

Aruba AV Aruba AV/DV External (USB) DV / MPEG-1&2 Video Capture Device and DVD Recorder

Product Overview

Aruba is a complete, affordable, easy to install and use solution meeting consumer video capture and archiving needs. It is a combination product which offers AV and DV capture and DVD/SVCD/VCD recorder functionalities in a single device. The product consists of an external box and a 3rd party software application. The 3rd party application allows the user to capture full motion D-1 quality video clips in MPEG-1 or MPEG-2 format on the PC, and perform editing, authoring, and burning of the video to DVD. Additional accessories such as cables and a power supply are required for operation.

- **Aruba AV** offers analog video capture, hardware MPEG encoding, and DVD recorder capabilities.
- **Aruba AV/DV** offers all the features of Aruba AV, but adds DV capture and hardware DV to MPEG transcode capability.

General Feature Set

- Analog video capture and hardware compression to MPEG-2 & 1
- VCD, SVCD, DVD formatted recording
- Full D-1 capture in NTSC and PAL/SECAM
- DV capture (Aruba AV/DV only)
- Hardware based DV to MPEG transcode (Aruba AV/DV only)
- USB 2.0 & 1.1 interface to host PC
- Incorporates standard 5.25" IDE DVD recordable drive
- One button capture and burn to DVD capability



Emuzed Aruba

NOTE:

- The below features apply to both the “Aruba AV” and “Aruba AV/DV” products, except where noted.
- These specifications are subject to change without notice.

Analog Video

The device has 1 set of video inputs. Under SW control, the user can select either:

- Analog Composite Video Input
- Analog S-Video Input

Digital Video (*DV capture and transcode are supported in the Aruba AV/DV product only*)

- The device supports input of DV25, via 1394 6-pin connector
- Aruba supports real-time, hardware-based DV to MPEG video transcoding. The MPEG video is then transferred via USB to the PC for capture to hard disk, and for editing / authoring, and / or burning to DVD/SVCD/VCD

Audio

The device has 1 set of analog stereo audio inputs. The audio A/D converter allows the user to select one of 3 different sampling rates; 32, 44.1 and 48 kHz. The audio encoder supports the following options:

- MPEG-1 Layer-2 encoding
- Selectable bit rates: 64, 80, 96, 112, 128, 160, 192, 224, 256, 320, 384

MPEG Encoder

The MPEG encoder supports the following features:

- MPEG-1 or MPEG-2 format
- VBR from 2 Mbps to 15 Mbps (6 Mbps over USB 1.1) for MPEG-2
- VBR from 64 Kbps to 5 Mbps for MPEG-1
- NTSC or PAL video formats
- Pixels per Line: 720, 640, 544, 480, 352, 320, 160
- Lines per Frame :576, 480, 288, 240, 144, 112
- Programmable 2-D filter
- Auto 3:2 pull down detection
- VBI extraction
- VCD, SVCD & DVD formats

Macrovision detection up to and including V7.01 is supported. Type 1, 2, and 3 can be detected.

Mass Storage

The Aruba device has an integrated USB 2.0 to IDE interface and 5.25” drive bay capable of supporting varieties of IDE DVD/CD/HD recordable drives. The OEM customer may choose the vendor and type of drive to be incorporated in the device, subject to qualification of the drive by Emuzed.

- IDE interface specifications TBD
- Max drive speeds and list of modes / formats supported TBD

I/O

The following connectors are supported on the front panel of the unit:

- Typical CD/DVD recordable drive inputs
- One touch record button. Operation of this button depends on the 3rd party software package chosen by the customer.

The following I/O connectors are on the back panel of the unit:

- One Composite video input (RCA type)
- One S-Video input (7-pin DIN)
- One 1394 6-pin input (for DV capture, supported in Aruba AV/DV only)
- One optional additional 1394 6-pin input, for DV/1394 pass-thru
- Analog stereo input (dual RCA)
- DC Power input
- USB 1.1 / 2.0 type B connector (to host PC)
- Optional USB type A connector (USB hub)

LEDs

There are 6 LEDs on the front of the Unit:

- POWER (Green) On when power supply is operating
- RECORD (Red) On when video is streaming to the PC; blinking when any error occurs
- Composite Video (Green) On when Composite input is present and selected
- S-Video (Green) On when S-Video input is present and selected
- USB Present (Green) – Blinking during USB initialization, on when traffic present on USB bus
- DV Present (Green) On when DV input present and selected

USB Interface

Aruba supports the USB v2.0 standard (also supports USB1.1 bus). One of the advantages of using USB2.0 is that the device will not suffer when other USB devices (e.g., printer, modem, USB drives, etc) are plugged into the same 2.0 bus. USB 2.0 makes it possible to support simultaneous capture and DVD burn functionality. When operating in USB 1.1 mode, Aruba will not support simultaneous capture and burn.

Thermal

Operating Temperature: 5 to 50 degrees C ambient [20-80% relative humidity]

Storage Temperature: -20 to 70 degrees C [10-90 % humidity].

Power

The unit is powered from an external power supply that connects to the back of the unit. The supply converts AC into three DC voltages:

- 12V, XmA current (max), XmV ripple (max)
- 5V, XmA current (max), XmA ripple (max)
- 3.3V, XmA current (max), XmA ripple (max)



Weight

TBD

Dimension

Depends on the Chassis chosen by the customer.

Chassis #1: 206mm x 254.7 mm x 77.0 mm

Chassis #2: 184MM x 250.7mm x 77.0 mm

Software

Driver

The Encoder chip and USB firmware are downloaded over the USB cable so that the unit can be completely field upgradeable. The driver works under Windows XP.

The drivers are WDM compliant and can be integrated with a variety of 3rd party applications (see below).

Customization

Emuzed will customize the driver and installation to reflect OEM's company name, logo, and product name.

3rd Party Applications

The Aruba AV and AV/DV products may be bundled with Sonic MyDVD, InterVideo WinDVD Creator, and other capture/edit/author applications depending on OEM requirements. It is important to note that the availability & performance of various Aruba features, in particular the one touch record and real-time capture and burn to DVD capability, will be determined based on the capabilities of the 3rd party application.

PC

The requirements for the PC will be set by the SW application(s) more than by the hardware. Of course, a USB1.1 or 2.0 port is required. The driver requires:

- Pentium III 800 MHz or equivalent AMD
- 128 MB RAM
- Graphics board with DirectX 8 support
- Sound board with DirectX 8 support
- IDE Hard drive with master mode support
- Free USB 2.0 or 1.1 port
- Windows 98SE, 2000, ME, XP

Testing:

Aruba has passed the following hardware and software certifications and testing:

- FCC/CE/VCCI Class B—passed 9/03
- Hardware reliability testing—passed 9/03
- USB-IF certification—passed 9/03
- WHQL—passed 9/03

