



Tech Made Simple

I-TECH POWER SPECS: WHY 2-OHM POWER IS LESS THAN 4- AND 8-OHM POWER

When we look at the power ratings of an amplifier, we usually see more power output at 4 ohms than at 8 ohms, and more power at 2 ohms than at 4 ohms. Power goes up as load impedance goes down.

With I-Tech power amps, it's different. The power output at 2 ohms is less than the power output at 4 or 8 ohms, for a good reason. Let's explain.

I-Tech was designed to provide extremely high output voltage, which improves the transient response of loudspeakers. I-Tech amplifiers operate with 200V rails at any impedance. With 200V rails, we're looking at serious current

levels at 2 ohms – 100 amperes! If not controlled, this high current can damage amplifiers and speakers due to overheating.

To protect the amp and speakers, I-Tech uses current limiting, with more limiting at the lower impedances. This still allows lots of power and safe operation at 2 ohms. There is much less current limiting at 4 ohms and 8 ohms, so those impedances result in more power from the I-Tech than 2 ohms does.

To sum up: The I-Tech's 2-ohm power is kept under control to keep the amp and speakers running safely, non-stop, with plenty of power for the job.

©2004 by Crown Audio[®], Inc.
1718 W. Mishawa Road, Elkhart, Indiana 46517-9439 USA
Tel: 574-294-8000
138022-1 11/04