

# harman/kardon®

## PRESS RELEASE

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6 September 2007

### **HARMAN KARDON® AUDIO/VIDEO RECEIVER LINEUP AT CEDIA 2007 OFFERS EXCEPTIONAL PERFORMANCE, FEATURES AND FLEXIBILITY**

*– Versatile HDMI™ Connectivity, Exclusive |||||EzSet/EQ™ Automatic System Calibration, XM® Satellite Radio Capability and Many Other Advanced Features Included in Receivers Featured at CEDIA 2007 –*

WOODBURY, NY – At CEDIA Expo 2007, Harman Kardon, Inc., is exhibiting its 7.1-channel AVR 347 and AVR 247, and its 5.1-channel AVR 147 and AVR 146 audio/video receivers. All include HDMI connectivity, and offer a full complement of advanced features and connectivity options to set the highest performance and value standards in their respective categories. Adding to their appeal, the receivers are stunning in design, and complement any home entertainment system.

Following is an overview of key features and technologies of the Harman Kardon receivers that are being showcased at CEDIA 2007 at the Colorado Convention Center, Booth 580 (September 6 – 9, 2007).

#### **Versatile High-Definition Video and Audio Connectivity**

All the receivers include multi-input HDMI video switching, and are capable of passing high-definition video signals up to 1080p through their HDMI and wide-bandwidth component video connections. In addition, the AVR 347 and AVR 247 incorporate DCDi® by Faroudja technology. This Directional Correlational Deinterlacing provides upscaled and enhanced 720p video output from 480i and 480p video sources via the receivers' HDMI outputs, for superlative image quality. The addition of a sophisticated video processor in the AVR 347 and AVR 247 allows them to present an advanced, easy-to-use menu system.

The AVR 347 and AVR 247 also feature audio processing and signal-repeater functionality via their HDMI outputs, and video cross-conversion circuitry, which converts all S-video and composite video sources to HDMI and component video output. All the receivers offer a comprehensive array of digital and analog video and audio connections, as well as including a useful A/V Sync Delay function to compensate for the delay between video and audio signals that can occur in a home entertainment system, in order to ensure exact synchronization of picture and sound.

#### **EzSet/EQ™ Makes System Setup Easy and Accurate**

The receivers (except the AVR 146) include Harman Kardon's proprietary EzSet/EQ automated full-range room-equalization and system-calibration function to simplify system setup and achieve optimal audio quality in any listening room. EzSet/EQ automatically measures the frequency response peaks and dips in

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the listening room, and applies a precise, compensating equalization curve to achieve unprecedented sonic accuracy. EzSet/EQ also calibrates speaker output levels and delay times.

### **XM Satellite Radio-Capability**

The AVR 347, AVR 247 and AVR 147 feature XM Ready®\* capability (where available). Once the user connects an XM Satellite Radio antenna module (sold separately) and activates an XM subscription, XM Radio stations can be accessed via the receiver's tuner, and stored in the tuner's preset station memory.

### **Harman Kardon Receivers Bring iPod® and Home Entertainment Together**

All of the receivers include an exclusive iPod interface, which provides enhanced iPod audio and video playback and control capabilities. When a compatible iPod model\*\* (not included) is connected to one of the receivers using The Bridge\*\*\* docking station (sold separately), the iPod can be operated by the receiver's remote control, with menus to operate the iPod shown on a TV (or video display) and the receiver's front-panel display.

### **Engineered for Exceptional Sound Quality**

The receivers are designed to deliver extraordinary sound quality. All feature Harman Kardon's acclaimed high-current, ultrawide-bandwidth amplifier sections, and their power ratings are stated with all channels driven to provide an accurate indication of their real-world amplifier performance. The receivers utilize Cirrus Logic® CS49510 DSP processors, high-resolution 24-bit/192kHz audio D/A converters and comprehensive bass-management systems to reproduce movies and music with remarkable fidelity and dynamic impact; all incorporate proprietary Logic 7® audio technologies for enhanced surround sound realism.

In addition, the AVR 347 and AVR 247 offer multiroom versatility and include assignable amplifier sections that may be used to feed a multiroom system that shares audio with another room, without requiring external amplifiers. The AVR 347 incorporates the A-BUS system for easy multizone audio connectivity, using a single Cat. 5 cable to connect a receiver in one room to a Harman Kardon AB 2 or AB 1 amplified in-wall control/amplifier module in a second room. When used with an A-BUS hub, such as the Harman Kardon ABH 4000 or ABH 4, a single AVR 347 can distribute audio to additional rooms in a home.

### **The AVR 745: A Powerful 7.2-Channel Home Entertainment Control Center**

At CEDIA, Harman Kardon is also exhibiting its 7.2-channel AVR 745, a powerful and flexible receiver that delivers 7 x 85 watts per channel (into 8 ohms, 20Hz – 20kHz, <0.07% THD, all channels operating at full-rated power) to fill large-scale home theater installations with dynamic and expansive surround sound. The AVR 745 offers a wealth of high-performance technologies, including Harman Kardon's |||EzSet/EQ™ II automatic system-calibration and room-equalization function with dual-subwoofer-adjustment capability; HDMI switching with audio and video processing; DCDi by Faroudja video processing and upscaling to 1080i; extensive multiroom functionality with A-BUS connectivity; iPod compatibility via The Bridge docking station from Harman Kardon; a USB connection that enables streaming audio playback from a compatible computer; and many additional refinements.

The Harman Kardon AVR 347, AVR 247, AVR 147 and AVR 146 are available at suggested retail prices of \$899, \$549, \$449 and \$349, respectively, and the AVR 745 is available at a suggested retail price of \$3,499.

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An outline of the Harman Kardon AVR 347, AVR 247, AVR 147 and AVR 146 receivers' main features follows.

#### **Power Output**

- AVR 347, 7 x 55 watts; 2 x 70 watts in stereo; and  $\pm 35$  amps of high-current capability
- AVR 247, 7 x 50 watts; 2 x 65 watts in stereo; and  $\pm 35$  amps of high-current capability
- AVR 147, 5 x 40 watts; 2 x 50 watts in stereo; and  $\pm 25$  amps of high-current capability
- AVR 146, 5 x 30 watts; 2 x 40 watts in stereo; and  $\pm 25$  amps of high-current capability
  - All power outputs rated into 8 ohms, 20Hz – 20kHz, <0.07%THD, with all channels driven at full rated power (both channels driven in stereo operation); all receivers feature high-current, ultrawide-bandwidth amplifier sections

#### **Audio and Video Connectivity**

- Dual-input HDMI video switching (all models) and audio processing (AVR 347, AVR 247)
- HDMI signal-repeater functionality to enable longer HDMI cable lengths between receiver and video display (AVR 347, AVR 247)
- DCDi by Faroudja video processing and scaling up to 720p (AVR 347, AVR 247)
  - AVR 347 and AVR 247 also provide multichannel digital audio output from compatible HDMI program sources
- Capable of passing 1080p and 1080i signals via HDMI video output
- Extensive array of additional digital and analog video and audio inputs, outputs and switching facilities
- Cross-conversion to component video from composite- and S-video sources (AVR 347, AVR 247)
- XM Ready (where available) with built-in XM Satellite Radio decoder, tuner and rear-panel connector to accept an optional XM antenna module (all models except AVR 146); XM stations are displayed on-screen and on the receiver's front-panel display
- Compatibility with The Bridge iPod docking station from Harman Kardon for iPod audio and video playback, control and charging
- Multizone/multisource audio capability with iPod playback (using an iPod and The Bridge) and XM Satellite Radio reception in Zone I and Zone II; AVR 347 supplied with Zone II remote
  - Rear amplifier channels are assignable to multizone system (AVR 347, AVR 247)
  - A-BUS multizone connectivity and 7.1-channel-plus-stereo second-zone operation (AVR 347)

#### **Automatic Setup and Advanced Audio Functionality**

- EzSet/EQ feature with automated system calibration and room equalization (all models except AVR 146)
- Quadruple-Crossover Bass Manager (AVR 347, AVR 247) or Triple-Crossover Bass Manager (AVR 147, AVR 146) allows selection of one of six different crossover frequencies for the front, center and surround speaker groups to yield optimal bass performance
- Exclusive Logic 7 surround-enhancement technology for enhanced sonic realism from matrix-encoded and stereo audio sources; the receivers offer compatibility with popular surround formats
- A/V Sync Delay to compensate for the delay that can occur between the audio and video signals when digital video sources, external video processors or digital video displays are in use

#### **Additional Performance and Convenience Features**

- Digital input polling to detect whether audio signal from a program source, such as an HDTV cable set-top box, is digital or analog, and to automatically configure the receiver to provide the required audio output
- Input-titling feature to enable users to customize the receiver's on-screen and front-panel displays

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- Inclusion of preprogrammed and learning (AVR 347), or preprogrammed (AVR 247, AVR 147, AVR 146), remote control
- RS-232 port (except AVR 146) to enable future software and firmware upgrades
- Stunning appearance, with a gloss-black upper panel, a volume control accented by the brand's signature blue illumination, and a contrasting silver lower panel



The Harman Consumer Group (HCG), Inc., is a leading designer, manufacturer and marketer of a wide range of high-fidelity loudspeakers, audio and video components, and multimedia systems for use in homes and automobiles, and with computers. The group's brands include JBL®, Infinity®, Harman Kardon®, Mark Levinson®, Revel®, Audioaccess® and Lexicon®.

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XM and XM Ready are registered trademarks of XM Satellite Radio.

\*Optional XM antenna module and subscription to XM service required. Hardware and service sold separately. XM service is not available in Alaska or Hawaii.

\*\*Compatible with iPod models with docking connector; includes all Click Wheel models.

\*\*\*The Bridge is compatible with Harman Kardon AVR 47 Series, AVR 146, 45 Series and 40 Series receivers and the DMC 1000 digital media center; not compatible with earlier Harman Kardon products, or with other brands of audio/video equipment.

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