

XPression Video I/O Card and Third-Party Driver Specifications

This document lists the specifications and third-party drivers for the video I/O cards supported by XPression systems. It contains the following sections:

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Please feel free to contact us with questions at solutions@rossvideo.com.

XPression Editions and I/O Limits

★ This table shows a simplified overview of channel allowances for XPression editions. Actual limits depend on the video card I/O and any optional XPression licenses. For full details, contact Ross Video.

Edition	I/O Limit
Prime	1 F/K output pair 2 previews
Studio SCE BlueBox SCE Studio GO! BlueBox GO!	1 F/K output pair 1 input 2 previews
Studio GO!2 Dual BlueBox GO!2 Dual	2 F/K output pairs 2 inputs 3 previews
Studio Standard BlueBox Standard	3 F/K output pairs 3 inputs 4 previews
Studio Flex BlueBox Flex	4 F/K output pairs 4 inputs 5 previews

SDI PCIe I/O Card Specifications

Vendor and Model	HD-SDI	Audio I/O	AES	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
Matrox DSXLE4/8 full height	8 bi-directional + reference	16 embedded HD SDI	8 in/ 8 out	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD SQD/2SI	Configurable
Matrox DSXLE4/44 low profile	8 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD SQD/2SI	Configurable
Matrox XMIO2 12	1 in/2 out + reference	16 embedded HD SDI	8 in/ 16 out	RP-188 only	1	1
Matrox XMIO2 22	2 in/4 out + reference	16 embedded HD SDI	8 in/ 16 out	RP-188 only	2	2
Matrox XMIO2 24	4 in/4 out + reference	16 embedded HD SDI	8 in/ 16 out	RP-188 only	2	4
Matrox XMIO 3/8 full height	8 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD SQD/2SI	Configurable
Matrox XMIO3 12G	2 in / 2 out (12G) + 2 out bi-directional (3G) + reference	16 embedded HD SDI	—	RP-188 only	1 12G F/K + 1 3G F/K	2
AJA Corvid22	2 in/2 out + reference	16 embedded HD SDI	—	RP-188 only	1	2
AJA Corvid24	4 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable
AJA Corvid44	4 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable

Vendor and Model	HD-SDI	Audio I/O	AES	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
AJA Corvid88	8 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD SQD/2SI	Configurable
AJA Kona 3G	2 in/2 out + reference	16 embedded HD SDI	8 in/16 out	RP-188 only	1	2
Blackmagic 4K Extreme ¹	2 in/2 out	16 embedded HD SDI	—	Not supported	1	2
Blackmagic Quad	8 bi-directional	16 embedded HD SDI	—	Not supported	4 (configurable)	Configurable
Blackmagic Duo	4 bi-directional	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Bluefish444 Supernova ²	4 bi-directional + reference	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Bluefish444 Supernova+ ³	4 bi-directional + reference	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Bluefish444 Epoch 4K Neutron	1 in/2 out + reference	16 embedded HD SDI	—	Not supported	1	1
Ross Graphite	4 in (internal)/4 out (internal)	16 embedded HD SDI ⁴	—	Not supported	2 (configurable)	Configurable

1. No hardware framebuffers. Cannot regulate frame accuracy.
2. Full length card.
3. Shorter card. Fifth port is “copy” of port 2 output.
4. XPression system specs when using Graphite; RAVE handles all other audio I/O.

IP PCIe I/O Card Specifications

Vendor and Model	Supported SMPTE Protocol	I/O	Audio I/O	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
Matrox DSXLE4L/E	SMPTE 2022-6/7 SMPTE 2110	2 10 G SFP modules for 4 input streams and 4 output streams	16 embedded (2022-6) or 8 AES-67 (2110)	RP-188 only	Maximum 2	Maximum 4
Matrox DSXLE4L/E4	SMPTE 2022-6/7 SMPTE 2110	2 10 G SFP modules for a maximum of 4 I/O	16 embedded (2022-6) or 8 AES-67 (2110)	RP-188 only	Maximum 2	Maximum 4 (with 0 outputs)
Matrox XMIO3L/E	SMPTE 2022-6/7 SMPTE 2110	2 10 G SFP modules for 4 input streams and 4 output streams	16 embedded (2022-6) or 8 AES-67 (2110)	RP-188 only	Maximum 2	Maximum 4
Matrox XMIO3L/E4	SMPTE 2022-6/7 SMPTE 2110	2 10 G SFP modules for a maximum of 4 I/O	16 embedded (2022-6) or 8 AES-67 (2110)	RP-188 only	Maximum 2	Maximum 4 (with 0 outputs)
AJA Kona IP 10 G	SMPTE 2022-6/7	2 10 G SFP modules for 4 input streams and 4 output streams (for a maximum of 4 framebuffers) + 1 HDMI out	16 embedded HD SDI	RP-188 only	Maximum 2	Maximum 4 (with 0 output pairs)
Matrox DSXLE5/D25	SMPTE 2110 SMPTE 2022-7	2 25 G SFP modules for 4 input streams and 8 output streams	8 AES-67 (2110)	RP-188 only	Maximum 4	Maximum 4
Matrox DSXLE5/Q25	SMPTE 2110 SMPTE 2022-7	2 25 G SFP modules for 4 input streams and 8 output streams	8 AES-67 (2110)	RP-188 only	Maximum 4	Maximum 4
Matrox XMIO5/D25	SMPTE 2110 SMPTE 2022-7	2 25 G SFP modules for 4 input streams and 8 output streams	8 AES-67 (2110)	RP-188 only	Maximum 4	Maximum 4
Matrox XMIO5/Q25	SMPTE 2110 SMPTE 2022-7	2 25 G SFP modules for 4 input streams and 8 output streams	8 AES-67 (2110)	RP-188 only	Maximum 4	Maximum 4

SDI Thunderbolt I/O for XPression GO! Editions Specifications

Vendor and Model	HD-SDI	Audio I/O	AES	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
AJA IoXT	2 in/2 out + reference	16 embedded HD SDI	—	RP-188 only	1	2
AJA IoX3	4 bi-directional +reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable
AJA Io4K & Io4K+	4 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable
Blackmagic UltraStudio HD Mini	1 in/2 out + reference	16 embedded HD SDI	—	Not supported	1	1

Third-Party Drivers to Support XPression Video I/O Cards

Vendor and Model	XPression V10.5	XPression V11.0	XPression V11.5	XPression V12.0	XPression V12.5
Matrox DSXLE4	10.1.101.24979 SP1	10.2.103.26148 SP3	10.2.103.26148 SP3	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox DSXLE4L/E	10.1.101.24979 SP1	10.2.103.26148 SP3	10.2.103.26148 SP3	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox XMIO2 12	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304
Matrox XMIO2 22	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304
Matrox XMIO2 24	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304	9.4.2.9304
Matrox XMIO3	10.1.101.24979 SP1	10.2.103.26148 SP3	10.2.103.26148 SP3	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox XMIO3 12G	10.1.101.24979 SP1	10.2.103.26148 SP3	10.2.103.26148 SP3	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox DSXLE5/D25	10.1.101.24979 SP1	10.2.102.26106	10.2.102.26106	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox DSXLE5/Q25	10.1.101.24979 SP1	10.2.102.26106	10.2.102.26106	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox XMIO5/D25	10.1.101.24979 SP1	10.2.102.26106	10.2.102.26106	10.4.101.1334 SP1	10.4.101.1334 SP1
Matrox XMIO5/Q25	10.1.101.24979 SP1	10.2.102.26106	10.2.102.26106	10.4.101.1334 SP1	10.4.101.1334 SP1

Vendor and Model	XPression V10.5	XPression V11.0	XPression V11.5	XPression V12.0	XPression V12.5
AJA IoX3	—	—	16.2.3	16.2.3	16.2.3
AJA IoXT	12.5.7.6	12.5.7.6	16.2.3	16.3.3	16.2.3
AJA Io4K & Io4k+	—	16.2.0.2	16.2.3	16.2.3	16.2.3
AJA Corvid22	12.5.7.6	15.2.0	16.2.3	16.2.3	16.2.3
AJA Corvid24	12.5.7.6	15.2.0	16.2.3	16.2.3	16.2.3
AJA Corvid44	—	16.2.0.2	16.2.3	16.2.3	16.2.3
AJA Corvid88	12.5.7.6	15.2.0	16.2.3	16.2.3	16.2.3
AJA Kona 3G	12.5.7.6	15.2.0	16.2.3	16.2.3	16.2.3
AJA Kona5	—	16.2.0.2	16.2.3	16.2.3	16.2.3
AJA Kona IP	12.5.7.6	12.5.7.6	16.2.3	16.2.3	16.2.3
Blackmagic 4K Extreme	10.9.7	10.9.7	10.9.7	10.9.7	10.9.7
Blackmagic Quad	—	—	—	10.9.7	10.9.7
Blackmagic Duo	—	—	—	10.9.7	10.9.7
Blackmagic UltraStudio 4K Mini	—	10.9.7	10.9.7	10.9.7	10.9.7
Bluefish444 Supernova	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55
Bluefish444 Supernova+	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55
Bluefish444 Epoch 4K Neutron	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55	5.11.0.55
NDI™	4.6	5.0	5.0	5.6	5.6

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