Dante

Architectural & Engineering Specifications

1.0 Description shall be:

The high-speed programmable In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall be Dante Security's DNA1970M2 series In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera as Megapixel PTZ Dome Day/Night Cameras with full-range variable speed PTZ, a multi-protocol receiver driver, advanced CMOS camera blocks and designed with dual stream configurable outputs at 25/30fps, Video-Data-Audio-Alarms TI Encoder with H.264/MJPEG video compression.

2.0 General Requirements shall be:

1. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have built in, IP Module with compression H.264/MJPEG and dual configurable streams, to convert analog composite video, audio, PTZ data, Audio and Alarms to digital Ethernet format
2. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have Ethernet output via RJ-45 Port
3. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have looping analog Video, duplex Audio, RS-422/RS-485 PTZ Data and Alarm inputs/outputs
4. The In/Outdoor PTZ Dome Day/Night Camera shall have advanced DSP Zoom Camera Modules as: 2MP CMOS with 12x Optical and 16x Optical Zoom
5. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have internal receiver/driver
6. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have digital control with integrated CPU and SD RAM
7. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have IRIS Auto/Manual; Focus Auto/Manual; White Balance Auto/Manual; Gain Auto/Manual; BLC Auto/Manual
8. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall be available Flush and Bracket mount versions
9. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature Die Cast Aluminum Housing, Sunshield, Heater and Blower
10. Operating temperatures shall be -40°F~140°F (-40°C~60°C) and humidity from 0 to 90% non-condensing
11. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall meet CE, FCC, ROHS, ONVIF, IP66 and manufactured to ISO9001 standards
12. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall operate on 24VAC
13. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall come equipped with Ethernet and Power Surge Protection

3.0 Function and Features of analog portion of PTZ Dome Camera shall be:

1. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall provide 360° continuous rotation
2. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have a manual pan speed of 300° max/sec
3. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have a manual tilt speed of 0.1°~ 120° max/sec
4. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have a preset speed of 0.1°~ 300°/sec
5. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have a tilt range of -2° ~9 0°
6. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have Pan/Tilt accuracy to ± 0.1°
7. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature Zoom/Focus accuracy to ± 0.5%
8. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature 255 programmable presets with Titles
9. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature multi-protocol control formats Pelco P/D
10. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature 5 Auto Scans
11. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have 5 programmable pattern functions
12. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have 8 programmable Preset Tours
13. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall have up to 8-24 masking zones; camera dependent
14. The In/Outdoor PTZ Dome Day/Night Camera shall provide 2 alarm inputs; 1 alarm outputs
15. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall be equipped with an auto-flip to provide full 180° tilt view that allows for continuous smooth rotation
16. The In/Outdoor Network IP MP MINI PTZ Dome Day/Night Camera shall feature OSD Menu in English, Spanish and Portuguese

www.dantesecurity.net   **sales@dantesecurity.net**

Dante Security Specifications and appearance are subject to change without notice. Page 1   4/6/2014

17. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera shall feature clear acrylic lower dome bubble
18. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera shall feature long life, type Fan Blower
19. The presets shall be controllable through USB keyboard or available graphical user interface Network software
20. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera presets shall feature editable titles
21. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera Internal clock shall feature programmable for 12 or 24 hour/day format and mm/dd/yy or dd/mm/yy for calendar format
22. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera shall feature on screen display of 3D coordinates of pan, tilt zoom ratio and Camera angle view

4.0 OSD of Analog portion of PTZ Dome Display shall have:

1. Upon power up, a diagnostic on-screen display shall appear including:
   a. Camera ID
   b. Camera Name
   c. Camera Serial Number
   d. Camera Model Number
   e. Firmware Version
2. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's monitor display shall be presented in white characters outlined in black with easy reading of OSD Menu when camera is facing bright light
3. All menu settings shall be saved in non-volatile memory for protection against power outages
4. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's main menu choices shall include:
   a. System info
   b. Allows user to configure the entire system including site info, password, and display
   c. Lens parameters
   d. Allows user to configure lens options such as zoom speed and iris controls
   e. Camera parameters
   f. Allows user to configure camera options such as white balance and shutter speed
   g. Pan/Tilt parameters
   h. Configure pan/tilt options such as speed and auto-stop
   i. Auto running
   j. Allows user to program:
      1. Presets
      2. Tours
      3. Patterns
      4. Auto scan
      5. Privacy Masking
      6. Alarms
      7. Pan, Tilt, Zoom protocol and baud rate
      8. Color Mode and Brightness
   k. Time-Date Settings with On/Off Display
   l. Return to Factory Default
   m. Edit camera Titles with On/Off Display
   n. Edit Preset Titles
   o. Reboot Device
   p. Exit from every sub menu

www.dantesecurity.net   **sales@dantesecurity.net**

Dante Security Specifications and appearance are subject to change without notice. Page 2 4/6/2014

5.0 Function and Features of built-in H.264/MJPEG dual configurable IP Encoder Module shall be:

1. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall be powered internally by PTZ Dome and feature H.264/MJPEG compression
2. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall feature highest rated video imaging DSP by Texas Instruments and provide dual configurable streams
3. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall be 10/100 Mbps Ethernet Compatible and have RJ-45 LAN Port
4. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support following: DNA1970M2= 2.0M (1920x1080) 1080P / 720P / D1(704×576/704×480) image Resolutions
5. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support transmission of adjustable 1-30 frames/sec for NTSC and 1-25 frames/sec for PAL
6. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support 802.11b/g/n Wireless (WI-FI) Mobile Networks
7. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support Variable Bit Rate (VBR) and Constant Bit Rate (CBR) from 128kbps to 4Mbps
8. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support G.711 Audio Compression
9. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall have built-in Web server and support setting Device Parameters via remote Client Browser
10. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support camera viewing and control via multiple Clients simultaneously
11. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support PTZ Data RS-422/RS-485 and Pelco P/D Protocol
12. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera's built-in Encoder/Server shall support multiple Motion Detection Zones per video
13. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera' built-in Encoder/Server shall support Alarm Functions: two (2) inputs and one (1) outputs
14. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera' built-in Encoder/Server shall support HTTP, TCP/IP, ICMP, RTSP, RTP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPOE, DDNS, FTP, Alarm Server Network Protocols
15. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera' built-in Encoder/Server shall support Firmware upgrades via Network
16. The In/Outdoor Network IP MP PTZ Dome Day/Night Camera' built-in Encoder/Server shall feature a Reset/Restart Switch for returning Encoder to factory default settings
17. The Network IP 2MP Day/Night camera 's built-in H.264/MJPEG Encoder/Server shall operate with Dante Series DNA3000, DNA4000 and DNA5000 NVR Server Appliances Embedded LINUX Operating System

6.0 Connections shall be:

1. Video, Audio, Data and Alarms outputs shall be via Ethernet RJ-45 connection
2. There shall be a composite video output via BNC connector for testing Video signal in field via CCTV tester or composite Monitor
3. There shall be Audio, Data and Alarm Inputs/Output Connectors

7. 0 Mechanical Parameters shall be:

Construction: Die Cast Aluminum Housing
Fan and heater: Continuous; auto-start heater
Dimens. outdoor H x Dia.: 9.2"(234mm), 7.3"(184mm)
Dimens. indoor H x Dia.: 6.2"(155mm), 6.7"(170mm)
Weight outdoor / indoor: 6.7lbs(3Kg) / 5.6 lbs(2.5Kg)
Lower Bubble options: Clear, Acrylic

www.dantesecurity.net   **sales@dantesecurity.net**

Dante Security Specifications and appearance are subject to change without notice. Page 3   4/6/2014

8.0 Environmental Parameters shall be:

Operating Temperature: -40°F~140°F (-40°C~60°C)
Storage Temperature: -40°F~158°F (-40°C~70°C)
Humidity: 0~95% (Non-condensing)

9.0 Power shall be:

The In/Outdoor Network IP MP PTZ Dome Day/Night Camera shall operate on a provided power supply at:
a. 24VAC
b. A frequency of 60Hz or 50Hz
c. Power consumption shall be 22 watts with Heater and Fan

10.0 Warranty shall be:

The In/Outdoor Network IP MP PTZ Dome Day/Night Camera shall be provided with a manufacturer's warranty that shall be extended only to the original purchaser and for the original installation for a period of one (1) year from date of original shipment - extended warranty available.

11.0 Camera and Encoder Parameters shall be:

Camera Parameters	DNA1970M2 - 2MP Exmor CMOS
Image Sensor	Progressive Scan 1/3" Exmor CMOS, Digital WDR
Effective Pixels	2.0M (1944 x 1092)
Horizontal Resolution:	1000TVL
Resolution (H) Pixels:	1080P / 720P / D1(704×576/704×480)
Min. Illum. F1.6, 50 IRE:	0.5Lux/ICR Off, 0.005Lux/ICR On
Frame Rate:	1080P/720P(130fps); D1(1~30fps)
Optical / Digital Zoom:	12X (5.1mm ~ 61.2mm / 16x
View Angle: Wide x Tele	51.3°(Wide) ~ 4.6°(Tele)
F-value:	F 1.2 (wide) - F2.1 (telephoto)
Focus:	Auto/Manual (Far/Near)
IR Cut Filter Removable:	Auto(ICR) / Color / B/W
Digital Slow Shutter:	Yes
Wide Dynamic Range:	On, Off, Auto, Ratio Fix
Privacy Masking:	ON/OFF (up to 24 areas)
Electronic Shutter:	1/1 to 1/30,000 /s
IRIS:	Auto / (Offset: Soft.)
BLC:	OFF/ON(Soft.)
White Balance:	Auto, ATW, Indoor, Outdoor, Auto
Sync System:	Internal
Encoder/Parameters	**DNA1970M2**
Video Compression:	H.264/MJPEG, Dual Stream, Configurable
LAN Interface:	10/100 Mbps RJ-45 Port
Output Bit Rate:	Variable Bit Rate (VBR) & Constant Bit Rate (CBR)
Network Interface:	10/100 Mbps RJ-45 Port; Status and Network LEDs
Wireless Network:	IEEE 802.11a/b/d/e/g/h/i, 802.11n
Network Protocol:	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, POE
Web Server:	Intuitive Browser Interface, Internet Explorer
Operating System:	Compatible with DNA3000, DNA3500, DNA4000 and DNA5000 Series NVR Appliances (embedded Linux); WIN 7 /WIN 8/ WIN SERVER
CPU Requirement:	Intel Core 4 Quad 2GHz or higher

www.dantesecurity.net   **sales@dantesecurity.net**

Dante Security Specifications and appearance are subject to change without notice. Page 4   4/6/2014