ENCIRIS BOARDS

VIDEO AND GRAPHICS FORMATS

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INTRODUCTION

The LT-1xx boards have a very flexible front end and are capable of accepting a wide range of video and graphics signals and connections. The following sections describe the input capabilities of the LT-1xx boards.

The video and graphics formats described in this document are automatically detected by the LT-1xx boards. If the format is not automatically detected the signal may not conform to its respective standard. The LT-1xx boards are capable of acquiring non-standard formats but this generally requires a manual adjustment of the parameters. See the product documentation for further details.

If you have a particular input resolution or frame rate requirement that you would like to have automatically detected, please contact us as we may be able to add the format.

SUPPORTED INPUT CONNECTIONS

Input Feature	Connector			
	Composite	S-Video	DVI	HD/SD-SDI[1]
Signal types				
Analog SDTV	●	●	●	
Digital SDTV			●	●
Analog HDTV			●	
Digital HDTV			●	●
Graphics MODES			●	
Color types				
YUV 4:2:2			●	●
YUV 4:4:4			●	
RGB			●	
Physical Connections				
SDI 75 ohm BNC				●
S-Video 5-pin Mini-DIN		●		
Composite BNC	●			
Composite RCA	●[2]			
DVI-I			●	
DVI-D			●	
DVI-A			●	
RGB via BNC (separate syncs)			●[3]	
RGB via BNC (sync on green)			●[3]	
RGB via RCA			●[4]	
YUV via BNC			●[4]	
YUV via RCA			●[3]	
VGA DSUB-15			●[5]	
HDMI			●[6,7]	

1. Requires purchase of SDI option.
2. RCA to BNC adapter required.
3. BNC to VGA cable and VGA to DVI adapter required.
4. YUV/RCA to DVI adapter required.
5. VGA to DVI adapter required.
6. HDMI to DVI adapter required
7. HDCP not supported.

SUPPORTED VIDEO FORMATS

All the inputs support the standard video formats. The composite and s-video inputs accept only SDTV resolutions at standard PAL/NTSC frame rates. The DVI and SDI inputs accept both SDTV and HDTV resolutions.

RESOLUTIONS SUPPORTED ON COMPOSITE OR S-VIDEO INPUT

NTSC   (720 x 480 interlaced at 59.94 fields per second/29.97 frames per second)
PAL   (720 x 576 interlaced at 50.00 fields per second/25 frames per second)

VIDEO MODES SUPPORTED ON DVI-D, DVI-A OR SDI INPUTS

1080 Resolutions - Progressive
1080p60   (1920 x 1080 progressive at 60.00 frames per second)
1080p59.94   (1920 x 1080 progressive at 59.94 frames per second)
1080p50   (1920 x 1080 progressive at 50.00 frames per second)
1080p30   (1920 x 1080 progressive at 30.00 frames per second)
1080p29.97   (1920 x 1080 progressive at 29.97 frames per second)
1080p25   (1920 x 1080 progressive at 25.00 frames per second)
1080p24   (1920 x 1080 progressive at 24.00 frames per second)
1080p23.98   (1920 x 1080 progressive at 23.98 frames per second)
1080 Resolutions - Interlaced
1080i60   (1920 x 1080 interlaced at 60.00 fields per second)
1080i59.94   (1920 x 1080 interlaced at 59.94 fields per second)
1080i50   (1920 x 1080 interlaced at 50.00 fields per second)
720 Resolutions - Progressive
720p60   (1280 x 720 progressive at 60.00 frames per second)
720p59.94   (1280 x 720 progressive at 59.94 frames per second)
720p50   (1280 x 720 progressive at 50.00 frames per second)
720p30   (1280 x 720 progressive at 30.00 frames per second)
720p29.97   (1280 x 720 progressive at 29.97 frames per second)
720p25   (1280 x 720 progressive at 25.00 frames per second)
720p24   (1280 x 720 progressive at 24.00 frames per second)
720p23.98   (1280 x 720 progressive at 23.98 frames per second)
576 Resolutions - Progressive
576p50   (720 x 576 progressive at 50.00 frames per second)
576p25   (720 x 576 progressive at 25.00 frames per second)
576 Resolutions - Interlaced
576i50   (720 x 576 interlaced at 50.00 fields per second)
480 Resolutions - Progressive
480p59.94   (720 x 480 progressive at 59.94 frames per seconds)
480p29.97   (720 x 480 progressive at 29.97 frames per second)
480 Resolutions - Interlaced
480i59.94   (720 x 480 interlaced at 59.94 fields per second)

These graphics formats apply to the DVI-I, DVI-D* and DVI-A inputs only. SDI, composite, or s-video do not support graphics modes.

Frame rate / Resolution	Common name	85HZ	75Hz	72Hz	60Hz	56Hz
640x400		•				
720x400		•				
640x480	VGA	•	•	•		
848x480	WVGA				•	
800x600	SVGA	•	•	•	•	•
1024x768	XGA	•	•	•	•	
1280x768	WXGA	•	•	•	•	
1360x768					•	
1152x864			•			
1440x900			•		•	
1280x960		•			•	
1280x1024	SXGA		•		•	
1400x1050	SXGA+				•	
1680x1050	WSXGA+				•	
1600x1200	UXGA				•	
1920x1200	WUXGA				•	

*Actually our DVI-D input supports any arbitrary resolution provided the pixel clock does not exceed about 150MHz. For DVI-D signals the LT-1xx boards are capable of auto-detecting the resolution and frame rate. The color space format can, however, not be auto-detected yet. By default it assumes RGB for graphics formats.

FURTHER INFORMATION

Contact us for further information on this or any other Enciris Product:

Enciris Technologies
22, Avenue de l'Europe
81600 Gaillac
France

Tel: +33 (0)5 81 18 01 12
Email: tech@enciris.com
Web: http://www.enciris.com