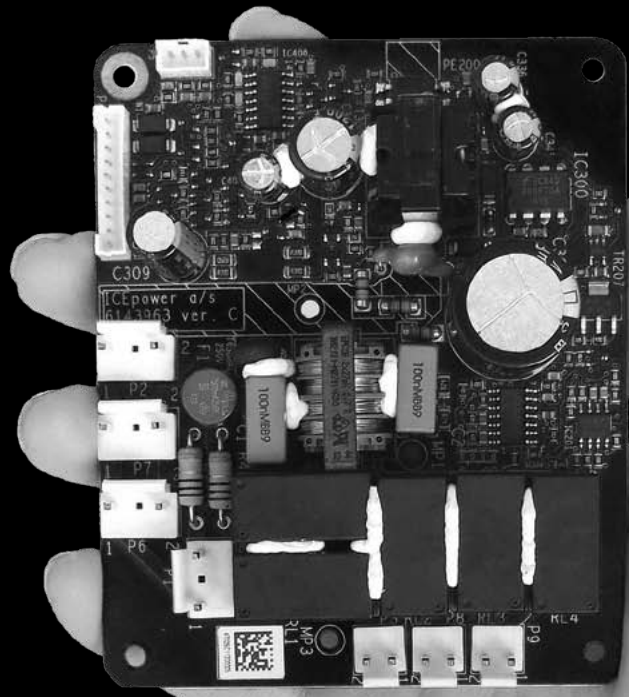


# ICEpower ICEExtend



# Dear Audio Manufacturer

Along with the current focus on the environment, official requirements are issued to minimize power consumption in electronic products. The ErP (1275/2008/EC) regulation specifies a maximum of 0.5 watt standby consumption including payload. It can be a challenge for audio products to live up to the new standards. Our solution is ICEExtend, a frontend extending the functionality of existing ICEpower modules. ICEExtend not only ensures compliance with the new regulation – it also adds universal mains, a +5V auxiliary supply and several other value-adding features to existing ICEpower modules. ICEExtend is fully compatible with the ASX2 series and ICEtheater7. Also the ASP series is supported with some of ICEExtend's functions: standby converter and wake-on-signal.

ICEExtend is a standby converter module designed to serve as frontend to ICEpower standard modules which have no on board standby functionality. The standby converter fulfills the ErP (1275/2008/EC) regulation.

Along with standby functionality, ICEExtend has wake-on-signal functionality triggered by an audio signal or a 3-5V/12V trigger which turns the amplifier on and off. In addition, a 5V auxiliary output capable of supplying up to 1A makes it easy and convenient to drive e.g. a DSP or microprocessor directly from the module.

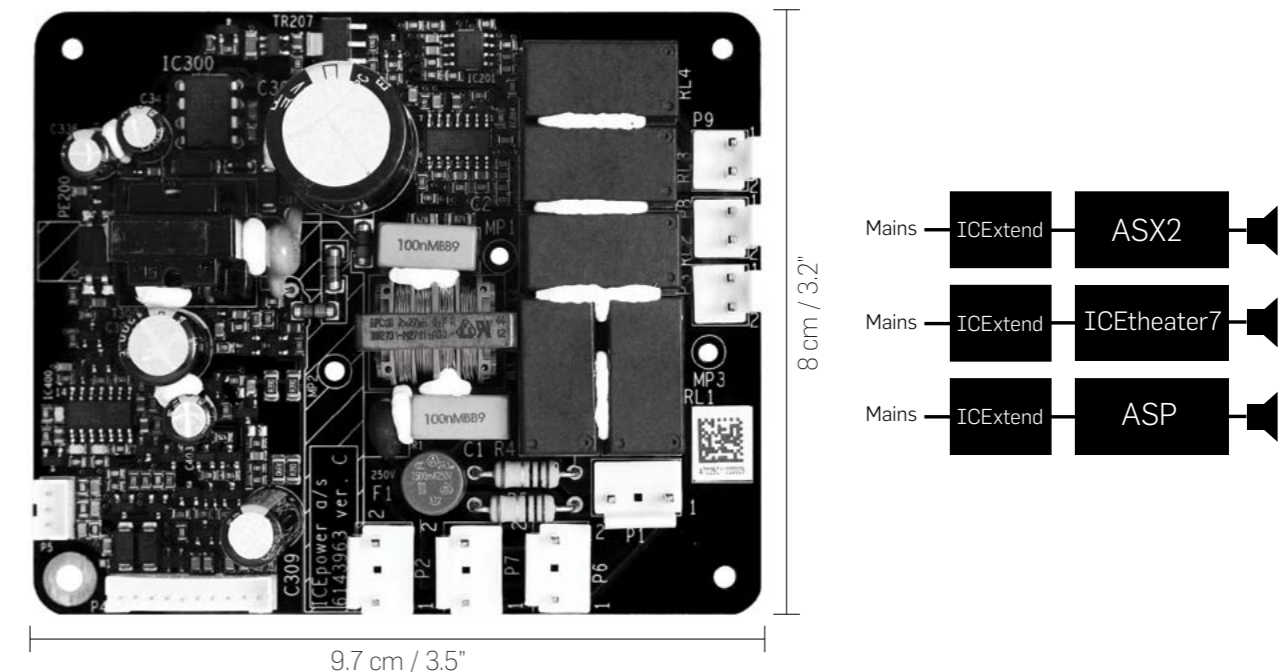
Furthermore, the module includes universal mains functionality. It automatically detects the mains voltage and switches the attached module between full bridge rectifications at 230 volt mains and half bridge voltage doubler rectification at 115 volt mains. Thereby, it eliminates your need to stock both 115V and 230V mains product variants saving you essential warehouse and logistics costs.

The stand-by converter has an on-board fuse and EMI filter to provide an EN and FCC pre-approved subsystem saving you the time of achieving the necessary certifications. A comprehensive protection scheme eliminates the risk for overload and short circuits. With these advanced features pre-installed, you have freed essential time and resources to put elsewhere.

## ICEExtend Size and Features

Universal mains switch and ErP compliant standby converter frontend to ICEpower modules

True size



## Feature Set Summary

Full compatibility with ASX2 series and ICEtheater7	✓
ASP series supported with standby converter and wake-on-signal	✓
Universal mains 85-264 Vac. 45-65 Hz	✓
Supports up to three ICEpower ASX2 modules	✓
Auxiliary +5V power supply	✓
Standby converter compliant with 2013 regulatory requirements ErP (1275/2008/EC) and Energy Star	✓
Automatic power down after 15 minutes of audio inactivity	✓
Maintaining 0.5W in standby mode while providing 50mA at 5V for customer payload	✓
Wake-on-signal	✓
3-5V and 12V trigger	✓
Dual LED driver for standby and active mode indication	✓
Intelligent inrush current limitation	✓
Pre-approved for Safety, EMC and RoHS	✓

# About ICEpower

ICEpower is an innovative Danish company developing and manufacturing energy efficient, high performance class D audio solutions for consumer, professional, automotive and portable audio applications. Our products are based on a range of innovative, proprietary technologies that deliver the best audio performance, efficiency and power density in the industry.

The company was founded in 1999 by Bang & Olufsen and Dr. Karsten Nielsen, based on the technologies developed in a joint research project between Bang & Olufsen and the Technical University (DTU), where Karsten Nielsen managed to achieve significant improvements in efficiency and audio quality of switching technologies. Today, ICEpower is a company of 40 employees and an independent subsidiary of Bang & Olufsen.

We are proud of the fact that ICEpower was one of the first companies to pioneer the audio industry's change from analogue technologies to highly efficient switching technologies, bringing about a true paradigm shift in the industry. Our technologies have raised the efficiency of audio amplifiers and power supplies from 50-70%, possible with traditional analogue technologies, to 80-95% – making audio devices "greener".

Today, we continue our focus on enhancing the efficiency, audio performance and power density in the audio power conversion chain. We work hard to stay on the forefront of technological development in our niche, continuously working to enhance our technological portfolio through in-house development, academic collaboration and partnerships with other industry players.

Since our establishment, we have cooperated with over 100 loyal customers and partners all over the world. Among them are some of the world's most respected companies, such as Bang & Olufsen, Bowers & Wilkins, Pioneer, TEAC, Samsung, ASUS Computers, Toshiba, Sanyo and Audi.

Please visit us at [ICEpower.dk](http://ICEpower.dk) for further information about our products, our technologies and our company.

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