

Part Number: **4174700xx-3**

Model: **SVX-2560**

DATE	VERSION	SUMMARY OF CHANGES	NOTE
17 October 2014	10	<p>Release pilot run material for SVX-2560</p> <p><b>Bare PCB: 017470001-3; P/N 417470010-3</b>            BIOS: U25, E 1.08.00.00 (Flash MX25L3206E)(new)            U56, V2.20.20 (EPM30128ATC100) (new)            U44, E6.01.0.0 (PIC32F675F512L)(new)            U39, U39_20140619.bin(SST25VF020)(web page of IP-60)</p>	ECN# 870689461
25 February 2015	10 to 11	<p>Release new firmware: (V1.12.00.00)</p> <p>1. Phase 2 requirements :</p> <p>1.1 Support Full OSD menu and RS232 command functions            (The OSD menu structure will be implemented same as SVX-1920)</p> <p>1.1.1. Color Temperature function            1.1.2. Individual Brightness, Contrast, Color.... Setting on Each input port            1.1.3. Auto color Calibration, VGA and component port            1.1.4. Aspect/Size            1.1.5. Auto Source Seek            1.1.6. User Default setting            1.1.7. HotKey            1.1.8. Backlight Setup (Ambient light sensor)            1.1.9. Zoom            1.1.11. Wide Screen Mode Selection            1.1.12. Auto Power            1.1.13. OSD position / timeout            1.1.14 Language (English, spanish, French, German, Chinese)</p> <p>2 Phase 3 requirements :</p> <p>2.1. Support soft power on/off RS-232 (0xc8) command function.            2.2. Networking            2.3. Support PWM backlight setup.            2.4. Support PIP for 18 sizes selection and SBS (Side by Side)            2.5. Fix some IR remote not working problem.            2.6. Add the user port name function.            2.7. Anti Image Retention</p> <p>Update IP-60 firmware to support "Ethernet Interface Load Default" in programming mode on SVX-2560</p> <p><b>Bare PCB: 017470001-3; P/N 417470011-3</b>            BIOS: U25, V 1.12.00.00 (Flash MX25L3206E)(changed)            U56, V2.20.20 (EPM30128ATC100) (no change)            U44, E6.02.0.0 (PIC32F675F512L)(changed)            U39, U39_20140619.bin(SST25VF020)(web page of IP-60) (no change)</p>	ECN# 870689491
7 January 2015	1x to 20	<p>Using new bare PCB 017470002-3</p> <ul style="list-style-type: none"> <li>- Fix ADC 2.5V with regulator(SGM2019-2.5YN5G) instead of using diode(S1A) to improve the stability of 2.5V power line.</li> <li>- fix GPIO pin (J3 pin 16, 17) support issue</li> <li>- fix variable resistor for light sensor not controlling problem(IP-60 no support yet)</li> </ul> <p>IP-60 fimware change</p> <ul style="list-style-type: none"> <li>- to support "Ethernet Interface Load Default" in programming mode on SVX-2560</li> </ul> <p><b>Bare PCB: 017470002-3; P/N 417470020-3</b>            BIOS: U25, E 1.08.00.00 (Flash MX25L3206E)(no change)            U56, V2.20.20 (EPM30128ATC100) (no change)            U44, E6.02.0.0 (PIC32F675F512L)(changed)            U39, U39_20140619.bin(SST25VF020)(web page of IP-60)(no change)</p>	ECN# 870689477

<p>25 February 2015</p>	<p>20 to 21</p>	<p>Release new firmware: (V1.12.00.00)</p> <p>1. Phase 2 requirements :</p> <p>1.1 Support Full OSD menu and RS232 command functions (The OSD menu structure will be implemented same as SVX-1920)</p> <p>1.1.1. Color Temperature function</p> <p>1.1.2. Individual Brightness, Contrast, Color.... Setting on Each input port</p> <p>1.1.3. Auto color Calibration, VGA and component port</p> <p>1.1.4. Aspect/Size</p> <p>1.1.5. Auto Source Seek</p> <p>1.1.6. User Default setting</p> <p>1.1.7. HotKey</p> <p>1.1.8. Backlight Setup (Ambient light sensor)</p> <p>1.1.9. Zoom</p> <p>1.1.11. Wide Screen Mode Selection</p> <p>1.1.12. Auto Power</p> <p>1.1.13. OSD position / timeout</p> <p>1.1.14 Language (English, spanish, French, German, Chinese)</p> <p>2 Phase 3 requirements :</p> <p>2.1. Support soft power on/off RS-232 (0xc8) command function.</p> <p>2.2. Networking</p> <p>2.3. Support PWM backlight setup.</p> <p>2.4. Support PIP for 18 sizes selection and SBS (Side by Side)</p> <p>2.5. Fix some IR remote not working problem.</p> <p>2.6. Add the user port name function.</p> <p>2.7. Anti Image Retention</p> <p><b>Bare PCB: 017470002-3; P/N 417470021-3</b></p> <p>BIOS: U25, V 1.12.00.00 (Flash MX25L3206E)(changed) U56, V2.20.20 (EPM30128ATC100) (no change) U44, E6.02.0.0 (PIC32F675F512L)(no change) U39, U39_20140619.bin(SST25VF020)(web page of IP-60)(no change)</p>	<p>ECN# 870689490</p>
<p>16 March 2015</p>	<p>21 to 22</p>	<p>Remove the whole real time clock circuit on board, including battery and battery holder and it's related components</p> <p>- Remove R55, R78-79, R81, DC3, Y1, U67 and BT1(Battery and holder)</p> <p>Remark : This hardware change is only apply on new production batch. (i.e It will not apply on handling the RMA boards and return for version update unless special request)</p> <p><b>Bare PCB: 017470002-3; P/N 417470021-3</b></p> <p>BIOS: U25, V 1.12.00.00 (Flash MX25L3206E)(no change) U56, V2.20.20 (EPM30128ATC100) (no change) U44, E6.02.0.0 (PIC32F675F512L)(no change) U39, U39_20140619.bin(SST25VF020)(web page of IP-60)(no change)</p>	<p>ECN# 870689495</p>

<p>7 October 2015</p>	<p>22 to 23</p>	<p><b>(A) Firmware change to use V1.16.00.00 on U25 :</b>  <u>Features added :</u>            1) Support text overlay function.            2) Add Image Orientation function Support in OSD menu &amp; RS-232 command.            But this image orientation function is not support under the following conditions :            - PIP            - Component 1 (via CNV2 connector) input.            - Driving with 1366x768 panel            - Zoom            3) Add to display the "Loading" on screen display message to avoid the unstable HDMI / DVI source detected (especially connected to HDMI splitter) causing flashing image.  <u>Problems fixed :</u>            4) Fix the LVDS output setting problem when running under 1280x1024 resolution panel.            5) Fixed runtime counter is still incremented when setting the display power off using soft power on/off command (0xc8,0)            6) Fix video lock bug which cause no image display after wake up on input signal.            7) Fix the HDMI wake up and lose detection issues  <b>(B) On-board IP-60 firmware (U44 &amp; U39) change to :</b>            U44, V6.06.0.0            U39 , D20150901.bin (web page of IP-60)            Update the web page mode:            - Support Sensor detection            i) Fans x 2 (ON/Off, Fan Speed (rpm))            ii) Light Sensor x 1 (On/Off, Value (mVolts))            iii) Power (Voltage) Detection x 2,(On/Off, Voltage value) (depend on custom request)            iv) Temperature Sensor x 2 (Onboard x1 and External x 1, support LM60 only) (On/Off, Temperature °C)            - Add Email Alert for capturing sensor status failure, support Gmail's smtp            - Add Monitor Status page to show sensor current status  <b>(C) Hardware change :</b>            Add green wrapping wire (30AWG) connected between R168 and V1 to allow VR1 to adjust the voltage being sensed by ambient light sensor on IP-60.   <b>Bare PCB: 017470002-3; P/N 417470023-3</b>            BIOS: U25, V 1.16.00.00 (Flash MX25L3206E)(changed)            U56, V2.20.20 (EPM30128ATC100) (no change)            U44, V6.06.0.0 (PIC32F675F512L)(changed)            U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(changed)</p>	<p>ECN# 870689529</p>
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<p>3 August 2016</p>	<p>23 to 24</p>	<p><b>Release new firmware V1.22.00.00 on U25 :</b></p> <p><u>Features added :</u></p> <ol style="list-style-type: none"> <li>1. Added Standard Gamma Selection (0.6 ~ 2.6) support on OSD menu and RS-232 command.</li> <li>2. Support "Resolution default by EDID" for different resolution panel. The controller will set the preferred timing based off the dip switch setting selection, but also be able to go higher to 1920x1200. For example, if the panel is a 1024x768 and the dip switch setting are set for 1024x768. The preferred EDID resolution should be 1024x768. It should also have the capability to set the max resolution to 1920x1200.</li> <li>3. Support External audio board and enable SPDIF function.</li> <li>4. Support monochrome mode for Red, Green, Blue on OSD menu and RS-232 command control.</li> </ol> <p><u>Bug fixed :</u></p> <ol style="list-style-type: none"> <li>5. Fix "Set Uart 1 Input Port" &gt; "Uart 1 to CN1" function cannot be selected in the Programming mode menu.</li> <li>6. Fixed zoom function bug :             <ol style="list-style-type: none"> <li>a. Not zooming to Center - If Zoom in the Picture one step, the Picture gets Zoomed, but also shifted to left, so there is a black strip on the right side of the Screen. Even with H-Pan = -100 there still a black strip (cannot get scrolled enough)</li> <li>b. Max zoom show 1/3 of picture distorted - If Zoom is at max, the Picture shows distortion in the top ~1/3 of the Screen, which are persistent (stay as long this zoom level is selected).</li> </ol> </li> <li>7. The "Mute" icon is wrongly displays on screen when pressing the "Mute" button on IR remote control unit and then pressing "DISPLAY" button on IR remote control unit.</li> <li>8. Anti-Image retention operation errors :             <ol style="list-style-type: none"> <li>a. Display shows distort image when run "Pixel Shift" under Anti-Image Retention function under main is HDMI and PIP is VGA when running with NEC NL160120AC27-32B panel.</li> <li>b. Wrong "Up" key select operation under "Horizontal Pan Setting" / "Vertical Pan Setting" in Anti Image Retention OSD menu page.</li> </ol> </li> <li>9. Found not display the "Freeze" text on screen when freezing the image.</li> <li>10. Display shows distort image when increasing the zoom level. The distort image still present after set back the zoom level = 0 or factory defaults when input is HDMI/DVI/DP .</li> <li>11. Display shows distort image after increasing and then resume back the Zoom level at HDMI, DVI &amp; DP input mode (1920x1200 60Hz)</li> <li>12. Display two same input source image on Main and PIP by following the procedure : under PIP mode to input HDMI as main and Component as PIP --&gt; change PIP to PIP OFF --&gt; Power cycle --&gt; Change main to Component --&gt; Press "PIP" button on IR remote --&gt; Found main &amp; PIP displays Component.</li> <li>13. RS-232 commands :             <ol style="list-style-type: none"> <li>a. Wide screen mode selection (0xd9) command : Will change to "Component" input from VGA input wrongly after sending 0xd9 command when auto source seek sets ON.</li> <li>b. No function on sending Freeze frame command 0xc6 "=".</li> <li>c. "Freeze" text will not display on screen by sending Freeze frame command 0xc6 "1".</li> </ol> </li> </ol> <p><u>New panel supported :</u></p> <ol style="list-style-type: none"> <li>14. Add Samsung ASI545FB01-0 (1920x1080) OLED panel timing (SW3 position 1-8 : OFF-ON-ON-ON-OFF-OFF-OFF-ON, SW4 position 1-6 : OFF-OFF-ON-OFF-OFF-OFF). This panel timing is turned off the Spread Spectrum and do not transmit the H-Sync &amp; V-Sync signal to the panel.</li> <li>15. Add Hitachi TX48D02VM0BAA (1680x1050) panel support (SW3 position 1-8 : OFF-OFF-ON-ON-ON-ON-OFF, SW4 position 1-6 : OFF- OFF-ON-ON-OFF-OFF)</li> </ol> <p><b>Bare PCB: 017470002-3; P/N 417470024-3</b></p> <p>BIOS: U25, V 1.22.00.00 (Flash MX25L3206E)(changed)          U56, V2.20.20 (EPM30128ATC100) (no changed)          U44, V6.06.0.0 (PIC32F675F512L)(no changed)          U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(no changed)</p>	<p>ECN# 870689603</p>
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<p>27 April 2017</p>	<p>24 to 25</p>	<p><b>Release new firmware V1.26.00.00 on U25 :</b> - Change details please refer to 417470032-3</p> <p><b>Bare PCB: 017470002-3; P/N 417470025-3</b> BIOS: U25, V 1.26.00.00 (Flash MX25L3206E)(changed) U56, V2.20.20 (EPM30128ATC100) (no changed) U44, V6.06.0.0 (PIC32F675F512L)(no changed) U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(no changed)</p>	<p>ECN# 870689645</p>
<p>16 November 2015</p>	<p>2x to 30</p>	<p><b>Use new PCB 017470003-3</b></p> <p><b>Hardware change :</b> (1) Fixed PCB rework for V1 which is the variable resistor for adjusting the voltage being sensed by ambient light sensor on IP-60. (2) Change to use black color VGA connector on P1</p> <p><b>Firmware changed :</b> - U56 (CPLD) changed to V2.30.30 version.</p> <p><b>Bare PCB: 017470003-3; P/N 417470030-3</b> BIOS: U25, V 1.16.00.00 (Flash MX25L3206E)(no changed) U56, V2.30.30 (EPM30128ATC100) (changed) U44, V6.06.0.0 (PIC32F675F512L)(no changed) U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(no changed)</p>	<p>ECN# 870689536</p>

<p>3 August 2016</p>	<p>30 to 31</p>	<p><b>Release new firmware V1.22.00.00 on U25 :</b></p> <p><u>Features added :</u></p> <ol style="list-style-type: none"> <li>1. Added Standard Gamma Selection (0.6 ~ 2.6) support on OSD menu and RS-232 command.</li> <li>2. Support "Resolution default by EDID" for different resolution panel. The controller will set the preferred timing based off the dip switch setting selection, but also be able to go higher to 1920x1200. For example, if the panel is a 1024x768 and the dip switch setting are set for 1024x768. The preferred EDID resolution should be 1024x768. It should also have the capability to set the max resolution to 1920x1200.</li> <li>3. Support External audio board and enable SPDIF function.</li> <li>4. Support monochrome mode for Red, Green, Blue on OSD menu and RS-232 command control.</li> </ol> <p><u>Bug fixed :</u></p> <ol style="list-style-type: none"> <li>5. Fix "Set Uart 1 Input Port" &gt; "Uart 1 to CN1" function cannot be selected in the Programming mode menu.</li> <li>6. Fixed zoom function bug :             <ol style="list-style-type: none"> <li>a. Not zooming to Center - If Zoom in the Picture one step, the Picture gets Zoomed, but also shifted to left, so there is a black strip on the right side of the Screen. Even with H-Pan = -100 there still a black strip (cannot get scrolled enough)</li> <li>b. Max zoom show 1/3 of picture distorted - If Zoom is at max, the Picture shows distortion in the top ~1/3 of the Screen, which are persistent (stay as long this zoom level is selected).</li> </ol> </li> <li>7. The "Mute" icon is wrongly displays on screen when pressing the "Mute" button on IR remote control unit and then pressing "DISPLAY" button on IR remote control unit.</li> <li>8. Anti-Image retention operation errors :             <ol style="list-style-type: none"> <li>a. Display shows distort image when run "Pixel Shift" under Anti-Image Retention function under main is HDMI and PIP is VGA when running with NEC NL160120AC27-32B panel.</li> <li>b. Wrong "Up" key select operation under "Horizontal Pan Setting" / "Vertical Pan Setting" in Anti Image Retention OSD menu page.</li> </ol> </li> <li>9. Found not display the "Freeze" text on screen when freezing the image.</li> <li>10. Display shows distort image when increasing the zoom level. The distort image still present after set back the zoom level = 0 or factory defaults when input is HDMI/DVI/DP .</li> <li>11. Display shows distort image after increasing and then resume back the Zoom level at HDMI, DVI &amp; DP input mode (1920x1200 60Hz)</li> <li>12. Display two same input source image on Main and PIP by following the procedure : under PIP mode to input HDMI as main and Component as PIP --&gt; change PIP to PIP OFF --&gt; Power cycle --&gt; Change main to Component --&gt; Press "PIP" button on IR remote --&gt; Found main &amp; PIP displays Component.</li> <li>13. RS-232 commands :             <ol style="list-style-type: none"> <li>a. Wide screen mode selection (0xd9) command : Will change to "Component" input from VGA input wrongly after sending 0xd9 command when auto source seek sets ON.</li> <li>b. No function on sending Freeze frame command 0xc6 "=".</li> <li>c. "Freeze" text will not display on screen by sending Freeze frame command 0xc6 "1".</li> </ol> </li> </ol> <p><u>New panel supported :</u></p> <ol style="list-style-type: none"> <li>14. Add Samsung ASI545FB01-0 (1920x1080) OLED panel timing (SW3 position 1-8 : OFF-ON-ON-ON-OFF-OFF-OFF-ON, SW4 position 1-6 : OFF-OFF-ON-OFF-OFF-OFF). This panel timing is turned off the Spread Spectrum and do not transmit the H-Sync &amp; V-Sync signal to the panel.</li> <li>15. Add Hitachi TX48D02VM0BAA (1680x1050) panel support (SW3 position 1-8 : OFF-OFF-ON-ON-ON-ON-OFF, SW4 position 1-6 : OFF- OFF-ON-ON-OFF-OFF)</li> </ol> <p><b>Bare PCB: 017470003-3; P/N 417470031-3</b></p> <p>BIOS: U25, V 1.22.00.00 (Flash MX25L3206E)(changed)          U56, V2.30.30 (EPM30128ATC100) (no changed)          U44, V6.06.0.0 (PIC32F675F512L)(no changed)          U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(no changed)</p>	<p>ECN# 870689603</p>
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<p>27 April 2017</p>	<p>31 to 32</p>	<p><b>Release new firmware V1.26.00.00 on U25 :</b>  <u>Features added :</u>          (1) Support the firmware upgrade via Digital input ports (HDMI/DVI).          (2) Support AVD-1000 via J6 connector          (3) Support dual digital PIP function.          (4) Support user EDID upgrade via RS-232 command.          (5) Add "Image Orientation" on Hotkey 1 &amp; Hotkey 2 for user to select on OSD menu and RS-232 command.          Once it selects the image orientation on hotkey 1 or hotkey 2, it will cycle through the 4 image orientation modes (Normal/Horizontal Flip/Vertical Flip/Rotate) by pressing each time of hotkey button (SEL UP/SEL DN or + / - buttons).          * Not support rotate mode when running with PIP mode or Component input.</p> <p><u>New panel supported :</u>          (6) Support Sharp LQ121S1LG81 (800x600) panel.              SW3 (position 1-8) : ON-ON-OFF-OFF-ON-OFF-ON-OFF,              SW4 (pos 1-6) : OFF-ON-ON-OFF-OFF-OFF          (7) Fine tune the panel timings for LG LM300WQ6-SLA1 to fix the rolling noise problem on screen.              SW3 (position 1-8): ON-ON-OFF-OFF-OFF-ON-OFF-ON</p> <p>Hardware change          - Running Change to use the Common mode filter with ESD protection component (SP5001-04TTG) to replace the end of life part (EMI4182MTTAG) on D1-3 and D24-32 (Total 12pcs)</p> <p><b>Bare PCB: 017470003-3; P/N 417470032-3</b>          BIOS: U25, V 1.26.00.00 (Flash MX25L3206E)(changed)                U56, V2.30.30 (EPM30128ATC100) (no changed)                U44, V6.06.0.0 (PIC32F675F512L)(no changed)                U39, U39_20150901.bin(SST25VF020)(web page of IP-60)(no changed)</p>	<p>ECN# 870689645</p>
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<p>18 May 2021</p>	<p>3x to 40</p>	<p>Using new PCB 017470004-5 version with the following changes :</p> <ul style="list-style-type: none"> <li>(1) : Change to use the DC-DC converter (TMI TMI3113D) on U28, U33 &amp; U42 with associated component to replace the end of life part (EUP3420JIR1).</li> <li>(2) : Add 10V panel power selection jumper on JA3. (Must use 24V input)</li> <li>(3) : Change to use JST B3B-XH-A compatible type connector on LED1.</li> <li>(4) : Change to use new Atmel CPLD ATF1508ASV-15AU100-T on U27 to replace EOL Altera EPM3128ATC100-10</li> <li>(5) : Add mounting hole at the center area on board.</li> </ul> <p>Firmware changed Main Scalar firmware V1.42.00.00 used on U25</p> <ul style="list-style-type: none"> <li>(6) : Support AVD-500 connect via J6 connector.</li> <li>(7) : Support AVD-2000 connect via HDMI port.</li> <li>(8) : Support 'menu/power' key for 5 button switch mount control operation :  <ul style="list-style-type: none"> <li>Uses 'MENU' button to control the soft power on/off function:</li> <li>- Power on : Press 'MENU' button</li> <li>- Power off : Hold 'MENU' button for ~5 secs.</li> <li>- And the jumper JP6 must be always closed.</li> </ul> </li> <li>(9) : Bug fix to report 0xbb 0x31 wrongly after set 'Display Input' to OFF (to disable the input source name on screen).</li> </ul> <p>CPLD - CPLD code V3.40.30 on U56 for new Atmel CPLD ATF1508ASV-15AU100-T</p> <p>IP-60 (Firmware: V6.12.0.0 &amp; Webpage: D20210514) (10) : Add direct control setting page and remove the panel wall setting page.</p> <p><b>Bare PCB: 017470004-5 Rev B; P/N 417470040-3</b>  BIOS: U25, V 1.42.00.00 (Flash MX25L3206E)(new)  U56, V3.40.30 (ATF1508ASV-15AU100-T) (new)  U44, V6.12.0.0 (PIC32F675F512L)(new)  U39, U39_20210514.bin(SST25VF020)(web page of IP-60)(new)</p>	<p>ECN# TW87068812 4</p>
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<p><b>Prepared by: DV-HK</b></p>	<p><b>Date: 18 May 2021</b></p>
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