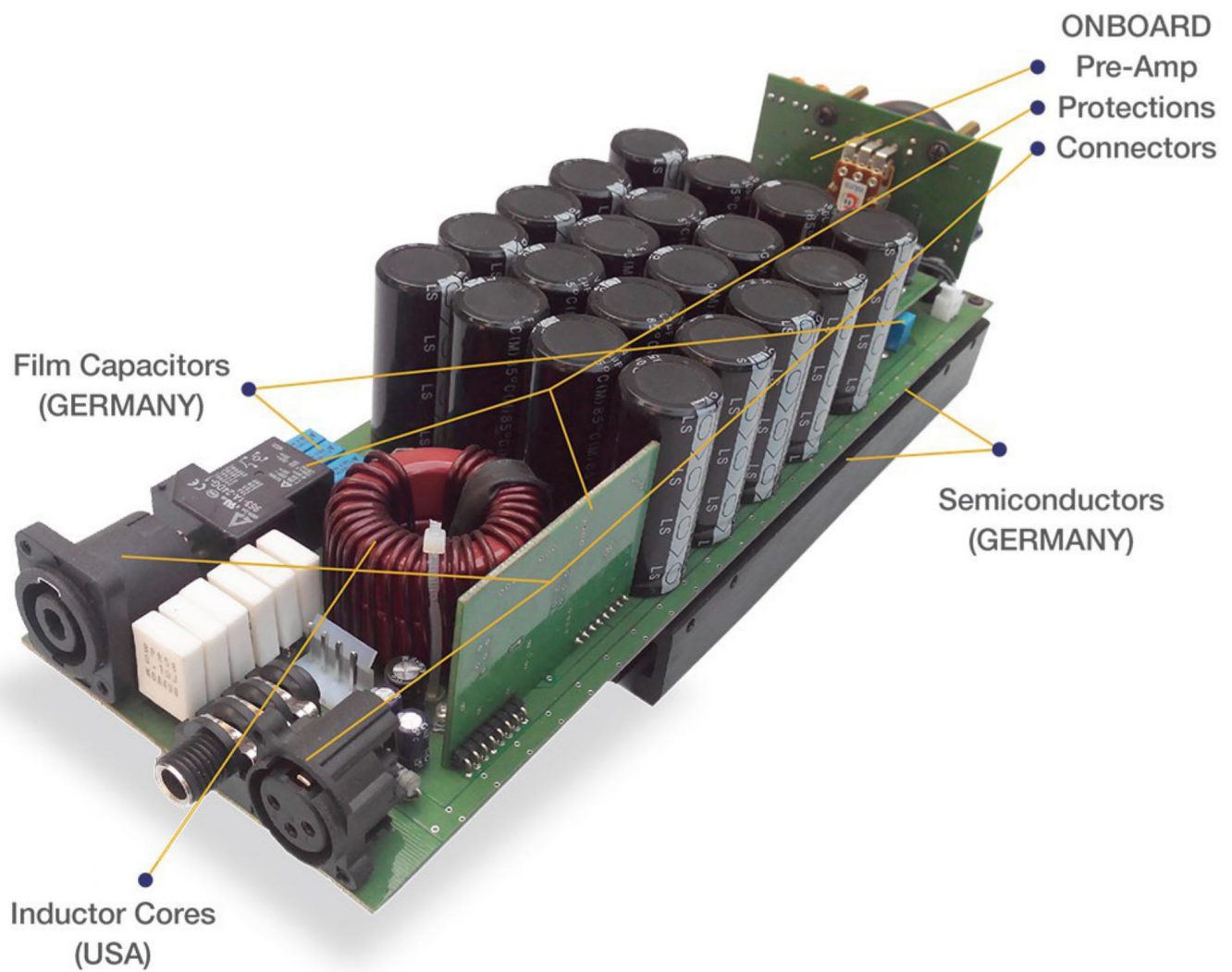
The Zypher Labs Class-D CoolAmp & DubStepper Modules have been developed by us after several years of Research & Development.

The modules have a 'Self Oscillating' architecture, with patented Filtered Feedback Technology (FFT™) & optimized layout to minimize switching noise. This provides Sonic Performance which rivals High-End Class-A amplifiers with the efficiency of Class-D.

The modules are Fully Integrated, with on-board inputs, outputs, protections & volume control, reducing wire clutter and noise. Components used are the best available in the world.

State of the Art Design by Zypher Labs!

Fully Integrated Module





COOL-AMP SERIES

COOL-AMP Series Features

- Very High-Efficiency (96%) Pulse Width Modulation (Class-D) technology almost eliminates cooling requirement and allows continuous 2Ω operation in 45°C weather.
- Zypher Labs Patented FFT™ (Filtered Feedback Technology), & optimized layout to minimize switching noise, provides Sonic Performance which rivals High-End Class-A amplifiers with the efficiency of Class-D.
- The Cool-Amp series Amplifiers are Optimized for driving demanding 2Ω loads. These amps are “Built for 2Ω ” not just “ 2Ω Stable”.
- A three stage Speaker Protection system provides maximum possible protection to the speakers in the event of a fault.
- Full set of Amplifier Protections, including DC Offset, Short Circuit, Auto-Ramp, Soft Start, Thermal, Bus Pumping, Over-Current & Clip Monitoring.
- Low-Voltage operation down to 170v.
- Conventional Toroidal Transformer power supply increases reliability through simplicity, and allows large current draw without tripping.
- German Semiconductors, with double current headroom for increased reliability.



COOL-AMP SERIES

High Efficiency Class-D Amplifiers

The ZypherLABS Cool-Amp Series Amplifiers are a turning point, and a breakthrough in the Indian Pro-Audio Industry.

The Cool-Amp series amplifiers are designed to work tirelessly in the harsh operating environments in India - Hot Weather, Unstable Mains Voltage, & Overloaded Operation.

These Amplifiers outshine their rivals while driving high-current 2 ohms loads continuously, even in the hottest Indian weather.

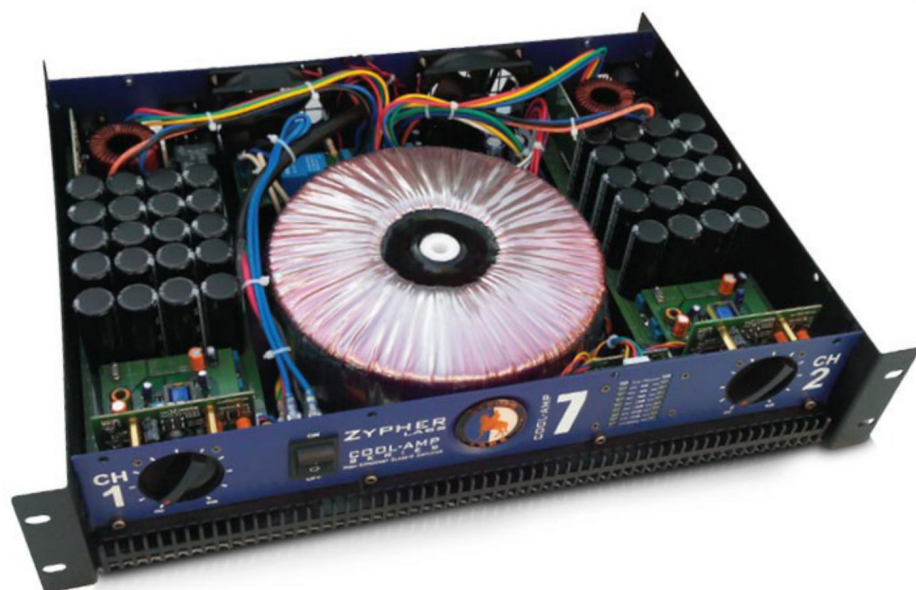
The Cool-Amp Series by Zypher Labs is designed with a clear objective of a “No Compromise” High-Performance Audio, with Rock-Solid Reliability two of the most important requirements for the demanding live sound touring applications.





| SPECIFICATIONS | | CoolAmp #4 | CoolAmp #5 | CoolAmp #6 | CoolAmp #7 |
|--|-------|---|------------|--------------|------------|
| Output Power Per Channel:100Hz 0.1% THD both channels driven | 8 Ω | 750 | 950 | 1280 | 1400 |
| | 4 Ω | 1100 | 1600 | 2250 | 2500 |
| | 2 Ω | 1850 | 2100 | 2600 | 3200 |
| Input Sensitivity | | 2v | | | |
| Input Impedance | | 10kΩ | | | |
| Slew Rate | | 20v/uS | | | |
| Distortion, SMPTE | | 0.1% | | | |
| Frequency response at 1 watt | | 20Hz – 30kHz | | 20Hz – 20kHz | |
| Damping Factor (8 Ω) | | 800 | | | |
| Signal to Noise Ratio (SNR) | | 100dB | | | |
| Crosstalk | | 85dB | | | |
| Output Circuit Type | | Class-D (Pulse Width Modulation) | | | |
| Controls | | Front Level Control | | | |
| Connectors (Input) | | XLR & 1/4" TRS Jack (Balanced) | | | |
| Connectors (Output) | | 2x NL4 Speakon | | | |
| LED Indicators | | Power, Signal Bar Graph, Clip / Limit / Protect | | | |
| Cooling | | 2 x Variable Speed Fans, Front to Back Airflow | | | |
| Amplifier Protection | | DC Offset, Short Circuit, Auto-Ramp, Soft Start, Thermal, Bus Pumping, Over Current and Clip Monitoring | | | |
| Speaker Protection | | Cut-Off Relays on Speaker Outputs, AC Mains Fault Fuse, Post Capacitance Rail Fuses, DC Detect. | | | |
| Power Requirements (Nominal Voltage) | | 240v AC, 50Hz | | | |
| Operating Voltage Range | | 170v AC to 260v AC | | | |
| AC Connection | | 1.5 M Mains Cord with Heavy Duty 16A Three-Pin Plug | | | |
| Weight | | 19.5kg | 21.6kg | 22.8kg | 24.7kg |
| 19 inch Rack Units | | 2U | | | |
| Dimensions (mm) | HxWxD | 88mm x 483mm x 350mm (3.5in x 19in x 13.78in) | | | |

NOTE: Specifications are subject to upgradation & change without notice.





DubStepper & DubStepper Z Series Extreme Bass Performance


India's most powerful amplifiers!

The Zypher Labs DubStepper Series Bass Amplifiers, are dedicated Heavy Duty 'Bass Only' Amplifiers, specially designed to deliver huge amounts of power into subwoofers. The high efficiency of Class-D enables continuous duty at full power with negligible heat dissipation

Conventional Toroidal Transformers allow large current draw on a sustained basis while increasing reliability through simplicity. High damping factor keeps tight control over the speakers, and the voice coil's back EMF is recycled into the amplifier's main voltage rails for even greater power output. Full set of protections, along with a 3-stage speaker protection system. Ensure Reliability During Extended Hours of Operation Under Heavy Loads.

Because high power into low impedance loads requires high current, extra heavy-duty components are used – 100 Ampere Bridge Rectifiers, 80 Ampere Relays, and dual speakon outputs to connect 4Ω load on each speakon.

DubStepper Z series amplifiers are optimized for 4Ω loads, whereas the DubStepper series is optimized for 2Ω loads.





| SPECIFICATIONS | | DubStepper #8 | DubStepper #9 | DubStepper #10 |
|--|------------|---|---------------|----------------|
| Output Power Per Channel:100Hz 0.1% THD both channels driven | 8 Ω | 1500 | 1750 | 2150 |
| | 4 Ω | 2450 | 2800 | 3450 |
| | 2 Ω | 4000 | 4600 | 5500 |
| Input Sensitivity | | 2v | | |
| Input Impedance | | 10k Ω | | |
| Slew Rate | | 20v/uS | | |
| Distortion, SMPTE | | 0.1% | | |
| Frequency response at 1 watt | | 20Hz – 1kHz | | |
| Damping Factor (8 Ω) | | 1000 | | |
| Signal to Noise Ratio (SNR) | | 100dB | | |
| Crosstalk | | 85dB | | |
| Output Circuit Type | | Class-D (Pulse Width Modulation) | | |
| Controls | | Front Level Control | | |
| Connectors (Input) | | XLR Male & Female (Balanced) | | |
| Connectors (Output) | | 4x NL4 Speakon (2 per channel) | | |
| LED Indicators | | Power, Signal Bar Graph, Clip / Limit / Protect | | |
| Cooling | | 1 x Variable Speed Fan, Front to Back Airflow | | |
| Amplifier Protection | | DC Offset, Short Circuit, Auto-Ramp, Soft Start, Thermal, Bus Pumping, Over Current and Clip Monitoring | | |
| Speaker Protection | | Cut-Off Relays on Speaker Outputs, AC Mains Fault Fuse, Post Capacitance Rail Fuses, DC Detect. | | |
| Power Requirements (Nominal Voltage) | | 240v AC, 50Hz | | |
| Operating Voltage Range | | 170v AC to 255v AC | | |
| AC Connection | | 1.5 M Mains Cord with Heavy Duty 16A Three-Pin Plug | | |
| Weight | | 32.5kg | 35.5kg | 39.5kg |
| 19 inch Rack Units | | 3U | | |
| Dimensions (mm) | HxWxD | 133mm x 483mm x 379mm (5.25in x 19in x 13.78in) | | |

NOTE: Specifications are subject to upgradation & change without notice.

| SPECIFICATIONS | | DubStepper z5 | DubStepper z6 | DubStepper z7 |
|--|------------|---|---------------|---------------|
| Output Power Per Channel:100 Hz0.1% THD both channels driven | 8 Ω | 1500 | 1800 | 2150 |
| | 4 Ω | 2450 | 2950 | 3450 |
| | 2 Ω | 2500 | 3000 | 3500 |
| Input Sensitivity | | 2v | | |
| Input Impedance | | 10k Ω | | |
| Slew Rate | | 20v/uS | | |
| Distortion, SMPTE | | 0.1% | | |
| Frequency response at 1 watt | | 20Hz – 1kHz | | |
| Damping Factor (8 Ω) | | 1000 | | |
| Signal to Noise Ratio (SNR) | | 100dB | | |
| Crosstalk | | 85dB | | |
| Output Circuit Type | | Class-D (Pulse Width Modulation) | | |
| Controls | | Front Level Control | | |
| Connectors (Input) | | XLR Male & Female (Balanced) | | |
| Connectors (Output) | | 2x NL4 Speakon | | |
| LED Indicators | | Power, Signal Bar Graph, Clip / Limit / Protect | | |
| Cooling | | 1 x Variable Speed Fan, Front to Back Airflow | | |
| Amplifier Protection | | DC Offset, Short Circuit, Auto-Ramp, Soft Start, Thermal, Bus Pumping, Over Current and Clip Monitoring | | |
| Speaker Protection | | Cut-Off Relays on Speaker Outputs, AC Mains Fault Fuse, Post Capacitance Rail Fuses, DC Detect. | | |
| Power Requirements (Nominal Voltage) | | 240v AC, 50Hz | | |
| Operatig Voltage Range | | 170v AC to 255v AC | | |
| AC Connection | | 1.5 M Mains Cord with Heavy Duty 16A Three-Pin Plug | | |
| Weight | | 27.8kg | 30.7kg | 34.3kg |
| 19 inch Rack Units | | 3U | | |
| Dimensions (mm) | HxWxD | 133mm x 483mm x 379mm (5.25in x 19in x 13.78in) | | |

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www.zypherlabs.com



Zypher Power Labs Pvt. Ltd.,
130A, Electronics Complex, Pardesipura, Indore (MP) 452010 INDIA.