# 4000 C SERIES

March Networks<sup>®</sup> 4000 C Series NVRs are hybrid video management platforms providing analog and IP camera support, outstanding video compression and storage, and embedded video analytics. The units are compatible with our VideoSphere<sup>®</sup> software applications and deliver superior surveillance and operational efficiency.

#### **EXCEPTIONAL PERFORMANCE**

March Networks 4000 C Series NVRs are powerful hybrid recorders in a class of their own. Able to support up to 16 analog cameras and 8 IP cameras, the units can deliver high frame rates of up to 30 fps to ensure clear video in almost any application. IP camera support enables the capture of detailed, high resolution images, including H.264 compressed video from March Networks' own portfolio of high-definition (HD) IP cameras. These networked units fulfill the needs of security and IT departments in the most demanding banking, retail, transportation and commercial/industrial applications.

The 4000 C Series also supports MPEG-4 video compression with unique Adaptive Compression Technology to deliver unrivaled video noise suppression. The resulting video is displayed in the highest quality, while saving significantly on bandwidth and disk space.

#### INTELLIGENT VIDEO RETENTION

Versatile storage sets the 4000 C Series apart. Up to 4 high-capacity hard drives provide as much as 4.0 TB of internal storage<sup>5</sup>, while optional disk mirroring, RAID configuration and SMART drive monitoring ensure a high level of data protection. An Intelligent Video Retention feature thins out lower priority, archived video to free up disk space automatically. Together with Adaptive Compression Technology, a 40% storage reduction can be realized.

#### **POWERFUL SOFTWARE**

VideoSphere Visual Intelligence software provides outstanding functionality and intuitive interfaces for administrators, security managers and loss prevention investigators anywhere on the network. Multi-site users, in particular, benefit from the efficiency of our enterprise management options.

One and four-channel VideoSphere Edge encoders provide a cost-effective means of incrementally expanding a 4000 C unit recording capacity beyond 16 cameras. Furthermore, realtime alerts can be triggered via an encoder's embedded video analytics, which include perimeter protection, loitering, occupancy and area obstruction detection, queue length monitoring and facial detection. An additional system analytic will alert staff to camera tampering or obstruction.





#### **FEATURES**

- Support for HD video
- Hybrid units support up to 8 IP cameras and up to 16 analog cameras
- Optional alarms / relays and two-way audio
- MPEG-4 compression with Adaptive Compression Technology
- H.264 compression with March Networks HD IP cameras
- High-capacity internal storage
- RAID options for extended archiving
- Internal back-up battery for power brown-out protection
- Docking station architecture for easy installation and maintenance
- Advanced health management features
- Embedded Linux operating system
- Advanced integration with VideoSphere client software, Edge encoders and IP cameras



### **VideoSphere** Intelligent Video Management

## 4000 C Series NVRs

**Technical Specifications** 



Analog recording	Up to 16 analog cameras supported on all 4x16 C models, 8 analog cameras supported on the 4208 C. Model dependent: (4208 C, 4216 C) 60 fps NTSC/50 fps PAL; (4316 C) 120 fps NTSC/100 fps PAL; (4416 C) 240 fps NTSC/200 fps PAL; CIF and 4CIF resolution supported
IP recording	Up to 8 IP cameras <sup>1</sup> supported in addition to analog cameras; direct LAN/WAN connect or PCI card interface; HD and megapixel images supported; aggregate 16.0 megabits/second performance across all IP cameras (<1 – 30 fps, based on image resolution)
Video compression	MPEG-4 video compression, with Adaptive Compression Technology; up to 5 quality settings; average image size <2 KB/frame H.264 video compression with VideoSphere HD IP cameras only
Alarms/Relays	Optional module <sup>2</sup> ; 16 current loop inputs, supporting open/closed/cut detection; 4 relay switch outputs (30 VDC, 1 Amp); programmable event driven
Audio channels	Optional PCI card <sup>3</sup> ; 6 line-level I/O channels; two-way half-duplex communication, synched to video; 4 quality settings per channel
Data connectivity	Optional PCI card <sup>3</sup> ; four RS-232 ports or two RS-485 ports per card, for ATM/POS transaction data integration <sup>4</sup> or PTZ camera support
Network interface	Ethernet: RJ-45 10/100 BaseT main port; additional 4 port Ethernet switch for IP camera integration; DHCP enabled
USB interface	USB 2.0; video export via USB CD burner or memory stick
Recording modes	Continuous, scheduled or on event – alarm (physical or remote), motion detection; ATM/POS transaction <sup>4</sup> trigger; configurable pre- and post-alarm recording
Video streaming	Unlimited streams; bandwidth limiting at global or camera-specific bit or frame rates; unique adaptive stream for low-bandwidth networks
Video storage	Up to 4 high-capacity, SATA-compatible hard drive interfaces for a maximum of 4 TB of storage <sup>5</sup> ; external RAID storage with optional SCSI PCI adapter <sup>3</sup>
Audit trail	Records all unit access and activity; 6 month capacity
Dimensions (HxWxD)	3.5 x 17.5 x 20 in. / 8.9 x 44.5 x 50.8 cm; rack (2U high), wall or desk mount
Weight	27 lbs / 12.2 kg (unit plus docking station); 1.25 lbs / 0.6 kg each hard-drive
Operating temperature	50 to 105 °F / 10 to 40 °C; maximum 255 BTU generated per hour (system plus 4 hard-drives)
Electromagnetic	FCC Part 15 Class A; EN55022 Class A Emissions; EN55024, EN50130-4, EN61000 Immunity
Regulatory compliance	UL 60950; CSA C22.2 No.950; EN60950 LVD; RoHS 2002/95/EC
Power supply	Internal 115/230 VAC (auto-sensing); consumption 75 W maximum (system plus 4 hard-drives)

NOTES: <sup>1</sup> Consult your March Networks representative for compatible vendors/models. <sup>2</sup> One module per NVR.

<sup>3</sup> Single PCI slot available. Two slots if IP camera PCI card not in use.

<sup>4</sup> Additional hardware/software may be required. Consult your March Networks representative.
<sup>5</sup> Ships with 500 GB capacity drives.

North America 1 800 563 5564 Latin America +1 613 591 8181 Europe, Middle East and Africa +39 0362 17935 Asia Pacific +61 1300 089 419

#### www.marchnetworks.com

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March Networks EMEA Via Lavoratori Autobianchi, 1 Edificio 23 20033 Desio - Milano - ITALY Phone: +39 0362 17935 Fax: +39 0362 1793590

PN 060-2951-00-H

March Networks Corporate Headquarters 303 Terry Fox Drive Ottawa, Ontario - CANADA K2K 3J1 Phone: +1 613 591 8181 Fax: +1 613 591 7337

