

Digital Watchdog VMAX480 Series Stand Alone Digital Video Recorders

A&E Specifications
Security System

Masterformat@ Numbers and Titles

28 00 00 ELECTRONIC SAFETY AND SECURITY

28 20 00 ELECTRONIC SURVEILLANCE

28 23 00 VIDEO SURVEILLANCE

28 23 19 DIGITAL VIDEO RECORDERS AND ANALOG RECORDING DEVICES

PART 1: GENERAL

1.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll-free technical support phone number from the manufacturer. The phone number shall allow for technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.
- D. All systems and components shall be provided with an explicit manufacturer warranty.

1.02 SUMMARY

- A. The Digital Watchdog VMAX480 is an upgrade of the advanced H.264 Linux embedded digital video recorder VMAX. This DVR has all the features of VMAX plus more. The VMAX480 is available in 8 or 16 channel configurations with basic storage from 500 gigabytes to 4 terabytes. Proven Better, Faster, Smarter—more of what you have come to expect from the VMAX family of products.

1.03 REFERENCES

- A. National Television System Committee (NTSC)
- B. Phase Alternation by Line (PAL)
- C. Conformity for Europe (CE)
- D. Federal Communications Commission (FCC)
- E. Ministry of Information and Communications (MIC)
- F. Waste Electrical and Electronic Equipment (WEEE)
- G. Restriction of Hazardous Substances (RoHS)

1.04 DEFINITIONS

- A. No Substitutes: The exact make and model number identified in this specification shall be provided without any exceptions.
- B. Or Equal: Any item may be substituted for the specified item provided that in every technical sense, the substituted item provides the same or better capability and functionality.
- C. Or Approved Equal: A substitute for the specified item may be offered for approval by the Manufacturer. The proposed substitution must, in every technical sense, provide the same or better capability and functionality as the specified item.

1.05 SUBMITTALS

- A. Manual
- B. Quick Setup Guide
- C. Specification Sheet
- D. Brochure

1.06 QUALITY ASSURANCE

- A. With engineering and manufacturing facilities in Seoul, Korea and assembly in the United States, DW offers a level of specialty in the manufacturing and deployment of analogue and IP video security technology that your business can rely on. In addition to our proven product offerings, we have taken service and technology to the next level with a substantial investment in additional skilled industry professionals, online service capabilities, and application support. We offer technical assistance from Monday to Friday 8:30 AM to 8:00 PM EST via a toll-free telephone number at no extra charge.

1.07 DELIVERY, STORAGE, HANDLING

- A. General: Delivery, storage, and handling of the VMAX480 Stand Alone DVR shall be in accordance with the manufacturer's recommendations.
- B. Ordering: The manufacturer's ordering instructions and lead-time requirements shall be followed in order to avoid installation delays.
- C. Delivery: The VMAX480 Stand Alone DVR shall be delivered in the manufacturer's original, unopened, undamaged container with identification labels intact.
- D. Storage and Protection: The VMAX480 Stand Alone DVR shall be stored and protected from exposure to harmful weather conditions and at the environmental conditions recommended by the manufacturer.

1.08 WARRANTY

- A. **LABOR:** For a period of two (2) years and five (5) years on HDD from the date of original purchase, if the VMAX480 is determined to be defective, the Warrantor will repair or replace the unit with a refurbished product at its option, at no charge. For the first ninety (90) days from the date of original purchase, if the VMAX480 is determined to be defective, the Warrantor will replace the unit with a new product or credit a refund at its option, at no charge.
- B. **PARTS:** In addition, the Warrantor will supply replacement parts for a period of two (2) years and five (5) years on HDD. To obtain warranty or out of warranty service, please call a technical support representative at 1-866-446-3595 Monday through Friday from 8:30 AM to 8:00 PM EST.

A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered. The warranty only covers failures due to defects in materials and workmanship which arise during normal use. This warranty does not cover damage which occurs in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than an authorized repair facility or damage that is attributable to acts of God.

- C. **LIMITS AND EXCLUSIONS:** There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages, including without limitation or damage to recording media, resulting from the use of these products or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state-to-state.

- D. For more information on Warranty, please go to www.Digital-Watchdog.com.

PART 2: PRODUCTS

2.01 VMAX480 SERIES STAND ALONE DIGITAL VIDEO RECORDER, 8 OR 16 CHANNELS

- A. Digital Watchdog VMAX480 Stand Alone Digital Video Recorder (DVR) shall meet the requirements of business, government, and general security surveillance applications.
- B. The VMAX480 Stand Alone DVR shall incorporate an embedded H.264 Linux® operating system using a proprietary software application for control, management, and display. The VMAX480 Stand Alone DVR shall use H.264 compression algorithm in the video digitizing scheme and G723.1 compression algorithm in the audio digitizing scheme.
- C. The VMAX480 Stand Alone DVR shall be capable of live view, remote playback, record, file backup, network, and configuration.
- D. The VMAX480 Stand Alone DVR shall automatically calculate and give the best recording configuration settings, when you input the desired number of days you wish to record.
- E. The VMAX480 Stand Alone DVR shall enable you to setup two recording schedules, allowing for a more detailed record setup for each camera channel.
- F. The VMAX480 Stand Alone DVR shall collect 8 or 16 channels of analog video and four channels of audio and digitize them for the purpose of display, archive, and requested distribution over a wireless network. Each channel of video data shall have the capability of being recorded, displayed, played back, archived, and distributed simultaneously across the network.
- G. The VMAX480 Stand Alone DVR shall support simultaneous HDMI and VGA output. The HDMI shall be type A, version 1.2 and shall not support audio. The maximum distance of the monitors shall depend on the cables being used.
- H. The VMAX480 Stand Alone DVR shall have a call monitor feature, easily allowing you to send out the camera displays to different spot monitors connected to your VMAX480. The call monitor feature shall also allow you to sequence cameras from the connected spot monitors.
- I. The VMAX480 Stand Alone DVR shall provide automatic private IP addressing that will help setup a router automatically.
- J. The VMAX480 Stand Alone DVR shall provide two DNS server settings. The first DNS server shall be the preferred DNS server, and the second DNS server shall be for backup or any emergency situations.
- K. The VMAX480 Stand Alone DVR shall offer a feature that controls its bandwidth usage.
- L. The VMAX480 Stand Alone DVR shall offer multi-user access. There shall be an administrator and user level offered. The VMAX480 Stand Alone DVR shall have password protection for local and remote access.

- M. The VMAX480 8 Stand Alone DVR Series shall support eight alarm in, one relay out, and one TTL function. The VMAX480 16 Stand Alone DVR Series shall support sixteen alarm in, one relay out, and one TTL function. The VMAX480 Stand Alone DVR shall transmit event notifications with snapshots to users via e-mail or text message.
- N. The VMAX480 Stand Alone DVR shall be equipped with 500GB, 1TB, 2TB, 3TB, or 4TB of hard disk drive.
- O. The VMAX480 Stand Alone DVR shall provide two USB ports to connect a USB mouse or any external devices like hard drives and USB flash drives for backup and system upgrade. The VMAX480 Stand Alone DVR shall be equipped with a USB mouse.
- P. The VMAX480 Stand Alone DVR shall support and be equipped with an IR remote control.
- Q. The VMAX480 Stand Alone DVR shall include Pivot, a hybrid central monitoring software that can manage up to 128 sites or cameras simultaneously.
- R. The VMAX480 Stand Alone DVR should be configurable for several foreign languages, other than English. The VMAX480 Stand Alone DVR shall include the following foreign languages: Spanish, German, French, Dutch, Slovak, Russian, Korean, Japanese, Chinese, Turkish, Italian, Hungarian, Portuguese, and Polish.
- S. The VMAX480 Stand Alone DVR shall have a screen saver feature that will help protect your monitor screen. The VMAX480 Stand Alone DVR shall continue to follow the record settings when the screen saver is operating.
- T. The VMAX480 Stand Alone DVR system shall be easy to upgrade. Users shall be able to upgrade the system manually, using a USB flash drive. Users shall also be able to upgrade the system automatically through Digital Watchdog's FTP server.
- U. The VMAX480 Stand Alone DVR shall have help menus on major functions. The help menus shall assist you with several important settings without having to look at the user manual.
- V. The VMAX480 Stand Alone DVR shall include a customer 5 year limited warranty.
- W. The VMAX480 Stand Alone DVR shall have a free mobile phone application for Apple, Android and Blackberry. The mobile phone application shall allow you to watch four channel live view, search any single channel, and control connected PTZ cameras from your mobile phone.
- X. The VMAX480 Stand Alone DVR shall meet or exceed the following design and performance specifications.

2.02 PHYSICAL SPECIFICATIONS

- A. Construction: Metal Cabinet
- B. Finish: Black
- C. Dimension: 14.25 (Width) X 2.5 (Height) X 14 (Depth) Inches
- D. Net Weight: 8.40 Pounds without HDD

2.03 ELECTRICAL SPECIFICATIONS

- A. Power Supply: External
- B. Power Requirement: 12V DC / 6.67A DC

2.04 ENVIRONMENTAL SPECIFICATIONS

- A. Operational Temperature: 5°C ~ 40°C
- B. Operational Humidity: 20 ~ 80% RH, Non-Condensing
- C. Storage Temperature: -20°C ~ 60°C
- D. Storage Humidity: 20 ~95% RH

2.05 MECHANICAL SPECIFICATIONS

- A. System
 - 1. Operating System: Linux Embedded
 - 2. User Interface: Front Panel, IR Remote Control, or USB Mouse
- B. Video
 - 1. Input: 8 or 16 Channels
 - 2. Output: 2 Monitors (Composite, VGA, HDMI),
1 Spot Monitor (Composite)
 - 3. Video Decoding: H.264
 - 4. Video Resolutions: D1, 2CIF, CIF
 - 5. Frame Rate:
 - a. CIF: 240/200fps for 8 Channel Series
480/400fps for 16 Channel Series
 - b. 2CIF: 240/200fps
 - c. D1: 120/100fps
 - 6. Display / Recording Speed: 480/400fps
 - 7. Display Modes: 1, 4, 9, PIP for 8 Channel Series
1, 4, 9, 16, PIP for 16 Channel Series
- C. Audio
 - 1. Input: 4
 - 2. Output: 1
 - 3. MIC Input: 1
 - 4. Audio Decoding: G723.1
- D. Network
 - 1. Interface: 10/100 Base-Tx Ethernet (RJ45)
 - 2. Protocol: Fixed IP, DHCP, DDNS, Auto IP, UPnP Support

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| <ul style="list-style-type: none"> 3. Application: E. Alarm <ul style="list-style-type: none"> 1. Input: 2. Output: F. PTZ <ul style="list-style-type: none"> 1. Control: 2. Interface: 3. Port: G. Auxiliary Interface H. Recording Modes I. Storage J. Remote Management <ul style="list-style-type: none"> 1. Software: 2. Web (IE): 3. Mobile Device: 4. Tablet: | <p>Live Monitoring, Remote Playback, and File Backup</p> <p>8 Each for 8 Channel Series
16 Each for 16 Channel Series</p> <p>1 Relay, 1 TTL</p> <p>Pan / Tilt / Zoom / Focus / Iris
Virtual Joy-Stick Control On-Screen by Mouse</p> <p>RS-485</p> <p>2 USB Ports</p> <p>Continuous, Alarm, Motion, Event, Panic,
Pre- and Post-Alarm Recording</p> <p>500GB to 4TB HDD
Built-In DVD-RW (DW-VMAX480D Models Only)
USB 2.0</p> <p>Pivot Central Management Software
Live Monitoring, Playback, and System Configuration
VMAX480 Application for Apple, Android, Blackberry
VMAX480 Application for iPad.</p> |
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2.06 CERTIFICATIONS

- A. CE
- B. FCC
- C. MIC
- D. WEEE
- E. RoHS

2.07 WARRANTY

- A. 5 Year Limited Warranty, Repair or Replacement
Refer to 1.08 WARRANTY for details.

2.08 DIGITAL WATCHDOG MODEL NUMBERS

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| <ul style="list-style-type: none"> A. Without DVD-RW <ul style="list-style-type: none"> 1. DW-VMAX480 8500 2. DW-VMAX480 81T 3. DW-VMAX480 82T 4. DW-VMAX480 83T 5. DW-VMAX480 84T 6. DW-VMAX480 16500 7. DW-VMAX480 161T 8. DW-VMAX480 162T 9. DW-VMAX480 163T | <p>8 Channels, 500 GB</p> <p>8 Channels, 1 TB</p> <p>8 Channels, 2 TB</p> <p>8 Channels, 3 TB</p> <p>8 Channels, 4 TB</p> <p>16 Channels, 500 GB</p> <p>16 Channels, 1 TB</p> <p>16 Channels, 2 TB</p> <p>16 Channels, 3 TB</p> |
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10.	DW-VMAX480 164T	16 Channels, 4 TB
B.	With DVD-RW	
1.	DW-VMAX480D 8500	8 Channels, 500 GB
2.	DW-VMAX480D 81T	8 Channels, 1 TB
3.	DW-VMAX480D 82T	8 Channels, 2 TB
4.	DW-VMAX480D 83T	8 Channels, 3 TB
5.	DW-VMAX480D 84T	8 Channels, 4 TB
6.	DW-VMAX480D 16500	16 Channels, 500 GB
7.	DW-VMAX480D 161T	16 Channels, 1 TB
8.	DW-VMAX480D 162T	16 Channels, 2 TB
9.	DW-VMAX480D 163T	16 Channels, 3 TB
10.	DW-VMAX480D 164T	16 Channels, 4 TB B

2.09 DIGITAL WATCHDOG ACCESSORIES

- A. DW-VR19E: 19: Rack Mountable Ears
- B. DW-VLOOP: Looping Output Cable Set

(Written April 15, 2011)

*Digital Watchdog is constantly developing product improvements. We reserve the right to modify product design and specifications without notice and without incurring any obligation.