

A-933/C-733/T-433

INTEGRATED AMPLIFIER & CD PLAYER & FM/AM RDS TUNER

ONKYO
IMAGINATIVE SIGHT & SOUND

A Superb Series Offering Dedicated Audio Engineering with Versatile Music Playback

Without a doubt, digital technology is making some noise in the audio industry. But rest assured that any noise—particularly signal noise—is noticeably absent from the A-933 integrated amplifier and C-733 CD player thanks to Onkyo's commitment to promoting the cleanest signals through its proprietary technologies like VL Digital, VLSC (Vector Linear Shaping Technology) and Direct Digital Path. The A-933's dual toroidal power transformers and thick bus plate support a large, stable flow of current and also work to reduce impedance. The C-733 CD player's impressive engineering enables a super signal-to-noise ratio ensuring supreme playback quality. Capping off this series is the T-433 FM/AM RDS tuner, which uses RDS and Accuclock to deliver radio frequencies that will surprise you with their precision and clarity. Use these components as they best meet your needs.

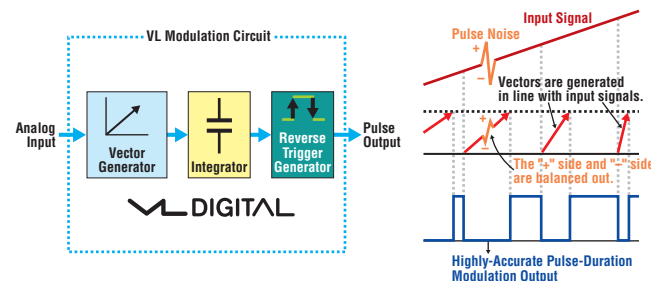
A-933 [Integrated Amplifier]



VL DIGITAL

Exclusive VL (Vector Linear) Digital Technology and PWM (Pulse Width Modulation)

Onkyo's VL (Vector Linear) Digital technology is used to reduce digital pulse noise when analog input signals are converted to digital signals. By converting data between sampling points, and then joining the discrete sampling points in real time, it is possible to produce a smooth output wave form—a virtually noiseless signal. Pulse Width Modulation (PWM) is an efficient method of amplifying audio signals. With high frequency signals, the pulse is longer, which creates the risk of phase inaccuracies created by pulse noise in the original signal. Onkyo combines VL Digital technology with PWM to significantly reduce these inaccuracies and ensure the transmission of a noiseless signal.



Full-Function RI (Remote Interactive) Remote

T-433 [FM/AM RDS Tuner]



ACCUCLOCK RDS

Features

- 30 FM/AM presets
- Automatic FM/AM scan tuning
- Selectable character display
- RDS (CT/PS/RT) and accuclock function
- A-933 remote compatible
- 5-mode timer (1/2/3/4/Sleep)
- Hi-rigidity, anti-resonant chassis
- Blue FL display
- Brushed hairline aluminum front panel

SPECIFICATIONS

	A-933	C-733	T-433
AMPLIFIER SECTION			
Power Output	80 W/Ch (8 Ω, 1 kHz, DIN)		
Dynamic Power	270 W/Ch (9 Ω, Front) 220 W/Ch (4 Ω, Front) 110 W/Ch (8 Ω, Front)		
Total Harmonic Distortion	0.08 %		
Damping Factor	25 (Front, 1 kHz, 8 Ω)		
Input Sensitivity and Impedance			
Line (CD, PHONO, TUNER, MD, TAPE/CDR)	200 mV, 50 kΩ		
Output Level and Impedance			
Rec Out (MD, TAPE/CDR)	200 mV, 2.2 kΩ		
Phono Overload	130 mV (MM, 1 kHz, 0.5 %)		
Frequency Response	10 Hz-60 kHz (+1 dB, -3 dB, CD)		
Signal-to-Noise Ratio	100 dB (LINE, IHF-A) 70 dB (PHONO, IHF-A)		
GENERAL			
Power Supply	AC 230-240 V, 50 Hz		
Power Consumption	100 W		
Stand-by Power Consumption	0.9 W		
Dimensions (W x H x D)	275 x 103 x 328 mm		
Weight	7.5 kg		
COMPACT DISC SECTION			
Frequency Response	5 Hz-20 kHz		
Total Harmonic Distortion	0.003 %		
Dynamic Range	96 dB		
Signal-to-Noise Ratio	108 dB		
Channel Separation	Below threshold of measurability		
Output Terminals			
Optical	-22.5 dBm		
Analog	2.0 V (rms)/470 Ω		
GENERAL			
Power Supply	AC 230-240 V, 50 Hz		
Power Consumption	14.5 W		
Stand-by Power Consumption	1.0 W		
Dimensions (W x H x D)	275 x 103 x 304 mm		
Weight	4.5 kg		
TUNER SECTION			
[FM]			
Tuning Frequency Range		87.50 MHz-108.00 MHz	
Usable Sensitivity			
FM Stereo/FM Mono		17.2 dBf, 2.0 μV (75 Ω IHF)/ 11.2 dBf, 1.0 μV (75 Ω IHF)	
Signal-to-Noise Ratio			
FM Stereo/FM Mono		70 dB (IHF-A)/76 dB (IHF-A)	
Total Harmonic Distortion			
FM Stereo/FM Mono		0.3 % (1 kHz)/0.2 % (1 kHz)	
Frequency Response			
Stereo Separation		20 Hz-15 kHz ± 1.5 dB	
[AM]			
Tuning Frequency Range		522 kHz-1,611 kHz	
Usable Sensitivity (AM)		30 μV	
Signal-to-Noise Ratio (AM)		50 dB	
Total Harmonic Distortion (AM)		0.7 %	
GENERAL			
Power Supply		AC 230-240 V, 50 Hz	
Power Consumption		10 W	
Stand-by Power Consumption		1 W	
Dimensions (W x H x D)		275 x 78 x 309 mm	
Weight		3.0 kg	

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice. "VLSC", "VL Digital" are trademarks of Onkyo Corporation. All other trademarks and registered trademarks are the property of their respective holders.

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Onkyo Corporation 2-1 Nishin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN Tel: +81-72-833-8005 Fax: +81-72-833-5222 <http://www.onkyo.com/>
Onkyo Europe Electronics GmbH Liegnitzerstrasse 6, 82194 Grobenzell, GERMANY Tel: +49-8142-4401-0 Fax: +49-8142-4401-555 <http://www.onkyo.net>
Onkyo Europe UK Office Suite 1 Gregories Court, Gregories Road, Beaconsfield, Buckinghamshire HP9 1HQ, UNITED KINGDOM Tel: +44(0)1494-681515 Fax: +44(0)1494-680452 <http://www.onkyo.co.uk>

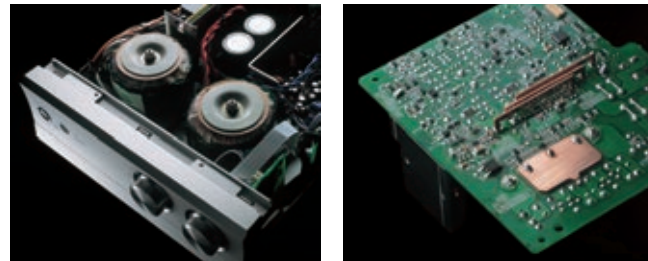
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INTEGRATED AMPLIFIER & CD PLAYER & FM/AM RDS TUNER

A-933 [Integrated Amplifier]

Low-Impedance, Thick Bus Plate and Separate Toroidal Transformers

The A-933's transformers are separated for both + and - power sources. Through the thickness of the transformer's coil and by the sheer size of the transformers, it is possible to significantly reduce impedance. Also, the thick bus bar plate diminishes fluctuations in the electrical potential and eliminates ground hum for more efficient power distribution, reduced noise and crisper sound.



Amplifier Features

- 80 W/Ch into 4 ohms, 1 kHz, DIN
- Exclusive Onkyo VL (Vector Linear) Digital technology
- All discrete output stage circuitry
- Dual toroidal power transformers for power and low impedance
- Low impedance thick bus plate

Audio Features

- Tone control (Bass/Treble/Super Bass)
- Source direct mode
- 6 audio inputs and 2 outputs
- Main in terminal
- Subwoofer pre out
- Linear motor volume control
- Selectable speaker A/B outputs
- Banana-plug-compatible speaker posts

Selectable A/B Speaker Outputs

With two sets of two-channel speaker outputs on the rear panel, it is possible to set up two separate environments for playback. Through the use of the Speaker A and Speaker B buttons on the front panel, each zone can be instantly selected or both can be engaged for enjoyment in both zones.

All Discrete Output Stage Circuitry

Mini-systems made by our cost-cutting competitors typically employ just one circuit at the output stage. With multiple transistors crammed onto this single circuit, excess heat is generated and the audio signal is compromised. The A-933, though, uses discrete amplifier technology similar to that found on our high-end receivers. Keeping the transistors separate at the output stage enhances cooling, so that the amplifier's longevity is extended and unwanted interference to the audio signal is reduced.

Other Performance Features

- Headphone jack
- High-rigidity chassis (1.6 mm)
- Brushed hairline aluminum front panel
- Full-Function RI (Remote Interactive) remote control



C-733 [CD Player]



VL VECTOR LINEAR SHAPING CIRCUITRY 192kHz/24bit DIRECT DIGITAL PATH DLA LINK

Audio Features

- High-Precision Clock (± 1.5 ppm)
- Plays music CD, CD-R and CD-RW*
- VLSC (Vector Linear Shaping Circuitry)
- 192 kHz/24-bit DACs
- DLA Link
- 2 optical digital outputs
- 25-track programming
- Repeat/random/memory playback

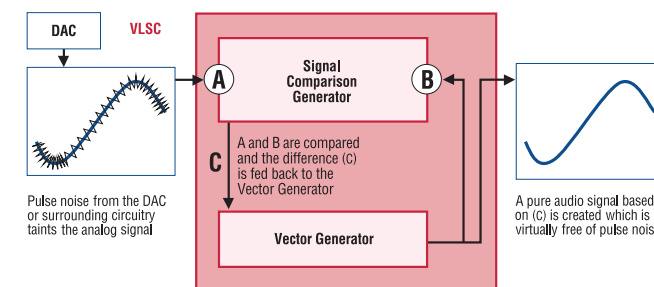
*Discs that have not been properly finalized may be only partially playable or not playable at all.

Other Performance Features

- Ultra-smooth CD loading mechanism
- Direct Digital Path
- High-rigidity, anti-resonant chassis
- Blue FL display
- Heavy-duty power cord
- Brushed hairline aluminum front panel

VLSC (Vector Linear Shaping Circuitry)

Conventional D/A conversion methods reduce digital pulse noise at the conversion stage but can't remove it completely. Using a similar process to VL Digital technology, VLSC generates a pure analog signal from the digital signal ensuring that sound quality from CD, CD-R/RW and MP3 CD is optimized.



Exclusive Direct Digital Path

Unlike other CD players that use PC-copper board traces to transfer the digital audio signal, the C-733 CD player employs a high-purity, heavy-gauge shielded cable to directly output the digital bitstream straight from the disc to the back panel. The result is a noise-free digital audio signal that is less susceptible to flux.

Cirrus Logic 192 kHz/24-Bit Digital-to-Analog Converter

Onkyo engineers have incorporated the Cirrus Logic CS4396 high-performance 192 kHz, 24-bit digital-to-analog converter (DAC) in the C-733 because it best serves our design philosophy: the substantial reduction of both noise and signal distortion. We also found that it integrates effectively with Vector Linear Shaping Circuitry (VLSC). This DAC has a multi-bit architecture that significantly lowers out-of-band noise and jitter sensitivity than traditional 1-bit designs, and it also enables low noise and distortion at all signal levels. Another advantage of this DAC is that it enables the C-733 to achieve a dynamic range of 96 dB.



High-Precision Loading Mechanism

Onkyo engineers have found that vibrations caused by the rotating disc and mechanism can significantly deteriorate playback quality, which is why they developed a high-precision loading mechanism. Conceptually, as vibration is controlled within a musical instrument for tone and timbre, this loading mechanism is designed to eliminate unnecessary vibration.

Digital Servo for Optimum Servo Amounts

The C-733's Digital Servo Control maintains stable tracking, laser focus, and disc rotation—all with higher precision and lower radiated noise than non-servo units.