

## All-Enveloping Object-based Sound Defines New 7.2-Channel Receiver from Pioneer, Leveraging Direct Energy HD Amplification for Thrilling Power

**August 31, 2017—Pioneer announces the SC-LX502, a 7.2-channel AV receiver setting a new standard for surround-sound performance optimized for Dolby Atmos® and DTS:X™.**

As well as native object-based audio Dolby Atmos and DTS:X, Dolby Surround and DTS Neural:X™ allows standard multi-channel audio on DVD, Blu-ray Disc™, and video streaming services via media players to be upmixed for playback through a speaker configuration including height channels. The SC-LX502 features acclaimed Direct Energy HD Amplification to smoothly deliver high power through all channels simultaneously. The result is thrilling surround-sound performance, with resolution, speed, and fluency to bring out the best in object-based soundtracks. Responsive amplification is enhanced with exclusive MCACC and Phase Control technology, which resolves bass lag for improved organization.

The user experience reaches a new level of convenience with network audio playback integrating closely with mobile devices. The receiver includes FireConnect™\*1 powered by Blackfire for multi-room digital and analog audio distribution; Chromecast built-in supporting streaming of an almost unlimited variety of music from various online services; and DTS Play-Fi®\*2 technology to enable multi-room audio casting to any number of compatible speakers of any brand. Spotify, Deezer, TuneIn, and TIDAL™\*3 are built in. AirPlay and Bluetooth® wireless technologies\*4 are included, while 5 GHz/2.4 GHz Wi-Fi® supports streaming from networked media server and PC.

Next-generation TV displays are fed 4K/60p video supporting Dolby Vision™, HDR10, HLG (Hybrid Log-Gamma), and BT.2020 via HDCP 2.2-compliant HDMI® terminals. High-end AKM AK4458 DAC decodes Hi-Res Audio over LAN and USB for clear and expressive musicality.

### **Direct Energy HD Amplification**

Direct Energy HD Amplification is based on Pioneer's Multi-channel Stereophonic Philosophy, and is capable of simultaneous high-current power. Direct Power FET connects to the circuit board without wiring, preventing energy loss for quick response and high efficiency. Custom bypass capacitors enhance the best aspects of the Class D design and aid with powerful bass and overall expressiveness.

### **Dolby Atmos and DTS:X Audio Decoding**

Dolby Atmos and DTS:X soundtracks mix sound elements independently so they play through any speaker in a surround-sound system incorporating elevation channels. Sound moves above and around the audience with convincing realism. The SC-LX502 plays native 5.2.2-channel Dolby Atmos and DTS:X formats. DTS Neural:X pulls spatial cues from standard multi-channel soundtracks and upmixes for 3D playback through speaker systems with height channels. Dolby Surround™ also upmixes legacy sound formats so you can experience multi-dimensional playback of legacy formats in a Dolby Atmos environment.

### **MCACC with Phase Control Technology**

MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of professional recording studios, creates an ideal listening environment in a dedicated room. Using a setup microphone, the system automatically compensates for differences in speaker size, level, and distance, and equalizes response. Phase Control Technology, meanwhile, eliminates phase-lag between main channels and subwoofer caused by the low-pass filter for improved cohesion.

### **Reflex Optimizer**

When using Dolby Atmos-enabled speakers, high-directivity sound reflects off the ceiling, while low-directivity sound reaches the ears directly. This causes a phase shift, making sound feel uncomfortable. Reflex Optimizer resolves this phase lag and optimizes the performance of Dolby Atmos-enabled speakers for clear sound imaging. Improved integration creates a clear and comfortable sound field.

### **4K/60p Video with HDR10, HLG, Dolby Vision, and BT.2020**

All HDMI terminals support 4K/60p video, 4:4:4 24-bit video pass-through, and the HDCP 2.2 digital copy-protection standard for playback of premium content. Video with HDR (High Dynamic Range) in HDR10 or HLG (Hybrid Log-Gamma) formats is passed through to a compatible display, together with Dolby Vision and the wide-color-gamut of BT.2020 for vividly rich reproduction.

### **Premium 768 kHz/32-bit DAC for Hi-Res Audio**

The SC-LX502 features a high-grade AKM AK4458 768 kHz/32-bit Multi-channel DAC. The device offers clear and precise audio conversion with a unique output filter assuring low distortion and excellent S/N performance. Direct DSD 11.2 MHz/5.6 MHz/2.8 MHz and DSD 5.6 MHz/2.8 MHz with PCM conversion are supported, as are FLAC, WAV, AIFF, and Apple Lossless to a maximum 192 kHz/24-bit resolution<sup>\*6</sup>.

### **FireConnect™ Wireless Multi-room Audio**

FireConnect™ mirrors network audio and sources connected to the AV receiver's analog inputs on wireless speakers. Music selection, speaker grouping, and control are built into Pioneer Remote<sup>\*5</sup> app for iPad, iPhone, iPod touch, and Android™ phones/tablets.

### **Chromecast built-in Music Streaming Platform**

Stream any music from your smartphone, laptop, or PC to the SC-LX502 and control playback with Chromecast built-in-enabled apps on iPad, iPhone, iPod touch, Android phones/tablets, Mac or Windows® PC, or Chromebook™. When used in conjunction with Google Assistant built-in speakers such as Google Home™, users can say "Ok Google" to request music, podcasts, and internet radio from services for playback on any household audio system supporting Chromecast built-in.

### **Ready for DTS Play-Fi**

DTS Play-Fi provides high-quality music streaming from connected online services, networked media servers, and device library over Wi-Fi to any number of compatible products using the Pioneer Music Control App<sup>\*5</sup>

available for iPad, iPhone, and Android phones/tablets. DTS Play-Fi automatically synchronizes the music in every room and supports streaming different sources to different speakers. With DTS Play-Fi's Apple Watch and Android Wear™ support, music playback controls are also available from popular smartwatches. Users can easily structure a comprehensive ecosystem that satisfies virtually any need. For more information on DTS Play-Fi, visit [www.play-fi.com](http://www.play-fi.com).

### **Internet Radio and Online Music**

A virtually limitless flow of music, sports, talk, and news entertainment is ready to explore courtesy of built-in Internet radio and online music services including Spotify, TuneIn, TIDAL, and Deezer, which are accessible via Pioneer Remote app or the system GUI.

### **Bluetooth Wireless Technology**

*Bluetooth* Version 4.1 +LE is a convenient audio streaming solution for almost any content playing on mobiles, tablets, and laptops, from audiobooks and podcasts to music played from smartphone applications. Automatic signal detection allows the receiver to wake and play music automatically.

### **Intuitive Control and Streaming with Pioneer Remote App**

Choose songs from on-demand services, browse the device library, or select files on network media server and stream them to the SC-LX502 using the Pioneer Remote app on Android phones/tablets, iPhone, or iPad.

*\*1 Distribution of audio from external analog inputs is enabled with a future firmware update. Supports transmission of 44.1 kHz and 48 kHz sampling rates. \*2 DTS Play-Fi is enabled with a firmware update. \*3 Availability of services is subject to regional availability and may require a paid subscription. \*4 Bluetooth Ver. 4.1 +LE, compatible profile: A2DP v1.2, AVRCP v1.3. \*5 Available for free. Please check device and OS compatibility at App Store or Google Play. \*6 Hi-Res Audio is recommended for playback over wired LAN or USB. Performance with Wi-Fi is not guaranteed.*

• PIONEER, MCACC, Phase Control, and the logos are registered trademarks of Pioneer Corporation, and are used under license. • The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries. • Dolby, Dolby Atmos, Dolby Surround, and Dolby Vision are trademarks of Dolby Laboratories. • For DTS patents, see <http://patents.dts.com>. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS and the Symbol together, DTS:X, the DTS:X logo, Play-Fi, and the Play-Fi logo are registered trademarks or trademarks of DTS, Inc. in the United States and/or other countries. © DTS, Inc. All Rights Reserved. • The *Bluetooth*® word mark and logos are owned by the Bluetooth SIG, Inc. • AirPlay, iPad, iPhone, Apple Watch, and Mac are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. registered in the United States and/or other countries. AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion, and Mac and PC with iTunes 10.2.2 or later. • Windows is a trademark of the Microsoft group of companies. • Wi-Fi® is a registered trademark of the Wi-Fi Alliance. • Spotify and the Spotify logo are trademarks of the Spotify Group, registered in the U.S. and other countries. • Google, Google Play, Android, Android Wear, Chromecast built-in, and Chromebook are trademarks of Google Inc. • Blu-ray Disc™, Blu-ray™, and the logos are trademarks of the Blu-ray Disc Association. • Reflex Optimizer is a registered trademark of Onkyo Corporation. • All other trademarks and registered trademarks are the property of their respective holders.