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Radio TechCheck

The Weekly NAB Newsletter for Radio Broadcast Engineers



2013 International CES Reveals New Capabilities in Auto Audio Systems

The newest line-ups of car audio systems recently shown at the [2013 International CES](#) (January 7-10, 2013, Las Vegas, Nev.) revealed several growing trends in both ultra-high tech



A/V systems, such as the Pioneer AVIC Z150BH unit shown at left, as well as units with multi-character displays (like the Sony MEX-GS600BT unit, also at left). In an analysis of the car audio systems offered by Alpine, JVC, Kenwood, Pioneer, and Sony, advanced Bluetooth (providing mobile broadband

connectivity to the car), connectivity to Internet radio (especially Pandora), and phone-based GPS navigation through car audio systems are among the increasingly available features. These features rely upon the ever-growing penetration of smartphones in the marketplace, and are increasing drivers' car connectivity, making traditional AM/FM radio just one of a growing number of audio options.

The table below summarizes the findings of a recent Internet survey conducted by NAB on features available in aftermarket car audio systems. Bluetooth connectivity, once only capable of wirelessly patching phone calls through car audio systems, now supports advanced features such as audio streaming and audio/visual remote control. Referring to the table, fewer than 10% of the systems from Alpine, Sony, and Pioneer utilize call-only Bluetooth. In contrast, over 50% of models from Alpine, JVC and Pioneer and just over one-third of those from Sony and Kenwood support advanced Bluetooth with audio streaming. This has an especially significant impact on radio. While previous car audio system models supported audio streaming via USB, and sometimes AUX inputs using an audio cable connected to an MP3 player or other device, advanced Bluetooth allows a wider range of devices to support Internet radio and navigation features.

2013 NAB Technology Innovation Awards



NAB is currently accepting [nominations](#) for the 2013 NAB Technology Innovation Awards. First presented at the 2009 NAB Show,

NAB presents the award to organizations that bring advanced technology exhibits and demonstrations of significant merit to the NAB Show. The nominated exhibit should present advanced research and development projects in communications technologies that have not yet been commercialized.

Candidates for the Technology Innovation Awards must be organizations who are currently exhibiting at the NAB Show. The size of the organization is not a determining factor. Nominated projects may not be commercial products that have been offered for sale prior to or at the NAB Show. The merit of the technology exhibit is the sole factor to be taken into account. The entry deadline is February 22, 2013. The awards will be presented at the NAB Technology Luncheon on April 10, 2013 at the NAB Show in Las Vegas.

MFG	# of connected models	Number of connected radios with:					
		Character display	Touch-screen display	Bluetooth (calls only)	Advanced Bluetooth (streaming)	Pandora	GPS
Alpine	14	8	6	1	12	13	0
JVC	24	17	7	0	15	24	3
Kenwood	23	12	11	2	13	23	6
Pioneer	26	11	15	2	19	26	0
Sony	17	14	3	0	9	12	3

SOURCE: INTERNET SURVEY CONDUCTED BY NAB, JANUARY 2013

Car audio systems are also increasingly offering Internet radio options, especially Pandora. All of the connected models from three manufacturers (JVC, Kenwood, and Pioneer) are specifically compatible with Pandora (see highlighted sections in table). Of all the systems (both connected and unconnected) from each of the five manufacturers, at least 50% included Pandora capability (via USB or Bluetooth-connected smartphone), the most Pandora-capable being Pioneer (96%) and JVC (89%). However, the survey shows some connectivity limitations. All of these applications are compatible with iPhone and iPod, but a significant amount of these are not compatible with Android or BlackBerry smartphones. Over 50% of Sony's, 37% of JVC's, 20% of Pioneer's, and 17% of Kenwood's connected stereos are not compatible with Android or Blackberry. As Apple's hold on the smartphone market is fluctuating (down 2% from January 2012 to September 2012, based upon figures obtained by NAB from market analysis firm [Strategy Analytics](#)), it is likely that future models may expand their Bluetooth and/or USB connections to include Android and Blackberry compatibility, as well.

A small number of car audio systems are beginning to utilize the navigation capabilities of smartphones. While many car audio systems have built-in GPS navigation, some of those that do not now include smartphone GPS navigation connectivity. Of the touchscreen models, all of Sony's, over half of Kenwood's, and almost 50% of JVC's include this feature. Car audio systems are no longer just for listening to radio and CDs!

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