

XPression Video I/O Card and 3rd Party Driver Specifications

This document lists the specifications for the supported video I/O cards and the 3rd party drivers for the various video I/O cards supported by the XPression systems. It contains the following sections:

- I/O Specifications
- IP I/O Specifications
- 3rd Party Drivers to Support XPression Video I/O Cards

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

I/O Specifications

Vendor	HD-SDI	Audio I/O	AES	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
Matrox DSXLE4 ¹	8 bi-directional + reference	16 embedded HD SDI	8 in/ 8 out ²	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD	Configurable
Matrox XMIO2 12 ¹	1 in/2 out + reference	16 embedded HD SDI	8 in/ 16 out ²	RP-188 only	1	1
Matrox XMIO2 22 ¹	2 in/4 out + reference	16 embedded HD SDI	8 in/ 16 out ²	RP-188 only	2	2
Matrox XMIO2 24 ¹	4 in/4 out + reference	16 embedded HD SDI	8 in/ 16 out ²	RP-188 only	2	4
Matrox XMIO3 ³	8 bi-directional + reference	16 embedded HD SDI	8 in/ 8 out ²	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD	Configurable
Matrox XMIO3 12G	2 in / 2 out (12G) + 2 out (3G) + reference	16 embedded HD SDI	8 in/ 8 out ²	RP-188 only	1 12G F/K + 1 3G F/K	2
AJA IoXT ⁴	2 in/2 out + reference	16 embedded HD SDI	—	RP-188 only	1	2
AJA Io4K ^{3 4}	4 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable
AJA Corvid22 ⁵	2 in/2 out + reference	16 embedded HD SDI	—	RP-188 only	1	2
AJA Corvid24 ⁶	4 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	2 (configurable)	Configurable
AJA Corvid88 ⁷	8 bi-directional + reference	16 embedded HD SDI	—	RP-188 only	4 (configurable) One 4x3G F/K pair for UHD	Configurable

Vendor	HD-SDI	Audio I/O	AES	LTC I/O	Maximum XPression F/K Output Pairs	XPression Video Inputs
AJA Kona 3G ⁵	2 in/2 out + reference	16 embedded HD SDI	8 in/16 out ²	RP-188 only	1	2
Blackmagic 4K Extreme ^{5 8}	2 in/2 out	16 embedded HD SDI	—	Not supported	1	2
Blackmagic Quad ^{5 9}	8 bi-directional	16 embedded HD SDI	—	Not supported	4 (configurable)	Configurable
Blackmagic Duo ^{5 9}	4 bi-directional	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Blackmagic UltraStudio HD Mini ⁹	1 in/2 out + reference	16 embedded HD SDI	—	Not supported	1	1
Bluefish444 Supernova ^{5 10}	4 bi-directional + reference	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Bluefish444 Supernova+ ^{5 11}	4 bi-directional + reference	16 embedded HD SDI	—	Not supported	2 (configurable)	Configurable
Bluefish444 Epoch 4K Neutron ⁶	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 ¹²	—	Not supported	2 (configurable)	Configurable

1. XPression Studio/BlueBox single and dual channel variants.
2. Per video stream, with no audio down the alpha channels unless using the FILL2 option.
3. User supplied. Not tested by Ross.
4. XPression GO!.
5. XPression Prime.
6. Supported for user supplied platforms for XPression Studio, Prime, and BlueBox.
7. Used for 4K support.
8. No hardware framebuffers. Cannot regulate frame accuracy.
9. XPression GO! Mini.
10. Full length card.
11. Shorter card. Fifth port is "copy" of port 2 output.
12. XPression system specs when using Graphite; RAVE handles all other audio I/O.

IP I/O Specifications

Vendor	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 10G 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 10G 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 ¹	SMPTE 2022-6/7 SMPTE 2110	2 10G 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 ¹	SMPTE 2022-6/7 SMPTE 2110	2 10G 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	SMPTE 2022-6/7	2 10G SFP modules for 4 input streams and 4 output streams (for a maximum of 4 framebuffers ²) + 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 25GbE 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 25GbE 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 25GbE 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 25GbE SFP modules for 4 input streams and 8 output streams	8 AES-67 (2110)	RP-188 only	Maximum 4	Maximum 4

1. User-supplied. Not tested by Ross.
2. Maximum of 4 framebuffers, where a single framebuffer is 1 fill/key, or 1 fill, or 1 internal keyer, or 1 input. For example, a configuration of 2 fill/key output streams + 2 inputs (4 output streams + 2 input streams) makes use of all 4 available framebuffers.

3rd Party Drivers to Support XPression Video I/O Cards

Vendor	XPression V7.0	XPression V8.0	XPression V8.5	XPression V9.0	XPression V10.0 (and higher)
Matrox DSXLE4	—	9.9.1.23067	9.9.1.23067	9.9.1.23067	10.0.103.23881
Matrox DSXLE4L/E	—	9.9.1.23067	9.9.1.23067	10.0.100	10.0.103.23881
Matrox XMIO2 12	9.4.2.9297	9.4.2.9297	9.4.2.9297 ¹	9.4.2.9297 ¹	9.4.2.9297 ¹
Matrox XMIO2 22	9.4.2.9297	9.4.2.9297	9.4.2.9297 ¹	9.4.2.9297 ¹	9.4.2.9297 ¹
Matrox XMIO2 24	9.4.2.9297	9.4.2.9297	9.4.2.9297 ¹	9.4.2.9297 ¹	9.4.2.9297 ¹
Matrox XMIO3	—	9.9.1.23067	9.9.1.23067	9.9.1.23067	10.0.103.23881
Matrox XMIO3 12G	—	9.9.1.23067	9.9.1.23067	9.9.1.23067	10.0.103.23881
Matrox DSXLE5/D25	—	—	—	—	Topology 10.1.101.24979
Matrox DSXLE5/Q25	—	—	—	—	Topology 10.1.101.24979
Matrox XMIO5/D25	—	—	—	—	Topology 10.1.101.24979
Matrox XMIO5/Q25	—	—	—	—	Topology 10.1.101.24979
AJA IoXT	12.5.1 10.3.5.25 (for AJA legacy)	12.5.7 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)
AJA Io4K	12.5.1	12.5.7	12.5.7 ²	12.5.7 ²	12.5.7 ²
AJA Corvid22	12.3.7.85 and 12.5.1 10.3.5.25 (for AJA legacy)	12.5.7 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)
AJA Corvid24	12.3.7.85 and 12.5.1 10.3.5.25 (for AJA legacy)	12.5.7 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)
AJA Corvid88	12.3.7.85 and 12.5.1	12.5.7	12.5.7 ²	12.5.7 ²	12.5.7 ²
AJA Kona 3G	12.3.7.85 and 12.5.1 10.3.5.25 (for AJA legacy)	12.5.7 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)	12.5.7 ² 10.3.5.25 (for AJA legacy)
AJA Kona IP	12.5.1	12.5.7	12.5.7 ²	12.5.7 ²	12.5.7 ²
Blackmagic 4K Extreme	10.9.7	10.9.7	10.9.7 ³	10.9.7 ³	10.9.7 ³
Blackmagic Quad	9.5.3	9.5.3	9.5.3 (for Blackmagic legacy)	9.5.3 (for Blackmagic legacy)	9.5.3 (for Blackmagic legacy)

Vendor	XPression V7.0	XPression V8.0	XPression V8.5	XPression V9.0	XPression V10.0 (and higher)
Blackmagic Duo	9.5.3	9.5.3	9.5.3 (for Blackmagic legacy)	9.5.3 (for Blackmagic legacy)	9.5.3 (for Blackmagic legacy)
Blackmagic UltraStudio HD Mini	10.9.7	10.9.7	10.9.7 ³	10.9.7 ³	10.9.7 ³
Bluefish444 Supernova	5.10.2.9	5.10.2.9	5.11.0.55 ⁴	5.11.0.55 ⁴	5.11.0.55 ⁴
Bluefish444 Supernova+	5.10.2.9	5.10.2.9	5.11.0.55 ⁴	5.11.0.55 ⁴	5.11.0.55 ⁴
Bluefish444 Epoch 4K Neutron	—	—	5.11.0.55 ⁴	5.11.0.55 ⁴	5.11.0.55 ⁴

1. If using Matrox XMIO2 and upgrading to XPression 64-bit, Matrox driver 9.4.2.9297 must be installed.
2. If using an AJA card and upgrading to XPression 64-bit, AJA driver 12.5.7 must be installed.
3. If using a Blackmagic card and upgrading to XPression 64-bit, Blackmagic driver 10.9.7 must be installed.
4. If using a Bluefish card and upgrading to XPression 64-bit, Bluefish driver 5.11.0.55 must be installed.

Third-Party Copyright and Trademarks

All third-party product names and any registered and unregistered trademarks mentioned in this document are used for identification purposes only and remain the exclusive property of their respective owners.