



STORM 3G ELITE

Setup Guide

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Manual Explanation

- If there are any variations between the explanation in this manual and the actual application method, priority is given to the actual application method.
- The screens used as examples in this manual are those of the development stage, so they may vary from those in the final product.
- This manual is written for people who have a basic knowledge of how to use a computer. If there are no special instructions, perform the same operation as a normal computer operation.
- In this manual, Microsoft® Windows® 7 operating system is described as Windows 7 (collective term of Ultimate, Professional, Home Premium, and Home Basic).
- In this manual, Microsoft® Windows Vista® operating system is described as Windows Vista (collective term of Ultimate, Business, Home Premium, and Home Basic).
- In this manual, Microsoft® Windows® XP Professional operating system is described as Windows XP.

Revision Status

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Safety Summaries

General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

While using this product, you may need to access other parts of the system. Read the General Safety Summary in other system manuals for warnings and cautions related to operating the system.

Injury Precautions

Use Proper Power Cord

To avoid fire hazard, use only the power cord specified for this product.

Ground the Product

This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

Do Not Operate Without Covers

To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.

Do Not Operate in Wet/Damp Conditions

To avoid electric shock, do not operate this product in wet or damp conditions.

Do Not Operate in an Explosive Atmosphere

To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

Avoid Exposed Circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

Product Damage Precautions

Use Proper Power Source

Do not operate this product from a power source that applies more than the voltage specified.

Provide Proper Ventilation

To prevent product overheating, provide proper ventilation.

Do Not Operate With Suspected Failures

If you suspect there is damage to this product, have it inspected by qualified service personnel.

Safety Terms and Symbols

Terms in This Manual

These terms may appear in this manual:



WARNING: *Warning statements identify conditions or practices that can result in personal injury or loss of life.*



CAUTION: *Caution statements identify conditions or practices that may result in damage to equipment or other property, or which may cause equipment crucial to your business environment to become temporarily non-operational.*

Terms on the Product

These terms may appear on the product:

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.
WARNING indicates a personal injury hazard not immediately accessible as you read the marking.
CAUTION indicates a hazard to property including the product.

Symbols on the Product

The following symbols may appear on the product:



DANGER high voltage



Protective ground (earth) terminal



ATTENTION – refer to manual

Service Safety Summary



WARNING: *The service instructions in this manual are intended for use by qualified service personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries before performing service.*

Do Not Service Alone

Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power

To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

Use Care When Servicing With Power On

Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

Certifications and Compliances

Canadian Certified Power Cords

Products that are relocated to other countries should use nationally certified power cords and plugs to ensure safe operation of the product.

FCC Emission Control

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by Grass Valley can affect emission compliance and could void the user's authority to operate this equipment.

Canadian EMC Notice of Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This product must not be used in residential areas.

EMC Directive

Class A Warning

This product must not be used in residential areas.

FCC Emission Limits

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

Warranty

This product is covered by a limited warranty when you register your Grass Valley product. This warranty is for a period of one year (or two years in European Union countries) from the date of purchase from Grass Valley or an authorized Grass Valley agent. This warranty applies only to the original purchaser of the Grass Valley product and is not transferable. Grass Valley warrants that for this period the product will be in good working order. Should our product fail to be in good working order, Grass Valley will, at its option, repair or replace it at no additional charge, provided that the product has not been subjected to misuse, abuse or non-Grass Valley authorized alternations, modifications and/or repair. Proof of purchase is required to validate your warranty.

Grass Valley is not responsible for any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, this product. This includes damage to property and, to the extent permitted by law, damages for personal injury. This warranty is in lieu of all other warranties of merchantability and fitness for a particular purpose.

Résumé des mesures de sécurité

Résumé des mesures de sécurité générales

Consultez les mesures de sécurité suivantes afin d'éviter toute blessure corporelle et dommage au produit, et pour tous les produits qui y sont connectés. Lors de l'utilisation de ce produit, il est possible que vous ayez à accéder à d'autres parties du système. Consultez le Résumé des mesures de sécurité générales du manuel des autres systèmes pour prendre connaissance des mises en garde et des avertissements relatifs à leur utilisation.

Précautions relatives aux blessures

Utiliser un cordon d'alimentation approprié

Afin d'éviter un risque d'incendie, utilisez uniquement le cordon d'alimentation spécifié pour ce produit.

Mettre le produit à la terre

Ce produit est mis à la terre au moyen du conducteur de terre du cordon d'alimentation. Afin d'éviter un choc électrique, le conducteur de terre doit être connecté à la terre. Avant de procéder à d'autres connexions aux terminaux entrants et sortants du produit, assurez-vous qu'il est mis à la terre de façon adéquate.

Ne pas faire fonctionner le produit sans couvercle

Afin d'éviter un choc électrique ou un risque d'incendie, ne faites pas fonctionner ce produit lorsque que les couvercles ou les panneaux sont retirés.

Ne pas faire fonctionner le produit dans des conditions humides

Afin d'éviter un choc électrique, ne faites pas fonctionner ce produit dans des conditions humides.

Ne pas faire fonctionner le produit dans une atmosphère explosive

Afin d'éviter une blessure corporelle ou un risque d'incendie, ne faites pas fonctionner ce produit dans une atmosphère explosive.

Éviter les circuits à nu

Afin d'éviter une blessure corporelle, retirez tous vos bijoux, tels que bagues, montres et autres objets métalliques. Ne touchez pas les connexions ni les composants à nu lorsque l'appareil est sous tension.

Précautions relatives aux dommages au produit

Utiliser une source d'alimentation appropriée

Ne faites pas fonctionner ce produit avec une source d'alimentation qui applique une tension supérieure à celle spécifiée.

Prévoir une ventilation adéquate

Afin d'empêcher une surchauffe du produit, prévoyez une ventilation adéquate.

Ne pas faire fonctionner le produit en cas de soupçons de panne

Si vous remarquez que ce produit est endommagé, faites-le examiner par un personnel d'entretien qualifié.

Termes et symboles de sécurité

Termes utilisés dans ce manuel

Les termes suivants peuvent apparaître dans ce manuel :



MISE EN GARDE: Les indications de mise en garde identifient des conditions ou des pratiques qui peuvent provoquer des blessures corporelles ou le décès.



AVERTISSEMENT: Les indications d'avertissement identifient des conditions ou des pratiques qui peuvent provoquer des dommages à l'équipement ou à d'autres biens, ou qui peuvent rendre temporairement non opérationnel un équipement indispensable à l'environnement de votre activité.

Termes relatifs au produit

Les termes suivants peuvent apparaître sur le produit :
DANGER indique un risque de blessure corporelle immédiatement accessible lors de la lecture de l'inscription.

MISE EN GARDE indique un risque de blessure corporelle non immédiatement accessible lors de la lecture de l'inscription.

AVERTISSEMENT indique un risque relatif aux biens, y compris le produit.

Symboles sur le produit

Les symboles suivants peuvent apparaître sur le produit :



DANGER haute tension



Prise de mise à la masse (terre)



ATTENTION – consultez le manuel

Résumé des mesures de sécurité d'entretien



MISE EN GARDE: Les instructions d'entretien de ce manuel sont destinées uniquement à du personnel d'entretien qualifié. Afin d'éviter toute blessure corporelle, ne procédez à aucun entretien à moins de posséder les qualifications requises. Consultez tous les résumés des mesures de sécurité avant de procéder à l'entretien.

Ne pas procéder seul à l'entretien

Ne procédez pas à un entretien ou à un ajustement interne de ce produit à moins qu'une autre personne en mesure de prodiguer les premiers soins ou une réanimation ne soit présente.

Débrancher l'alimentation

Afin d'éviter un choc électrique, coupez l'alimentation principale au moyen du cordon d'alimentation ou, le cas échéant, de l'interrupteur d'alimentation.

Faire preuve de prudence lors de l'entretien lorsque l'appareil est sous tension

Ce produit peut être le cadre de tensions et d'intensités dangereuses. Débranchez l'alimentation et retirez la pile (le cas échéant) avant de retirer les panneaux de protection, de procéder à une soudure ou de remplacer des composants.

Afin d'éviter un choc électrique, ne touchez pas les connexions à nu.

Certifications et conformités

Cordons d'alimentation certifiés pour le Canada

Les produits délocalisés dans d'autres pays doivent utiliser des cordons d'alimentation et des fiches certifiés pour assurer une utilisation en toute sécurité du produit.

Contrôle d'émission du FCC

Le présent équipement a été testé et approuvé comme répondant aux normes des dispositifs numériques de classe A, conformément à la Partie 15 des règlements du FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les brouillages préjudiciables dans un environnement commercial. Cet appareil produit, utilise et peut dégager de l'énergie radioélectrique et, s'il n'est pas installé et utilisé selon les instructions, il peut être la source d'interférences gênantes pour les communications radio. L'utilisation de cet appareil dans une zone résidentielle peut également causer des interférences gênantes, auquel cas l'utilisateur s'engage à mettre fin à ces interférences à ses frais. Les changements et modifications non expressément approuvés par Grass Valley peuvent influencer sur la conformité des émissions et pourraient annuler l'autorisation de l'utilisateur à utiliser cet appareil.

Avis de conformité de la CEM pour le Canada

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada. Ce produit ne doit pas être utilisé dans des zones résidentielles.

Directive CEM

Avertissement relatif à la classe A

Ce produit ne doit pas être utilisé dans des zones résidentielles.

Limites d'émission du FCC

Cet appareil est conforme à la partie 15 des règlements du FCC. Son utilisation est soumise aux deux conditions suivantes : (1) Cet appareil ne doit pas provoquer d'interférences nuisibles, et (2) cet appareil doit tolérer toute interférence reçue, y compris des interférences qui pourraient provoquer un fonctionnement indésirable.

Garantie

Ce produit est couvert par une garantie limitée lors de l'enregistrement de votre produit Grass Valley. Cette garantie est valide pour une période d'un an (ou de deux ans dans les pays de l'Union européenne) à partir de la date d'achat de Grass Valley ou un agent autorisé de Grass Valley. Cette garantie ne s'applique qu'à l'acheteur initial du produit Grass Valley et elle ne peut être transférée. Grass Valley garantit le bon fonctionnement du produit pendant la période indiquée. Grass Valley s'engage à réparer ou remplacer le produit, sans frais supplémentaires, si le produit venait à présenter un défaut de fonctionnement qui ne soit pas le résultat d'une mauvaise manipulation, d'un abus ou de toute opération, modification ou réparation non autorisées par Grass Valley. La garantie du produit ne peut être validée que sous présentation d'une évidence d'achat.

Grass Valley ne peut être tenu pour responsable des pertes de bénéfices, pertes d'argent ou autres dommages accessoires ou indirects résultant de l'utilisation de ce produit ou de l'impossibilité de l'utiliser. Cela inclut les dommages matériels et, dans les limites légales, les dommages corporels. Cette garantie remplace toutes les autres garanties de valeur marchande et d'adéquation à un usage particulier.

Before Using

Before Using

Operation environment

Notes

- EDIUS operation is not necessarily guaranteed even in the environments satisfying all conditions below.
- When STORM 3G Elite is connected to a laptop PC using ExpressCard, 10-bit HD format, 1080/50p, and 1080/59.94p are not available.

PC

CPU: Intel Pentium 4, Xeon, Core Duo or higher

* CPU supporting SSE2 instructions or higher is essential for operating EDIUS.

* EDIUS complies with multi-processor and hyper threading technology.

Interface

PCI Express x4 (PCI Express Spec. Revision 1.1 or later) x1

* When mounted to a desktop PC

ExpressCard/34 compatible

* When mounted to a laptop PC

Hard disk drive

6GB or larger space required for software installation.
Drive with ATA100 / 7200rpm or faster is necessary for video storage.

* RAID 0 is recommended for HD resolution editing.

* The disc space of twice as large as the size of the file to be edited is required in HDD.

Graphics

Graphics Processing Unit supporting Direct 3D 9.0c or later or PixelShader Model 3.0 or later is required.

1024 x 768pixel 32bit display or higher is available.

* Some DirectDraw overlay functions cannot be used.

Memory and Video Memory

The operating conditions of memory and video memory are as follows:

Angle of View		SD or smaller		HD or smaller		Larger than HD
depth		8bit	10bit	8bit	10bit	8bit/10bit
32bit OS		✓	✓	✓	-	-
64bit OS		✓	✓	✓	✓	✓
Memory	Minimum	1GB	2GB	2GB	4GB	4GB
	Recommended	2GB	4GB	4GB	4GB	4GB
Video Memory	Minimum	256MB	512MB	512MB	1GB	2GB
	Recommended	512MB	1GB	1GB	2GB	2GB

Sound system

Support for WDM driver is required.

Optical drive

DVD-ROM drive required for software installation

* For storage on a BD or DVD disc, a supporting drive is required.

OS

Windows 7 (32bit/64bit)

Windows Vista SP2 or later (32bit/64bit)

Windows XP SP3 or later (32bit)

Internet Explorer 8 or later

- * However, the operation in the virtual operation systems such as Virtual PC, VMWare, and Windows XP mode of Windows 7 is not guaranteed.

USB port

Two USB ports required (USB 1.1 or higher, for use of the USB key)

Miscellaneous

Availability of Internet access and e-mail address required

- * This is necessary for activation, user registration, and updating of software and receiving support.

Limitations

Following are limitations to use this product. Please also see the Readme text included in the installation DVD-ROM for the latest information.

Stand-by mode

Set stand-by mode for screen saver and monitor power supply to "OFF" when using this product.

Contacting Grass Valley

International Support Centers	France 24 x 7	+800 8080 2020 or +33 1 48 25 20 20	United States/Canada 24 x 7	+1 800 547 8949 or +1 530 478 4148
Local Support Centers (available during normal business hours)	Asia	Hong Kong, Taiwan, Korea, Macau: +852 2531 3058 Indian Subcontinent: +91 22 24933476 Southeast Asia/Malaysia: +603 7805 3884 Southeast Asia/Singapore: +65 6379 1313 China: +861 0660 159 450 Japan: +81 3 5484 6868		
	Australia and New Zealand: +61 1300 721 495			Central/South America: +55 11 5509 3443
	Middle East: +971 4 299 64 40 Near East and Africa: +800 8080 2020 or +33 1 48 25 20 20			
	Europe	Belarus, Russia, Tadjikistan, Ukraine, Uzbekistan: +7 095 2580924 225 Switzerland: +41 1 487 80 02 S. Europe/Italy-Roma: +39 06 87 20 35 28 -Milan: +39 02 48 41 46 58 S. Europe/Spain: +34 91 512 03 50 Benelux/Belgium: +32 (0) 2 334 90 30 Benelux/Netherlands: +31 (0) 35 62 38 42 1 N. Europe: +45 45 96 88 70 Germany, Austria, Eastern Europe: +49 6150 104 444 UK, Ireland, Israel: +44 118 923 0499		

Grass Valley Web Site

The <http://www.grassvalley.com> web site offers the following:

Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

FAQ Database — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

Software Downloads — Download software updates, drivers, and patches.



END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.



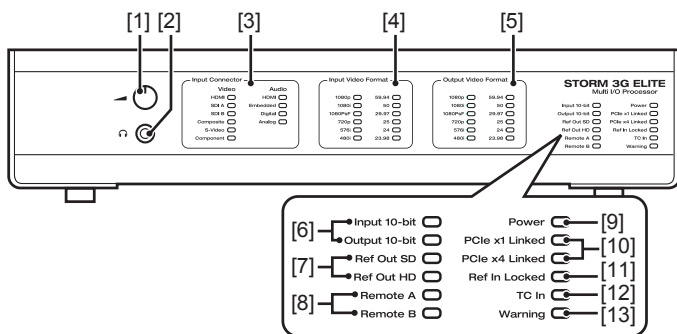
For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Americas please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.grassvalley.com/about/environmental-policy

Hardware Setting

This section describes the part names of STORM 3G Elite, the procedures for mounting STORM 3G Elite and then for installing EDIUS.

Part names

STORM 3G Elite front panel



[1] Adjusting volume for headphone level

[2] Headphone terminal

If you connect a PC and STORM 3G Elite PCI Express Expansion board using the attached USB cable, the system sound of the PC and the audio of the edited project are mixed in the USB audio of STORM 3G Elite and output.

[3] Input Connector Indicator

The indicator of the selected input connector lights.

[4] Input Video Format Indicator

The indicator of the currently input video format lights.

[5] Output Video Format Indicator

The indicator of the currently output video format lights.

[6] Input 10-bit/Output 10-bit Indicator

The indicator lights when 10-bit video format is input/output.

[7] Ref Out SD/Ref Out HD Indicator

The indicator of the format of the currently output REF signal lights.

[8] Remote A/Remote B Indicator

The indicator of the currently used remote terminal lights.

[9] Power Indicator

The indicator lights in blue when the power is on.

[10] PCIe x1 Linked/PCIe x4 Linked Indicator

The indicator lights when STORM 3G Elite is properly connected to a desktop or laptop PC.

[11] Ref In Locked Indicator

The indicator lights when the input REF signal can synchronize the currently output video format.

[12] TC In Indicator

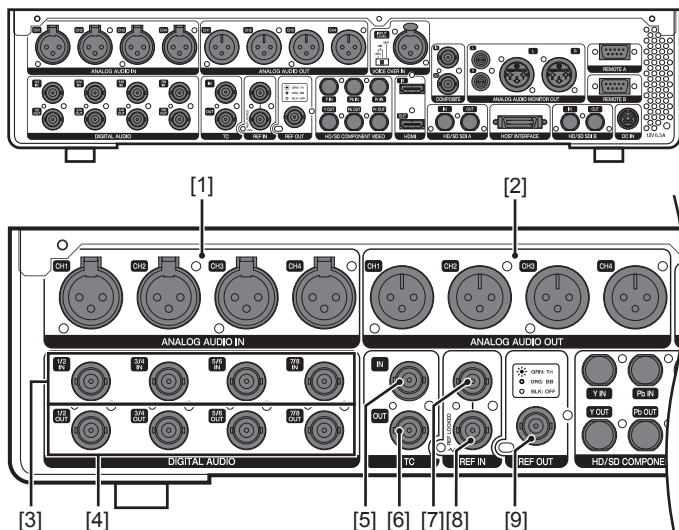
The indicator lights when an input to TC input terminal is detected.

[13] Warning Indicator

The indicator lights when updating the system. Do not turn off the PC or STORM 3G Elite while the indicator is lit.

If the indicator does not light off after a while, malfunction may have occurred. Contact Grass Valley Product Support.

STORM 3G Elite rear panel



[1] ANALOG AUDIO IN (XLR x 4)

Balanced audio input (CH1 / CH2 / CH3 / CH4).

[2] ANALOG AUDIO OUT (XLR x 4)

Balanced audio output (CH1 / CH2 / CH3 / CH4).

[3] DIGITAL AUDIO (AES/EBU) (1/2 IN / 3/4 IN / 5/6 IN / 7/8 IN) (BNC x 4)

AES/EBU audio input.

[4] DIGITAL AUDIO(AES/EBU)(1/2 OUT / 3/4 OUT / 5/6 OUT / 7/8 OUT) (BNC x 4)

AES/EBU audio output.

[5] TIME CODE IN (BNC)

LTC input.

[6] TIME CODE OUT (BNC)

LTC output.

[7] REF IN (BNC)

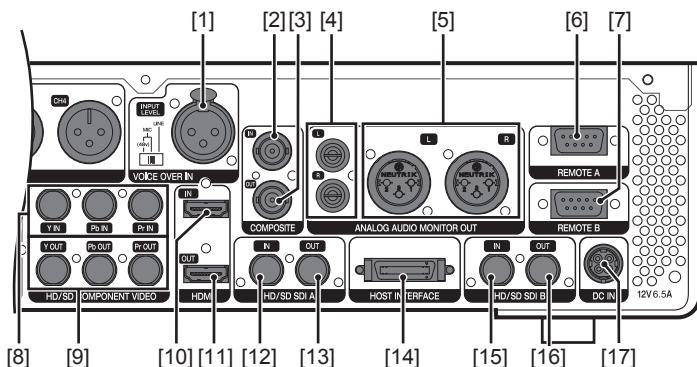
REF input.

[8] REF LOOP Through out (BNC)

REF loop through output.

[9] REF OUT (BNC)

REF SG output.



[1] VOICE OVER IN (XLR)

Voice over input with USB audio.

[2] COMPOSITE IN (BNC)

Composite input.

[3] COMPOSITE OUT (BNC)

Composite output.

[4] ANALOG AUDIO MONITOR OUT (L/R) (RCA x 2)

Unbalanced audio monitor output (stereo 1 system).

If you connect a PC and STORM 3G Elite PCI Express Expansion board using the attached USB cable, the system sound of the PC and the audio of the edited project are mixed in the USB audio of STORM 3G Elite and output.

[5] ANALOG AUDIO MONITOR OUT (L/R) (XLR x 2)

Balanced audio monitor output.

If you connect a PC and STORM 3G Elite PCI Express Expansion board using the attached USB cable, the system sound of the PC and the audio of the edited project are mixed in the USB audio of STORM 3G Elite and output.

[6] REMOTE A (D-Sub9pin)

Remote A terminal.

[7] REMOTE B (D-Sub9pin)

Remote B terminal.

[8] HD/SD COMPONENT VIDEO IN (Y / Pb / Pr) (BNC x 3)

Y/Pb/Pr input and Y/C input of HD/SD.

* To connect to S-VIDEO terminal of an external device, prepare a conversion cable and connect its Y terminal to the Pb terminal of STORM 3G Elite, and connect its C terminal to the Pr terminal of STORM 3G Elite.

[9] HD/SD COMPONENT VIDEO OUT (Y / Pb / Pr) (BNC x 3)

Y/Pb/Pr output and Y/C output of HD/SD.

* To connect to S-VIDEO terminal of an external device, prepare a conversion cable and connect its Y terminal to the Pb terminal of STORM 3G Elite, and connect its C terminal to the Pr terminal of STORM 3G Elite.

To perform S-VIDEO output from the COMPONENT VIDEO OUT terminal, see "Video Output Settings" in step 7 of "Setting a Preview Device" and configure the setting.

Video Output Settings► P73

[10] HDMI IN (TYPE A)

HDMI input.

[11] HDMI OUTPUT (TYPE A)

HDMI output.

[12] HD/SD SDI A IN (BNC)

SDI input of HD/SD.

[13] HD/SD SDI A OUT (BNC)

Independent SDI for simultaneous output of HD and SD.

[14] HOST INTERFACE

Terminal to connect STORM 3G Elite to a desktop or laptop PC, using the attached STORM 3G Elite Desktop PC connection cable or STORM 3G Elite Laptop PC connection cable.

[15] HD/SD SDI B IN (BNC)

SDI input of HD/SD.

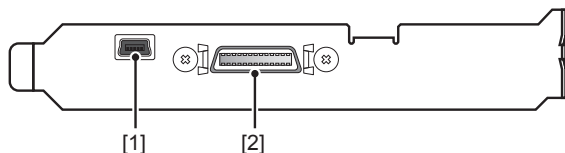
[16] HD/SD SDI B OUT (BNC)

Independent SDI for simultaneous output of HD and SD.

[17] DC IN

Terminal to connect the attached AC adapter.

STORM 3G Elite PCI Express Expansion board rear panel



Expansion board to connect STORM 3G Elite to a desktop PC.

[1] USB

USB terminal for USB audio.

Connect a PC and STORM 3G Elite PCI Express Expansion board using the attached USB cable. The system sound of the PC and the audio of the edited project are mixed in the USB audio of STORM 3G Elite and output to the Headphone terminal and the ANALOG AUDIO MONITOR OUT terminal (RCA/XLR).

[2] HOST INTERFACE

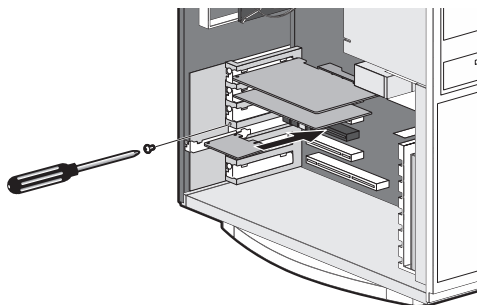
Terminal to connect STORM 3G Elite to a desktop PC, using STORM 3G Elite Desktop PC connection cable.

Connecting STORM 3G Elite

Mounting to desktop PC

Before board setting, be sure that your work area is dust-free and dry. Prepare a Philips screwdriver and an empty box for removed screws in advance. Also, be sure that your PC is turned off and that the cables (including power) are removed from the PC.

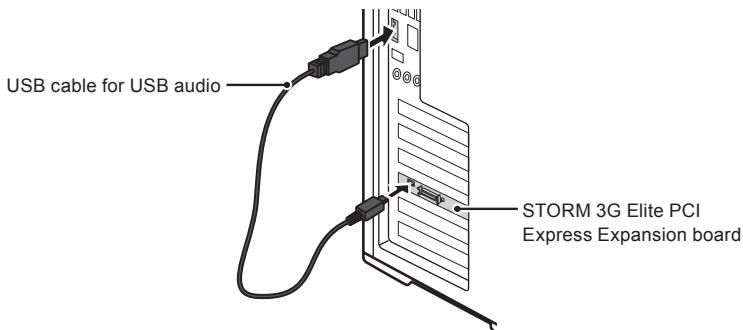
- 1 Tightly set STORM 3G Elite PCI Express Expansion board in PCI Express slot (PCI Express x4).



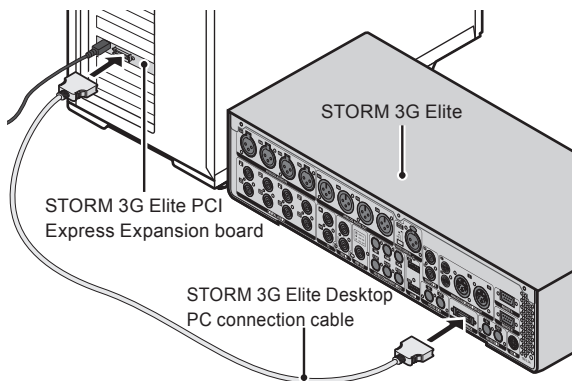
POINT

- See the instruction manual for your PC (motherboard) for the PCI Express slot type.
- When PCI Express x4 is not available, either PCI Express x8 or x16 can be used.
- The expansion board should fit in the PCI Express slot without using any force. If the board cannot be inserted fully, please do not force in or bend any parts of the board.

- 2 Use the attached USB cable to connect the USB terminal of your PC and that of STORM 3G Elite PCI Express Expansion board.



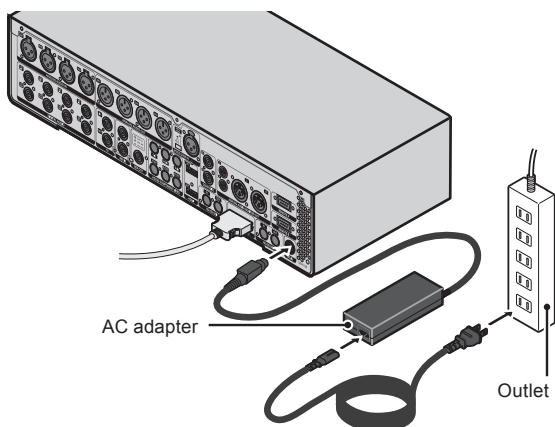
- 3 Use the attached STORM 3G Elite Desktop PC connection cable to connect STORM 3G Elite PCI Express Expansion board and STORM 3G Elite.



- 4 Connect other devices to STORM 3G Elite if necessary.

When the connection of devices has completed, close the cover of the PC.

- 5** Connect the AC adapter to the STORM 3G Elite and an outlet.



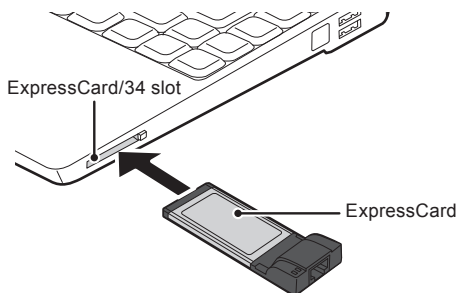
- 6** Turn on the PC.

When the PC is turned on, STORM 3G Elite is also turned on automatically. The "PCIe x4 Linked" indicator on the front panel of STORM 3G Elite lights if STORM 3G Elite is properly connected to the PC.

Mounting to laptop PC

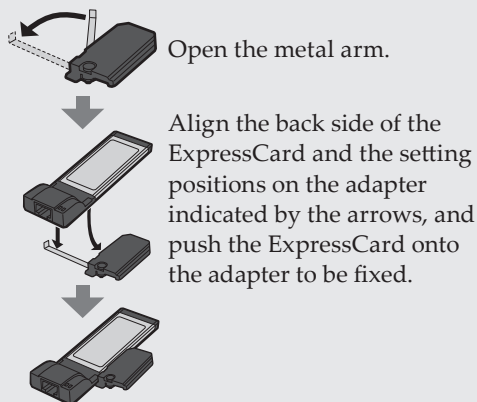
Be sure that your laptop PC is turned off and that the cables (including power) are removed from the PC.

- 1 Securely insert the attached ExpressCard to the ExpressCard/34 slot of your laptop PC.

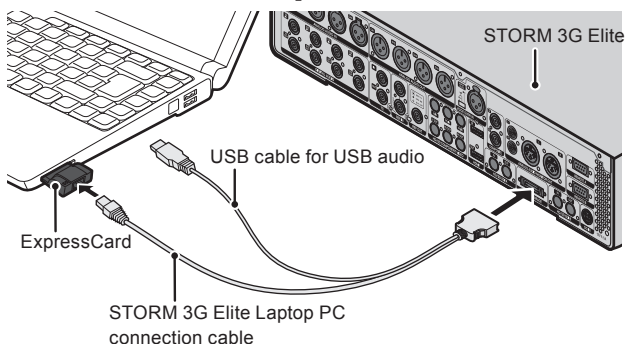


POINT

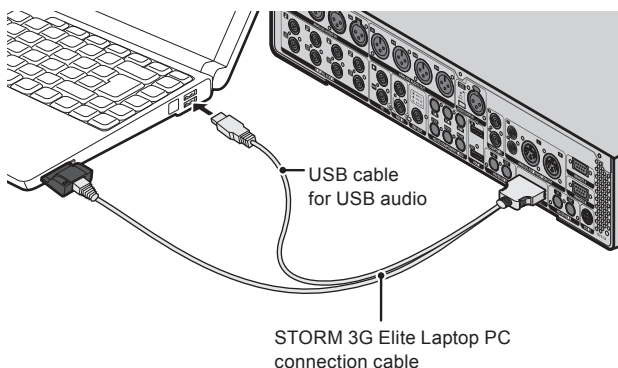
- If your laptop PC has ExpressCard/54 slot, apply the attached ExpressCard/54 slot adapter to ExpressCard and insert it to the slot of your laptop PC. The procedure to attach the ExpressCard/54 slot adapter on the ExpressCard is as follows:



- 2 Connect the HOST INTERFACE connector of the attached STORM 3G Elite Laptop PC connection cable to STORM 3G Elite, and connect the LAN cable connector to ExpressCard.

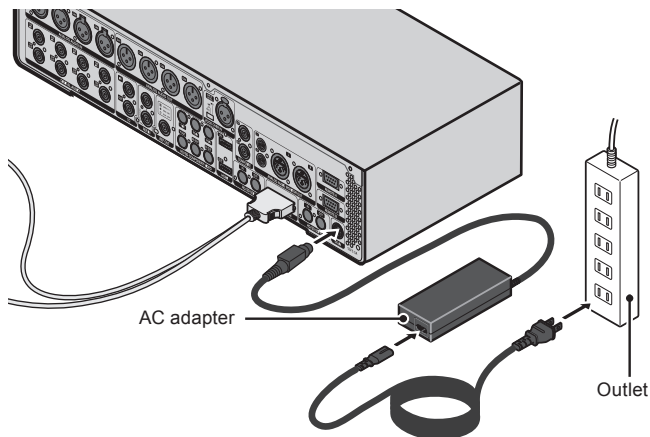


- 3 Connect the USB connector of STORM 3G Elite Laptop PC connection cable to the USB terminal of the laptop PC.



- 4 Connect other devices to STORM 3G Elite if necessary.

- 5 Connect the AC adapter to the STORM 3G Elite and an outlet.



- 6 Turn on the laptop PC.

When the laptop PC is turned on, STORM 3G Elite is also turned on automatically. The "PCIe x1 Linked" indicator on the front panel of STORM 3G Elite lights if STORM 3G Elite is properly connected to the laptop PC.

Installing EDIUS

Install EDIUS after mounting STORM 3G Elite. For details on the installation procedure, see the Installation Guide of EDIUS.

Confirmation after installation

Confirming resource (in Windows 7/Windows Vista)

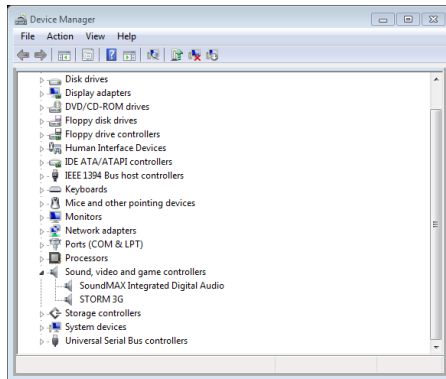
Confirm whether driver has been normally installed after restarting when driver and application software installation is finished.

1 Proceed to "Hardware and sound" from "Control Panel" of "Start" menu.

In Windows Vista, proceed to "System and Maintenance" from "Control Panel" of "Start" menu.

2 Click "Device Manager".

3 Double-click "Sound, video and game controllers".



4 Confirm the device name.

- [STORM 3G]

If you find ! or X mark at the top of device name, that means you failed installing STORM 3G Elite driver. Try installation again, check rival resource, or change board insertion position.

5 Close "Device Manager".

Checking the driver for the main board now finishes.

When resources compete

EDIUS will not operate normally if multiple devices compete or share PC resources. Try following solution.

- Remove other devices that share interrupt request or change IRQ of other devices.
- Change resource setting with BIOS of PC or motherboard. See instruction manual of PC or motherboard since BIOS setting method varies by manufacturer.

POINT

- IRQ set method varies depending on PC or motherboard manufacturer. Some types assign arbitrary IRQ to each PCI Express slot with BIOS, other types program special IRQ in advance.

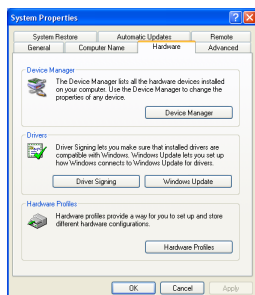
Confirming resource (in Windows XP)

Confirm whether driver has been normally installed after restarting when driver and application software installation is finished.

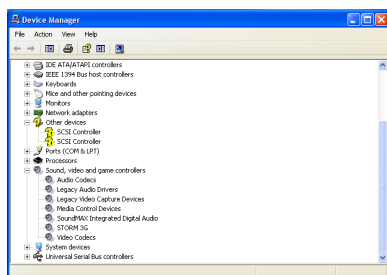
- 1 Double-click "System" from "Control panel" of "start" menu.

Or right-click "My Computer" of "start" menu and select "Properties".

2 Select "Hardware" tab and click [Device Manager].



3 Double-click "Sound, video and game controllers".



4 Confirm the device name.

- [STORM 3G]

If you find ! or X mark at the top of device name, that means you failed installing STORM 3G Elite driver. Try installation again, check rival resource, or change board insertion position.

5 Close "Device Manager".

Checking the driver for the main board now finishes.

When resources compete

EDIUS will not operate normally if multiple devices compete or share PC resources. Try following solution.

- Remove other devices that share interrupt request or change IRQ of other devices.
- Change resource setting with BIOS of PC or motherboard. See instruction manual of PC or motherboard since BIOS setting method varies by manufacturer.

POINT

- IRQ set method varies depending on PC or motherboard manufacturer. Some types assign arbitrary IRQ to each PCI Express slot with BIOS, other types program special IRQ in advance.

EDID Monitor

When installing EDIUS with a Grass Valley product mounted to the PC, the driver, and the application software in package (EDID Monitor) are installed at the same time.

EDID Monitor is software to check the video display ability, the number of receivable audio channels, and other information of the monitor device connected to STORM 3G Elite with an HDMI cable.

Starting Up EDIUS and Creating New Project

Project file is the largest unit for editing EDIUS works. A project file contains information such as the edit process or the video format.

This section describes the operation when you start up EDIUS for the first time and how to create a new project.

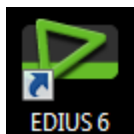
POINT

- The enclosed USB key must be attached to the PC's USB port in order to use EDIUS.
- Once you have executed the following procedures, the operation to start up EDIUS and to create a new project partly differ from that of the first time. Refer to EDIUS User Reference Guide for details.

Starting Up EDIUS

Start up EDIUS and specify the saving destination of project files.

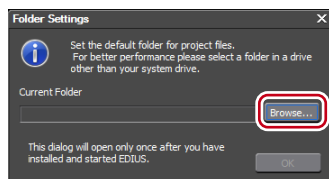
- 1 Double-click the EDIUS icon on the desktop.



When you start up EDIUS for the first time after installation, "Folder Settings" dialog box appears.

- 2 Click [Browse] and specify the saving destination folder of project files.

It is recommended to specify a saving destination in a drive other than the one in which your operation system is installed.



- 3 Click [OK].

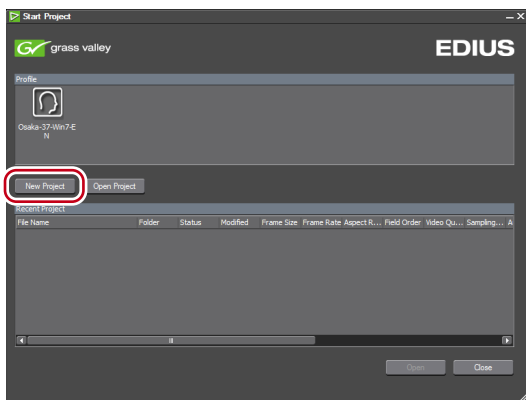
Created projects are saved in the specified folder after performing the preceding steps.

The "Start Project" dialog box appears.

Creating a New Project

Set the format of the project to be created, and store it as a project preset.

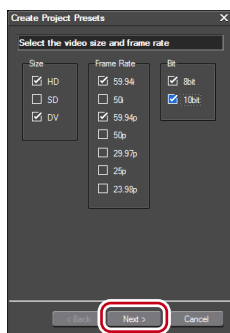
- 1 Click [New Project] in the "Start Project" dialog box.



When you start up EDIUS for the first time, "Create Project Presets" wizard appears.

- 2** Check one or more items for "Size", "Frame Rate", and then "Bit", and click [Next].

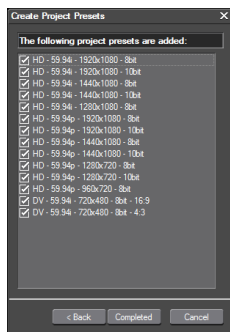
Configure the settings for video size, frame rate, and video quantization according to the format of the project to be created in EDIUS. You can also check one or more check boxes for an item.



- 3** Check the items on the list.

The list of the formats corresponding to the conditions set in step 2 appears.

The project presets of the checked formats are created. Remove the check of unused format if necessary.

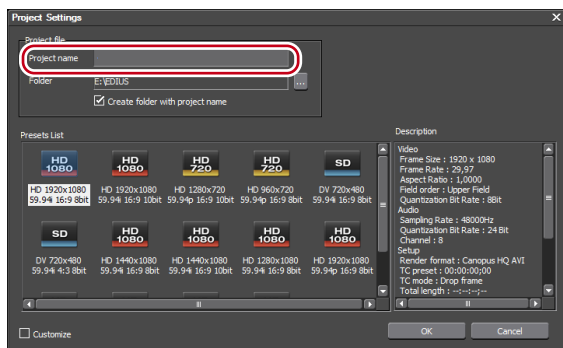


4 Click [Completed].

The "Project Setting" (Simple Settings) dialog box appears and then the icon of created project preset appears in the "Presets List".

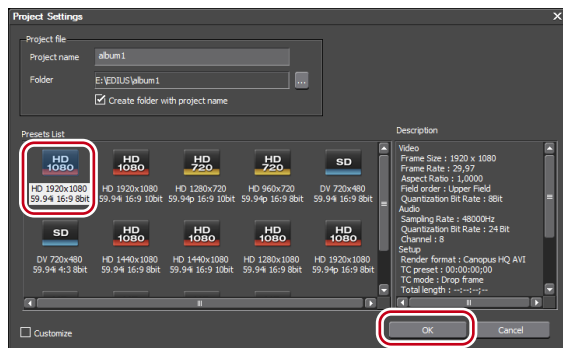
Then, you can create a new project.

5 Enter a project name to "Project name" field in "Project file".



6 Select a project preset and click [OK].

A new project file opens in the selected project preset setting.



"Output Video Format" which is an indicator placed on the front panel of STORM 3G Elite lights according to the video format of the project file. When using 10-bit video format, the "Output 10-bit" indicator lights.

Setting Editing Environments

This section describes how to store the information of the connected devices used for capturing or printing to tape, and how to configure the devices used while editing.

Before editing, configure the following editing environments.

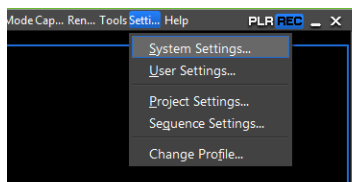
Storing Device Presets

Store and manage the connection information of Grass Valley products and external devices which are used for capturing or printing to tape (cameras, decks, web cameras, and microphones) as the device presets.

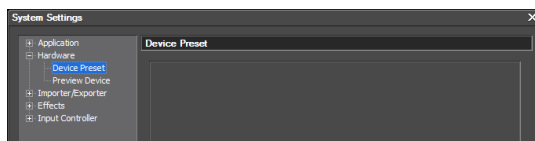
By using the device presets stored, Input/Output can be operated smoothly when capturing or printing to tape.

This section describes how to store a device preset by an example when STORM 3G Elite is used for input/output.

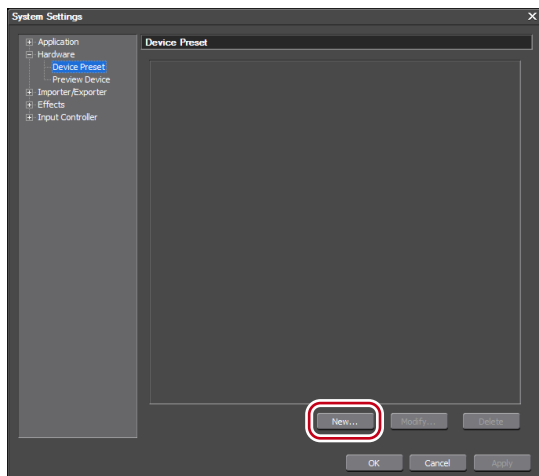
- 1 Connect the device used for input/output to STORM 3G Elite.
- 2 Click "Settings" on the menu bar and click "System Settings".



3 Click the "Hardware" tree and click "Device Preset".

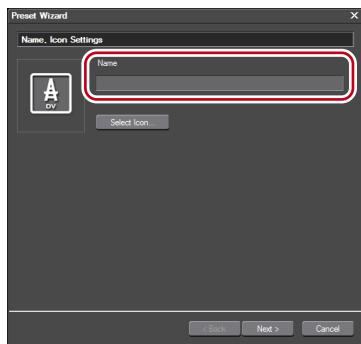


4 Click [New].



"Preset Wizard" appears.

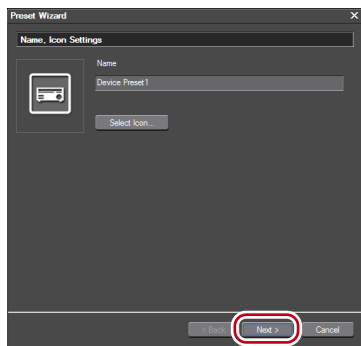
5 Enter the device preset name.



6 Click [Select Icon], select the image of the icon, and then click [OK].

To use an image you like, click [...] and select the desired file.

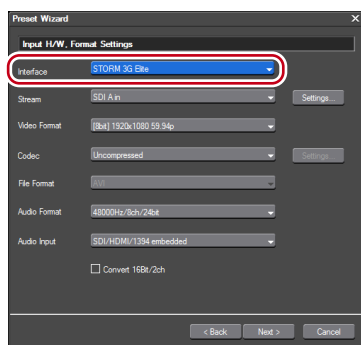
7 Click [Next].



The screen to configure the connection information for input and to configure the format settings is displayed.

- 8 Click the pulldown of "Interface" and select "STORM 3G Elite" from the list.

The names of the mounted products are displayed in the "Interface" list. Select the interface to use for input.

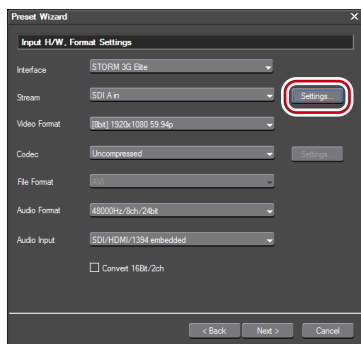


POINT

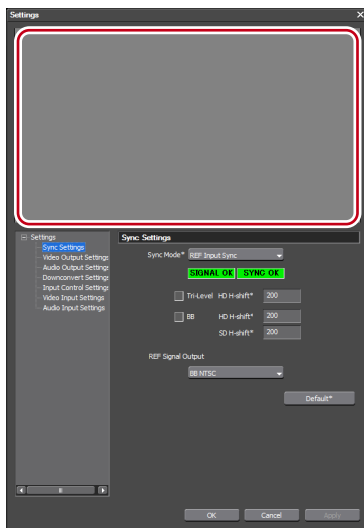
- When connecting an HDV device to the IEEE1394 terminal on your PC, select "Generic HDV", when connecting a DV device to IEEE1394 terminal on your PC, select "Generic OHCI", and when inputting from a video capture device or an audio capture device based on DirectShow, select "DirectShow Capture". When you do not use any interface for input, select "Not Select".

- 9 Click the pulldown of "Stream" and select the terminal to use for video input.

10 Click [Settings].



The input setting screen of STORM 3G Elite appears. When EDIUS recognizes an input device used for capturing, the video from the input device is displayed on the upper part of the screen.



For details on the setting when inputting with interfaces other than STORM 3G Elite, refer to EDIUS User Reference Guide.

POINT

- When you click "Settings" in step 10, the "Input Connector" and "Input Video Format" indicators on the front panel of STORM 3G Elite light. When using 10-bit video format, the "Input 10-bit" indicator lights.

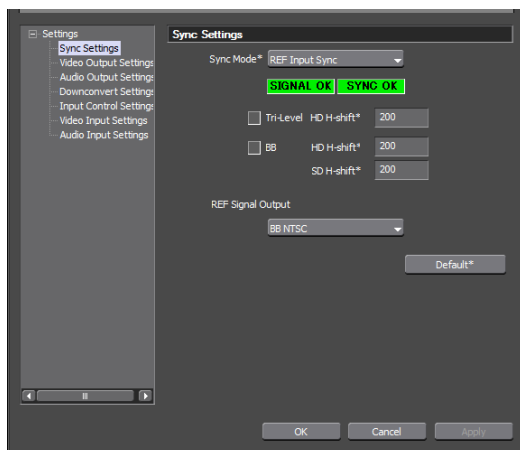
11 Click the "Settings" tree and click an item to set.

12 Set each item.

Configure the input setting of STORM 3G Elite. Click [Apply], and then configure another item.

❖ Sync Settings

Configuring Sync Settings synchronizes the monitor output device used for capturing with STORM 3G Elite. STORM 3G Elite is always synchronized with the input signal from the external devices.



Sync Mode

Select a sync signal from "REF Input Sync" and "Input Sync".

"NO SIGNAL/SIGNAL OK" indicates whether a reference signal which can be synchronized with the current output video format is detected.

If the reference signal is not detected (NO SIGNAL), the sync system will be automatically switched to internal sync.

When "REF Input Sync" is selected, if the output format is HD, STORM 3G Elite can be synchronized via the signals of both "Tri-level" (tri-level sync) and "BB" (Black Burst). If one of the signals is detected, the box for the corresponding signal ("Tri-level" or "BB") will light in green. If the output format is SD, only "BB" is available.

* Horizontal Shift Adjustment

In the "HD H-shift" box adjacent to "Tri-Level", input a horizontal-shift adjustment value for the tri-level sync signal during HD output.

In the "HD H-shift" box adjacent to "BB", input a horizontal-shift adjustment value for the BB signal during HD output.

In the "SD H-shift" box, input a horizontal-shift adjustment value for the BB signal during SD output.

REF Signal Output

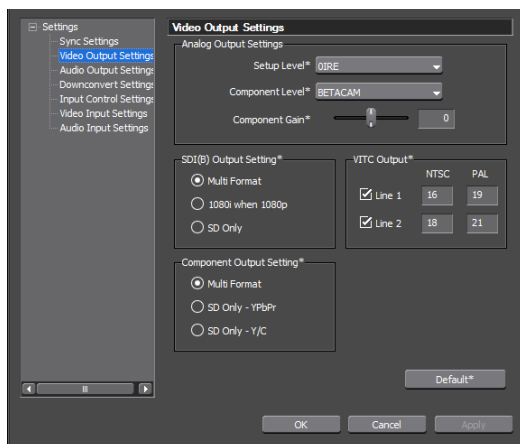
Select a format to output the REF signals from "BB NTSC", "BB PAL", "Tri-Level 1080/59.94i", "Tri-Level 1080/50i", "Tri-Level 1080/23.98PsF", and "Tri-Level 1080/24PsF". When "BB NTSC" or "BB PAL" is selected, the "Ref Out SD" indicator on the front panel of STORM 3G Elite lights, and when "Tri-Level 1080/50i", "Tri-Level 1080/23.98PsF", or "Tri-Level 1080/24PsF" is selected, the "Ref Out HD" indicator on the front panel of STORM 3G Elite lights.

Default

Restore the default settings.

❖ **Video Output Settings**

The settings of a monitor output device used for capturing.



Analog Output Settings

Setup Level

Select the setup level (black level) of NTSC from "0IRE" and "7.5IRE". 0IRE is used in Japan, and 7.5IRE is used in North America.

Component Level

Select the component level from "SMPTE" and "BETACAM".

Component Gain

Adjust the output gain of the SD component.

SDI(B) Output Setting

Multi Format

HD/SD is switched automatically according to the output format.

1080i when 1080p

When the output format is 1080p, the video is output in 1080i format.

SD Only

Output downconverted video.

VITC Output

Line 1, Line 2

Set the number of VITC output lines in the input field of adopted video standard (NTSC/PAL).

Component Output Setting

Multi Format

HD/SD is switched automatically according to the input format.

SD Only - YPbPr

Output downconverted video (component YPbPr).

SD Only - Y/C

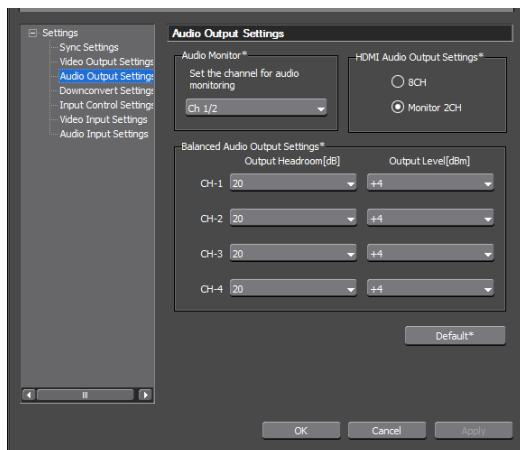
Output downconverted video (S-Video).

Default

Restore the default settings.

❖ Audio Output Settings

The settings of a monitor output device used for capturing.

**Audio Monitor**

Select the audio channel to monitor.

HDMI Audio Output Settings

Specify the output from the HDMI connector. Select if 8 audio channels are to be output or the 2 channels specified as analog audio channels are to be output.

Balanced Audio Output Settings

Output Headroom[dB]

Specify the headroom of the standard output level from "20", "18", "16", and "12".

Output Level[dBm]

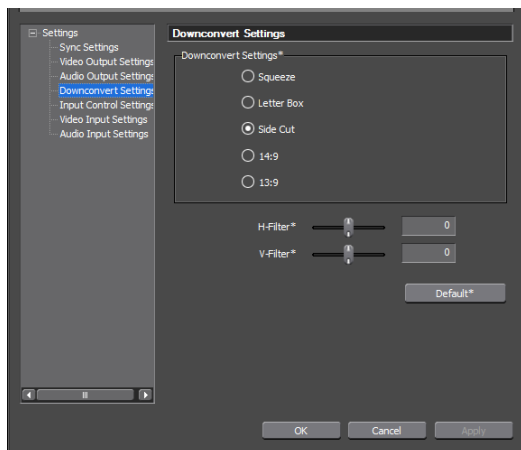
Specify the standard output level from "+4", "0", "-3", "-6", and "-20".

Default

Restore the default settings.

❖ Downconvert Settings

The settings of a monitor output device used for capturing.

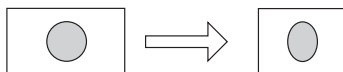


Downconvert Settings

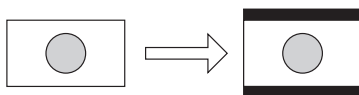
Select the downconvert format from HD to SD. The default value is "Side Cut".

Squeeze

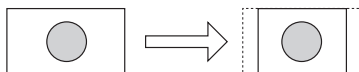
Compress 16:9 video horizontally and output as 4:3 video.

**Letter Box**

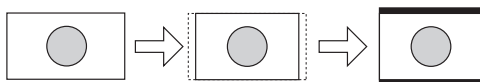
Mask the upper and bottom part of the 4:3 screen and output 16:9 video in the center of the screen.

**Side Cut**

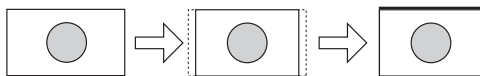
Cut the side edges of 16:9 video and output as 4:3 video.

**14:9**

Cut the side edges of 16:9 video and output as 14:9 video.

**13:9**

Cut the side edges of 16:9 video and output as 13:9 video.



H-Filter

Emphasize the horizontal outline and contrast of images. Set the value between -32 and 32.

V-Filter

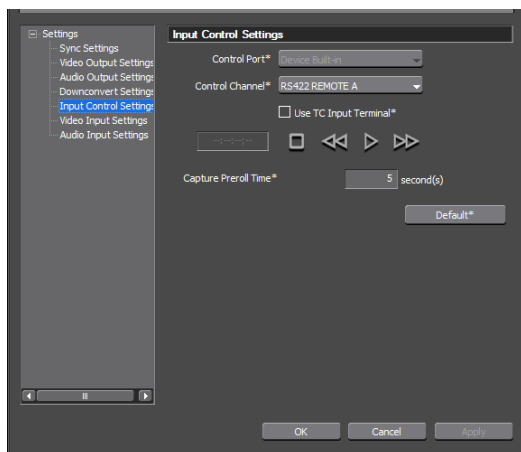
Emphasize the vertical outline and contrast of images. Set the value between -32 and 32.

Default

Restore the default settings.

❖ Input Control Settings

The settings of an input device used for capturing.



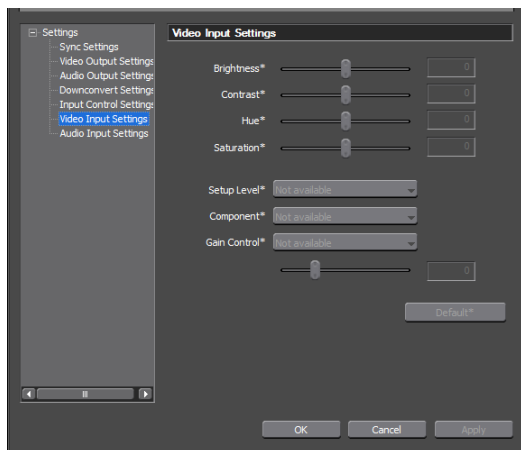
Control Port

Not available.

Control Channel	Select whether to use RS-422 remote control. When "RS422 REMOTE A" or "RS422 REMOTE B" is selected, the "Remote A" or "Remote B" indicator on the front panel of STORM 3G Elite lights. Use TC Input Terminal Apply the priority to TC input terminal to get timecode. Check Deck Control Check if the deck connected to REMOTE terminal can be controlled by EDIUS when using RS-422 remote control.
Capture Preroll Time	Set the preliminary operation time (preroll) before capturing begins.
Default	Restore the default settings.

❖ Video Input Settings

The settings of an input device used for capturing. Configure this item only when "Component in", "S-Video in", or "Composite in" is selected in step 9.



Brightness

Adjust the brightness of video. Set the value smaller to make the video darker, and set the value larger to make the video brighter.

Contrast

Adjust the contrast of images. Set the value smaller to make the contrast lower, and set the value larger to make the contrast higher.

Hue

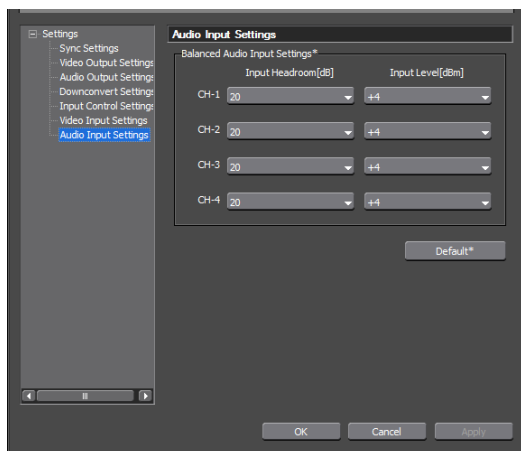
Adjust the hue of video. Set the value smaller to make red stronger, and set the value larger to make green stronger.

* When input a component, this item can not be configured.

Saturation	Adjust the lightness of color. Set the value smaller to make the color lighter, and set the value larger to make the color deeper. Set the value to 0 (minimum value) to make images grayscale.
Setup Level	Set the setup level (black level) of NTSC.
Component	Select the component level of NTSC.
Gain Control	Configure the video luminance. Select "Manual" to configure the luminance manually. Select "Automatic" to set the optimal luminance automatically.
Default	Restore the default settings.

❖ Audio Input Settings

The settings of a monitor input device used for capturing.



Balanced Audio Input Settings

Input Headroom[dB]

Specify the headroom of the standard input level from "20", "18", "16", and "12".

Input Level[dBm]

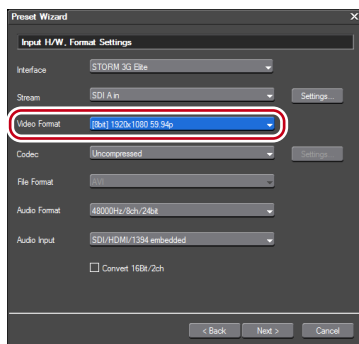
Specify the standard input level from "+4", "0", "-3", "-6", and "-20".

Default

Restore the default settings.

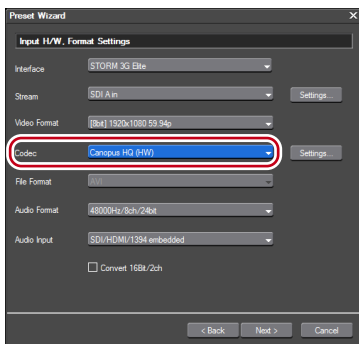
13 Click [OK].

- 14** Click the pulldown of "Video Format" and select the video format of the source data to be captured from the list.



- 15** Click the pulldown of "Codec" and select the codec to be used for capturing from the list.

Depending on the selected codec, the detailed codec settings are available by clicking [Settings].



POINT

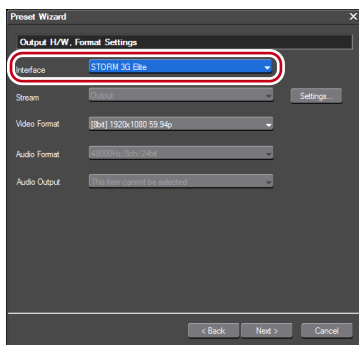
- When using Canopus HQ encoder which is mounted on STORM 3G Elite, select "Canopus HQ (HW)".

- 16** Configure the other items if necessary and click [Next].

The screens for configuring the connection information or format at outputting is displayed.

- 17** Click the pulldown of "Interface" and select "STORM 3G Elite" from the list.

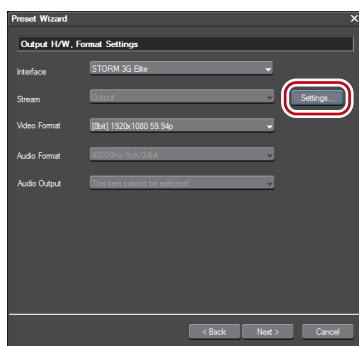
The names of the mounted products are displayed in the "Interface" list. Select the interface to use for output.



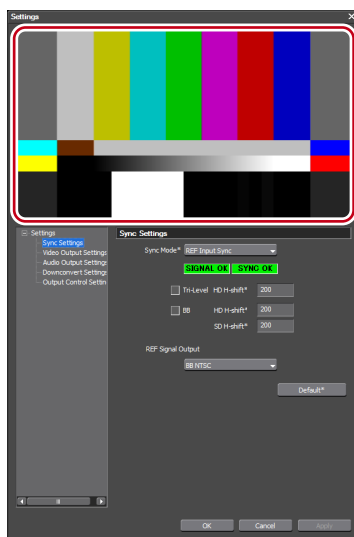
POINT

- When printing to tape of a DV device using IEEE1394 terminal on your PC, select "Generic OHCI". When not using the interfaces for outputting, exporting to an HDV device, or printing to tape of a device not controlled by deck, select "Not Select".

18 Click [Settings].



The output setting screen of STORM 3G Elite appears. Color bar is displayed on the upper part of the screen. When the output video format is specified properly, color bar is displayed also in the output devices.



For details on the setting when outputting with interfaces other than STORM 3G Elite, refer to EDIUS User Reference Guide.

POINT

- When you click "Settings" in step 18, the "Output Video Format" indicator on the front panel of STORM 3G Elite lights. When using 10-bit video format, the "Output 10-bit" indicator lights.

19 Click the "Settings" tree and click an item to set.

20 Set each item.

Configure the output setting of STORM 3G Elite.
Click [Apply], and then configure another item.

❖ Sync Settings

Configuring Sync Settings synchronizes the output device used for printing to tape with STORM 3G Elite. The setting items are the same as that of "Sync Settings" in Step 12.

Sync Settings► P51

❖ Video Output Settings

The settings of an output device used for printing to tape. The setting items are the same as that of "Video Output Settings" in Step 12.

Video Output Settings► P53

❖ Audio Output Settings

The settings of an output device used for printing to tape. The setting items are the same as that of "Audio Output Settings" in Step 12.

Audio Output Settings► P55

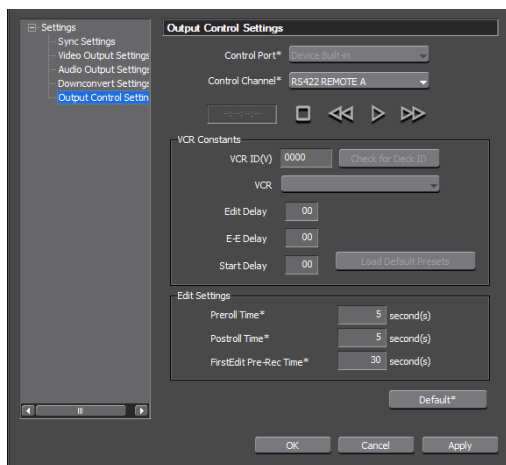
❖ Downconvert Settings

The settings of an output device used for printing to tape. The setting items are the same as that of "Downconvert Settings" in Step 12.

Downconvert Settings► P56

❖ Output Control Settings

The settings of an output device used for printing to tape.



Control Port

Not available.

Control Channel

Select whether to use RS-422 remote control. When "RS422 REMOTE A" or "RS422 REMOTE B" is selected, the "Remote A" or "Remote B" indicator on the front panel of STORM 3G Elite lights.

Use TC Input Terminal

Apply the priority to TC input terminal to get timecode.

Check Deck Control

Check if the deck connected to REMOTE terminal can be controlled by EDIUS when using RS-422 remote control.

VCR Constants

VCR ID

VCR Constant 1 byte1 and byte2 are displayed.

For SONY decks, the deck ID (including model/mode) is displayed.

Check for Deck ID

Click it to load VCR ID (deck ID) from the connected deck.

VCR

Display the deck name corresponding to the VCR ID (only ID and deck names which are set as preset). If there are multiple decks with the same ID, all the decks are displayed.

Edit Delay

VCR Constant 1 Byte 6 is displayed.

If the deck is not in the preset, enter manually.

E-E Delay

VCR Constant 1 Byte 5 is displayed.

If the deck is not in the preset, enter manually.

Start Delay

VCR Constant 2 Byte 2 (Data 10 depending on the VCR) is displayed.

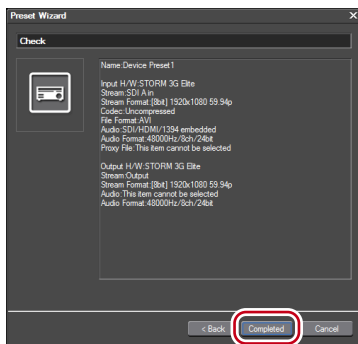
If the deck is not in the preset, enter manually.

Load Default Presets

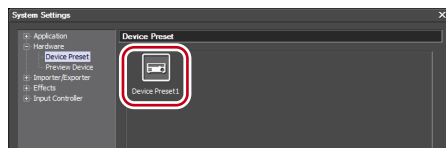
Initialize the edit delay, E-E delay, and start delay with the preset values.

Edit Settings
Preroll Time Set the preliminary operation time (preroll). Postroll Time Set the post operation time (postroll). FirstEdit Pre-Rec Time Set the draft (margin) length at FirstEdit (storing the control signals as the standard point for editing at the top of the tape automatically).
Default
Restore the default settings.

- 21 Click [OK].
- 22 Click the pulldown of "Video Format" and select the video format of output destination.
- 23 Configure the other items if necessary and click [Next].
- 24 Check the contents and click [Completed].



The icon of the created preset appears in the device preset list.



25 Click [OK].

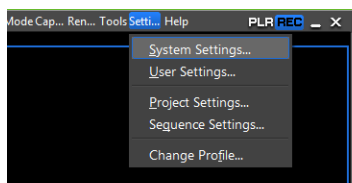
For details on the procedure of capturing and exporting with a device preset, refer to EDIUS User Reference Guide.

Setting a Preview Device

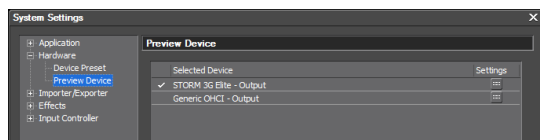
External devices such as a monitor, which is connected to a PC and used for checking while editing, or Grass Valley products can be managed as preview devices and the detailed settings can be configured.

This section describes how to set STORM 3G Elite as a preview device and configure the detailed settings.

- 1** Connect the device used for editing to STORM 3G Elite.
- 2** Click "Settings" on the menu bar and click "System Settings".

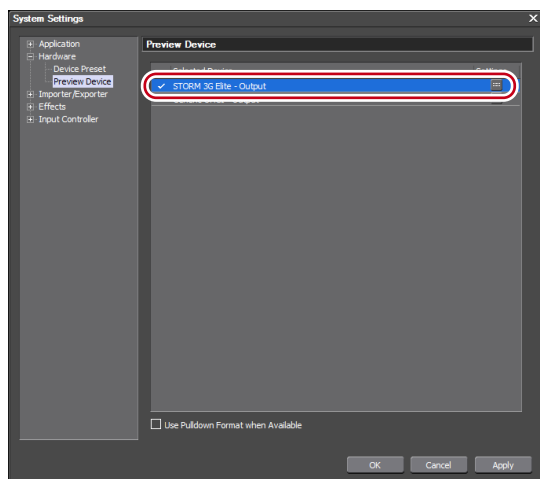


- 3 Click the "Hardware" tree and click "Preview Device".



- 4 Click "STORM 3G Elite - Output"

Select the preview device to be used.

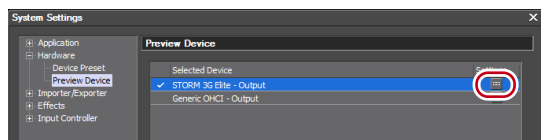


A check mark appears on the side of the device name.

POINT

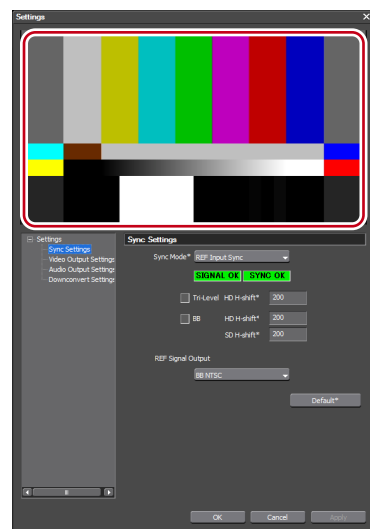
- When "Use Pulldown Format when Available" is checked and pulldown to a general format (59.94i/50i/59.94p/50p) is available, pulldown output is prioritized. Check it when you use a monitor not supporting 23.98p/29.97p/25p display.

5 Click [Settings].



The detailed setting screen for the preview device appears.

Color bar is displayed on the upper part of the screen and also on the monitor of the preview device.



Notes

- When the preview device is not compatible with the video format set in the current project setting, a warning message appears. Modify the project setting according to the preview device.

6 Click the "Settings" tree and click an item to set.

7 Set each item.

Configure the detailed setting for the preview device. Click [Apply], and then configure another item.

❖ Sync Settings

Configuring Sync Settings synchronizes the monitor output device used for editing with STORM 3G Elite. The setting items are the same as that of "Sync Settings" in Step 12 of "Storing Device Presets".

Sync Settings►P51

❖ Video Output Settings

The settings of a monitor output device used for editing.

The setting items are the same as that of "Video Output Settings" in Step 12 of "Storing Device Presets".

Video Output Settings►P53

❖ Audio Output Settings

The settings of a monitor output device used for editing.

The setting items are the same as that of "Audio Output Settings" in Step 12 of "Storing Device Presets".

Audio Output Settings►P55

❖ Downconvert Settings

The settings of a monitor output device used for editing.

The setting items are the same as that of "Downconvert Settings" in Step 12 of "Storing Device Presets".

Downconvert Settings►P56

8 Click [OK].

9 Click [OK].

Hardware Specifications

STORM 3G Elite

Video input	
SDI in	BNC x2 (SMPTE 424M ^{*1} / 292M / 259M-C)
HDMI in	HDMI Connector (HDMI 1.3 compatible)
Y/Pb/Pr in or Y/C in	BNC x3
CVBS in	BNC x1
Video output	
SDI out	BNC x2 (SMPTE 424M ^{*1} / 292M / 259M-C)
HDMI out	HDMI Connector (HDMI 1.3 compatible)
Y/Pb/Pr out or Y/C out	BNC x3
CVBS out	BNC x1
Audio input	
SDI in	Embedded audio 8ch (SMPTE 299M / 272M-A)
HDMI in	HDMI Connector (HDMI 1.3 compatible) 8ch, 32/44.1/48KHz, Unlocked/Locked ^{*2}
AES/EBU in	BNC x4 (ch 1/2, ch 3/4, ch5/6, ch7/8) 32/44.1/48KHz, Unlocked/Locked
Balanced Audio in	XLR-3-31 compatible x 4 (ch1 to 4) (Termination resistance: 600Ω)
Voice Over in	XLR-3-31 compatible x 1 (Mic / Line switchable) 48V Phantom power supply available Capture as USB audio device available

Audio output	
SDI out	Embedded audio 8ch (SMPTE 299M / 272M-A, 20 / 24bit, 48KHz, Locked)
HDMI out	HDMI Connector (HDMI 1.3 compatible) 2ch / 8ch, 24bit, 48KHz *2
AES/EBU	BNC x 4 (ch 1/2, ch 3/4, ch5/6, ch7/8) 24bit / 48KHz
Balanced Audio out	XLR-3-32 compatible x 4 (ch1 to 4)
Monitor Audio out	XLR-3-32 compatible x 2 (Balanced) RCA x 2 (Unbalanced) Standard stereo jack x 1
Timecode	
LTC in	BNC x1 (0.5V to 18Vp-p, 10KΩ)
LTC out	BNC x1 (2.0Vp-p, Low impedance)
DVITC in	Separated from HD-SDI/SD-SDI input
DVITC out	Superimposed on HD-SDI/SD-SDI output
Reference	
REF out (Sync Generator)	BNC x 1 (HD tri-level sync/SD BB switchable)
REF in	BNC x 1 (HD tri-level sync/SD BB auto switch)
REF through out	BNC x 1 (Loop through output of the signal via REF input terminal)
REMOTE output	
	RS-422A (D-Sub 9 pin) x 2
Others	
Front panel	Headphone volume adjuster
	Status indicators

General specifications	
Power supply (AC adapter provided)	DC12V 6.5A (78W)
	AC100 - 240V, 0.87-0.38A (92VA)
Operating temperature range	0 to 45 °C
Dimensions	430 (W) x 253 (D) x 88 (H) mm (rubber feet and protrusions excluded)
	19 inch 2U rack mounting size
Weight	Approx. 5Kg

*1 Only 3G-SDI Level-B supported (as of October 2010)

*2 Only uncompressed PCM audio supported

STORM 3G Elite PCI Express Expansion board

General specifications	
Dimensions	79.3 (W) x 68.9 (H) mm (PCI bracket and protrusions excluded)

STORM 3G Elite ExpressCard

General specifications	
Dimensions	34 (W) x 102.4 (D) x 14 (H) mm

有毒有害物质含有表

This information is applicable for People’s Republic of China only.

产品中有毒有害物质或元素的名称及含量

STORM 3G Elite

部件名称	有毒有害物质或元素					
	铅 Pb	汞 Hg	镉 Cd	六价铬 Cr (VI)	多溴联苯 PBB	多溴二苯醚 PBDE
电路板配件	○	○	○	○	○	○
焊锡	○	○	○	○	○	○
电子元件	×	○	○	○	○	○
电缆	○	○	○	○	○	○
风扇	×	○	○	○	○	○
外壳	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。
×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。