Pioneer AV receivers are designed to offer precise audio reproduction, letting you immerse in the world of home entertainment, just as the creators intended. The AV receivers are laden with highlights such as DTS:X™ and Dolby Atmos®, Reflex Optimizer for Dolby-enabled speakers, the Super Resolution technology derived from Pioneer’s high-end Blu-ray Disc player series, playback of DSD and other Hi-Res audio files, and network features including internet radio and Chromecast built-in*. The GUI also comes with fresh updates, offering a new design and smoother setup. The steadfast functions and performance cultivated in the high-grade SC Series introduce a new quality standard to home entertainment.

This Product Reference Guide introduces the technologies and features that give the special qualities to Pioneer AV receivers. We hope the information will help enrich your home entertainment experience.

* Available with future firmware update
Audio Technologies
• Multi-Channel Stereophonic Philosophy
• Direct Energy Design
• Select Parts for Clear and Open Sound
• MCACC Auto Room Tuning
  - Phase Control
  - Subwoofer EQ
  - Bass Management System for Dolby-Enabled Speakers
• Reflex Optimizer
• 384 kHz/32-bit DAC (AK4458)
• Anti-Standing Wave Insulator
• Advanced Sound Retriever

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• Video Scaler (1080p to 4K) with Super Resolution
• Ultra HD (4K/60p/4:4:4/24-bit) Pass-Through with HDCP 2.2
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• "x.v.Colour"

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• Dolby Surround
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• Ready for iControlAV5 App
• Firmware Update/Network Setup via Web Control
• Standby Pass-Through with CEC
• Standby Pass-Through without CEC
• Auto Power Off in HDMI Standby Through

Applicable models displayed in icons:

1131  VSX-1131
831  VSX-831
531  VSX-531
Multi-Channel Stereophonic Philosophy

In the same way as the ideal stereo sound reproduction, multi-channel sound can faithfully reproduce the master sound by equalising the response of all channels. With Pioneer’s original Multi-Channel Stereophonic Philosophy as the core, versatile technologies and know-how have been lavishly incorporated to realise matchless high-quality sound and sophisticated performance.

Direct Energy Design

Every inch of the chassis has been devised to create quality sound, such as shorter transmission path for the power amplifier block, extremely clean grounding, a rigid structure with improved damping, and the shape of the wiring. The discrete amplifiers of VSX-1131/VSX-831 feature 384 kHz/32-bit AKM DAC* for all channels, inheriting the Direct Energy Design of the high-end models which allow high-power simultaneous multi-channel drive. In combination with the MCACC auto room tuning, you can enjoy all the emotions intended for the playing piece.

* Except VSX-531

Select Parts for Clear and Open Sound

High-grade parts are used to bring out the best from the Direct Energy Design. The polymer multi-layer MU capacitors (PML MU) co-developed with Rubycon Corporation provide clear and open high-range sound. The audio-grade power transformer realises noise-free signal transmission.
**MCACC Auto Room Tuning**

Create the optimum acoustic environment with Pioneer's MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of professional recording studios. The system—complete with custom microphone—automatically compensates for differences in speaker size, level and distance, and equalises response.

**Phase Control**

When amplifying multi-channel audio signals, receivers use a Low Pass Filter (LPF) to process low-frequency signals for subwoofer output. This causes “phase lag”—a delay of approximately 5 mSec—of the low-frequency signals compared to the main channel signals. As a result, the delayed bass makes the sound lack synchronisation. Pioneer’s Phase Control technology effectively eliminates phase lag and significantly improves the multi-channel sound without any extra operation.

**Subwoofer EQ**

This EQ feature allows you to adjust the LFE tone. As with other EQ, the manual adjustment can be done on the AV receiver’s GUI.

**Bass Management System for Dolby-Enabled Speakers**

When using Dolby-enabled speakers, the low-frequency components are usually all redirected to the subwoofer. Since this will include frequencies featuring directivity, the resulting sound lacks a seamless feel. MCACC redirects the low frequency component with directivity to the floor speaker below the Dolby-enabled speaker element, and the lower frequency components to the subwoofer. This optimal signal distribution creates superior sound localisation, maximising the advantage of Dolby Atmos content.
Reflex Optimizer

High directivity sound reflects off the ceiling, while low directivity sound directly reaches the ears. When using Dolby-enabled speakers, this difference causes a phase shift, making the sound feel uncomfortable. To solve this, the Reflex Optimizer optimizes the performance of your up-firing elevation speakers for your listening environment, by aligning the phase of direct and indirect sound, matching the basic tone, and optimizing the upward-oriented frequencies. The result is overall seamless sound with Dolby-enabled speakers, allowing the ideal reproduction of three-dimensional surround sound.

384 kHz/32-bit AKM DAC (AK4458)

The AV receivers feature AK4458, a 384 kHz/32-bit premium audio DAC from AKM (Asahi Kasei Microdevices Corporation). With the latest low-distortion technology, the DAC provides detailed and clear sound, ideal for Hi-Res Audio playback. The 32-bit digital filter creates natural and detailed sound.

Anti-Standing Wave Insulator

The Anti-Standing Wave Insulator has been developed through repeated listening tests, featuring a special form with no parallel sides inside to prevent cavity resonance. This makes the sound localisation, tone, and scale clearer, while also enhancing the seamless connection between the channels, and the response to quick sound.

Advanced Sound Retriever

Pioneer’s AV receivers feature the Advanced Sound Retriever, which restores the output of compressed audio—such as WMA, AAC, and MP3—to the level of CD sound. The Advanced Sound Retriever creates new signals to restore the minor details left out during the compression process.
Video Technologies

Video Scaler (1080p to 4K) with Super Resolution

Ultra HD, usually referred to as 4K, is the next generation ultra-high-resolution standard with 3,840 x 2,160 pixels or 4,096 x 2,160 pixels—four times the current HD 1080p standard. By detecting the fine texture in the image and applying appropriate compensation, a more detailed and beautiful image is created. This high-grade HD video is further elevated to an even more detailed, natural and realistic picture with the video scaler featuring super resolution. The AV receiver up scales 1080p video sources up to 4K/60p high-resolution images (4K/60p/4:4:4/24-bit, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:0/36-bit) for viewing on a 4K-compatible display. The AV receivers support 18 Gbps bandwidth, allowing reproduction of 4:4:4 colour format, and are ready to bring out the best from the future generation Ultra HD devices with 18 Gbps transfer capabilities.

Ultra HD (4K/60p/4:4:4/24-bit) Pass-Through with HDCP 2.2

The feature lets you take advantage of the highest-quality video source, by passing through 4K/60p signals for viewing on a compatible display. The AV receivers support HDCP 2.2, so by connecting to a compatible device, you can enjoy premium content such as 4K videos with digital copy protection.

* VSX-531 supports up to 4K/60p/4:4:4 on all HDMI terminals. VSX-1131/VSX-831 support up to 4K/60p/4:4:4/24-bit with HDCP 2.2 on HDMI IN (1/2/3) and HDMI OUT (MAIN/SUB).

Next Generation Video Standard Ready

The AV receivers are ready for the next generation video standard HDR (High Dynamic Range) and BT.2020*, which were adopted by Ultra HD Blu-ray™. HDR is a technology that drastically expands the brightness peak, providing a higher contrast between light and dark images, which creates even more life-like pictures. BT.2020 is a new colour-recording technology allowing a much wider gamut than the current BT 709 standard, enabling vividly rich colouration.

* Except VSX-531

<table>
<thead>
<tr>
<th>Chroma Format</th>
<th>Luma Resolution</th>
<th>Chroma Resolution</th>
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</thead>
<tbody>
<tr>
<td>4:4:4</td>
<td>Full</td>
<td>Full</td>
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<tr>
<td>4:2:2</td>
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<td>1/2</td>
</tr>
<tr>
<td>4:2:0</td>
<td>Full</td>
<td>1/2</td>
</tr>
</tbody>
</table>

HDR Dynamic Range Expansion Image

* For illustration purpose only

BT.2020 Colour Space Comparison

* For illustration purpose only
Video Technologies

Deep Colour

Pioneer AV receivers support 36-bit Deep Colour, featuring smooth gradation steps with more accurate precision of brightness and colour information, resulting in superbly detailed, natural colour.

“x.v.Colour”

Pioneer AV receivers support “x.v.Colour”, which almost doubles the range of colours (known as the “gamut”) that can be accurately captured, and reproduced on a compatible display, thereby more closely matching the natural characteristics of the human eye.

* “x.v.Colour” only available for playback of discs recorded with AVCHD devices. “x.v.Colour” and the “x.v.Colour” logo are trademarks of Sony Corporation.
Audio Formats & Licenses

**DTS:X™**

DTS:X is the next-generation audio codec from DTS that leverages object-based audio to enable new immersive and interactive audio experiences. Since DTS:X can automatically adapt the audio to the existing channels and speaker system, no specific speaker layout is required. Experience an immersive soundscapes with incredibly rich and life-like audio. The format is backward compatible with DTS-HD Master Audio, so you can also give new life to your movie collection.

* DTS:X will be available with future firmware update.

**Dialog Control**

The feature lets you independently control the volume of dialog encoded in DTS:X—a useful feature for people hard of hearing, or for late-night movie viewing.

**Dolby Atmos®**

Dolby Atmos is a unique technology for enjoying the latest surround sound. In a movie cinema, overhead speakers are placed, with a multi-layer approach to the sound design. On top of the conventional channel-based soundtrack, object-oriented mixing is used to layer dynamic sound elements, so regardless of the cinema’s speaker setup, independent sound elements can move around freely in a three-dimensional space. Compared to Dolby Digital with discrete channels, Dolby Atmos offers seamless surround sound movement with up to 64 separate speaker output and a sense of height created by the overhead speakers. The sound is completely in sync with the screen view, providing total immersion with unprecedented sound localisation and movement.

This cinema sound experience can be reproduced in your home with Pioneer’s Dolby Atmos AV receiver, which not only decodes Dolby Atmos, but also reproduces Dolby Atmos in an ideal sound stage.

**DTS Neural:X™**

DTS Neural:X is the latest down/up-mixing and spatial remapping technology built into DTS:X. It provides an up-mix of Neural:X encoded and non-encoded (PCM) data and can produce up to 11.x channels, letting you enjoy a more realistic atmosphere regardless of the original audio format.

* DTS Neural:X will be available with future firmware update.

**Dolby Surround**

The new surround sound effectively up-mixes legacy channel-based content for reproduction on a Dolby Atmos environment, expanding the original source to fill the speaker layout of a Dolby Atmos system.
Dolby TrueHD

Dolby TrueHD delivers sound that is on par with the original soundtrack, letting you experience the world of true high-definition entertainment from Blu-ray Discs. With lossless encoding in up to 18 Mbps bit rate, Dolby TrueHD creates a synergy with high-definition video to offer you a home cinema experience like never before.

Dolby TrueHD Loudness Management

Dolby TrueHD Loudness Management frees you from annoying volume fluctuations that often occur when switching channels, programmes, or input sources, by maintaining a consistent loudness-level. The function turns on/off during content playback, activating or deactivating post processing within the decoder. When the function is turned off, audio is delivered in a lossless mode.

DTS-HD Master Audio/DTS-HD High Resolution Audio

With DTS-HD Master Audio, you can enjoy sound that is bit-for-bit identical to the studio master, at 192 kHz/24-bit for 5.1 channels and 96 kHz/24-bit for 7.1 channels. DTS-HD Master Audio delivers audio at extremely high variable bit rates of 24.5 Mbps, which far exceeds standard DVDs. DTS-HD Master Audio offers movies and music in the pure, original state as intended by the artists.

DTS-HD High Resolution Audio can deliver up to 7.1 channels of 96 kHz/24-bit high-resolution sound. The rich audio is virtually equivalent to the original movie sound, yet less disc space is required than for DTS-HD Master Audio.

DTS Neo:6 5.1

DTS Neo:6 converts stereo content into 5.1 or 6.1 channel format, in a 7.1 configuration with the two rear-centre speakers playing in mono. DTS Neo:6 5.1 is capable of expanding 5.1 channel sources.

* Before DTS:X firmware update

### Comparison of High Definition Audio Formats

<table>
<thead>
<tr>
<th>Compressed</th>
<th>Lossy</th>
<th>Uncompressed</th>
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<tbody>
<tr>
<td>Dolby TrueHD</td>
<td>Dolby Digital Plus</td>
<td>Linear PCM</td>
</tr>
<tr>
<td>DTS-HD Master Audio</td>
<td>DTS-HD High Resolution Audio</td>
<td>Uncompressed 48 kHz/16-bit audio format similar to CD, but with higher sampling frequencies and quantization. No decoding required.</td>
</tr>
</tbody>
</table>

High Definition Audio Formats

DTS-HD Master Audio and Dolby TrueHD provide sound that is bit-for-bit identical to the studio master, delivering sound at extremely high variable bit rates far exceeding standard DVDs.
Hi-Res Audio File Playback via USB/Network

In addition to 5.6/2.8 MHz DSD (Direct Stream Digital) file playback via USB, the Pioneer AV receivers are the first to realize DSD streaming* via wired network. As for other Hi-Res formats, up to 192 kHz/24-bit WAV, FLAC, AIFF, and Apple Lossless files can be played via USB as well as network. Playback of Dolby TrueHD is also available via USB.

* NAS capable of DSD streaming required

The product with this logo is conformed to Hi-Res Audio standard defined by Japan Audio Society. This logo is used under license from Japan Audio Society.

Playable Formats

<table>
<thead>
<tr>
<th>Format</th>
<th>Extension</th>
<th>Stream</th>
<th>Ch</th>
<th>Sampling Frequency</th>
<th>Quantization Bit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAV</td>
<td>.wav</td>
<td>WAV</td>
<td>2ch</td>
<td>44.1/48/88.2/96/176.4/192 kHz</td>
<td>8 bit/16 bit/24 bit</td>
</tr>
<tr>
<td>FLAC</td>
<td>.flac</td>
<td>FLAC</td>
<td>2ch</td>
<td>44.1/48/88.2/96/176.4/192 kHz</td>
<td>8 bit/16 bit/24 bit</td>
</tr>
<tr>
<td>AIFF</td>
<td>.aiff</td>
<td>AIFF</td>
<td>2ch</td>
<td>44.1/48/88.2/96/176.4/192 kHz</td>
<td>8 bit/16 bit/24 bit</td>
</tr>
<tr>
<td>Apple</td>
<td>.m4a</td>
<td>ALAC</td>
<td>2ch</td>
<td>44.1/48/88.2/96/176.4/192 kHz</td>
<td>8 bit/16 bit/24 bit</td>
</tr>
<tr>
<td>AAC</td>
<td>.m4a</td>
<td>MPEG-4 AAC LC</td>
<td>2ch</td>
<td>44.1/48/88.2/96 kHz</td>
<td>16 bit/24 bit</td>
</tr>
<tr>
<td>Dolby</td>
<td>.vr</td>
<td>—</td>
<td>2ch</td>
<td>48/88.2/96/176.4/192 kHz</td>
<td>16 bit/24 bit</td>
</tr>
<tr>
<td>DSD</td>
<td>.dsf</td>
<td>DSD*</td>
<td>2ch</td>
<td>2.8/5.6 MHz</td>
<td>1 bit</td>
</tr>
</tbody>
</table>

Variable File Play Action

Various features to easily access and play your music library are available for the AV receivers. Using the remote control, you can fast forward/fast rewind during playback. You can also enter specific words to search folders/files using the iControlAV5 app.
** Sophisticated Surround System**

With speaker terminals for 9 channels, various speaker layouts are available to suit your taste or usage patterns. New configurations have been added to provide optimum performance for Dolby Atmos playback.

[A] 7.2-channel Surround System (Front Height/Rear Height) Connection

Simultaneous output from top height and rear height speakers not available. Select one set from above.

[B] 7.2-channel Surround System (Top Front/Top Middle/Top Rear) Connection

Simultaneous output from top front, top middle, and top rear speakers not available. Select one set from above.

[C] 7.2-channel Surround System (Dolby-Enabled Speakers Front/Surround/Surround Back) Connection

Simultaneous output from Dolby-Enabled Speakers front, surround and surround back speakers not available. Select one set from above.

[D] 7.2-channel Surround System & Speaker B Connection

Simultaneous output from surround back and B speakers not available.

[E] 5.2-channel Surround System & Front Bi-Amping Connection (High Quality Surround)

Simultaneous output from top height and rear height speakers not available. Select one set from above.
Advanced Surround Modes

The AV receivers feature Advanced Surround Modes—Classical, Unplugged*, Entertainment Show*, Drama, Advanced Game, Action, Rock/Pop, Sports, Extended Stereo, Extended Mono*, Front Stage Surround, Auto Surround, Phones Surround**, ECO Mode 1**, and ECO Mode 2**—to optimise the sound for your entertainment.

* Except VSX-531
** VSX-531 only

Front Stage Surround

With Front Stage Surround, you can enjoy surround sound coming from only the front speakers and the subwoofer. Since wall reflections are not used, the setup is less dependent on the room environment, allowing front alignment of the speakers. Front Stage Surround creates an excellent sound image and natural sound.
Connectivity

HDMI® (4K/60p, 3D, ARC)

Pioneer’s AV receivers feature HDMI with 3D technology. You can enjoy the latest 3D Blu-ray Discs, games, and broadcasts by combining the AV receivers with a 3D compatible Blu-ray Disc player, game console, or tuner (STB) and display via HDMI connection. The Audio Return Channel (ARC) feature allows a TV with built-in tuner to send audio data “upstream” to the AV receiver via HDMI—so there’s no need for a separate audio cable. Enjoy full-digital transfer of high-definition audio as well as up to 4K/60p video signals by HDMI connection.

Front USB Input

The front panel USB input terminal allows straightforward connection to a USB memory stick. This plug and play connectivity enables you to easily play music files.

Phono (MM) Input

The AV receiver is equipped with a phono (MM) input, so you can listen to your vinyl collection by connecting a turntable.
Network Features

Chromecast built-in

The receivers come with Chromecast built-in, so you can use your mobile device to stream your favourite music, radio, or podcasts to the receiver. You can control the audio from anywhere in the house using Chromecast-enabled apps running on your personal device—iPhone, iPad, Android phone and tablet, Mac and Windows laptop, and Chromebook™. Discover Chromecast-enabled apps at g.co/cast/audioapps.

* Chromecast built-in will be available with future firmware update.

Apple AirPlay Certified

AirPlay—Enthusiasts have complete access, control and playback of their entire iTunes music library through their AV receiver. Users can quickly and easily enjoy all their music with song information and album art simultaneously displayed on a connected monitor/TV.

* Available features depend on iPod/iPhone/iPad model.

Spotify® Digital Music-Streaming Service Ready

Enjoy on-demand access to millions of songs with Spotify’s digital music-streaming service. With the wide range of music selection, you’re sure to find a fitting song for your mood or occasion, right at your fingertips. You can make your own choice, or let Spotify surprise you. The AV receivers are ready for the Connect from Spotify, which lets you select songs on your Spotify app for listening on your audio system.

* For service availability in your country check www.spotify.com.

Internet Radio (TuneIn)

The AV receivers come preset with TuneIn for enjoying internet radio. With over 100,000 radio stations, you can listen to free broadcasts of music, sports, news, and talk shows from around the world. By registering on your Favorites list, you can quickly access radio stations of our choice.

TIDAL Music Streaming Service Ready*

TIDAL is a subscription-based music streaming service, and currently offers two plans—TIDAL Premium for standard-quality audio equivalent to CD sound, and TIDAL HiFi for high-fidelity lossless audio. The service offers 400 million songs, and is available in 46 countries.

*Available with future firmware update.
Deezer*

Deezer is a subscription-based music streaming service, offering limitless-listening from 35 million tracks. Users can choose either a free subscription or a paid one without ads. The Flow feature will select songs according to your taste, while Hear This will make personalized suggestions and help you discover new music, as well as give updates on new releases by your favorite artists.

* Available with future firmware update. For service availability in your country, check [www.deezer.com](http://www.deezer.com)

Built-in Dual Band Wi-Fi®

Enjoy network features such as audio streaming via wireless LAN connection. The built-in Wi-Fi is dual band, supporting both 5 GHz and 2.4 GHz frequency channels. By using the 5 GHz band, you can enjoy steady and uninterrupted streaming of audio files.

Built-in Bluetooth® Wireless Technology (ver. 4.1)

Built-in Bluetooth® Wireless Technology (ver. 3.0)

With the built-in Bluetooth® Wireless Technology, you can easily stream songs from compatible devices. The AV receivers feature A2DP and AVRCP* profiles, with support for SBC and AAC codecs.

* Except VSX-531
Whole Home Audio with FireConnect

FireConnect™ mirrors network audio and external analogue sources connected to the master component—from streaming services to vinyl records—on FireConnect™-compatible speakers in other rooms. Music selection, speaker grouping, and playback management across the home are built into Pioneer Remote App for iOS and Android.

* FireConnect™ is enabled with a firmware update. Sharing of audio from external inputs depends on the model and is enabled with a future firmware update. VSX-1131 and VSX-831 do not support wireless transmission of signals from external inputs. Sampling rates of 44.1 kHz and 48 kHz are supported. FireConnect is a technology based on Blackfire provided by Blackfire Research Corp., USA.

Multi-Zone (Powered ZONE 2)

With Pioneer’s Multi-Zone, you can play music from different sources in two zones at the same time.

New GUI with System Setup/Network Menu

The newly developed GUI offers smooth operation with advanced features and design. You can easily set up the AV receiver straight out of the box by following the step-by-step guidance. The network setup and MCACC menus are also available on the GUI.
Ready for iControlAV5

iControlAV5 is an iPod touch, iPhone and iPad application developed by Pioneer, freely downloadable from the App Store. It is also compatible with Android, and available from Google Play. On a simple and intuitive interface, the application allows you to use your device as a remote for operating the AV receiver’s functions such as VOLUME CONTROL, INPUT SELECT, LISTENING MODE, BALANCE, EMPHASIS CONTROL for woofer and centre speakers, and PUSH PLAYER. With the SOUND EXPLORER function, you can easily adjust various sound parameters in a fun and intuitive operation. You can also control the basic functions of Pioneer’s Blu-ray Disc players.

* AV receiver needs to be connected to a wired LAN in a wireless LAN network.

STATUS VIEWER

The STATUS VIEWER provides graphical display of input/output and status of the playing content, and the image of the speakers. You can enjoy intuitive control for Input, Link, Phase, and Channel Level.

CURSOR

For the currently used function, up/down/left/right operations can be done on the app, instead of using the remote control. The button display changes to correspond to the function on the AV receiver.

SOUND EXPLORER

SOUND EXPLORER lets you easily adjust various sound parameters* with intuitive and pleasing operation. It comes in three operation modes. With Fixed Position mode, all icons are neatly positioned in rows. The screen on the playful Drop Icon mode displays continuously falling icons. All List mode shows the description and status for each setting, with a link to YouTube video clip explaining the feature.

* Adjustable sound parameters differ by model.
Firmware Update/Network Setup via Web Control

By entering the AV receiver’s IP address on the web browser, you can access the Web Control function for firmware update or change the AV receiver’s network settings. You can also edit the friendly name, set up AirPlay password, and identify the AV receiver for the Control4 system using the PC keyboard.
Standby Pass-Through with CEC

When Control with HDMI is turned on, standby pass-through transmits audio and video signals from a HDMI-connected component and outputs to TV via HDMI, even when the AV receiver is on standby.

Standby Pass-Through without CEC

With standby pass-through, the AV receiver can pass audio and video signals via HDMI even during standby. This feature is useful when you want to access HDMI-connected components without turning on the AV receiver. The input source can be switched on the remote control even during standby pass-through.

* Control with HDMI needs to be turned off

Auto Power Off in HDMI Standby Through

The AV receiver will automatically turn off after being left uncontrolled for a certain time set by the user. This function is also available for HDMI Standby Through mode.
### Feature Comparison

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<th>VSX-531</th>
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<td><strong>Audio Formats &amp; Licenses</strong></td>
<td></td>
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<tr>
<td>DTS:X™</td>
<td></td>
<td>✔</td>
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<tr>
<td>Dialog Control</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Dolby Atmos</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>DTS Neural:X™</td>
<td></td>
<td>✔</td>
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<tr>
<td>Dolby Surround</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Dolby TrueHD</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Loudness Management</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>DTS-HD Master Audio/DTS-HD High Resolution Audio</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>DTS Neo:6.1/DTS Neo:8</td>
<td>✔ (Neo:6 before DTS:X firmware update)</td>
<td>✔ (Neo:8 5.1)</td>
<td>✔ (Neo:8)</td>
</tr>
<tr>
<td>Hi-Res Audio File Playback via USB/Network</td>
<td>✔</td>
<td>✔</td>
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<td>Variable File Play Action</td>
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<td><strong>Sophisticated Surround System</strong></td>
<td></td>
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<tr>
<td>7ch Speaker Configurations</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Advanced Surround Modes</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Front Stage Surround</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td><strong>Connectivity</strong></td>
<td></td>
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<tr>
<td>HDMI® (4K@60, 3D, ARC)</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Front USB Input</td>
<td>✔</td>
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<tr>
<td>Phono (MM) Input</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td><strong>Network Features</strong></td>
<td></td>
<td></td>
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<tr>
<td>Chromecast built-in</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Apple AirPlay Certified</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Spotify® Digital Music-Streaming Service Ready</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Internet Radio (Tuneln)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>TIDAL Music Streaming Service Ready</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>S Deezer</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Built-in Dual Band Wi-Fi</td>
<td>✔ (5 GHz/2.4 GHz)</td>
<td>✔ (5 GHz/2.4 GHz)</td>
<td>✔ (5 GHz/2.4 GHz)</td>
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<tr>
<td>Built-in Bluetooth Wireless Technology</td>
<td>✔</td>
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<tr>
<td><strong>Advanced Control</strong></td>
<td></td>
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<tr>
<td>Multi-room Audio</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Multi-Zone (Powered ZONE 2)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>New GUI with System/Network Setup Menu</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Ready for iControlAV5 App</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Firmware Update/Network Setup via Web Control</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Standby Pass-Through with/without CEC</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Auto Power Off in HDMI Standby Through</td>
<td>✔</td>
<td>✔</td>
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</table>
The VSX-1131 is fully-equipped for the latest multi-dimensional surround sound formats, DTS:X™ and Dolby Atmos®, featuring the Reflex Optimizer for enabled speakers. With Ultra HD (4K/60p/4:4:4) upscaling and pass-through and support for the latest video standards HDR and BT.2020, images are ever more impressive. In addition to internet radio and various network streaming services, with Chromecast built-in you can use your mobile device to stream your favourite music to your receiver.

**Amplification**
- Channels: 7
- Amplification Type: Direct Energy
- 160 W/ch (6 ohms, 1 kHz, THD 1.0 %, 1ch Driven)

**Audio Features**
- Dolby Atmos®/Dolby Surround
- DTS:X™/DTS Neural:X™
- Reflex Optimizer
- Dolby® TrueHD/Dolby Digital Plus
- DTS-HD Master Audio/DTS-HD High Resolution Audio/DTS 96/24/Dolby Digital Plus
- DSD Playback via Network/usB (5.6 mHz/2ch, 2.8 mHz/2ch)
- DSD Disc (SACD) playback via HDMI (2.8 mHz/5.1ch, 2ch)
- Digital Core Engine with Cirrus Logic (Quad Core) x1
- 384 kHz/32-bit DAC (AK4458)
- HDMI Audio Return Channel (ARC)
- MCACC Auto Room Tuning
  - Phase Control
  - Subwoofer EQ (4 Band)
- Advanced Sound Retriever (2ch)
- Advanced Surround Modes
  - Classical, Unplugged, Entertainment Show, Drama, Advanced Game, Action, Rock/Pop, Sports, Extended Stereo, Extended Mono, Front Stage Surround, Auto Surround

**Video Features**
- HDR and BT.2020 Support
- Ultra HD Upscaling (1080p → 4K)
- 3D Ready (Blu-ray Disc™, Broadcast, and Games)
- Deep Colour (36-bit), “x.v.Colour”

**Front Terminals**
- HDmi 1 In
- USB 1 In for USB Drive
- MCACC Setup Mic In
- Audio 1 In (Mini Stereo Jack)
- Phones 1 Out

**Rear Terminals**
- HDmi 6 In (4 Assignable)
- HDmi 2 Out (1 for MAIN, 1 for SUB)
- Ethernet 1 In
- AV (Component) 1 In (Assignable)

**Home Network Features**
- Chromecast built-in**1**
- Apple AirPlay Certified
- Spotify® Digital Music Streaming Service Ready**2**
- Internet Radio with TuneIn
- TIDAL Music Streaming Service Ready**3**
- Deezer**4**
- Hi-Res Audio File Playback via USB/Network
  - Up to 192 kHz/24-bit ALAC, AIFF, FLAC, WAV
  - 5.0/2.0 MHz DSD Playback
  - Dolby® TrueHD Playback (USB only)

**Convenience Features**
- Built-in Wi-Fi® (Dual Band 5 GHz/2.4 GHz)
- iControlAV5 Remote Control App Ready (iOS/Android™)**5**
- New GUI with System/Network Setup Menu
- Auto Power Off in HDMI Standby Through
- AM/FM Tuner 40 Presets
- Sleep Timer
- User-Friendly Simple Remote Control

**Specifications**
- Power Requirements:
  - AC 220-240 V, 50/60 Hz
- Power Consumption/Standby:
  - 570 W/0.15 W
- Dimensions (W x H x D):
  - 435 x 173 x 370.5 mm
- Weight: 10 kg

*Available with future firmware update  **Chromecast-enabled apps required  **For service availability in your country, check www.spotify.com
**For service availability in your country, check www.deezer.com  **Available for free download from the App Store/the Google Play™
Multi-Dimensional Excitement with Dolby Atmos®

The VSX-1131 is compatible with 5.2.2ch configuration of the latest cinema sound platform, Dolby Atmos®. You can reproduce object-oriented sound in smooth, curving movements, or the realistic three-dimensional movement overhead by the top speakers. * Dolby Atmos 5.2.2ch Speaker System

DTS:X™ Ready

DTS:X is the next-generation audio codec from DTS that leverages object-based audio to enable new immersive and interactive audio experiences. Since DTS:X can automatically adapt the audio to the existing channels and speaker system, no specific speaker layout is required. Experience an immersive soundscape with incredibly rich and life-like audio. * DTS:X will be available with future firmware update.

Ultra HD (4K/60p/4:4:4/24-bit) Upscaling/Pass-Through with HDCP 2.2

The feature lets you take advantage of the highest-quality video source for viewing on a 4K TV. With support for HDCP 2.2, you can enjoy premium content such as 4K videos with digital copy protection on a compatible display. What’s more, the VSX-1131 is ready for the HDR (High Dynamic Range) and BT.2020 next generation video standards. * Supports up to 4K/60p/4:4:4/24-bit with HDCP 2.2 on HDMI IN (1/2/3) and HDMI OUT (MAIN/SUB).

Chromecast built-in

The VSX-1131 comes with Chromecast built-in, so you can use your mobile device to stream your favourite music, radio, or podcasts to the receiver. You can control the audio from anywhere in the house using Chromecast-enabled apps running on your personal device—iPhone, iPad, Android phone and tablet, Mac and Windows laptop, and Chromebook™. Discover Chromecast-enabled apps at g.co/cast/audioapps. * Chromecast built-in will be available with future firmware update.

MCACC Auto Room Tuning

Create the optimum acoustic environment with Pioneer’s MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of professional recording studios. With the custom microphone, the system automatically compensates for differences in speaker size, level and distance, and equalises response. As an innovative solution for the phase lag of the subwoofer and the main channel speakers caused by the network filter, Phase Control compensates the delayed bass to improve sound synchronisation.

Reflex Optimizer

High directivity sound reflects off the ceiling, while low directivity sound directly reaches the ears. This difference causes a phase shift, making the sound feel uncomfortable. To solve this, the new technology optimizes the performance of your up-firing elevation speakers for your listening environment, by aligning the phase of direct and indirect sound, matching the basic tone, and optimizing the upward-oriented frequencies. The result is overall seamless sound with Dolby Atmos enabled speakers, allowing the ideal reproduction of three-dimensional surround sound.

Multi-room Audio Offers a Variety of Ways to Enjoy Music

FireConnect™ mirrors network audio and external analogue sources connected to the master component—from streaming services to vinyl records—on FireConnect™-compatible speakers in other rooms. Music selection, speaker grouping, and playback management across the home are built into Pioneer Remote App for iOS and Android. * FireConnect™ is enabled with a firmware update. Sharing of audio from external inputs depends on the model and is enabled with a future firmware update. VSX-1131 does not support wireless transmission of signals from external inputs. Sampling rates of 44.1 kHz and 48 kHz are supported. FireConnect is a technology based on Blackfire provided by Blackfire Research Corp., USA.
Enjoy spectacular images on your home cinema with Ultra HD (4K/60p/4:4:4) upscaling/pass-through, with HDCP 2.2 and support for the latest video standards HDR and BT.2020. Listen to Hi-Res Audio via USB or network. In addition to internet radio and various network streaming services, with Chromecast built-in you can use your mobile device to stream your favourite music to your receiver.

**AMPLIFICATION**
- Channels: 5
- Amplification Type: Direct Energy
- 130 W/ch (6 ohms, 1 kHz, THD 1.0 %, 1ch Driven)

**AUDIO FEATURES**
- Dolby® TrueHD/Dolby Digital Plus/Dolby Pro Logic II
- DTS-HD Master Audio DTS-HD High Resolution Audio DTS 96/24/DTS-HD Express/DTS Neo:6 5.1
- DSD Playback via Network/USB (5.6 MHz/2ch, 2.8 MHz/2ch)
- DSD Disc (SACD) Playback via HDMI (2.8 MHz/5.1ch, 2ch)
- Digital Core Engine with Cirrus Logic (Quad Core) x1
- 384 kHz/32-bit DAC (AK4458)
- HDMI Audio Return Channel (ARC)
- MCACC Auto Room Tuning
  - Phase Control
  - Subwoofer EQ (4 Band)
- Advanced Sound Retriever (2ch)
- Advanced Surround Modes
  - Classical, Unplugged, Entertainment Show, Drama, Advanced Game, Action, Rock/Pop, Sports, Extended Stereo, Extended Mono, Front Stage Surround, Auto Surround

**VIDEO FEATURES**
- HDR and BT.2020 Support
- Ultra HD Upscaling (1080p → 4K)
- 3D Ready (Blu-ray Disc™, Broadcast, and Games)
- Deep Colour (36-bit), "x.v.Colour"

**HOME NETWORK FEATURES**
- Chromecast built-in**1,2
- Apple AirPlay Certified
- Spotify® Digital Music-Streaming Service Ready**3
- Internet Radio with Tuneln
- TIDAL Music Streaming Service Ready**4
- Deezer®*5
- Hi-Res Audio File Playback via USB/Network
  - Up to 192 kHz/24-bit ALAC, AIF, FLAC, WAV
  - 5.6/2.8 MHz DSD Playback
  - Dolby® TrueHD Playback (USB only)

**CONVENIENCE FEATURES**
- Built-in Wi-Fi® (Dual Band 5 GHz/2.4 GHz)
- iControlAV5 Remote Control App Ready (iOS/Android™)*5
- New GUI with System/Network Setup Menu
- Auto Power Off in HDMI Standby Through
- AM/FM Tuner 40 Presets
- Sleep Timer
- User-Friendly Simple Remote Control

**FRONT TERMINALS**
- USB 1 In for USB Drive
- MCACC Setup MIC In
- Audio 1 In (Mini Stereo Jack)
- Phones 1 Out

**REAR TERMINALS**
- HDMI 6 In (4 Assignable)
- HDMI 1 Out
- Ethernet 1 In
- AV (Composite) 2 In (Assignble)
- Audio 2 In (Assignble)

**SPECIFICATIONS**
- Power Requirements:
  - AC 220-240 V, 50/60 Hz
- Power Consumption/Standby:
  - 390 W/0.15 W
- Dimensions (W x H x D):
  - 435 x 173 x 370.5 mm
- Weight:
  - 9.2 kg

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**NOTES**
- * Chromecast-enabled apps required
- ** Available with future firmware update
- *** For service availability in your country, check www.spotify.com
- ***2 For service availability in your country, check www.deezer.com
- **5 Available for free download from the App Store/the Google Play™
Ultra HD (4K/60p/4:4:4/24-bit) Upscaling/Pass-Through with HDCP 2.2
The feature lets you take advantage of the highest-quality video source for viewing on a 4K TV. With support for HDCP 2.2, you can enjoy high-content such as 4K videos with digital copy protection on a compatible display.

* Supports up to 4K/60p/4:4:4/24-bit with HDCP 2.2 on HDMI IN (1/2/3) and HDMI OUT.

Next Generation Video Standard Ready
The VSX-831 is ready for the next generation video standard HDR (High Dynamic Range) and BT.2020, which were both adopted by Ultra HD Blu-ray™. HDR is a technology that drastically expands the brightness peak, providing a higher contrast between light and dark images, which creates even more life-like pictures. BT.2020 is a new color-recording technology allowing a much wider gamut than the current BT.709 standard, enabling vividly rich coloration.

Multi-room Audio Offers a Variety of Ways to Enjoy Music
FireConnect™ mirrors network audio and external analogue sources connected to the master component—from streaming services to vinyl records—on FireConnect™-compatible speakers in other rooms. Music selection, speaker grouping, and playback management across the home are built into Pioneer Remote App for iOS and Android.

* FireConnect™ is enabled with a firmware update. Sharing of audio from external inputs depends on the model and is enabled with a future firmware update. VSX-831 does not support wireless transmission of signals from external inputs. Sampling rates of 44.1 kHz and 48 kHz are supported. FireConnect is a technology based on Blackfire provided by Blackfire Research Corp., USA.

Chromecast built-in
The VSX-831 comes with Chromecast built-in, so you can use your mobile device to stream your favourite music, radio, or podcasts to the receiver. You can control the audio from anywhere in the house using Chromecast-enabled apps running on your personal device—iPhone, iPad, Android phone and tablet, Mac and Windows laptop, and Chromecast app. Discover Chromecast-enabled apps at google.com_CAST/audioapps.

* Chromecast built-in will be available with future firmware update.

Chromecast built-in
The VSX-831 comes with Chromecast built-in, so you can use your mobile device to stream your favourite music, radio, or podcasts to the receiver. You can control the audio from anywhere in the house using Chromecast-enabled apps running on your personal device—iPhone, iPad, Android phone and tablet, Mac and Windows laptop, and Chromecast app. Discover Chromecast-enabled apps at google.com_CAST/audioapps.

* Chromecast built-in will be available with future firmware update.

Built-in Dual Band Wi-Fi
Enjoy network features such as audio streaming via wireless LAN connection. The built-in Wi-Fi is dual band, supporting both 5 GHz and 2.4 GHz frequency channels. By using the 5 GHz band, you can enjoy steady and uninterrupted streaming of audio files.

Internet Radio & Online Music
Enjoy a limitless flow of music, sports, talk, and news entertainment from internet radio stations and online music services, including Spotify, TuneIn, TIDAL, and Deezer.

MCACC Auto Room Tuning
Create the optimum acoustic environment with Pioneer’s MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of recording studios. With the custom microphone, the system automatically compensates for differences in speaker size, level and distance, and equalises response. As an innovative solution for the phase lag between the subwoofer and the main channel speakers caused by the network filter, Phase Control compensates the delayed bass to improve sound synchronisation.

New User-friendly GUI
The newly developed GUI offers smooth operation with advanced features and design. You can easily set up the AV receiver straight out of the box by following the step-by-step guidance. The network setup features and design are also available on the GUI.
The VSX-531 is an ideal centre piece for creating your own home cinema system. Featuring 4 HDMI inputs and Ultra HD (4K/60p/4:4:4) pass-through with HDCP 2.2, the AV receiver supports the latest video standards HDR. Enjoy audio streaming from compatible devices with the built-in Bluetooth® Wireless Technology. Pioneer’s signature MCACC and Phase Control provide synchronised sound for a realistic and dynamic performance.

### AMPLIFICATION
- Channels: 5
- Amplification Type: Direct Energy
- 130 W/ch (6 ohms, 1 kHz, THD 1.0 %, 1ch Driven)

### AUDIO FEATURES
- Dolby® TrueHD/Dolby Digital Plus/Dolby Pro Logic II
- DTS-HD Master Audio/DTS-HD High Resolution Audio/DTS Neo:6
- DTS-Express/DTS 96/24
- DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- Digital Core Engine with Texas Instruments Aureus™ DSP
- 192 kHz/24-bit DAC
- HDMI Audio Return Channel (ARC)
- MCACC Auto Room Tuning
  - Phase Control
  - Automatic Crossover Detection
- Pioneer Sound Enhancements
  - Advanced Sound Retriever (2ch)
  - Auto Level Control (2ch)
  - Midnight
  - Loudness
- Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo
  - Phones Surround
  - ECO Mode 1, ECO Mode 2

### VIDEO FEATURES
- Ultra HD Pass-through with HDCP 2.2 (4K/60p/4:4:4)
- HDR Support
- 3D Ready (Blu-ray Disc™, Broadcast, and Games)
- Deep Colour (36-bit), “x.v. Colour”

### CONVENIENCE FEATURES
- Music File Playback via USB (MP3, WMA, AAC)
- On Screen Display (HDMI only)
- Auto Power Down
- Power Save for HDMI Standby Through
- AM/FM Tuner 30 Presets
- Sleep Timer
- Remote Control

### FRONT TERMINALS
- USB 1 In for USB Drive
- MCACC Setup MIC In
- Audio 1 In (Mini Stereo Jack)
- Phones 1 Out

### REAR TERMINALS
- HDMI 4 In
- HDMI 1 Out
- AV (Composite) 2 In
- Audio 1 In (Assignable)
- Digital Coaxial 1 In (Assignable)
- Digital Optical 1 In (Assignable)
- Monitor Composite 1 Out
- Subwoofer 1 Pre Out
- Speaker 5 ch Out (FRONT, CENTER, SURROUND)
- FM/AM Antenna

### SPECIFICATIONS
- Power Requirements: AC 220-240 V, 50/60 Hz
- Power Consumption/Standby: 220 W/0.45 W
- Dimensions (W x H x D): 435 x 168 x 320.5 mm
- Weight: 8 kg
See More Detail with 4K/60p Pass-through

The feature lets you take advantage of the highest-quality video source, by passing through 4K/60p /4:4:4 signals for viewing on a compatible display. The VSX-531 supports HDCP 2.2, so by connecting to a compatible device, you can enjoy premium content such as 4K videos with digital copy protection.

Synchronised Sound with Phase Control

When amplifying multi-channel audio signals, receivers use a Low Pass Filter (LPF) to process low-frequency signals for subwoofer output. This causes phase shift of the low-frequency signals compared to the main channel signals, and the delayed bass makes the sound lack synchronisation. Pioneer’s Phase Control technology effectively eliminates phase lag and reproduces clearer mid- and high-range sound. You can feel the bass vibrating the air and deeper voices in films, and the groove of the performer in music content.

Next Generation Video Standard Ready

The VSX-531 is ready for the next generation video standard HDR (High Dynamic Range), which was adopted by Ultra HD Blu-ray™. HDR is a technology that drastically expands the brightness peak, providing a higher contrast between light and dark images, which creates even more life-like pictures.

Built-in Bluetooth® Wireless Technology

With the built-in Bluetooth® Wireless Technology (ver. 3.0), you can easily stream songs from compatible devices. The VSX-531 features A2DP profile, with support for SBC and AAC codecs.

MCACC Auto Room Tuning

Create the optimum acoustic environment with Pioneer’s MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of professional recording studios. With the custom microphone, the system automatically compensates for differences in speaker size, level and distance, and equalises response.

Front USB Input

The front panel USB input terminal allows straightforward connection to a USB memory stick. This plug and play connectivity enables you to easily play music files.

Hear Every Detail with Dolby TrueHD/DTS-HD Master Audio

The VSX-531 supports Dolby TrueHD and DTS-HD Master Audio surround soundtracks, letting you experience the world of true high-definition entertainment from Bluray Discs. The lossless codecs are bit-for-bit identical to the studio master.

Enjoy Quality Sound from Compressed Audio

The Advanced Sound Retriever restores the output of compressed audio such as WMA, AAC, and MP3, to the level of CD sound. The technology creates new signals to restore the minor details left out during the compression process.