

# KanexPro®

## SDI-SDI2MULTIPRO



Convert 3G/HD/SD-SDI & HDMI to DVI-D, VGA, Component, S-video or Composite

## User manual

Rev1.0

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## Introduction

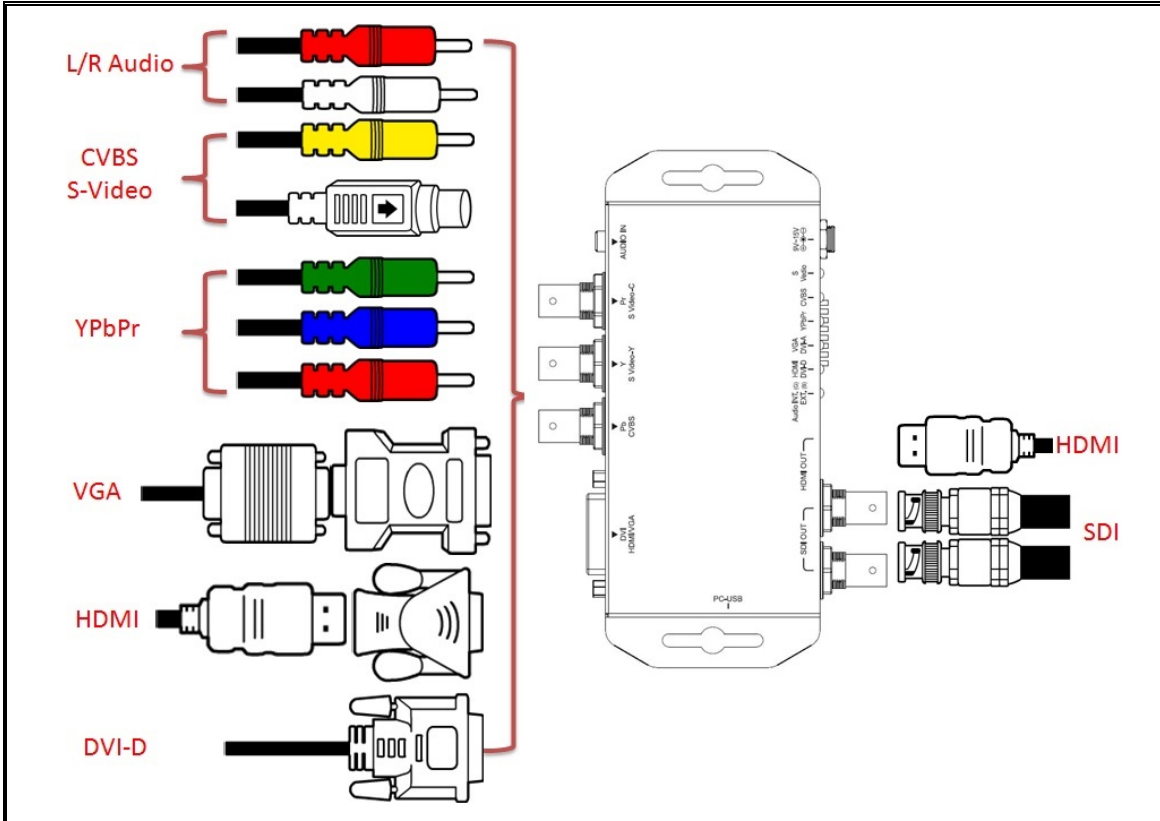
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The KanexPro 3G-SDI to Multi video is a cross converter and switcher designed to convert SDI and HDMI video and audio to multiple outputs such as DVI, VGA, Component, S-video or Composite video. It packs a powerful up and down video scaler supporting a bank of resolutions up to 1080p60/59.94Hz and 1080p/29.97Hz

## Feature

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- Cross convert SDI & HDMI to analog video
- Powerful up/ down converter scaler
- Built-in anti - aliasing & 3D De-interlace
- Built-in test pattern generator
- Added DIP switch settings for various video resolutions
- Allows region of interest (ROI) - for annotation & quantitative information
- Simultaneous outputs to analog video and DVI
- Audio embedder supports output up to 8Ch/24Bit@48KHz
- Mini -USB port for firmware update
- Locking power supply & mounting ears
- Compact & ruggedized design makes perfect mobile broadcasting hardware



**Front Panel**



NO	Component	Function
1	SDI Input Port	From your SDI Device plug into this port
2	SDI Pass Thru	From your SDI Display Device plug into this ports
3	HDMI Input Port	From your HDMI Device plug into this port
4	Input Port/ Output Port LED	The LEDs are indicating Input Ports and Output Source
5	Dipswitch	Control the Box (Input Port/Audio/Output Format)

6	Power Jack	The Power adapter plug into here
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**Rear Panel**



NO	Component	Function
1	Phone Jack	From you Audio Device plug into this port
2	Component/CVBS/S-Video Output Port	From your YPbPr/CVBS/S-Video Device plug into this port
3	DVI-D/DVI-A Input Port	From your DVI-D/DIV-A Device plug into this port

**Side Panel**



NO	Component	Function
1	USB Port	Upgrade firmware/Control Box from PC

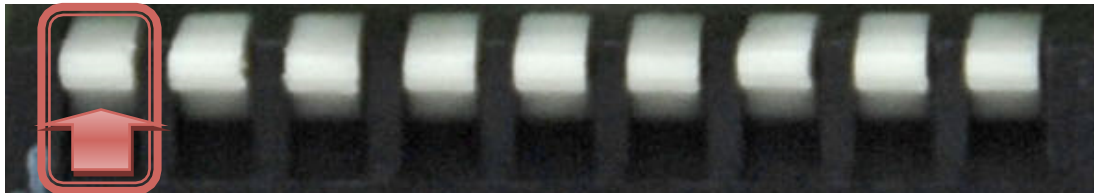
**DipSwitch/LED Control**





NO	Component	Function
1	Control Mode	Control Box from Dipswitch or USB
2	Input Source	Select Input Source
3	Output Source	Select Output Source
2	Output Format	Select Output Format
3	Frame Rate	Select 1000 or 1001 Frame rate

◆ **Control Mode:**

Control Box from Dipswitch or USB.





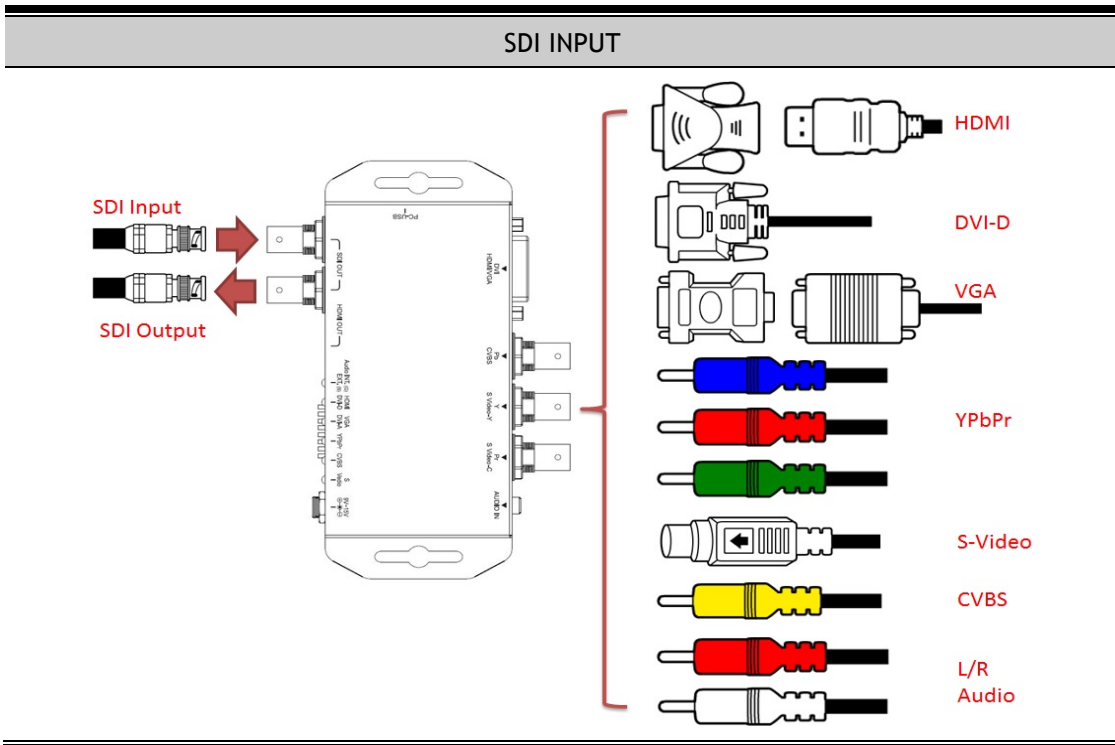
Control Mode	Dipswitch Indicates
DipSwitch	
USB	

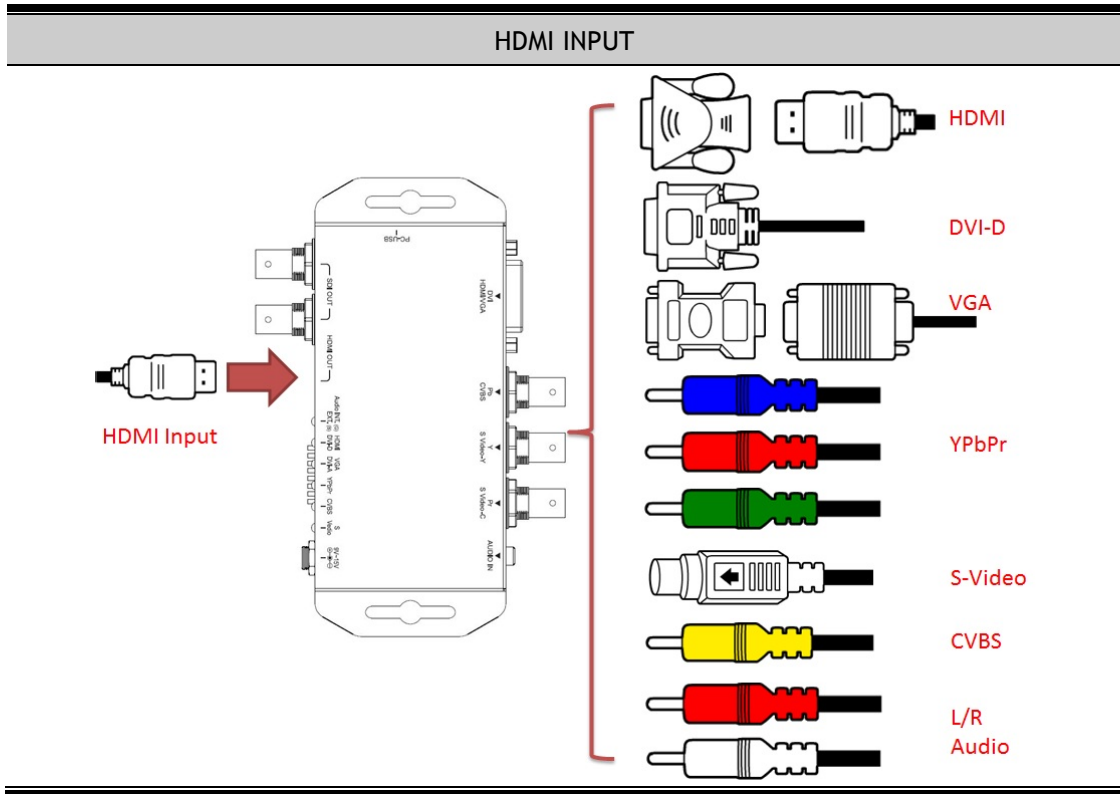
◆ **Input Source:**

Select Input Source from SDI or HDMI



Input Source	Dipswitch Indicates
SDI	
HDMI	





◆ **Output Source:**

Select Output Source(DVI-D/DVI-A/YPbPr/CVBS/SVIDEO)



Output Source	Dipswitch Indicates
DVI-D(HDMI)	↑ ↑
DVI-A(VGA)	↑ ↓
YPbPr	↓ ↑
CVBS+SVideo	↓ ↓



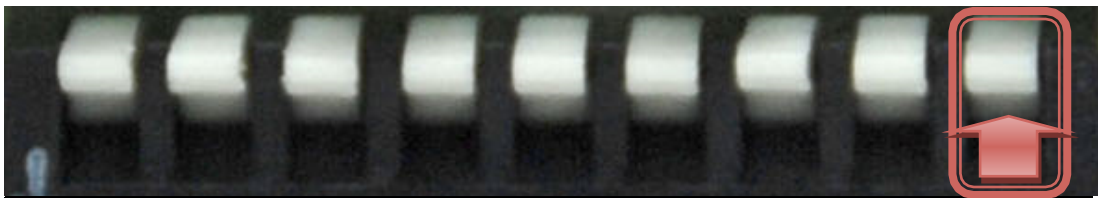
◆ **Output Format:**



Resolution	Dipswitch Indicates	Resolution	
1920x1080p60		1280x720p50	
1920x1080p50		720x480p60	
1920x1080p30		720x576p50	
1920x1080p25		720x480i59	
1920x1080p24		720x576i50	
1920x1080i60		PC 640x480p60	
1920x1080i50			
1280x720p60		Pss Thru	

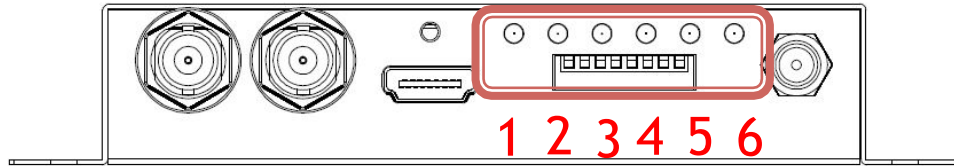
◆ **Frame Rate:**

Select Frame Rate 1000 or 1001



Output Source	Dipswitch Indicates
1000	
1001	

◆ LED Indicate:



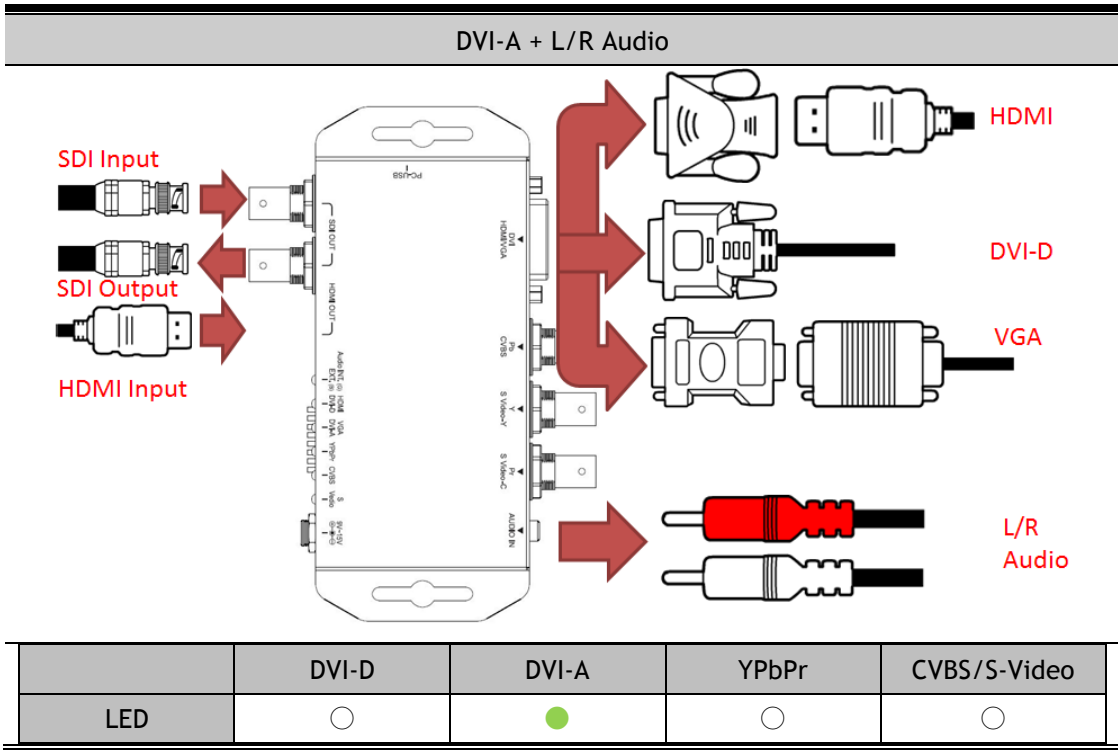
NO	Component	Function
1	SDI Input	The LED indicate SDI Signal Status
2	HDMI Input	The LED indicate HDMI Signal status
3	DVI-D(HDMI) Output	The LED indicate DVI-D(HDMI) Signal
4	DVI-A(VGA) Output	The LED indicate DVI-A(VGA) Signal
5	YPbPr	The LED indicate YPbPr Signal
6	CVBS/S-Video Output	The LED indicate CVBS/S-Video Signal

1. DVI-D + L/R Audio:

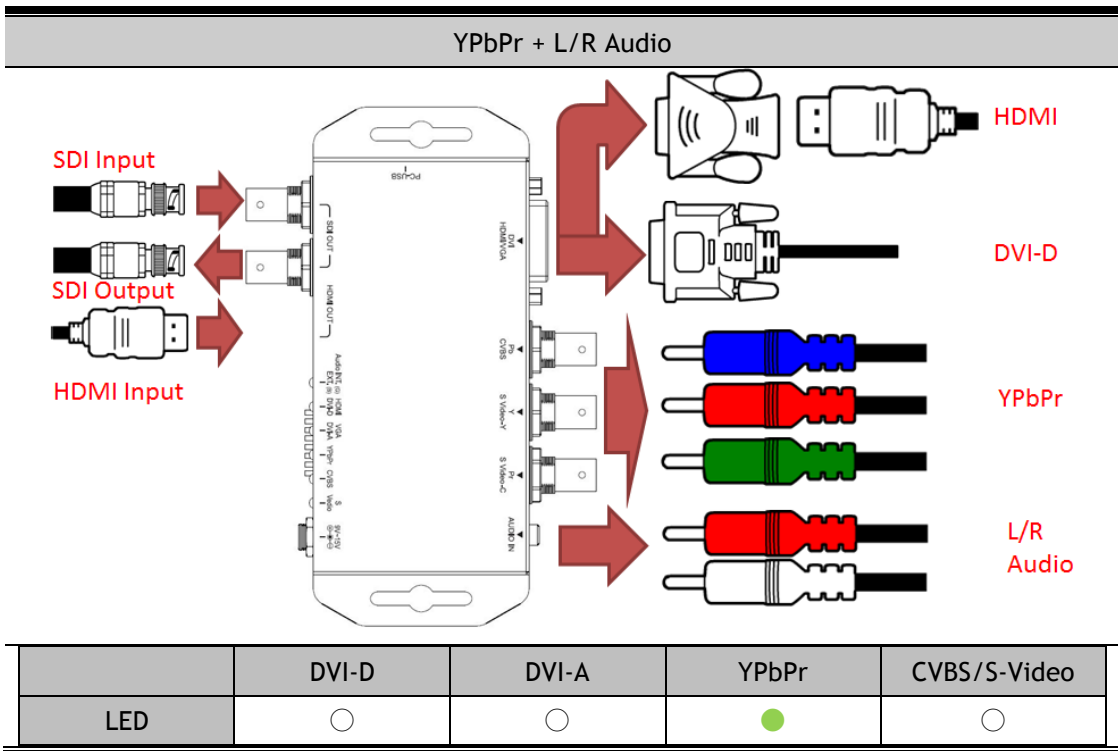
**DVI-D + L/R Audio**

	DVI-D	DVI-A	YPbPr	CVBS/S-Video
LED	●	○	○	○

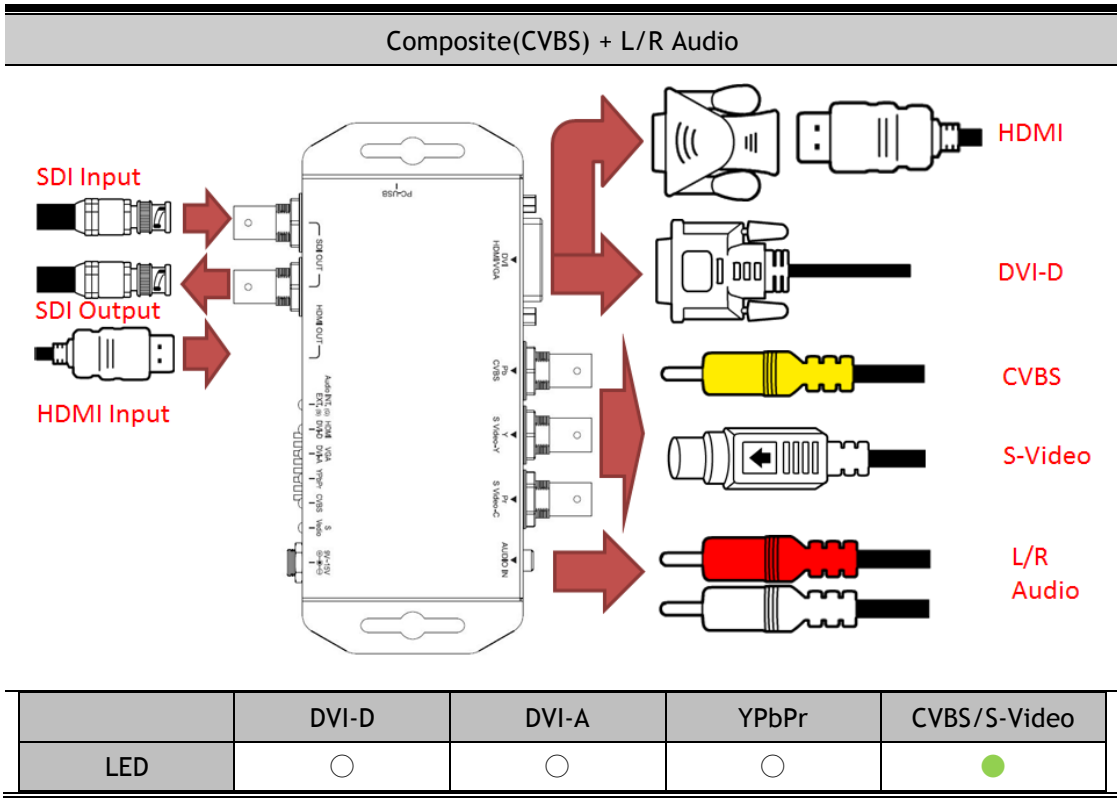
2. DVI-A + L/R Audio:



3. YPbPr + L/R Audio:



4. Composite (CVBS)+S-Video + L/R Audio:



**Installation**

SDI-SDI2MULTIPRO installation consists of the following:

1. Disconnect 12v DC adaptor to converter.
2. Connect Video Source to the Input Connector.
3. Connect Display Equipment to the output's connector
4. Connect the 12v DC adaptor to the converter.

**Package Contents**

The SDI-SDI2MULTIPRO package contains the following items:

- User Manual x 1
- 12v DC Adapter x 1
- SDI-SDI2MULTIPRO Converter x 1

## Specifications

DESCRIPTION	SDI-SDI2MULTIPRO
SDI Format	SD-SDI, HD-SDI & 3G-SDI
SDI Transition Rate	2.970Gb/s, 1.485Gb/s and 270Mb/s
Audio Support	8 - Channel
Coaxial Cable Type	RG6/RG59(75Ω)
Cable Equalization	3G: 100m of RG6/ 86m of RG59 HD: 170m of RG6/ 120m of RG59 SD: 400m of RG6/ 280m of RG59 *1 RG6: CANARE L-5CFB Cable / RG59: Belden 9275 Cable *2 Cable Length Performance: Depending on SDI Signal and Cable Quality
Input Source	HDMI/SDI
Output Source	HDMI/VGA/YPBPR/CVBS/SVIDEO/SDI
Input Format Support	Appendix Table A
Output Format Support	Appendix Table A
Firmware Updates	Via Mini-USB
Input Connector	1 x BNC [SDI] 1 x HDMI
Output Connector	1 x BNC [SDI] 1 x DVI-I [DVI-D + DVI-A] 3 x BNC [YPbPr or YC + CVBS] 1 x Phone Jack
BNC Connector	3G 75 Ω inter-locked socket
USB Connector	Mini-USB
Dipswitch	Output Format/Audio Source/Input Source
Housing	SECC
Dimension	L:6.02 x W:2.49 xH:1.02 inches
Power Source	Power Adapter: AC 100 ~ 240 V/DC (+9 ~ 15 V)
Operation Temperature	0~50°C [32~114°F]
Storage Temperature	-20~+60°C

## Firmware Upload

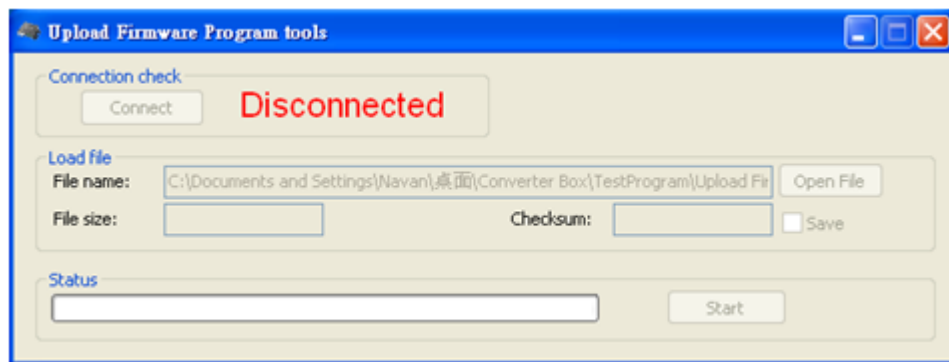
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Firmware is upgradable in the field using the integrated USB port

How to upgrade Firmware:

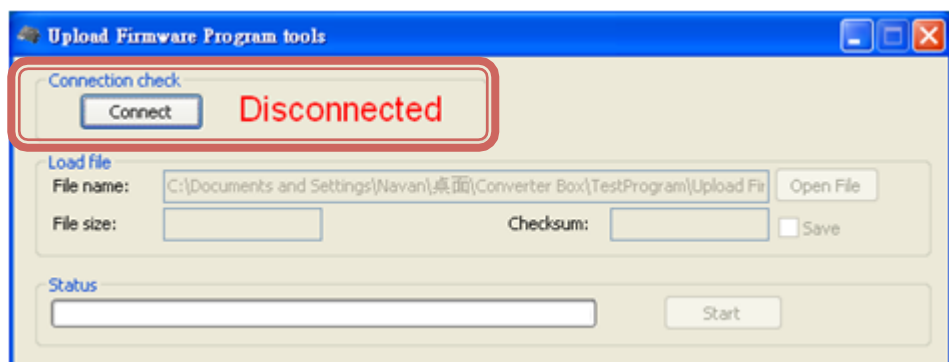
Step 1.

Open Upload Firmware Program tools.exe and connect box to PC by USB Cable.



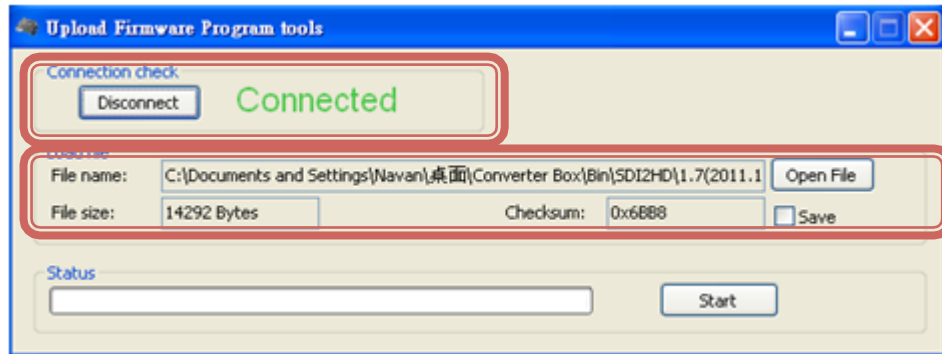
Step 2.

Plug and un-plug “DC adapter” to power on/off the converter box (the connection check status will be changed to “Connect”)



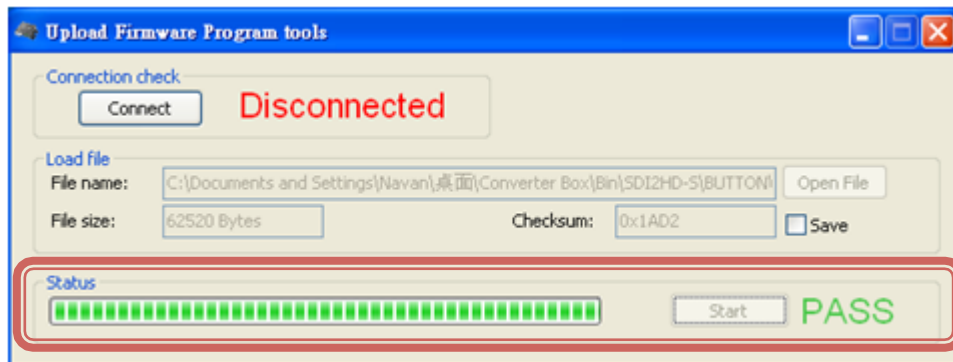
Step 3.

Plug and un-plug “DC adapter” again (the connection check status will be changed to “Connected”) and Please click the Open File button to select the firmware bin file.



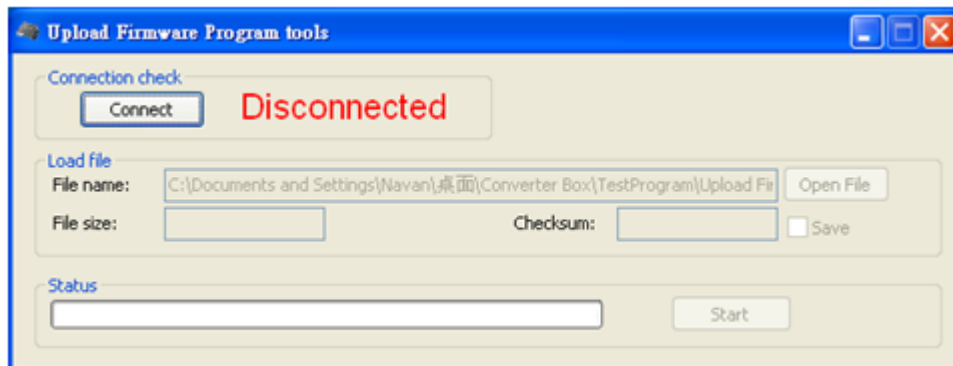
Step 4.

Please click “Start’ Button to proceed with new firmware programming. The PASS message will appear when the procedures finished.



Step 5.

Close Upload Firmware Program tools



**Appendix Table A**

Support Input Format:

720x480i59	720x576i50	720x480 p60/59	720x576 p50
1280x720p60/59	1280x720p50	1920x1080i60/59	1920x1080i50
1920x1080p24/23	1920x1080p25	1920x1080p30/29	1920x1080p60/59
1920x1080p50			
640x350p85	640x400p85	720x400p85	640x480p60
640x480p72	640x480p75	640x480p85	800x600p56
800x600p60	800x600p72	800x600p75	800x600p85
848x480p60	1024x768p50	1024x768p59	1024x768p60
1024x768p70	1024x768p75	1024x768p85	1152x864p70
1152x864p75	1280x768pRB	1280x768p60	1280x768p75
1280x768p85	1280x800p60	1280x800p75	1280x800p85
1280x960p60	1280x960p75	1280x960p85	1280x1024p60
1280x1024p75	1280x1024p85	1360x768p60	1366x768p50
1366x768p60	1400x1050p50	1400x1050p59	1400x1050p60
1400x1050p75	1440x900p60	1440x900p75	1440x900p85
1600x1200p50	1600x1200p59	1600x1200p60	1600x1200pRB
1680x1050pRB	1680x1050p60	1920x1200pRB	

Support Output Format:

HDMI Mode		
720x480 i60	720x480 i59.94	720x576 i50
1280x720 p60	1280x720 p59.94	1280x720 p50
1920x1080 i60	1920x1080 i59.94	1920x1080 i50
1920x1080 p60	1920x1080 p59.94	1920x1080 p50
1920x1080 p30	1920x1080 p29.97	1920x1080 p25
1920 x 1080 p24	1920 x 1080 p23.98	



VESA Mode		
1920x1080 p60	1680x1050 p60	1440x1050 p60
1440x900 p60	1400x1080 p60	1366x768 p60
1280x1024 p60	1280x1024 p60	1280x960 p60
1280x800 p60	1024x768 p60	800x600p60
640x480 p60		

**Update List**

Data	Version	Command
2014.10.14	V1.0	1. Released

**Warranty**

**A. Limited Warranty**

KanexPro™ warrants that (a) its products (the “Product”) will perform greatly in agreement with the accompanying written materials for a period of 36 months (3 full year) from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years.

**B. CUSTOMER REMEDIES**

KanexPro entire liability and Customer’s exclusive remedy shall be, at KanexPro option, either return of the price paid for the product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to KanexPro with a copy of customers’ receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warrantied for the remainder of the original warranty period of 1 year, whichever is longer.

**C. NO OTHER WARRANTIES**

To the maximum extent permitted by applicable law, KanexPro disclaims all other warranties, either express or implied, including, but not limited to implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This limited warranty gives customers specific legal rights. Customers may have other rights depending on the jurisdiction.

**D. NO LIABILITY FOR DAMAGES**

To the maximum extent permitted by applicable law, in no event shall KanexPro be liable for any damages whatsoever (including without limitation, special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use this product, even if KanexPro has been advised of the possibility of such damages.

The logo for KanexPro, featuring the word "KanexPro" in a bold, sans-serif font. The letter "o" at the end of "Pro" is stylized with a small circle inside it. A trademark symbol (TM) is located at the top right of the "o".

Brea, California

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