Solid State Logic S300 Network Native Compact Broadcast Console Instruction Manual

Solid State Logic
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Contents

S300 Network Native Compact Broadcast Console

System T
V3.1.27 Console Update Instructions

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PLEASE READ ALL INSTRUCTIONS, PAY SPECIAL HEED TO SAFETY WARNINGS.
E&OE

Document Revision History

V1.0	Initial release	EA	December 2021
V1.1	Minor corrections	EA	February 2022
V1.2	PDF Export correction Member FPP Update clarification	EA	November 2022

Introduction

System T installations typically include one or many SSL surfaces, Tempest Engines, and Network I/O units. This software release comprises control surface and Network I/O Stagebox updates only; there are no firmware changes required for the Tempest Engine or HC Bridge cards. Details of Network I/O updates are documented separately in the Network IO V4.3 update package here.
Updating to V3.1.27 directly from V2.x software is not supported; a V3.0 version must be already installed first due

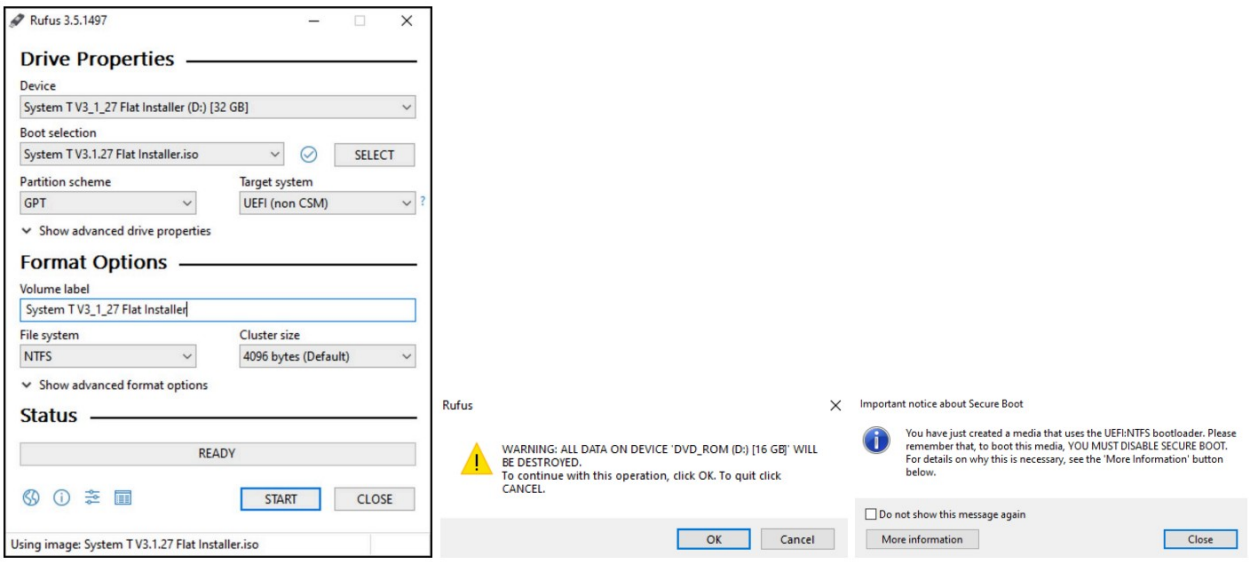
to significant changes to the console's embedded operating system. Users not already running V3.0 should contact a local SSL Support office. V3.1.27 brings further significant changes in the form of network adapter management. Refer to the V3.1.27 Features Release Notes for further information prior to installation.

Requirements

- Console running V3.x.x software
- Blank USB drive – 16GB or larger – for Flat Install image
- Additional USB drive for backing up console files
- USB Keyboard
- **System T V3.1.27 install image file**
- **Rufus V3.5** software installed on a Windows PC
- **Dante Controller**
- **Network I/O Stagebox V4.3 Package**
- WinMD5 checksum validation tool [Optional]
- TeamViewer login credentials [Optional]
- **T-SOLSA V3.1.27 Installer** [Optional]
- **Network I/O AES/SDI V2.2 Package [Optional] – no change for this release**

Create the USB Flat Installer

1. Download the software image file using the link above.
2. [Optional] Run a checksum on the downloaded file using WinMD5. The checksum value is: 7d4c72feb4236082d08f8ab964e390a1
3. Download Rufus 3.5 and run the .exe application. Select the correct iso image in Boot selection, choose the correct Device, then ensure the Partition scheme is set to GPT.
4. Enter a suitable Volume label so that the drive can be identified in future i.e. SystemT V3.1.27 Flat Installer.
5. Select Start and Confirm that you wish to erase all data on the USB drive by clicking OK. Rufus will now partition your device and copy the files. (USB2 will take approximately 40mins, USB3 5mins)
6. Once the process is complete there will be an 'Important notice about Secure Boot'. This can be ignored – press Close. The USB Flat Installer is now ready to be used.



Install Console Software

The same USB Flat Installer is used to update the Front Panel Processor (FPP) in all System T console variants as well as the Meter Bridge Processor (MBP) in S500/S500m surfaces. It is important that the control surface assemblies are updated in the order detailed below. Failure to follow this order can break communication between the FPP and MBP assemblies for example.

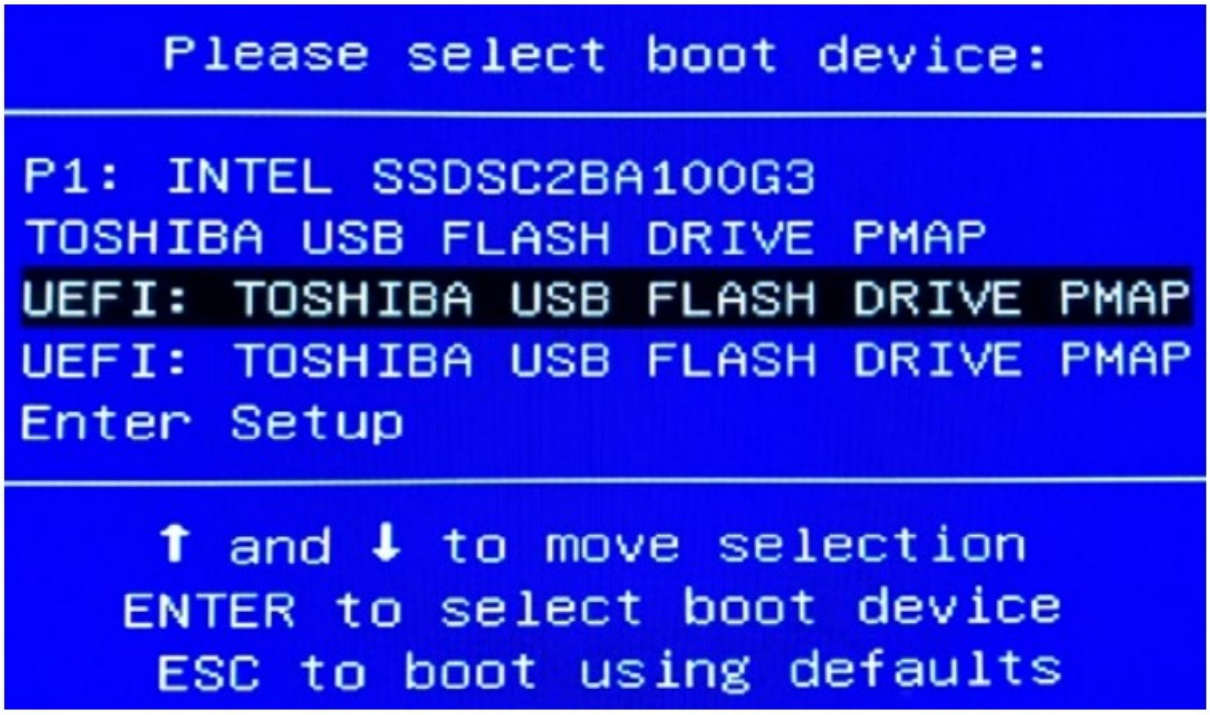
Preparation and Update Order

1. Backup of system files – insert a spare USB drive (not Flat Installer) then navigate to Menu>Setup>Service>Admin to use the Backup Data function
2. Load a blank showfile template – clears routing and relinquishes any ownership
3. Power off the console
4. Remove any external screen connections [S300 only]
5. Update Meter Bridge Processor software [S500/S500m with meter bridge]
6. Update additional Member FPPs where applicable; User 2 3 positions in larger surfaces and/or remote TCR Member surfaces etc.
7. Update main console FPP software
8. Automatic Tempest Engine OCP software updates
9. Update Control Surface tiles and assembly firmware from GUI
10. Network I/O Stagebox V4.3 Package updates
11. Other updates including T-SOLSA and TeamViewer re-installation where relevant

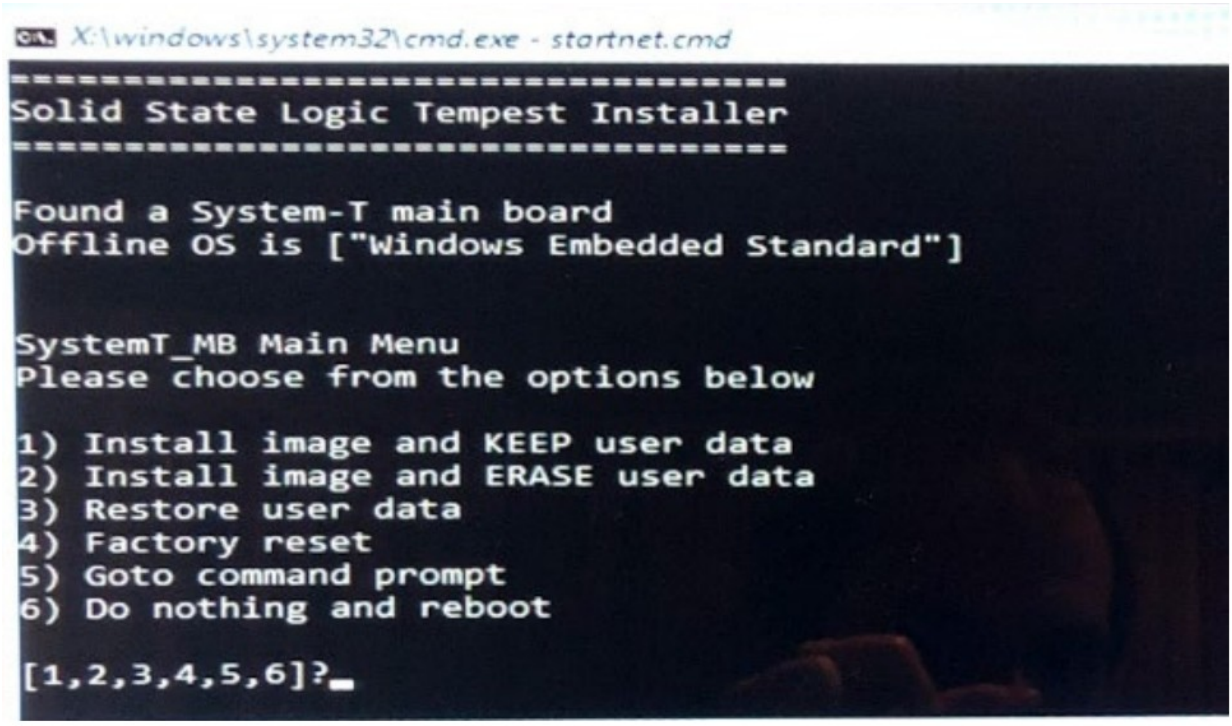
Update the Meter Bridge Processor

Applicable to S500/S500m surfaces with Meter Bridge only.

1. Insert the USB install stick and a keyboard to the MBP USB connection on the rear of the console, using an external USB hub if required.
2. Power on the console and tap F7 on the keyboard continuously to open the boot menu.
3. Use the Up/Down arrow keys on the keyboard to select the UEFI device (USB Flat Installer) then press Enter. If there are two devices listed as per screenshot below, select the upper UEFI option. The console will now boot from the USB Flat Installer.



4. The screen will appear blank for approximately two minutes while the OS installer starts. When the Command Prompt 'Solid State Logic Tempest Installer' appears, choose option 1; "Install image and KEEP user data." This retains the existing MBP configuration.



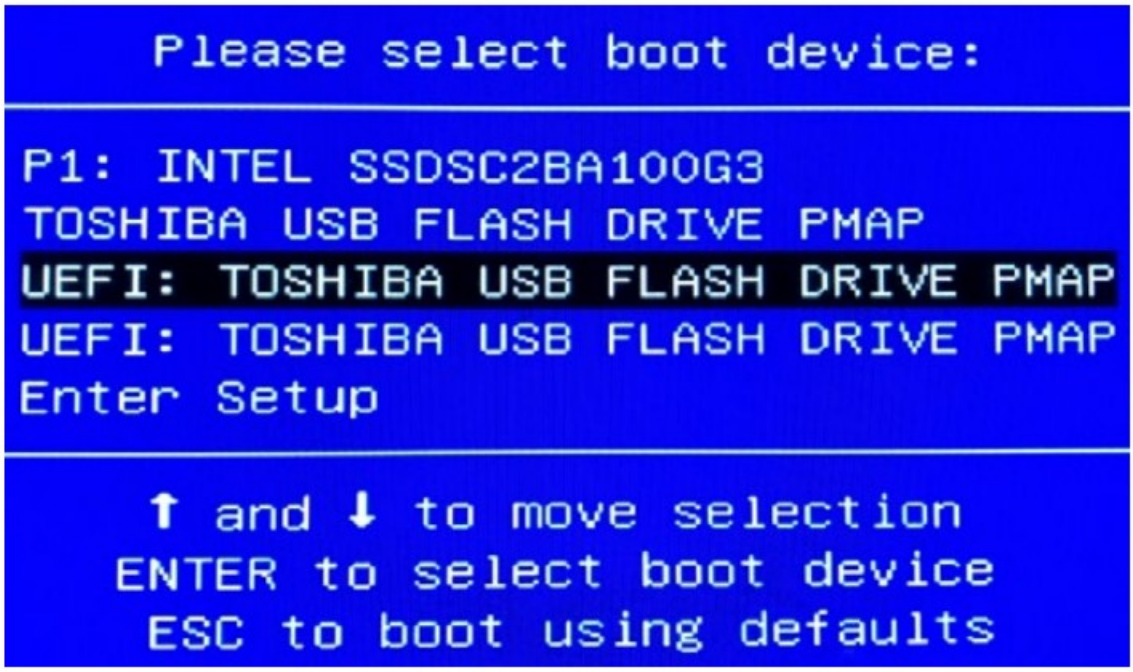
5. Progress will be shown at the bottom of the window as a percentage, taking approximately five minutes to complete. Upon completion, the message 'The operation completed successfully. Please press 1 to REBOOT.' is displayed. Follow the on-screen instruction and press number 1 on the keyboard to reboot.
6. Windows Setup will begin with various progress screens and automatic restarts during this process. Please note: It may look like the installer is not active during this time. Be patient and DO NOT power cycle the console during this process. When complete the Meter Bridge will show a blank meters layout.

Update the Front Panel Processor

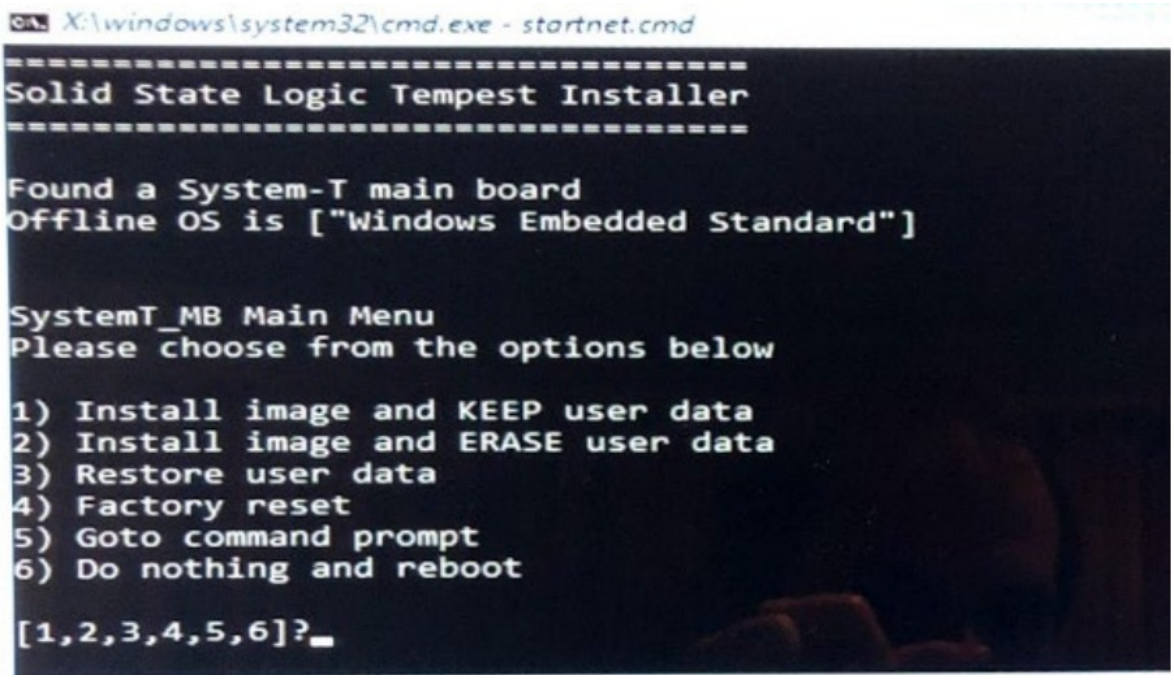
Your System T console surface may have more than one FPP for multi-operational positions or due to the large size of the surface. If you are not able to determine this, contact your local SSL Support Office. Additional FPPs in

positions 2 and 3 etc. must be updated before the host FPP in position 1. This includes any remote TCR or other console surfaces configured as Members. The update instructions are the same for each:

1. Insert the USB install stick and a keyboard to available USB ports for the intended FPP, using an external USB hub if required.
2. Power on the console and tap F7 on the keyboard continuously to open the boot menu.
3. Use the Up/Down arrow keys on the keyboard to select the UEFI device (USB Flat Installer) then press Enter. If there are two devices listed as per screenshot below, select the upper UEFI option. The console will now boot from the USB Flat Installer.



4. The screen will appear blank for approximately two minutes while the OS installer starts. When the Command Prompt 'Solid State Logic Tempest Installer' appears, choose option 1; "Install image and KEEP user data." This retains the existing FPP configuration.



5. Progress will be shown at the bottom of the window as a percentage, taking approximately five minutes to complete. Upon completion, the message 'The operation completed successfully. Please press 1 to REBOOT.' is displayed. Follow the on-screen instruction and press number 1 on the keyboard to reboot.
6. Windows Setup will begin with various progress screens and automatic restarts happen during this process.

Please note: It may look like the installer is not active during this time. Be patient and DO NOT power cycle the console during this process. When complete the console will boot into the usual Front Panel display/console GUI.

7. Navigate to the Menu>Setup>Service>Update page to confirm the Current Version for the Control Software is showing 3.1.27.49971.
8. Repeat the above steps for any other FPPs fitted to the console surface (Position 3 then position 1 FPP last for example).
9. Once the final FPP update has been completed, restart the console so that it can restore its network adapter configuration.
10. Restart the console once more so that it reads its Console Name file, visible in Menu>Setup>Options>System.

T-Engine OCP Software (automatic)

This process is automatic and will happen within three minutes of the main FPP booting into the new software. Menu>Setup>Service>Update will show 'Automatic Update Pending' next to any connected T-Engines, followed by 'Error: Connection Lost'. This is a result of code being downloaded and the T-Engine rebooting itself. Connection will re-establish itself shortly afterwards. Refer to the 'Software and Firmware Version Overview' table later in this document to confirm correct versions are shown.

Update Surface Assemblies

The Menu>Setup>Service>Update page lists all connected control surface tiles and internal card assemblies (on each FPP, if multiple fitted). Required updates are automatically prompted and can be completed in any order. Press-and-hold the active Update button to start the firmware update. The screen and surface will be locked out while the update is in progress. Control surface tiles will automatically restart and reconnect upon completion. Repeat the process for all required tiles/assemblies.

Tempest Engine I/O Card Firmware

V3.1.27 does not bring any updates to the T-Engine and/or HC Bridge cards – if the system is running V3.0.x or later these will be already be on the current versions. Confirm this is the case by referring to any listed 62D120, 62D124 and 62D151 cards in Menu>Setup>Service>Update and comparing to the Software and Firmware Version Overview table later in this document.

Please note: Should there be any cards that are not up to date, refer to the previous V3.0.x Install Notes document or contact your local SSL Support Office for further guidance.

Network I/O Updates

Check versions for all SSL Network I/O devices – see tables later in this document for versions and refer to update Network I/O update instructions that are part of the packages provided at the top of this document as required. The Stagebox V4.3 Package includes a new Network I/O Updater application that will update the SB32.24, SB16.12, A16.D16 and A32 devices.

TeamViewer Installation

If in use, TeamViewer will need to be reinstalled and configured after this update has been applied. This requires the Admin Access function to be unlocked by a four-digit access code in Menu>Setup>Service>Admin. Contact your local SSL Support Office for an access code. For full details on the installation process refer to System T Application Note 021.

T-SOLSA

Download the installer package provided at the top of this document, which includes T-SOLSA specific installation notes that should be referred to. Update any client machines that require T-SOLSA to V3.1.27 to match the console. It is not possible to connect T-SOLSA clients that are running an older version of the software.

Software Licence Agreement

Written Offer for GPL and LGPL Source Code

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Please direct all enquiries to: support@solidstatelogic.com

Software and Firmware Version Overview

Numbers in bold denote new versions for this release.
Console and Tempest Engine Software and Firmware

Control Software	2.3.19.42063	3.0.14.44294	3.0.26.46328	3.1.25.49359	3.1.27.49971
Operating System	3.283.7	10.1.19.441	10.1.22.452	10.3.4.534	10.5.2.549
T80 Tempest Engine OCP Software	2.574.01.6	3.585.02.6	3.585.04.6	3.604.02.6	3.604.02.6
T25 Tempest Engine OCP Software	2.574.01.7	3.585.02.7	3.585.04.7	3.604.02.7	3.604.02.7
TE2 Tempest Engine OCP Software				3.604.02.14	3.604.02.14
TE1 Tempest Engine OCP Software				3.604.02.25	3.604.02.25
62D120 Tempest Engine Audio Interface PCB Firmware	500865	500868	500868	500868	500868
62D124 Tempest Engine HC Link PCB Firmware	20	20	20	20	20
62D151 Tempest Engine HC Bridge.dnt software P9325121	4.1.25703	4.1.25703	4.1.25703	4.1.25703	4.1.25703
62D151 Tempest Engine HC Bridge PCB Firm	23741	23741	23741	23741	23741
S500 Tiles	25671	26014	26014	26579	26579
S300 Tiles	25508	26015	26015	26015	26015
D122 KVM	25387	25387	26432	26522	26522
TCM1	264	264	264	264	264
	259	259	259	259	259
T-SOLSA PC Software	2.3.19.42063	3.0.14.44294	3.0.26.46328	3.1.25.49359	3.1.27.49971

Other Consoles and Software (SSL testing summary)
For System T and SSL Live consoles in a shared network environment all consoles should be updated at the same time. Other software apps and tools on the network may also have dependencies. To assist with updates SSL, publish a list of versions tested alongside each console release.
Audinate manage forward and backward compatibility for Dante implementations and applications. Other

Audinate software versions will work with the console software releases, this list documents what was tested at SSL.

Tested with System T Console Control Software:	3.1.27
SSL Live Consoles	5.0.13
ipMIDI (Windows)	1.9.1
ipMIDI (OSX)	1.7.1
Audinate's Dante Controller	4.4.2.2
Audinate's Dante Firmware Update Manager 1	3.1
Audinate's Dante Domain Manager	V1.1.1.16

Network I/O Apps

System T Console Control Software	V2.3.19	V3.0.14	V3.0.26	V3.1.25	V3.1.27
Network I/O – Controller	1.10.9.41095	1.10.9.41095	1.11.6.44902	1.11.6.44902	1.11.6.44902
Network I/O – Updater	1.9.12.41291	1.10.0.42678	1.10.0.42678	1.10.6.49138	1.10.6.49138

Network I/O Devices

Console Control Software		V2.3.19	V3.0.14	V3.0.26	V3.1.25	V3.1.27
Net I/O Package		V4.0	V4.1	V4.2	V4.3	V4.3
SB8.8	Firmware	23927	23927	23927	23927	23927
	.dnt	4.1.25840	4.1.25840	4.1.25840	4.1.25840	4.1.25840

SBi16	Firmware	23927	23927	23927	23927	23927
	.dnt	4.1.25840	4.1.25840	4.1.25840	4.1.25840	4.1.25840
SB32.24	Firmware	24250	26181	26181	26621	26621
	.dnt(BkA&B)	1.4.24196	4.1.26041	4.1.26041	4.1.26041	4.1.26041
SB32.24	Firmware	25547	26181	26181	26181	26181
	.dnt(BkA&B)	4.1.25796	4.1.26041	4.1.26041	4.1.26041	4.1.26041
A16.D16	Firmware	25547	25547	25547	25547	26506
	.dnt	4.1.25796	4.1.25796	4.1.25796	4.1.25796	4.1.25796

Net/OA32	Firmware	25547	25547	25547	25547	26506
	.dnt	4.1.25796	4.1.25796	4.1.25796	4.1.25796	4.1.25796
Net/OD64	Firmware	25547	25547	25547	25547	26506
	.dnt	4.1.25796	4.1.25796	4.1.25796	4.1.25796	4.1.25796
Net/OGPIO32	Firmware	25547	25547	25547	25547	25547
	.dnt	4.1.25796	4.1.25796	4.1.25796	4.1.25796	4.1.25796

Please note: Dante firmware (.dnt) identified by product version ID.

		Version for V 2.3.19	Version for V3 .0.14	Version for V 3.0.26	Version for 3. 1.25	Version for 3.1. 27
HC Bridge	Firmware	23741	23741	23741	23741	23741
	.dnt	4.1.25703	4.1.25703	4.1.25703	4.1.25703	4.1.25703
HC Bridge SRC	Firmware	23741	23741	23741	23741	23741
	.dnt	4.1.25703	4.1.25703	4.1.25703	4.1.25703	4.1.25703
Net I/O MADI Bri dge	Front Pane l Indication	3.5.25659.24 799	3.5.25700.247 99	3.5.25700.24 799	3.5.25700.247 99	3.5.25700.247 99
	MADI Bri F irmware	24799	24799	24799	24799	24799
	.dnt	4.1.25700	4.1.25700	4.1.25700	4.1.25700	4.1.25700
SDI and AES	SDI/AES P ackage	V2.1	V2.1	V2.2	V2.2	V2.2
	Network 1 0 Manager	V2.0.0	V2.0.0	V2.0.0	V2.0.0	V2.0.0
	SDI and A ES Unit M ain	V2.1.0.3	V2.1.0.3	V2.1.0.3	V2.1.0.3	V2.1.0.3
	SDI – .dnt firmware	V1.0.0.1	V1.0.0.1	V1.0.3.1	V1.0.3.1	V1.0.3.1
	AES – .dnt firmware	V1.0.0.1	V1.0.0.1	V1.0.3.1	V1.0.3.1	V1.0.3.1
Net I/O PCIe-R	Audinate Dante PCI e driver		V1.8.0.3 Mac V1.8.0.1 PC	V1.8.0.3 Ma c V1.8.0.1 P C	V1.8.0.3 Mac V1.8.0.1 PC	V1.8.0.3 Mac V1.8.0.1 PC
	Device Fir mware and .dnt	V4.0 or later	4.0.10.5 FPG A 4.2.0.9 .dnt	4.0.10.5 FP GA 4.2.0.9 . dnt	4.0.10.5 FPG A 4.2.0.9 .dnt	4.0.10.5 FPGA 4.2.0.9 .dnt

Please note: Dante firmware (.dnt) identified by product version ID.

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Documents / Resources

	Solid State Logic S300 Network Native Compact Broadcast Console [pdf] Instruction Manual S300 Network Native Compact Broadcast Console, S300, Network Native Compact Broadcast Console, Native Compact Broadcast Console, Compact Broadcast Console, Broadcast Console, Console

References

- Solid State Logic | Leading the way in Sound
- Solid State Logic | Leading the way in Sound
- Dante Controller, Pro AV Networking Software from Audinate | AV's Leading Technology
- Dante Controller, Pro AV Networking Software from Audinate | AV's Leading Technology
- Legal | Solid State Logic
- Free Open Source Software Documentation | SSL
- WinMD5 Free - Windows MD5 Utility Freeware for Windows 7/8/10/11