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16 x 16 DVI / HDMI / SDI / DisplayPort Matrix, OMM-1000

Descriptions

OMM-1000 enables you to switch **up to 16 DVI /HDMI /SDI / DisplayPort inputs to 16 digital displays** by using general PC software like Hyperlink terminal, telnet or web browser. Easy programming feature is accomplished in various manners such as manual input of front key or command line (ASCII or Binary code) input with various interfaces of RS-232, and TCP/IP and it offers you flexible installation with other video controllers or control software. The input and output cards are composed of 4 ports, therefore user can configures any input and output channels from 4x4 to 16x16 by plugging the cards into OMM-1000 mainframe. In case of Dual link DVI card (DDVI-2EI / DDVI-2EO), it is composed of 2 ports, therefore configuration for input and output channels are from 2x2 to 8x8. It equips electrical DVI, HDMI, SDI, DisplayPort and optical DVI (SDVI-1FI/SDVI-1FO) input and output cards. Optical DVI input and output cards works perfectly with OPTICIS 1 fiber DVI extension module, DVFX-100 and maximum 1Km DVI signal extension can be managed with this combination. It also supports wide-range compatibility with respect to systems, consisting of various sources and various digital monitors. It has been designed not only to fully execute the DDC (Display Data Channel)/HDCP (High-bandwidth Digital Content Protection) function(Electrical DVI and HDMI cards only), but also to have users designate EDID to inputs for wide compatibility. Embedded video signal generator and diagnostic function help the user solve the installation problem with easy and optional quad multi-viewer card saves the installation cost.

Key Features

- **Configurable up to 16 x 16** electrical and optical input/output.
  - Minimum configuration is 4 x 4.
  - Supports **HDMI / SDI /Dual link / DisplayPort** input / output as an option.
  - Dual link DVI supports from 2 x 2 to 8 x8 input / output.
- Supports DDC/HDCP. (Electrical DVI and HDMI cards only).
- Supports DPCP. (Electrical DisplayPort card only).
- Provides various control methods (RS-232, TCP/IP, WEB, Key input)
- Equips **multi-viewer function (QDVI-O)**.
- Provides **Diagnostic function** for quick trouble shooting.
- Has **Reference video output and monitoring output** for easy installation.
- Handles DVI signal up to **1Km** over Multi-mode fiber with fiber optic cards, SDVI-1FI, SDVI-1FO.
- Provides preset mode to save and load the current routing.
- Offers **EDID management** function.
  - Default EDID inside
  - Read from display and store in input ports
  - Auto negotiation among attached displays
- Provides wide operating temperature range, **10-40 degree**.
- Provides **Power and Fan error** indication.
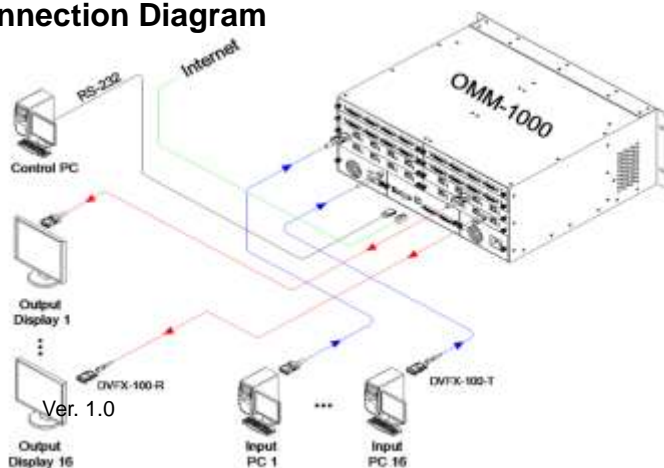- Certified by **medical UL/EN60601** and FCC/CE.

Applications

- Medical imaging system
- Video wall system
- Digital signage, Military / Aerospace

Technical Specifications

Section	Basic Spec.	Section	Basic Spec.
Video resolution	Main VESA resolution & Main vertical frequency from 640x480 up to WUXGA (1920x1200), @60Hz WQXGA (2560x1600),@60Hz (Dual link , DisplayPort card only)	Reference video output	9 output video resolutions with 16 patterns
HDCP	Support : Electric DVI, Dual link DVI, HDMI Non-support : Optical DVI, SDI, DisplayPort	Diagnosis	1) In/Output Link condition 2) source & display Link condition 3) EDID, HDCP information by the remote control through the Web
Video format conversion	Video format conversion without scaling function	Configuration	Save & Restore for Current connection & Control condition by internal memory
Multi -viewer	With additional output card (QDVI-O), Quad view & picture in picture (PIP)	EDID management	1) Default Mode 2) Auto Detect Mode 3) Output Copy Mode 4) Resolution List Mode
In/Output	16 x 16 (4 ports in one in/output card) 8 x 8 (2 ports in one in/output card)	Color	Black
Switching speed	< 1 sec (If No format searching by Display)	Front Key	LED key (Use of long-term reliability prepared product)

		In/Output card Spec.		
Size	440 x 380 x 178mm (WDH),　(4U, 19")	Section	Model name	In/Output port
		Single DVI input	SDVI-4EI	4 x DVI-D receptacle
Weight	< 11Kg　(net weight for single power)	Single DVI output	SDVI-4EO	4 x DVI-D receptacle
		Dual DVI input	DDVI-2EI	2 x DVI-D receptacle
		Dual DVI output	DDVI-2EO	2 x DVI-D receptacle
		HDMI input	HDMI-4EI	4 x HDMI receptacle
Cooling system	Cooling fan (Forced cooling system)	HDMI output	HDMI-4EO	4 x HDMI receptacle
		SDI input	SDI-4EI	4 x SDI receptacle
		SDI output	SDI -4EO	4 x SDI receptacle
Certificate	UL/EN 60601, CE, FCC class B	DisplayPort input	DP1-4EI	4 x DP receptacle
		DisplayPort output	DP1-4EO	4 x DP receptacle
		Quad output	QDVI-O	1x DVI-D receptacle + 1x SC receptacle
Control system	Front-key, RS-232, TCP/IP, Web	1 fiber DVI input	SDVI-1FI	4 x SC receptacle
		1fiber DVI output	SDVI-1FO	4 x SC receptacle

Operating condition	Temperature (℃)	10 ~ 40	Transport And Storage condition	Temperature (℃)	-30 ~ +70
	Relative humidity (%)	+30~ +75		Relative humidity (%)	+10~ +95
	Atmospheric Pressure (hPa)	700 ~ 1060		Atmospheric Pressure (hPa)	500 ~1060

Connection Diagram

Ver. 1.0

All contents are subject to be changed without prior notice.