VENICE Extension System

Developed for filmmakers, by filmmakers.

Unprecedented shooting flexibility with the addition of extension system
and Version 3.0 firmware. Don't miss a shot.

SONY

VENICE Extension System provides outstanding mobility and greater freedom to create exceptional imagery

Sony's VENICE motion picture camera, which has been embraced by the production community, will enhance its usability and flexibility with the VENICE Extension System and Version 3.0 firmware updates in early 2019. The lightweight and easy to use tethered extension system allows the camera body to detach from the image sensor block with no degradation in image quality. The image sensor block weighs 4 lbs with PL mount and 3 lbs using the native E-mount, and the cable system can extend from 9 or 18 feet, offering a highly configurable, flexible and portable method of operation. The new Extension System is compatible with existing and new VENICE cameras. A user can quickly configure and freely use VENICE's image sensor block to capture uncompromising imagery, customizing the camera for specific scenarios in under 3 minutes with one 3mm Allen Wrench allowing for ultimate flexibility onset.

Post Technology Alliance

VENICE is a proud member of the Netflix Post Technology Alliance program. VENICE meets the Netflix technical and delivery specifications today, and will continue to do so in the future.

Sony is committed to work closely with Netflix to innovate production workflows and support the needs of the global production and post-production communities.

The VENICE Extension System (CBK-3610XS), which consists of a front panel cover, image sensor block case with a 9-foot cable and a 9-foot extension cable, is compatible with existing VENICE cameras with Version 3.0 firmware installed.

Uncompromised image quality

As shooting environments and requirements become more advanced and demanding, VENICE users can expect the same image quality and integrity when using the robust Extension System, which enables VENICE to become highly mobile and discreet for many mounting setups and filming scenarios including use with gimbals, handheld stabilizers, underwater and helicopter housings, and 3D/VR rigs, as well as in tight and unconventional spaces, such as in vehicles, on cranes or Russian arms.

Developed for filmmakers, by filmmakers who sought out the ergonomics, small footprint and agile form factor the Extension System offers, while taking advantage of VENICE's features including built-in 8-step mechanical Optical ND filter system and Dual Base ISO (ISO500/2500).

The VENICE camera body plate has a 24V DC input connector (Fischer 3pin). This makes it possible to provide 24V DC output at the camera head using a Fischer 3pin cable. When 12V DC output is required, the Hirose 4pin connector on the VENICE camera can be utilized by using Hirose 4pin to Fischer 3pin cable.

The addition of the Extension System adds an HD-SDI output, a 12V or 24V output for powering accessories such as lens servo motors and monitoring. CBK-3610XS also comes with multiple mounting points on all surfaces to enable various rigs and accessories attachment. It is planned to be available in February 2019 at Sony authorized VENICE resellers. For more information, please visit pro.sony/VENICE.

Shown with the optional Sony
DVF-L700 7" LCD monitor

VENICE: Version 3.0 firmware adds X-OCN XT and other powerful features

Also available in early 2019 will be the free VENICE Version 3.0 firmware upgrade, which further augments VENICE's capabilities, incorporating feedback from filmmakers and protecting customers' investment by allowing the camera to grow with the user. Version 3.0 firmware will add a recording profile within the 16-bit X-OCN (eXtended tonal range Original Camera Negative).

Version 3.0 firmware highlights include:

- 16-bit X-OCN XT profile delivers the highest picture quality at economical data rates with AXS-R7

- New imager modes, including 6K 2.39:1 and 5.7K 16:9 for greater shooting flexibility

- Additional de-squeezed ratios for various anamorphic lenses (x1.25, x1.3, x1.5, x1.8), as requested by filmmakers

- Cache REC for a maximum 30 sec in X-OCN 4K 17:9 AXS Memory / HD MPEG 50 SxS memory, so you don't miss a shot

- 6G/12G-SDI switchable output enabling 4K SDI output

- Wireless Remote Control with CBK-WA02 for wirelessly controlling and changing key functions and menu settings for increased flexibility
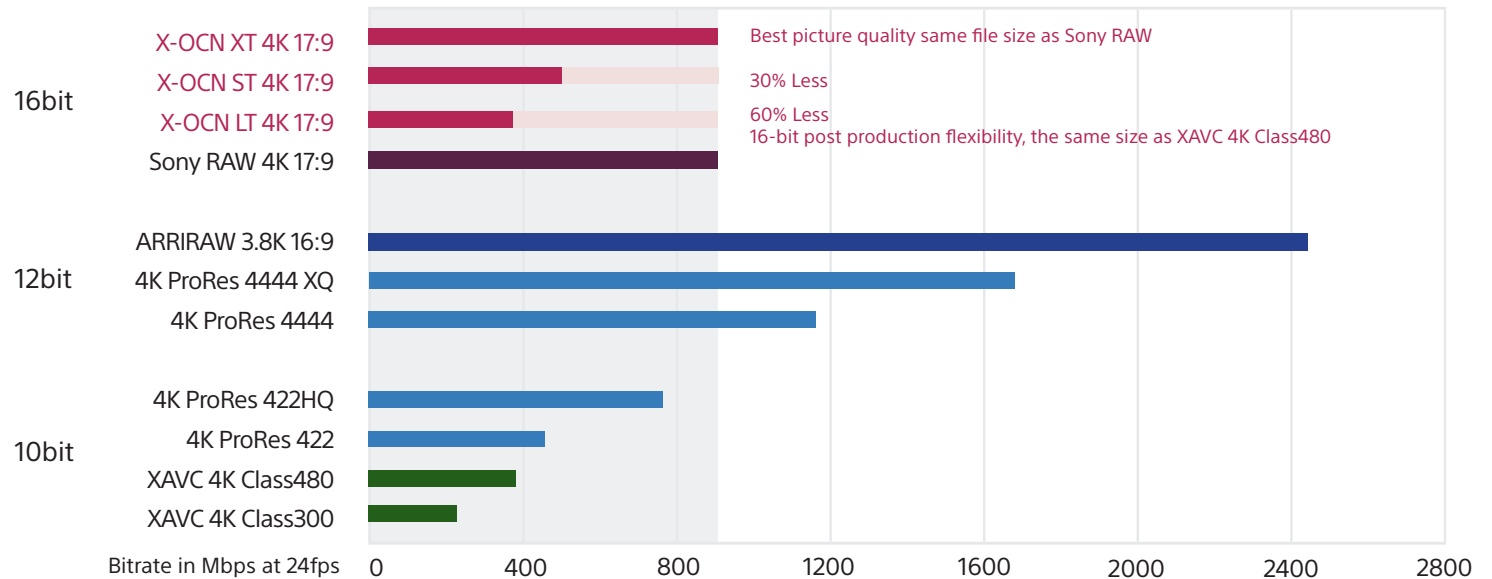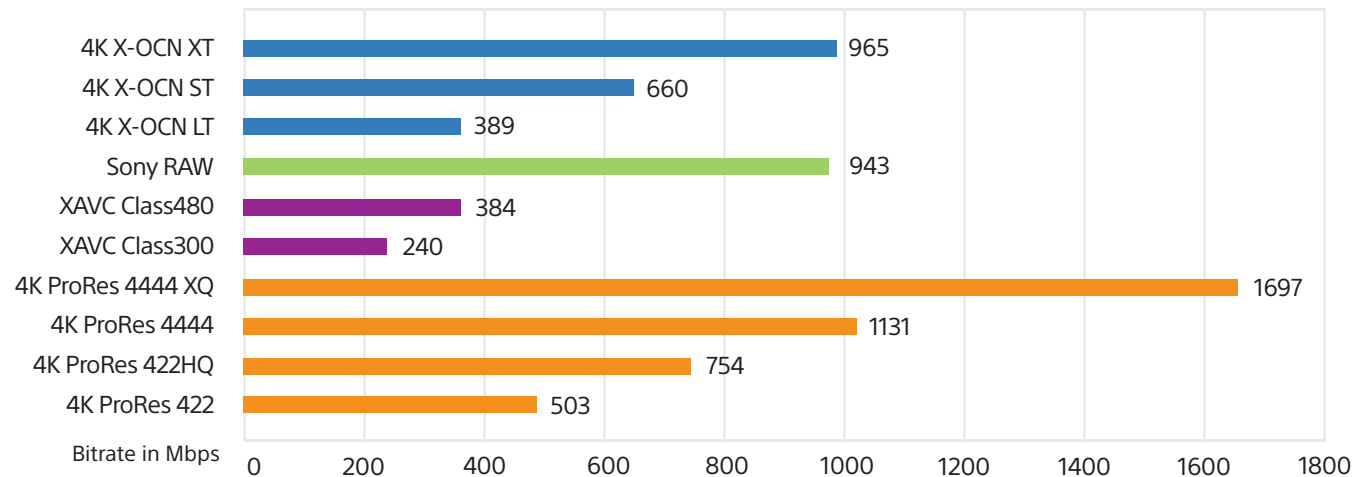
CBK-WA02

Version 3.0 firmware introduces 16-bit X-OCN XT profile

This new profile, called X-OCN XT, captures the highest quality imagery when using the AXS-R7 portable memory recorder. X-OCN XT is ideal for demanding visual effects work and productions requiring the utmost image quality from VENICE. The new X-OCN XT profile maintains economical file sizes comparable to Sony's RAW file size, making the workflow affordable and efficient. In comparing X-OCN with Sony's RAW format, X-OCN has superior reproduction in low light areas and high light areas. In VENICE's 4K 17:9 imager mode, users will have the flexibility to record three X-OCN profiles (XT, ST, LT) and Sony RAW with V3.0 firmware. (Prior to V3.0 firmware, X-OCN LT, X-OCN ST and Sony RAW are available).

Chart 1

16bit
- X-OCN XT 4K 17:9 — Best picture quality same file size as Sony RAW
- X-OCN ST 4K 17:9 — 30% Less
- X-OCN LT 4K 17:9 — 60% Less / 16-bit post production flexibility, the same size as XAVC 4K Class480
- Sony RAW 4K 17:9

12bit
- ARRIRAW 3.8K 16:9
- 4K ProRes 4444 XQ
- 4K ProRes 4444

10bit
- 4K ProRes 422HQ
- 4K ProRes 422
- XAVC 4K Class480
- XAVC 4K Class300

Bitrate in Mbps at 24fps — 0, 400, 800, 1200, 1600, 2000, 2400, 2800

Bitrate comparison at 4096 x 2160 24p

Format	Bitrate in Mbps
4K X-OCN XT	965
4K X-OCN ST	660
4K X-OCN LT	389
Sony RAW	943
XAVC Class480	384
XAVC Class300	240
4K ProRes 4444 XQ	1697
4K ProRes 4444	1131
4K ProRes 422HQ	754
4K ProRes 422	503

Bitrate in Mbps — 0, 200, 400, 600, 800, 1000, 1200, 1400, 1600, 1800

VENICE Recording Media
(RAW & X-OCN XT/ST/LT)

AXSM	MODEL	SPECIFICATIONS
	AXS-A256S24	Capacity: 256GB
	AXS-A512S24	Capacity: 512GB
	AXS-A1TS24	Capacity: 1TB
		Guaranteed Write Speed: 2.4Gbps
	AXS-A512S48	Capacity: 512GB
	AXS-A1TS48	Capacity: 1TB
		Guaranteed Write Speed: 4.8Gbps

AXS-AR1 Thunderbolt™ 2 Card Reader

Sony's most advanced card reader supports AXS-A Series and SxS memory cards and connects to macOS® computers via Thunderbolt 2 interface at up to 9.6 Gbps (1200 MB/s).

VENICE Recording Media
(XAVC, ProRes & MPEG HD codecs)

SxS PRO+	MODEL	SPECIFICATIONS
	SBP-64E	Capacity: 64GB
	SBP-128E	Capacity: 128GB
	SBP-256E	Capacity: 256GB
		Minimum Write Speed: 1.3Gbps
		Maximum Write Speed: 3.2Gbps
		Maximum Read Speed: 3.5Gbps

Recording Time AXS-A512S24/48 (512GB)

IMAGER MODE	PROJECT FPS	RAW	X-OCN XT	X-OCN ST	X-OCN LT
4K 17:9 /3.8K 16:9	23.98/.24	60 min	57 min	84 min	142 min
	25	56	55	81	136
	29.97	46	45	67	114
	50	27	27	40	68
	60	24	22	33	56
4K 4:3	23.98/.24	-	41	60	102
	25	-	39	58	99
	29.97	-	33	48	81
4K 6:5	23.98/.24	-	36	53	90
	25	-	35	51	86
	29.97	-	28	42	72
6K 2.39:1	23.98/.24	-	33	48	82
	25	-	32	46	79
	29.97	-	27	38	66
6K 17:9/5.7K 16:9	23.98/.24		26	38	65
	25	-	25	36	63
	29.97	-	20	30	53
6K 1.85:1	23.98/.24		26	37	64
	25	-	25	36	62
	29.97	-	20	30	51
6K 3:2	23.98/.24	-	20	30	52
	25	-	19	29	50

Recording Time SBP-128E (SxS PRO+ 128GB)

FORMAT	23/24p	25p	29p	50p	59p	50i	59i
XAVC 4k Class300	66 min	63 min	53 min	32 min	27 min	-	-
XAVC 4k Class480	42	40	34	-	-	-	-
XAVC QFHD Class300	66	63	53	32	27	-	-
XAVC QFHD Class480	42	40	34	-	-	-	-
HD ProRes 422HQ	82	79	66	40	33	79 min	66 min
HD ProRes 422	122	117	98	59	50	117	98
HD ProRes Proxy	361	347	294	185	155	347	294
MPEG HD	275	273	272	-	-	273	272

Recording formats Version 3.0 firmware (Mbps) 23.98/24p

FORMAT	PROFILE	3.8K 16:9	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		943	943	-	-	-	-	-	-	-
X-OCN Using AXS-R7 recorder	X-OCN XT	965	965	1,343	1,525	2,091	1,665	2,091	2,143	**2,631**
	X-OCN ST	660	660	919	1,044	1,431	1,140	1,431	1,467	1,800
	X-OCN LT	389	389	541	615	843	671	843	864	1,061
XAVC 4K SxS cards	Class480	-	384	384	384	-	384	384	384	384
	Class300	-	240	240	240	-	240	240	240	240
XAVC QFHD SxS cards	Class480	384	-	-	-	384	-	-	-	-
	Class300	240	-	-	-	240	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	50
HD ProRes* SxS cards	ProRes 422 HQ	176	176	176	176	176	176	176	176	176
	ProRes 422	117	117	117	117	117	117	117	117	117
	ProRes 422 Proxy	36	36	36	36	36	36	36	36	36

Recording formats Version 3.0 firmware (Mbps) 29.97p

FORMAT	PROFILE	3.8K 16:9	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		1,178	1,178	-	-	-	-	-	-	-
X-OCN Using AXS-R7 recorder	X-OCN XT	1,207	1,207	1,678	1,907	**2,613**	2,082	**2,613**	**2,678**	-
	X-OCN ST	825	825	1,148	1,305	1,789	1,425	1,789	1,833	-
	X-OCN LT	486	486	676	769	1,054	839	1,080	1,197	-
XAVC 4K SxS cards	Class480	-	480	480	480	-	480	480	480	-
	Class300	-	300	300	300	-	300	300	300	-
XAVC QFHD SxS cards	Class480	480	-	-	-	480	-	-	-	-
	Class300	300	-	-	-	300	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	-
HD ProRes* SxS cards	ProRes 422 HQ	220	220	220	220	220	220	220	220	-
	ProRes 422	147	147	147	147	147	147	147	147	-
	ProRes 422 Proxy	45	45	45	45	45	45	45	45	-

*Apple ProRes recording requires firmware Version 2.0 (released July 2018) or later.

Please note X-OCN XT, 5.7K and 6K 2.39:1 require Version 3.0 firmware, release in early 2019.
Recording formats in bold require the higher speed cards AXS-A512S48 (512GB) or AXS-A1TS48 (1TB).

Recording format Version 3.0 firmware (Mbps) 25p

FORMAT	PROFILE	3.8K 16:9	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		983	983	-	-	-	-	-	-	-
X-OCN Using AXS-R7 recorder	X-OCN XT	1,006	1,006	1,398	1,589	2,178	1,735	2,178	2,232	**2,740**
	X-OCN ST	688	688	957	1,087	1,491	1,187	1,491	1,528	1,875
	X-OCN LT	406	406	564	641	878	699	878	900	1,105
XAVC 4K SxS cards	Class480	-	400	400	400	-	400	400	400	400
	Class300	-	250	250	250	-	250	250	250	250
XAVC QFHD SxS cards	Class480	400	-	-	-	400	-	-	-	-
	Class300	250	-	-	-	250	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	50
HD ProRes* SxS cards	ProRes 422 HQ	184	184	184	184	184	184	184	184	184
	ProRes 422	122	122	122	122	122	122	122	122	122
	ProRes 422 Proxy	38	38	38	38	38	38	38	38	38

Recording format Version 3.0 firmware (Mbps) 50p

FORMAT	PROFILE	3.8K 16:9	4K 17:9
RAW Using AXS-R7 recorder		1,966	1,966
X-OCN Using AXS-R7 recorder	X-OCN XT	2,011	2,011
	X-OCN ST	1,376	1,376
	X-OCN LT	811	811
XAVC 4K SxS cards	Class480	-	-
	Class300	-	500
XAVC QFHD SxS card	Class480	-	-
	Class300	500	-
MPEG HD SxS cards	interlace	50	50
HD ProRes* SxS cards	ProRes 422 HQ	367	367
	ProRes 422	245	245
	ProRes 422 Proxy	76	76

Recording format Version 3.0 firmware (Mbps) 59p

FORMAT	PROFILE	3.8K 16:9	4K 17:9
RAW Using AXS-R7 recorder		2,357	2,357
X-OCN Using AXS-R7 recorder	X-OCN XT	2,413	2,413
	X-OCN ST	1,650	1,650
	X-OCN LT	972	972
XAVC 4K SxS cards	Class480	-	-
	Class300	-	600
XAVC QFHD SxS card	Class480	-	-
	Class300	600	-
MPEG HD SxS cards	interlace	50	50
HD ProRes* SxS cards	ProRes 422 HQ	440	440
	ProRes 422	293	293
	ProRes 422 Proxy	91	91

*Apple ProRes recording requires firmware Version 2.0 or later.

Please note X-OCN XT requires Version 3.0 firmware upgrade, early 2019.
Recording formats in bold require the higher speed cards AXS-A512S48 (512GB) or AXS-A1TS48 (1TB).

Additional anamorphic de-squeeze options (Coming in Version 3.0 firmware)

IMAGER MODE	W X H (MM)	SUPPORTED PROJECT FPS	SELECT FPS	OFF (x1.0)	x1.25	x1.3	x1.5	x1.8	x2.0
3.8K 16:9	22.8 x 12.8	23, 24, 25, 29, 50, 59	1-60	✓	-	-	-	-	-
3.8K 16:9 Surround view	22.8 x 12.8 (25.4 x 14.3)	23, 24, 25, 29	1-48	✓	-	-	-	-	-
4K 17:9	24.3 x 12.8	23, 24, 25, 29, 50, 59	1-60	✓	✓	✓	-	-	✓
4K 17:9 Surround view	24.3 x 12.8 (27.0 x 14.3)	23, 24, 25, 29	1-48	✓	✓	✓	-	-	✓
4K 4:3	24.3 x 18.3	23, 24, 25, 29	1-48	✓	-	✓	-	-	✓
4K 4:3 Surround view	24.3 x 18.3 (27.0 x 20.0)	23, 24, 25, 29	1-30	✓	-	✓	-	-	✓
4K 6:5	24.3 x 20.4	23, 24, 25, 29	1-30	✓	-	-	-	-	✓
5.7K 16:9*	33.7 x 18.9	23, 24, 25, 29	1-30	✓	-	-	-	-	-
6K 17:9	36.0 x 19.0	23, 24, 25, 29	1-30	✓	✓	✓	-	-	✓
6K 1.85:1	36.0 x 19.4	23, 24, 25, 29	1-30	✓	-	-	-	-	-
6K 2.39:1*	35.9 x 15.0	23, 24, 25, 29	1-30	✓	-	-	-	-	-
6K 3:2	35.9 x 24.0	23, 24, 25	1-25	✓	✓	✓	✓	✓	✓

All video outputs (Incl. VF) and SxS recording has to be de-squeezed if you choose x1.25 to x2.0.
Recorded materials in AXS Memory is not effected.
* V3.0 firmware update required.

Shot in anamorphic on VENICE in Dual ISO 2500 by Bertone Visuals and Pursuit Aviation.

VENICE: Features Roadmap

	V1.0 FIRMWARE	V2.0 FIRMWARE (July 2018)	V3.0 FIRMWARE (Early 2019)	V4.0 FIRMWARE (2Q, 2019)
Imager modes	4K 17:9 4K 16:9 4K 4:3 Anamorphic 6K 3:2 Full-Frame recording (without in-camera playback) When VENICE is set to 6K Full-Frame, SxS recording is not available	4K 6:5 Anamorphic 6K 1.85:1 6K 17:9 6K 3:2 (In-camera playback) When VENICE is set to 6K Full-Frame, SxS recording modes are supported	5.7K 16:9 6K 2.39:1	-
Lens mount support	PL lens mount (with ARRI® LDS and Cooke® /i™ technology)	E-Mount (lever lock type)	-	-
Recording formats	16-bit RAW with AXS-R7 16-bit X-OCN with AXS-R7 XAVC® 4K/QFHD* MPEG50 (When camera is set to 4K mode)	Apple ProRes	X-OCN XT	HFR shooting in Select FPS
Simultaneous Recording combinations	RAW/X-OCN & MPEG50* XAVC 4K/QFHD & MPEG50* *When camera is set to 4K mode	RAW or X-OCN & ProRes	XAVC 4K/QFHD & Apple ProRes (Proxy only) RAW/X-OCN & XAVC 4K/QFHD	-
Shooting functions	Variable White Balance (100K increments) Tint color correction control Relay rec. (SxS)	Select FPS (Off Speed) Dual Base ISO mode High Base ISO 2500	Cache Rec. (AXS, SxS) AXS Relay rec	Paint menu (Custom mode)
Monitor Out functions	OSD on Black MLUT on Playback Independent MLUT On/Off (one preset) Double speed VF Two OSDs and two Markers selection 4K-SDI output in RAW/X-OCN recording	Independent MLUT select (several presets) MLUT in Off-speed shooting User 3D LUTs (install user-generated 16 or 33cube files) Preset LUTs for S-Gamut3.cine/S-Log3 and S-Gamut3/S-Log3 with EI applied	De-squeeze function (x1.25, x1.3, x1.5, x1.8) .cdl file import 6G/12G-SDI 4K SDI output during RAW&HD Video simul rec	-
Shooting Assist functions	Digital Magnification in viewfinder Highlight Clip Indicator	Look Around (Surround View) High Resolution Magnification Auto White Balance High-Low Key False Color (use B button on DVF-EL200 viewfinder)	VENICE VF function control in EL200 SxS XDROOT Folder and Volume name changing to CamID+Reel# Configurable False Color on VF and HD Monitor	-
Hardware	Visit pro.sony/VENICE	Inside Clips Button	12-pin lens remote	S700 Protocol
Network functions	-	Wired LAN control (basic functionality)	Wireless LAN control (CBK-WA02) Wired LAN control (full menu)	-

All updates are subject to change without notice and descriptions do not represent all features being implemented.

pro.sony/VENICE