



SingMai Vision

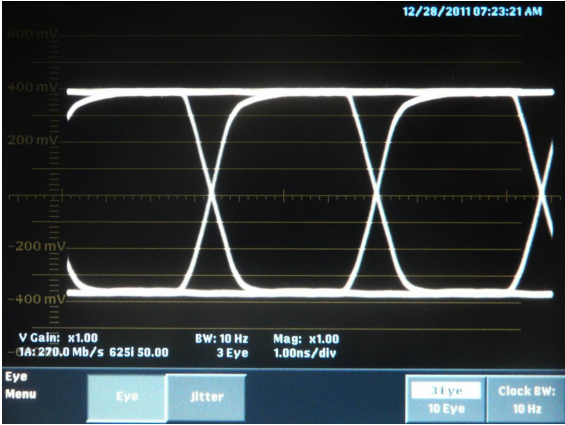
The newsletter of SingMai Electronics (no. 19)

Serial Digital Video Encoder and Decoder IP Cores

SingMai have introduced two new IP cores supporting the encoding and decoding of serial digital video.

The PT20 is an SDI, HD-SDI and 3G-SDI encoder IP core.

PT20 accepts 8/10-bit BT656 format video (525i/625i operation) or 16/20-bit and 24/30/36-bit BT1120 format video with separate syncs (HD operation). SMPTE-425M advanced modes (4:4:4:4 RGB and 12-bit), are also accepted. PT20 encodes this data to a 20-bit data + clock output format for serializing in an external PHY.



For more information on the PT20: [PT20](#)

The PT21 is an SDI, HD-SDI and 3G-SDI decoder IP core.

PT21 accepts a 20-bit video data input from a de-serialiser PHY and clock which it decodes to a 24/30-bit YCbCr+A or RGB+A 4:4:4 or 4:2:2 video output with separate syncs.

Video Status	Video Session -	Running
Input: 1A (WFM7M)	RP165 EDH:	Present
Changed since reset: No	FF Errored Seconds:	0
Signal: 270.0 Mb/s	FF Errored Fields:	0
Format Exp: Any Supported	FF % Errored Fields:	0.00%
Format Det: 625i 50.00	FF Status:	OK
Colorimetry: 601	AP Errored Seconds:	0
Embedded Audio: No Emb. audio	AP Errored Fields:	0
Ancillary Data: Present	AP % Errored Fields:	0.00%
Active Video Width: 10 bits	AP Status:	OK
Timecode: None	RGB Errored Seconds:	0
Selected Ref: INT	RGB Errored Fields:	0
Ref Format: N/A	RGB % Errored Fields:	0.00%
Closed Caption: Missing	RGB Gamut Status:	OK
Stuck Bits: -----	Y+C Errored Seconds:	0
F1 AP CRC: 8835	Y+C Errored Fields:	0.00%
Changed since reset: No	Y+C Gamut Status:	OK
F2 AP CRC: 8835	Luma Errored Seconds:	0
Changed since reset: No	Luma Errored Fields:	0.00%
Time since reset: 0:00:00:58	Luma % Errored Fields:	0.00%
	Luma Gamut Status:	OK

For more information on the PT21: [PT21](#)

All SingMai IP cores are provided as RTL compliant Verilog source code for single instantiation/multiple unit use for both FPGAs and ASICs. Verilog test benches are available, and the IP cores come with technical user manual and 6 months' design in support. On-site training and support is also available.



Information on all SingMai's video IP cores may be found here:

https://www.singmai.com/ip_cores.html

For more information please contact us at sales@singmai.com

If you are having problems viewing this e-mail, you may [View as Webpage](#)

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