

# DENON

General catalogue  
2006-2007

COMPACT DISC PLAYER DCD-1000

INPUT SELECTOR

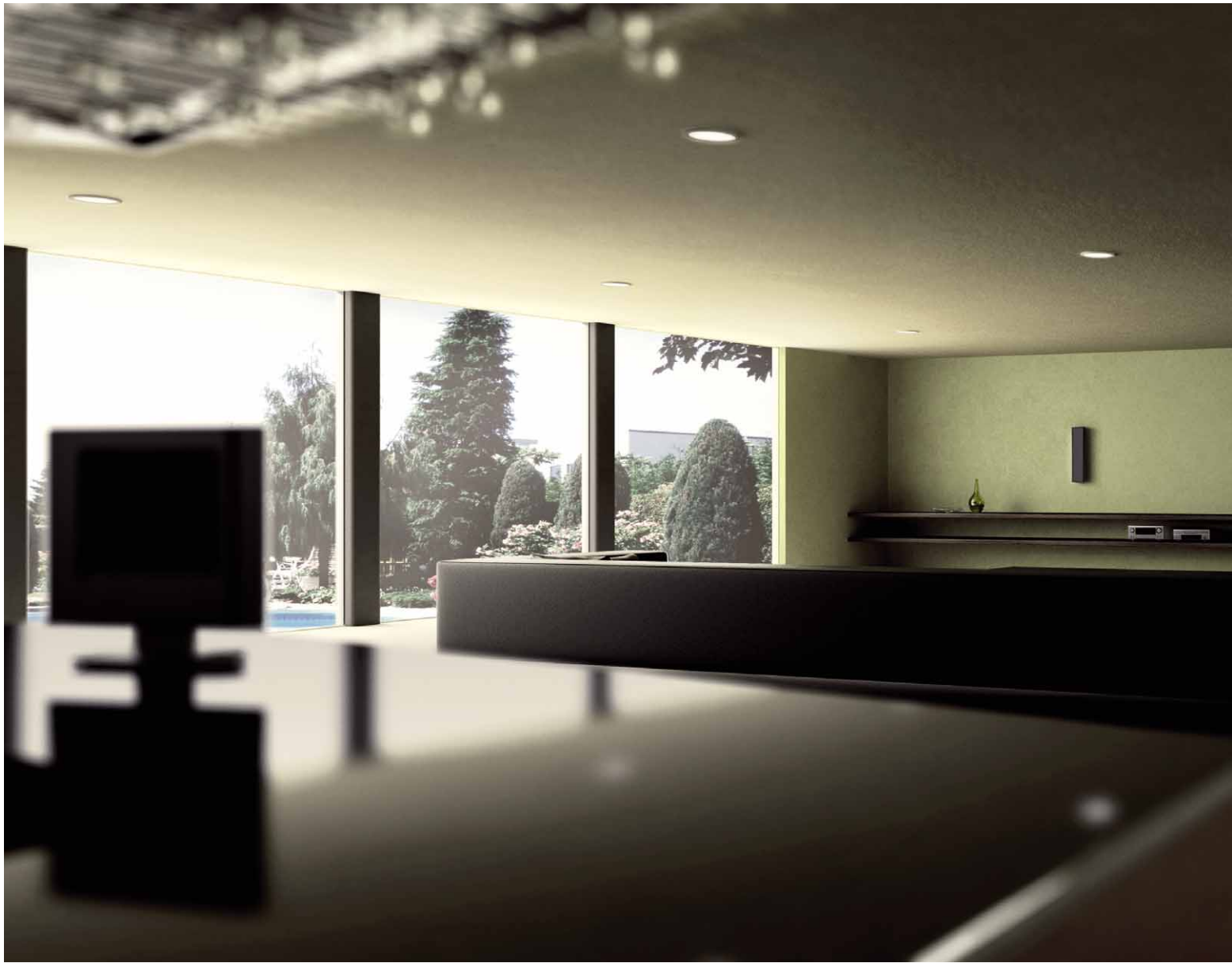
CD

TUNE #

TAPE

TAPE





**Denon technology**



**Mini component systems**  
F series / M series



**AV components**  
AV surround amplifiers & receivers /  
DVD players / Home theater systems



**S series**  
DVD home theatre systems /  
Personal audio system



**Hi-fi components**  
Integrated amplifiers / CD players /  
Receivers / Tuners / Accessories



**Specifications**



Founded in 1910, Denon was the first audio company in Japan to sell LP records — as early as 1951. In the early 1970s, Denon developed and manufactured the world's first practical digital PCM recorder and, in 1972, launched the first-ever digitally recorded LPs. Over the years, Denon has built a formidable reputation, earning respect and numerous accolades around the world as a manufacturer of exceptional quality hi-fi products. Recently, Denon has incorporated this experience and expertise into a top range of Audio-Video components, establishing an enviable position as one of the world's leading home cinema brands.

Denon is known for pure yet stylish quality products and, most importantly, time-tested expertise and craftsmanship. As an Audio-Visual manufacturer, Denon is devoted to producing audio and visual components at the forefront of technology. Today, the Denon name is synonymous with stunning high-impact visuals and dramatically detailed yet powerful surround sound. From home cinema to hi-fi and S-series systems, the ambience created by each and every Denon product denotes the true essence of natural sound and an image of pure beauty.

In today's world of so many ways to enjoy music and the spread of home networking, Denon's basic philosophy and position regarding good sound is as relevant as ever.

## The art of reproduction

— Denon's ultimate aim for entertainment

# Denon technology

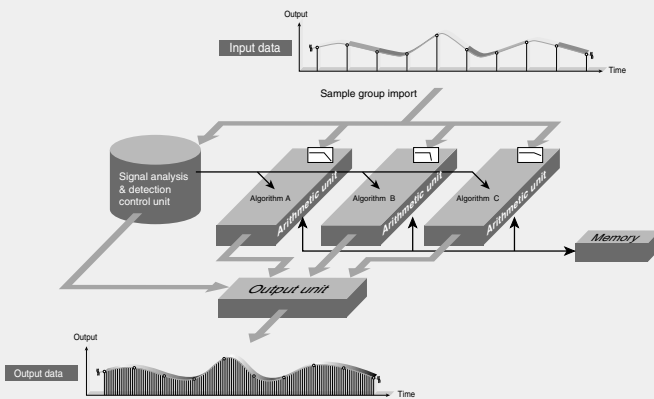


**DENON Link:** Connected via a shielded twisted pair (STP) RJ-45 fitted cable to a DENON Link-compliant A/V amplifier, the balanced signal transfer offers lower voltage than coaxial or unbalanced cables. Since DENON Link is far less susceptible to radiated noise, it ensures the highest level of signal transfer. The DENON Link interface is able to transfer high-grade LPCM 24-bit, 192-kHz, 2-channel and 96-kHz, 24-bit, multi-channel digital output.

## ADVANCED AL24 PROCESSING

**Advanced AL24 Processing:** Denon led the world in developing a practical PCM recorder in 1972. The shift to digital technology solved numerous problems such as noise, wow, flutter, and frequency response. The delicate nuances of sound from CD up to the least significant bit (LSB) are lost, however, due to the 16-bit quantisation and band cutting at  $f_s/2$  (half the sampling frequency) during 44.1-kHz sampling. Denon was determined to tackle the problem of quantisation noise that remained in digital audio, and developed ALPHA (adaptive line pattern harmonised algorithm), a technology that reproduced 16-bit data with 20-bit quality and became a favourite with audiophiles around the world.

This development later progressed to 24-bit quality with the evolution of "AL24 Processing," and as support for higher resolutions and sampling continued to improve, Denon developed "AL24 Processing Plus" for the 192-kHz sampling of DVD-Audio. Denon's most recent achievement is "Advanced AL24 Processing," a proprietary high-speed signal processing technology that expands the volume of data along the time axis in addition to the data expansion of existing AL24 Processing Plus technology.



## AL24 Processing Plus

**AL24 Processing Plus:** Denon has further developed its proprietary AL24 Processing, an analog waveform reproduction technology, to support the 192-kHz sampling frequency of DVD-Audio. This new technology, called AL24 Processing Plus, thoroughly suppresses quantisation noise associated with D/A conversion of LPCM signals to reproduce the low-level signals with optimum clarity that brings out all the delicate nuances of the music. In high-end models, AL24 Processing Plus works for all channels.



**LAMBDA SLC:** The LAMBDA Super Linear Converter (SLC) design includes a LSI, developed by Denon, that divides the digital data into two streams to eliminate zero-cross distortion in a powerful DAC configuration. In the two data streams, there is no reversal of the MSB, and the combined waveform also shows no zero-cross distortion. Even if there is distortion in the original information for a certain bit, the two signals are averaged,

reducing the distortion by one half. On the other hand, if the signal level is larger than the amount of shift, the waveform will pass through the usual, unbiased zero-cross point and any distortions in the signal will then be reliably eliminated by the MSB compensation feature of the SLC.



**DDSC-Digital, for high-quality sound reproduction:** DDSC (Dynamic Discrete Surround Circuit)-Digital is a circuit configuration specially designed by Denon in which all elements of the surround processor are optimised through the use of selected high-performance discrete components, including separate A/D and D/A converters, with sophisticated DSP surround decoding.

**All channel equal circuit:** Denon's A/V amplifiers and receivers are endowed with power amplifiers that deliver equal power and response to all channels, ensuring utter fidelity to a wide range of high-quality sound sources, from 2-channel stereo to advanced DVD-Audio, Super Audio CD, and Multi channel A/V sources such as Dolby Digital EX and DTS-ES. This all-channel equal circuit gives you the same quality sound in any format and in all channels.

The power sections of Denon's A/V amplifiers and receivers use large transformers, high-capacity block capacitors, and other parts specially selected for their high-quality sonic characteristics to give you a robust yet wonderfully detailed sound.

**Pure audio construction:** A/V components contain analog audio, digital audio, video, control and many other circuits. The various circuits and blocks in Denon's A/V amplifiers and receivers are thus separated and shielded to prevent mutual interference among them. High-end models are designed with the power supply section in the centre and the power amp section on both sides as in a Hi-Fi amplifier.

**Pure direct mode:** Pure direct mode allows listeners to enjoy pure music of remarkably high quality. When Pure Direct is selected, power to the video circuitry and the fluorescent display is automatically turned off. During analog sound input, power to the digital circuitry is also turned off, and adverse influences by other circuits on the audio circuitry are suppressed to the maximum extent possible.

**Rigid vibration-resistant chassis for high-precision playback:** As in pure audio components, A/V receivers must also be thoroughly protected against the adverse influences of both internal and external vibrations. Denon products are built with a sophisticated vibration-resistant chassis that effectively eliminates these adverse influences on sound quality.

**Supports next generation high resolution formats:** Future system upgrade capability is provided with the Denon's A/V receivers 6/8 Channel External Input feature. For next generation high resolution multi-channel audio formats such as DVD-Audio and Super Audio CD, the 6/8 Channel External Input is equipped with a wide band frequency response extending to 100 kHz. In addition, the digital inputs support high resolution 24 bit, 96 kHz stereo PCM soundtracks, available on selected audiophile DVD music releases.



**Cinema equaliser:** The sound from movie sources recorded in Dolby Digital, DTS or other formats emphasises correction of components that deteriorate in the high-frequency range due to the movie screen. If this sound is reproduced in the home theater without correction, the high-frequency range is too strong. The Cinema Equaliser is a function to correct these high-frequency components so that the sound is clearer and easier to listen to. (For Dolby Digital, Dolby Pro Logic, and DTS surround modes)



**Auto set up and room EQ:** Auto set up function performs basic settings for the speakers based on frequency response data for the speakers and the listening room that was measured by a supplied high-performance microphone, and a room EQ (equaliser) function that optimises frequency response characteristics for the listening room. (Measuring method or the algorithm used for roomEQ depends on models)



**DVD/CD/Super Audio CD universal:** The ideal player for the customer is one which can play any type of disc or format. Denon's Universal player can play DVD-Video, DVD-Audio, current CDs, and also Super Audio CD, as well as DVD-R/RW, CD-R/RW and PC audio formats such as MP3 and WMA and still picture formats such as JPEG and Picture CD.

**Progressive Scan PAL and NTSC:** Denon's DVD players all offer high-grade IP conversion capabilities. In addition, Progressive conversion is possible for both PAL and NTSC signals. Besides the existing Pure Progressive circuit of Silicon Image, Inc., development work has been continuing in a circuit made by Faroudja, Inc., to ensure that Denon products are always equipped with the latest circuitry and devices. Both circuits offer superior moving picture detection capabilities that allow Denon's DVD players to play discs containing video material recorded in both Video mode and Film mode on the same disc. Faroudja also supplies the DCDi circuit that enhances Progressive conversion accuracy.

**Dual Discrete Video Circuit (D.D.V.C.):** Not only does Denon separate audio and video circuitry in its DVD players to maintain high sound and picture quality, the interlaced, Progressive, and SCART video output circuits are also arranged independent of each other. Isolated circuits and boards, the use of a box chassis, and even the encoder chips (in high-end models) are all exclusively dedicated to individual tasks to minimise mutual interference and ensure optimum picture quality.

**Multi-layer construction:** Various methods of absorbing vibration have been adopted in the design of Denon's DVD players to further improve accuracy in reading signals from the disc. All players feature a multi-layer construction in their chassis and top cover, while high-end models incorporate the SVH loader mechanism to maximise protection of the mechanism from vibration.

**Denon Pixel Image Correction:** Denon Pixel Image Correction, original enhancement technology from Denon, corrects images in greater detail. Denon's newly-developed contour correction circuit uses a new algorithm that samples a total of 9 pixels of video data to consider the impact of surrounding pixels on important pixels in the enhancement process. Since pixels in the image are detected and processed in vertical, horizontal, and diagonal directions, this technology generates more natural contours. The use of separate algorithms for brightness and color signals, the suppression of ringing that easily occurs during enhancement and other effective processes best suited to the picture also contribute to a more naturally enhanced image with negligible degradation.

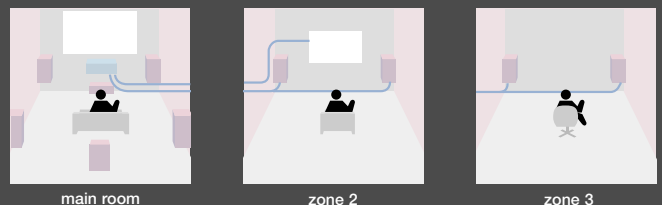
**Digital Bass Management:** When playing multi-channel Dolby Digital, LPCM or DVD-Audio/MLP sources, it is possible to preset speaker configurations and delay times. The crossover point is fixed at 80 Hz with 12 dB high and 24 dB low pass filter slopes.

*Ultra High Current MOS*  
SINGLE PUSH-PULL CIRCUIT

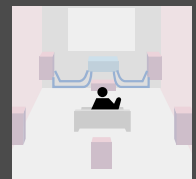
**UHC (Ultra High Current) Single Push-Pull Circuit:** For the past ten years, the dream of power amps has been to support low-impedance speakers. Unfortunately, however, the fulfilment of this dream has always been a difficult proposition, and Denon eventually felt the need to rethink its approach. The result has been to combine high output power with detailed musical expression, a high-grade solution that is the first of its kind. The challenge facing Denon has been to amplify with dynamic strength and absolute clarity the creative energy transmitted by the artist and to keep apace with the ever-changing musical signal levels. A hefty power supply unit with ample reserves and a power amp that is capable of supplying pure, dynamic signals to the speakers so that the music is heard with absolute transparency are the primary requirements. Also required are transient response characteristics that amplify even low-level signals with impeccable precision. No matter how superior the dynamic range or the frequency characteristics may be, these features are meaningless if the amp cannot instantly follow the sudden rises and falls in sound.

**Leakage Cancelling (LC) mounted twin transformers, for wide dynamic range and low noise:** By employing a large magnetic circuit with low magnetic flux density, the power transformer achieves superior response characteristics capable of accommodating musical signals with a broad dynamic range even in areas of magnetic saturation. The LC mount, which serves to eliminate mutual interference caused by magnetic fields and other factors, significantly reduces leakage flux which is a source of noise inside the amp. The result is a powerful speaker drive that ensures both remarkably transparent speaker output and low noise.

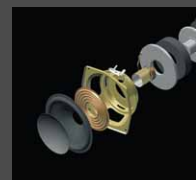
**Multizone /Multi source:** Multi Zone output function and a select function let you output different sources to multiple zones. Sources can be selected for output to the additional zones, in addition to the main room. In case that the product have variable pre-amp output along with a composite video/S-Video feed, video signals can be output to additional zone as well. (The number of additional zone depends on the product)



**Power amplifier assign function (Assignable surround back amplifier):** Power Amplifier Assign function lets you assign the 2 Surround Back (SB L/R) amplifier channels to drive the Zone 2 (or Zone 3) speakers. Or with this function, front speakers can be bi-wired to improve playback quality in the front for enhanced listening enjoyment. (The capability of this function depends on the product)



**D.D.L. (Denon Double Layer) cone:** The newly-developed D.D.L. (Denon Double Layer) cone has been used for the woofer diaphragm (S-81/SC-F102/ SC-F103/ SC-M53/SC-M73). This dual-layer diaphragm whose structure is the result of meticulous simulations is both highly rigid and light-weight and achieves a precision piston motion across the entire sonic spectrum. The ingenious structural design ensures that sympathetic vibration from the edge do not adversely affect the audio characteristics but deliver the best possible quality in sound. Improvements in top-bottom symmetry in magnetic flux distribution and other areas, together with the magnetic circuit of advanced design, bring out a deeply impressive strength of expression.





A/V components



## Realistic surround sensation

Denon A/V components support the latest playback formats and are imbued with Denon's unique, innovative design concepts. As beneficiaries of Denon's years of experience and acclaimed technologies in the world of hi-fi, these components are bound to bring you exciting new experiences in entertainment through breathtaking color and sound that penetrates your physical existence.

Reflecting the intentions of content producers in the home environment



# AV surround amplifier

## AVC-A1XVA



- 170 W x 10 (8 ohms)
- Fully discrete, equal power 10 amplifier channels
- The new DDSC (Dynamic Discrete Surround Circuit)-Digital
- Advanced AL24 Processing
- 24-bit/192-kHz high-performance D/A converter
- DIR and A/D converter capable of 24-bit/192-kHz processing
- A large-capacity FPGA
- 3 of 32-bit floating point DSP
- A separate 32-bit floating point SHARC DSP for the second zone
- The latest high-accuracy 24-bit/192-kHz D/A converter for the audio DAC.
- Double differential operation
- DENON Link (3rd edition)
- IEEE 1394 digital interface
- Stabilised, independent power supplies for each circuit
- Chassis construction designed to resist Internal/External Vibration
- Upgradable construction
- Pure direct mode, for the pure enjoyment of music in high-quality sound
- Variable gain volume and pre-amp
- Auto set-up and room EQ featuring MultEQ from Audyssey, for overall listening area support
- THX, THX Surround EX, THX Ultra2
- Newly-developed video circuitry, for high picture quality

- Support for the most advanced surround playback formats
  - Dolby Digital EX - Dolby Digital - Dolby Pro Logic IIx - Dolby Headphone
  - DTS-ES - DTS 96/24 - DTS Neo:6 - DTS - HDCD
- HDMI digital video interface supporting high-quality video of 1080p
- DVI digital video in/out terminals
- High quality component video in/out terminals (100-MHz bandwidth)
- HDMI upconversion
- Video up/down conversion
- I/P conversion and scaling
- 1080p upscaling
- High-speed, high-accuracy 12-bit/216-MHz video DAC
- Composite and S-video signal processing with TBC (Time Base Correction)
- Analog EXT IN terminal
- 4-zone, multi-room support
- Ethernet and RS-232C terminals
- Internet connectivity
  - (Audio streaming, internet radio and A/V receiver network setup (web control))
- Auto surround back channels on function
- Auto surround mode
- New EL remote controller for easy operation
- On-screen display, for easier, error-free operation
- Variable subwoofer crossover switching (40/60/80/90/100/110/120/150/200/250 Hz)
- Audio delay function, corrects slight lags between sound and picture (0-200ms)
- 3 user mode buttons





## A/V surround amplifier AVC-A11XVA



- 140 W x 7 W (8 ohms)
- THX Ultra2 certified 7-channel high power amplifier
- New DDSC-Digital, for dramatically improved processing performance
- 3 of 32-bit floating point DSP for the decoder.
- 24-bit/192-kHz D/A Converter for the audio DAC.
- A high-performance A/D converter of 24-bit/192-kHz quality has been used to significantly boost S/N and dynamic range.
- AL24 Processing Plus, for high sound quality
- DENON Link (3rd edition)
- IEEE 1394 digital interface
- Large-output power amp section and power supply configuration, for stable high-power output
- Stabilised, independent power supplies for each circuit
- Chassis construction to suppress internal/external vibration
- Upgradable construction
- Pure direct mode, for the pure enjoyment of music in high-quality sound
- Multi-assignable surround channels and surround back channels
- Pre-amp with variable gain volume
- THX, THX Surround EX, THX Ultra2
- Support for the most advanced surround playback formats
  - Dolby Digital EX - Dolby Digital - Dolby Pro Logic IIx
  - Dolby Headphone - DTS-ES - DTS 96/24
  - DTS Neo:6 - DTS - HDCD
- Auto set-up and room EQ, featuring MultEQ from Audyssey, for overall listening area support
- Original surround modes from DENON
- HDMI digital video interface supporting high-quality video of 1080p
- Video up/down conversion capable of output to HDMI
- HDMI upconversion
- 1080p upscaling
- High quality component video in/out terminals (100-MHz bandwidth)
- High-speed, high-accuracy dual 12-bit/216-MHz video DAC
- Composite and S-video signal processing with TBC (Time Base Correction)
- Analog EXT IN terminal
- 3-zone, multi-room support
- Ethernet and RS-232C terminals
- Internet connectivity
  - (Audio streaming, internet radio and A/V receiver network setup (web control))
- Auto surround back channels on function, for auto-detection of supporting sources
- Auto surround mode
- A cursor key and buttons on the front panel
- EL remote controller for easy operation
- On-screen display, for easier, error-free operation
- Variable subwoofer crossover switching (40/60/80/90/100/110/120/150/200/250 Hz)
- Muting level settings ( $\infty$ /-40dB/-20db)
- Audio delay function (0-200ms)
- 3 user mode buttons



## AV surround receiver AVR-4306

- 130 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- Hefty power transformer for stable supply of power
- Newly-developed block capacitor
- New DDSC-Digital, for dramatically improved processing performance
- 32-bit floating point DSP for the decoder.
- 24-bit/192-kHz D/A converter for the audio DAC.
- AL24 Processing Plus, for high sound quality
- DENON Link (3rd edition)
- Pure direct mode, for the pure enjoyment of music in high-quality sound
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping, or for multi-zone playback
- Auto set-up and room EQ, featuring MultEQ from Audyssey
- Adjustable cross-over switching
- 8 channel Input for for DVD-Audio and Super Audio CD
- HDMI digital video interface supporting high-quality video of 1080p
- Video up/down conversion capable of output to HDMI
- 720p, 1080i upscaling
- High-quality component video in/out terminals (100-MHz bandwidth)
- Composite and S-video signal processing with TBC
- Dual component monitor output
- High-speed, high-accuracy dual 12-bit/216-MHz video DAC
- Internet connectivity (Audio streaming, internet radio and A/V receiver network setup (web control))
- Binding post speaker terminal for all channels
- EL remote controller for easy operation
- 3 user mode buttons
- Serial control port
- USB host
- 56-station AM/FM random preset memory tuning
- iPod® connectivity (Requires optional connection cable AK-P100)



Black  
version available



## AV surround receiver AVR-3806

- 120 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- Hefty power transformer for stable supply of power
- Newly-developed block capacitor
- New DDSC-Digital, for high-quality sound reproduction
- New powerful 32-bit floating point DSP for the decoder
- 24-bit, 192-kHz D/A conversion for all-channels
- 24-bit, 192-kHz A/D conversion
- 24-bit, 192-kHz digital interface receiver
- DENON Link (3rd edition)
- Pure direct and AL24 Processing Plus
- Auto set-up and room EQ, Featuring MultEQ from Audyssey
- Adjustable cross-over switching
- 8 channel Input for for DVD-Audio and Super Audio CD
- Binding post speaker terminal for all channels
- Surround A/B speaker switching
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping, or for multi-zone playback
- Serial control port
- High-quality component video in/out terminals (100-MHz bandwidth)
- HDMI digital video interface supporting high-quality video of 1080p
- Video up/down conversion capable of output to HDMI
- Dual component monitor output
- Composite and S-video signal processing with TBC
- 12-bit/216-MHz video DAC
- EL remote controller for easy operation
- 3 user mode buttons
- 56-station AM/FM random preset memory tuning



Black  
version available



## A/V surround receiver **AVR-2807**

- 110 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- Hefty power transformer for stable supply of power
- Newly-developed block capacitor
- 32-bit floating point DSP
- 24-bit, 192-kHz D/A conversion for all-channels
- Pure direct and AL24 Processing Plus
- Auto set-up and room EQ, featuring MultEQ from Audyssey
- Adjustable cross-over switching
- 8-channel input for DVD-Audio or Super Audio CD
- Front A/B speakers
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping, or for multi-zone playback
- Serial control port
- Binding post speaker terminals for all channels
- High-quality component video in/out terminals (100-MHz bandwidth)
- HDMI digital video interface supporting high-quality video of 1080p
- I/P conversion from 480i (analog input) to 480p (HDMI output)
- Video up/down conversion capable of output to HDMI
- Dual component monitor output
- 3 sets of component video inputs
- Composite and S-video signal processing with TBC
- Audio delay function
- 3 user mode buttons
- Night mode
- Dedicated iPod connectivity (Requires optional ASD-1R)
- 56-station AM/FM random preset memory tuning
- Icon-based On-Screen Display
- 2-line dot matrix display



Black  
version available

## A/V surround receiver **AVR-2307**

- 100 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- New high resolution 32bit floating point DSP
- Twin drive rectifier
- Multizone / Multi source
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping, or for multi-zone playback
- Auto setup and Room EQ with Microphone
- Video up/down conversion capable of output to HDMI
- 3 sets of component video inputs
- High-quality component video in/out terminals (100-MHz Bandwidth)
- HDMI digital video interface supporting high-quality video of 1080p
- 8 ch EXT. IN terminal
- Pure direct mode
- Audio delay function
- Personal memory plus, for easy operation
- Adjustable cross-over switching
- Dedicated iPod connectivity (Requires optional ASD-1R)
- 56-station AM/FM random preset memory tuning
- New simple remote for easy operation
- Icon-based On-Screen Display
- 2-line dot matrix display



Black  
version available

## AV surround receiver AVR-1907

- 85 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- New high resolution 32bit floating point DSP
- Twin drive rectifier
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping
- Auto setup with microphone
- Component video conversion
- 3 sets of component video inputs
- High-quality component video in/out terminals (100-MHz bandwidth)
- 8 ch EXT. IN terminal
- Pure direct mode
- Audio delay function
- Personal memory plus, for easy operation
- Adjustable cross-over switching
- Dedicated iPod connectivity (Requires optional ASD-1R)
- 56-station AM/FM random preset memory tuning
- New simple remote for easy operation
- Icon-based On-Screen Display
- 2-line dot matrix display



Black  
version available

## AV surround receiver AVR-1707

- 75 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- High resolution 32bit floating point DSP
- Twin drive rectifier
- Assignable surround back (L/R) amplifiers for front (L/R) channel bi-amping
- Auto setup with microphone
- Component video conversion
- 3 sets of component video inputs
- High-quality component video in/out terminals (100-MHz Bandwidth)
- 8 ch EXT. IN terminal
- Pure direct mode
- Audio delay function
- Personal memory plus, for easy operation
- Adjustable cross-over switching
- Dedicated iPod connectivity (Requires optional ASD-1R)
- 56-station AM/FM random preset memory tuning
- New simple remote for easy operation



## A/V surround receiver AVR-1507

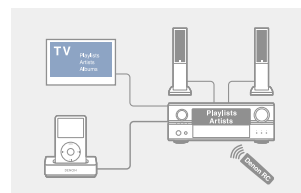
- 75 W x 7 (8 ohms)
- Fully discrete, equal power 7 amplifier channels
- High resolution 32bit floating point DSP
- Twin drive rectifier
- Assignable surround back (L/R) amplifiers
- Auto setup with microphone
- 3 sets of component video inputs
- High-quality component video in/out terminals (30-MHz bandwidth)
- 8 ch EXT. IN terminal
- Pure direct mode
- Audio delay function
- Personal memory plus, for easy operation
- Adjustable cross-over switching
- Dedicated iPod connectivity (Requires optional ASD-1R)
- 56-station AM/FM random preset memory tuning
- New simple remote for easy operation



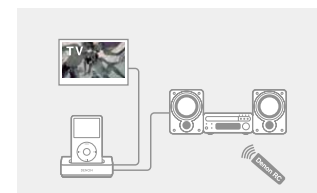
### Control dock for iPod® ASD-1R

- Playback with 'Command and Control' of your iPod  
The Denon ASD-1R lets you connect your iPod to a Denon component with a dock control or to a Denon mini component equipped with a system connector. This connection allows you to control your iPod with your Denon remote controller that came with the Denon component.
- Display iPod information on your TV or other monitor  
You can monitor iPod text information, such as menus and track names, on a TV screen, or a front panel display of Denon's components. (This feature is only available when connected to Denon products with a dock control.)
- Recharge your iPod
- Enjoy photos and videos, too.  
The ASD-1R lets you show slide shows or videos stored in your iPod (only iPods with slide show or video playback capability).
- Supported iPods  
The ASD-1R supports iPods equipped with the Dock Connector Port. However, 3rd-generation iPod (with Dock Connector) require Apple iPod Universal Dock Adapter (separately available from Apple Computer, Inc.) in order to be connected to the ASD-1R.
- Dimensions: 104 (W) x 28.5 (H) x 76.5 (D) mm / Weight: 220g

Please visit <http://blog.denon.com/asd-1r/> for more details on compliant models and connection procedures.



Connection example  
Using Denon component with  
a dock connector



Connection example  
Using Denon mini component with  
a system connector

# Exciting surround entertainment, easier to enjoy

5.1ch home theatre in a box

## DHT-1356XP

A/V surround receiver AVR-1306

5.1ch speaker system SYS-56HT

\*see chart on page 21



RDS RadioTEXT



DENON Link cable

### AK-DL1



- High-purity copper wire specially developed for the central conductor is used for the conductive material.
- A fluoropolymer superior in heat resistance, weather resistance, and aging resistance is used for the insulation.
- A tin-bearing copper alloy has been used for the shield.
- The plug lever is in a round shape to prevent bending or breaking.
- Direction marks are provided to indicate the correct direction for connecting the cable.
- 1.5 meters length

HDMI cable

### AK-HM500

(5 meters length)

### AK-HM300

(3 meters length)

### AK-HM100

(1 meter length)



**HDMI**

- Officially HDMI certified
- 1080p compliant
- Cable holder included
- Transmit both high-definition (HD) video and multi-channel (surround) audio signals
- External mesh, to minimise vibration inside the cable and from external noise
- Triple-layer shielding, eliminate mutual interference inside the cable and shut out external noise
- Twisted construction, to prevent interference from electro-magnetic noise
- Durable 24k gold plated contacts, to minimise signal degradation caused by contact resistance

	AVC-A1XVA	AVC-A11XVA	AVR-4306	AVR-3806	AVR-2807
<b>Decoder</b>					
THX SURROUND EX	●	●			
DOLBY	Digital	Digital	Digital	Digital	Digital
	Digital EX	Digital EX	Digital EX	Digital EX	Digital EX
	Pro Logic II/ IIx	Pro Logic II/ IIx	Pro Logic II/ IIx	Pro Logic II/ IIx	Pro Logic II/ IIx
	Headphone	Headphone			
DTS-ES	Discrete6.1	Discrete6.1	Discrete6.1	Discrete6.1	Discrete6.1
	Matrix6.1	Matrix6.1	Matrix6.1	Matrix6.1	Matrix6.1
	Neo:6	Neo:6	Neo:6	Neo:6	Neo:6
DTS 96/24	●	●	●	●	●
HDCD	●	●	●	●	
<b>Processor &amp; converter</b>					
32-bit floating point DSP	High grade x4	High grade x3	High grade x1	High grade x1	High grade x1
192kHz/24bit D/A Converter for all ch	●	●	●	●	●
<b>Circuit &amp; construction</b>					
DDSC-Digital	●	●	●	●	●
AL24 Processing	Advanced	Plus	Plus	Plus	Plus
Pure direct	●	●	●	●	●
Variable gain volume control	●	●	●	●	●
<b>Amplifier</b>					
Amplifier channels	10	7	7	7	7
8ohm rated power output	170W	140W	130W	120W	110W
6ohm rated power output	220W	195W	170W	160W	140W
Full discrete all ch equal power amplifier	●	●	●	●	●
Wide range frequency	●	●	●	●	●
Surround Back ch amplifier assign	(10 ch Fully assignable)	Front SP Bi-amp/ Multizone	Front SP Bi-amp/ Multizone	Front SP Bi-amp/ Multizone	Front SP Bi-amp/ Multizone
<b>Video input terminals</b>					
Component video	6	3	3	3	3
S-Video (incl. front panel)	9	8	7	7	7
HDMI	5	3	3	2	2
DVI	1	1			
<b>Video output terminals</b>					
Component Video	3	2	2	2	1
S-Video	7	6	4	4	3
HDMI (*1)(*2)	1	1	1	1	1
DVI	1				
<b>Audio input terminals</b>					
EXT. IN	10ch x1, 6ch x1	8ch x1	8ch x1	8ch x1	8ch x1
Digital (Coaxial)	6	3	2	2	2
Digital (Optical) (incl. front panel)	6	5	5	5	5
Analog	3+phono	3+phono	2+phono	2+phono	2+phono
DENON Link	1	1	1	1	
<b>Audio output terminals</b>					
Digital (Coaxial)					
Digital (Optical)	3	3	2	2	2
Pre Out	9.1ch/zone2(5.1ch)/ zone2/Zone3/zone4	7.1ch/zone2/zone3	7.1ch/zone2/zone3	7.1ch/zone2	7.1ch
<b>Audio/Video Inputs (incl. front panel)</b>					
	9	8	7	7	7
<b>Other connections</b>					
RS-232C	●	●	●	●	●
Ethernet	●	●	●		
IEEE 1394	●	●			
Internet radio/ Audio streaming	●	●	●		
Web control	●	●	●		
iPod			●(*3)		●(*4)
<b>Set up &amp; operation</b>					
Auto setup with microphone	●	●	●	●	●
Room EQ	● (Audyssey MultEQ XT)	● (Audyssey MultEQ XT)	● (Audyssey MultEQ XT)	● (Audyssey MultEQ XT)	● (Audyssey MultEQ XT)
On screen display	●	●	●	●	●
Remote	EL back light w/GLO-key	EL back light w/GLO-key	EL back light	EL back light	GLO-key
Personal memory plus	●	●	●	●	●
3 user mode buttons	●	●	●	●	●
<b>Others</b>					
Audio delay	●	●	●	●	●
Variable subwoofer crossover switching	40/60/80/90/100/ 110/120/150/200/250Hz	40/60/80/90/100/ 110/120/150/200/250Hz	40/60/80/90/100/ 110/120/150/200/250Hz	40/60/80/90/100/ 110/120/150/200/250Hz	40/60/80/90/100/ 110/120/150/200/250Hz
Component video switching	●	●	●	●	●
S-Video switching	●	●	●	●	●
Video up/down conversion	Composite <-> S-video <-> Component -> HDMI	Composite <-> S-video <-> Component -> HDMI	Composite <-> S-video <-> Component -> HDMI	Composite <-> S-video <-> Component -> HDMI	Composite <-> S-video <-> Component -> HDMI
Component video band width	100MHz	100MHz	100MHz	100MHz	100MHz
Cinema EQ	●	●	●	●	●
Night mode	●	●	●	●	●
ALL ch binding post SP terminal	●	●	●	●	●
Surround SP A/B	● (Configurable)	●	●	●	●
Front SP A/B	● (Configurable)	● (Configurable)	● (Configurable)	● (Configurable)	● (Configurable)
Tuner	●	●	●	●	●
RDS (radio data system)	●	●	●	●	●
Radio Text	●	●	●	●	●
Auto surround mode	●	●	●	●	●
Multi channel stereo mode	●	●	●	●	●

(\*1) Version 1.1 compliant. HDMI audio output capacity is dependent on the monitor being used.

(\*2) HDMI and DVI outputs are HDCP compliant. Video cannot be viewed if connected to a monitor that does not support HDCP; video can be viewed only on HDCP-compliant monitors.

(\*3) Requires optional AK-P100 connecting cable.

(\*4) Requires optional ASD-1R control dock for iPod.

	AVR-2307	AVR-1907	AVR-1707	AVR-1507	AVR-1306 (for DMT-1356XP)
<b>Decoding format</b>					
THX SURROUND EX					
DOLBY	Digital Digital EX Pro Logic II/ IIx	Digital Digital EX Pro Logic II/ IIx	Digital Digital EX Pro Logic II/ IIx	Digital Digital EX Pro Logic II/ IIx	Digital (Pro Logic II)
DTS-ES	Discrete6.1 Matrix6.1 Neo:6	Discrete6.1 Matrix6.1 Neo:6	Discrete6.1 Matrix6.1 Neo:6	Discrete6.1 Matrix6.1 Neo:6	(Neo:6)
DTS 96/24 HDCD	●	●	●	●	
<b>Processor &amp; converter</b>					
32-bit floating point DSP	x1	x1	x1	x1	x1
192kHz/24bit D/A Converter for all ch	●	●	●	●	●
<b>Circuit &amp; construction</b>					
DDSC-Digital					
AL24 Processing					
Pure direct	●	●	●	●	●
Variable gain volume control					
<b>Amplifier</b>					
Amplifier channels	7	7	7	7	5
8ohm rated power output	100W	85W	75W	75W	75W
6ohm rated power output	135W	120W	110W	110W	110W
Full discrete all ch equal power amplifier	●	●	●	●	●
Wide range frequency	●	●	●	●	●
Surround Back ch amplifier assign	Front SP Bi-amp Multizone	Front SP Bi-amp	Front SP Bi-amp		
<b>Video input terminals</b>					
Component video	3	3	3	3	
S-Video (incl. front panel)	5	3	3	3	
HDMI	2				
DVI					
<b>Video output terminals</b>					
Component Video	1	1	1	1	
S-Video	3	2	2	2	
HDMI (*1)(*2)	1				
DVI					
<b>Audio input terminals</b>					
EXT. IN	8ch x1	8ch x1	8ch x1	8ch x1	6ch x1
Digital (Coaxial)	2	2	2	2	2
Digital (Optical) (incl. front panel)	4	3	2	2	2
Analog	2 + Phono	3	3	3	3
DENON Link					
<b>Audio output terminals</b>					
Digital (Coaxial)	1	1			
Digital (Optical)					
Pre Out	7.1ch	7.1ch	Subwoofer	Subwoofer	Subwoofer
<b>Audio/Video Inputs (incl. front panel)</b>					
	5	4	4	4	4
<b>Other connections</b>					
RS-232C	●				
Ethernet					
IEEE 1394					
Internet radio/ Audio streaming					
Web control					
iPod	●(*4)	●(*4)	●(*4)	●(*4)	
<b>Set up &amp; operation</b>					
Auto setup with microphone	●	●	●	●	
Room EQ	●				
On screen display	●	●			
Remote	Simple remote w/GLO-key	Simple remote w/GLO-key	Simple remote w/GLO-key	Simple remote w/GLO-key	GLO-key
Personal memory plus	●	●	●	●	●
3 user mode buttons	●	●	●	●	
<b>Others</b>					
Audio delay	●	●	●	●	
Variable subwoofer crossover switching	40/60/80/100/ 120/150/200/250Hz	40/60/80/100/ 120/150/200/250Hz	40/60/80/100/ 120/150/200/250	40/60/80/100/ 120/150/200/250	60/80/100/120/135/ 150/180/200
Component video switching	●	●	●	●	
S-Video switching	●	●	●	●	
Video up/down conversion	Composite <-> S-video <-> Component -> HDMI	Composite <-> S-video <-> Component	Composite <-> S-video <-> Component		
Component video band width	100MHz	100MHz	100MHz	30MHz	
Cinema EQ	●	●	●	●	●
Night mode	●	●	●	●	●
ALL ch binding post SP terminal	●	●	●	●	●
Surround SP A/B					
Front SP A/B	●	●	●	●	●
Tuner	●	●	●	●	●
RDS (radio data system)	●	●	●	●	●
Radio Text	●	●	●	●	●
Auto surround mode	●	●	●	●	●
Multi channel stereo mode	●	●	●	●	●



DVD-Audio/Video / Super Audio CD player  
**DVD-A1XVA**



- Latest I/P converter (REALTA) from Silicon Optix, Inc.
- Denon Pixel Image Correction, for more natural contour correction
- High-performance DVDO video scaler capable of 1080p output for HDMI
- Dual Discrete Video Circuit (DDVC)
- High-speed, high-precision 14-bit 216-MHz video DAC
- Oversampling of 8x for Progressive and 16x for Interlaced signals results in sharp, detailed pictures.
- Composite, S-video, and component signals each have their own dedicated video DAC
- Noise Shaped Video (NSV)
- Super Sub Alias Filter
- Supports fine picture quality adjustments
- Simultaneous output through HDMI and DVI digital video interfaces
- Simultaneous output possible for all video signals
- Supports PAL and NTSC (PAL/NTSC Conversion)
- THX Ultra certified
- Advanced AL24 Processing, original Denon technology for high-quality audio
- High-accuracy D/A converters for all channels
- Audio output dedicated to high-quality 2-channel playback
- Pure Direct mode, for greater purity in the audio signal
- DENON Link (3rd edition)
- IEEE 1394 digital interface
- HDMI digital audio output for up to 6 channels
- Bass management function tailored for home theatre environments
- Construction designed to thoroughly suppress vibration and mutual interference among circuit blocks
- Four-box layout to isolate circuits and minimise mutual interference
- Thorough vibration-resistant construction
- Denon original high-accuracy drive mechanism
- DVD-R/RW (DVD-Video Recording Mode) playback
- DVD+R/RW Playback
- CD-R/RW(MP3/WMA/JPEG/Kodak Picture CD) playback
- Playback frequency ranges of Super Audio CDs are switchable (50 kHz / 100 kHz)
- Independent bass management for analog audio output and HDMI audio signals
- Multi layer construction
- Independent power supply
- SRS TruSurround
- RS-232C and remote in/out terminal
- Backlight remote control



DVD-Audio/Video / Super Audio CD player  
**DVD-3930**

- Latest I/P converter (REALTA) from Silicon Optix, Inc.
- Denon Pixel Image Correction, for more natural contour correction
- High-performance video scaler capable of 1080p output for HDMI
- Dual Discrete Video Circuit (DDVC)
- High-speed, high-precision 14-bit 216-MHz video DAC
- Adjusts keystone
- Simultaneous output possible for all video signals
- Supports PAL and NTSC (PAL/NTSC conversion)
- VGA, XGA, WXGA and SXGA output
- Supports fine picture quality adjustments
- Advanced AL24 Processing, original Denon technology for high-quality audio
- High-accuracy D/A converters for all channels
- Pure direct mode, for greater purity in the audio signal
- DENON Link (3rd edition)
- HDMI digital audio output up to 6 channels
- Dedicated circuits for each 2ch/5.1ch audio output
- Bass management function tailored for home theatre environments
- Equipped with analog power transformer
- Thorough vibration-resistant construction
- RS-232C serial command control
- Remote in/out terminal
- DivX (ver. 6)

\* Official DivX Certified™ product  
 \* Plays DivX®6, DivX®5, DivX®4, DivX®3, and DivX® VOD video content  
 (in compliance with DivX Certified™ technical requirements)



**Silver**  
version available

**Black**  
version available



DVD-Audio/Video / Super Audio CD player  
**DVD-2930**

- Latest I/P converter (REON VX) from Silicon Optix, Inc.
- Denon Pixel Image Correction, for more natural contour correction
- High-performance video scaler capable of 1080p output for HDMI
- Dual Discrete Video Circuit (DDVC)
- High-speed, high-precision 12-bit 216-MHz video DAC
- Supports fine picture quality adjustments
- Simultaneous output possible for all video signals
- Supports PAL and NTSC
- AL24 Processing Plus, original Denon technology for high-quality audio
- All channel equal 24-bit, 192kHz Audio D/A Converter
- Pure direct mode, for greater purity in the audio signal
- DENON Link 3rd, for high-grade audio transmission
- HDMI digital audio output up to 6 channels
- RS-232C and remote in/out terminal
- DivX (ver. 6)

\* Official DivX Certified™ product  
 \* Plays DivX®6, DivX®5, DivX®4, DivX®3, and DivX® VOD video content  
 (in compliance with DivX Certified™ technical requirements)



**Black**  
version available



DVD-Audio/Video / Super Audio CD player  
**DVD-1930**

- HDMI interface with multi channel audio (480P/720P/1080i/1080P scaling)
- Progressive Scan featuring DCDi by Faroudja
- 11 bit, 216 MHz high resolution video D/A converters
- DVD-Audio/Video, Super Audio CD universal player
- 24-bit, 192-kHz high resolution audio D/A converters
- 2 MB buffer memory
- DVD-R/RW (DVD-Video Mode) / DVD+R/RW playback
- Picture adjust function
- DivX (ver. 6)

\* Official DivX Certified™ product  
 \* Plays DivX®6, DivX®5, DivX®4, DivX®3, and DivX® VOD video content (in compliance with DivX Certified™ technical requirements)



**Black**  
 version available



DVD-Video player  
**DVD-1730**

- HDMI interface (480P/720P/1080i scaling)
- Progressive Scan (PAL/NTSC Output)(\*4)
- 108MHz high resolution video D/A converter
- 24-bit, 192-kHz high resolution audio D/A converters
- DVD-R/RW playback
- Plays DivX® video content
- RGB output via SCART terminal
- 2 MB buffer memory
- Picture zooming (x2 or x4)
- Picture adjustment function

\* Official DivX Certified™ product  
 \* Plays DivX®6, DivX®5, DivX®4, DivX®3, and DivX® VOD video content (in compliance with DivX Certified™ technical requirements)



**Black**  
 version available



DHT-1356XP	
<b>Receiver / DVD player</b>	
<b>Decoder</b>	
DOLBY	(Pro Logic II)
DTS	(Neo:6)
DTS96/24	●
<b>Power amplifier</b>	5 ch
<b>Video input terminals</b>	
Composite / S-video/ Component	4 / - / - (Receiver)
<b>Video output terminals</b>	
Composite / S-video/ Component	2 / - / - (Receiver)
SCART	
<b>Audio input terminals</b>	
Digital (Coaxial / Optical)	2 / 2
Analog	7
<b>Audio output terminals</b>	
Digital (Coaxial / Optical)	- / -
Analog	2
Pre out	1 (subwoofer)
<b>Playable Discs:</b>	
DVD-Video	
DVD-R/RW	
DVD+R/RW	
CD-R/RW	
(MP3/WMA/JPEG/Kodak Picture CD)	
<b>Others:</b>	
RDS (Radio Data System) / Radio Text	●
<b>Speakers</b>	
<b>Satellite Speakers</b>	
Type & Speaker size	5.7cm full-range x2
Magnetically shielded	●
Dimensions (WxHxD)	84 x 189 x 110 mm
Weight	1.2 kg/unit
<b>Centre Speaker</b>	
Type & Speaker size	5.7cm full-range x2
Magnetically shielded	●
Dimensions (WxHxD)	263 x 84 x 110 mm
Weight	1.4 kg
<b>Subwoofer</b>	
Speaker size	16cm cone woofer
Dimensions (WxHxD)	210 x 353 x 379 mm
Power output	50W (6ohms)
	100W (Dynamic power)
Weight	9.2 kg

	DVD-A1XVA	DVD-3930	DVD-2930	DVD-1930	DVD-1730
<b>Decoder</b>					
DOLBY Digital	●	●	●	●	
DTS	●	●	●	●	
<b>Processor &amp; Converter</b>					
Video DAC	216MHz x2	216MHz x2	216MHz x2	216MHz	108MHz
Audio DAC	192MHz/24bit	192MHz/24bit	192MHz/24bit	192MHz/24bit	192MHz/24bit
Advanced AL 24 processing	●(2ch stereo)	●(2ch stereo)			
AL 24 processing plus	●(all ch)	●(all ch)	●(all ch)		
Progressive scan circuit	HQV (REALTA)	HQV (REALTA)	HQV (REON VX)	DCDi	
PAL / NTSC	● / ●	● / ●	● / ●	● / ●(*4)	● / ●(*4)
<b>Construction &amp; Circuit</b>					
D.D.V.C.	●	●	●		
Multi layered construction	●	●	●		
Loader mechanism	SVH	SVH	HYBRID		
Pure direct	●	●	●	●	
<b>Picture &amp; Audio functions</b>					
Denon Pixel Image Correction	●	●	●		
Bass management for DVD-Video/ DVD-Audio/ SuperAudioCD	● / ● / ●	● / ● / ●	● / ● / ●	● / ● / ●	
Time alignment for DVD-Video /DVD-Audio/ Super Audio CD	● / ● / ●	● / ● / ●	● / ● / ●	● / ● / -	
<b>Video output terminals</b>					
SCART RGB	1	1	1	1	1
Composite	2	1	1	1	1
S-video	2	1	1	1	1
Component	2	2	1	1	1
DVI	1				
HDMI (*2)(*3)	1	1	1	1	1 (ver.1.0)
<b>Audio output terminals</b>					
Digital (Coaxial / Optical)	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Analog	2ch x1, 5.1ch x1	2ch x1, 5.1ch x1	2ch x1, 5.1ch x1	5.1ch x1	2ch x1
HDMI multi channel audio	●	●	●	●	
<b>Playable discs (*1)</b>					
Super audio CD	●	●	●	●	
DVD-Audio	●	●	●	●	
DVD-Video	●	●	●	●	●
DVD-R/RW / DVD+R/RW	●	●	●	●	●
CD-R/RW (MP3/WMA/JPEG/Kodak Picture CD)	●	●	●	●	●
DivX contents		ver. 6	ver. 6	ver. 6	ver. 6
<b>Other connections</b>					
RS-232C	●	●	●		
IEEE 1394	●	●	●		
Denon Link	●	●	●		

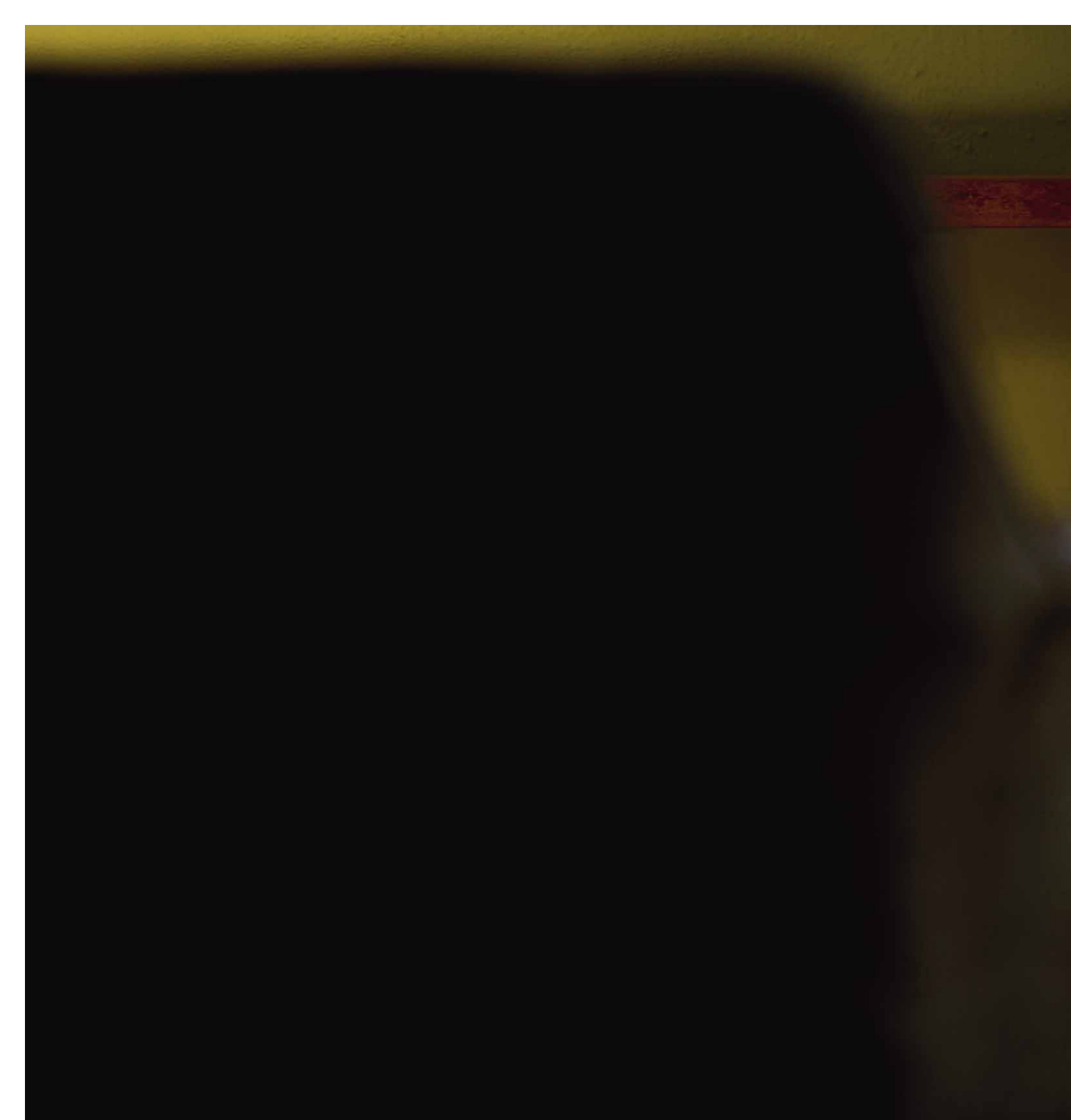
(\*1) Discs that have been poorly finalised following recording may be only partially playable or not playable at all.

(\*2) Version 1.1 compliant. HDMI audio output capacity is dependent on the monitor being used.

(\*3) HDMI and DVI outputs are HDCP compliant. Video cannot be viewed if connected to a monitor that does not support HDCP; video can be viewed only on HDCP-compliant monitors.

(\*4) see page 40





Hi-fi components



**Creates a realistic world of music that transcends the imagination, from robust power to delicate details.**

All components, from Super Audio CD players to traditional CD players, integrated amps and record players, reproduce the realism of a concert hall complete with reverberations and the delicate nuances of the music.

Balancing dynamic power and delicate details in sound,  
the fruit of many years of Denon audio technology and experience.



## Integrated amplifier PMA-SA1

*Ultra High Current MOS*  
SINGLE PUSH-PULL CIRCUIT

- 100 W x 2 (4 ohms)
- UHC-MOS, the ideal large-current amplifier
- Cascode bootstrap connection, to bring out the maximum potential of UHC-MOS
- Simple amplifier stage configuration
- All-stage balanced amp configuration, to protect clarity of musical signals
- Inverted  $\Sigma$  Balance Circuit, realising a balanced amp for high sound quality
- High-grade volume control for superior sound quality
- Sand-cast aluminum transformer case and capacitor holder
- Fully independent phono equaliser amplifiers
- Precision signal ground circuit, to preserve signal purity
- Wide-range play capability for DVD-Audio or Super Audio CD
- Chassis construction with 6 independent blocks
- "Simple & straight" circuit design





## CD/Super Audio CD player DCD-SA1



ADVANCED AL24 PROCESSING

- 'Advanced AL24 Processing,' the latest technology for high sound quality
- Original drive mechanism, the heart of Denon's digital disc playback technology
- High-accuracy master clock oscillator, to suppress jitter and noise
- Fully balanced output using 4-DAC configuration
- Triple floating power supply, to suppress resonance, to prevent noise and to ensure a clean, stable supply of power.
- Pure direct mode

- Balanced and unbalanced output
- Optical and coaxial digital input/output
- Thoroughly vibration-resistant construction
  - 4-layer bottom plate construction
  - Cast iron insulator
  - Hybrid construction for all panels
  - Vibration-resistant PC board design





Integrated amplifier  
**PMA-2000AE**

*Ultra High Current MOS*  
SINGLE PUSH-PULL CIRCUIT

- 160 W x 2 (4 ohms)
- UHC-MOS FET
- UHC-MOS single push-pull circuit
- LC (Leakage Cancelling) mounted twin transformers
- Powerful high-current dynamic power circuit
- Newly-developed large-capacity block capacitor
- Highly rigid, separated chassis
- Wide-range play capability for DVD-Audio or Super Audio CD
- Power amp direct Input
- PRE OUT terminals for future system expansion
- Precision mechanical ground construction, to thoroughly suppress vibration
- Precision signal ground circuit, to preserve signal purity
- Large, gold-plated speaker terminals
- High-performance MM & MC phono equaliser
- Convenient remote control for main functions
- High-grade input terminal for phono and CD



CD/Super Audio CD player  
**DCD-2000AE**

*Advanced AL24 Processing*

- 'Advanced AL24 Processing,' the latest technology for high sound quality
- Original drive mechanism, the heart of Denon's digital disc playback technology
- DAC master clock design, to suppress jitter and noise
- Complete separation of digital and analog power supplies using OFC wire coils to ensure a clean, stable supply of power
- Thoroughly vibration-resistant construction
  - 3-layer bottom plate construction
  - Cast aluminum trans base
  - Hybrid construction for all panels
- Pure direct mode
- Optical and coaxial digital output



Integrated amplifier  
**PMA-1500AE**

*Ultra High Current MOS*  
SINGLE PUSH-PULL CIRCUIT

- 140 W x 2 (4 ohms)
- UHC-MOS FET
- UHC-MOS single push-pull circuit
- LC (Leakage Cancelling) mounted twin transformers
- High-speed rectifier circuit
- Highly rigid, separated chassis
- Wide-range play capability for DVD-Audio or Super Audio CD
- Power amp direct input
- Large, gold-plated speaker terminals
- High-performance MM & MC phono equaliser
- Convenient remote control for main functions
- PRE OUT terminals for future system expansion

**Black**  
version available



CD/Super Audio CD player  
**DCD-1500AE**

*AL24 Processing*

- AL24 Processing: Ideal analog waveform reproduction technology
- Original drive mechanism, the heart of Denon's digital disc Playback technology
- DAC master clock design, to suppress jitter and noise
- Complete separation of digital and analog power supplies
- Pure direct mode
- Optical and coaxial digital output

**Black**  
version available





Integrated amplifier  
**PMA-700AE**

Black  
version available

- 85 W x 2 (4 ohms)
- High Current (HC) single push-pull circuit to balance details and power
- High-speed, large-capacity power circuit
- Main transformer with separate power supplies for analog and digital circuits
- Wide-range play capability for DVD-Audio or Super Audio CD
- Source direct, for clean pure audio playback
- Microprocessor stop mode to further improve sound quality
- REC OUT selector for flexible enjoyment of music
- PRE OUT terminals for future system expansion
- Phono equaliser amp (MM), for connecting an analog record player



Integrated amplifier  
**PMA-500AE**

Black  
version available

- 70 W x 2 (4 ohms)
- High Current (HC) single push-pull circuit to balance details and power
- High-speed, large-capacity power circuit
- Main transformer with separate power supplies for analog and digital circuits
- Wide-range play capability for DVD-Audio or Super Audio CD
- Source direct, for clean pure audio playback
- Microprocessor stop mode to further improve sound quality
- Phono equaliser amp (MM), for connecting an analog record player
- IR remote control can handle Denon CD players and tuners



DAB/AM-FM stereo receiver  
**DRA-700AEDAB**

Black  
version available

SLDC REAL LEVEL DIVIDED CONSTRUCTION Multi Zone Home Entertainment Component DAB Digital Audio Broadcasting RDS RadioTEXT ASD-1R

- 105 W x 2 (4 ohms)
- Signal Level Divided Construction (SLDC)
- Wide-range play capability for DVD-Audio or Super Audio CD
- DAB tuner
- Electronic source selection
- Video in/out terminal
- Multizone
- A-B speaker switching
- RDS (RDS-EON) functions
- 56-station random preset memory  
(Another 56 stations for DAB station)
- Dedicated iPod connectivity (Requires optional ASD-1R)



	PMA-SA1	PMA-2000AE	PMA-1500AE	PMA-700AE	PMA-500AE
UHC-MOS single push pull circuit	●	●	●		
HC-TR single push pull circuit				●	●
LC mounted twin transformer		●	●		
Wide range amplifier	●	●	●	●	●
High current dynamic power supply	●	●	●	●	●
Power amp discrete construction	●	●	●	●	●
Phono MC		●	●		
MM	●	●	●	●	●
Audio input	7	7	6	6	6
Rec output	2	2	2	2	2
Pre Out		●	●	●	
Balanced input	●				
REC out select	●	●	●	●	
Source direct		●	●	●	●
Tone control		●	●	●	●
Power amp direct mode		●	●		
Micro processor auto off		●	●	●	●
4ohm rated output	100W	160 W	140 W	85W	70 W



DAB / AM-FM stereo tuner  
**TU-1800DAB**

Black  
version available



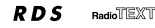
- Sophisticated tuning circuit design
- Low-impedance output circuit
- RDS (RDS-EON) functions
- Large, easy-to-read display
- Rotary knob for improved ease of operation

This product is not necessarily sold in all regions.  
Please contact a nearby Denon authorised dealer for details and availability.



AM-FM stereo tuner  
**TU-1500AE**

Black  
version available



- Newly-developed MPX filter
- Low-impedance output circuit
- RDS (RDS-EON) functions
- Rotary knob for improved ease of operation
- Large, easy-to-read display
- AM/FM 100-station random preset memory



CD player  
**DCD-700AE**

Black  
version available



- AL24 Processing: Ideal analog waveform reproduction technology
- High-accuracy D/A converter
- Carefully designed construction to preserve audio signal purity
- Strictly selected parts for high sound quality
- Support for CD-R/CD-RW (MP3/WMA) playback
- Pitch control
- A wealth of additional playback functions
- Pure direct mode



CD player  
**DCD-500AE**

Black  
version available



- High-accuracy D/A converter
- DAC master clock design
- Carefully designed construction to preserve audio signal purity
- CD-R/RW (audio) playback
- A wealth of additional playback functions
- 8-times oversampling digital filter



	DCD-SA1	DCD-2000AE	DCD-1500AE	DCD-700AE	DCD-500AE	DCM-500AE
Advanced AL 24 Processing	●	●		●		
AL 24 Processing			●			
LAMBDA SLC				●		
Number of DAC	4	2	2	2	2	2
SVH loader	●	●	●			
Dimmer	●	●	●	●	●	
Jog control						
Pitch control				●		
Analog output	2 (Balanced/Unbalanced)	1	1	1	1	1
Digital output	2 (Coaxial/Optical)	2 (Coaxial/Optical)	2 (Coaxial/Optical)	1	1	1
Digital input	2 (Coaxial/Optical)					
Number of discs	1	1	1	1	1	5
Super Audio CD	●	●	●			
CD-R/RW playback (*)	●	●	●	●	●	●
MP3 / WMA decoder				●		●
Random	●	●	●	●	●	●
Repeat all	●	●	●	●	●	●
Repeat one	●	●	●	●	●	●
A/B repeat			●	●	●	●

\* Discs that have been poorly finalised following recording may be only partially playable or not playable at all.



5-CD auto changer

# DCM-500AE

Black  
version available



MP3 WMA

- CD-R/RW playback
- MP3 and WMA decoders
- Advanced multi level noise shaping DAC
- 8-times oversampling digital filter
- Remote control in/out
- Full selection of program playback
- 3-mode random playback



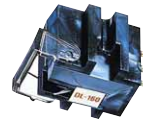
MC cartridge  
**DL-103**



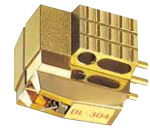
MC cartridge  
**DL-103R**



MC cartridge  
**DL-110**



MC cartridge  
**DL-160**



MC cartridge  
**DL-304**

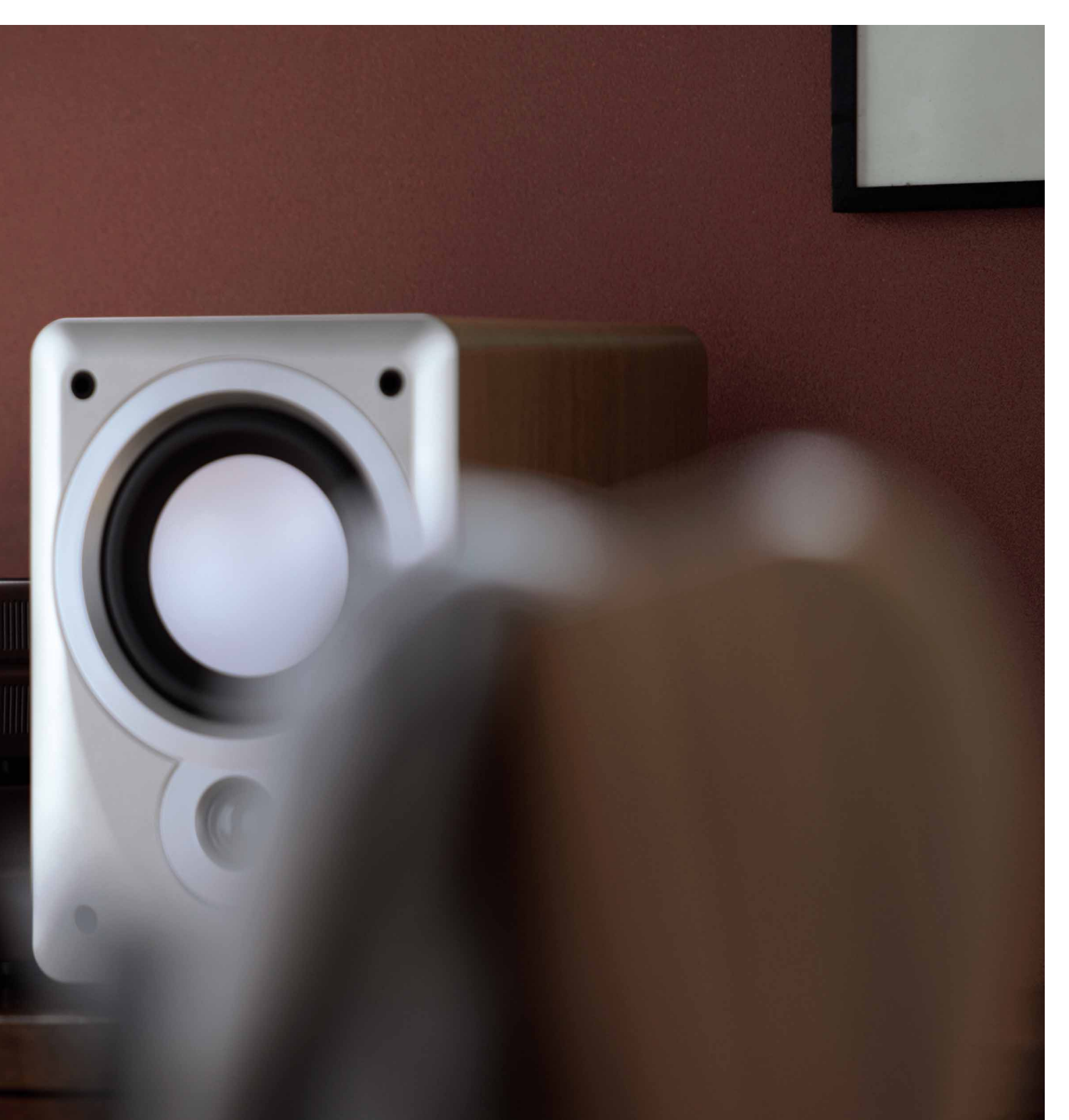
This product is not necessarily sold in all regions.  
For details, please contact the authorised dealer noted at the back of this catalogue.

	DRA-700AEDAB
SLDC	●
Speaker	A/B
Analog inputs	5 + Phono (MM)
Analog outputs	2 + 2 pre out for Zone2 & 3
Loudness	●
Binding post speaker terminal	●
RDS with RadioText	●
Dot matrix display	● (2-line)
Video in/out	3 / 2 +2 for Zone2 & 3
DAB tuner	●
Station memory (FM&AM / DAB)	56 / 56
Auto preset memory	●
Character input	●

	TU-1800DAB	TU-1500AE
RDS	●	●
Radio Text	●	●
EON	●	●
DAB tuner	●	●
Station memory (FM&AM / DAB)	100 / 100	100 / -
Manual character input	●	●
Auto preset memory	●	●



Mini component systems



## Better sound, each and every day

Denon Mini components are fully Hi-Fi despite their compact size.

Designed with the same Hi-Fi philosophy of full-size components, our Mini systems bring you wonderful sound to brighten up your day, every day, anywhere you like, such as a kitchen, bedroom, or study.

## F series



**D-F102DAB**

D-F102DAB

DCD-F102

SC-F102



**D-F103HRDAB**

D-F102DAB

CHR-F103

SC-F103

## Receiver

# DRA-F102DAB



- Supports wide dynamic range playback and high-quality sound, rivaling high-end amps
- Power circuit to support high sound quality playback
- Supports iPod® playback when connected to optional ASD-1R control dock for iPod
- Analog mini-jack input for connecting a portable player
- A wealth of input/output terminals
- 40-station FM/AM preset
- Versatile timer function
- Easy-to-operate multi-function remote unit for system-wide control
- DAB tuner

## Cassette deck

# DRR-F102 (Optional)



- Horizontal loading mechanism for stable tape travel
- Dolby Noise Reduction for high-quality sound recording and playback
- Useful functions such as Track Cueing and CD-SRS Recording
- Auto Reverse, to automatically play side B after side A and vice versa
- Auto Tape Selector (for Metal tapes only)
- Convenient functions when system is upgraded with other components in the F102 series



## Speaker system

# SC-F102

- European sound tuned speakers
- Large 14cm woofer units with D.D.L. (Denon Double Layer) cone
- Soft-dome tweeters
- Crossover network for uniform acoustic pressure and phase response
- Anti-magnetic design
- 182 (w) x 264 (H) x 233 (D) mm



## CD player

# DCD-F102



- High-accuracy D/A converter
- 8x oversampling digital filter
- Plays CD-R /CD-RW (MP3/WMA)(\*1)
- Optical digital output terminals
- Wide variety of playback functions
- System-wide functions for easy operation

(\*1): Discs that have been poorly finalised following recording may be only partially playable or not playable at all.

## CD/HDD music system

# CHR-F103



- Equipped with a hard disk drive capable of holding approximately 10,000 WMA tracks recorded (Normal mode)
- Supports ripping in WMA and LPCM.
- Supports playback of MP3, WMA, AAC(.M4A) and LPCM tracks from hard disk drive
- Gracenote compliant (using built-in hard disk or Ethernet connection to obtain information on music tracks.)
- You can monitor the song while ripping.
- Search by 'Artists', 'Albums', 'Genres' and 'Tracks'
- Search by 'Recently played', 'Recently stored' and your 'Playlist'
- Includes dedicated editing/file management software (Denon Music Manager) for your PC
- Provides USB port for copying music tracks from a computer or backing up data to a computer.
- Provides Ethernet port supporting Internet Radio and WMC.
- Large FL display accommodates 6 or 3 lines of text.
- Equipped with high-performance DAC for high sound quality.
- Plays CD-R/CD-RW (MP3/WMA)(\*1)
- USB port also allows direct playback of music tracks recorded on a USB flash memory.

## Speaker system

# SC-F103

- European sound tuned speakers
- Large 14cm woofer units with D.D.L. (Denon Double Layer) cone
- Soft-dome tweeters
- Crossover network for uniform acoustic pressure and phase response
- Anti-magnetic design
- 182 (w) x 264 (H) x 233 (D) mm
- Gloss woodgrain finished cabinet



## M series



**D-M33**

RCD-M33

SC-M53



**D-M35DAB**

RCD-M35DAB

SC-M73

This product is not necessarily sold in all regions.  
Please contact a nearby Denon authorised dealer for details and availability.

CD receiver

## RCD-M33



MP3



RDS

RadioTEXT



RC

- 22 W x 2 (6 ohms)
- CD-R, CD-RW (MP3/Windows Media Audio) Playback
- AM/FM Tuner
- 2 Line Dot Matrix Display for Various Information (Station Name, Artist Name etc.)
- S.D.B. (Super Dynamic Bass)
- Tone Controls (Bass, Treble)
- Source Direct Function
- 2 Sets of Analog Stereo Inputs and Analog Stereo Outputs
- Subwoofer Output
- Easy-to-Use Remote Control
- Headphone Jack
- A wealth of Playback Functions
- Optical Digital Output Jack for Direct Transmission of Digital Signals
- Auto Edit Function
- Radio TEXT with RDS function
- Everyday/Once/Sleep Timer

CD receiver

## RCD-M35DAB



MP3



RDS

RadioTEXT



RC

- 22 W x 2 (6 ohms)
- CD-R, CD-RW (MP3/Windows Media Audio) Playback
- DAB (Digital Audio Broadcast) Tuner
- AM/FM Tuner
- 2 Line Dot Matrix Display for Various Information (Station Name, Artist Name etc.)
- S.D.B. (Super Dynamic Bass)
- Tone Controls (Bass, Treble)
- Source Direct Function
- 2 Sets of Analog Stereo Inputs and Analog Stereo Outputs
- Subwoofer Output
- Easy-to-Use Remote Control
- Headphone Jack
- A wealth of Playback Functions
- Optical Digital Output Jack for Direct Transmission of Digital Signals
- Auto Edit Function
- Radio TEXT with RDS function
- Everyday/Once/Sleep Timer

This product is not necessarily sold in all regions.  
Please contact a nearby Denon authorised dealer for details and availability.

Cassette deck

## DRR-M33 (Optional)



- Horizontal Loading Mechanism for Smooth, Stable Tape Travel
- Dolby B Noise Reduction System
- CD-SRS for One-Touch Recording from CD
- A Wealth of Editing and Playback Functions
- One-Touch Auto Reverse Operation
- Music Search
- Auto Tape Selector



Speaker system

## SC-M53

- 2-way 2 Speakers
- 12 cm woofer x1
- 2,5 cm Soft dome Tweeter x1
- Frequency Range: 45 Hz - 40 kHz
- 141 x 191 x 249 (W x H x D)
- 3,4 kg/Unit

Speaker system

## SC-M73

- 2-way 2 Speakers
- 13 cm woofer x1
- 2,5 cm Soft dome Tweeter x1
- Frequency Range: 43 Hz - 40 kHz
- 156 x 213 x 249 (W x H x D)
- 3,9 kg/Unit

This product is not necessarily sold in all regions.  
Please contact a nearby Denon authorised dealer for details and availability.

Control Dock for iPod®

## ASD-1R

- Playback with 'Command and Control' of your iPod
- Recharge your iPod
- Black version is available

For more details, please refer to page 14, or visit  
<http://blog.denon.com/asd-1r/>





S series



**Simple, easy and friendly home entertainment systems**

## Surround sound made simple

### DVD home theater system

## S-101

- 50 W + 50 W (4 ohms)(Front), 100 W (3 ohms) (Subwoofer)
- Plays DVD/CD
- AM/FM Tuner
- iPod®/Portable player connectivity
- Surround sound from just 2 speakers and a subwoofer
- Easy set up & smart operation
- DENON Developed High Quality Sound Reproduction
- High-End DVD Player Comparable  
High Quality Image Reproduction Technology
- European Sound Tuned Speakers



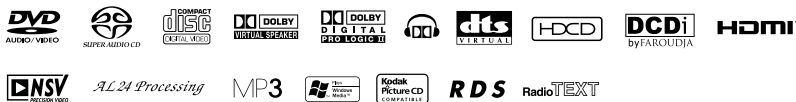
### DVD home theater system

## S-301

- 70 W + 70 W (4 ohms)(Front), 140 W (3 ohms) (Subwoofer)
- Plays DVD-Audio/Video, Super Audio CD/CD
- AM/FM Tuner
- iPod®/Portable player connectivity
- Surround sound from just 2 speakers and a subwoofer
- High Power Amplifiers
- HDMI Output Terminal (\*1)(\*2)
- USB Terminal for portable player connectivity
- Easy set up & smart operation
- DENON Developed High Quality Sound Reproduction
- High-End DVD Player Comparable High Quality Image Reproduction Technology
- European Sound Tuned Speakers



(\*1) Version 1.1 compliant. HDMI audio output capacity is dependent on the monitor being used.  
(\*2) HDMI and DVI outputs are HDCP compliant. Video cannot be viewed if connected to a monitor that does not support HDCP; video can be viewed only on HDCP-compliant monitors.



Floor speaker stand  
for S-101/S-301

## ASF-S01 (Optional)

- Dimensions (W x H x D):  
300 x 1,114 x 300 mm  
(including speaker system)
- Weight: 7.0 kg/unit





## Quality 2ch audio system from S series

### Personal audio system **S-81DAB**

- 50 W + 50 W amplifier output
- Plays CD/CD-R/CD-RW
- Plays MP3/WMA
- AM/FM tuner
- DAB tuner
- iPod®/Portable player connectivity
- European sound tuned speakers
- D.D.L. (Denon Double Layer) cone applied
- 2-line dot matrix display



More info on S series at: [http://blog.denon.com/s301\\_101/](http://blog.denon.com/s301_101/)



## A/V surround amplifiers and receivers

	<b>AVC-A1XVA</b>	<b>AVC-A11XVA</b>	<b>AVR-4306</b>	<b>AVR-3806</b>	<b>AVR-2807</b>
<b>Type</b>	Dolby Digital EX/DTS-ES THX Surround EX/ THX Ultra2 Certified A/V Amplifier	Dolby Digital EX/DTS-ES THX Surround EX/ THX Ultra2 Certified A/V Amplifier	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital EX/DTS-ES A/V Receiver
<b>Power amplifier section</b>					
Type	Same quality amplifier for all 10-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel
Rated output	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values
Front (L + R)	170 W + 170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	140 W + 140 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	130 W + 130 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	110 W + 110 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)
Centre (A)	170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	140 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	130 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	110 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)
Surround (L + R) (A)	170 W + 170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	140 W + 140 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	130 W + 130 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	110 W + 110 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)
Surround Back (L + R)	170 W + 170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	140 W + 140 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	130 W + 130 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	110 W + 110 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)
Centre (B)	170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	-	-	-	-
Surround (L + R) (B)	170 W + 170 W (8 ohms, 20 Hz - 20 kHz, THD 0.05%)	-	-	-	-
<b>Preamplifier section</b>					
Input sensitivity/ impedance	PHONO (MM): 2.5 mV/47 kohms CD, DVD, VDR, TV, DBS, VCR-1, VCR-2, VCR-3, VCR-4, V.AUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND (A)/L/R, SURROUND (B)/L/R, SURROUND BACK L/R : 200 mV/ 47 kohms SUBWOOFER: 200 mV/47 kohms	PHONO (MM): 2.5 mV/47 kohms CD, DVD, VDR, TV, DBS, VCR-1, VCR-2, VCR-3, V.AUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R : 200 mV/ 47 kohms SUBWOOFER: 200 mV/47 kohms	PHONO (MM): 2.5 mV/47 kohms CD, DVD, VDR, TV, DBS, VCR-1, VCR-2, VCR-3, V.AUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R : 200 mV/ 47 kohms SUBWOOFER: 200 mV/47 kohms	PHONO (MM): 2.5 mV/47 kohms CD, DVD, VDR, TV, DBS, VCR-1, VCR-2, V.AUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R : 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms	PHONO (MM): 2.5 mV/47 kohms CD, DVD, VDR, TV, DBS, VCR-1, VCR-2, V.AUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R : 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms
<b>FM section</b>					
Tuning frequency range	-	-	87.5 - 108.0 MHz	87.5 - 108.0 MHz	87.5 - 108.0 MHz
Usable sensitivity	-	-	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)
<b>AM section</b>					
Tuning frequency range	-	-	520 - 1611 kHz	520 - 1611 kHz	522 - 1611 kHz
Usable sensitivity	-	-	18 µV	18 µV	18 µV
<b>Power supply</b>	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz
<b>Power consumption</b>	850 W	610 W	570 W	540 W	500 W
<b>Dimensions (W x H x D)</b>	434 x 280 x 505 mm	434 x 178 x 500 mm	434 x 171 x 429 mm	434 x 171 x 429 mm	434 x 171 x 429 mm
<b>Weight</b>	44.0 kg	23.6 kg	18.5 kg	17.5 kg	14.0 kg

## DVD Players

	<b>DVD-A1XVA</b>	<b>DVD-3930</b>	<b>DVD-2930</b>	<b>DVD-1930</b>	<b>DVD-1730</b>
<b>Type</b>	DVD Audio/Video & Super Audio CD Player	DVD-Audio/Video & Super Audio CD Player	DVD-Audio/Video & Super Audio CD Player	DVD-Audio/Video & Super Audio CD Player	DVD-Video Player
<b>Video section</b>					
<b>Signal system</b>	PAL / NTSC	PAL / NTSC	PAL / NTSC	PAL / NTSC (*1)	PAL / NTSC (*1)
<b>Video output (75 ohms)</b>	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p
<b>S-video output connector:</b>					
Y Output (75 ohms)	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p
C Output (75 ohms)	0.3 Vp-p	0.3 Vp-p	0.3 Vp-p	0.3 Vp-p	0.3 Vp-p
<b>RGB video output</b>					
R Output Level (75 ohms)	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p
G Output Level (75 ohms)	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p
B Output Level (75 ohms)	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p
<b>Component output</b>					
Y Output Level	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p	1.0 Vp-p
Pb (Cb) Output Level (75 ohms)	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p
Pr (Cr) Output Level (75 ohms)	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p	0.7 Vp-p
<b>Audio section</b>					
<b>Audio signal output</b>	2 Vrms (1 kHz, 0 dB)	2 Vrms (1 kHz, 0 dB)	2 Vrms (1 kHz, 0 dB)	2 Vrms (1 kHz, 0 dB)	2 Vrms (1 kHz, 0 dB)
2-ch Mixed Output	1 system	1 system	1 system	1 system	1 system
5.1-ch Discrete Output	1 system	1 system	1 system	1 system	1 system
<b>DVD linear audio</b>					
Frequency Response	2 Hz - 22 kHz / 48 kHz sampling 2 Hz - 44 kHz / 96 kHz sampling 2 Hz - 88 kHz / 192 kHz sampling	2 Hz - 22 kHz / 48 kHz sampling 2 Hz - 44 kHz / 96 kHz sampling 2 Hz - 88 kHz / 192 kHz sampling	2 Hz - 22 kHz / 48 kHz sampling 2 Hz - 44 kHz / 96 kHz sampling 2 Hz - 88 kHz / 192 kHz sampling	4 Hz - 20 kHz / 48 kHz sampling 4 Hz - 40 kHz / 96 kHz sampling 4 Hz - 88 kHz / 192 kHz sampling	4 Hz - 22 kHz / 48 kHz sampling 4 Hz - 44 kHz / 96 kHz sampling
Dynamic Range (DVD)	112 dB	110 dB	106 dB	100 dB	100 dB
<b>Power supply</b>	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 200-240 V, 50 Hz	AC 200-240 V, 50 Hz
<b>Power consumption</b>	80 W	80 W	80 W	20 W	15 W
<b>Dimensions (W x H x D)</b>	434 x 170 x 432 mm	434 x 137 x 403 mm	434 x 102 x 386 mm	435 x 75 x 310 mm	435 x 75 x 310 mm
<b>Weight</b>	19.0 kg	11.5 kg	7.6 kg	2.6 kg	2.3 kg

\*1) PAL60 signals can be output when NTSC, Region 2 disc played and connected via Video Out or S-Video terminals to an equipment or a monitor which can receive such PAL signals.

In above mentioned conditions, NTSC signals can be output via RGB (SCART), Component (Interlace/Progressive) and HDMI terminals.

## A/V surround receivers

	<b>AVR-2307</b>	<b>AVR-1907</b>	<b>AVR-1707</b>	<b>AVR-1507</b>	<b>AVR-1306</b>
<b>Type</b>	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital EX/DTS-ES A/V Receiver	Dolby Digital/DTS A/V Receiver
<b>Power amplifier section</b>					
Type	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 7-channel	Same quality amplifier for all 5-channel
Rated output	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values	* THD figures are power amp stage values
Front (L + R)	100 W + 100 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	85 W + 85 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)
Centre (A)	100 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	85 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)
Surround (L + R) (A)	100 W + 100 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	85 W + 85 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)
Surround Back (L + R)	100 W + 100 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	85 W + 85 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08%)	-
Centre (B)	-	-	-	-	-
Surround (L + R) (B)	-	-	-	-	-
<b>Preamplifier section</b>					
Input sensitivity/ impedance	PHONO (MM): 2.5 mV/47 kohms CD, DVD/ VDR, TV/DBS, VCR-1, VCR-2, VAUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R: 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms	CD, AUX, DVD/VDR, TV/DBS, VCR, VAUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R: 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms	CD, AUX, DVD/VDR, TV/DBS, VCR, VAUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R: 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms	CD, AUX, DVD/VDR, TV/DBS, VCR, VAUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R, SURROUND BACK L/R: 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms	CD, AUX, DVD/VDR, TV/DBS, VCR, VAUX, CDR/TAPE, FRONT L/R, CENTRE, SURROUND L/R: 200 mV/ 47 kohms SUBWOOFER: 200 mV/15 kohms
<b>FM section</b>					
Tuning frequency range	87.5 - 108.0MHz	87.5 - 108.0 MHz	87.5 - 108.0 MHz	87.5 - 108.0 MHz	87.5 - 108.0 MHz
Usable sensitivity	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)	1.0 µV (11.2 dBf)
<b>AM section</b>					
Tuning frequency range	522 - 1611 kHz	522 - 1611 kHz	522 - 1611 kHz	522 - 1611 kHz	522 - 1611 kHz
Usable sensitivity	18 µV	18 µV	18 µV	18 µV	18 µV
<b>Power supply</b>	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz
<b>Power consumption</b>	450 W	430 W	415 W	410 W	350 W
<b>Dimensions (W x H x D)</b>	434 x 171 x 417 mm	434 x 147 x 417 mm	434 x 147 x 417 mm	434 x 147 x 417 mm	434 x 147 x 417 mm
<b>Weight</b>	12.1kg	11.8 kg	11.4 kg	11.2 kg	10.4 kg

	<b>DVD home theatre system</b>	<b>DVD home theatre system</b>	<b>Personal audio system</b>
	<b>S-301</b>	<b>S-101</b>	<b>S-81DAB</b>
<b>DVD section</b>			<b>Main unit</b>
<b>Signal system</b>	PAL/NTSC	PAL/NTSC	<b>Power amplifier section</b> Rated Output Power 50 W + 50 W (4 ohms, 1 kHz)
<b>Video output level/load impedance</b>			<b>FM section</b> Frequency Range 87.5 - 108.0 MHz
Composite output (75 ohms)	1.0 Vp-p (at SCART out)	1.0 Vp-p (at SCART out)	<b>AM section</b> Frequency Range 522 - 1611 kHz
S-Video output (75 ohms)	Y: 1.0 Vp-p (at SCART out), C: 0.3 Vp-p (PAL).	Y: 1.0 Vp-p (at SCART out), C: 0.3 Vp-p (PAL).	<b>DAB tuner</b> Frequency Range BAND III 170MHz - 240MHz
<b>RGB output (75 ohms)</b>	0.7 Vp-p (at SCART out)	0.7 Vp-p (at SCART out)	<b>CD player section</b> Type Single CD Player
<b>Audio output level</b>			<b>Power supply</b> 230 V, 50 Hz
Audio output (1 kHz, 0 dB: DVD)	2 V	2 V	<b>Power consumption</b> 50 W
<b>Power amplifier section</b>			<b>Dimensions (W x H x D)</b> 380 x 97 x 265 mm
Rated output	70 W x 2 (4 ohms)	50 W x 2 (4 ohms)	<b>Weight</b> 4.1 kg
Tone control	-	-	
Input sensitivity/impedance	200 mV/47 kohms	200 mV/47 kohms	
<b>FM section</b>			<b>Speakers</b>
Tuning frequency range	87.5 - 108.0 MHz	87.5 - 108.0 MHz	<b>Type</b> 2-way, 2-speakers, Bass reflex type, antimagnetic design
Usable sensitivity	1.5 µV (14.8 dBf)	1.5 µV (14.8 dBf)	<b>Input impedance</b> 4 ohms
<b>AM section</b>			<b>Max. allowable input</b> 60 W (IEC), 120 W (PEAK)
Tuning frequency range	522 - 1611 kHz	522 - 1611 kHz	<b>Dimensions</b> 150 (W) x 269 (H) x 190 (D) mm
Usable sensitivity	20 µV	20 µV	<b>Weight</b> 3.1 kg/unit
<b>General</b>			
Power supply	AC 230 V, 50 Hz	AC 230 V, 50 Hz	
Power consumption	85 W (0.7 W in standby)	75 W (0.7 W in standby)	
Dimensions (W x H x D)	380 x 97 x 250 mm	380 x 97 x 250 mm	
Weight	4.2 kg	4.2 kg	
<b>Speakers</b>			
<b>Satellite speaker (Front speaker)</b>			
Dimensions (W x H x D)	134 x 335 x 76 mm	134 x 335 x 76 mm	
Weight	2.0 kg	1.42 kg	
<b>Centre speaker</b>			
Dimensions (W x H x D)	-	-	
Weight	-	-	
<b>Subwoofer</b>			
Dimensions (W x H x D)	236 x 368 x 460 mm	236 x 368 x 460 mm	
Weight	15.4 kg	15.4 kg	

## Integrated amplifier

	<b>PMA-SA1</b>
<b>Rated output power</b>	
8 ohms	50 W + 50 W (20 Hz - 20 kHz, 8 ohms, THD 0.07%)
4 ohms	100 W + 100 W (1 kHz, 4 ohms, THD 0.7%)
<b>Total harmonic distortion</b>	0.007% (-3dB at rated output, 8Ω, 1 kHz)
<b>Equaliser amp output</b>	150 mV
<b>Input sensitivity/impedance</b>	
PHONO MM	2.5 mV/47 kohms
BALANCED	105 mV/100 kohms
LINE	105 mV / 47 kohms
<b>RIAA deviation</b>	PHONO MM: 20Hz - 20kHz ±0.3dB
<b>Signal-to-noise ratio</b>	
PHONO MM	89 dB (5 mV input)
BALANCED	105 dB
LINE	105 dB
<b>Power supply</b>	AC 230 V, 50 Hz
<b>Power consumption</b>	230W
<b>Dimensions (W x H x D)</b>	434 x 181 x 508 mm
<b>Weight</b>	30 kg

## Tuners

	<b>TU-1800DAB</b>	<b>TU-1500AE</b>
<b>DAB tuner section</b>		
Tuning frequency	174.928 (5A) - 239.200 (13F) MHz (BAND III) - 1452.960 (LA) - 1490.624 (LW) MHz (L-BAND)	-
Sensitivity	-99 dBm	-
Signal-to-Noise ratio	103 dB	-
THD + N	0.007 % (1 kHz)	-
Channel separation	87dB (1 kHz)	-
Selectivity	40 dB (at adjacent channel)	-
Frequency response	+0.5/-0.5 dB (5 Hz - 20 kHz)	-
Digital output	Optical, Coaxial	-
Analog output level	2 Vrms	-
<b>FM section</b>		
Tuning frequency	87.5 - 108.0 MHz	87.5 - 108.0 MHz
Usable sensitivity	1.0 µV (11.2 dBf), 1.2 µV (IHF)	1.0 µV (11.2 dBf), 1.2 µV (IHF)
Signal-to-noise ratio	Mono 77 dB (IHF), 73 dB (DIN) Stereo 72 dB (IHF), 68 dB (DIN)	Mono 77 dB (IHF), 73 dB (DIN) Stereo 72 dB (IHF), 68 dB (DIN)
<b>Total harmonic distortion</b>	Mono 0.15% Stereo 0.3%	Mono 0.15% Stereo 0.3%
<b>Stereo separation (1 kHz)</b>	43dB	43dB
<b>AM section</b>		
Tuning frequency range	522 - 1611 kHz	522 - 1611 kHz
Usable sensitivity	18 µV	18 µV
Signal-to-noise ratio	53 dB	53 dB
<b>Power supply</b>	AC 230 V, 50 Hz	AC 230 V, 50 Hz
<b>Power consumption</b>	14 W	10 W
<b>Dimensions (W x H x D)</b>	434 x 74 x 286 mm	434 x 73 x 286 mm
<b>Weight</b>	3.8 kg	3.6 kg

## Integrated amplifiers

	<b>PMA-2000AE</b>	<b>PMA-1500AE</b>	<b>PMA-700AE</b>	<b>PMA-500AE</b>
<b>Rated output power</b>				
8 ohms	80 W + 80 W (20 Hz - 20 kHz, 8 ohms, THD 0.07%)	70 W + 70 W (20 Hz - 20 kHz, 8 ohms, THD 0.07%)	50 W + 50 W (20 Hz - 20 kHz, 8 ohms, THD 0.07%)	45 W + 45 W (20 Hz - 20 kHz, 8 ohms, THD 0.08%)
4 ohms	160 W + 160 W (1 kHz, 4 ohms, THD 0.7%)	140 W + 140 W (1 kHz, 4 ohms, THD 0.7%)	85 W + 85 W (1 kHz, 4 ohms, THD 0.7%)	70 W + 70 W (1 kHz, 4 ohms, THD 0.7%)
<b>Input sensitivity/impedance</b>				
PHONO MC	0.2 mV/100 ohms	0.2 mV/100 ohms	-	-
PHONO MM	2.5 mV/47 kohms	2.5 mV/47 kohms	2.5 mV/47 kohms	2.5 mV/47 kohms
LINE	135 mV/47 kohms	125 mV/47 kohms	105 mV/47 kohms	150 mV / 30 kohms
<b>Signal-to-noise ratio</b>				
PHONO MC	74 dB (0.5 mV input)	74 dB (0.5 mV input)	-	-
PHONO MM	89 dB (5 mV input)	89 dB (5 mV input)	86 dB (5 mV input)	84 dB (5 mV input)
LINE	108 dB	108 dB	107 dB	105 dB
<b>Tone control</b>				
Treble	± 8 dB at 10 kHz	± 8 dB at 10 kHz	± 8 dB at 10 kHz	± 8 dB at 10 kHz
Bass	± 8 dB at 100 Hz	± 8 dB at 100 Hz	± 8 dB at 100 Hz	± 8 dB at 100 Hz
Loudness	-	-	+ 6 dB at 100 Hz, + 6 dB at 10 kHz	+ 6 dB at 100 Hz, + 6 dB at 10 kHz
<b>Power supply</b>	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz
<b>Power consumption</b>	310W	305 W	200 W	185 W
<b>Dimensions (W x H x D)</b>	434 x 181 x 480 mm	434 x 134 x 410 mm	434 x 121 x 337 mm	434 x 121 x 307 mm
<b>Weight</b>	24.0 kg	14.6 kg	7.0 kg	6.5 kg

## Receivers

	<b>DRA-700AEDAB</b>
<b>Power amplifier section</b>	
Rated output	80 W + 80 W (8 ohms, 20 Hz - 20 kHz, THD 0.05 %) 105 W + 105 W (1 kHz, 4 ohms, THD 0.7%)
<b>Preamplifier section</b>	
Input sensitivity/impedance	PHONO (MM) : 2.5 mV/47 kohms CD, VIDEO, TAPE 1, TAPE 2 : 150 mV/25 kohms
Tone control	Bass 100 Hz : ±10 dB Treble 10 kHz : ±10 dB
<b>FM section</b>	
Tuning frequency range	87.5 - 108.0 MHz
Usable sensitivity	0.9 µV (10.3 dBf)
<b>AM section</b>	
Tuning frequency range	522 - 1611 kHz
Usable sensitivity	18 µV
<b>DAB section</b>	
Tuning frequency range	174.928 (5A) - 239.200 (13F) MHz (BAND III) 1452.960 (LA) - 1490.624 (LW) MHz (L-BAND)
Usable sensitivity	-97 dBm
<b>Power supply</b>	AC 230 V, 50 Hz
<b>Power consumption</b>	245 W
<b>Dimensions (W x H x D)</b>	434 x 147 x 417 mm
<b>Weight</b>	9.9 kg

## CD/Super Audio CD players

	<b>DCD-SA1</b>	<b>CD</b>	<b>DCD-2000AE</b>	<b>CD</b>	<b>DCD-1500AE</b>	<b>CD</b>
<b>Channels</b>	Super Audio CD 2 channels	CD 2 channels	Super Audio CD 2 channels	CD 2 channels	Super Audio CD 2 channels	CD 2 channels
<b>Frequency response</b>	2Hz-50kHz	2Hz-20kHz	2Hz-50kHz	2Hz-20kHz	2Hz-50kHz	2Hz-20kHz
<b>Dynamic range</b>	110 dB	100 dB	110 dB	100 dB	104dB	100 dB
<b>Signal-to-noise ratio</b>	117 dB	120 dB	113 dB	119 dB	104 dB	110 dB
<b>Total harmonic distortion</b>	0.0005%	0.0015%	0.0006%	0.0017%	0.0013%	0.002%
<b>Wow &amp; flutter</b>	Below measurable limit: (± 0.001 % W, peak)	Below measurable limit: (± 0.001 % W, peak)	Below measurable limit: (± 0.001 % W, peak)	Below measurable limit: (± 0.001 % W, peak)	Below measurable limit: (± 0.001 % W, peak)	Below measurable limit: (± 0.001 % W, peak)
<b>Output voltage:</b> Unbalanced	2.0 V (10kΩ)	2.0 V (10kΩ)	2.0 V (10kΩ)	2.0 V (10kΩ)	2.0V (10kΩ)	2.0V (10kΩ)
: Balanced	2.0 V (10kΩ)	-	-	-	-	-
<b>Digital output</b> : Coaxial	-	0.5 Vp-p/75Ω	-	0.5 Vp-p/75Ω	-	0.5Vp-p/75Ω
: Optical	-	-15 - -21dbm	-	-15 - -21dbm	-	-15 - -21dbm
: Emission wavelength	-	660nm	-	660nm	-	660nm
<b>Digital input</b> : Format	Digital Audio Interface (Linear PC)	-	-	-	-	-
: Coaxial	0.5 Vp-p/75Ω	-	-	-	-	-
: Optical	above -27 dBm, 660nm	-	-	-	-	-
<b>Power supply</b>	AC 230 V, 50 Hz	-	AC 230 V, 50 Hz	-	AC 230 V, 50 Hz	-
<b>Power consumption</b>	35 W	-	20 W	-	16 W	-
<b>Dimensions (W x H x D)</b>	434 x 150 x 410 mm	-	434 x 137 x 335 mm	-	434 x 135 x 331 mm	-
<b>Weight</b>	21.8 kg	-	13.3 kg	-	7.6 kg	-

## CD players

	<b>DCD-700AE</b>	<b>DCD-500AE</b>	<b>CD changer DCM-500AE</b>
Channels	2 channel stereo	2 channel stereo	2 channel stereo
Dynamic range	100 dB	98 dB	98 dB
Signal-to-noise ratio	110 dB	105 dB	108 dB
Total harmonic distortion	0.0025%	0.003%	0.003%
Channel separation	105 dB	102 dB	98 dB
D/A converters	Advanced-Segment 24 bit type	Advanced-Segment 24 bit type	Multilevel Noise Shaping DAC
Oversampling	8 times	8 times	8 times
Power supply	AC 230 V, 50 Hz	AC 230 V, 50 Hz	AC 230 V, 50 Hz
Power consumption	12 W	11 W	15 W
Dimensions (W x H x D)	434 x 107 x 279 mm	434 x 100 x 285 mm	434 x 120 x 400 mm
Weight	4.2 kg	3.4 kg	6.3 kg

## Cartridges

	<b>DL-103</b>	<b>DL-103R</b>	<b>DL-160</b>	<b>DL-110</b>	<b>DL-304</b>
Type	MC	MC	MC	MC	MC
Output voltage	0.3 mV	0.25 mV	1.6 mV	1.6 mV	0.18 mV
Frequency range	20 Hz - 45 kHz	20 Hz - 45 kHz	20 Hz - 50 kHz	20 Hz - 45 kHz	20 Hz - 75 kHz
Output impedance	40 ohms	14 ohms	160 ohms	160 ohms	40 ohms
Weight	8.5 g	8.5 g	4.8 g	4.8 g	7 g

## Receiver

	<b>F102DAB</b>
<b>Power amplifier section</b>	
Rated output power	35 W + 35 W (4 ohms, 1 kHz, 0.7% THD)
<b>Preamplifier section</b>	
Input sensitivity/Impedance	PHONO MM: 2.5 mV/47 kohms LINE: 300 mV/30 kohms
Tone control	Bass: 100 Hz $\pm$ 8 dB Treble: 10 kHz $\pm$ 8 dB
<b>FM section</b>	
Frequency range	87.5 - 108.0 kHz
Reception sensitivity	1.5 $\mu$ V (12.8 dB $\beta$ )
Signal-to-noise ratio	Mono: 74 dB Stereo: 70 dB
<b>AM section</b>	
Frequency range	522 - 1611 kHz
Reception sensitivity	20 $\mu$ V
<b>DAB section</b>	
Frequency range	BAND3 170 MHz - 240 MHz
Reception sensitivity	-97 dBm
<b>Power supply</b>	230 V, 50 Hz
<b>Power consumption</b>	85 W (less than 1 W in standby)
<b>Dimensions (W x H x D)</b>	250 x 82 x 285 mm
<b>Weight</b>	3.5 kg

## CD / HDD music system

	<b>CHR-F103</b>
<b>Audio (LINE OUT1)</b>	
Type	2-channel, Stereo
Frequency response	2 Hz - 20 kHz
Dynamic range	100 dB
Signal-to-noise ratio	108 dB
<b>CD</b>	
Playable format	CD-DA, WMA, MP3
<b>HDD</b>	
Playable format	WMA, MP3, AAC (.M4A), LPCM
Ripping format	WMA, LPCM
Bitrate (WMA)	128kbps (Normal), 192kbps(HQ)
Song capacity	Approx. 10,000 (Normal), Approx. 7,000 (HQ)
<b>Power supply</b>	230 V, 50 Hz
<b>Power consumption</b>	22 W
<b>Dimensions (W x H x D)</b>	250 x 110 x 268 mm
<b>Weight</b>	3.9 kg

## CD player

	<b>DCD-F102</b>
<b>Type</b>	2-channel, Stereo
<b>Frequency response</b>	2 Hz - 20 kHz
<b>Dynamic range</b>	100 dB
<b>Signal-to-noise ratio</b>	105 dB
<b>Power supply</b>	230 V, 50 Hz
<b>Power consumption</b>	15 W
<b>Dimensions (W x H x D)</b>	250 x 82 x 260 mm
<b>Weight</b>	2.9 kg

## CD Receivers

	<b>RCD-M35DAB</b>	<b>RCD-M33</b>
<b>Power Amplifier Section</b>		
Rated Output Power	22 W + 22 W (6 ohms, 1 kHz)	22 W + 22 W (6 ohms, 1 kHz)
<b>FM Section</b>		
Frequency Range	87.5 - 108.0 MHz	87.5 - 108.0 MHz
<b>AM Section</b>		
Frequency Range	522 - 1611 kHz	522 - 1611 kHz
<b>DAB Tuner</b>		
Frequency Range	BAND III 170MHz - 240MHz	-
<b>CD Player Section</b>		
Type	Single CD Player	Single CD Player
Programming	25 tracks	25 tracks
<b>Power supply</b>	230 V, 50 Hz	230 V, 50 Hz
<b>Power consumption</b>	50 W	50 W
<b>Dimensions (W x H x D)</b>	210 x 95 x 328 mm	210 x 95 x 328 mm
<b>Weight</b>	4.3 kg	4.3 kg

## Cassette deck

	<b>DRR-F102</b>	<b>DRR-M33</b>
<b>Heads</b>		
Record and Playback	Hard permalloy record / playback head x 1	Hard Permalloy Record / Playback Head x 1
Erase	Double gap ferrite erase head x 1	Double Gap Ferrite Erase Head x 1
<b>Power supply</b>	230 V, 50 Hz	230 V, 50 Hz
<b>Power consumption</b>	9 W	9 W
<b>Dimensions (W x H x D)</b>	250 x 82 x 260 mm	210 x 95 x 325 mm
<b>Weight</b>	3.1 kg	3.1 kg

## Speaker systems

	<b>SC-F102 / SC-F103</b>	<b>SC-M73</b>	<b>SC-M53</b>
<b>Type</b>	2-way, 2-speakers	2-way, 2-speakers	2-way, 2-speakers
<b>Drivers</b>	Reflex box / Low-leakage-flux 14 cm cone bass-mid x1 2.5 cm dome high range x1	Reflex box / Low-leakage-flux 13 cm cone bass-mid x1 2.5cm dome high range x1	Reflex box / Low-leakage-flux 12 cm cone bass-mid x1 2.5cm dome high range x1
<b>Frequency range</b>	40 Hz - 40 kHz	43 Hz - 40 kHz	45 Hz - 40 kHz
<b>Crossover frequency</b>	3 kHz	3 kHz	3 kHz
<b>Max. input</b>	60 W (IEC), 120 W (PEAK)	60W (IEC), 120W (PEAK)	60W (IEC), 120W (PEAK)
<b>Input impedance</b>	6 ohms	6 ohms	6 ohms
<b>Dimensions (W x H x D)</b>	182 x 264 x 233 mm	156 x 213 x 249 mm	141 x 191 x 249 mm
<b>Weight (kg/unit)</b>	5.0 kg	3.9 kg	3.4 kg

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