

Technical Note

CoaXPress frame grabber boards for SP-45000-CXP4 and SP-45001-CXP4

Selection and usage guidelines: CoaXPress frame grabber boards.

JAI has tested the operation of the following CoaXPress frame grabber boards for use with JAI's SP-45000M-CXP4/SP-45000C-CXP4(DV0101) and SP-45001M-CXP4/SP-45001C-CXP4(DV0100)

Vendor	Product Name	Application (Version)	Link Config	Pixel Format			
				8bit	10bit	12bit	14bit
Euresys	Coaxlink G3	Coaxlink (11.2.1.29)	CXP*-4	✓	✓	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
	Coaxlink CXP-12	Coaxlink (11.2.1.29)	CXP*-4	✓	✓	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
Avaldata	APX-3664S4	TransFlyer (1.9.1)	CXP*-4	✓	✓	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
	APX-3664 APX-3664G3	TransFlyer (1.9.1)	CXP*-4	✓	Δ(*4)	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
Matrox Imaging	Rapix	MIL-lite10 R2 build 2995	CXP*-4	✓	✓	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
	Radiant	MIL-lite10 R2 build 2995 MIL10 Engineering Fix 543	CXP*-4	✓	Mono: Δ(*4) Bayer: ✓	Mono: ✓ Bayer: ✓	✓
			CXP*-2	✓	Mono: ✓ Bayer: ✓	Mono: ✓ Bayer: ✓	✓
			CXP*-1	✓	Mono: ✓ Bayer: ✓	Mono: ✓ Bayer: ✓	✓
BitFlow	Cyton-CXP (CYT-PC2-CXP4)	BitFlow SDK 6.30	CXP*-4	✓	Δ(*4) (*5)	✓	✓
			CXP*-2	✓	✓	✓	✓
			CXP*-1	✓	✓	✓	✓
Active Silicon	FireBird	FireBird CXP 01.05.01	CXP*-4	✓	Δ(*2)	Δ(*2)	Mono: Δ(*2) Bayer: ✓
			CXP*-2	✓	Δ(*1) (*2)	Δ(*1) (*2)	Mono: Δ(*1) (*2) Bayer: ✓
			CXP*-1	✓	Δ(*1) (*2)	Δ(*1) (*2)	Mono: Δ(*1) (*2) Bayer: ✓
Silicon Software	mE5-AQ8-CXP6	Runtime 5.7.0	CXP*-4	Δ(*3)	Δ(*3)	Δ(*3)	Δ(*3)
			CXP*-2	Δ(*3)	Δ(*3)	Δ(*3)	Δ(*3)
			CXP*-1	Δ(*3)	Δ(*3)	Δ(*3)	Δ(*3)

(*1) In case of boot-up with CXP*-2/1 (incorrect images are displayed when boot-up with CXP*-4 first, and then changed to CXP*-2/1).

(*2) Need to set PixelFormat and Incoming PixelFormat of FG board manually.

(*3) For the color model, need to reduce the frame rate to less than approx. 1/3 of max value.

(*4) (only CXP6-4) Need to add Packet Gap by DeviceLinkThroughputLimit feature. Please refer to "How to use DeviceLinkThroughputLimit function" on Page 2 of this document.

(*5) NG if CiView is used (OK if Ximilon GenTL Consumer is used).

Note : JAI Camera Update Tool Ver1.2.4 supports Euresys' frame grabber boards only.



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DeviceLinkThroughputLimit function

Limits the maximum bandwidth of the data that will be streamed out by the device on the selected link. If necessary, delays will be uniformly inserted between transport layer packets in order to control the peak bandwidth.

How to use DeviceLinkThroughputLimit function

1. Set [DeviceLinkThroughputLimitMode] of [DeviceControl] to [On]
2. Set the bandwidth in [DeviceLinkThroughputLimit] of [DeviceControl]

The range of values that can be set depends on the CoaXPress link configuration.

The chart below shows the setting ranges.

CoaXPress link configuration	Setting range (Bytes / sec)	
	Minimum	Maximum
CXP6_X4	1,562,500,000	3,125,000,000
CXP6_X3	1,171,875,000	2,343,750,000
CXP6_X2	781,250,000	1,562,500,000
CXP6_X1	390,625,000	781,250,000
CXP3_X4	781,250,000	1,562,500,000
CXP3_X3	585,937,500	1,171,875,000
CXP3_X2	390,625,000	781,250,000
CXP3_X1	195,312,500	390,625,000

End.



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Revision History

Revision	Date	Changes
1	2019/03/11	New release

