

i2Dclass: Redefining Amplification Technology

Blustream is pleased to announce a technology partnership with i2Dclass to pioneer the market for high performance, super-efficient compact audio amplifiers. Integrating the i2Dclass platform, Blustream's new networked amplifiers will redefine what's possible in compact audio systems, delivering superior sound performance with unmatched precision, efficiency, and reliability. These groundbreaking amplifiers set a new benchmark for sound quality in smaller form factors, ensuring that even the most compact installations do not compromise on performance.

At the core of i2Dclass is a completely new approach to digital-to-analog conversion, delivering unmatched precision and efficiency. This cutting-edge technology combines a high oversampling ratio (OSR) with an exceptionally low switching frequency, delivering outstanding audio quality in a compact and efficient design.

Blustream is a proud technology partner of i2D, driving innovation in AV distribution with amplifier solutions that deliver superior performance, efficiency, and unmatched pound for pound sound quality.

What Makes i2Dclass Different?

i2Dclass uses a two-channel, second-order Delta-Sigma modulator running at 48MHz, achieving an impressive OSR of 1024. This enables pristine sound reproduction while keeping the output frequency below 520kHz. To achieve this balance of high performance and low switching frequency, a groundbreaking algorithm corrects quantisation errors in real-time, ensuring unparalleled accuracy with every output state change.

Benefits for Blustream Amplifiers:

1. Ultra power density

Delivering incredible Signal to noise (SNR) and power normally found in huge amplifiers costing as much as a car, Blustream's i2dclass power amplifiers delivery heavy bass and clear transients from a tiny package, with class defining low noise- all while running within PoE's limits. This is made possible by combining ultra-efficiency and intelligent energy management to deliver hundreds of instant watts for many milliseconds, reproducing serious bass drum while never overloading the PoE.

2. Reliable and Stable Performance

i2Dclass uses an open-loop design that ensures stability under all conditions. The amplifiers maintain dynamic range across a wide volume range, thanks to analogue volume control that adjusts output voltage without compromising quality.

3. Compact and Efficient Design

With fewer stages, i2Dclass minimizes processing delays, reduces power consumption and occupies less space—perfect for Blustream amplifiers. The amplifiers are so efficient there is no need for any heat sync.

4. Crystal-Clear Audio Without Noise

Advanced error correction keeps unwanted tones far below the audible range. This ensures Blustream amplifiers deliver sound clarity and fidelity that exceed professional-grade standards.

5. Seamless Compatibility with Dclass Power Stages

i2Dclass integrates effortlessly into Blustream's amplifier designs, eliminating the need for extra conversion stages or adjustments. With i2Dclass technology, Blustream's new amplifiers will redefine what's possible in compact audio systems. The amplifiers will deliver superior audio performance with precision, efficiency, and reliability, setting a new benchmark for sound quality in smaller form factors. Whether it's for professional applications or high-end consumer setups, i2Dclass ensures Blustream amplifiers will stand out with advanced features that deliver pure, dynamic, and distortion-free sound.

The i2Dclass technology has been integrated into the following Blustream solutions



NPA20ANA

Analogue Audio Networked Power Amplifier



NPA20ARC

2ch HDMI ARC Networked Power Amplifier



NPA20DA

Networked Power Amplifier with Dante