

23-5-2005

# “Simply Attach” Series

Non-compressible NTSC, RS170, PAL and SECAM

-USB2.0 Converting Unit

ARTCNV II-12P

ARTCNV II -BNC

ARTCNV II -PIN

## Instruction Booklet



### **ARTRAY CO. LTD.**

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## <Features>

ARTCNV II is a USB2.0 converting unit that enables you to transfer video output signal from NTSC, RS170, PAL and SECAM into your PC via USB2.0 interface.

There are 3 types of converter units as below:

(1) 12P type: Hirose, HR10A-10P-12S camera connector

Product name: ARTCNV II -12P

\*Attach directly to camera connector

(2) BNC type: BNC input

Product name: ARTCNV II -BNC

\*Attach directly to BNC connector

(3) RCA type: RCA pin input

Product name: ARTCNV II -PIN

\*Attach directly to RCA pin connector

(4) Option type: 0.25M pixel CMOS camera embedded

Product name: ARTCNV II -CAM



Device	1/3"CMOS, 510H x 492V
Image area	4.69 x 3.54mm
Lens	F=6mm,F=2.8 0.6m-
Horizontal field angle	45 ° approx.
Sensitivity	3Lux F1.2

(5) Option type: BNC 6 inputs

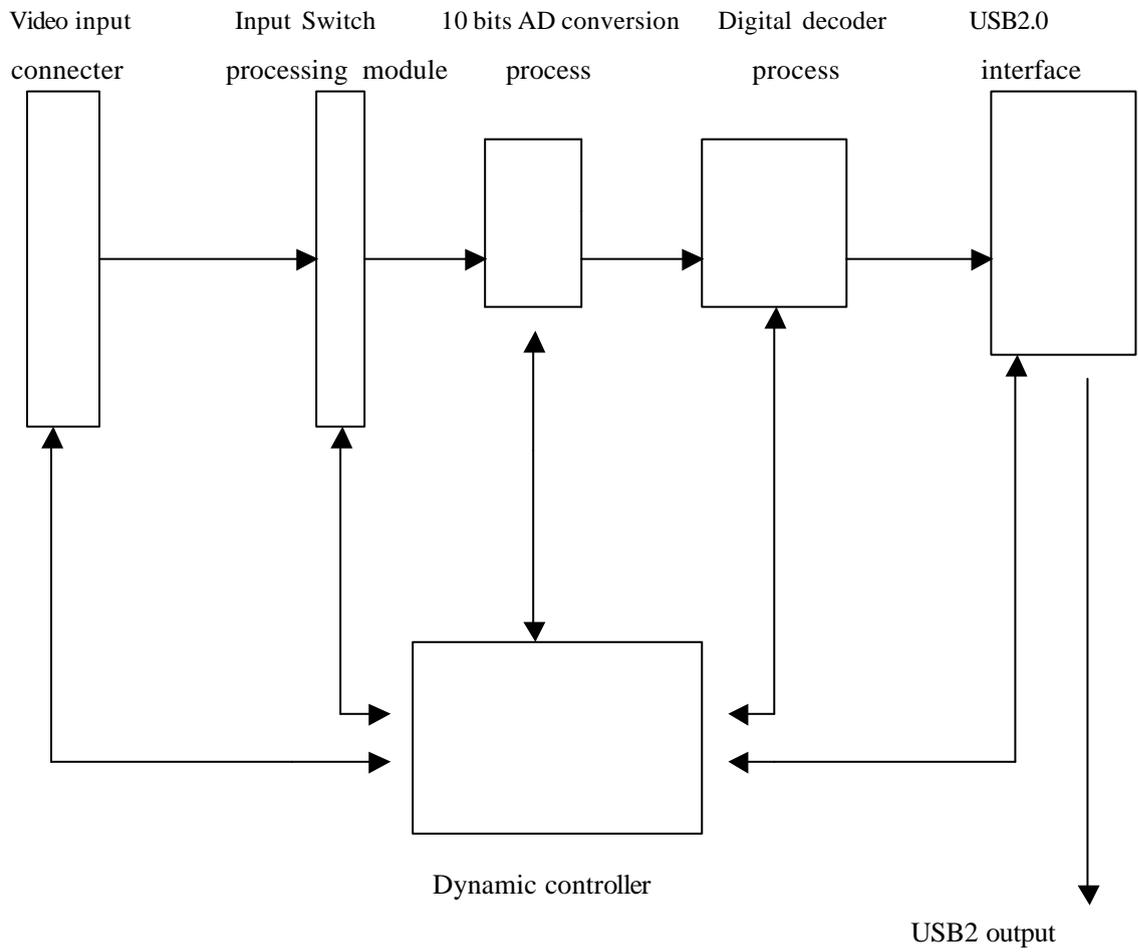
Product name: ARTCNV-NTSC-HAKO

\*Set up 6 ports of BNC connector

\*Video signal of 6 inputs are switchable



<Block Diagram: ARTCNV-NTSC>



## <Functional Specifications>

(1) NTSC signal is converted to 10 bits digital data. It is then processed with digital decoder, and the non-compressible data is transferred directly to PC via USB2.0 port.

(2) Input signal is compliant with the following signals:

\*NTSC (M, JAPAN, 4, 43)

\*PAL (B, D, G, H, I, M, N, Nc)

\*SECAM (B, D, G, K, K1, L)

(3) Option model “ARTCNV-NTSC-HAKO” enables switchover between video signals of 6 inputs.

(4) YUV: high-speed transfer of 16 bits data & RGB 24 bits data output with SSE2 driver. (Artray’s original device driver)

(5) With NTSC input, non-compressible 29 frames per second can be obtained  
(High functional design that can be used for measurement and medical fields)

(6) RAW data output for RS170 & CCIR signal

(7) SDK

Embedded: B: Device driver & SDK designed for stand-alone  
(developed by Artray)

(8) Operating system: Windows2000 & Windows XP

(9) USB2.0 bulk transfer. USB2.0 transfer provides maximum speed of 324Mbps.

(10) USB2 Artray Original Cable=1 meter (can be extended up to 10 meter)  
(Extension is enabled without buffer or HUB)

(11) Dimension: 115mm\*56mm\*20mm  
(Connector prong not included)

(12) OEM agreement is available for our open-frame units  
Dimension: 90mm\*50mm\*15mm  
Product name: ARTCNV II-OP

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## **ARTCNV II, Non-compressible NTSC-USB2.0 Converting Unit**

May 2005

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## Refer to the restrictions below when using ARTCAM/ARTCNV

### 1. USB host chip

Use the USB host chip which is Intel authorized USB2 host controller.

Make sure if you find "Intel®82801DB/DBM USB2 ENHANCED HOST CONTROLLER" on USB Controller window according to the following procedure.

"Control Panel" -> "Hardware" -> "Device Manager" -> "USB Controller"

NOTICE: We cannot guarantee the proper operation of this camera/converter when you use the external USB host card due to its design and its transfer rate. The transfer speed is slow because it is connected to host via PCI bus. In case of using ARTCNV, color transfer is not available. ( Only Monochrome.)

### 2. Hyper Thread Bios

Disable this function in case of PC with a built-in Intel hyper thread.

### 3. With the other USB2.0 hardware

You may be unable to use the other USB2.0 hardware such as Memory stick, External HDD, External DVD, CDROM and etc. when you use this camera/converter due to bulk transfer mode of this camera/converter.

It is because bulk transfer device is not recognized, especially in case of Cypress control chip, due to handshaking of USB port and PC bios.

It is hard to solve this matter for the reason that it is related to the lower firmware of control chip and PC bios.

As a recommended measure, add PCI USB host card on PC and use its USB ports for the external USB hardware.

### 4. Extension of USB2.0 cable

We cannot guarantee the proper operation of the extension cable even though it is compatible with USB2.0 except the extension cables below we have confirmed its proper operation because USB transfer frequency of this camera is 192MHz.

For the recommended extension cable, we refer you to our sales dep't. (TEL: +81-3-3389-5488)

In case of the trouble using the extension cable, you may have "Camera error", "Disappearance of Device driver", " Operation error in high-speed mode", "Unknown USB device" and etc.