



## ***Directed Launches MaxxBass® Products***

*Automotive security and sound leader introduces industry's first MaxxBass Signal Processors under PPI and Orion brands*

**LAS VEGAS, NEVADA  
CONSUMER ELECTRONICS SHOW  
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WAVES LTD., a leading supplier of psycho-acoustic audio signal processing solutions for the professional, broadcast and consumer electronics audio markets, has announced today that Directed Electronics Incorporated is introducing several new car audio products with its patented MaxxBass® bass extension technology. Directed is introducing the MaxxBass® Signal Processor under the PrecisionPower and Orion brands, which is used to provide subwoofer like bass performance levels on standard door mount speakers.

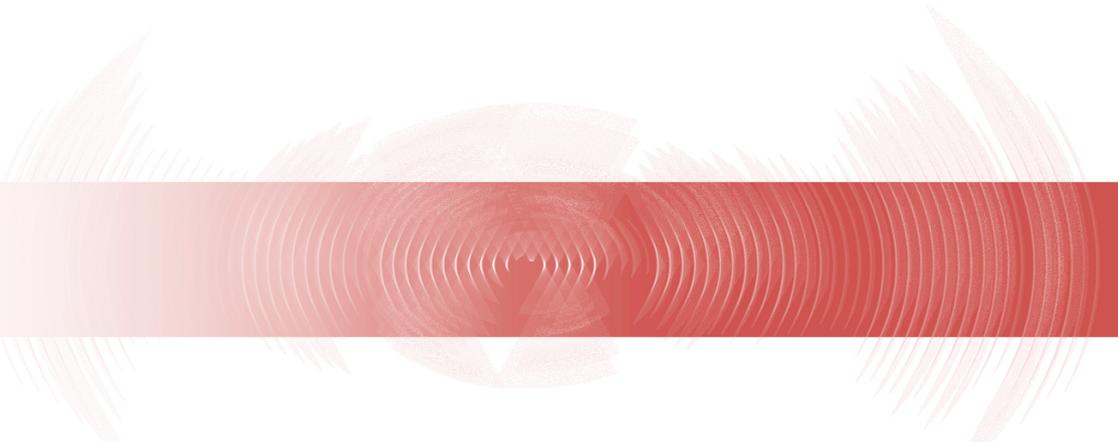
"Waves MaxxBass offers Directed's customers the ability to get deep bass frequency response in vehicles where a traditional subwoofer is not possible due to size, power or cost constraints," stated John Durbin, Directed's Audio Product Manager. "Additionally in vehicles with rear mounted subwoofers, the MaxxBass unit can be used on the front door mount speakers to improve the bass imaging. Directed is excited to be the first manufacturer to bring the MaxxBass technology to the automotive market, as the MaxxBass units provide our customers a greater range of high performance configuration options than offered by any other manufacturer."

"PrecisionPower and Orion are well established audio brands with a strong reputation for both technology innovation and leadership in audio quality," stated Gilad Keren, Waves President and CEO. "Waves is the proven leader in audio signal processing algorithms to the top audio professionals and now Directed can leverage these same proven technologies for automotive audio reproduction for their demanding audiophile customers."

Waves is the leader in computer based audio signal processing tools in the professional market, and its tools such as limiters, equalizers, compressors and effect processors are used on practically every top album and movie soundtrack. Ten years of leadership experience with this very quality conscious market has allowed Waves to develop a rich expertise to psycho-acoustics, including the patented MaxxBass technology. MaxxBass is a bass frequency extension technology that extends the perceived low frequency response by up to one and one half octaves below the physical low frequency cut off of a loudspeaker system. MaxxBass utilizes the psycho-acoustic Phenomenon of the Missing Fundamental. The MaxxBass software "plug-in" tool is commonly used today in mastering much of the world's most popular music to improve mix compatibility on smaller loudspeaker systems; however using MaxxBass in loudspeaker systems is even more powerful, since it can be optimized to extend the bass response of the specific loudspeaker system.

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Waves recently introduced the MX3000AS, a low cost ASIC (Application Specific Integrated Circuit) for MaxxBass making this technology cost-effective for consumer electronic products. This ASIC integrates high quality analog, sigma delta A/D/A and a custom DSP into a 16-pin SOIC package. Datasheets and other information is available at [www.maxx.com](http://www.maxx.com).

### **About Directed**

Directed Electronics Incorporated is the world's largest aftermarket vehicle security and remote start company with brands such as Viper, Clifford, Python, Avital, Sidewinder and Valet. Directed is also a prominent manufacturer of car audio equipment with their Viper, Directed Audio, a/d/s, PrecisionPower (PPI) and Orion brands. The company also manufactures a full line of mobile entertainment products including LCD screens, DVDs, etc. Directed is registered in the ISO9001 and ISO9000 international quality standards.

Directed Electronics is a portfolio company of Trivest, Inc, a private equity firm based in Miami, Florida. Since its founding in 1981, Trivest has sponsored more than 105 acquisitions and recapitalizations totaling more than \$2 billion in value. For more information, please visit [www.directed.com](http://www.directed.com) and [www.trivest.com](http://www.trivest.com).

### **About Waves Ltd.**

Waves is a leading provider of audio DSP solutions for professional, broadcast, and consumer electronics audio markets. Waves has ten years of expertise in the development of psycho-acoustic signal processing algorithms that leverage knowledge on the human perception of hearing to radically improve perceived sound quality. Waves award-winning processors are utilized to improve sound quality in the creation of the world's most popular music, movie sound tracks and multimedia titles. Waves offers computer software solutions and hardware plus software solutions for the professional and broadcast markets. Waves also offers semiconductor with embedded software solutions under the Maxx brand for the consumer electronics audio applications. Waves' Maxx technology dramatically enhances audio performance in consumer applications and has been licensed to several leading companies, including Motorola and Microsoft. For more information, visit Waves Web site at <http://www.waves.com>.

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