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NV8500 v3.7.0
Release Notes

Overview

ECO 19288 releases NV8500 router applications and firmware that update control cards and IOXM[1] cards. The version assigned to this release is 3.7.0 and its build number is 3165.

This release addresses the following major issues:

Major Changes

- The third party protocols were restored to the RF file, after having been removed in the 3.5.2 release.
- MRC can now enable or disable "effective status."
- [NV8500-1187] Added to MRC (1) configuration of crosspoint priority and (2) remote control of the redundant crosspoint.
- [NV8500-1186] Added automatic fail-over to the redundant crosspoint.
- [NV8500-805] Reference identification added to the APP and to MRC.

Bugs Fixed

- [NV8500-1666] Fixed pass-through shuffle ports "Get Changes" zero-based bug.
- [NV8500-1645] Update of I/O cards in an NV8144 frame caused redundant crosspoint fail-overs.
- [NV8500-1629] Automatic redundant crosspoint fail-over was not working correctly in the NV8576-Plus expanded frame. The redundant crosspoint took over only for crosspoints 1 and 2. It ignored crosspoints 3, 4, 7, 8, 9, and 10.
- [NV8500-1621] NV8500 hybrid v3.6.0 was "statusing" stereo routes in NP0016 as mono routes.
- [NV8500-1617] iControl Solo showed a 'Reference Mismatch' alarm when frame sync is turned off.
- [NV8500-1608] Crackling (noise) was present on MADI input audio on the EM0814 board.
- [NV8500-1606] The frame sync card reported nonexistent signals in IOXM II reports.
- [NV8500-1573] MADI input card failed with 56-channel MADI input under v3.5.2 firmware.
- [NV8500-1530] The frame sync card did not work in the bottom half of an NV8576.
- [NV8500-1442] EM0903-00 card did not boot properly.

Known Issues

Some of these issues will be resolved in the next general release.

- [NV8500-1314] Embedded Dolby E occasionally leaves router delayed by 8–15 lines.

   The problem has been found in:

   > 3Gig SDI EMB 16 COAX OUT
   > 3Gig SDI DEM/EMB 16 COAX OUT

   and has *not* been found in:

   > 3Gig SDI HYBRID 16 COAX OUT
   > 3Gig COAX 16 SDI / 2 TDM OUT
   > Standard output cards of course

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1. IOXM is shorthand for Input, Output, Xpt, Monitor and essentially means any NV8500 card that can be read by a control card, in other words any card but a control card. However, the term IOXM does not (yet) apply to standard NV8500 cards.

- [NV8500-1208] There are video glitches when a take is done between the Main and Expansion frames.
- [NV8500-1037] There are switching problems in a NV8576 expanded router when using an HRC288 (hybrid redundant crosspoint).

The port numbering in iControl was "off-by-1" for the lower bays of NV8576 and NV8576-Plus routers. This problem has been fixed.

Reference type reporting, in iControl, was wrong. This problem has been fixed.

MRC Changes

- [NV8500-1187] Added to MRC (1) configuration of crosspoint priority and (2) remote control of the redundant crosspoint. This is related to Jira NV8500-1186, that added automatic fail-over to the redundant crosspoint.
- MRC can now enable or disable "effective status." [NV8500-1488 and others]
- [NV8500-805] Reference identification added to the APP and to MRC.
- [NV8500-1317] The frame sync card now reports through IOXM II status reporting.

Requirements

The upgrade has certain requirements.

- A PC running MRC (version 3.7.0 or later). This version of MRC has been used for all testing.
- One or two EM0833 control cards for each router frame you intend to upgrade. (These cards are probably already in use at the site.)
- A boot ROM (IC), with SV1038-05A code, only for EM0833-20 control cards.
- All the firmware files available (on a memory stick or other suitable medium).
  `NV8500_HYB_FW_3.7.0.3165.RF`   This is SV1052-52 (A1) of EM0833 firmware.

Firmware Notes

The following notes list the changes and bug fixes.

SV0872-12 build 00

File Names

SV0872-1200.bin, .bit, .mcs

Supported Assemblies

EM0663-00

Key Features, Additions, or Changes for this Release

Fix incompatibility with IOXM II output cards.

NV8500 v3.7.0 Release Notes

SV1052-52 Rev A

NV85000 hybrid firmware

This is NV8500_HYB_FW_3.7.0.3165.RF - EM0833 Firmware - October 24, 2014; Version: 3.7.0.3165

Length	Date	Time	DevType	NamePart#	Version
53633	10/23/14	10:43am	BOOT	BIN/BOOT	SV0000-00A EM0833Boot Oct 23 2014 08:58:10
839351	10/23/14	10:43am	APP0	BIN/APP0	SV0000-00A EM0833App Oct 23 2014 08:57:54
2969683	05/19/14	5:10pm	PLD0	PLD/PLD0	SV1033-15A EM0833PLD 8500 Frames, REL 12/19/13
3072085	10/14/14	7:10pm	PLD1	PLD/PLD1	SV1072-17A EM0833PLD 8500 Frames, REL 10/10/14
0	05/19/14	5:10pm	CPLD	SV105500A	SV1055-00A
0	05/19/14	5:10pm	CPLD1	SV105501	SV1055-01A
170997	10/23/14	10:43am	MTRX0	BIN/MTRX0	SV0000-00A EM0833Mtrx8144 Oct 23 2014 08:58:24
168174	10/23/14	10:43am	MTRX1	BIN/MTRX1	SV0000-00A EM0833Mtrx8280 Oct 23 2014 08:58:30
168838	10/23/14	10:43am	MTRX3	BIN/MTRX3	SV0000-00A EM0833Mtrx8576 Oct 23 2014 08:58:36
168904	10/23/14	10:43am	MTRX4	BIN/MTRX4	SV0000-00A EM0833Mtrx8576Plus Oct 23 2014 08:58:41
167086	10/23/14	10:43am	MTRX5	BIN/MTRX5	SV0000-00A EM0833Mtrx8140 Oct 23 2014 08:58:18
27745	10/23/14	10:43am	PROT0	BIN/PROT0	SV0000-00A EM0833ProtBTS Oct 23 2014 08:59:06
16957	10/23/14	10:43am	PROT2	BIN/PROT2	SV0000-00A EM0833ProtProbel Oct 23 201408:59:18
22255	10/23/14	10:43am	PROT5	BIN/PROT5	SV0000-00A EM0833ProtLeitch Oct 23 201408:59:08
2330470	10/23/14	10:43am	OS	BIN/OS	SV0000-00A EM0833OS Oct 23 2014 08:58:47
4006296	06/12/14	11:23am	IOXM0	SV0984-1301	EM0814, SV0984-13, Build: 1, "NV8500 3Gig SDI DEM 8 COAX IN"
5103005	05/20/14	5:58pm	IOXM1	SV0985-0600	EM0817, SV0985-06, Build: 0, "NV8500 288x288 3Gig XPT HYBRID"
7799500	05/19/14	5:09pm	IOXM2	MRC_SV1036-2000	EM0815, SV1036-20, Build: 0, "NV8500 3Gig SDI EMB 16 COAX OUT"
7769204	05/19/14	5:09pm	IOXM3	MRC_SV1056-1800	EM0815, SV1056-18, Build: 0, "NV8500 3Gig COAX 16SDI/2TDM OUT"
4010928	07/11/14	12:30pm	IOXM4	SV1015-1403	EM0814, SV1015-14, Build: 3, "NV8500 3Gig COAX 8SDI/1TDM IN"
4529126	05/20/14	5:58pm	IOXM5	SV1004-0700	EM0819, SV1004-07, Build: 0, "NV8500 144x144 3Gig XPT HYBRID"
232020	05/19/14	5:09pm	IOXM6	SV0825-1400	EM0785, SV0825-14, Build: 0, "NV8500 3Gig SDI 18 COAX OUT"
235176	05/19/14	5:10pm	IOXM7	SV0824-1401_EM0783	EM0783, SV0824-14, Build: 1, "NV8500 3Gig SDI 9 COAX IN"
235840	05/19/14	5:09pm	IOXM8	SV0854-1301	EM0662, SV0854-13, Build: 1, "NV8500 288x288 3Gig XPT STD"
235860	05/19/14	5:09pm	IOXM9	SV0975-1100	EM0678, SV0975-11, Build: 0, "NV8500 144x144 3Gig RED XPT STD"

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210600   05/20/14  5:58pm    IOXM10  SV0917-2200_EM0799  EM0799, SV0917-22, Build: 0,
                                                          "NV8500 144x144 3Gig XPT STD"
210600   05/20/14  5:58pm    IOXM11  SV0917-2200_EM0894  EM0894, SV0917-22, Build: 0,
                                                          "NV8500 144x144 3Gig XPT STD"
210600   05/19/14  5:09pm    IOXM12  SV0917-2200_EM0895  EM0895, SV0917-22, Build: 0,
                                                          "NV8140 144x144 3Gig RED XPT STD"
229372   05/19/14  5:09pm    IOXM13  SV0935-1100         EM0676, SV0935-11, Build: 0,
                                                          "NV8500 288x288 3Gig RED XPT STD"
236232   05/19/14  5:09pm    IOXM14  SV0960-1400_EM0783  EM0783, SV0960-14, Build: 0,
                                                          "NV8144 3Gig SDI 9 COAX IN"
235840   05/19/14  5:09pm    IOXM15  SV1108-1101         EM0785, SV1108-11, Build: 1,
                                                          "NV8500 HD SDI 18 COAX OUT"
231608   05/19/14  5:09pm    IOXM16  SV1110-1400_EM0783  EM0783, SV1110-14, Build: 0,
                                                          "NV8500 HD SDI 9 COAX IN"
235840   05/19/14  5:09pm    IOXM17  SV1109-1000         EM0785, SV1109-10, Build: 0,
                                                          "NV8144 HD SDI 18 COAX OUT"
207212   05/19/14  5:09pm    IOXM18  SV1111-1000         EM0783, SV1111-10, Build: 0,
                                                          "NV8144 HD SDI 9 COAX IN"
235840   05/19/14  5:09pm    IOXM19  SV0961-1000         EM0785, SV0961-10, Build: 0,
                                                          "NV8144 3Gig SDI 18 COAX OUT"
235840   05/19/14  5:09pm    IOXM20  SV0826-1200         EM0787, SV0826-12, Build: 0,
                                                          "NV8500 3Gig SDI 9 COAX OUT+EXP"
235840   05/19/14  5:10pm    IOXM21  SV1112-1000         EM0787, SV1112-10, Build: 0,
                                                          "NV8500 HD SDI 9 COAX OUT+EXP"
235840   05/19/14  5:09pm    IOXM22  SV0977-1200         EM0697, SV0977-12, Build: 0,
                                                          "NV8500 3Gig SDI 18 FIBER OUT"
235840   05/19/14  5:09pm    IOXM23  SV1113-1000         EM0692, SV1113-10, Build: 0,
                                                          "NV8500 3Gig SDI EXP FILLER OUT"
341600   05/19/14  5:09pm    IOXM24  SV0939-1100         EM0688, SV0939-11, Build: 0,
                                                          "NV8500 AES ASYNC 18 OUT"
235840   09/25/14  2:59pm    IOXM25  SV0978-1000         EM0695, SV0978-10, Build: 0,
                                                          "NV8500 3Gig SDI 9 FIBER OUT+EXP"
235840   05/19/14  5:09pm    IOXM26  SV0976-1000         EM0693, SV0976-10, Build: 0,
                                                          "NV8500 3Gig SDI 9 FIBER IN"
341600   05/19/14  5:09pm    IOXM27  SV0938-1200         EM0687, SV0938-12, Build: 0,
                                                          "NV8500 AES ASYNC 9 IN"
235840   05/19/14  5:09pm    IOXM28  SV0872-1200         EM0663, SV0872-12, Build: 0,
                                                          "NV8500 3Gig SDI 2 Monitor"
3968228  05/19/14  5:10pm    IOXM29  SV1088-0015         EM0869, SV1088-00, Build: 15,
                                                          "NV8500 3Gig XR SDI DEM 8 COAX IN"
3240140  05/19/14  5:09pm    IOXM30  SV1089-0001         EM0869, SV1089-00, Build: 1,
                                                          "NV8500 3Gig XR COAX 8SDI/1TDM IN"
6880152  05/19/14  5:09pm    IOXM31  SV1082-0800         EM0816, SV1082-08, Build: 0,
                                                          "NV8500 3Gig SDI EMB 8COAX
                                                          OUT+EXP"
6738412  05/19/14  5:10pm    IOXM32  SV1083-0800         EM0816, SV1083-08, Build: 0,
                                                          "NV8500 3Gig COAX 8SDI/1TDM
                                                          OUT+EXP"
3120264  05/19/14  5:09pm    IOXM33  SV1095-0700         EM0816, SV1095-07, Build: 0,
                                                          "NV8500 3Gig HYBRID OUT+EXP
                                                          FILLER"
5347409  05/20/14  5:58pm    IOXM34  MRC_SV1092-0100     EM0818, SV1092-01, Build: 0,
                                                          "NV8500 288x288 3Gig RED XPT
                                                          HYBRID"
423490   05/20/14  5:58pm    IOXM35  SV1094-0200         EM0818, SV1094-02, Build: 0,
                                                          "NV8500 288x288 3Gig RED XPT
                                                          HYBRID"
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 4527051  05/20/14  5:58pm   IOXM36 SV1114-0301       EM0820, SV1114-03, Build: 1,
                                                      "NV8500 144x144 3Gig RED XPT
                                                      HYBRID"
  227820  05/20/14  5:58pm   IOXM37 SV1115-0302       EM0820, SV1115-03, Build: 2,
                                                      "NV8500 144x144 3Gig RED XPT
                                                      HYBRID"
  235840  05/19/14  5:09pm   IOXM38 SV1138-0101       EM0887, SV1138-01, Build: 1,
                                                      "NV8140 3Gig SDI 18 COAX IN"
 4566094  05/20/14  5:58pm   IOXM39 SV1164-0200_EM0899 EM0899, SV1164-02, Build: 0,
                                                      "NV8500 144x144 3Gig XPT HYBRID"
 4566094  05/20/14  5:58pm   IOXM40 SV1164-0200_EM0900 EM0900, SV1164-02, Build: 0,
                                                      "NV8140 144x144 3Gig RED XPT
                                                      HYBRID"
 3996376  06/12/14  11:23am  IOXM41 SV1162-0102       EM0898, SV1162-01, Build: 2,
                                                      "NV8140 3Gig SDI DEM 18 COAX IN"
 4010928  07/11/14  12:30pm  IOXM42 SV1163-0503       EM0898, SV1163-05, Build: 3,
                                                      "NV8140 3Gig COAX 16SDI/2TDM IN"
  235840  05/19/14  5:10pm   IOXM43 SV1159-0100       EM0887, SV1159-01, Build: 0,
                                                      "NV8140 HD SDI 18 COAX IN"
  235840  05/19/14  5:09pm   IOXM44 SV1169-0100       EM0892, SV1169-01, Build: 0,
                                                      "NV8140 3Gig SDI 18 FIBER IN"
  235840  09/25/14  2:59pm   IOXM45 SV1149-0200       EM0896, SV1149-02, Build: 0,
                                                      "NV8500 288x288 3Gig XPT STD"
13756032  05/19/14  5:10pm   IOXM46 MRC_SV1126-1902   EM0878, SV1126-19, Build: 2,
                                                      "NV8500 3Gig SDI DEM/EMB 16 COAX
                                                      OUT"
  235176  05/19/14  5:10pm   IOXM47 SV0824-1401_EM0902 EM0902, SV0824-14, Build: 1,
                                                      "NV8500 3Gig SDI 9 COAX IN"
  236232  05/19/14  5:09pm   IOXM48 SV0960-1400_EM0902 EM0902, SV0960-14, Build: 0,
                                                      "NV8144 3Gig SDI 9 COAX IN"
  231608  05/19/14  5:09pm   IOXM49 SV1110-1400_EM0902 EM0902, SV1110-14, Build: 0,
                                                      "NV8500 HD SDI 9 COAX IN"
 4006296  06/12/14  11:23am  IOXM50 SV1172-0401       EM0903, SV1172-04, Build: 1,
                                                      "NV8500 3Gig SDI DEM 8 COAX IN"
 4010928  07/11/14  12:30pm  IOXM51 SV1173-0503       EM0903, SV1173-05, Build: 3,
                                                      "NV8500 3Gig COAX 8SDI/1TDM IN"
 6878208  05/19/14  5:09pm   IOXM52 SV1174-0800       EM0816, SV1174-08, Build: 0,
                                                      "NV8500 3Gig SDI DEM/EMB 8 COAX
                                                      OUT+EXP"
11128836  10/23/14  1:25pm   IOXM53 SV1123-0702       EM0886, SV1123-07, Build: 2,
                                                      "NV8500 3Gig SDI FRAMESYNC 8 COAX
                                                      IN"
  391240  05/19/14  5:09pm   IOXM54 SV1189-0100       EM0919, SV1189-01, Build: 0,
                                                      "NV8500 288x288 3Gig RED XPT STD"
  424079  05/19/14  5:09pm   IOXM55 SV1190-0100       EM0919, SV1190-01, Build: 0,
                                                      "NV8500 288x288 3Gig RED XPT STD"
 4250631  05/20/14  5:58pm   IOXM56 SV1187-0101       EM0920, SV1187-01, Build: 1,
                                                      "NV8500 144x144 3Gig RED XPT STD"
  227916  05/20/14  5:58pm   IOXM57 SV1188-0101       EM0920, SV1188-01, Build: 1,
                                                      "NV8500 144x144 3Gig RED XPT STD"
  232324  05/19/14  5:09pm   IOXM58 SV1203-0000       EM0785, SV1203-00, Build: 0,
                                                      "NV8500 3Gig SDI 16M3/2COAX OUT"
10788868  10/24/14  1:28pm   IOXM59 SV1212-0108       EM0917, SV1212-01, Build: 8,
                                                      "NV8500 10 GigE 3 ETHERNET IN"
11812868  10/24/14  1:28pm   IOXM60 SV1213-0108       EM0943, SV1213-01, Build: 8,
                                                      "NV8500 10 GigE 3 ETHERNET OUT"
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       Ø   Ø5/19/14  5:1Øpm    ROM     SV1Ø38Ø4     SV1Ø38-Ø4A EMØ833ROM Oct 1 2Ø1Ø
                                                    Ø9:37:32
       Ø   Ø5/19/14  5:1Øpm    ROM1    SV1Ø38-Ø5    SV1Ø38-Ø5A EMØ833ROM Jun 1Ø 2Ø11
                                                    11:4Ø:33
   72Ø88   Ø5/19/14  5:1Øpm    APP     MADI_APP     SV1Ø73-Ø6A Version 6.1.Ø.58
    8382   Ø5/19/14  5:1Øpm    BOOT    MADI_BOOT    SVØ77Ø-Ø1AØ Version 1.2.Ø.Ø
 1484404   Ø5/19/14  5:1Øpm    PLD     MADI_FROM_AA SV1Ø66-Ø4AØ; NV89ØØ-AA->MADI
 148496Ø   Ø8/Ø8/14  1Ø:47am   PLD     MADI_FROM_AES SV1Ø66-Ø3AØ;
                                                    NV89ØØ-AES(Coax)->MADI,
                                                    NV89ØØ-AES(Bal)->MADI
 1484404   Ø5/19/14  5:1Øpm    PLD     MADI_TO_AA   SV1Ø67-Ø5AØ; NV89ØØ-MADI->AA
 148496Ø   Ø8/Ø8/14  1Ø:47am   PLD     MADI_TO_AES  SV1Ø67-Ø3AØ;
                                                    NV89ØØ-MADI->AES(Coax),
                                                    NV89ØØ-MADI->AES(Bal)

    5342   1Ø/24/14  1:3Øpm    DB/RF.VER
```

The following frames are supported by this RF file:

NV8576
NV8280
NV8144
NV8576 Plus
NV8140

SV1015-1403

File Names

SV1015-1403.bit, .mcs

Supported Assemblies

EM0814-10

Key Features, Additions, or Changes for this Release

- Because there is no external pull-up resister on the FPGA's 'Done' pin, the configuration was changed to drive the 'Done' pin high upon completion of the configuration. This resolved the problem of hybrid input cards not configuring sometimes. (Jira NV8500-1442)
- Added support for MADI having less than 64 channels. This feature was working in SV1015-1001 and earlier versions, but was lost in SV1015-1301. (Jira NV8500-1573)
- Changed the default of the MADI equalizer from disabled to enabled, so DIP switch 4 must be in the ON position to disable the MADI equalizer (Jira NV8500-1608).
- Made the MADI SerDes parameters match the old SV1015-10 settings to more closely match that design.

Known Issues

This code has not been modified to support the newer version of the SiLabs 5324.

SV1072-17.bin

Changes from the SV1072-16.bin
- The bits that enabled the outputs of the APC2 cards needed correcting.
- Fixed a bug that caused redundant XPT failover during I/O card updates (JIRA issue NV8500-1645).

Notes
This file is for the EM0833-10 assemblies and newer.

This version of the FPGA code is NOT compatible with SV1040-07 and older Apps due to changes in the interrupt registers and address.

SV1123-0702

File Names
SV1123-0700.jic, Main_FrameSyncIn_MasterEraseHistory.sof

Supported Assemblies
EM0886-00

Key Features, Additions, or Changes for this Release
Although these are built into the FPGA, not all features may be accessible through iControl:
- This is the "Phase 3" release.
- Adds video processing in the RGB color space, but there is no RGB gamut.
- Adds ability to use 2 references, e.g. 50 Hz and 59.94 Hz, at the same time.
- Added support for several video formats.
- Added color bar generator.
- Added audio tone generators.
- Incorporates ability to support both die revisions of the SiLabs Si5324 and Si5374.
- Adds IOXM2 support.
- Fixed audio to work in the bottom half of the frame (Jira NV8500-1530). Also remapped registers so iControl detects the channels in the right order in the bottom half of the frame.
- Previous build of SV1123-05 reported incorrect temperatures through IOXM.
- Because of changes in Altera's Quartus tool, all builds of SV1123-05 cannot be loaded with the MRC firmware updating feature. Fixed these issues. Replaced Altera's flash access module with a homegrown one to avoid future issues with Altera's.
- Added "flyover" feature which improves performance during control card changeover or reference signal dropouts.
- Fixed misreporting of video formats (or reporting signals when there weren't any) through both IOXM and iControl (Jira NV8500-1606).
- Fixed issue of switching video formats on the input did not always get detected (changes were flywheel'd over) and corresponding modules did not get reset for the new format.

- Fixed issue of iContol Solo showed 'Reference Mismatch' if the frame sync was turned off (Jira NV8500-1617).

Addition for release -0700

Corrected malfunction resulting from firmware updating using new U-boot code [Jira NV8500-1697]. This prevented the processor from booting up until final FPGA configuration is completed.

Addition for release -0702

(The -0701 version was broken.)

Corrected FPGA_Loaded LED not lighting if not connected to a control card [Jira NV8500-1700].

Known Issues

- No MADI support.
- Quartus 13.1 Programmer must be used.

  Place the included file "quartus.ini" in the path of the Quartus programmer, i.e. C:\altera\13.1\qprogrammer\bin. If this file is not present the programmer will report a corrupted .jic file.

SV1163-0503

File Names

SV1163-0503.bit, .mcs

Supported Assemblies

EM0898-00

Key Features, Additions, or Changes for this Release

- Because there is no external pull-up resister on the FPGA 'Done' pin, the configuration was changed to drive the 'Done' pin high upon completion of the configuration. This resolved the problem of hybrid input cards not configuring sometimes. (Jira NV8500-1442)
- Added support for MADI having less than 64 channels. (Jira NV8500-1573)
- Made the MADI SerDes parameters match the old SV1015-10 settings to more closely match that design.

Known Issues

This code has not been modified to support the newer version of the SiLabs 5324.

SV1173-0503

File Names

SV1173-0503.bit, .mcs

Supported Assemblies

EM0903-00

Key Features, Additions, or Changes for this Release

- Because there is no external pull-up resister on the FPGA 'Done' pin, the configuration was changed to drive the 'Done' pin high upon completion of the configuration. This resolved the problem of hybrid input cards not configuring sometimes. (Jira NV8500-1442)
- Added support for MADI having less than 64 channels. (Jira NV8500-1573)
- Made the MADI SerDes parameters match the old SV1015-10 settings to more closely match that design.

Known Issues

This code has not been modified to support the newer version of the SiLabs 5324.

SV1192-020041

File Names

APC2_SD_160build0041.tar.gz,
APC2_README.txt,
APC2_160build0041.bin

Supported Assemblies

EM0886-00

Key Features, Additions, or Changes for this Release

- Fixed default IP address assignments.
- Allow updates using private builds.

SV1212-0108

File Names

SV1212-0105.jic, Main_SDIoE_Master_Erase_History.sof

Supported Assemblies

- EM0917-01,
- NV8500 IP Gateway In

Key Features, Additions, or Changes for this Release

- This is the first release of this code. The .jic file is to allow for manufacturing to have FPGA code to bring up the boards.
- Supports 3 SFP+ modules in the rear, specifically Avago AFB709R. Other modules might not work because of different requirements for EQ and pre-emphasis.
- All video output from this module to the crosspoint matrix is self-clocked. There is no frame sync.
- There is no audio disembedding.
- Version -0105 fixed *Jira NV8500-1670* — IP gateway input card reported signal presence when no signal was present.

- Version -0107 fixed *Jira NV8500-1698* — IP gateway cards would not work through the Arista switch.
- Version -0108 fixed *Jira NV8500-1700* — FPGA_Loaded LED did not light if there was no control card.

Known Issues

- Quartus 13.1 or later Programmer must be used.

  Place the included file "quartus.ini" in the path of the Quartus programmer, i.e. C:\altera\13.1\qprogrammer\bin. If this file is not present the programmer will report a corrupted .jic file.

SV1213-0105

File Names

SV1213-0105.jic, Main_SDIoE_Master_Erase_History.sof

Supported Assemblies

- EM0943-01
- NV8500 IP Gateway Out

Key Features, Additions, or Changes for this Release

- This is the first release of this code. The .jic file is to allow for manufacturing to have FPGA code to bring up the boards.
- Supports 3 SFP+ modules in the rear, specifically Avago AFB709R. Other modules might not work because of different requirements for EQ and pre-emphasis.
- All video output from this module to the crosspoint matrix is self-clocked. There is no frame sync.
- There is no audio embedding. Any audio present in the video will be passed on.
- Version -0105 fixed Jira NV8500-1665 – the IP gateway output card would not work in an NV8140.
- Version -0107 fixed *Jira NV8500-1698* – IP gateway cards would not work through the Arista switch.
- Version -0108 fixed *Jira NV8500-1700* – FPGA_Loaded LED did not light if there was no control card.

Known Issues

- Quartus 13.1 or later Programmer must be used.

  Place the included file "quartus.ini" in the path of the Quartus programmer, i.e. C:\altera\13.1\qprogrammer\bin. If this file is not present the programmer will report a corrupted .jic file.

SV1216-000125

File Names

IP_Gateway_SD_110build0125.tar.gz,
IP_Gateway_README.txt,
IP_Gateway_110build0125.bin

Supported Assemblies

EM0917-00, EM0943-00

Key Features, Additions, or Changes for this Release

First release of IP_Gateway i.MX software.

Other Changes

There were no changes in any other component.