BOSCH

DIVAR IP all-in-one 7000 3U (gen 3)

VRM BVMS iSCSI RAID5 RAID6

▶ RAID-5 protected (standard configuration), all-in-one video management solution for up to 256 channels

▶ Out-of-the-box IP video management solution with up to 192 TB storage capacity

▶ Instantly find what you are looking for

▶ BVMS-based advanced user and alarm management

▶ DIVAR IP System Manager for operation mode selection, software setup and upgrades

The DIVAR IP all-in-one 7000 family is an affordable, simple and reliable all-in-one recording, viewing and management solution for network surveillance systems of up to 256 channels (with 8 channels pre-licensed).
DIVAR IP all-in-one 7000 3U is a 3U rack mount unit that combines advanced Bosch Video Management System capabilities and state-of-the-art recording management into a single cost-effective, convenient to install and operate recording device for IT-minded customers.

System overview

The DIVAR IP all-in-one 7000 family utilizes an energy efficient, embedded design which reduces possible points of failure and boasts Bosch quality through-and-through. Utilizing "enterprise-rated" hard drives in a fault tolerant RAID-5 configuration, dual port Gigabit Ethernet network interface, 16 GB system memory and an Intel Xeon Hexa Core Processor, the device delivers high-end performance at a very affordable price.
Easy to install and operate, the system features wizard-based set-up and centralized configuration.

Operation modes

DIVAR IP all-in-one 7000 systems can operate in three different modes:

• Full video recording and management system, utilizing the BVMS and Video Recording Manager core components and services.

This mode provides an advanced IP video security solution that delivers seamless management of digital video, audio and data across an IP network. It seamlessly combines IP cameras and encoders, provides system-wide event and alarm management, system health monitoring, user and priority management. This mode provides the best video management system to go with Bosch video surveillance devices, leveraging the unique capabilities of Bosch cameras and recording solutions. It includes Video Streaming Gateway components to integrate third-party cameras.

• Advanced video recording solution for a BVMS system, utilizing the Video Recording Manager core components and services, leveraging the unique capabilities of Bosch cameras and recording solutions. Up to two Video Recording Manager servers can be added to a BVMS system running on a DIVAR IP all-in-one device.

• iSCSI storage expansion for a BVMS system, which runs on a different hardware. Up to four of these iSCSI storage expansions can be added to a BVMS system running on a DIVAR IP all-in-one 7000 device.

Functions

The DIVAR IP all-in-one 7000 3U units feature highly energy-efficient hot-swap redundant power supplies, as well as front-swappable SATA-3 hard drives

providing up to 192 TB of gross storage capacity. The DIVAR IP all-in-one 7000 3U units utilize Microsoft Windows Server IoT 2019 for Storage Standard.

Instant real time access to video
View high quality HD and even UHD video despite low or limited bandwidth connections.
Dynamic Transcoding technology ensures you can view your video immediately - anytime, anywhere. The built-in transcoder supports up to 2 x UHD resolution video streams in parallel.

Management and health monitoring
DIVAR IP System Manager provides a central user interface for operation mode selection and for software setup and upgrade, which reduces installation and training requirements and keeps ongoing system management costs low.
When DIVAR IP all-in-one is connected to the Bosch Remote Portal, Remote System Management service allows to leverage the power of the Internet of Things (IoT) to provide an easy-to-use set of tools and capabilities for secure, transparent and cost-effective asset management throughout the life cycle of a device or system. This service enables users to perform inventory and update management, as well as health monitoring tasks for an entire system from one centralized Remote Portal platform.
The DIVAR IP all-in-one 7000 devices provide SNMP monitoring support for the system's hardware and for the video management applications to ensure maximum uptime.
BMC (IPMI) controller operating via dedicated Ethernet LAN port allows the user to access, monitor, diagnose, and manage DIVAR IP all-in-one 7000 as a remote server.

Remote viewing
For remote viewing of a single DIVAR IP all-in-one 7000 system, BVMS Operator Client is included. For multiple systems, add them to BVMS Enterprise Management Server.
Alternatively, use Video Security Client for viewing video from a separate workstation or mobile device.

Regulatory information

Certifications/ Directives	CB, UL, CE, UKCA, FCC, VCCI, RCM, KC, BSMI, SABS, NRCS LOA, RoHS, WEEE, BIS, NDAA, TAA

Region	Regulatory compliance/quality marks	
Europe	CE	
Morocco	CMIM	
Great Britain	UKCA	
Global	IEC 62443	Industrial Cyber Security Capability

Installation/configuration notes

ⓘ **Notice**
Environmental conditions
Install the system in a clean, dust-free, dry and weather-protected area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated.
The standard warranty coming with the system will be void if evidence is seen that the system was exposed to conditions contradicting the environmental conditions mentioned here.

Configuration of new hard drives
DIVAR IP all-in-one units that come pre-equipped with hard drives from factory are ready to record out-of-the-box. Hard drives that have been added to an empty unit need to be configured before using them for video recording.
The RAID configuration of new hard drives must be set up manually via the pre-installed RAID management utility. Only after this manual RAID configuration the DIVAR IP all-in-one 7000 system provides full functionality.

RAID configuration
DIVAR IP all-in-one 7000 3U units come pre-configured in a RAID-5 standard configuration with iSCSI LUNs (fully populated system only) and provide the following specifications:

RAID-5 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	550 Mbit/s	256 max.
16 x 8 TB	111720 GB	550 Mbit/s	256 max.
16 x 12 TB	167580 GB	550 Mbit/s	256 max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

These values refer to the BVMS recording engine; Net capacity for a RAID-5 configuration without hot spare; 256 connected IP cameras indicate the number of concurrent recordable cameras plus 8 sessions for replay.
Optional supported RAID configurations are RAID-5 with 1 x hot spare or RAID-6 without hot spare. The optional RAID configurations will not come pre-configured but must be set up manually via the pre-installed RAID configuration utility.

RAID-5 plus hot spare configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	550 Mbit/s	256 max.
16 x 8 TB	104272 GB	550 Mbit/s	256 max.

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
16 x 12 TB	156408 GB	550 Mbit/s	256 max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

RAID-6 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	550 Mbit/s	256 max.
16 x 8 TB	104272 GB	550 Mbit/s	256 max.
16 x 12 TB	156408 GB	550 Mbit/s	256 max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

License limitations

For the BVMS licenses applied on DIVAR IP all-in-one 7000 units, note pre-licensed quantities, quantities that come with the base license, and the upper limit of each:

License type	Pre-licensed	Base license MBV-BPLU-DIP	Upper limit
IP channel	8	32	256
Workstation client	2	5	20
DVR	1	1	10
CCTV Keyboard	2	5	10
Mobile Video Service	1*	1*	4*
Subsystems	0	0	20
Intrusion Panel	1	1	10
Failover VRM channel	0	8	256
Dual recording channel	0	8	256
Unmanaged Site	0	1	20
LPR channel	0	0	10
Online map functionality (BVMS 11.0 and later)	0	0	1
Map-based tracking assistant (BVMS 11.0 and later)	0	0	1

License type	Pre-licensed	Base license MBV-BPLU-DIP	Upper limit
Privacy overlay(BVMS 12.0.0 and later)	0	0	1

*Mobile Video Service needs to run on separate hardware.

For further details, see the BVMS documentation.

ⓘ **Notice**

Uninterruptable Power Supply (UPS). We strongly recommend using an "Online UPS" with an always active battery. The UPS must support Microsoft Windows Storage Server 2019 and must be sufficient to allow time to bring an auxiliary power source on line, or to properly shut down the DIVAR IP disk array(s).

ⓘ **Notice**

Bosch is not liable for any data loss, damages, or system failures of units equipped with hard drives that are not supplied by Bosch. Bosch cannot provide support if non-Bosch-supplied hard drives are considered to be the cause of the problem. To troubleshoot potential hardware issues, Bosch will require Bosch-supplied hard drives to be installed.

ⓘ **Notice**
Hardware warranty
DIVAR IP all-in-one devices come with a 3-year service level agreement that covers on-site service on the next business day. This service level can only be provided if the respective system has been registered immediately after receipt and installation. Otherwise, service will be provided based on best effort basis. Information about registration details is available in every shipment (registration form) or from the Bosch online product catalog. Next business day services cannot be provided in every country everywhere. For limitations and exceptions see the registration details in the registration form. If you order the warranty extension together with the device, refer to the "PoS" item in the price list. You can also order the warranty extension once the device is out of warranty. For this option, refer to the Bosch technical support.

(i) **Notice**
Software maintenance
Maintenance of software components is not included in this product.
A separate maintenance agreement needs to be purchased, in order to receive updates and technical support for the installed software.For more details on the Bosch Software Assurance, refer to: https://www.boschsecurity.com/xc/en/solutions/management-software/boschsoftware-assurance/

Technical specifications

Electrical

Type of power supply	VAC
Operating voltage (VAC)	100 - 240 VAC
Maximum output power (W)	1200 W
Power frequency	50 Hz; 60 Hz
Power supply efficiency rating	80 PLUS Titanium

120 VAC input (under highest capacity)

Rated input current (A)	2.9 A
Actual output wattage from power supply (W)	317.8 W
Efficiency of power supply (%)	94%
Power consumption* (W)	338.1 W max.
Maximum heat loss (BTU/h)	1153.8 BTU/h
Power factor	0.98
System AC input VA requirement	345.0 VA

*System power consumption may vary based on workload and environment.

240 VAC input (under highest capacity)

Rated input current (A)	1.4 A
Actual output wattage from power supply (W)	317.8 W
Efficiency of power supply (%)	96%
Power consumption* (W)	331.0 W max.
Maximum heat loss (BTU/h)	1129.8 BTU/h
Power factor	0.96
System AC input VA requirement	344.8 VA

*System power consumption may vary based on workload and environment.

Mechanical

Dimension (H x W x D mm)	132 x 437 x 648 mm
Dimension (H x W x D in)	5.2 x 17.2 x 25.5 in
Mounting type	rack-mounted
Rack unit (U)	3U

	DIP-73G0-00N Management appliance, 3U w/o HD 3rd gen
Weight (kg)	21.90 kg
Weight (lb)	48.28 lb

	DIP-73G8-16HD Management appliance, 3U 16X8TB 3rd gen
Weight (kg)	34.40 kg
Weight (lb)	75.80 lb

	DIP-73GC-16HD Management appliance, 3U 16X12TB 3rd gen
Weight (kg)	33.20 kg
Weight (lb)	73.14 lb

Environmental

Operating temperature (℃)	10 - 35 ℃
Operating temperature (℉)	50 - 95 ℉
Storage temperature (℃)	-40 - 70 ℃
Storage temperature (℉)	40 - 158 ℉
Operating relative humidity, non-condensing (%)	8 - 90 %
Storage relative humidity (%)	5 - 95 %

Operation

Processor	Intel® Xeon® E-2226GE
Processor base frequency	3.40 GHz
Cache	12 MB Intel® Smart Cache
Installed memory	16GB DDR4-2666 2Rx8 ECC UDIMM
Memory protection	ECC unbuffered

Operating system	Microsoft Windows Server IoT 2019 for Storage Standard
Processor graphics	Intel HD onboard graphics (three digital outputs: 1 DVI-I port, 2 DisplayPort ports), VGA disabled
SAS RAID Card	12Gb/s Eight-Port
Software compatibility	Web browser; Bosch Configuration Manager; Bosch Video Management System; Video Recording Manager; Video Security App

Storage

Internal storage	HDD
HDD connectivity	SATA3
HDD dimension	3.5 inch
Maximum internal hard drives	16
HDD rotation speed (rpm)	7200 rpm
Optical drive type	DVD double layer
OS storage	2 x 240 GB SSD RAID-1 configuration

Connectivity

Number of USB ports	6 Front: 2 USB 2.0 ports Rear: 3 USB 3.1 ports and 1 USB-C port
Number of Ethernet ports	2 RJ45 Gigabit Ethernet LAN ports (teamed)
Network port	1 IPMI BMC port
Number of video outputs	3 • 2 x DP 1.2, 4K@60Hz • 1x DVI-I , 1920x1080 @60Hz
Multi-display support	Maximum of 3 displays of up to 4K@30Hz resolution per display (DisplayPort) and 1920x1080@60Hz (DVI-I)

Data security

Crypto coprocessor (TPM)	Discrete TPM 2.0

Ordering information

DIP-73G0-00N Management appliance, 3U w/o HD 3rd gen
All-in-one recording, viewing and management solution for network surveillance systems.
Without HDD.
NDAA compliant
Order number **DIP-73G0-00N**

DIP-73G8-16HD Management appliance, 3U 16X8TB 3rd gen
All-in-one recording, viewing and management solution for network surveillance systems.
With 16 x 8 TB storage capacity.
NDAA compliant
Order number **DIP-73G8-16HD**

DIP-73GC-16HD Management appliance, 3U 16X12TB 3rd gen
All-in-one recording, viewing and management solution for network surveillance systems.
With 16 x 12 TB storage capacity.
NDAA compliant
Order number **DIP-73GC-16HD**

Accessories

DIP-AIO4-HDD 4TB HDD DIVAR IP all-in-one
Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 4 TB.
Order number **DIP-AIO4-HDD**

DIP-AIO8-HDD 8TB HDD DIVAR IP all-in-one
Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 8 TB.
Order number **DIP-AIO8-HDD**

DIP-AIO12-HDD 12TB HDD DIVAR IP all-in-one
Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 12 TB.
Order number **DIP-AIO12-HDD**

DIP-AIO18-HDD 18TB HDD DIVAR IP all-in-one
Hard disk storage expansion for DIVAR IP all-in-one appliances with a capacity of 18 TB.
Order number **DIP-AIO18-HDD**

KBD-UXF Keyboard, USB CCTV-oriented
USB CCTV-oriented keyboard for use with BVMS, BIS - Video Engine, or DIVAR IP systems.
Order number **KBD-UXF**

Software Options

MBV-BPLU-DIP License Plus base for DIP AIO 6000-7000
BVMS license for DIVAR IP all-in-one 6000 and DIVAR IP all-in-one 7000.
Base license for 32 channels (cameras/decoders).
Order number **MBV-BPLU-DIP**

MBV-XCHANPLU License Camera/decoder expansion
Expansion license for 1 encoder/decoder channel.
Order the exact number required.
Order number **MBV-XCHANPLU**

MBV-XWSTPLU License Workstation expansion
Expansion license for 1 workstation (each extra workstation requires 1 license).
Order number **MBV-XWSTPLU**

MBV-XDVRPLU License DVR expansion
Expansion license for 1 DVR. Order the exact number required.
Order number **MBV-XDVRPLU**

MBV-XKBDPLU License Keyboard expansion
Expansion license for 1 CCTV keyboard. Order the exact number required.
Order number **MBV-XKBDPLU**

MBV-XMVSPLU License Mobile video service expansion
Expansion license for 1 Mobile Video Service.
Order number **MBV-XMVSPLU**

MBV-XSUBPLU License Subsystem expansion
Expansion license for 1 subsystem. Order the exact number required.
Order number **MBV-XSUBPLU**

MBV-XINTPLU License Intrusion panel expansion
Expansion license to integrate intrusion panels.
Order number **MBV-XINTPLU**

MBV-XFOVPLU License VRM Failover channel expansion
Expansion license for 1 encoder channel used with a Failover VRM.
Order number **MBV-XFOVPLU**

MBV-XDURPLU License Camera dual recording expansion
Expansion license for 1 encoder channel used for dual recording.
Order number **MBV-XDURPLU**

MBV-XSITEPLU License Unmanaged site expansion
Expansion license for 1 site. Order the exact number required.
Order number **MBV-XSITEPLU**

MBV-XLPRPLU License LPR camera expansion
Expansion license for 1 (Tattile) LPR camera. Order the exact number required.
Order number **MBV-XLPRPLU**

MBV-FMAPPLU License online map functionality
Expansion license for online map functionality.
Order number **MBV-FMAPPLU**

MBV-FOBJPLU License Map-based tracking assistant
Expansion license for Map-based tracking assistant.
Order number **MBV-FOBJPLU**

MBV-FPRIPLU License Privacy overlay
Expansion license for Privacy overlay.
Order number **MBV-FPRIPLU**

CBS-RM-DIP7 Remote System Management DIP 7000 1yr
License to enable Remote System Management services for one DIVAR IP all-in-one 7000 (DIP-72xx, DIP-73xx, DIP-74xx) device for a 1 year period
Order number **CBS-RM-DIP7**

MBV-MPLU-DIP SMA license for MBV-BPLU-DIP, 1 year
One year of maintenance cover for the BVMS license for DIVAR IP all-in-one 6000 and DIVAR IP all-in-one 7000.
Order number **MBV-MPLU-DIP**

MBV-MCHANPLU SMA license for MBV-XCHANPLU, 1 year
1 year of maintenance cover for the Plus Edition camera/decoder expansion license.
Order number **MBV-MCHANPLU**

MBV-MWSTPLU SMA license for MBV-XWSTPLU, 1 year
1 year of maintenance cover for the Plus Edition workstation expansion license.
Order number **MBV-MWSTPLU**

MBV-MDVRPLU SMA license for MBV-XDVRPLU, 1 year
1 year of maintenance cover for the Plus Edition DVR expansion license.
Order number **MBV-MDVRPLU**

MBV-MKBDPLU SMA license for MBV-XKBDPLU, 1 year
1 year of maintenance cover for the Plus Edition keyboard expansion license.
Order number **MBV-MKBDPLU**

MBV-MMVSPLU SMA license for MBV-XMVSPLU, 1 year
1 year of maintenance cover for the Plus Edition Mobile Video Service expansion license.
Order number **MBV-MMVSPLU**

MBV-MSUBPLU SMA license for MBV-XSUBPLU, 1 year
One year of maintenance cover for an Enterprise Subsystem expansion license.
Order number **MBV-MSUBPLU**

MBV-MINTPLU SMA license for MBV-XINTPLU, 1 year
One year of maintenance cover for the BVMS Plus Intrusion panel expansion license.
Order number **MBV-MINTPLU**

MBV-MFOVPLU SMA license for MBV-XFOVPLU, 1 year
1 year of maintenance cover for the Plus Edition Failover VRM expansion license.
Order number **MBV-MFOVPLU**

MBV-MDURPLU SMA license for MBV-XDURPLU, 1 year
1 year of maintenance cover for the Plus Edition Dual Recording VRM expansion license.
Order number **MBV-MDURPLU**

MBV-MSITEPLU SMA license for MBV-XSITEPLU, 1 year
One year of maintenance cover for the site expansion license.
Order number **MBV-MSITEPLU**

MBV-MLPRPLU SMA license for MBV-XLPRPLU, 1 year
1 year of maintenance cover for the (Tattile) LPR camera expansion license.
Order number **MBV-MLPRPLU**

MBV-MMAPPLU SMA license for MBV-FMAPPLU, 1 year
One year of maintenance cover for an online map functionality license.
Order number **MBV-MMAPPLU**

MBV-MOBJPLU SMA license for MBV-FOBJPLU, 1 year
One year of maintenance cover for the Map-based tracking assistant license.
Order number **MBV-MOBJPLU**

MBV-MPRIPLU SMA license for MBV-FPRIPLU, 1 year
One year of maintenance cover for a Privacy overlay license.
Order number **MBV-MPRIPLU**

Services

EWE-73G0S0N-IW DIP-73G0-00N SRV Ext. 12 Mths IW
12 months warranty extension
Order number **EWE-73G0S0N-IW | F.01U.395.190**

EWE-73G8SGH-IW DIP-73G8-16HD SRV Ext. 12 Mths IW
12 months warranty extension
Order number **EWE-73G8SGH-IW | F.01U.395.191**

EWE-73GCSGH-IW DIP-73GC-16HD SRV Ext. 12 Mths IW
12 months warranty extension
Order number **EWE-73GCSGH-IW | F.01U.395.192**