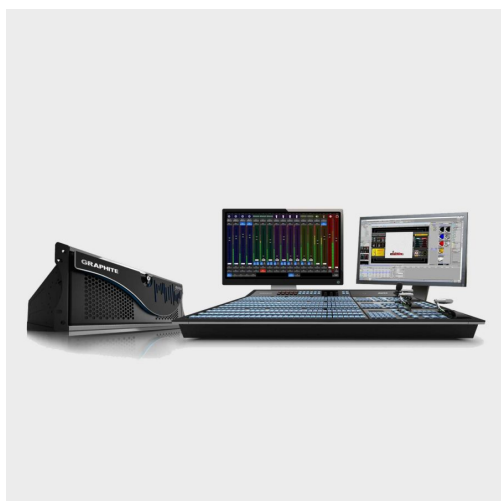


## GRAPHITE

# ROSS

Real Switcher. Real Graphics. Real Audio. Graphite is an all-inclusive system that combines superb big switcher performance with visually stunning 3D graphics, instant access clip servers and pristine audio clarity – all with the reliability of separate system components.

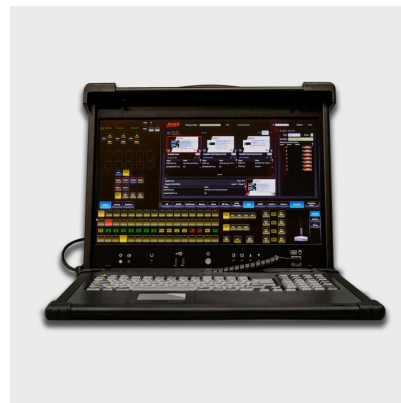
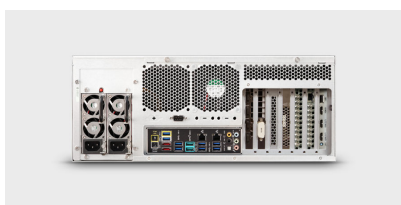


**Cena:**

**Kategorie:** [Video](#), [Broadcast](#), [Miksery wizyjne](#)



## GALLERY IMAGES





## OPIS

### **Compact Production Solution**

Graphite provides a full production solution within a single 4RU frame. This simplifies connectivity, saves space, and makes it easy to take top-quality productions on the road.

### **Ultra-Reliable**

Rely on a system with consistent performance and immunity to traditional all-in-one software issues, thanks to unique dedicated hardware.

### **Ultra-Durable**

Built to withstand the rigors of a mobile production with carefully engineered physical construction. Graphite systems are extensively shake and bake tested before shipping.

### **Fully-Equipped System**

Every aspect of the Graphite system is built with the quality of separate system components. The value of a single all-in-one system with no need for external supplement cannot be overstated.

## **Flexible Workflow**

Crew your show as you see fit. A single operator can run an entire show through all-encompassing control, or roles can be separated for multiple operators during high-intensity events.

## **Incremental Growth**

Switcher resources and graphics power can be upgraded via software licences – and additional equipment is available through a single vendor for effortless integration and guaranteed support.

## **FEATURES**

### **Carbonite Switcher**

Switch with confidence on Carbonite – the hallmark Ross Video product. Decades of production switcher experience have gone into this mid-sized power house, resulting in a truly incredible feature-set.

### **XPression Graphics**

Near limitless layering on a single channel, with true 3D objects and animations, XPression Graphite is the motion graphics engine that simply can't be matched by other all-in-one systems.

### **Integrated Clip Server**

Creatively utilize video clips with instant access and frame accurate recall with XPression Clips. Record video or store XPression Graphite animations for use in your productions.

## Unmatched Audio

Handle demanding live audio with the professional 48-channel RAVE audio mixer. The dedicated audio mixer features 24-bit processing with sample rate conversion on selected inputs, SDI-embedded channel pair management, and channel-by-channel audio EQ and Compression/Limiting.

## DashBoard Control

Create a control workflow for your specific production environment, with DashBoard network control software.

## Graphite PCIe

Graphite is built with unique hardware to ensure high quality performance and total reliability.

## AUDIO MIXER EVOLVED

Available on Graphite V4.0

With the latest software version release, Graphite's internal RAVE audio mixer is better equipped than ever to handle live productions with seriously demanding audio requirements:

### **Huge channel capacity**

RAVE audio can access all 16 channels of each SDI input; for a 12-input system, that's 192 available channels! Add audio from internal sources and optional Audio Breakout Units, and the RAVE channel count maxes out at an astounding 276 available input channels!

### **Embedded-SDI Channel Pair Mastery**

Efficiently receive and distribute audio with access to all 8 embedded channel pairs on SDI-inputs and SDI-outputs. Take a channel pair from any SDI-input and assign it to any available fader in the mixer; and configure SDI-output channels with passthrough, all mixes, Main mix,

Monitor mix and custom aux mixes.

### **Audio Dynamic Processing**

A must have for microphone-heavy productions, dynamic processing provides EQ, Compression and Limiting for all mixer channels. Powerful technical and creative tools, drawing out the best parts of your sound and removing those undesirable elements. The RAVE audio mixer's dynamics get the best out of every channel in the mix.

### **Sample Rate Conversion**

Maintain consistent 24-bit broadcast-quality audio with sample rate conversion on AES and SDI inputs (BNCs 1-6).

### **Assignable AFV**

Simplify audio management by configuring the Audio Follow Video (AFV) video source on a fader-by-fader basis. For example, tether various commentator lapel mics to specific camera shots in your production.

### **More AUXs**

More custom mixes are good custom mixes. The number of audio AUX layers has been increased from 6 to 12, allowing for more mix/minus feeds, multi-lingual feeds, and other unique output feeds.

### **More Faders**

The RAVE audio mixer now supports up to 48 faders. Take loads of embedded SDI-channels into your mixer, or connect up to 3 audio modules for up to 24 analog/microphones with plenty of configurable channels to spare.

## **Included Graphics Templates**

### **Get started with fluid graphics right out of the box.**

Graphite ships with a complete package of easily-customized graphic templates designed by Ross Video's creative services team – Rocket Surgery.

## **Graphite PPC**

Portable Production Centre - Coming Soon!

Introducing the Graphite Portable Production Centre (PPC); a complete production solution neatly housed in a single compact carrying case. This powerful all-in-one production platform combines big switcher performance, stunning XPression graphics, instant-access clip servers and pristine RAVE audio with unmatched portability and ease of operation. Like Graphite, the Portable Production Centre can be run by a single operator and its ultra-quiet fan means it can be deployed just about anywhere, even next to on air talent!

### Carbonite Black 3X Panel

The Carbonite Black 3X panel is the flagship of the Carbonite Black panel line, it is great to look at and a joy to operate. The CB3X has Acuity style faders and dedicated 32-button source select rows, it also has dedicated ME row selection buttons for instant control of any ME or MiniME on any row as well as 8 Custom Control bank select buttons, allowing a whopping 256 Custom Control Macros to reside on the panel for direct selection at any time.

## Specifications

Graphite comes in a variety of ME & Input configurations:

MIX EFFECT BUSES	INPUTS	OUTPUTS
<b>2ME</b>	13 IN (12 SDI + 1 HDMI)	8 OUT (6 SDI + 2 HDMI)
<b>2ME</b>	9 IN (8 SDI + 1 HDMI)	8 OUT (6 SDI + 2 HDMI)
<b>1ME</b>	9 IN (8 SDI + 1 HDMI)	8 OUT (6 SDI + 2 HDMI)
<b>1ME</b>	5 IN (4 SDI + 1 HDMI)	8 OUT (6 SDI + 2 HDMI)*

\* On 5 input systems 2 output selections can be made available across all outputs.

STANDARD FEATURES	GRAPHITE FRAME
External inputs (SDI)	Up to 12
External inputs (HDMI)	1
	10
Internal Inputs	Single Channel XPression (Video & Key)
	2 Channels of XPression Clips (Video & Key)
	4 Channels of Media Storage

**STANDARD FEATURES**

Outputs (SDI)  
Outputs (HDMI)

**GRAPHITE FRAME**

6  
2

-

**Graphite Switcher****STANDARD FEATURES**

Number of Full MEs  
Number of MiniMEs  
Number of MultiViewers with Tally  
and Source Names  
Internal Format Converters /  
Frame Synchronizers

Number of 2D DVEs

Reference Input

Number of Keys PER ME

Number of Keyers per MiniME

Number of Ultrachrome Keyers

Number of MediaStores (2GB  
capacity)

Supported Media File Types

**GRAPHITE SWITCHER**

Up to 2

4

2 (up to 16 windows each)

6 (Assignable to first six inputs)

4 – Assignable to:

Full M/E Transition Engines

Full M/E Keyers

MiniME Keyers

Black or Tri-Level

5

(4 Full keyers + 1 Transition Key)

2

2 – Assignable to:

Full M/E Keyers

MiniME Key 2 Keyers

4 (Shared 2GB total capacity)

.BMP (no Alpha)

.JPG (no Alpha)

.TGA (with or without Alpha)

.PNG (with or without Alpha)

48k WAV audio



**STANDARD FEATURES**

Browser-Based Graphics Management  
Pattern Generators  
Animated MediaWipes  
Direct Transfer of XPression Stills to MediaStores via Ethernet  
LiveEDL (generates an edit decision list for use in post-production)

**CONTROL INTERFACES**

Carbonite Black Control Panels  
DashBoard LiveAssist  
ViewControl – Visual Production Control

**SIGNAL PROCESSING FORMAT**

Standard Definition  
High Definition (1.5Gb/s)  
High Definition (3Gb/s)

**CONTROL PROTOCOLS**

RossTalk™  
AMP  
Yamaha 01V96 & DM1000  
PBUS  
TSL UMD 3.1  
VISCA  
Canon BU series

**GRAPHITE SWITCHER**

2 per Full ME  
Available on all Full M/Es

+

+

**GRAPHITE**

+

+

+

**GRAPHITE**

480i/59.94 & 576i/50  
1080p/25 & 29.97, 720p & 1080i 50/59.94  
1080p/50 & 59.94 (3Gb)

**GRAPHITE**

+

+

+

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-

## Graphics

### GRAPHITE SINGLE-CHANNEL XPRESSION PRIME STANDARD FEATURES

### XPRESSION GRAPHITE

Template Designer	+
Playout Sequencer	+
2D / 3D Fonts	+
Arabic, Asian & Scripted Language Support	+
3D Primitives	+
Imported 3D Models	x
Video Clip Support (within a template)	+
XPression Video Codec License	+
XPression Video Coder Application	+
Automated File-based Ingest, Transcoding & Publishing	Optional
Animation Timeline	+
Graphical Keyframe Editor	+
Continuous Animations	+
Stagger Animations	+
Visual Logic	+
Virtual Cameras	+
Seamless Continuous Tickers	+
TrueD! Anaglyphic Stereoscopic Preview	+
Render to Disk	+
Output Framebuffer Layers	Unlimited
Virtual Preview Channels (up next & look-ahead)	2 per channel
High Definition Formats (HD)	+

## GRAPHITE SINGLE-CHANNEL XPRESSION PRIME STANDARD FEATURES

Standard Definition Formats (SD)	+
Project Video Format Conversion	+
Custom Resolution Video Formats (DVI Out)	+
RossTalk (TCP/IP Strings)	+
P-bus	+
DashBoard Sequencer Control	+

## XPRESSION GRAPHITE

## GRAPHITE XPRESSION CLIPS STANDARD FEATURES

Baseband Video Ingets Channels	1
Playout Channels	2
No Pre-roll	+
Single-channel Clip transitions	+
Per channel Program/Preview	+
Clip Browser with Search function	+
Clip trimming and looping	+
VDCP, AMP, P-bus, and RossTalk automation protocols	+
P-bus Manager for intelligent clip assignment	+
Clip Manager application with user rights or database management and synchronization setup	+

## RAVE AUDIO MIXER

### RAVE AUDIO MIXER STANDARD FEATURES

48 Stereo Mixer Channels

Fader Volume

Pre-Fade Audio Meter

Pre-Fade Peak Indicator

Post-Fade Audio Meter

Post-Fade Peak Indicator

Per-Channel EQ Indicator

Per-Channel Clip Indicator

Mute

Solo

Solo Clear

Pre-Fade Listen (PFL)

PFL Clear

Aux Mixers

Configurable Audio Outputs

Selectable embedded SDI-  
channel pairs

Sample Rate Converters

Balance Control on Stereo Inputs

Pan Control on Mono Inputs

### GRAPHITE

Available Sources:

Up to 12 SDI-Embedded 16 Channel sources (192)

8 Stereo PC sources (16)

2 Stereo MediaStore sources (4)

Up to 4 x 16 Channel XPression sources (64)

-∞db to + 20db

+

+

+

+

+

+

+

+

+

+

+

12 – assignable pre- or post- fader

SDI-embedded audio output channels

PC Audio Output

8 channel pairs per SDI-input

Assignable to any fader

Available to Input BNCs 1-6 (16-channels)

### **RAVE AUDIO MIXER STANDARD FEATURES**

Mono Mode

Audio Follow Video (Assignable)

Audio EQ

Compression/Limiting

### **GRAPHITE**

Duplication of Mono channel (L or R) to create L-L / R-R channel pair

4-band EQ control on each fader  
(high shelf, dual midrange, low- shelf)

Channel-by-channel Compression/Limiting with  
variable Attack & Release parameters  
(Assignable pre- or post-EQ)

-

### **Optional Features**

#### **GRAPHITE SWITCHER OPTIONS**

5 SDI Input to 9 SDI Input  
Upgrade (Adds an additional 4  
SDI Inputs)

9 SDI Input to 13 SDI Input  
Upgrade (Adds an additional 4  
SDI Inputs)

1 M/E to 2 M/E Upgrade (Adds  
additional Full M/E bank)

AJA Helo Streaming Appliance  
(Single-channel Streaming  
Device)

HDBNC to BNC kit with 20 cables

#### **GRAPHITE SWITCHER**

Contact Ross Sales for details & ordering

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#### **XPRESSION OPTIONS**

Studio Single Channel Edition  
(SCE)

#### **XPRESSION**

Contact Ross Sales for details & ordering

## **XPRESSION OPTIONS**

Studio Multi-Channel  
 Project Server  
 openMAM™ Connectivity  
 Ross Streamline Asset/Order Management  
 DataLinq Server  
 XPression Gateway  
 MOS Plug-in  
 NLE Plug-in  
 Template Builder  
 CII Gateway  
 Desktop Preview Server  
 XPRession Tessera  
 Custom Keyboard

## **XPRESSION**

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## **RAVE AUDIO OPTIONS**

### **RAVE Audio Breakout Module**

#### **1RU External Audio Breakout Module (ABM) which provides:**

Analog Inputs	8
Analog Outputs	5
AES Digital Audio Inputs	1
AES Digital Audio Outputs	1
Adjustable Pre-Amps Gain on Analog Inputs	0-60dB
Phantom Power on Analog Inputs	48V
Digital Pads on Analog Inputs	-20dB
Number of GPI/O	24
Number of Tallies	16

## **RAVE AUDIO BREAKOUT MODULE**



**NOTE:** All Graphite systems support up to three (3) 1RU Audio Breakout Modules which increases the total input matrix to forty- eight (48). Contact Ross Sales for details & ordering.