

One Solution. One Company.

IR-1100 Quick Guide

Version 1.0.0

www.idisglobal.com

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Before reading this manual

This manual contains basic instructions on installing and using IR-1100 Network Video Recorder.

Users who are using this product for the first time, as well as users with experience using comparable products, must read this manual carefully before use and heed to the warnings and precautions contained herein while using the product. Safety warnings and precautions contained in this manual are intended to promote proper use of the product and thereby prevent accidents and property damage and must be followed at all times.

Once you have read this manual, keep it at an easily accessible location for future reference.

• The manufacturer will not be held responsible for any product damage resulting from the use of unauthorized parts and accessories or from the user's failure to comply with the instructions contained in this manual.

• It is recommended that first-time users of IDIS IR-series Network Video Recorder and individuals who are not familiar with its use seek technical assistance from their retailer regarding product installation and use.

• If you need to disassemble the product for functionality expansion or repair purposes, you must contact your retailer and seek professional assistance.

Safety, Environmental, and Regulatory Information

Refer to the **Safety**, **Environmental**, and **Regulatory Information** document included in the product package.

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1 Introduction

This is a video recorder that supports surveillance, recording, and playback of video from network cameras or video encoders.

This NVR (Network Video Recorder) unit offers the following features:

- Tested and validated with IDIS Solution Suite up to 256 Full HD H.264/H.265 IP cameras
- Supports up to 256 Full HD cameras in real-time for enterprise-level surveillance systems
- 1,024Mbps (128MBps) maximum recording bandwidth per server
- Redundancy of power for mission-critical reliability
- Complete compatibility with IDIS components: IP cameras, analog DVR, DirectCX TVR, DirectIP NVR, and encoders
- Equipped with RAID 5, RAID 6 recording, Hot swappable
- 2U rack mount chassis with sliding rails and cable management arm for ease of serviceability
- Supports H.264, H.265 compression, and Intelligent Codec
- Supports Onvif Profile S, Axis, Panasonic, etc.



2 Accessories

Upon unpackaging the product, check the contents inside to ensure that all the following accessories are included.



No.	Component	Quantity
1	IR-1100 Main Body	1
2	Front Chassis & Lock Key	1
3	Safety, Environmental, and Regulatory Information Manual	1
4	Power Code (A Type- Deskside)	2
5	Power Jumper Code (10A,4M,C13/C14)	2
6	Rack Mounting Bracket	1
7	Rack Installation Instructions Manual	1
8	Cable Strap	2 (1 pack)

3 Overview

3.1 Dimension





Х	Y	Z
482.0 mm (18.98 inch)	86.8 mm (3.42 inch)	717.6 mm (28.25 inch)

3.2 Front Panel



ltem	Component	Description
1	Left control panel	Contains system health and system ID, status LED and optional
1		iDRAC Quick Sync 2 (wireless).
2	Drive slots	Enable you to install up to 8 drives that are supported on your system.
2	Pight control papel	Contains the power button, VGA port, iDRAC Direct micro USB port,
3	Right control parler	and two USB 2.0 ports.

3.2.1 Left control panel



ltem	Indicator	lcon	Description
			Indicate the status of the system.
1	Status LED	N/A	The indicators display solid amber if any error occurs.
			For more information, see Status LED indicators.
	System health		Indicates the system health.
2	and ID	ĭ	For more information, see System Health and System ID
			indicator.
			Indicates if the iDRAC Quick Sync 2 wireless option is activated.
	iDRAC Quick Sync 2 wireless indicator		The Quick Sync 2 feature allows management of the system
		iDRAC Quick	using mobile devices. This feature aggregates
3		Sync 2 wireless	hardware/firmware inventory and various system level
			diagnostic/error information that can be used in troubleshooting
			the system.
			For more information, see iDRAC Quick Sync 2 indicator.

(1) Status LED Indicators

lcon	Indicator	Condition	Corrective Action
٥	Drive	The indicator turns solid amber if there is a drive error.	 Check the System Event Log to determine if the drive has an error. If the drives are configured in a RAID array, restart the system, and enter the host adapter configuration utility program.
	Temperature	The indicator turns solid amber if the system experiences a thermal error.	 Ensure that none of the following conditions exist: A cooling fan has been removed or has failed. System cover, air shroud, memory module blank, or back filler bracket is removed. Ambient temperature is too high. External airflow is obstructed.
¥	Electrical	The indicator turns solid amber if the system experiences an electrical error (for example, voltage out of range, or a failed power supply unit (PSU) or voltage regulator).	Check the System Event Log or system messages for the specific issue. If it is due to a problem with the PSU, check the LED on the PSU. Reseat the PSU.
	Memory	The indicator turns solid amber if a memory error occurs.	Check the System Event Log or system messages for the location of the failed memory. Reseat the memory module.

Restart the system. Update any required drivers for the PCIe card. Reinstall the card.
F

(2) System Health and System ID indicator

Indicator code	Condition
Solid blue	Indicates that the system is turned on, system is healthy, and system ID mode is not
Solid blue	active. Press the system health and system ID button to switch to system ID mode.
Blinking blue	Indicates that the system ID mode is active. Press the system health and system ID
Dilliking blue	button to switch to system health mode.
Solid amber	Indicates that the system is in fail-safe mode.
Blinking ambor	Indicates that the system is experiencing a fault. Check the System Event Log for
Difficility affiber	specific error messages.

(3) iDRAC Quick Sync 2 indicator

Indicator code	Condition	Corrective Action	
Off (default state)	Indicates that the iDRAC Quick Sync 2 feature is turned off.	 Press the iDRAC Quick Sync 2 button to turn on the iDRAC Quick Sync 2 feature. If the LED fails to turn on, reseat the left control panel flex cable and check. 	
Solid white	Indicates that iDRAC Quick Sync 2 is ready to communicate.	Press the iDRAC Quick Sync 2 button to turn off.If the LED fails to turn off, restart the system.	
Blinks white rapidly	Indicates data transfer activity.	If the indicator continues to blink indefinitely, contact the installer or seller.	
Blinks white slowly	Indicates that firmware update is in progress.	If the indicator continues to blink indefinitely, contact the installer or seller.	
Blinks white five times rapidly and then turns off	Indicates that the iDRAC Quick Sync 2 feature is disabled.	Check if iDRAC Quick Sync 2 feature is configured to be disabled by iDRAC.	
Solid amber	Indicates that the system is in fail-safe mode.	Restart the system.	
Blinking amber Indicates that the iDRAC Quick Sync 2 hardware is not responding properly.		Restart the system.	

3.2.2 Drive slots

Each drive carrier has an activity LED indicator and a status LED indicator.



ltem	Component	lcon	Description
1	Drive status indicator	4	Indicates the power condition of the drive.
2	Drive activity indicator	٥	Indicates whether the hard drive is currently in use or not.
3	Drive release button	N/A	Press the button to open the drive carrier release handle to remove or replace the drive.
4	Drive information tag	N/A	Shows the drive information such as capacity, drive type, rpm and so on.

(1) Drive status indicator code

Indicator code	Condition	
Flashes green twice per second	Identifying drive or preparing for removal.	
	Drive ready for removal.	
Off	NOTE: The drive status indicator remains off until all	
	drives are initialized after the system is turned on.	
	Drives are not ready for removal during this time.	
Flashes green, amber, and then turns off	Predicted drive failure.	
Flashes amber four times per second	Drive failed.	
Flashes green slowly	Drive rebuilding.	
Solid green	Drive online.	
Flashes green for three seconds, amber for three	Pabuild stopped	
seconds, and then turns off after six seconds		

NOTE: If the drive is in the Advanced Host Controller Interface (AHCI) mode, the status LED indicator does not turn on.

3.2.3 Right control panel



Item	Indicator	lcon	Description
1	Power button	()	Indicates if the system is turned on or off. Press the power
			button to manually turn on or off the system.
2	LISB port (2)	· (**	The USB ports are 4-pin, 2.0-compliant. These ports enable
2		· 4.	you to connect USB devices to the system.
		(((Indicates if the iDRAC Quick Sync 2 wireless option is
	iDRAC Direct port		activated. The Quick Sync 2 feature allows management of
2			the system using mobile devices. This feature aggregates
5			hardware/firmware inventory and various system level
			diagnostic/error information that can be used in
			troubleshooting the system.
	iDRAC Direct LED		The iDRAC Direct LED indicator lights up to indicate that
4		N/A	the iDRAC Direct port is connected.
			For more information, see iDRAC Direct LED indicator .
5	VGA port		Enables you to connect a display device to the system.

(1) iDRAC Direct LED indicator

Indicator code	Condition
Solid green for two seconds	Indicates that the laptop or tablet is connected.
Flashing green (on for two seconds and off for two seconds)	Indicates that the laptop or tablet connected is recognized.
Turns off	Indicates that the laptop or tablet is unplugged.

3.3 Rear Panel



Item	Component	lcon	Description	
1	Full-height PCIe	NI/A	The PCIe expansion card slot (riser 1) connects up to three	
I	expansion card slot	IN/A	full-height PCIe expansion cards to the system.	
2	Half-height PCIe	ΝΙ/Δ	The PCIe expansion card slot (riser 2) connects one half-	
2	expansion card slot		height PCIe expansion cards to the system.	
			The rear handle can be removed to enable any external	
3	Rear handle	N/A	cabling of PCIe cards that are installed in the PCIe expansion	
			card slot	
			The System Identification (ID) button is available on the front	
	System identification	ĩ	and back of the systems. Press the button to identify a system	
4	button		in a rack by turning on the system ID button. You can also use	
			the system ID button to reset iDRAC and to access BIOS using	
			the step through mode.	
5 iDRAC dedicated		عر	Enables you to remotely access iDRAC.	
	port	c		
6	Serial port	10101	Enables you to connect a serial device to the system.	
7	VGA port		Enables you to connect a display device to the system.	
8 USB port		SSC-	The USB ports are 9-pin and 3.0-compliant. These ports	
8 03B poit		3	enable you to connect USB devices to the system.	
٩	9 NIC port		The NIC ports that are integrated on the network daughter card	
			(NDC) provide network connectivity.	
10	Power supply unit	N/A	Supplies power to the system.	

(1) NIC indicator



Item Component		Description
1	Link LED indicator	Indicates the speed of the connected network.
2	Activity LED indicator	Indicates if data is flowing through the NIC.

Indicator code	Condition
Link and activity indicators are off	The NIC is not connected to the network.
Link indicator is green and activity	The NIC is connected to a valid network at its maximum port
indicator is blinking green	speed and data is being sent or received.

(2) Power Supply Unit (PSU) indicator



ltem	Component	Description
1	AC PSU status indicator	Shows whether power is present or if a power fault has occurred.

Indicator code	Condition				
Green	A valid power source is connected to the PSU and the PSU is operational.				
Blinking amber	Indicates a problem with the PSU.				
Not illuminated	Power is not connected to the PSU.				
Blinking green	When the firmware of the PSU is being updated, the PSU handle blinks green. CAUTION: Do not disconnect the power cord or unplug the PSU when updating firmware. If firmware update is interrupted, the PSUs do not function.				
Blinking green and turns off	 When hot-plugging a PSU, the PSU handle blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch with respect to efficiency, feature set, health status, or supported voltage. CAUTION: If two PSUs are installed, both the PSUs must have the same type of label; for example, Extended Power Performance (EPP) label. Mixing PSUs from previous generations of PowerEdge servers is not supported, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the system on. CAUTION: When correcting a PSU mismatch, replace only the PSU with the blinking indicator. Swapping the PSU to make a matched pair can result in an error condition and unexpected system shutdown. To change from a high output configuration to a low output configuration or vice versa, you must turn off the system. CAUTION: AC PSUs support both 240 V and 120 V input voltages with the exception of Titanium PSUs, which support only 240 V. When two identical PSUs receive different input voltages, they can output different wattages, and trigger a mismatch. CAUTION: If two PSUs are used, they must be of the same type and have the same maximum output power. 				

3.4 Front Bezel



A key is located at the backside of the front bezel. You can secure recording storages by locking the lock on the front side of the bezel.

4 Getting Started

4.1 Setting Windows OS

4.1.1 Setting password

Default login details for IR-1100 are as follows. ID: Administrator Password: P@ssw0rd

Log in with the login detail above, and make sure to change the password for security.

(1) Click 'Windows Setup > Control Panel > User Accounts > Manage another account'.



- Be at least six characters in length
- Contain characters from three of the following four categories;
 - English uppercase letters (A through Z)
 - English lowercase letters (a through z)
 - Base 10 digit (0 through 9)
 - Non-alphabetic characters (!,@,#,\$,%&,*)

Change Password			—		2
→	~ Ō	Search Control	Panel		۶
Change Administrator's password					
Administrator Local Account Administrator Password protected					
Current password					
New password					
Confirm new password					
If the password contains capital letters, they must be typed the s	ame way eve	ry time.			
Type a password hint					
The password hint will be visible to everyone who uses this com	puter.				
	Cha	inge password	Ca	ancel	
					10

NOTE. It is recommended to create a **password reset disk** by clicking 'Windows Setup > Control Panel > User Accounts > Create a password reset disk' to reset a password when you forget the password of administrator or user account. A USB memory device or CD/DVD is needed to create a password reset disk.

4.1.2 Activating Windows OS license

Windows on the IR-1100 is basically activated when it is dispatched. Windows OS must be activated in the following picture. If your Windows OS is not activated, please refer to 'Checking Windows OS Key' and activate your Windows OS with your Windows OS Key.

🔜 System				- 0	×
🗧 🚽 🕤 🛧 🔛 > Control F	Panel > All Control Panel Items >	System	5 v	Search Control Panel	Q
Control Panel Home	View basic information	about your computer			
😌 Device Manager	Windows edition				
Remote settings	Windows Server 2016 Stan	dard			
Advanced system settings	© 2016 Microsoft Corpora	tion. All rights reserved.	W.	/indows Server [®] 2016	
	System				
	Model:	Server PER740			
	Processor:	Intel(R) Xeon(R) Silver 4210 CPU @ 2.20GHz 2.19 GHz			
	Installed memory (RAM):	8.00 GB (7.63 GB usable)			
	System type:	64-bit Operating System, x64-based processor			
	Pen and Touch:	No Pen or Touch Input is available for this Display			
	Computer name, domain, and	workgroup settings			
	Computer name:	D9H7F033		Change se	ettings
	Full computer name:	D9H7F033			
	Computer description:				
	Workgroup:	WORKGROUP			
	Windows activation				
	Windows is activated Rea	d the Microsoft Software License Terms			
	Product ID:			😵 Change produ	uct key
See also					
Security and Maintenance					

4.2 Setting Built-in SSD Storages

Two 240GB SSDs are located inside of IR-1100. Typically, the SSDs are on RAID 1 level which appears to be a single drive. Windows OS is installed on this drive and IDIS Solution Suite installation package is located on the same drive as well. This drive is used for software installation.

Checking the SSD status procedure is as follows.

On the Windows OS > Device Manager, check if 240GB SSD is recognized.



If you check 'Windows Setup > File Explorer > Device and drives', SDDs are available as a single Logical Disk (C:).

Image: Image	Drive Tools This PC Manage				□ × √ 0
$\leftarrow \rightarrow \neg \uparrow \blacksquare$ This PC			✓ Ŏ S	Search This PC	٩
✓ Quick access Desktop Downloads Documents Pictures 3.3.0 ✓ D	olders (6) Desktop Music evices and drives (1)	Documents Pictures	Down	nloads os	
This PC Desktop Desktop Documents Titems 1 item selected	Local Disk (C:) 203 GB free of 222 GB				

You can also see SDDs are configured as a single Logical Disk at 'Windows Setup > Disk Management' Disk.

📅 Disk Manag	jement								-	×
File Action	<u>V</u> iew <u>H</u> elp									
♦	? 🖬 🗩 🖭									
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free			
300000	Simple	Basic		Healthy (R	450 MB	450 MB	100 %			
-	Simple	Basic		Healthy (E	99 MB	99 MB	100 %			
💳 (C:)	Simple	Basic	NTFS	Healthy (B	222.96 GB	204.93 GB	92 %			
Disk 0 Basic	\$ <i></i>	//////		(C:)				(î
223.49 GB Online	450 MB Healthy (Recove	ery Partiti	99 MB Healthy (EFI Syster	222.96 GB N Healthy (Bo	TFS ot, Page File, Cr	rash Dump, Prin	nary Partitic			~
Unallocated	Primary partition									

4.3 Setting Recording Drives

4.3.1 Installing Recording Drives

Maximum 8 of 3.5" HDD can be attached to the Drive slots of System..



Drives for recording purposes can be installed by the procedure below.



- (1) Insert the 3.5 inch drive adapter into the drive carrier with the connector end of the drive toward the back of the drive carrier.
- (2) Align the drive's screw holes with the holes on the drive carrier.
- (3) Install the screws to secure the drive to the drive carrier.

4.3.2 Configuring RAID

Configuring RAID for recording HDD can be done by entering System Setup menu from the boot up process.

(1) Press F2 while system is booting up, then select 'Entering System Setup' from the BIOS configuration screen.

Entering System Setup F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) F11 = Boot Manager F12 = PXE Boot	BIOS Version: 2.5.4 iDRAC IPV4: 172.17.20.213
Initializing Firmware Inter	rfaces

(2) Select 'System Setup Main Menu > Device Settings'.

System Setup	Help About Exit
System Setup	
System Setup Main Menu	
System BIOS	
iDRAC Settings	
Device Settings	
Select to configure device settings.	
Service Tag :	Finish

(3) Select 'Integrated RAID Controller 1:Dell <PERC H740 Mini> Configuration Utility'.

System Setup	Help About Exit
System Setup	
Device Settings	
Integrated RAID Controller 1: Dell <perc h740p="" mini=""> Configuration Utility</perc>	
RAID Controller in Slot 2: Dell PERC <perc adapter="" h840=""> Configuration Utility</perc>	
Integrated NIC 1 Port 1: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FC	
Integrated NIC 1 Port 2: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FD	
Integrated NIC 1 Port 3: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FE	
Integrated NIC 1 Port 4: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FF	
AHCI Controller in Slot 1: BOSS-S1 Configuration Utility	
Please note: Only devices which conform to the Human Interface Infrastructure (HII) in the UEFI Specification are displayed in this menu.	
Manage RAID Controller Configurations.	
Service Tag :	Finish

(4) Select 'Dashboard View > Main Menu'.

System Setup		Help About Exit
Integrated RAID Controller 1: Dell <perc h74<="" th=""><th>10P Mini > Configuration Utility</th><th></th></perc>	10P Mini > Configuration Utility	
Dashboard View		
Main Menu		-
Help		
PROPERTIES		
Status	Optimal	
Backplane	1	
BBU	Yes	_
Enclosure	0	
Physical Disks	4	
Disk Groups	0	
Virtual Disks	0	
		_
		1. The second seco
Shows menu options such as Configuration Manage	ment, Controller Management, Virtual	
Disk Management, Physical Disk Management and H	Hardware Components.	
Service Tag		Finish
oundo rug.		

(5) Select 'Configuration Management > Create Virtual Disk'.



- (6) Configure the main elements from 'Create Virtual Disk' menu.
 - Select RAID Type.

ntegrated RAID Controller 1: Dell <perc< th=""><th>C H740P Mini > Configuration Utility</th><th></th></perc<>	C H740P Mini > Configuration Utility	
ashboard View • Main Menu • Create Viri	ual Disk	
Create Virtual Disk		
Select RAID Level	RAIDO	-
Secure Virtual Disk	RAID0	
Select Physical Disks From	RAID1	
Salact Physical Dicks	RAID5	
Select Physical Disks	RAID6	
ONFIGURE VIRTUAL DISK PARAMETERS: Virtual Disk Name Virtual Disk Size		
Virtual Disk Size Unit	OMB @GB OTB	
Strip Element Size	256 KB	-
Read Policy	O No Read Ahead	
Creates a virtual disk by selecting the RAID le parameters.	evel, physical disks, and virtual disk	

- You can select HDDs for your RAID level by ticking HDDs from 'Select Physical Disk'. After selecting the desired HDDs, press 'Apply Changes'.

System Setup					Help About Exit
Integrated RAID Controller 1: Dell <perc h<="" th=""><th>1740P Mini ×</th><th>> Configu</th><th>ration Utili</th><th>ty</th><th></th></perc>	1740P Mini ×	> Configu	ration Utili	ty	
Dashboard View • Main Menu • Select Physic	al Disks				
Apply Changes					[
Select Media Type	O SSD	O HDD	Both		
Select Interface Type	O SAS	O SATA	le Both		
Logical Sector Size	0 512 B	O 4 KB	🐵 Both		
CHOOSE UNCONFIGURED PHYSICAL DISKS:					
 Physical Disk 01:00: HDD, SAS, 3.638TB, Ready, (Physical Disk 01:01: HDD, SAS, 3.638TB, Ready, (Physical Disk 01:02: HDD, SAS, 3.638TB, Ready, (Physical Disk 01:03: HDD, SAS, 3.638TB, Ready, (512B) 512B) 512B) 512B)				
Check All					
Uncheck All					
Apply Changes					
					1
Submits the changes made to the entire form.					
Service Tag:					Back

- Insert information of HDDs at 'Virtual Disk Name' and check if the Virtual Disk Size is correct.

System Setup	Help About Exit
Integrated RAID Controller 1: Dell <pe< th=""><th>RC H740P Mini > Configuration Utility</th></pe<>	RC H740P Mini > Configuration Utility
Dashboard View • Main Menu • Create	Virtual Disk
Create Virtual Disk	
Select RAID Level	RAID5
Secure Virtual Disk	
Select Physical Disks From	O Free Capacity
Select Physical Disks	
CONFIGURE VIRTUAL DISK PARAMETERS:	
Virtual Disk Name	
Virtual Disk Size	10.914
Virtual Disk Size Unit	o MB o GB ⊚ TB
Strip Element Size	256 KB
Read Policy	O No Read Ahead
Write Policy	O Write Through
	-
Allows the user to specify the name for th a-z, 0-9, underscore (_), and hyphen (-) onl	is virtual disk. The allowed characters are A-Z, ly.
Service Tag :	Back

- After configuration, run 'Create Virtual Disk'.

Dashboard View • Main Menu • Create Virti	ual Disk
Select Physical Disks From	Inconfigured Capacity O Free Capacity
Select Physical Disks	
CONFIGURE VIRTUAL DISK PARAMETERS:	
Virtual Disk Name	RecDisk
Virtual Disk Size	10.914
Virtual Disk Size Unit	OMB OGB (TB
Strip Element Size	256 KB
Read Policy	O No Read Ahead Read Ahead
Write Policy	○ Write Through
Disk Cache	O Enable O Disable
Default Initialization	● No
Create Virtual Disk	
Submits the changes made to the entire form parameters. Service Tag :	and creates a virtual disk with the specified

System Setup	About Exit
Integrated RAID Controller 1: Dell < PERC H740P Mini > Configuration Utility	
Dashboard View • Main Menu • Warning	
Creating Virtual Disks will cause the data on the associated Physical Disks to be permanently deleted.	
Are you sure you want to continue with this operation?	
🖙 Confirm	
Yes	
No	
Service Tag: 9H7F033	



(7) Check the virtual disk is configured correctly at 'Main Menu > Virtual Disk Management' screen.

(8) Finish the 'System Setup' by clicking 'Finish' button at 'Main Menu'.

System Setup System Setup Main Menu	1	
System BIOS		
Device Settings	Warning Confirm Exit Are you sure you want to exit?	
	Yes No	
Select to configure syst	em BIOS settings.	

📅 Disk Managem	nent							_	\times
File Action Vi	ew Help								
🗢 🌩 📰 📔	F								
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free		
-	Simple	Basic		Healthy (R	450 MB	450 MB	100 %		
-	Simple	Basic	1000	Healthy (E	99 MB	99 MB	100 %		
	Jinpo	bur							
- Disk 0									^
Basic 223.49 GB Online	450 MB Healthy (Recover	y Partil	99 MB Healthy (EFI Syste	(C:) 222.96 GB NTF Healthy (Boot,	[:] S , Page File, Crasl	h Dump, Primar	y Part		
ODisk 1									
Unknown 11176.50 GB Not Initialized	11176.50 GB Unallocated								
Unallocated	Primary partition								

(9) After the Windows OS boot up, you can see the information on the newly created Virtual Disk at 'Windows Setup > Disk Management' menu.

4.3.3 Connecting External Storages

To expand recording storage, an external storage such as IS-1100 can be used. To attach the external storage, PCIe type external storage controller card should be attached to IR-1100.

To connect with IS-1100, attaching 'PERP H840 Adapter' or similar Storage Controllers are recommended. Please refer to 'IS-1100 Quick Guide' document for connecting an external storage and RAID configuration.

(1) To install a storage controller, turn off the device and open the top panel.



(2) You will see the inside of the device and the storage controller will be located where the red box is.



(4) Align the card-edge connector with the connector on the system board.Press the card-edge down until the card is fully seated in the connector(5) Connect the SAS data cable connectors to the card.



- 1: Pull-tab is used when you detach the cable
- 2: SAS cable
- 3: SAS port

(6) There are three ways to connect the external storage. For more information, please refer to the IS-1100 quick guide document. This document includes only one of the three ways as an example.



(7) Close the top panel.

(8) Reconnect the system to its electrical outlet, then turn on the system and any attached peripherals.

4.3.4 Configuring RAID for External Storages

Configuring RAID for external storages can be done by entering the System Setup menu from booting up process.

(1) Press F2 while system is booting up, select 'Entering System Setup' from BIOS configuration screen..



(2) Select 'System Setup Main Menu > Device Settings'.

System Setup	Help About Exit
System Setup	
System Setup Main Menu	
System BIOS	
iDRAC Settings	
Device Settings	
Select to configure device settings.	
Service Tag :	Finish

(3) Select 'RAID Controller in Slot 2:Dell PERC <PERC H840 Adapter > Configuration Utility'.

System Setup	Help About Exit
System Setup	
Device Settings	
Integrated RAID Controller 1: Dell < PERC H740P Mini > Configuration Utility	
RAID Controller in Slot 2: Dell PERC < PERC H840 Adapter > Configuration Utility	
Integrated NIC 1 Port 1: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FC	
Integrated NIC 1 Port 2: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FD	
Integrated NIC 1 Port 3: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FE	
Integrated NIC 1 Port 4: Broadcom Gigabit Ethernet BCM5720 - F0:D4:E2:E8:4C:FF	
AHCI Controller in Slot 1: BOSS-S1 Configuration Utility	
Please note: Only devices which conform to the Human Interface Infrastructure (HII) in the UEFI Specification are displayed in this menu.	
Configure Device Parameters.	
Service Tag :	Finish

(4) Select 'Dashboard View > Main Menu'.

System Setup		Help About E×it
RAID Controller in Slot 2: Dell Pl	ERC <perc adapter="" h840=""> Configuration Utility</perc>	/
Dashboard View		
Main Menu		
Help		
PROPERTIES		
Status	Optimal	
Backplane	······ 0	
BBU	Yes	
Enclosure	······ 0	
Physical Disks		
Disk Groups		
Virtual Disks		
Shows menu options such as Conf	guration Management, Controller Management, Virtual	
Disk Management, Physical Disk N	lanagement and Hardware Components.	
Service Tag		Default Finish

(5) Select 'Configuration Management > Create Virtual Disk'.



(6) Configure the main elements from 'Create Virtual Disk' menu.

-	Select RAID	Type.
---	-------------	-------

ashboard View • Configuration Ma	nagement • Create Virtual Disk	
Create Virtual Disk		
Select RAID Level	RAID0	-
☐ Secure Virtual Disk	RAIDO	
Select Physical Disks From	RAID1	
Select Physical Disks	RAID5 R	
Virtual Disk Name Virtual Disk Size Virtual Disk Size	• • • • • • • • • • • • • • • • • • •	
Strip Element Size	256 KB	-
Read Policy		
Dynamically updates to display as Se the selection made in Select Physical	lect Physical Disks or Select Disk Group based on Disks From.	

- You can select HDDs for your RAID level by ticking HDDs from 'Select Physical Disk'. After selecting the desired HDDs, press 'Apply Changes'.

System Setup					Help About Exit			
RAID Controller in Slot 2: Dell PERC <perc adapter="" h840=""> Configuration Utility</perc>								
Dashboard View • Configuration Management • \$	Select Ph	ysical Disl	rs					
Apply Changes					-			
Select Media Type	O SSD	O HDD	Both					
Select Interface Type	OSAS	O SATA	Both					
Logical Sector Size	O 512 B	0 4 KB	Both					
CHOOSE UNCONFIGURED PHYSICAL DISKS:								
 Physical Disk 01:00:00: HDD, SAS, 3.638TB, Ready, (5) Physical Disk 01:00:01: HDD, SAS, 3.638TB, Ready, (5) Physical Disk 01:00:02: HDD, SAS, 3.638TB, Ready, (5) Physical Disk 01:00:03: HDD, SAS, 3.638TB, Ready, (5) Check All_ 	12B) 12B) 12B) 12B)							
Uncheck All								
ApplyChanges					-			
Deselects all physical disks.								
Service Tag :					Back			

- Insert information of HDDs at 'Virtual Disk Name' and check if the Virtual Disk Size is correct.

Virtual Disk Name	
Virtual Disk Size	10.914
Virtual Disk Size Unit	° ⊘MB ⊙GB ⊛TB
Strip Element Size	256 KB
Read Policy	O No Read Ahead 💿 Read Ahead
Write Policy	⊖ Write Through
Disk Cache	Default O Enable O Disable
Default Initialization	No O Fast O Full
Second Manual Park	
Disk Cache	⊛ Default ○ Enable ○ Disable ⊛ No ○ Fast ○ Full

- After configuration, run 'Create Virtual Disk'.

Select Physical Disks Select Physical Disks CONFIGURE VIRTUAL DISK PARAMETERS: Virtual Disk Name Virtual Disk Size 10.914 Virtual Disk Size Unit Strip Element Size Read Policy Write Policy Disk Cache Default Default Disk Cache Default Initialization Virtual Disk Virtual Disk Dynamically updates to display as Select Physical Disks or Select Disk Group based on the select Disk are provided in Select Physical Disks or Select Disk Group based on the select Disk are provided in Select Physical Disks or Select Disk Group based on the select on made in Select Physical Disks or Select Disk Group based on the select on made in Select Physical Disks or Select Disk Group based on the select Physical Disks From	Select Physical Disks From	O Free Capacity
Select Physical Disks CONFIGURE VIRTUAL DISK PARAMETERS: Virtual Disk Name RecDisk Virtual Disk Size 10.914 Virtual Disk Size 0 MB 0 GB Strip Element Size 256 KB Read Policy 0 No Read Ahead Read Ahead Write Policy 0 No Read Ahead Force Write Back Disk Cache 0 Default 0 Enable 0 Disable Default Initialization No Fast Full Create Virtual Disk Rect Disks or Select Disk Group based on the select Disks From Select Disk Group based on the select Disks From	Select Physical Disks	
CONFIGURE VIRTUAL DISK PARAMETERS: Virtual Disk Name RecDisk Virtual Disk Size 10.914 Virtual Disk Size 0 MB GB Strip Element Size 256 KB Read Policy 0 No Read Ahead Force Write Back Write Policy 0 No Read Ahead Force Write Back Disk Cache 0 Default 0 Enable Disable Default Initialization No Fast Full Create Virtual Disk Image: Create Virtual Disk S or Select Disk Group based on the selection made in Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From		
Virtual Disk Name RecDisk Virtual Disk Size 10.914 Virtual Disk Size Unit 0 MB 0 GB © TB Strip Element Size 256 KB Read Policy 0 No Read Ahead © Read Ahead Write Policy 0 No Read Ahead © Write Back © Force Write Back Disk Cache © Default © Enable © Disable Default Initialization © No © Fast © Full Create Virtual Disk Immovies Immovies Immovies	ONFIGURE VIRTUAL DISK PARAMETERS:	
Virtual Disk Size 10.914 Virtual Disk Size Unit 0 MB 0 GB TB Strip Element Size 256 KB • Read Policy 0 No Read Ahead • Read Ahead Write Policy 0 Write Through • Write Back • Force Write Back Disk Cache • Default • Enable • Disable Default Initialization • No • Fast • Full Create Virtual Disk • • • Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From •	Virtual Disk Name	RecDisk
Virtual Disk Size Unit OMB OG TB Strip Element Size 256 KB Read Policy ON Read Ahead Read Ahead Write Policy OF Force Write Back From Default Initialization OF Force Write Back From Perfault Initialization OF Force Write Back From Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From	Virtual Disk Size	10.914
Strip Element Size 256 KB Read Policy O No Read Ahead Write Policy O Write Through Disk Cache Default Default Initialization Image: Create Virtual Disk Create Virtual Disk Image: Create Virtual Disk Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From	Virtual Disk Size Unit	··· O MB O GB ⊛ TB
Read Policy O No Read Ahead Image: Read Ahead Write Policy O Write Through Image: Write Back O Force Write Back Disk Cache Image: Default O Enable O Disable Default Initialization Image: No O Fast O Full Create Virtual Disk Image: No O Fast O Full Image: Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From Image: No	Strip Element Size	256 KB
Write Policy O Write Through Image: Write Back Image: O Force Write Back Image: O Disk Cache Disk Cache Image: O Default Imitialization Default Initialization Image: O Disk O Force Write Back Image: O Disk O Disk O Force Write Back Image: O Disk O Disk O Force Write Back Image: O Disk O Disk O Disk O Force Write Back Image: O Disk O	Read Policy	 O No Read Ahead Image: Image of the end Ahead
Disk Cache	Write Policy	O Write Through O Write Back O Force Write Back
Create Virtual Disk Create Virtual Disk Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From	Disk Cache	
Create Virtual Disk Create Virtual Disk Dynamically updates to display as Select Physical Disks or Select Disk Group based on the selection made in Select Physical Disks From	Default Initialization	· · · · · · · · · · · · · · · · · · ·
Dynamically updates to display as Select Physical Disks or Select Disk Group based on	Create Virtual Disk	
Service Tag :	Dynamically updates to display as Select Physical the selection made in Select Physical Disks From.	Disks or Select Disk Group based on Back

Dashboard View · Configuration Management · Warning

Creating Virtual Disks will cause the data on the associated Physical Disks to be permanently deleted.

Are you sure you want to continue with this operation?

I ⊂ Confirm	
Yes	
13 T	
No	
Service Tag:	

(7) Check the virtual disk is configured correctly at 'Main Menu > Virtual Disk Management' screen.



(8) Finish the 'System Setup' by clicking the 'Finish' button at 'Main Menu'.

System Setup		Help About <u>Exit</u>
System Setup		
System Setup Main Menu		
System BIOS IDRAC Settings Device Settings	Warning Confirm Exit Are you sure you want to exit?	
Select to configure system BIOS s	ettings.	
Service Tag:		Finish

(9) After the Windows OS boot up, you can see the information on the newly created Virtual Disk at 'Windows Setup > Disk Management' menu.

Disk Managem	nent							_	\times
File Action Vi	iew Help								
🔶 🌧 📰 👔	F								
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free		
-	Simple	Basic		Healthy (R	450 MB	450 MB	100 %		
- (0)	Simple	Basic	NITEC	Healthy (E	99 MB	99 MB	100 %		
= (C:)	Simple	Basic	NIFS	Healthy (B	222.96 GB	200.18 GB	90 %		
- Disk 0									^
Basic				(C-)					
Online	450 MB Healthy (Recover	y Partii H	9 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	S Page File, Crash D)ump, Prima	ry Parti		
Online	450 MB Healthy (Recover	ry Partii F	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	S Page File, Crash E	Dump, Prima	ry Parti		
PODisk 1 Unknown 11176.50 GB Not Initialized	450 MB Healthy (Recover 11176.50 GB Unallocated	ry Partii	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	'S Page File, Crash E)ump, Primai	ry Part		
Online Online	450 MB Healthy (Recover 11176.50 GB Unallocated	ry Partii	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	'S Page File, Crash E)ump, Primai	ry Part		
225.49 GB Online Online Online Online Online Online Disk 2 Basic 11176.38 GB Online	450 MB Healthy (Recover 11176.50 GB Unallocated 11176.38 GB Unallocated	ry Partii	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	'S Page File, Crash E)ump, Primai	ry Part		
223.49 GB Online Online Online Unknown 11176.50 GB Not Initialized Online Unallocated	450 MB Healthy (Recover 11176.50 GB Unallocated 11176.38 GB Unallocated	ry Partii	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	°S Page File, Crash E	Dump, Primai	ry Part		
223.49 GB Online • O Disk 1 Unknown 11176.50 GB Not Initialized • Disk 2 Basic 11176.38 GB Online • Unallocated ■	450 MB Healthy (Recover 11176.50 GB Unallocated 11176.38 GB Unallocated Primary partition	ry Partii	99 MB Healthy (EFI Syste	222.96 GB NTF Healthy (Boot,	'S Page File, Crash E	Dump, Primai	ry Part		

4.4 Installing IDIS Solution Suite

IDIS Solution Suite installation package is on the system and the installation process is as the below.

- (1) Check the version of IDIS Solution Suite(name of the folder) from the Desktop of Windows OS and also check if sub-folders are included.
 - Document: IDIS Solution Suite installation and operation manual.
 - Setup: Installation package for IDIS Solution Suite Expert and Federation.
 - Update: Installation package for IDIS Solution Suite Update Service.
 - VideoWallAgent: Installation package for IDIS Solution Suite Video Wall Agent.



- (2) Check the Software License for IDIS Solution Suite, then install IDIS Solution Suite Expert or Federation on the C drive. Please refer to the documents in the Document folder for installation and configuration.
 - To install IDIS Solution Suite Expert: Run Setup/Setup.exe
 - To install IDIS Solution Suite Federation : Run Setup/Federation.exe
 - To install IDIS Solution Suite VideoWallAgent : Run VideoWallAgent/VideoWallAgentSetup

4.5 Teaming Network Interface Controller(NIC)

IR-1100 has four RJ45 ports and users can use different teaming modes.



Network adapter teaming is a term that is used to describe various methods of combining multiple network connections to increase throughput or provide redundancy.

There are two main types of network teaming settings and four in total. They are as follows:

LACP(Link Aggregation Control Protocol)

IEEE 802.3ad Dynamic Link Aggregation: Also known as Link Aggregation Control Protocol (LACP) or IEEE 802.1ax. This type of team provides increased throughput by bundling multiple physical links into one logical link whose effective bandwidth is the sum of that of the physical links. This type of team requires that the switch on the other end of the connection support LACP, The switch must be properly configured for the team to function properly.

Generic Trunking: Also known as static link aggregation, this type of team provides the same type of bundling functionality as IEEE 802.3ad/802.1ax but does not use LACP. The switch does not have to support LACP but must be properly configured for this type of team in order to function.

Smart Load Balancing and Failover

Smart Load Balancing (SLB) and Failover: This type of team balances network traffic across all primary adapters. If a primary adapter fails, the remaining primary adapters continue to balance the load. If all primary adapters fail, traffic continues to flow using the standby adapter with no interruption. Once a primary adapter is brought back online, traffic resumes flowing through it.

SLB with Auto Fallback Disable: This type of team functions as above, but traffic does not automatically revert to the primary adapter once it comes back online. Setting Up NIC Teaming

***Please note that some teaming options require specific switches and network settings.

4.5.1 Setting NIC Teaming Port

(1) Run Server Manager from Start Menu.



(2) Go to Local Server.



(3) Go to NIC Teaming setup menu.



(4) Click 'Tasks' and select 'Add to New Team'.

NIC Teaming								-		×	
SERVE	RS										
All Serve	ers 1 total							T/	ASKS 🔻		
Name	Status	Server Type Operating System	n Version Te	ams							
WIN-NGG1B7	PHIG4 🛈 Online	Physical Microsoft Windo	ws Server 2016 Standard 0								
							~				
AMS Teams 0 tr	otal			TASKS -	ADAPTERS AND INTERF	FACES		TAS	SKS 🔻		
eâm Statu	s Teaming Mode Lor	ad Balancing Adapters			Network Adapters Team In	terfaces			Add to N	lew Tean	n
					Adapter Speed St	tate Reason			Add to Se	elected 1	ſe
					 Available to be add 	ed to a team	(4)		Propertie	es	
					NIC1 1 Gbps						l
					NIC2 1 Gbps				_		
					NIC3 Disconnected						
					NIC4 Disconnected						
					Nama * Cant	Pacain					
					Name Sent	Receiv	Ed				
					Bytes: Packets:	0	0				
					Packets discarded:	0	ů 0				
					Bytes/Second:	0	0				
					Packets/Second:	0	0				

(5) Set name and desired ports.

NIC Te	aming								×
N	ew te	am							
(Team nam	ie:							
	Member a	dapters:							_
	In Team	Adapter	Speed	State	Reason				
		NIC1	1 Gbps						
		NIC2	1 Gbps						
		NIC3	1 Gbps						
		NIC4	1 Gbps						
	Addit	ional prop	erties						
							ОК	Cancel	

4.5.2 Setting NIC Teaming Type

 Additional settings can be done on the 'Additional properties' section. Set options for your desired Teaming setting and click the OK button. The picture below shows available options.

	Static Teaming *
	Static Teaming
Additional properties	Switch Independent
	LACP
Teaming mode:	
	Dynamic ~
1	Address Hash
Load balancing mode: 🪄	Hyper-V Port
	Dynamic
Standby adapter:	
Standby adapter.	None (all adapters Active)
2	NICI
Primary team interface:	NICT .
	NIC2
	20
	New team interface
	Interface name
	Team:
	Type: Primary interface
	VLAN membership
	Default
	The default interface handles all traffic that is not claimed by other VLAN- specific interfaces.
	O Specific VLAN:

- (2) Teaming mode: select desired Teaming mode
 - Static teaming(Static Link Aggregation): This option requires specific settings from switch and host(server)
 - Switch Independent: This option is for failover.
 - LACP: This option is for IEEE 802.3ad Dynamic Link Aggregation with LACP.
- (3) Load balance mode: select desired Load Balancing Mode,
 - Address Hash: Inbound and outbound traffic controlled statically.
 - Hyper-V Port: This option is for setting up VM (Virtual Machine) port
 - Dynamic: This is an option for the best performance in most cases. It provides a dynamic load balancing.
- (4) Standby adapter: setting up the primary NIC.
- (5) Primary team interface: setting up Specific VLAN.

The next chapter will show you two main NIC teaming examples (LACP, Failover).

4.5.3 Setting LACP Teaming Mode.

(1) Go to Add to New Team setup and set as the picture below.

NIC Teaming		×
New team		
Team name: LACP Team]
In Team Adapter Speed	State Reason	
NIC1 1 Gbp	5 5 5	
NIC4 1 Gbp	5	
Additional properties		I
Teaming mode:	LACP ~	
Load balancing mode:	Dynamic ~	
Standby adapter:	None (all adapters Active)	
Primary team interface:	LACP Team; Default VLAN	
	OK Cancel	

- (2) Wait until the new setting is saved. Your current network setting will be lost (e.g. IP settings).
- (3) Check the result.

	RS AND	INTERFACES			
					TASKS
Network	Adapters	Team Interfaces			
Adapter	Speed	State	Reason		
⊿ Ava	ilable to	be added to a	team (2)		
NIC1	1 Gbps				
NIC4	1 Gbps				
▲ LAC	CP Team	(2)	1		
NIC2	1 Gbps	 Active 			
NIC3	1 Gbps	Active			
Name	•	Sent	Received		
Bytes:		62,242	443,140		
Packets:		492	3,943		
Packets d	iscarded:	0	0		
Bytes/Sec	ond:	128	1,619		
Packets/S	econd:	1	14		

v your active networks	
	Access type: Internet
Network	Connections: LACP Team
Private network	DIC1
	NIC4

4.5.4 Setting Failover Teaming Mode

(4) Go to Add to New Team setup and set as the picture below.

NIC Teaming		Х
New team		
Team name: Failover(NIC2 Primary)		٦
Member adapters:		-
In Team Adapter Speed	State Reason	1
NIC1 1 Gbps		
NIC2 1 Gbps		
NIC3 1 Gbps		
NIC4 1 Gbps		
Additional properties		
leaming mode:	Switch Independent	
Load balancing mode:	Dynamic Y	
Standby adapter:	NIC2 Y	
Primary team interface:	Failover(NIC2 Primary); Default VLAN	
	OK Cancel	

(5) Wait until the new setting is saved. Your current network setting will be lost(e.g. IP settings)

(6) Check the result.

ADAPTERS AND INTERFACES

ADAPTERS AND I	NTERFACES		TASKS 🔻
Network Adapters	Team Interfaces		
Adapter Speed	State	Reason	
 Available to b 	oe added to a t	eam (2)	
NIC1 1 Gbps			
NIC4 1 Gbps			
▲ Failover(NIC2	Primary) (2)	L L	
NIC2 1 Gbps	 Standby 		
NIC3 1 Gbps	Active		
Name	Sent R	eceived	
Bytes:	21,380	469,903	
Packets:	188	3,725	
Packets discarded:	0	0	
Bytes/Second:	0	1,570	
Packets/Second:	0	17	
/iew your basi /iew your active ne	c network ir tworks	formation ar	nd set up connections
Network			Access type: Internet Connections: Failover(NIC2 Primary)

Licenses and Service Codes 5

5.1 Windows OS License

Private network

Windows OS Key is required for certifying the reinstalled Windows OS and you can find it as follows.

NIC NIC4

(1) Find the Windows OS Key on the top chassis of the product.



(2) Scrape the hidden portion off the keys and check the full information of Windows OS Key.



5.2 IDIS Solution Suite License

IDIS Solution Suite License is not included in this product. It will be delivered separately by the seller. If you need to re-activate License due to an abnormal situation(e.g. changing server), please refer to manuals in IDIS Solution Suite installation folder on your desktop of Windows OS.

5.3 Service Tag or Express Service Code

Service Tag or **Express Service Code** is required for device specific service as well as checking warranty and you can find it as follows.

(1) Find the Information Tag panel on the right bottom of the product and pull it forward.



(2) The Service Tag and Express Service Code will be shown in front of Information Tag.



6 Specification

SYSTEM	
IDIS Solution Suite	Compatible with Expert and Federation/Version 2.6.0 or Higher
Network Connection	4 GbE RJ-45 Ports (1000Base-T)
Recording Data Rate	Up to 1024Mbps (128MBps)
Number of Cameras	Up to 256
Recording Storage	8 Bay
Hard Disk Driver	Up to 8 x Large Form Factor Near-line SATA Hard Disk Drives, Hot-
Configuration	swappable, RAID 5, RAID 6
Operating System	Microsoft® Embedded Windows Server 2016
Processor	Intel® Xeon® Processor silver 4210 2.2G, 10C/20T
Memory	8GB RAM (1 x 8GB DDR4-2666MT/s RDIMM)
Video Outputs	1 VGA

MECHANICAL	
Form Factor	2U rack Mount Chassis
Dimensions (W x D x H)	482.0mm x 717.6mm x 86.8mm (18.98" x 27.71" x 3.41")
Weight	34.5kg (76 lbs)

ELECTRICAL	
Power Input	100-240V AC, 50/60Hz
Power Supply	Redundant, Hot Swappable
Power Capacity	750W

ENVIRONMENTAL	
Operating Temperature	10° to 35°C (50° to 95°F)
Storage Temperature	-40° to 65°C (-40° to 149°F)
Operating Humidity	10% to 80% Relative Humidity
	5% to 95% Relative Humidity, 38.7°C (101.7°F) Maximum Wet Bulb
Non-operating humany	Temperature, Non-condensing
Operating Vibration	0.26 Grms at 5 Hz to 350 Hz
Storage Vibration	1.88 Grms at 10 Hz to 500 Hz for 15 min
Operating Shock	Six consecutively executed shock pulses in the positive and negative x, y,
Operating Shock	and z axes of 6 G for up to 11ms
Storage Shock	Six consecutively executed shock pulses in the positive and negative x, y,
Storage Shock	and z axes (one pulse on each side of the system) of 71 G for up to 2 ms
Operating Altitude	3048m (10,000ft)
Storage Altitude	12,000 m (39,370 ft)

ACCESSORIES SUPPLIED	
	Sliding rail system with cable management arm.
	Supports:
Rack Rail System	- Tool-less mounting in 19"-wide EIA-310-E compliant square hole
	and unthreaded round-hole 4-post racks
	 Tooled mounting in threaded hole 4-post racks
Cable Management Arm	Yes
Rack Bezel	1, Front
Power Cord	1

CERTIFICATIONS	
Emissions Classification	FCC Rating Class A
EMC	CISPR 22; EN55022; EN55024; FCC CFR 47; Pt 15; ICES-003; CvNS14336-1; CNS13438; GB4943; GB9254; EN 61000-3-2; EN61000-3-3
Directives	RoHS, Reach(SVHC), WEEE

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IR-1100

Warranty

The warranty period for this product is 3 years.