

Revision Note: SP-4500M/C-CXP4

2024.3.21

Rev. (M)	Rev. (C)	Serial Number (M)	Serial Number (C)	Date	Changes	Device Version	Firmware	FPGA	XML
		ST450301-450308	ST450301-450308	2019.10.23	Software for PS	0.0.0.9	V0014	V0020	V011
				2019.11.11	MP Start				
A	A	ST450309-450326 ST450328-450330	ST450309-450319	2019.11.12	Software for MP @ Spec Changes, Fix issue from PS.	0.1.0.0	V0030	V0030	V023
		ST-4503015		2019.12.25	Factory related change.				
				2020.2.12	Factory Related Change	0.1.0.0	V0030	V0030	V023
				2020.2.05	Change Discontinues Parts	0.1.0.0	V0030	V0030	V023
A	A	ST450331-450333	ST450320	2020.3.09	<p>@ Spec Changes, Fix issue from PS.</p> <ol style="list-style-type: none"> <li>Added function "Reverse Y"</li> <li>Changed LINK LED Specification conforms to CoaXPress</li> <li>Changed "ConnectionReset" from Write Only to Read/Write</li> <li>Added Packet Gap feature.</li> </ol> <p>Added eviceLinkThroughputLimitMode and DeviceLinkThroughputLimit commands.</p> <ol style="list-style-type: none"> <li>In VideoProcessBypas = On, HDRMode is fixed to "Off".</li> <li>When FrameIntegrationMode is other than "Off", Gain Auto, Exposure Auto, and Balance White Auto are changed as follows: Once: cannot be set Continous: can be set, but does not work.</li> </ol> <p>@ Fix issue: The following issues are fixed.</p> <ol style="list-style-type: none"> <li>In Frame Integration Mode = Frame, the 2nd image would sometimes become bright. It was depend of trigger interval.</li> <li>In AWB being executed, ALC Once did not work.</li> <li>In ReverseY, areas defined by ALCAreaEnable,AWBAreaEnable did not follow the Reverse Y.</li> <li>When the number of blemish correnction was more then thousands, blemish correction would not work correctly, depends on ROI.</li> <li>In VideoProcessBypass = On (ExposureAuto=Off), AutoControlStatus would work as Continuous.</li> <li>After power On, if Frame Integration Mode was changed from Frame to Exposure, sometimes trigger would not work.</li> <li>By changing CxpLinkConfiguration, sometimes images would abnormal.</li> <li>In ReverseY, blemish did not work.</li> <li>The max value of OptIn Filter could not be set.</li> <li>In HDR, the first image after Acquisition Start became brighter.</li> <li>SequencerReset resulted in Error.</li> <li>In CXP3-1, the max frame rate of 8bit was lower than that of 10/12 bits.</li> <li>In Reverse X, LUT of Red was referred to by Green.</li> <li>By issued AcquisitionEnd Trigger firstly, the next AcquisitionStart did not work.</li> <li>Even changed from Trigger Width to Sequencer Mode, Trigger Activation did not change from Level to Edge automatically.</li> </ol>	0.1.0.1	V0105	V0036	V027

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					16. Even changed from Trigger Width to Command Sequencer, the camera kept working as Trigger Width. 17. In Command sequence with Trigger Mode = off, image stopped by large Exposure Time. 18. When different ROI/Exposure Time were set to Sequencer Indexes, repeating fo Sequencer Command Index resulted in bad images. 19. By executing blemish calibration repeatedly, the result of blemish counts were not stable. 20. Set Reverse Y after Shading Calibration, part of images became wrong color. 21. The following items in TransportLayerControl did not appear in Euresys's tool CxpConnectionTestMode, CxpConnectionTestErrorCount, and CxpConnectionTestPacketCount 22. In ROI and Reserse X, X position of Euresys's Tool did not change. 23. In ExposureMode=TriggerWidth, when FrameIntegratoinMode was changed to Frame/Exposure, ExposureMode was not changed. It is fixed to changed to Timed automatically. 24. In Sequencer Mode, if Black Level was changed and Sequencer was changed to Off, it caused lattice images. 25. When changed from ExposureMode=Off to Command Sequencer, ExposureMode and Trigger Mode were uncontrollable. 26. When the number of blemish correction was too much, the tools would stop. 27. If the number of blemish was less than 15, OffsetY setting resulted that blemish correction did not work. 28. With certain frame grabber, Trigger Ack against CP trigger would not work.				
				2020.3.12	Factory Related Change	0.1.0.1	V0105	V0036	V027
				2020.7.27	Factory Related Change Improve S/N in HDR mode	0.1.0.1	V0105	V0036	V027
A	A		ST450321	2020.9.24	@ Spec Changes. 1. Support CoaXPress Version 2.0 2. Support Sensor variation 3. Added Function: OverlayMode 4. In Triger Sequencer Mode, Trigger Overlap is changed to disabled. 5. Added Function: Link Sharing (CXP 2.0 function (*)) 6. Added Function: Control command Tag (CXP 2.0 function (*)) (*) Requires CXP Frame grabber which supports CXP 2.0. @ Fix issue: The following issues are fixed. 1. In capturing with lens-cap in 8 bit mode, output of some pixels would sometimes be 0. 2. In executing shading calibration with ROI, it sometimes resulted in "Too Bright" error. 3. In HDR mode, captured images sometimes became bright. 4. In sequencer mode, Black Level (Red/Blue) did not work.	0.1.0.3	V0223	V0045	V037

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					5. In FrameIntegrationMode=Exposure, FrameStart trigger sometimes does not work. 6. In FrameIntegrationMode=Exposure, actual exposure time was sometimes different from value in FrameIntegrationExposure1. 7. In FrameIntegrationMode, FrameTriggerWait sometimes behaved wrongly. 8. In FrameIntegrationMode=Exposure, BinningVertical, and VideoProcessBypass, repeating of Acquisition Start / Stop sometimes resulted into abnormal images. 9. With using AVALDATA's CXP board, TransFlyer sometimes could not recognize the camera.				
A	A			2020.11.12	@ Fix issue: The following issues are fixed. 1. For certain sensor variation: If the camera was launched with PixelFormat=8bit or changed pixel format from other formats to 8bit, the black level of the first image after Acquisition Start became brighter. (The second and later images, or the second and later Acquisition Start, were OK).	0.1.0.4	V0300	V0045	V037
A	A	ST450334-450335		2020.9.10	Factory Related Change	0.1.0.4	V0300	V0045	V037
A		ST450336-450340	ST450322-450324	2021.1.12	Factory Related Change	0.1.0.4	V0300	V0045	V037
B	B	ST-450341-450345		2021.3.26	Improve tilt alignment of sensor.	0.1.0.4-1	V0300	V0045	V037
B	B	ST450346 ~ 450368	ST450335-450336	2021.10.11	@ Spec Changes. 1. Reflect actual XML file size onto DeviceManifestPrimaryURL 2. Support GenICamFWUpdate 3. Change behavior of AcquisitionStop command; No WaitAck is returned and return Ack after completion of Acquisition Stop. 4. For commands which support WaitAck, return WaitAck only once. 5. Change waiting period for the following command from 3sec to 10sec. BalanceWhite/Exposure/Gain Auto=Once BlemishDetect/PerformShadingCalibration 6. Support Event feature. 7. Support Heartbeat feature. @ Fix issue: The following issues are fixed. 1. Read command whose length was not multiple of four failed as Invalid Address error. 2. Reading XML file sometimes failed.	0.1.1.0	V0401	V0048	V040
	B		ST450337 ~ 450339	2022.6.15	Factory related change.	0.1.1.0	V0401	V0048	V040
B	B	ST450369 ~ 450373	ST450340 ~ 450343	2023.02.10	Factory related change.	0.1.1.0	V0401	V0048	V040
				2024.03.19	<b>Fixed Issues: The following issue has been fixed.</b> 1. Fixed an issue that caused the SerialNumber to disappear.	0.1.1.1	V0500	V0048	V040