

# DDN-2516-212N00 Recorder 16ch 1x2TB

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**BOSCH**

Invented for life



- ▶ 16 IP channels with 256 Mbps incoming bandwidth
- ▶ 8 MP (UHD) IP camera support for view and playback
- ▶ Real time live display for 8 channels @1080p or 2 channels @4k
- ▶ Compact, sturdy and stylish design

## Certifications and approvals

### Standards

Alarm	EN 50130-5:2011, Alarm systems - Part 5: Environmental test methods, Class I, Fixed equipment
Lightning protection	To ALL long input / output - and supply-wiring. Alarm inputs and relay output, Video inputs and Outputs, dome-control outputs, power-cable, Audio In/Out. ± 0.5, 1kV line to line, ± 0.5, 1 and 2kV line to earth

### EMC + Safety - Europe

EU Directives	2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS)
EMC Emission	EN 55032:2012/AC2013, class B
EMC Immunity	EN 50130-4:2011/A1:2014
EMC mains Harmonics	EN 61000-3-2:2014
EMC Mains fluctuations	EN 61000-3-3:2013

### EMC + Safety - Europe

LVD Safety	CB scheme + IEC/EN/UL 62368-1:2014/AC:2015
RoHS	EN 50581:2012

### EMC + Safety - USA and Canada

EMC USA	47CFR part 15 (FCC), Class B
Safety USA (UL, cUL)	UL 62368-1, Edition 2, Dec 1, 2014
Safety Canada	CAN/CSA-C22.2 No. 62368-1

### India

BIS (Bureau of Indian Standards)	BIS registration for external Power adapter (comes / packed with the main product)
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### Australia

ACMA EMC	RCM logo on product label
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### Region Regulatory compliance/quality marks

Australia	RCM	DOC SAL Variants
	RCM	DOC SAL
Europe	CE	ST-VS 2016-E-087

Region	Regulatory compliance/quality marks	
USA	UL	FCC & UL
	FCC	ST-VS 2016-E-088

### Parts included

Quantity	Component
1	Recorder
1	Optical disc containing software licenses and user documentation
2	Power supply cables (120VAC US type; 230VAC Euro type)
1	External power supply adapter (only for non-PoE models)
	Terminal connector blocks
1	Hard disk mounting kit (including SATA cables, brackets and screws)
1	Optical USB mouse
1	IR remote Control with 2 AA (1.5 V) batteries
1	Ground screw
	Installation guides for Recorder, HDD, plus safety instructions

### Technical specifications

Power	
External power adapter AC input (without PoE)	100-240 VAC; 50-60 Hz; 1.5 A
AC input (with PoE)	100-240 VAC; 50-60 Hz; 3.5 A
RTC battery on main PCB	Lithium CR2032, 3 VDC
Power adapter DC output (without PoE)	12 VDC; 5 A
DVR Power input (without PoE)	12 VDC
Maximum main power consumption (no HDD)	8.7 W without PoE 15.2 W with PoE
Maximum power consumption of PoE+ switch	115 W
Maximum power consumption (per PoE+ port)	25.5 W

Mechanical	
Dimensions (WxDxH)	375 x 323 x 53 mm (14.8 x 12.7 x 2.1 in)

Weight with PoE switch (excluding HDD(s) and DVD)	4.2 kg (9.3 lb) approx.
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Weight without PoE switch (excluding HDD(s) and DVD)	3.8 kg (8.4 lb) approx.
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Environmental	
Operating temperature (incl. HDD(s) and DVD)	+0°C to +40°C (+32°F to +104°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	<93% non-condensing
Storage humidity	<95% non-condensing

Video storage	
Internal storage options	Max. 2 SATA HDD or 1 SATA HDD + 1 DVD (R/RW) Max. capacity per HDD: 6 TB Max. supported speed per HDD: 6 Gb/s

Alarms and detections	
Motion detection set by camera	Essential or Intelligent Video Analytics (IVA), Motion +
Alarm activations	Video loss, motion detection, input alarm, system alarm
Events triggered by alarm	Recording, PTZ movement, alarm out, email, buzzer, screen message, Mon A and B activated, mobile push notification

Inputs	4 inputs configurable NO/NC, max. input voltage 12 VDC +/-10%
Outputs	2 relay outputs
Relay contact	Max. rated, 30 VDC, 2 A continuous or 125 VAC, 1 A (activated)

Exporting	
DVD (optional)	Built-in DVD+R/RW writer
USB	Flash memory or external HDD (FAT32)
Network	Web Client software or Video Client

Playback	
Multi-channel	Simultaneous 1/4/9/16 channels
Mode	Forward, reverse, slow play, fast play, frame-by-frame

Playback	
Search	Time, channel, type, smart
Network	Video Client, Web client, App
Restrict	Restrict video by user rights for viewing
Protection	Protect video against overwriting
Retention time	Automatically delete recordings after 1 to 365 days
Recording	
Decoding compression	H.265/H.264/MJPEG
Speed	Max. 60 IPS per channel, configurable
Bit rate	16 kbps to 24 Mbps per channel
Record interval	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec
Mode	Manual, Scheduled (regular, motion detection, alarm), Stop
Resolution	8MP, 6MP, 5MP, 3MP, 1.3MP, 1080p, 720p
Network control	
Ethernet	RJ45 port (10/100/1000 Mbps)
PC software	Video Client, Web client
APPs	iPhone, Android
User access	Maximum 128 users. Bosch advises a maximum of 4 simultaneous connections. More connections can cause performance limitations.
Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS/DDNS, IP Filter, PPPoE, FTP
Video performance	
Maximum IP camera channels	16
Maximum incoming bandwidth	256 Mbps
Maximum recording bandwidth	192 Mbps

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Maximum transmission bandwidth	128 Mbps
Display	
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768
OSD	Camera title, Time, Video loss, Motion detection, Recording, PTZ
Audio	
MIC Input	1 channel (via RCA) 200 to 3000 mV, 10 kOhm
Output	1 channel (via RCA) 200 to 3000 mV, 5 kOhm
Direction	Bidirectional (audio input and output connected via device)

**Ordering information****DDN-2516-212N00 Recorder 16ch 1x2TB**

High-resolution recorder for network surveillance systems.

Recorder 16ch 1x2TB

Order number **DDN-2516-212N00**

**Accessories****DVR-XS200-A HDD expansion 2TB**

Storage expansion kit. 2 TB

Order number **DVR-XS200-A**

**DVR-XS300-A HDD expansion 3TB**

Storage expansion kit. 3 TB

Order number **DVR-XS300-A**

**DVR-XS400-A HDD expansion 4TB**

Storage expansion kit. 4 TB

Order number **DVR-XS400-A**

**DVR-XS600-A HDD expansion 6TB**

Storage expansion kit. 6 TB

Order number **DVR-XS600-A**

**DVR-XS-DVD-B DVD writer expansion B**

DVD writer Expansion kit B

Order number **DVR-XS-DVD-B**