

## Digital Watchdog IP mega pixel Camera MB421TIR

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### 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 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS

### 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 MB421TIR MEGAPIX camera is a triple codec network camera that provides 1080P megapixel resolution at 30 frames per second. The camera is designed for Outdoor installation with IP66. The camera has built in IR LED through this the camera provides more clear image at low illumination condition. The camera's advanced technologies like True Day and Night with IR cut filter, 3D-DNR, and WDR will deliver the best images in any type of environment. And Power over Ethernet is supported for easy installation.

### **1.03 SUBMITTALS**

- A. Manual
- B. Specification Sheet
- C. Brochure

### **1.04 REFERENCES**

- A. National Television System Committee (NTSC)
- B. Conformity for Europe (CE)
- C. Federal Communications Commission (FCC)
- D. Restriction of Hazardous Substances (RoHS)

### **1.05 QUALITY ASSURANCE**

- A. With engineering and manufacturing facilities in Seoul, Korea and distribution and product support in the United States, DW offers a level of specialty in the manufacturing and deployment of analog 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 9:00 AM to 8:00 PM EST via a toll-free telephone number at no extra charge.

### **1.06 DELIVERY, STORAGE, HANDLING**

- A. General: Delivery, storage, and handling of the Digital Watchdog Camera 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 Digital Watchdog Camera shall be delivered in the manufacturer's original, unopened, undamaged container with identification labels intact.
- D. Storage and Protection: The Digital Watchdog Camera shall be stored and protected from exposure to harmful weather conditions and at the environmental conditions recommended by the manufacturer.

## 1.07 WARRANTY

- A. LABOR: For a period of two (2) years and one (1) year on LED from the date of original purchase, if the Digital Watchdog Camera is determined to be defective, the Warrantor will repair or replace the unit with new or refurbished product at its option, at no charge.
- B. PARTS: In addition, the Warrantor will supply replacement parts for a period of two (2) years and one (1) year on LED. To obtain warranty or out of warranty service, please call a technical support representative at 1-866-446-3595 Monday through Friday from 9:00 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.

## PART 2: SPECIFICATIONS

### 2.01 FEATURES

- A. The Digital Watchdog MB421TIR IP Camera shall be equipped with a 1/2.8" Sony CMOS.
- B. The MB421TIR is designed for outdoor installation with IP66 certified.
- C. The MB421TIR includes 32 IR LEDs. The LED can reach to 100ft long in night time.

- D. The mechanical IR cut filter has been included.
- E. The MB421TIR IP camera includes 3.5~16mm vari-focal lens with Remote Auto focus feature.
- F. The MB421TIR IP supports internal storage for emergency recording.
- G. The MB421TIR has 1 audio in and 1 audio out connector for 2 way audio.
- H. The MB421TIR supports 1 sensor in and 1 relay out.
- I. The MB421TIR employs M-JPEG, MPEG-4 and H.264 compression. Users can chose one of three compression type.
- J. The MB421TIR is designed to be a built in web server, such that standard web browser like Internet Explorer or Firefox can be used to view the camera view without installing special viewer software. The operating system being required for viewing system should be Microsoft Windows 2000/XP/Vista/7. The minimum system requirement is Intel 2.0 GHz Pentium IV CPU, with 512MB RAM, decent display chip with 32MB display memory.
- K. Network interface is a 10/100 Mbps Ethernet with RJ-45 connector.
- L. The MB421TIR support dual voltage with POE(Class3) and DC12V
- M. The camera has 3 user level settings, which is a) Super, b) Operator, and c) Viewer.
- N. Maximum frame rate the MB421TIR can handle is 30fps at 1920X1080 resolutions in M-JPEG, MPEG-4 and H.264 mode.
- O. The MB421TIR employs dual CODEC that are capable of streaming out M-JPEG, MPEG-4 and H.264 simultaneously.
- P. Image sizes are user selectable among  
1920X1080,1280X720, 960X544, 800X448, 704X400, 640X352, 480X272, 320X176, 1440X1080,  
960X720, 800X608, 704X528, 640X480, 480X368, 320X240
- Q. Manual shutter speed can be adjustable among 1/30, 1/60, 1/120.
- R. Digital Slow shutter speed can be selectable among 2X, 3X, 4X.
- S. The MB421TIR has an ability for Back Light Compensation
- T. The MB421TIR shall support the following Network protocols: IPv4, IPv6, TCP/IP,UDP, HTTP, UPnP, RTSP/RTP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE and Onvif.
- U. The MB421TIR utilizes an event notification capability using SMTP.
- V. The MB421TIR shall have user configurable port settings.
- W. The MB421TIR shall be capable of limiting the bandwidth of Video output from 1800Kbps to 8Mbps.
- X. The MB421TIR shall be capable of overlaying time stamp and text caption over video image.
- Y. The MB421TIR shall be capable of auto FTP upgrade.
- Z. The MB421TIR shall be capable of IP address filtering to the inward access to the camera.
- AA. The MB421TIR shall be capable of 5 clients simultaneous camera view.

## 2.02 CAMERA SPECIFICATIONS

A.	Minimum Scene Illumination:	0.0 Lux(B/W), 0.0 Lux(Color) in F1.6
B.	Lens Type:	Vari focal with remote auto Focus
C.	Focal Length:	3.5~16mm
D.	IR Distance	100ft
E.	Lens Operation:	
	Iris	Automatic
	Focus	Automatic / manual
	Zoom	Control by SW
F.	Brightness	0~20
G.	Electronic Shutter Range:	1/30 1/60 1/120 and Auto
	Digital Slow Shutter	Off, 2X, 3X, 4X
H.	BLC:	OFF / ON
I.	WDR:	0~10
J.	Auto Gain Control	0~20
K.	Day & Night:	Mechanical IR cut filter, AUTO, Day(Color) and Night(B/W)
L.	Lenz mode	Indoor, Outdoor
M.	Mirror:	OFF / ON
N.	Flip	On/ OFF
O.	Sharpness:	0~10
P.	Chroma:	0~20
Q.	3DNR:	OFF / LOW / MIDDLE / HIGH
R.	Privacy:	OFF / ON (30 Programmable Zones)
S.	Motion Detection:	OFF / ON (12 Programmable Zones)

## 2.03 VIDEO SPECIFICATIONS

A.	Imaging Device:	Sony CMOS
B.	Image Size:	1/2.8"-inch
C.	Signal System:	NTSC
D.	Total Pixels:	2016 X 1108

## 2.04 External device

A.	Audio:	1 in / 1 out
B.	Sensor:	1 in / 1 out

## 2.05 NETWORK SPECIFICATIONS

A.	LAN:	802.3 Compliance 10/100M
B.	Supported Codec:	H.264, MPEG4, MJPEG
C.	Resolution	1920X1080 ~ 320X240
D.	Frame Rate	upto 30 fps
E.	IP version	IPv4, IPv6
F.	Protocol	IPv4, IPv6, TCP/IP,UDP, HTTP, UPnP, RTSP/RTP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE.
G.	Onvif	ver 1.02
H.	Web Viewer	IE, Chrome, Firefox, Safari
I.	CMS	DW Spectrum, NxMS, Pivot

## 2.06 ELECTRICAL SPECIFICATIONS

A.	Power Requirement:	Dual Voltage: DC 12V / PoE(Class3)
B.	Power Consumption	9W, 750mA / 14.4W, 1200mA (LED On)

## 2.07 ENVIRONMENTAL SPECIFICATIONS

A.	Environment:	Indoor / Outdoor
B.	Operational Temperature:	-10°C ~ +55°C (-14 ° F ~ 131°F)
C.	Storage Temperature:	-20°C ~ +70°C (-4 °F ~ 158°F)
D.	Operational Humidity:	Less than 90%

## 2.08 MECHANICAL SPECIFICATIONS

A.	Material:	Aluminum housing
B.	Dimension:	87.5(diameter) X 293.2 (Length) millimeters
C.	Unit Weight:	4.05 lbs.

## **2.09 CERTIFICATIONS**

- A. CE
- B. FCC
- C. RoHS

## **2.10 WARRANTY**

- A. 2 Years.

## **2.11 MODEL NUMBERS**

- A. DWC-MB421TIR

(Written June 25, 2013)

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