

PRELIMINARY

Meridian iRIS with Universal Dock for iPod **Up-converts iPod video for your HD screen**



The iPod® with video is a convenient way to watch movies on the go. But it was never designed to drive a high-definition TV or flat-panel display. Now, a great new product from Meridian® – world leaders in digital audio and video – changes all that. You can enjoy a true Hi-Def picture from your iPod – with the latest hi-tech accessory for your Hi-Def TV: the Meridian iRIS® with Universal Dock for iPod.

Using sophisticated and unique, proprietary digital video processing, the Meridian iRIS dramatically improves iPod video and upscales it to true, full-spec 1080p High Definition to suit your display perfectly – via HDMI or analogue component. And because the Meridian iRIS outputs true Hi-Def, your display's own processing doesn't get in the way. The result: a pristine, impressive on-screen image – with the sound to match!

The Meridian iRIS features revolutionary Qdeo® processing by Marvell Semiconductors®. This powerful chipset with its unique, proprietary video processing technologies does the seemingly impossible – delivering a Hi-Def picture that looks so impressive, you need to see it to believe it!

The Meridian iRIS is designed for direct connection to an HD display and delivers a consistent, high-quality viewing experience – with a dramatic improvement in perceived video quality.

And because Meridian is an audio company too, we help deliver the best possible sound from your iPod to complement the great pictures. We take the audio signal from the iPod and digitise it at high resolution with a studio-quality analogue-to-digital conversion system, using Meridian's powerful DSP processing technology to maximise audio quality.

High-quality viewing of iPod video on a digital TV

Up-converts low-resolution content to full-spec HD

Suppresses distracting noise and artefacts

Delivers sharper, more vivid images and great sound

Intelligent scaling of video to the display

Progressive and interlaced outputs up to 1080p

HDMI, component and S-Video out

HDMI input with iPod/External source selector

S/PDIF coax/optical, plus headphone & analogue line level outputs

The Meridian iRIS with Universal Dock for iPod allows an Apple® iPod® to be inserted into the standard docking port on the top of the unit. The unit then upgrades the typical low-data-rate 320x240 QVGA or 640x480 VGA resolution of iPod content to provide several higher-resolution outputs including up to 720p or 1080i analogue component, HDMI output up to full-spec 1080p HD, plus S-Video at standard-definition video resolutions. Both PAL and NTSC standards are supported.

The iPod internally upscales 320x240 video to 640x480 and outputs this – or native VGA – content as NTSC to S-Video or composite. Internal processing and the inherent limitations of the source content – downloaded material averages a data rate of just 1.5Mb/s – are compounded when the iPod is connected directly to an HD display that is geared towards enhancing high resolution video, as opposed to a low-bit-rate low-resolution signal. The display often applies inappropriate processing that actually degrades the image instead of improving it.

To avoid these problems and produce impressive, high-detail HD images from iPod video, the iRIS begins by undoing the processing that the iPod performs internally. Then, using Qdeo processing technologies integrated in the Marvell Semiconductors DE2710 adaptive digital video format converter, it performs a

Meridian iRIS with Universal Dock for iPod

series of image enhancement techniques before the image gets to the display, thus bypassing the display's internal processing and preventing any interference with the image quality.

Qdeo processing utilises algorithms designed to erase video artefacts, constructing an immersive video experience through the careful application of a suite of advanced video technologies.

Per-pixel motion-adaptive 3D de-interlacing removes "jaggies" and eliminates feathering, while per-pixel motion-adaptive noise and compression artefact reduction removes noise and MPEG block artefacts.

In addition, Adaptive Contrast Enhancement (ACE) and Intelligent Color Remapping (ICR) render richer and more vivid images, including edge enhancement, creating a clean and sharp image; and high-quality non-linear scaling and aspect ratio conversion, enabling the images to map optimally to the desired display size. Edge enhancement creates a clean, sharp image and the output is upscaled to the final output resolution.

The resulting signal is ideal for connection to an HD display and results in a consistent, high-quality viewing experience and a dramatic improvement in perceived video quality.

The Meridian iRIS has source selection between the iPod and external HDMI and S-Video inputs (ideal for example, for connecting a Meridian F80), plus format and volume controls, and generates an on-screen display that can be used to specify output and processing settings to suit the target video display.

These functions are controlled by the buttons on the upper surface of the dock,

Outline specifications

Processing	Marvell DE2710 Adaptive Digital Video Format Converter	Audio Outputs	
Sources		Digital	Derived via studio-quality A/D conversion. S/PDIF coax (phono) S/PDIF Optical (Combo 3.5mm) 48kHz/24-bit
iPod	Includes iPod Universal Dock. Compatible with any iPod with dock connector.	Analogue	Headphone (Combo 3.5mm) Line out (2 x phono)
Ext Inputs	S-Video HDMI pass-through	Other connectors	USB (rear panel) to iPod DC power in (rear panel)
Video Outputs		Controls	Source selection int/HDMI/S Format output selection Connect (iPod to computer) Volume up/down On/off button Remote control included
Digital	HDMI at 480p, 576p, 720p, 1080i, 1080p resolutions.	On-Screen Display	OSD allows feature selection
Analogue	Component Y,Cb,Cr (phono) at resolutions up to 1080i S-Video (mini-DIN) 480i/576i	Power	12V DC nominal from wall adaptor (included)
Dimensions	193 x 42 x 120 mm (7.6 x 1.65 x 4.72 in) W x H x D		

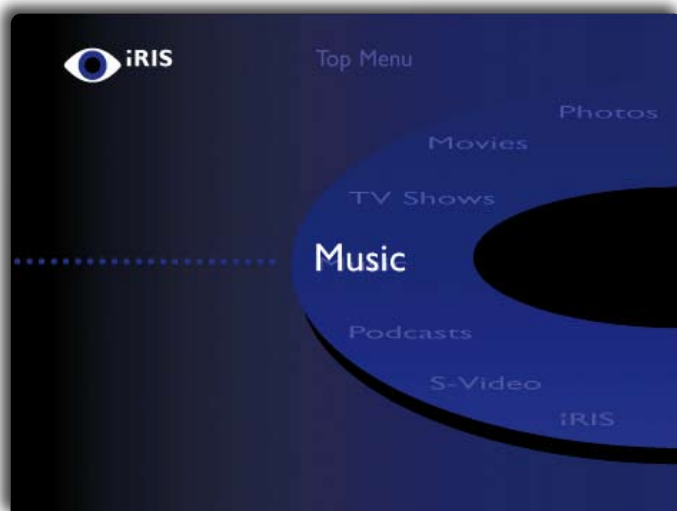
which work in conjunction with the on-screen display. 'Source' allows selection of the iPod as the source, or an external HDMI or S-Video input; 'Format' allows the selection of the desired output format; 'Connect' connects the iPod to a computer via the USB port; 'Volume' up/down buttons vary the analogue output level.

In addition, a compact, elegant infrared remote control allows control of both the iRIS and the iPod, so you can select the content you want to enjoy without leaving your chair.

A complete set of audio outputs is provided including coax and optical S/PDIF digital at 48kHz, 24-bit sampling, derived from a studio-quality A/D conversion system; plus variable analogue headphone and line-level outputs. The unit includes a high-quality digital audio delay

system to compensate for the latency inherent in complex video processing, thus maintaining accurate audio/video synchronization.

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