

VG-876 Version Up history

Date	Version	Contents
2013/12/18	Ver1.40	<p>[Function add]</p> <ul style="list-style-type: none"> • In the Information, CTS Version and ROM (PROM version) is displayed. <p>[Problem fix]</p> <ul style="list-style-type: none"> • Fix the problem that when changing Bit width of HDMI, the output became abnormal.
2013/12/25	Ver1.50	<p>[Function add]</p> <ul style="list-style-type: none"> • Add HDMI Compressed audio setting. (except DSD).
2014/1/14	Ver1.51	<p>[Problem fix]</p> <ul style="list-style-type: none"> • Fix the problem that the display of SH4A)BOOT of ROM FILE Ver becomes ??? In "VG INFORMATIO (SAVE)".
2014/2/26	Ver1.62	<p>[Problem fix]</p> <ul style="list-style-type: none"> • Fix the problem of V-by-one 4-lane output and reset problem.
2014/3/14	Ver1.70	<ul style="list-style-type: none"> • DSD audio supported in VM-1876A-M0. • VM-1876A-M6 is supported. (note: VM-1876-M6 is not supported.) • Dot clock restriction of Deep color <ul style="list-style-type: none"> (1) Deep color 16bit of VM-1876A-M0 is not supported. To be upgraded. (2) Deep color 16bit of dot clock under 300MHz in VM-1876(A)-M6 is not supported. To be upgraded. (3) In VM-1876A-M6, if you select dot clock over 300MHz, Deep Color is supported up to YCbCr4:2:2 12bit. • 3D Flag of VM-1876-M2 is supported. • Internal sample program number is valid after 2000. It has SDI sample timings.
2014/3/28	Ver1.71	<p>[Function add]</p> <ul style="list-style-type: none"> • VM-1876-M6 is supported. <p>[Problem fix]</p> <ul style="list-style-type: none"> • VM-1876-M0, VM-1876(A)-M6: Problem (picture is not displayed correctly) that appeared in Deep color 16-bit in the timing under 3G is fixed. • VM-1876(A)-M6: Problem (Scrambling Enable, TMDS_bit_clock_ratio of SCDC data) that appeared in 4K Y422 output is fixed.
2014/4/25	Ver1.80	<p>[Function add]</p> <p>1)HDMI2.0 CTS TOOL license(option) and command supported.</p> <p>Notice :</p> <p>HDMI2.0 CTS TOOL is GUI in SP-8870 software(Ver.7.50 or upper).</p> <p>2)VM-1876(A)-M6(HDMI 6G board) Deep Color support.</p> <p>Notice 1:</p> <p>Display graduation when 4K(TMDS clock over 300MHz) timing format selected will be as below because of its TX device limitation :</p>

		<p>4K DeepColor 16 bit YCbCr4:4:4 = 12 bit step 4K DeepColor 10 bit YCbCr4:2:0 = 8 bit step 4K DeepColor 12 bit YCbCr4:2:0 = 8 bit step 4K DeepColor 16 bit YCbCr4:2:0 = 8 bit step 4K DeepColor 16 bit YCbCr4:2:0 = 8 bit step</p> <p>Due to this limitation, user need to select "8 bit" manually in "MENU, Configuration, General, Color Depth" setting even though the default setting is "refer program". Otherwise no signal output even 4:2:0 deep color sample program is selected.</p> <p>Notice 2: If output timing over 300MHz selected and connecting device is working as repeater, HDCP authentication will not be active. If output timing over 300MHz selected and connecting device is working as repeater, HDCP authentication will not be active.</p> <p>3)VM-1876-M2 3D flag function supported.</p> <p>[Problem fix] • Split mode bug when Dotclock Mode set Auto and ColorDepth changed. • Bug of only one frame display in Output Status when two HDMI boards installed(Eg; IF OUT1=M0, IF OUT2=M6). • Bug of HDCP fixed. Even setting set HDCP Disable in HDCP Config Execute, if same program data is set, HDCP keep ON status(only LED displays OFF). • When H SCROLL in 1BIT plane selected, irregular data displayed on right side every 128 dots step.</p>
2014/5/30	Ver1.90	<p>[Function add] 1. Add check sum data in version updata. (both FPGA and firmware) 2. VM-1876A-M6 : when any change appears in "Receiver sense", timing is re-set.</p> <p>[Problem fix] 1. VM-1876A-M6: fix problem of audio sampling frequency.</p>
2014/7/4	Ver2.00	<p>VG-876 Main board, M1(DP board) M5(SDI board), M0,AM0(HDMI), M6,AM6(HDMI 6G)</p> <p>[Function add] 1.Interval, step number in Action scroll setting increased to 5. 2.Supports VM-1876-M1(DP board)</p> <p>[Problem fix] 1.3D pattern could not change in HF-VSIF 3D Structure 2.Fixed AV reset process when Audio switched 3.HDMI CTS : Fixed below Vendor Spec. InfoFrame problems ; a)3D pattern could not change in HF-VSIF 3D Structure b)Fixed Disparity Length and Data number when Disparity version of HF-VSIF is 3. 4.HDCP/CEC/EDID All display mode fixed 5.Audio Sweep fixed</p>

		<p>6.M6 board : Made HDCP success when Depth = 0, Device = 0 set in HDCP Repeater Mode selected at over 3G timing</p> <p>7.M6 board : When CTS link mode executed and Deep Color with 3G selected, Through Mode executed and 4K/30p, 24 3D FramePack timing could not output. Fixed this problem.</p>
2014/7/18	Ver2.10	<p>VG-876 Main board, M1(DP board) M5(SDI board), M0,AM0(HDMI), M6,AM6(HDMI 6G), M7 (HDMI, HDCP2.2)</p> <p>[Function add]</p> <ol style="list-style-type: none"> 1. Support VM-1876-M7 (HDMI, HDCP2.2) 2. VM-1876A-M6: add 100ms WAIT time before executing HDCP R0 based on CTS standard. 3. VM-1876A-M6: support HDMI compressed audio (license version VT-8500-0006).
2014/8/4	Ver2.20	<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876A-M6: fix the problem that level of color difference when BT.2020 mode is selected in 4K timing was shifted. (completed) 2. Fix the problem that color was abnormal when R and B were off when limited mode of color was selected. (completed) 3. VM-1876-M7: when using HDCP2.2, fix the problem that BKSv and Bcaps were checked. 4. Variable dot clock function option is available. <p>[Function add]</p> <ol style="list-style-type: none"> 1. SP-8871 (image converter tool) option is available. 2. VM-1876-M7: display HDCP2.2 Receiver ID. 3. VM-1876-M7: display HDCP2.2 waiting time of receiving command. 4. VM-1876A-M6: when using HDCP1.1 or 1.2 and release AVMUTE, HDCP START WAIT is reflected. 5. VM-1876A-M6: stop output the timing over 6G.
2014/9/25	Ver2.40	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. VG-877 in VG Information is supported. 2. VM-1876-M5: when SDI Payload is set as OFF, all value of Payload becomes 0. When it is set as OFF, Payload can not be edit. 3. VM-1876-M5: When Mode setting of SDI Payload is set as "Refer Program", Payload can not be edit. 4. VM-1876-M5: When Mode setting of SDI Payload is set as "Manual", Payload can be edit. 5. VM-1876-M5: Change menu screen of SDI Payload. 6. VM-1876-M5: Add SDI output restriction 7. Add BT.2020 patterns

2014/10/17	Ver2.50	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. SCDC patter and its command support. 2. Correct program data. (Change AVI version from 3 to 2.) 3. VM-1876A-M6: single mode over 3G is not output now. 4. VM-1876-M5: add Hex setting of SDI Payload. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876A-M6: When Game mode is selected in Config-InfoFrame, fixed the problem that color is abnormal when changing AVI InfoFrame-Colorimetry - Extended colorimetry. 2. VM-1876A-M6: fixed the problem that it takes too long to output timing and HDCP execution after cable unplug. 3. Fixed the problem that signal is not output when changing deep color.
2014/11/10	Ver2.60	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add VM-1876-MX's Config menu, Information. 2. Add program data of SDI sample program, and change program data name.
2014/11/14	Ver2.61	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Change firmware of VM-1876-M7.
2014/12/5	Ver2.70	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. SDI audio output. 2. Custom made license for 5-split mode from V-by-One HS output. 3. SDI output setting is only available when SDI Payload - Mode is set except Refer Program. 4. Config - SDI Clock delay can not be set when SD timing is output. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M1 timing output became stable.
2015/1/9	Ver2.80	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. NAME/LIST: output bit of each interface unit is displayed with program name. 2. VM-1876-M7, M8: Modify setting process of HDCP2.2 ContentType. 3. Modify HDCP version display. 4. Modify setting process of OFF setting of SDI payload. 5. Modify SDI CheckerField pattern.
2015/2/3	Ver2.90	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add [HDCP] icon on front display when using HDCP function. 2. VM-1876A-M6: when using HDMI CTS function, 1680x720p 100Hz Deep color 16-bit output is supported. 3. APDC pattern supported. (as an option)

		<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M1 (DP): correct the symptom that DPCD of IF OUT 2 to 4 (DP3 to 8) can not be read, when several interface slots are inserted. 2. VM-1876A-M6 (HDMI 6G): fixed the symptom that Linear PCM audio is not output when selecting 4K timing Deep color 12-bit. 3. VM-1876A-M6 (HDMI 6G): correct the symptom that signal is not output when switching timings with different video format. 4. VM-1876-M1(DP): correct the symptom that unnecessary processing appears when operating DP Analysys --> I/F Check --> LT (Link Training).
2015/2/20	Ver3.00	<p>[Problem fix]</p> <p>VM-1876-M5(SDI) : correct TimeCode.</p> <p>[Function add or spec change]</p> <p>VM-1876-M8 (HDMI 6G & HDCP2.2) is supported.</p>
2015/4/20	Ver3.20	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. VM-1876-MX: Synchronizing operation of 8K/60p supported by using 2 units. 2. VM-1876A-M6, VM-1876-M8: Add output ON/OFF setting during HDCP Hot Plug negate in Config menu. 3. VM-1876A-M6: Signal output within 100ms after SCDC transmission after changing timing. 4. VM-1876-M8: Timing is programable under 3G TMDS clock. 5. VM-1876-M8: Scramble ON/OFF even under 3G TMDS clock. 6. VM-1876A-M6, VM-1876-M8: Added 4K timings in the internal sample timing(Same as SP-8870 internal sample). Operation is as below : <ol style="list-style-type: none"> a)Press "SAMPLE", "CATEGORY" keys and select "4Kx2K(for M6/M8)" and "SET". b)Select the timing from the list 7. VM-1876-M7: Support VESA timings (50, 59.94, 60Hz only) 8. VM-1876A-M0,M6,1876-M7,M8: Supports HDMI2.0a(CEA-861.3 : HDR InfoFrame setting) <p>Note : Suitable version of SP-8870 for this FW is Ver.8.80.</p>
2015/7/7	Ver3.30	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add "bit" display ON/OFF menu in Configuration. 2. Add bigger font in NAME and Character when using 4K or higher resolution. (NAME/LIST - Font: add 32x32, 64x64) 3. Bigger font is displayed when using HDCP "Collective" display. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M8: correct the symptom that output is abnormal when changing Repetition timing. 2. VM-1876-M5: correct the symptom that signal is not output from the 2nd slot. 3. VM-1876-M5: correct the symptom that the picture is not fully displayed when using Dual Link SDI.
2015/9/14	Ver3.40	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Variable Dot Clock License Option: add setting of magnification value of V-total and H-Backp. It is added to Level Key, too.

		<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876A-M6, 1876-M8: Correct the symptom that audio 3ch to 8ch output status of VM-1876A-M6 and M8 were different. 2. HDMI2.0 CTS Option: Correct the symptom that 1A-13, 1B-09 and 1B-10 were FAIL. 3. Correct the problem that appeared in 10/12/14-bit of Ramp (2H/2V) pattern. 4. Correct the display problem of the BMP pattern that is smaller than Disp size. It appeared after Ver3.10. 5. Correct and modify EDID pattern display that meets EDID 1.4.
2015/11/2	Ver3.50	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Supports ANALOG Interface Unit (VM-1876-MA). 2. HDR Ramp Pattern added. (OPT #85 to 89) 3. Increase the digit of V-sync from 2 digits to 3 digits. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. Correct simple animation function of 4K output by SDI. 2. Correct the symptom that operation became slower when several VM-1876-M2 (V-by-On) Units are installed. 3. VA-1876A-M6, VM-1876-M8: Correct the problem that the level value became abnormal when setting AVI InfoFrame - RGB Quan Range: Default ib RGB limited level mode. 4. When using Synchronization function, correct the symptom that controlling area was abnormal when video level of only Master unit is down from 1023 by using DEC key.
2015/12/11	Ver3.60	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Supports VM-1876A-M1 (DisplayPort Ver1.2a) interface and VM-1876-M9 (iTMDs) interface. 2. The font size of HDCP certification menu became bigger in case of 4K timing. 3. Dynamic Range InfoFrame of HDMI can be saved as program data. 4. The minimum setting value of Dynamic Range and mastering InfoFrame becomes 0. 5. HDMI: when output 3840x2160 30Hz,25Hz,24Hzと4096x2160 24Hz, VSI InfoFrame is used. 6. Change firmware upgrade procedure.
2015/12/18	Ver3.70	<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. Correct the function so that VSI InfoFrame and Dynamic Range InfoFrame is changed when timing is changed.
2016/1/14	Ver3.80	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add "VIC (Video Code) Category for timing selection. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. Fix the problem that VM-1876A-M6 could not version up correctly.
2016/1/27	Ver3.90	<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M8: fix the problem of 1920x1080p120Hz 12bit display.

2016/3/4	Ver4.00	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add Pattern display of Dynamic Range InfoFrame. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M8: fix the problem that Channel Status Bit was not sent correctly when changing timing from 4K to No. 1001 -1007. 2. VM-1876-M8: fix the problem that HVSI was not sent correctly when setting in 10-bit mode of Program No. 1204 3D (Frame Packing.) 3. VM-1876-M7: fix the problem that Audio InfoFrame was not upded. 4. VM-1876-M5: fix the problem of audio in the timing of 1080o59.94.
2016/4/1	Ver4.10	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Add "Group Mode Name Disp" in Config setting. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M5(SDI): Correct the value from 90 to 85 of payload when using HD Quad Link (4K square output). 2. VM-1876-M8: fix the symptom that Receiver ID display was opposite in HDCP pattern. 3. VM-1876-M8: fix the symptom that Sink device information was not displayed in SCDC when timing is changed. 4. VM-1876-M8: fix the symptom that HDMI is not output when program is changed while time-out processing is long.
2016/6/21	Ver4.20	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Option HDR pattern (license Pattern 19). <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M5(SDI): Correct the symptom that payload is not sent in LinkB when 3G-SDI LevelA is output. 2. VM-1876-MA: correct the symptom that 1080i was not output.
2016/8/24	Ver4.30	<p>[Function add or spec change]</p> <ol style="list-style-type: none"> 1. Change interval of auto edit from 999s to 9999s. 2. VM-1876A-M1: supports VESA4096x2160@60CVT and VESA4096x2160@ 59.94CVT.
2016/9/28	Ver4.40	<p>[Problem fix]</p> <p>HDMI: fix the problem that when Y4:2:0 is set and AVI Infoframe: Colorimetry: Extended Valid, Extended Color: AdobeRGB is set, the color was abnormal.</p>
2016/10/28	Ver4.50	<p>[Problem fix]</p> <ol style="list-style-type: none"> 1. VM-1876-M0: correct the symptom that HDCP does not work when receiver's power is set ON/OFF during VG's HDCP is on. 2. VM-1876A-M1: correct the symptom that noise appears when using variable dot clock function (option). 3. VM-1876A-M1: correct the symptom that the picture flickers in a moment when the power of panle is set OFF/ON. 4. Correct the symptom that the width of each level of ramp pattern is not equal when using Level key. 5. VM-1876A-M1, M2: correct the problem when connecting to 8K panel by using MX boards.

2016/11/30	Ver4.60	[Function add] 1. Add DP EDID pattern in sample pattern # 1545 to 1548. 2. Modify to display Video Data Block of EDID from 20 to 31.
2017/1/23	Ver4.70	[Function add] VM-1876-M8: add "HLG" in Dynamic Range InfoFrame as Future EOTF.
2017/6/7	Ver4.80	[Problem fix] 1. VM-1876-M8 : correct the symptom that color is abnormal in condition of 16-bit, dot clock 150.001 to 184.615MHz. 2. VM-1876-M8 : correct the symptom that signal is not output in condition of 16-bit, dot clock under 170MHz or just after power on. 3. VM-1876-MA: correct the symptom that PAL-M is not output correctly. 4. VM-1876-M0, A-M6, M7 and M8: correct the symptom that the part of audio of channel status bit is not become "other than LPCM" when executing VT-8500-0006 compressed audio. 5. VM-1876-M5: make the Fvco value becomes 148.351648MHz when outputting 593.407MHz dot clock. [Function add] 1. VM-1876-M0, A-M6, M7 and M8: Check sum option of AVI InfoFrame.
2017/9/22	Ver4.90	[Problem fix] 1. Correct the symptom that xvYCC patterns became strange when changing levels. 2. VM-1876A-M1: correct the problem of MSA V-total value when outputting interlace timings. [Function add] 1. VM-1876A-M1: supporting MST 4 streams. 2. VM-1876A-M1: supporting Audio Mute (VB-ID AudioMute_Flag control). 3. VM-1876A-M1: supporting transmission of DP Audio Infoframe and Channel Status Bit 4. VM-1876A-M1: supporting over 48kHz audio sampling freq. by L-PCM. 5. Dolby Vision license option for HDMI. 6. Supporting 2 sets synchronization of VM-1876-M8 as license option. (8K Multi for M6/M8). 7. VM-1876A-M1: supporting split mode by 2 slot boards (4-connector).
2017/12/18	Ver4.92	[Problem fix] 1. Correct the symptom that the signal became abnormal when changing patterns only.
2017/12/28	Ver5.00	[Improvement] 1. Add "GCP Set AV-MUTE" and "GCP Clear AV-MUTE" in the Custom Key2. 2. Add "GCP Set AV-MUTE" and "GCP Clear AV-MUTE" in the RB-1871 Custom Key2.
2018/1/10	Ver5.10	[Problem fix] 1. Fix the problem that sample timing list is not displayed.

2018/6/4	Ver5.20	[Problem fix] 1. VM-1876A-M1: fix the problem that the unit freezez when timing is changed occasionally.
2018/7/2	Ver5.30	[Improvement] 1. HDBaseT Interface Unit (VM-1876-MC) supported. 2. Add "HDMI EDID" in the "Category". 3. Add function to light-off the VFD and LED of keys. (Config-General-LCD brightness). 4. Add reset function of "AKE_Init". 5. Add command code for AVMute. 6. Add command code for getting HDCP certification result. 7. VM-1876-M5: add "Transfer", "Colorimetry" and "Luminance" in Payload setting. BT.2020 is selected as "UHDTV" in colorimetry. 8. Add HDR color bar in Image/OPT #95, #96 and #97. [Problem fix] 1. VM-1876A-M1: Correct the symptom that the unit freezes when changing program.
2018/7/2	Ver5.40	[Problem fix] Correct the symptom that the program that was made based on VG-870B (e.g. VG-8500-0006) were not output correctly.
2018/9/13	Ver5.50	[Problem fix] VM-1876-M2: correct the symptom that CH2 does not output anything in specific boards.
2019/3/22	Ver5.60	[Problem fix] 1. VM-1876A-M1 : stop link training when booting-up. 2. VM-1876-M2: correct the problem of Lane swapping.
2019/3/22	Ver5.70	[Problem fix] 1. VM-1876A-M1 : correct the symptom that vide is not output.
2019/6/5	Ver5.80	[Problem fix] 1. VM-1876-M2: correct the situation that CH3 and 4 output abnormally.
2019/12/23	Ver5.90	[Problem fix] 1. VM-1876-MC: correct the symptom that 480p60Hz, 720p60Hz 10-bit were not output.

2020/9/28	Ver6.00	<p>[Improvement]</p> <ol style="list-style-type: none"> 1. VM-1876-M9: add HS production parameter and group setting. 2. HDMI : add VT-8500-0021 (MPEG-4 AAC) option license 3. General : EDID HF - EEODB supported. 4. SP-8870-BM (Konica Minolta CS-2000 measuring software) (option). 5. Change HDCP2.2 to HDCP2.3. <p>[Problem fix]</p> <ol style="list-style-type: none"> 1. HDMI: correct the setting problem of Audio InfoFrame - Speaker Mast - Channel Index 2. General: in the EDID display, correct the symptom that irrelevant numbers were displayed when HF-VSDB length =8.
-----------	---------	--