VN-DECODER-2
High Performance 2-Channel Video Decoder

- Ideal companion for a Virtual Matrix Display Controller
- Part of scalable matrix control solution for small and large installations
- Decodes digital IP data into analog for display on any monitor
- Create large multi-monitor displays
- Compact size fits easily in remote display areas with limited space
- Connect up to 2 monitors to each unit; add more units for multiple monitor solutions
- Supports 1080p high-definition; 16 x 9 viewing; H.264 compression
- Control can be shared by multiple operators

The Perfect Solution for VMDC Systems

The VN-DECODER-2 is a key part of the ViconNet® Virtual Matrix Display Controller (VMDC) system. Used in conjunction with the VMDC, network data is received and converted from a digital IP source to an output for display on any monitor with a DVI or HDMI input (a DVI output can be VGA using an adapter). This enables distribution directly to a monitor and offers an alternative display method to the PC-based client.

The device provides a cost-effective means to support remote or add-on viewing stations that require only live video display. Each VN-DECODER-2 supports up to two monitors, each with the ability to display up to 64 video streams on each monitor; refer to Performance chart that follows.

Full functionality of ViconNet is provided regardless of what type of monitor is used. The VN-DECODER-2 also supports monitor wall designs that are typical of large-scale video surveillance installations, such as casinos, correctional facilities, airports and hospitals.

Easy to Install and Configure

Remote management and control of the VN-DECODER-2 and the monitors they feed is done through the VMDC. This supports a flexible network topology that allows the location of the decoder where the monitors are, yet allows the location of the cameras, switches and control center to be at a different site or sites. When used at an edge location, the video can be controlled and driven by a programmable logic controller (PLC) and IP keypad. With the VMDC, the operator can route any camera on the network to any monitor connected to the VN-DECODER-2 on the network.

The VN-DECODER-2 can be conveniently mounted on a desk-top or on a VESA bracket.

Note: *The VN-DECODER-2 must be connected to a Virtual Matrix Display Controller (VMDC). Refer to the datasheet on the VMDC for detailed information.*

VN-DECODER-2

Operating System:	Microsoft® Windows® 7 Embedded*.
CPU:	Intel® Core™ i3-2120 processor 3.30 GHz.
Motherboard:	Intel H61AG mini ITX S1155 DDR3.
Memory:	2 GB.
Operating System Drive:	60 GB SATA-II solid state drive (SSD).
Network Interface:	10/100/1000 Base T Ethernet interface on main board.
Certifications:	FCC Class A.

* If a full Windows O.S. is required, contact your Vicon Sales Representative.

Video Specifications

Video Channels:	2.
Video Formats Supported:	NTSC/EIA and PAL/CCIR.
Video Transmission Rate:	Up to 30/25 fps (NTSC/PAL) per camera at full resolution**.

**For high-resolution, high-activity video, there may be a drop off in overall frame rate.

Electrical Specifications

Input Voltage:	100-240 VAC, 50/60 Hz. 19 VDC power supply provided.
Current:	6.32 A from 19 VDC power supply; 0.2 A @ 115 VAC, max.
Power Consumption:	120 W from 19 VDC power supply; 23 W @ 115 VAC.
Heat Output:	420 btu/hour @ 19 VDC; 80.5 btu/hour @ 115 VAC.
Indicators and Connectors:	Front panel LEDs: power and HDD. Power Connector: 19 VDC DIN for power supply (included). Network: RJ-45 jack. Video Out/Monitor: DVI, HDMI (DVI-VGA adapter supplied). eSATA. USB: 6; 2 front, 4 rear. Audio: jacks (output not currently used).
Certifications:	CE; FCC, Class A.

Mechanical Specifications

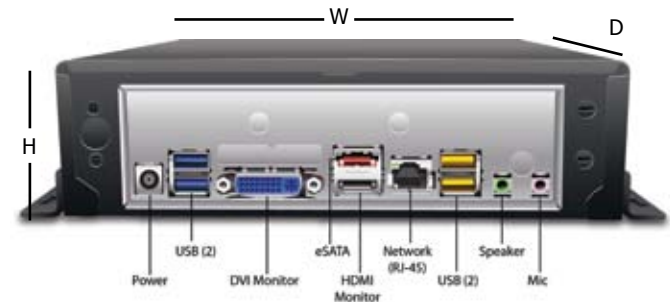|	
Application:	Indoor.
Mounting:	Desk, wall, VESA.
Dimensions:	Height (H): 2.25 in. (57 mm). Width (W): 9.375 in. (238 mm). Depth (D): 8.0 in. (203 mm), including mounting flange.
Weight:	4.4 lb (2.0 kg).
Construction:	Aluminum case/aluminum extrusion.

Environmental Specifications

Operating Temperature:	32° to 104°F (0° to 40°C).
Humidity:	Up to 90% relative, non-condensing.

Warranty

3 years parts and labor.

Dimensional/Connection Diagram

Note that mother boards are subject to change and the current rear panel may differ slightly but will be similar.

VN-DECODER-2 Performance*

This chart displays the approximate number of cameras the VN-DECODER-2 can support, based upon the decoding frame rate, the camera's resolution, compression formats and other system parameters, including whether it is using Vicon cameras or open-platform models. These numbers will vary depending on the specifics of each system.

Resolution	Compression	Maximum Cameras		
		30 FPS	15 FPS	7 FPS
1 CIF				
	ViconNet	50	64	64
	H.264/MPEG-4	36	64	64
2 CIF				
	ViconNet	40	64	72
	H.264/MPEG-4	20	40	50
4 CIF				
	ViconNet	30	50	50
	H.264/MPEG-4	13	24	40
1 MP (720p)				
	ViconNet	NA	NA	NA
	H.264/MPEG-4	6	12	20
2 MP (1080p)				
	ViconNet	NA	NA	NA
	H.264/MPEG-4	3	6	9

*Note: These numbers are different from the VMDC-2 due to differences in hardware.