

# APEX PLAYER



## SPECIFICATIONS

<b>Finish</b>	Silver or Black Anodised Aluminium	<b>MQA</b>	Full decoding and rendering of MQA data from the Network and USB2 inputs. Final rendering of unfolded MQA data only from the other inputs
<b>Type</b>	Upsampling CD/Network Player	<b>Residual Noise</b>	16-bit data: Better than -96dB0, 20Hz-20kHz unweighted. 24-bit data: Better than -113dB0, 20Hz - 20kHz unweighted (6V output setting)
<b>Dimensions</b>	444mm x 435mm x 151mm 17.5" x 17.2" x 6.0" Allow extra depth for cable connectors	<b>L R Crosstalk</b>	Better than -115dB0, 20Hz – 20kHz
<b>Weight</b>	17.4kg / 38.3lbs	<b>Spurious Responses</b>	Better than -105dB0, 20Hz – 20kHz
<b>Converter Type</b>	dCS proprietary Ring DAC™ topology. Operates at 6MHz (Map 1 or 3) or 3MHz (Map 2)	<b>Filters</b>	PCM mode: up to 6 filters give different trade-offs between the Nyquist image rejection and the phase response. DSD mode: 4 filters progressively reduce out-of-audio band noise level, plus Filter 5 which has an improved transient response
<b>Digital Inputs</b>	<ul style="list-style-type: none"> <li>Ethernet network port on RJ45 connector, accepts 24-bit 44.1 – 384kS/s PCM, DSD/64 &amp; DSD128 in DFF/DSF format</li> <li>USB 2.0 interface on B-type connector, accepts 24-bit 44.1 – 384kS/s PCM, DSD/64 &amp; DSD128 in DoP format</li> <li>USB On-The-Go interface on A-type connector, accepts 24-bit 44.1 – 384kS/s PCM, DSD/64 &amp; DSD128 in DFF/DSF format</li> <li>2x AES/EBU inputs on 3-pin female XLR connectors, accepts 24-bit 44.1 – 192kS/s PCM, DSD/64 &amp; DSD/128 in DoP format</li> <li>1x Dual AES pair, accepts 24-bit 88.2 – 384kS/s PCM, DSD/64 &amp; DSD/128 in DoP format</li> <li>1x SPDIF on RCA Phono connector, accepts 24-bit 44.1 – 192kS/s PCM &amp; DSD/64 in DoP format</li> <li>1x SPDIF on BNC connector, accepts 24-bit 44.1 – 192kS/s PCM &amp; DSD/64 in DoP format</li> <li>1x SPDIF optical on TOSLINK connector, accepts 24-bit 44.1 – 96kS/s PCM</li> </ul>	<b>Conversions</b>	User selectable PCM upsampling to DXD, DSD or DSDx2
<b>Mechanism</b>	Stream Unlimited JPL-2800 SilverStrike with aluminium tray	<b>Software Updates</b>	Loaded from CD-R or via PCM digital inputs or PC via USB input. Download and update functionality available via dCS Mosaic App
<b>Analogue Outputs</b>	<ul style="list-style-type: none"> <li>1x pair balanced outputs on 2x XLR connectors. Output levels: 0.2V, 0.6V, 2V, 6V rms for a full-scale input, set in the menu. Output impedance: 3Ω. Maximum load: 600Ω (10k-100kΩ is recommended)</li> <li>1x pair unbalanced outputs on 2x RCA connectors. Output levels: 0.2V, 0.6V, 2V, 6V rms for a full-scale input, set in the menu. Output impedance: 52Ω. Maximum load: 600Ω (10k-100kΩ is recommended)</li> </ul>	<b>Local Control</b>	dCS Mosaic App for Unit Configuration and Music Playback. RS232 interface (controlled by a 3rd party automation system). IR remote control – dCS Universal Remote is supplied with Rossini Player
<b>Worldclock I/O</b>	<ul style="list-style-type: none"> <li>2x Word Clock Inputs on 2x BNC connectors, accept standard Word Clock at 44.1, 48, 88.2, 96, 176.4 or 192kHz. The data rate can be the same as the clock rate or an exact multiple of the clock rate. Sensitive to TTL levels</li> <li>1x Word Clock Output on 1x BNC connector. With Sync Mode set to Master, a TTL-compatible Word Clock is output</li> </ul>	<b>Power Supply</b>	Factory set to either 100, 115/120, 220 or 230/240V AC, 50-60Hz
		<b>Power Consumption</b>	26 Watts typical / 35 Watts maximum
		<b>Operating Systems</b>	USB Audio Class 1 & 2 fully supported by Windows 10/11 & OSX 10.10 or later

# APEX DAC



## SPECIFICATIONS

<b>Finish</b>	Silver or Black Anodised Aluminium	<b>MQA</b>	Full decoding and rendering of MQA data from the Network and USB2 inputs. Final rendering of unfolded MQA data only from the other inputs
<b>Type</b>	Upsampling Network DAC	<b>Residual Noise</b>	24-bit data: Better than -113dB0, 20Hz - 20kHz unweighted. (6V output setting)
<b>Dimensions</b>	444mm x 435mm x 125mm 17.5" x 17.2" x 5.0" Allow extra depth for cable connectors	<b>L R Crosstalk</b>	Better than -115dB0, 20Hz - 20kHz
<b>Weight</b>	15.6kg/34.3lbs	<b>Spurious Responses</b>	Better than -105dB0, 20Hz - 20kHz
<b>Converter Type</b>	dCS proprietary Ring DAC™ topology. Operates at 6MHz (Map 1 or 3) or 3MHz (Map 2)	<b>Filters</b>	PCM mode: up to 6 filters give different trade-offs between the Nyquist image rejection and the phase response. DSD mode: 4 filters progressively reduce out-of-audio band noise level, plus Filter 5 which has an improved transient response
<b>Digital Inputs</b>	<ul style="list-style-type: none"> <li>Ethernet network port on RJ45 connector, accepts 24-bit 44.1 - 384kS/s PCM, DSD/64 &amp; DSD128 in DFF/DSF format</li> <li>USB 2.0 interface on B-type connector, accepts 24-bit 44.1 - 384kS/s PCM, DSD/64 &amp; DSD128 in DoP format</li> <li>USB On-The-Go interface on A-type connector, accepts 24-bit 44.1 - 384kS/s PCM, DSD/64 &amp; DSD128 in DFF/DSF format</li> <li>2x AES/EBU inputs on 3-pin female XLR connectors, accepts 24-bit 44.1 - 192kS/s PCM, DSD/64 &amp; DSD/128 in DoP format</li> <li>1x Dual AES pair, accepts 24-bit 88.2 - 384kS/s PCM, DSD/64 &amp; DSD/128 in DoP format</li> <li>1x SPDIF on RCA Phono connector, accepts 24-bit 44.1 - 192kS/s PCM &amp; DSD/64 in DoP format</li> <li>1x SPDIF on BNC connector, accepts 24-bit 44.1 - 192kS/s PCM &amp; DSD/64 in DoP format</li> <li>1x SPDIF optical on TOSLINK connector, accepts 24-bit 44.1 - 96kS/s PCM</li> </ul>	<b>Conversions</b>	User selectable PCM upsampling to DXD, DSD or DSDx2
<b>Analogue Outputs</b>	<ul style="list-style-type: none"> <li>1x pair balanced outputs on 2x XLR connectors. Output levels: 0.2V, 0.6V, 2V, 6V rms for a full-scale input, set in the menu. Output impedance: 3Ω. Maximum load: 600Ω (10k-100kΩ is recommended)</li> <li>1x pair unbalanced outputs on 2x RCA connectors. Output levels: 0.2V, 0.6V, 2V, 6V rms for a full-scale input, set in the menu. Output impedance: 52Ω. Maximum load: 600Ω (10k-100kΩ is recommended)</li> </ul>	<b>Software Updates</b>	Loaded from CD-R via PCM digital inputs or PC via USB input. Download and update functionality available via dCS Mosaic App
<b>Worldclock I/O</b>	2x Word Clock Inputs on 2x BNC connectors, accept standard Word Clock at 44.1, 48, 88.2, 96, 176.4 or 192kHz. The data rate can be the same as the clock rate or an exact multiple of the clock rate. Sensitive to TTL levels. 1x Word Clock Output on 1x BNC connector. With Sync Mode set to Master, a TTL-compatible Word Clock is output	<b>Local Control</b>	dCS Mosaic App for Unit Configuration and Music Playback. RS232 interface (controlled by a 3rd party automation system). IR remote control - dCS Universal Remote available as an optional extra
		<b>Power Supply</b>	Factory set to either 100, 115/120, 220 or 230/240V AC, 50-60Hz
		<b>Power Consumption</b>	23 Watts typical / 28 Watts maximum
		<b>Operating Systems</b>	USB Audio Class 1 & 2 fully supported by Windows 10/11 & OSX 10.10 or later

# CD/SACD TRANSPORT



## SPECIFICATIONS

<b>Finish</b>	Silver or Black Anodised Aluminium	<b>Worldclock I/O</b>	1x Word Clock Input on BNC connector, accept standard Word Clock at 44.1, 88.2 or 176.4kHz. Sensitive to TTL levels. Lock range is +/-300ppm. 1x Word Clock Output on 1x BNC connector. With the Transport in Master mode, a TTL-compatible Word Clock is output
<b>Type</b>	Upsampling CD/SACD Transport	<b>Clock Accuracy</b>	The calibration accuracy when shipped is +/-10ppm, (not temperature compensated)
<b>Mechanism</b>	Dual laser CD/SACD mechanism	<b>Software Updates</b>	Updates are loaded directly from CD-R
<b>Dimensions</b>	444mm long x 435mm deep x 178mm high 17.5" long x 17.2" deep x 7.0" high Allow extra depth for cable connectors Allow space for air flow around the unit	<b>Local Control</b>	dCS Universal Remote (supplied with Rossini Transport as standard. Via the Mosaic app, RS232 app or a third party device)
<b>Weight</b>	20.6kg (45.3lbs)	<b>Power Supply</b>	Factory set to either 100, 115/120, 220 or 230/240V AC, 50/60Hz
<b>Digital Outputs</b>	<ul style="list-style-type: none"> <li>1x Dual AES Pair on 2x 3-pin male XLR connectors (AES1+2). While an SACD is playing, the interface outputs encrypted DSD data. While a CD is playing, the Settings &gt; Upsample Mode menu page sets the interface to output either encrypted DSD data (1 bit at 2.822MS/s) or DXD data (24 bits at 352.8kS/s) or DSDx2 data (1 bit at 5.644MS/s)</li> <li>1x AES interface on 3-pin male XLR connector (AES3). Outputs 16/44.1 data, whether a CD or SACD is playing.</li> <li>2x SPDIF interface on 1x RCA Phono and 1x BNC connectors. Each outputs 16/44.1 data, whether a CD or SACD is playing</li> </ul>	<b>Power Consumption</b>	16W typical / 50W maximum. Consumes less than 0.5W when powered down from the front panel

# MASTER CLOCK



## SPECIFICATIONS

**Finish** Silver or Black Anodised Aluminium

**Type** Class 1 Master Clock

**Product Dimensions / Weight** 444mm x 435mm x 64mm  
17.5" x 17.2" x 2.6"  
8.3kg / 18.3lbs.  
Allow extra depth for cable connectors

**Clock Frequencies** 44.1kHz or 48kHz

**Clock Accuracy** Better than +/-1ppm when shipped, over an ambient temperature range of 10°C to 30°C. Typically +/-0.1ppm when shipped and stabilised

**Wordclock Outputs** 3 independently buffered outputs on 75Ω BNC Connectors.  
Output 1: fixed at 44.1kHz. Output 2: fixed at 48kHz. Output 3: 44.1kHz, switchable to 48kHz via RS232

**Startup Time** Typically 1 minute to rated accuracy

**Local Control** RS232 (limited to Power and Clock 3 output frequency)

**Power Supply** Factory set to either 100, 115/120, 220 or 230/240V AC, 50-60Hz

**Power Consumption** 3 Watts typical / 4 Watts maximum