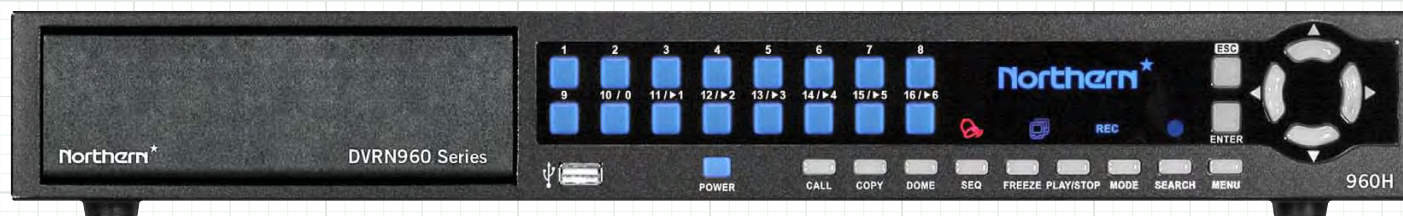# DVRN960 Series
960H, H.264 DVRs

DVRN4960 – 4 Ch 120FPS @ 960H/WD1
DVRN8960 – 8 Ch 240FPS @ 960H/WD1
DVRN16960 – 16Ch 480FPS @ 960H/WD1

DVRN960 Series Features:

- ♦ 960H Resolution / H.264 Compression
- ♦ Full Mobile Apps for iPhone, iPad, Android
- ♦ Up to 12TB Storage Capacity
- ♦ Copy Video to USB or Optional DVD
- ♦ HDMI, VGA & BNC Video Outputs
- ♦ 4, 8 or 16 Channels of Audio
- ♦ Looping BNC Outputs for All Channels
- ♦ EZ Record by Number of Days
- ♦ Free DDNS Included
- ♦ Free CMS for PC on Included Disk, MAC CMS via APP Store
- ♦ Remotely Monitor, Playback, Record, Setup & Archive
- ♦ IR Remote & Mouse Included
- ♦ Configuration Export Easily Sets Up Multiple DVRs
- ♦ Built-In PTZ Control / Built-In Motion Detection
- ♦ Rack Mount Hardware Included
- ♦ Digital Zoom for Live View & Playback

Free Mobile View & CMS Apps

iPhone	iPad	Mac OSX CMS	Android
NetGuard	NetGuard HD	XGuard	DroidGuard

DVRN960 Series Remote Software shown on Northern★ LED21HDMI

CMS Software For PC/Mac

GUI

Browser Based Remote Software

GUI

Learn More

H.264 Compression
H.264 recording is less demanding on Bandwidth and uses less Disk space for maximum recording time.

Free Mobile Apps for iPhone, iPad & Android
View & playback video anywhere, anytime from your mobile devices.

Up to 9.0TB Storage Capacity
Large Hard Drive capacity extends the amount of time you can store recorded video.

HDMI, VGA & BNC Video Outputs
Multiple outputs for easy connection to peripheral devices and for connecting two monitors at the same time.

EZ Record by Number of Days
Input the number of days stored video is required. Frame rate/resolution will automatically adjust to the number of days needed.

Free DDNS Included
Free DDNS feature allows you to configure your dynamic IP address directly from the unit, no third party account required.

Free CMS for PC & Mac
View up to 64 cameras on a single screen from multiple DVR's. CMS for PC included with unit, Mac CMS available as a free App from App Store.

Remote Accessibility
Remotely monitor, playback, record, change your DVR settings and even create an archive recording using PC Browser or CMS.

* Archiving not available on Mac CMS.

Included IR Remote & Mouse
Controlling all the DVR functions is easy from either the front panel or via the included IR remote or USB Mouse.

Configuration Export
Save time by copying your DVR setup configurations to a USB thumb drive and easily transfer and install them onto multiple DVRs.

Built-In PTZ Control
Connect and control PTZs from the front panel, included IR Remote, remotely through a computer or even your mobile phone app.

USB/DVD Video Copy
EZ record feature allows you to easily copy video files to a thumb drive using the Front Panel USB connection or the optional DVD Burner.

Rack Mount Hardware
Install the unit into a standard professional CCTV rack using the included rack mount brackets and hardware.

Up to 16 Audio Inputs
All models include 1 audio channel per video channel for the ability to both see and hear what you are recording.

Advanced Protection
Multiple passwords/permissions can be assigned to various users for allowing or denying access to certain features.
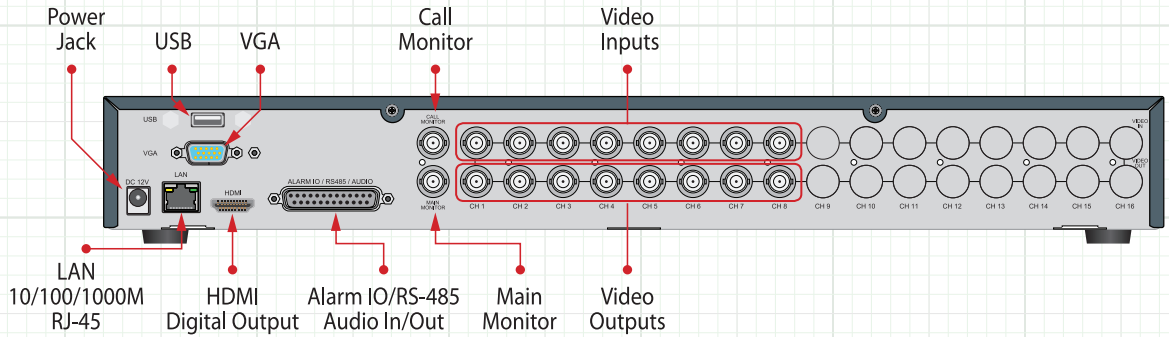
Looping BNC Outputs
Each video input also has a looping output for sending individual camera signals to other devices.

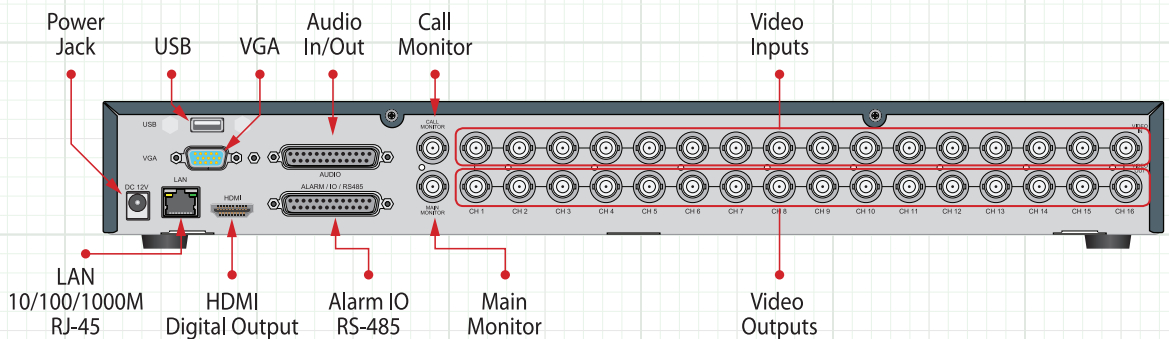## DVRN960 Series Hard Drive Configurations / Part Numbers

DRIVE SIZE	4 Channel	4 Channel w/DVD	8 Channel	8 Channel w/DVD	16 Channel	16 Channel w/DVD
1TB	DVRN49601T	DVRN4960DVD1T	DVRN89601T	DVRN8960DVD1T	DVRN169601T	DVRN16960DVD1T
2TB	DVRN49602T	DVRN4960DVD2T	DVRN89602T	DVRN8960DVD2T	DVRN169602T	DVRN16960DVD2T
4TB	DVRN49604T	DVRN4960DVD4T	DVRN89604T	DVRN8960DVD4T	DVRN169604T	DVRN16960DVD4T
6TB	DVRN49606T	DVRN4960DVD6T	DVRN89606T	DVRN8960DVD6T	DVRN169606T	DVRN16960DVD6T
9TB	DVRN49609T	N/A	DVRN89609T	N/A	DVRN169609T	N/A
12TB	DVRN496012T	N/A	DVRN896012T	N/A	DVRN1696012T	N/A

Rear Panel Definitions

4 & 8 Ch. Models

Power Jack · USB · VGA · Call Monitor · Video Inputs

LAN 10/100/1000M RJ-45 · HDMI Digital Output · Alarm IO/RS-485 Audio In/Out · Main Monitor · Video Outputs

16 Ch. Model

Power Jack · USB · VGA · Audio In/Out · Call Monitor · Video Inputs

LAN 10/100/1000M RJ-45 · HDMI Digital Output · Alarm IO RS-485 · Main Monitor · Video Outputs

PACKAGE CONTENTS

1. Power Cord
1. Power Supply
1. IR Remote Control
1. Alarm Adapter
1. Audio Adapter
1. User Manual
1. Quick Start Manual
1. Manual / CMS Disc
2. Rack Mount Ears
1. Mouse

DVRN960 Series Specifications

FEATURES		DVRN4960	DVRN8960	DVRN16960
VIDEO	Operating System	Embedded (Linux)		
	Video Standard	NTSC/PAL Auto Switching		
	Video Operation	Pentaplex Live, Record, Playback, Remote and Internet Access		
	Resolution-Live Video	960H / WD1		
	Video Input	BNC x 4, 1.0Vp-p / 75ohm	BNC x 8, 1.0Vp-p / 75ohm	BNC x 16, 1.0Vp-p / 75ohm
	Outputs: Main Monitor	HDMI, VGA or BNC		
	Call Monitor	BNC x 1, 1.0Vp-p / 75ohm		
	HDMI Output	1024 x 768, 1280 x 1024, 1280 x 720, 1920 x 1080		
	VGA Output	1024 x 768, 1280 x 1024 Pixels		
	Picture Refresh Rate	120FPS	240FPS	480FPS
	Display Mode	1, 4	1, 4, 9	1, 4, 9, 16
	Digital Zoom	Live View & Playback x2		
	Camera Installation	Plug & Play		
AUDIO	Input	RCA x 4 Line-in	RCA x 8 Line-in	RCA x 16 Line-in
	Output	RCA x 2 (1 x Main / 1 x Call) via Cable Assembly		
	Recording Mode	Only For Real Time Recording Synchronized w/Video		
	Compression Method	G.711		
	Data Rate	64Kb/s per CH		
	Operation	Local / Remote		
	Playback	Only for Video at Original Speed		
RECORDING	Compression Method	H.264		
	Recording Mode	Schedule, Alarm, Motion Detection, Continuous		
	Recording Resolution/Rate	120FPS @ 960 x 480 (WD1)	240FPS @ 960 x 480 (WD1)	480FPS @ 960 x 480 (WD1)
	Recording Quality	8 Preset Levels, Adjustable		
	Image Size	8Kb to 20Kb / Picture		
	Storage Mode	Linear / Circular		
PLAYBACK	Playback	Pause, Stop, Rewind, Forward, Search		
	Playback Speed Adjustment	1x, 2x, 4x, 8x, 16x, 32x		
	Search	Date/Time, Event (Alarm & Motion Detection)		
	Data Life Time Select	Yes. 1-365 Days		
STORAGE	Built-in HDD	SATA x 2 with DVD+RW / SATA x 3 without DVD+RW		
	Built-in File Copy	Optional DVD+RW		
	Export	USB 2.0 Port x2 (Support ThumbDrive) , DVD+RW		
ALARM	Alarm Input	D-Sub x 4	D-Sub x 8	D-Sub x 16
	Alarm Relay Output	D-Sub x 1		
	Alarm Detection	N.C./N.O., Programmable		
	Motion Detection	16 x 12 Grid Array, Sensitivity, Trigger Level Adjustable		
	Video Loss Detection	Programmable		
COMMUNICATION	Network Connectivity	RJ-45 connector, 10/100/1000MbpsEthernet, supports PPPOE / DDNS / DHCP		
	Remote Control Operation	CMS (Included on Disk), IE Browser IR Remote Control (Included) with Accessories		
	Mobile View Support	iPhone, iPad & Android		
	Remote Access	Up to 7 User Accounts / 8 Authority Levels / Max 3 Simultaneous Users		
	Remote Operation	Monitor, Playback, Recording, System Setup, Archive, PTZ Control		
	RS-485	D-Sub		
	IR Remote	Included		
	Dome Control Protocol	Pelco P, Pelco D, AD422, Fastrax 2, Panasonic, DSCP, JVC		
GENERAL	Unit Dimension(WxHxD)	17.3" x 2.3" x 15"		
	Unit Weight	10.8lbs		
	Package Dimensions	21.5" x 6.5" x 18"		
	Package Weight	15.2lbs		
	Operating Temperature	23° ~ 104°F		
	Relative Humidity	10% ~ 90% Non-Condensing		
	Power Supply	UL Listed 12VDC 5amp/60Watt		

Note: Specification subject to change without notice