You Get What You Pay For

A Guide to ARCAM AVR300 Power Ratings

There's one misguided question everyone seems to ask about AV receivers – *"How many watts?"* It's misguided not because it's a stupid question, but because it usually prompts a meaningless answer.

With the Arcam AVR300 the answer is 120 watts per channel in stereo and *100 watts per channel, all channels driven*. An answer that has been carefully constructed to be "meaningful". However, having been exposed to less meaningful answers (and advertising) in the past, that answer is likely to generate a response similar to: *"I can get the same power for half the price from [insert any popular Japanese brand name here]."*

To put things in perspective, we've done a little research. We picked one of the top-rated Japanese receivers with a similar feature set, nearly identical power ratings, and a price that – while not exactly half the price – does ring up at a significant eight hundred bucks under the AVR300. We then asked Arcam's R & D department to test this receiver exactly the same way they would test an AVR300. Here are the results:

Conditions	ARCAM AVR300	Other Receiver	Comments
Published Power Spec	100 wpc	110 wpc	The other receiver has a slight edge – on paper.
Actual into 2 Channels	129 wpc	124 wpc	Arcam has a slight advantage.
Actual into 5 Channels	108 wpc	50 wpc	Arcam delivers double the power.
Actual into 7 Channels	100 wpc	25 wpc	Arcam delivers 4 times the power.

The difference is that many manufacturers publish AV receiver power specs on an "***each***-channel-driven" basis. Arcam actually meets a specification based on "***all*** channels driven."

The ability to deliver significant levels of power into multiple channels simultaneously is becoming more and more important. Surround music immediately comes to mind. However, even in conventional home theater environment, it is easy to find yourself in a situation that places significant demands on the majority of channels. Imagine a system in which amplifier modules 6 and 7 are being used to deliver full range musical content to Zone 2. The three front channels are stressed by a particularly demanding movie sound track. And, just at that moment, a jet flies in from the rear, strafing the seating area. What do you suppose happens to the music in Zone 2 (and the expletive-filled dialog from the center channel) as the power capabilities drop to 25 watts per channel?

You do get what you pay for. When comparing AV receivers by looking at the power ratings, be sure you are comparing apples with apples. Or, better yet, make your decisions by actually listening to the receiver (making sure to use music in addition to movies).

All measurements are taken under identical (and quite favorable) conditions: N channels driven to the onset of clipping (typically 0.2% to 0.5% THD) using a 1kHz signal into a set of simple 8 ohm resistive loads for several seconds.