Platform Guide

SCOPIA®

SCOPIA Elite 5230

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NOTICE

For further information contact RADVISION or your local distributor or reseller.

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CONTENTS

ABOUT THIS MANUAL

The SCOPIA Elite 5230 Platform Guide provides information on the SCOPIA Elite 5230 platform and its components. For information and operating procedures pertaining to a specific element board or application, refer to the corresponding manual provided with the product.

RELATED DOCUMENTATION

The SCOPIA Elite 5230 platform documentation set is available on the RADVISION Utilities and Documentation CD-ROM supplied with the product and includes manuals in PDF format.

Note You require Adobe Acrobat Reader version 6.0 or later to open the PDF files. You can download Acrobat Reader free of charge from www.adobe.com.

FEEDBACK

The team at RADVISION constantly endeavors to provide accurate and informative documentation. If you have comments or suggestions regarding improvements to future publications, we would value your feedback.

Please send your comments to doc_comments@radvision.com.

We thank you for your contribution.

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SCOPIA ELITE 5230 PLATFORM OVERVIEW

The SCOPIA Elite 5230 platform is a high performance, multi-functional chassis that supports mix-and-match functionality. This highly configurable and scalable design provides maximum flexibility for configuring platforms to meet a wide variety of functional and performance application requirements.

The SCOPIA Elite 5230 platform includes these components:

- The SCOPIA Elite 5200 chassis
- Two SCOPIA Elite 5000 Media Blades
- A SCOPIA Elite Shelf Manager

We describe each component in these sections:

- SCOPIA Elite 5200 Chassis on page 1
- SCOPIA Elite 5000 Media Blade Panel Features on page 4
- Shelf Manager on page 5

SCOPIA ELITE 5200 CHASSIS

- SCOPIA Elite 5200 Chassis Main Features on page 2
- Front and Rear Views of the of the SCOPIA Elite 5200 Chassis on page 3

SCOPIA Elite 5200 Chassis Main Features

The SCOPIA Elite 5200 chassis is a 3U chassis which can hold two RADVISION SCOPIA Elite MCU Media Blades and a shelf manager.

The upper MCU functions as the master blade, providing the single management interface and controlling both blades in the chassis. The LAN connection is via the upper blade. The lower MCU functions as the slave.

Table 1-1 *Chassis Main Features*

Field replaceable units (FRUs)	All boards, Power Supply Units and fan drawers are field replaceable units
Hot swap	All FRUs are hot-swappable—removing or replacing an FRU (except a Power Supply Unit) does not affect the operation of other FRUs.
Grounding and electrostatic discharge	■ The chassis includes an external GND 4mm stud as per the TUV requirement). ■ The chassis includes 4mm banana jacks for a 4.5mm plug or a standard 0.166" plug, as per the PICMG 3.0 specification.
Cooling	The chassis supports a single failed fan in the fan tray.
Power supply	■ Default AC power supply as the default choice. ■ Universal 90-264 VAC power ports.AC power entry includes regular IEC320-C14 filtered AC inlet and double pole switch located in the rear. ■ Thermal shutdown if the unit heats up beyond its limits.

FRONT AND REAR VIEWS OF THE OF THE SCOPIA ELITE 5200 CHASSIS

Figure 1-1 *Chassis Front Panel*

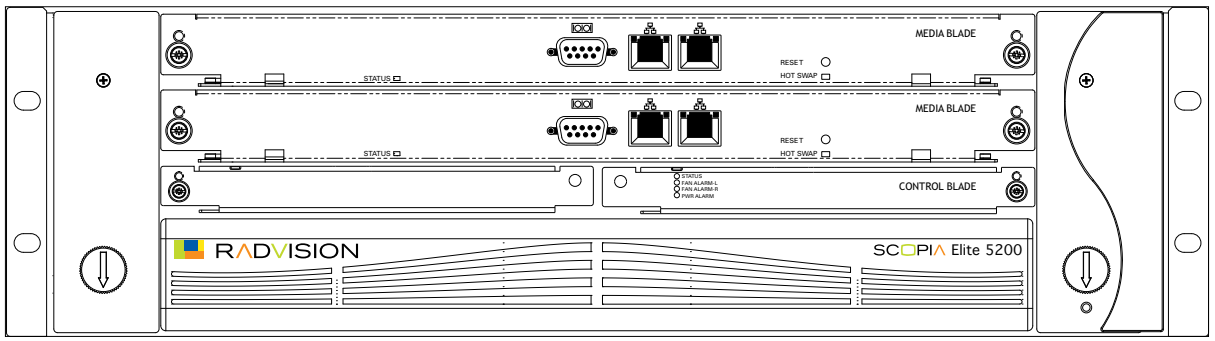
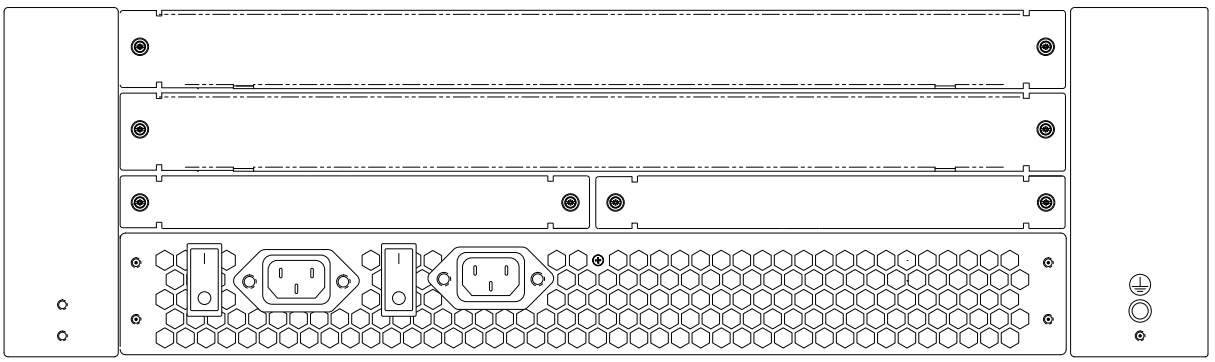


Figure 1-2 *Chassis Rear Panel*



SCOPIA Elite 5000 Media Blade Panel Features

Figure 1-3 *Media Blade Front Panel*

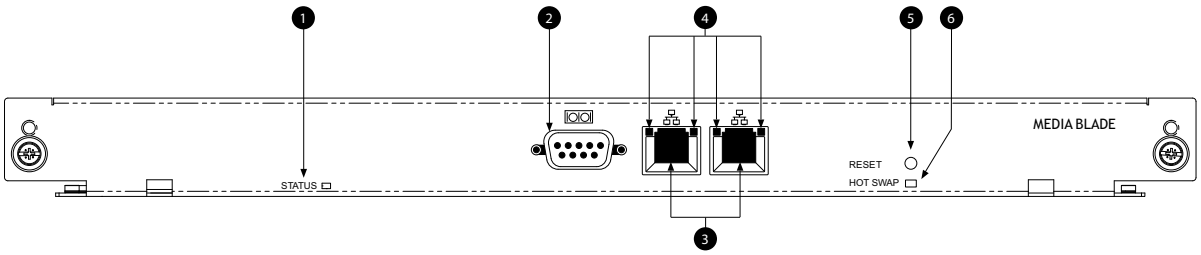


Table 1-2 *Media Blade Panel Features*

	Component	Description
1	STATUS LED	Lights green to indicate normal operation. Lights red to indicate that an error has occurred and that the Media Blade requires resetting.
2	Serial connector	A DB-9 connector that allows you to connect a PC terminal for local configuration, maintenance and debugging.
3	100/1000 BASE-T Ethernet connectors	RJ-45 connectors that provide the primary LAN connection for the IP network port.
4	Ethernet connector Link/Activity LEDs	The top part of each Ethernet connector contains two LED indicators. The right LED lights green when the local IP network link is active. The left LED lights green if the connection speed reaches 1000 Mbps, and lights orange if the connection speed reaches 100 Mbps.
5	RESET button	Allows you to reset the Media Blade manually.
6	HOT SWAP LED	Lights blue when the latches of the board are unlocked and it is safe to remove the board from the chassis, and during reset. Goes off when the board is completely detached.

SHELF MANAGER

SHELF MANAGER MAIN FEATURES

The shelf manager administers the chassis and its component power supply units, fans and boards.

Shelf manager functionality includes:

- Monitoring chassis temperature
- Controlling fan speed
- Providing alarm indications to the upper Media Blade over the Ethernet via the SCOPIA Elite 5230 chassis backplane

SHELF MANAGER PANEL FEATURES

Figure 1-4 *Shelf Manager Front Panel*

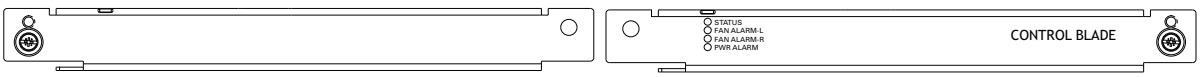


Table 1-3 *Shelf Manager Panel Features*

Component	Description
STATUS LED	Lights green to indicate normal operation.
FAN ALARM - L LED	Lights red if the tacho-speed in one or more fans in the left fan tray falls below 900 rpm.
FAN ALARM - R LED	Lights red if the tacho-speed in one or more fans in the right fan tray falls below 900 rpm.
PWR ALARM LED	Lights red if there is a failure in one of the AC power supplies.

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CABLE CONNECTIONS AND PIN-OUTS

9-PIN SERIAL PORT TERMINAL CABLE

Table 2-1 describes the pin-to-pin configuration of the RS-232 terminal cable provided with the SCOPIA Elite 5230.

Table 2-1 *RS-232 9-pin D-Type Serial Port Pin-out*

Pin	Function	I/O
1	NC	
2	RXD	Input
3	TXD	Output
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	

RJ-45 8-Pin IP Network Port

100 Mbps Ethernet

Table 2-2 describes the pin-out configuration of the 100 Mbps RJ-45 Ethernet connector.

Table 2-2 *Pin-out Configuration of the 100 Mbps RJ-45 IP Ethernet Connector*

Pin	Function	I/O
1	TXD+	Output
2	TXD+	Output
3	RXD+	Input
4	NC	
5	NC	
6	RXD-	Input
7	NC	
8	NC	

1 Gbps Ethernet

Table 2-2 describes the pin-out configuration of the 1 Gbps RJ-45 Ethernet connector.

Table 2-3 *Pin-out Configuration of the 1 Gbps RJ-45 IP Ethernet Connector*

Pin	Name	Function	I/O
1	BI_DA+	Bi-directional pair A +	I/O
2	BI_DA-	Bi-directional pair A -	I/O
3	BI_DB+	Bi-directional pair B +	I/O
4	BI_DC+	Bi-directional pair C +	I/O

Pin	Name	Function	I/O
5	BI_DC-	Bi-directional pair C -	I/O
6	BI_DB-	Bi-directional pair B -	I/O
7	BI_DD+	Bi-directional pair D +	I/O
8	BI_DD-	Bi-directional pair D -	I/O

RJ-45 8-Pin IP Network Port

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SAFETY

This section describes safety procedures and requirements for operating the SCOPIA Elite 5230 platform.

INSTALLATION SAFETY

Read the installation instructions before connecting the system to the power source.

To avoid an electric shock or damage to the SCOPIA Elite 5230 platform, servicing should be performed by qualified service personnel only.

Do not operate without covers. To avoid electric shock or fire hazard, do not operate this product with any removed enclosure covers or panels.

To avoid the risk of electric shock do not operate in wet, damp, or condensing conditions.

To avoid electrical hazards (heat shock and/or fire hazard), do not make connections to terminals outside the range specified for that terminal. See the Cable Connections and Pin-outs chapter for correct connections.

To avoid the risk of electric shock, always make connections to a grounded main when supplying power to the system. Do not operate in wet, damp, or condensing conditions.

ELECTRICAL SAFETY

To reduce the risk of damaging power surges, RADVISION recommends installing an AC surge arrestor in the AC outlet from which the SCOPIA Elite 5230 platform is powered.

A readily accessible listed branch circuit over current protective device rated 20 A must be incorporated in the building wiring.

- Grounding on page 12
- Power Supply on page 13
- ESD Procedures on page 13

GROUNDING

This SCOPIA Elite 5230 platform must be grounded. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

The SCOPIA Elite 5230 platform can become dangerous if you interrupt any of the protective conductors (grounding) or disconnect any of the protective earth terminals.

The SCOPIA Elite 5230 platform must be installed according to the latest version of the country national electrical codes. For North America, equipment must be installed in accordance to the applicable requirements in the US National Electrical Code and the Canadian Electrical Code.

The power cable of the SCOPIA Elite 5230 platform should only be connected to a power outlet that has a protective earth contact. Do not use an extension cord that does not have a protective conductor (ground).

Caution For North American installations, select a 3-conductor (18 AWG) power supply cord that is UL listed and CSA certified. The cord must be terminated in a molded-on plug cap rated 125V/5A, with a minimum length of 1.5m (6 feet) and no longer than 4.5m (approximately 14 feet).

Caution This is a class I unit. In Denmark, use this unit with an AC cord suited to Danish specifications. The cord should include an earthing conductor. Plug the unit into a wall socket outlet which is connected to the protective earth contact. Do not use socket outlets which are not connected to a protective earth contact!

Varoitus Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.

Advarsel Apparatet må tilkoples jordet stikkontakt.

Varning Apparaten skall anslutas till jordat uttag.

Power Supply

Caution Risk of electric shock and energy hazard. This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.

ESD Procedures

To prevent damage to RADVISION element boards by random electrostatic discharge (ESD), the use of wrist straps is highly recommended.

Operation Safety

Warning To prevent the SCOPIA Elite 5230 platform from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 113°F (45°C). To prevent airflow restriction, allow at least 3 inches (7.6 cm) of clearance around the ventilation openings.

Microprocessor heatsinks may become hot during normal operation. To avoid burns, do not allow anything to touch processor heatsinks.

When removing the fan tray, keep your hands and fingers away from the spinning fan blades. Let the fan blades completely stop before you remove the fan tray.

Warning There is a danger of explosion if the ATCA board battery is incorrectly replaced. Replace with the same type, or an equivalent type recommended by the manufacturer. Dispose of used batteries only according to manufacturer instructions.

Ultimate disposal of this product should be handled according to all national laws and regulations.

Cables for connecting to the unit RS-232 and Ethernet interfaces must be UL certified type DP-1 or DP-2 (when residing in a non-LPS circuit).

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COMPLIANCE AND CERTIFICATIONS

This section provides certifications that have been approved for the SCOPIA Elite 5230 platform.

SAFETY COMPLIANCE

This section lists the safety standards supported by the SCOPIA Elite 5230 platform.

- IEC 60950-1 2nd Edition
- UL 60950-1 2nd Edition
- CAN/CSA C22.2 No. 60950-1 2nd Edition
- EN 60950-1 2nd Edition
- AS/NZS 60950-1 2nd Edition

EMC

This section lists the EMC compliance for the SCOPIA Elite 5230 platform.

- FCC Part 15, Subpart B, Class A
- ICES-003
- EN 55022, Class A
- EN 55024
- EN 61000-3-2
- EN 61000-3-3
- AS/NZS 3548, Class A

- VCCI, Class A
- CISPR22, Class A

Warning This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC PART 15 NOTICE

This section provides RF interference information for the user.

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 one's own expense.

Warning Changes or modifications to the device that are not approved by the party responsible for compliance could void the user's authority to operate the equipment.

ENVIRONMENTAL COMPLIANCE

RADVISION complies with the following EU Directives:

- Restrictions on the Use of Hazardous Substances (RoHS) Directive 2002/95/EC
- Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

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About RADVISION

RADVISION (NASDAQ: RVSN) is the industry's leading provider of market-proven products and technologies for unified visual communications over IP and 3G networks. With its complete set of standards based video networking infrastructure and developer toolkits for voice, video, data and wireless communications, RADVISION is driving the unified communications evolution by combining the power of video, voice, data and wireless – for high definition video conferencing systems, innovative converged mobile services, and highly scalable video-enabled desktop platforms on IP, 3G and emerging next generation networks. For more information about RADVISION, visit www.radvision.com

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