VideoFlow

Hardware User Guide

Video Flow Hardware User Guide

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Website: https://www.video-flow.com

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1 Preface

1.1 About This Guide

This guide is to be used as a reference for the initial installation and configuration of the VideofFlow video protection devices.

1.2 Document Revision History

The following table provides the revision history of this document.

Document Version	Product Version	Document Date	Description
1.0		April 30, 2020	Initial version of the document for product.

1.3 Further Information and Technical Support

For technical support contact Video-Flow support at support@Video-Flow.com, or +972 3 613 0655. To open a help desk ticket, go to at http://www.video-flow.com/support and click on HELP DESK button.

1.4 User Guides

Click on the following links for the most current DVP and DVG software User Guides.

http://repo.videoflow1.com/dvg/userManual/

http://repo.videoflow1.com/dvp/userManual/

Click on the following link for User Guides that are relevant to previous software versions.

http://repo.videoflow1.com/dvg/userManual_olderVersions

http://repo.videoflow1.com/dvp/userManual_olderVersions

2   Basic Grade Devices

Basic grade devices use the DVP software for video stream protection. Basic grade devices have no expansion slots for optional interfaces. Hardware and performance specifications for the Basic Grade devices are:

	DVX50	DVX100	DVX200
Software			
DVP	Yes	Yes	Yes
DVG	Yes	Yes	Yes
Capacity			
Maximum bit rate [Mb/s]	40	80	200
Maximum number of streams	8	16	32
Maximum number of tunnels	8	16	32
Video Interfaces			
10/100/1000 Base-Tx, RJ-45 connectors	3	3	5
Front panel SFP slots	No	No	No
4x ASI IN/OUT, BNC female connectors	No	No	No
Management and Control			
Remote			
10/100/1000 Base-Tx, RJ-45 connector	Yes	Yes	Yes
Integrated IPMI	No	No	No
Local			
RS-232, RJ-45 connector	Yes	Yes	Yes
VGA	Yes	Yes	Yes
Expansion Slots			
Number of expansion slots	N/A	N/A	N/A
Environmental			
Ambient Temperature			
Operational	0°C - 45°C 32°F - 113°F	0°C - 45°C 32°F - 113°F	0°C - 45°C 32°F - 113°F
Storage	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F
Relative Humidity (non-condensing)			
Operational	10% - 90%	5% - 90%	5% - 90%
Storage	10% - 90%	5% - 95%	5% - 95%
Physical Dimensions			
Dimensions (W x D x H)	150 x 123 x 33 mm 5.91" x 4.84" x 1.30"	430 x 250 x 46 mm 16.93" x 9.84" x 1.81"	430 x 280 x 45 mm 16.93" x 11.02" x 1.77"
Weight	1.0 kg / 2.21 lbs	3.5 kg / 7.72 lbs	4.2 kg / 9.26 lbs
Power			
Power Supplies	1 (External)	1	1
Input Voltage	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz
Maximum Power	60 W	60 W	220 W
Compliance			
CE/FCC Class A, RoHS	Yes	Yes	Yes

2.1   DVX-50

2.1.1   Panel

2.1.2   Management

To access the device using the management interface see the section Remote Management.

2.2   DVX-100

The DVX-100 has both a serial management interface and a can also be managed by attaching a keyboard to the USB port and monitor to the VGA port. The DVX-100 can also be managed using the management port.

2.2.1   Panel
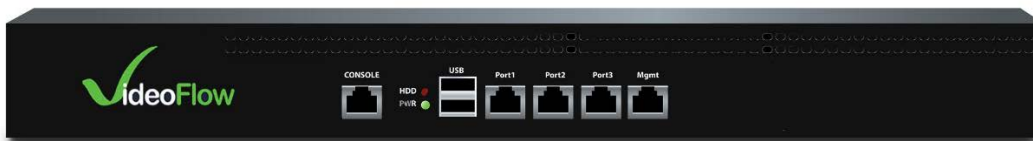
2.2.2   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

2.3   DVX-200

2.3.1   Panel

2.3.2   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

3   Performance Grade Devices

Performance grade devices use the DVP software for video stream protection. Performance grade devices are designed for better performance and expansion options. Hardware and performance specifications for the Performance Grade devices are:

	DVA100	DVA200	DVA202
Software			
DVP	Yes	Yes	Yes
DVG	Yes	Yes	Yes
Capacity			
Maximum bit rate [Mb/s]	80	200	200
Maximum number of streams	16	64	64
Maximum number of tunnels	16	64	64
Video Interfaces			
10/100/1000 Base-Tx, RJ-45 connectors	5	5	5
Front panel SFP slots	No	No	No
4x ASI IN/OUT, BNC female connectors	No	No	No
Management and Control			
Remote			
10/100/1000 Base-Tx, RJ-45 connector	Yes	Yes	Yes
Integrated IPMI	No	No	No
Local			
RS-232, RJ-45 connector	Yes	Yes	Yes
VGA	Yes	Yes	Yes
Expansion Slots			
Number of expansion slots	1	1	1
Environmental			
Ambient Temperature			
Operational	0°C - 40°C 32°F - 104°F	0°C - 40°C 32°F - 104°F	0°C - 40°C 32°F - 104°F
Storage	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F
Relative Humidity (non-condensing)			
Operational	5% - 90%	5% - 90%	5% - 90%
Storage	5% - 90%	5% - 90%	5% - 90%
Physical Dimensions			
Dimensions (W x D x H)	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"
Weight	9.0 kg / 19.84 lbs	9.0 kg / 19.84 lbs	9.0 kg / 19.84 lbs
Power			
Power Supplies	1	1	1 + 1
Input Voltage	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz
Maximum Power	250 W	250 W	250 W
Compliance			
CE/FCC Class A, RoHS	Yes	Yes	Yes

	DVA500	DVA502
Software		
DVP	Yes	Yes
DVG	Yes	Yes
Capacity		
Maximum bit rate [Mb/s]	500	500
Maximum number of streams	128	128
Maximum number of tunnels	128	128
Video Interfaces		
10/100/1000 Base-Tx, RJ-45 connectors	5	5
Front panel SFP slots	No	No
4x ASI IN/OUT, BNC female connectors	No	No
Management and Control		
Remote		
10/100/1000 Base-Tx, RJ-45 connector	Yes	Yes
Integrated IPMI	No	No
Local		
RS-232, RJ-45 connector	Yes	Yes
VGA	Yes	Yes
Expansion Slots		
Number of expansion slots	1	1
Environmental		
Ambient Temperature		
Operational	0°C - 40°C 32°F - 104°F	0°C - 40°C 32°F - 104°F
Storage	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F
Relative Humidity (non-condensing)		
Operational	5% - 90%	5% - 90%
Storage	5% - 90%	5% - 90%
Physical Dimensions		
Dimensions (W x D x H)	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"
Weight	9.0 kg / 19.84 lbs	9.0 kg / 19.84 lbs
Power		
Power Supplies	1	1 + 1
Input Voltage	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz
Maximum Power	250 W	250 W
Compliance		
CE/FCC Class A, RoHS	Yes	Yes

	DVA2000	DVA3000
Software		
DVP	Yes	Yes
DVG	Yes	Yes
Capacity		
Maximum bit rate [Mb/s]	1,600	2,400
Maximum number of streams	200	200
Maximum number of tunnels	200	200
Video Interfaces		
10/100/1000 Base-Tx, RJ-45 connectors	5	5
Front panel SFP slots	2	2
4x ASI IN/OUT, BNC female connectors	No	Yes
Management and Control		
Remote		
10/100/1000 Base-Tx, RJ-45 connector	Yes	Yes
Integrated IPMI	Yes	Yes
Local		
RS-232, RJ-45 connector	Yes	Yes
VGA	Yes	Yes
Expansion Slots		
Number of expansion slots	2	2
Environmental		
Ambient Temperature		
Operational	0°C - 40°C 32°F - 104°F	0°C - 40°C 32°F - 104°F
Storage	-20°C - 70°C -4°F - 158°F	-20°C - 70°C -4°F - 158°F
Relative Humidity (non-condensing)		
Operational	5% - 90%	5% - 90%
Storage	5% - 90%	5% - 90%
Physical Dimensions		
Dimensions (W x D x H)	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"	438 x 422 x 44 mm 17.24" x 16.61" x 1.73"
Weight	9.0 kg / 19.84 lbs	9.0 kg / 19.84 lbs
Power		
Power Supplies	1 + 1	1 + 1
Input Voltage	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz
Maximum Power	320 W	320 W
Compliance		
CE/FCC Class A, RoHS	Yes	Yes

3.1   DVA-100

3.1.1   Panel

3.1.2   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

3.2   DVA-200 / DVA202

3.2.1   Panel

3.2.2   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

3.3   DVA-500 / DVA-502

3.3.1   Panel

3.3.2   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

3.4   DVA-2000

3.4.1   Panel

3.4.2   Management

To access the device using the management interface see the section Remote Management.
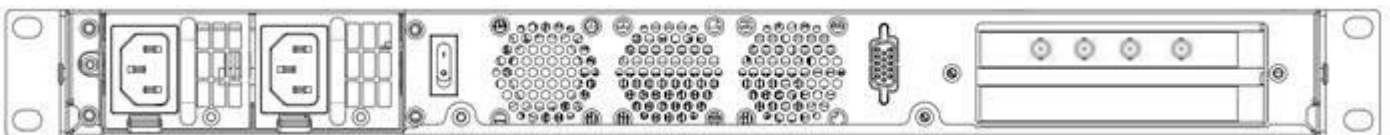
To access the device using the serial or console management interface see the section Remote Management.

3.5   DVA-3000

3.5.1   Front Panel

3.5.2   Rear Panel

3.5.3   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

4   Server Grade Devices

Server grade devices use the DVP software for video stream protection. Server grade devices are designed for optimum performance, have expansion options and are designed for data center integration. Hardware and performance specifications for the Server Grade devices are:

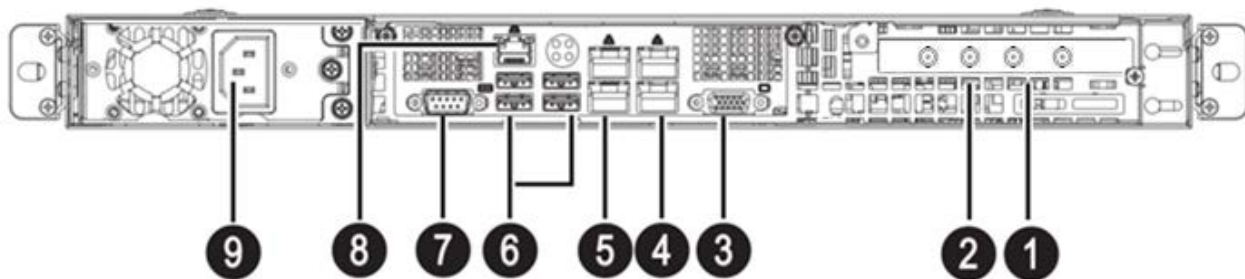|	DVS100	DVS500	DVS2000
Software			
DVP	Yes	Yes	Yes
DVG	Yes	Yes	Yes
Capacity			
Maximum bit rate [Mb/s]	100	500	1,600
Maximum number of streams	16	80	200
Maximum number of tunnels	16	80	200
Video Interfaces			
10/100/1000 Base-Tx, RJ-45 connectors	5*	5*	5*
Front panel SFP slots	No	No	No
4x ASI IN/OUT, BNC female connectors	No	No	No
Management and Control			
Remote			
10/100/1000 Base-Tx, RJ-45 connector	Yes	Yes	Yes
Integrated IPMI	Yes	Yes	Yes
Local			
RS-232, RJ-45 connector	Yes	Yes	Yes
VGA	Yes	Yes	Yes
Expansion Slots			
Number of expansion slots	1*	1*	1*
Environmental			
Ambient Temperature			
Operational	10°C - 35°C 50°F - 95°F	10°C - 35°C 50°F - 95°F	10°C - 35°C 50°F - 95°F
Storage	-40°C - 70°C -40°F - 158°F	-40°C - 70°C -40°F - 158°F	-40°C - 70°C -40°F - 158°F
Relative Humidity (non-condensing)			
Operational	8% - 90%	8% - 90%	8% - 90%
Storage	5% - 95%	5% - 95%	5% - 95%
Physical Dimensions			
Dimensions (W x D x H)	426 x 356 x 43 mm 18.80" x 14.00" x 1.70"	437 x 366 x 43 mm 17.20" x 14.40" x 1.70"	437 x 366 x 43 mm 17.20" x 14.40" x 1.70"
Weight	3.62 kg / 8.0 lbs)	4.8 kg / 10.5 lbs	4.8 kg / 10.5 lbs
Power			
Power Supplies	1	1	1
Input Voltage	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz	100 – 240V AC 50 – 60 Hz
Maximum Power	200 W	350 W	350 W
Compliance			
CE/FCC Class A, RoHS	Yes	Yes	Yes

4.1   DVS-100

4.1.1   Front Panel

4.1.2   Rear Panel

1;2 – Optional **Extension board** (ASI 1 is on the edge)

3 - VGA Port

4 - GbE **Port 2** (bottom); GbE **MGMT Port** (top)

5 - GbE **Port 1** (bottom); GbE **Port 3** (top)

6 - USB Ports

7 - COM Port (Serial Port)

8 - IPMI (**I**ntelligent **P**latform **M**anagement **I**nterface) - Initial IPMI address is: **DHCP** (changes from BIOS)

9 - Power Supply

4.1.3   Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

4.2   DVS-500

4.2.1   Front Panel

4.2.2   Rear Panel

For the descripton of the rear panel of the DVS-500 please see the rear diagram of the DVS-100.

4.2.3 Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

4.3 DVS-2000

4.3.1 Front Panel

4.3.2 Rear Panel

For the description of the rear panel of the DVS-2000 please see the rear panel diagram of the DVS-100.
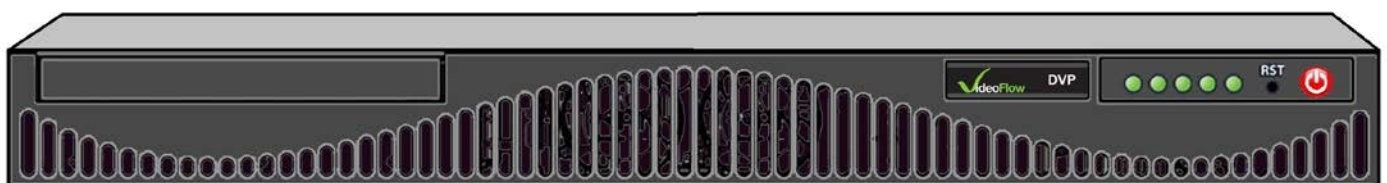
4.3.3 Management

To access the device using the management interface see the section Remote Management.

To access the device using the serial or console management interface see the section Remote Management.

5 Installation

This section covers the different types of installations.

5.1 Safety Precautions

To avoid injury and prevent equipment damage, observe the following safety precautions:

- Do not move or ship equipment unless it is properly packaged in its original wrapping and shipping containers.
- To prevent lightning damage, ground the unit according to local regulations.
- Do not permit unqualified personnel to operate the unit.

5.2 Site Preparation

The DVP must be installed within 1.5m (5 feet) from an easily accessible grounded AC outlet, capable of furnishing the required supply voltage as detailed below:

The use of a UPS (Uninterrupted Power Supply) and an AVR (Automated Voltage Regulator) is highly recommended to ensure uninterrupted operation of the DVP.

Ensure that a qualified electrician has installed the main power supply in accordance with local power authority regulations. All powering should be wired with an earth leakage in accordance with local regulations.

5.3 Mechanical Installation

To prepare the DVP for rack installation:

1. The rack adapter kit includes two mounting brackets. The brackets are fastened with screws on the sides of the DVP100/DVP100X/DVP1000 Chassis.

2. Verify that the rack mount brackets are secure (if they are pre-installed), then place the device in the communications cabinet. Secure the device with the correct screws for securing rack mount devices.

Note: Several DVP devices may be installed in a standard 19" rack, one above the other.

5.4 Serial / Console Cable Installation

The DVP supports terminal control from a standard PC via a Serial RS-232 connection.
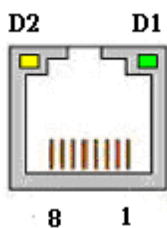
The console (RS-232) Pin-Out description of the RJ45 connector and connection to D type 9 pin connector. 2 cable types are supported.

RJ45 Pin #	RJ45 Pin # Only on VXU type 2	Name	To	D Type Pin #	Name	Or To	D Type Pin #	Name
1	-	RTS		7	RTS		8	CTS
2	-	DTR		6 & 1	DSR		6	DSR
3	2	TXD		2	RXD		2	RXD
4 & 5	5	GND		5	GND		5	GND
6	4	RXD		3	TXD		3	TXD
7	-	DSR		4	DTR		4	DTR
8	-	CTS		8	CTS		7	RTS
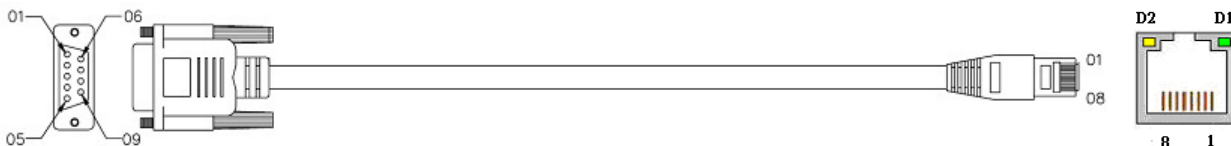
Note: Cable not included with unit.

Management (marked MGMT) Pin-Out description on the RJ45 connector

Pin/LED	Designation	Pin/LED	Designation
1	TX+	5	Chassis Ground
2	TX-	6	RX-
3	RX+	7	Chassis Ground
4	Chassis Ground	8	Chassis Ground
D1	**Link/Activity** Link - GREEN Activity - BLINKING	D2	**Speed indication** 1 Gbps - GREEN 100 Mbps - YELLOW

IP In/Out (marked 1- n) Pin-Out description on the RJ45 connector

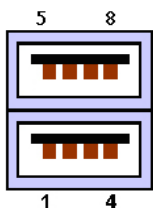| Pin/LED	Designation	Pin/LED	Designation
1	TX+	5	Chassis Ground
2	TX-	6	RX-
3	RX+	7	Chassis Ground
4	Chassis Ground	8	Chassis Ground
D1	Link/Activity Link - GREEN Activity - BLINKING	D2	Speed indication 1 Gbps - GREEN 100 Mbps - YELLOW

USB Pin-Out description

Pin	Designation	Pin	Designation
1	+5V	5	+5V
2	DATA0-	6	DATA1-
3	DATA0+	7	DATA1+
4	GND	8	GND

5.5   Management Port

The DVP can be managed remotely through the management Ethernet port using Web Based Control, SNMP, Netconf, CLI, Telnet SSH, HTTP (Rest), SFTP.

The Initial setup of the Management Port (Mgmt) is: 10.0.0.200

If a new Operating System was installed, the default IP address for all units is 192.168.100.209

DVP10S, DVP100S, DVP1000S has IPMI Port with initial setting address DHCP. The user can change the DHCP address to any static address from the BIOS by connecting a keyboard to the USB port, pressing the Del. Key after the beep power up beep. The BIOS can be viewed with using a VGA monitor.

5.6   Front Panel Controls and Displays

Devices with a front panel display unit information and can be used to monitor the operation of the unit.

6   Management

This section describes the different types of management that can be used for setup and management of the VideoFlow devices.

6.1   Management Port

VideoFlow devices can be managed remotely through the management Ethernet port using Web Based Control, SNMP, Netconf, CLI, Telnet SSH, HTTP (Rest), or SFTP.

The Initial setup of the Management Port (Mgmt) is: 10.0.0.200

Devices that have an IPMI Port can use DHCP for the initial setting of the IP address. The user can change the DHCP address to any static address from the BIOS by connecting a keyboard to the USB port, pressing the Del. Key after the beep power up beep. The BIOS can be viewed with using a VGA monitor.

6.2   Serial Console Port

This section outlines how to access the VideoFlow devices using the serial or console management interface.

To connect to the device using the console port:

1. Connect the serial cable to the console port on the device.

2. Connect the serial cable to the computer. If the computer does not have a serial interface, connect a serial adapter to the computer and then the console cable to the adapter.

3. Use a terminal emulator (for example PUTTY) to access the device.