

DFW-V500 DFW-VL500

Component / OEM



OUTLINE

The DFW-V500/VL500 is a fully digital camera which adopts the IEEE1394-1995 standard. Both cameras incorporate the latest 400 Mbps chip set and feature Sony's Wfine CCDTM which integrates a primary color filter ensuring high color accuracy square pixels and Progressive Scan technology which provides sharp, high resolution images, even of fast moving objects. Also, both models include an external trigger mode for asynchronous trigger operation that provides jitter-free pictures since the camera acquisition can be synchronized to full random events.

Through the IEEE1394-1995 high performance serial bus, the DFW-V500/VL500 presents 30 fps in VGA (640×480) resolution format.

The DFW-V500 has a C type lens mount while the DFW-VL500 includes a 12× zoom lens with motorized zoom, iris and focus.

A latching 6-pin IEEE1394 connector is used to output the digital image, to power the camera and to control all functions of the camera through a computer.

**"Wfine CCDTM" is a trademark of Sony Corporation.

- External Trigger
- Wfine CCDTM

HIGHLIGHTS

- IEEE1394
- External Trigger
- Wfine CCDTM
 - Primary Color Filter
 - Progressive Scan
 - Square Pixel
- VGA (640×480), Non-Compressed YUV(4:2:2) Digital Output
- 30 fps Full Motion Picture
- 400 Mbps, High Speed Data Transfers
- Aluminum Diecasting Chassis
- Supplied 6pin Cable with Latch Connector

IEEE1394

*Digital Makes
The Difference*

Standard for High Performance Serial Bus

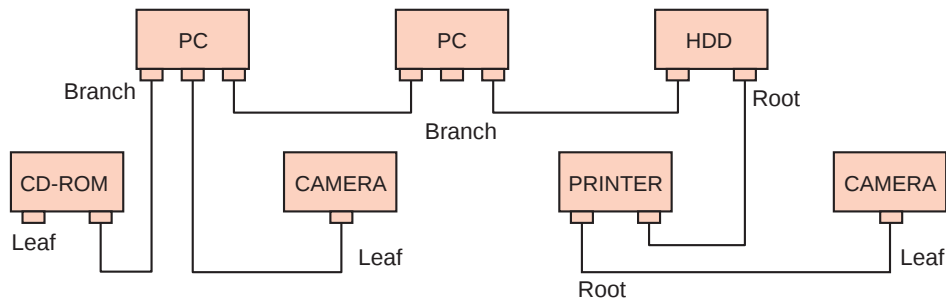
High Speed Data Transferees: 100, 200 and 400 Mbps. The DFW-V500/VL500 adopts 400 Mbps
DS-Link Encoding for highly efficiency Data Transfer

Plug and Play

No Terminator Placement
Automatic Address Selection

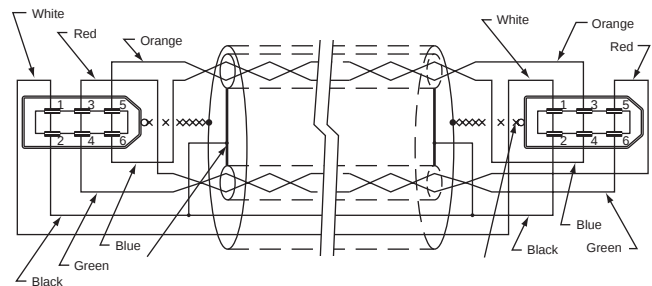
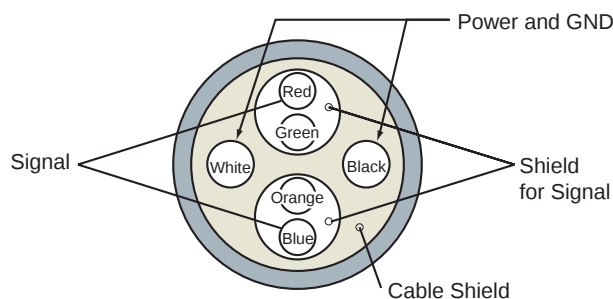
Flexible Topology

Allows for Branching and Daisy-chaining: Max of 63 Nodes

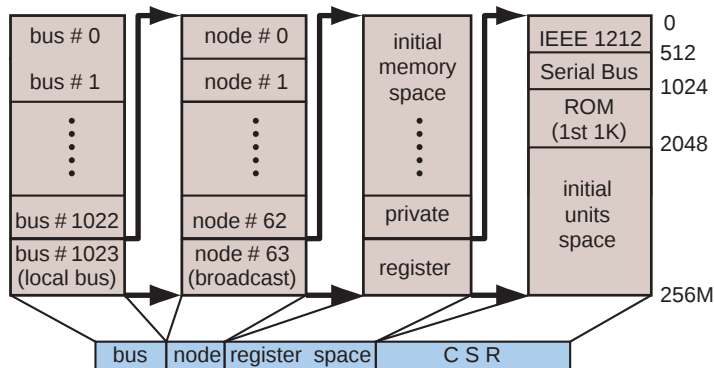


Small Connector and Cable

6 Conductors Including Power



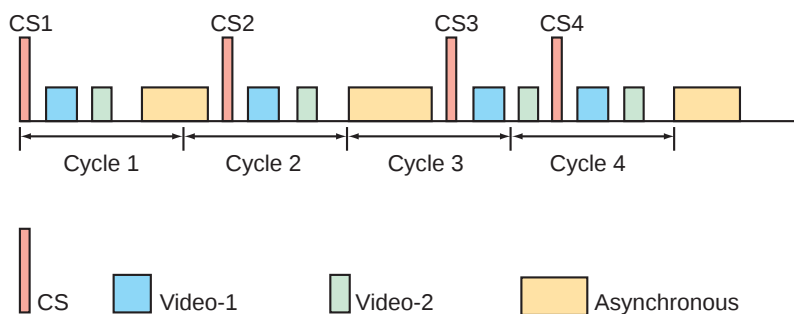
Addressing



- Standardized Address from IEEE1212 Architecture
- Configuration ROM from IEEE1212 Architecture
- Direct 64 bit Addressing (48 bits per node)

Protocol

Two Subsections : Asynchronous
Isochronous

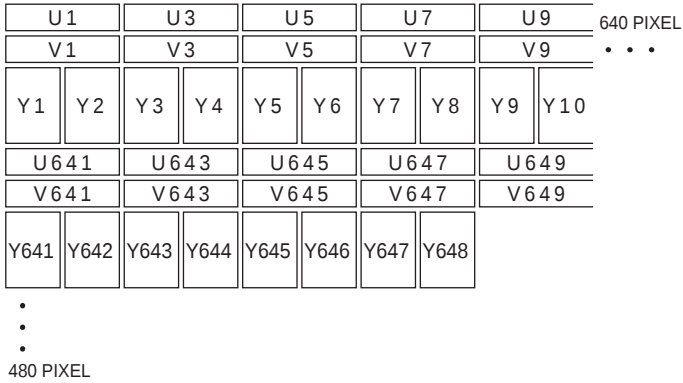


Isochronous

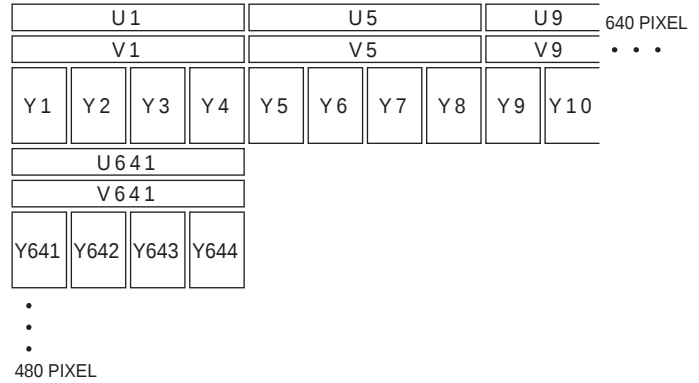
- Isochronous prior to Asynchronous
→ Realized Real Time Transfers
- Broadcast
- Cycle Start appears every 125μ sec.

IMAGE FORMAT

Mode_3 640×480(4:2:2)

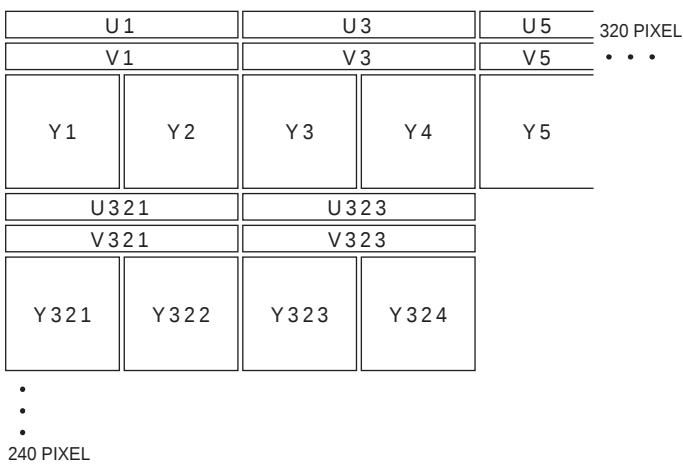


Mode_2 640×480(4:1:1)

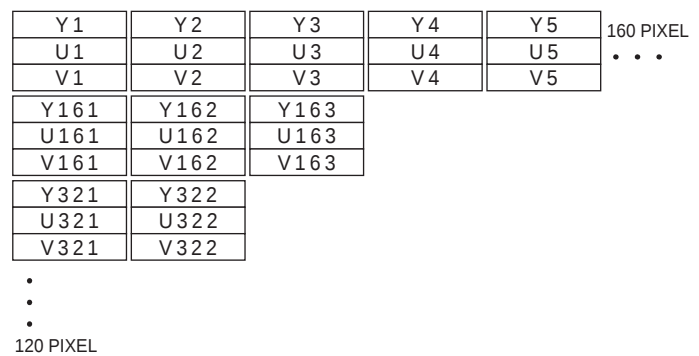


Also, the DFW-V500/VL500 features Mode_1 320×240 YUV(4:2:2) and Mode_0 160×120 YUV(4:4:4)

Mode_1 320×240(4:2:2)



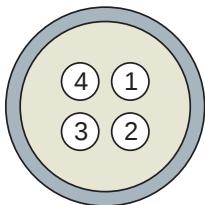
Mode_0 160×120(4:4:4)



EXTERNAL TRIGGER

The DFW-V500/VL500 features on “External Trigger”, which is specified by “IEEE1394 based Digital Camera Specification (ver.1.20)”. The timing of the image data is controlled by the external trigger. The integration time is defined by the camera itself. (trigger Mode_0)

4pin

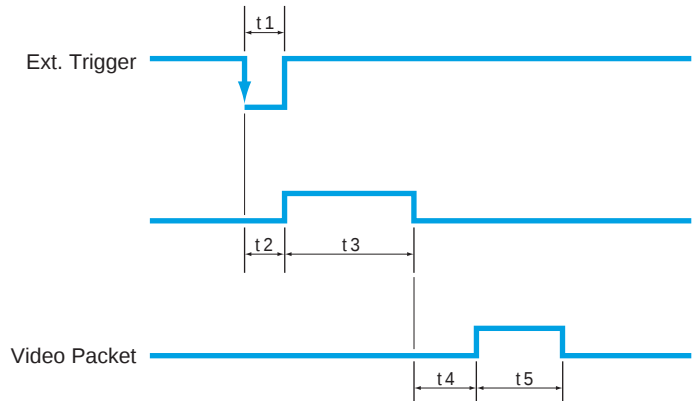


Camera Side

Pin Assignment

1	NC
2	GND
3	TRIG IN
4	NC

Trigger vs. Packet



t1 : min. 1 msec
t2 : typ. 1.9 μsec
t3 : integration time
t4 : 1 to 34 msec
t5 : typ. 30 msec (240 packets) [Mode_3, 30 fps]

Rear Panel



DFW-V500

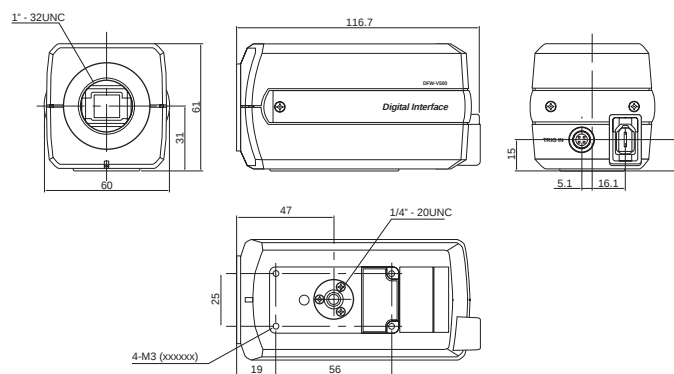


DFW-VL500

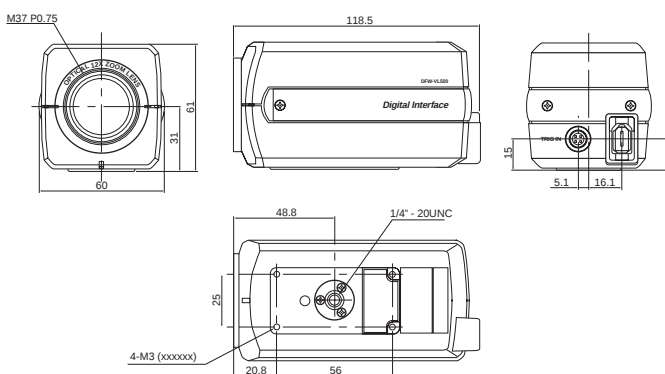
SPECIFICATIONS

	DFW-V500	DFW-VL500
Interface Format	IEEE1394-1995	
Data Format	640×480 YUV(4:2:2), YUV 8bit each 640×480 YUV(4:1:1), YUV 8bit each	320×240YUV(4:2:2), YUV 8bit each 160×120YUV(4:4:4), YUV 8bit each
Frame Rate	3.75, 7.5, 15.0, 30 fps and one shot	
Image Device	1/3" Wfine CCD™	
MIni. Sensitivity	6 lx (F1.2)	14 lx (F1.8)
White Balance	ATW, One Push , 3200K, 5600K, Manual	
Shutter Speed	5~1/15, 1/30~1/100000 sec.	
Gamma	ON/OFF1/OFF2	
Sharpness	Adjustable	
Hue	Adjustable	
Saturation	Adjustable	
Brightness	Adjustable	
Gain	Automatic and Manual Control	
Lens Control	N/A, C mount	12× Zoom Lens, Automatic and Manual
Power	Supplied through IEEE1394-1995 Cable (8 to 30Vdc), 4W	
Ope. Temp./Sto.Temp.	-10 to +50°C/-20 to +60°C	
Weight	305g	335g
Supplied Accessory	IEEE1394-1995 Cable with Latch Connector, (6pin), 4pin Connector	

DIMENSIONS



unit : mm



unit : mm

NOTICE

- If the PC does not have an IEEE1394 connector, a Host Adapter Card is needed.
- The DFW-V500/VL500 does not come with any application software or drivers.
- The use of the software with customer developed application software may damage hardware, application program and camera. Sony Corporation is not liable for any damages under these conditions.

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