

Motorola Wireless Networking Solutions

Peripherals at a Glance



2006 Volume 2



PANASONIC CAMERAS — Surveillance Products



These cameras have a variety of features that are perfect in places like banks, currency exchanges and on college campuses... among countless other locations. Surveillance can help provide an increased benefit almost anywhere.

A complete solution...

To complete the wireless broadband solution, the Motorola WINS portfolio includes peripheral products such as multiplexers for lease line replacement and network cameras for wireless video surveillance and increased security.

Multiplexers – The multiplexers in the Motorola portfolio allow consolidation of inter-site communications over a wireless radio link and help eliminate dependency on leased lines. In conjunction with backhauls, these multiplexers are capable of simultaneously transmitting any combination of voice, video, and data. These multiplexers have the flexibility to help support applications ranging from small campus networks to multi-site corporate networks or extensive carrier access solutions.

Video Surveillance – Motorola has also developed relationships with leading manufacturers to offer high quality, high resolution surveillance cameras and accessories. These products integrate easily into most Wireless Broadband Networks to help allow simultaneous monitoring of different activities from a remote location.



**Panasonic
WV-BP144**



**Panasonic
WV-BP334**



**Panasonic
WV-CP244**

Product	Panasonic WV-BP144	Panasonic WV-BP334	Panasonic WV-CP244
Motorola Part Number	RRDN4073A	RRDN4075A	RRDN4078A
Features and Benefits	<ul style="list-style-type: none"> • 1/3 Inch CCD Pick-up Element with 510 (H) x 492 (V) pixels provides 380 lines of horizontal resolution • Advanced Electronic Light Control (ELC) allows for the use of fixed iris lenses • Selectable Back-Light Compensation feature 	<ul style="list-style-type: none"> • A Vertical Digital 2H Enhancement aids in improving signal strength at the horizontal and vertical edges to provide a crisper image • Knee Circuit helps to expand the dynamic range when viewing brightly illuminated objects • Outstanding 50dB signal-to-noise ratio 	<ul style="list-style-type: none"> • Digital Signal Processing (DSP) minimizes aliasing (the creation of color noise) when viewing patterned objects • Vertical Digital Enhancement and Digital Aperture Correction helps to improve signal strength at the horizontal and vertical edges for sharper images • Advanced Digital Adaptive Backlight Compensation (BLC) capability • Knee Circuitry aids in expanding the dynamic range when viewing brightly illuminated objects

Description	Fixed Black/White Camera	Fixed Black/White Camera	Fixed Color Camera
Type	Black/White	Black/White	Color
Mechanism	Fixed	Fixed	Fixed
Connectivity	Analog	Analog	Analog
Structure	N/A	N/A	N/A
Resolution	380 TV Lines (horizontal)	570 TV Lines (horizontal)	480 TV Lines (horizontal)
Minimum Illumination	.08 Lux at F1.4	<ul style="list-style-type: none"> • .08 Lux at F1.4 • .06 Lux at F1.2 	<ul style="list-style-type: none"> • 2.0 lux at F1.4 • .06 lux at F0.75
Advance Technology	N/A	N/A	N/A
Use	Indoor**	Indoor**	Indoor**

Storage Capacity

* Super Dynamic II: Maintains picture quality settings in dark and bright areas. Yields clear images even in high contrast or backlit lighting situations.

**Additional enclosure with heater and blower available for outside use. Please use RRDN4930A to purchase outdoor enclosure.

NOTE: Camera lenses and power supplies sold separately.



**Panasonic
WV-CP484**

RRDN4079A

- Built-in Super Dynamic III Plus Function has 64 times wider Dynamic Range when compared to a conventional camera
- Signal to Noise Ratio of 50dB
- Digital Motion Detector
- 16 Alpha Numeric Character Display
- Gen-lock capability for large system applications



**Panasonic
WV-CW864**

RRDN5113A

- Super Dynamic II Function*
- Minimum Illumination of 0.03 Lux in Black and White Mode
- High Speed Panning at 300 Degrees/Sec
- 64 Preset Positions
- 22X Digital Zoom / 10X Electronic Zoom



**Panasonic
NM-100**

RRDN4932A

- Easy monitoring with a Web Browser JPEG and MPEG4 video compression
- Minimum Illumination of 2 lux
- Powerful alarm capabilities



**Panasonic
WV-NS324**

RRDN4941A

- Compact Dome, all-in-one unit, Color Surveillance Camera
- Analog Video Output and Digital Ethernet Port are available
- Built-In Network Interface (10Base T/100Base-TX) for remote monitoring by PC
- Built-In Alarm Function for external security devices and FTP Alarm activation



**Panasonic
WV-NP472**

RRDN4945A

- 1/3 Inch-Type Double Speed CCD Color Image Sensor
- Built-In Network Interface (10Base T/100Base-TX) for remote monitoring by PC
- Interface Protocol
- TCP/IP, HTTP, FTP, SMTP, DNS and DHCP
- Switches from Selected Color Mode to B/W Mode automatically or manually, for 24-hour monitoring
- Built-In Super Dynamic II* Function has 64 Times Wider Dynamic Range when compared to a conventional camera

Fixed Color Camera with Day/Night operation

Vandal Resistant Unitized Camera for Outdoor Use

Color Network Camera with Built-In Lens and PTZ

Hybrid Unitized Network Color Dome Camera with PTZ

Hybrid Color Network Camera

Color and Black/White

Color and Black/White

Color

Color

Color and Black/White

Fixed

Pan-Tilt-Zoom (PTZ)

Pan-Tilt-Zoom (PTZ)

Pan-Tilt-Zoom (PTZ)

Fixed

Analog

Analog

IP

Hybrid (IP and Analog)

Hybrid (IP and Analog)

N/A

Vandal Resistant

N/A

N/A

N/A

- 540 TV Lines (horizontal) C/L mode
- 570 Lines (horizontal) B/W mode

- 510 TV lines (horizontal) C/L mode (high)
- 480 lines (horizontal) C/L mode (normal)
- 570 lines (horizontal) B/W mode

- 660 (horizontal) pixels
- 492 (vertical) pixels

- Greater than 480 lines (horizontal) at center
- Greater than 350 lines (vertical) at center

- 480 lines (horizontal) in C/L mode
- 570 lines (horizontal) in B/W mode

- 0.5 lux at F1.2 (Color mode)
- 0.06 lux at F1.2 (B/W mode)

- 1 lux C/L mode
- .06 lux B/W mode

2 lux (electronic sensitivity x 10) / 10 Lux (electronic sensitivity off)

1.0 lux at F1.4

0.1 lux B/W mode
0.8 lux color mode at F1.4

Super Dynamic III

Super Dynamic II*

N/A

N/A

Super Dynamic II*

Indoor**

Indoor/Outdoor

Indoor

Indoor**

Indoor**



**Panasonic
WV-NW474S**

**Panasonic
WV-NP244**

**Panasonic
WV-NP1004**

**Panasonic
WJ-ND300/1000**

**Panasonic
WJ-HD220/160**

RRDN5114A	RRDN6079A	RRDN6104A	RRDN6105A	RRDN6106A
<ul style="list-style-type: none"> • Built-In Network Interface (10Base T/ 100Base-TX) • 24-Hour Surveillance with Day/Night Switching • Full Color Images at 0.8 Lux and Black and White Images at 0.1 Lux • Digital Motion Detector • 2X Variable-Focal Lens 	<ul style="list-style-type: none"> • Dual MPEG-4 and JPEG digital signal output for simultaneous live monitoring and high resolution recording • Progressive scan type CCD image sensor • Built-in SD Memory Card slot for FTP backup • Built-in electronic zoom function (1X, 1.5X, 2X, 2.5X and 3X) • Image refresh rate: 0.1 fps-30 fps • Multi screen display (4 screens x 2 groups) • Built-in Digital Motion Detector • Power over Ethernet 	<ul style="list-style-type: none"> • Dual MPEG-4 and JPEG output (selectable) • Built-in network interface (10Base T/ 100Base-TX) for remote monitoring by PC • 1/3 type progressive transfer CCD image sensor • Built-in SD Memory card slot for FTP backup • Multi screen display (4 screens x 2 groups) • Built-in Digital Noise Reduction function • Privacy Zone Masking function • Built-in 5X electronic zoom function 	<ul style="list-style-type: none"> • Recording device uses hard disk drive to record pictures of network cameras. With this NDR, pictures recorded by repeated overwriting will not experience deterioration of picture quality • Up to 32 network cameras with MPEG4 image compression signals can be connected • High speed throughput 64 Mbps - 3 dedicated ports (camera/client/setup) • Auto IP setup • MPEG4 and JPEG selectable recording • Base unit has 4 hard drives (capacity=1 Terabyte) • Expandable recording capacity (up to 7 Terabyte) 	<ul style="list-style-type: none"> • 160GB capacity • Coaxial cabling supports direct control of cameras • Direct (Time and Date) Search • List Search • Multi Language Capability • Simultaneous Recording, Playback, Live or Network • Electronic Zoom • Motion Detector Feature
Hybrid Vandal-Proof, Weather Proof, Day/Night Operation	Network Security Color Camera	Mega Pixel Color Network Camera	Network Disk Recorder (NDR)	Hard Disk Recorder with Built-in 8 Channel Multiplexer
Color and Black/White	Color	Color and Black/White	Digital Disk Recorder	Digital Video Recorder
Fixed	N/A	N/A	N/A	N/A
Hybrid (IP and Analog)	IP	Hybrid (IP and Analog)	N/A	N/A
Vandal-Proof	N/A	N/A	N/A	N/A
<ul style="list-style-type: none"> • 480 lines (horizontal) in C/L mode • 570 lines (horizontal) in B/W mode 	<ul style="list-style-type: none"> • 640 (horizontal) pixels • 480 (vertical) pixels 	<ul style="list-style-type: none"> • 600 lines (horizontal) in C/L mode • 780 lines (horizontal) in B/W mode 	N/A	N/A
2.0 lux Color mode / 0.2 lux B/W mode	1.5 lux (0.15fc) color imaging at optional F1.4 lens	0.6 lux (0.06fc) B/W mode/ 1.0 lux (0.1fc) color mode at F1.4	N/A	N/A
Super Dynamic II*	MPEG-4/JPEG	MPEG-4/JPEG	MPEG-4/JPEG	JPEG
Indoor/Outdoor	Indoor	Indoor	N/A	N/A

1 Terabyte

160GB

PELCO CAMERAS — Surveillance Products



Product	Pelco Spectra III SE 23X	Pelco Spectra III SE 22X
Motorola Part Number	RRDN4087A	RRDN4088A
Features and Benefits	<ul style="list-style-type: none"> • Three Auto Focus, High-Resolution Integrated Camera/Optics • Color/Black/White, 80X Wide Dynamic Range and Motion Detection • Built-in Back Box Memory • RJ-45 Data Port for Software Update and Setup • Window Blanking • Horizontal and Zone Blanking 	<ul style="list-style-type: none"> • Three Auto Focus, High-Resolution Integrated Camera/Optics • Color/Black/White, 80X Wide Dynamic Range and Motion Detection • Built-in Back Box Memory • RJ-45 Data Port for Software Update and Setup • Window Blanking • Horizontal and Zone Blanking
Description	Pendant Environmental Dome/Color and Black/White Camera	Pendant, Environmental Dome Monochrome Camera
Type	Color and Black/White	Monochrome
Mechanism	Pan-Tilt-Zoom (PTZ)	Pan-Tilt-Zoom (PTZ)
Connectivity	Analog	Analog
Structure	N/A	N/A
Resolution	470 lines (horizontal)	500 lines (horizontal)
Minimum Illumination	<ul style="list-style-type: none"> • Max Sensitivity @35 IRE: .08 lux at 1/2 sec (color) • .3 lux at 1/60 sec (B/W) • .013 lux at 1/2 sec (B/W) 	Max Sensitivity @35 IRE: .005 lux at 1/2 sec shutter
Advance Technology	N/A	N/A
Use	Indoor/Outdoor	Indoor/Outdoor



NETWORKING — Enablers and Multiplexers



Product	IPmux-11, IPmux-1E	IPmux-14	Megaplex 2100/2104	VMUX 110
Motorola Part Number	IPmux-11-RRDN5122A (Multiple configurations exist, contact pre-sale support).	RRDN5234A	Requires configuration, contact pre-sale support.	Requires configuration, contact pre-sale support.
Features and Benefits	<ul style="list-style-type: none"> • Sends voice over IP, protecting investments in TDM-based PBX systems • Supports all of existing PBX systems features, signaling and functionality • Eliminates point-to-point E1/T1 leased lines • Low latency, less than 2 msec, meeting QoS requirements • Compact, plug-and-play units provide low cost ownership and rapid installation • Transmits TDM-based services over networks of Ethernet, IP or MPLS • IPmux-11 provides single E1/T1 TDM user port • IPmux-1E provides analog, ISDN BRI and E1/T1 user ports with echo cancellation • Fiber/copper: Ethernet uplink interfaces • Wire-speed bridging of user LAN traffic to the packet-switched network • Tunable delay vs. bandwidth trade-off • Centralized SNMP-based management 	<ul style="list-style-type: none"> • IPmux-14 provides four channelized E1/T1 TDM user ports aggregate multiple fractional E1/T1s • Transmission of TDM-based services over packet-switched networks (Ethernet, Ip, or MPLS) • Provides cross connection between E1/T1 ports • Has centralized SNMP-based management • Includes a high precision clock recovery for 2G/3G cellular traffic over PSN • Reduces operating expenses by delivering virtually all TDM, data, and LAN services over IP, Ethernet, MPLS networks • Ensures strict priority for TDMoIP traffic over network link 	<ul style="list-style-type: none"> • Sophisticated line of multiplexers that integrate data, voice, fax and video traffic over up to 4 full E1 or 5 full T1 main links with non-blocking, DSO cross connect • Supports multiple Fractional E1/T1 main links with combined TDM capacity of 8 Mbps • Optional redundant configurations support critical applications • Built-in fiber optic and HDSL modems to reduce deployment and maintenance costs • Management through ASCII terminal or SNMP • MP-2100 supports up to 12 modules • MP2104 compact version supports up to 5 modules 	<ul style="list-style-type: none"> • Integrates voice and data over packet and TDM • Supports 4 or 8 FXS/FXO/E&M or one E1/T1 port, and one 10/100Base T port, Integrated router (LAN only) • Supports 10/100 Mbps copper and fiber Ethernet, serial or E1/T1 WAN interfaces • Transparent to all signalling protocols and LAN • SNMP, Telenet and local ASCII management options
Description	The IPmux-11 and IPmux-1E provide a legacy over Ethernet IP solution supporting E1/T1, ISDN BRI, and FXS/FXO/E&M services over IP and Ethernet-based networks. They convert the data stream from the user ports to packets for transmission over the packet switched network.	The IPmux-14 converts TDM user traffic data streams from the E1/T1 or serial ports into IP packets or MPLS frames for transmission over the packet-switched network (PSN) via an Ethernet uplink. TDM-based voice, fax, modem and data services without compromising traditional PSTN quality.	The Megaplex is a flexible, modular multiplexer enabling integration of multiple voice, ISDN, video, data and LAN services over multiple E1/T1 or Ethernet uplinks with up to 8 Mbps non-blocking cross connect per chassis.	The Voice Trunking Gateway is a Remote Device which fulfills the need for a low capacity, remote voice and data gateway for both IP and leased line TDM networks. It compresses voice traffic and transports it over an n x 64 kbps, E1/T1 or IP link.
Application	<p>These multiplexers can be used for applications like PBX Voice Trunking, Centralized PSTN access and voice/data convergence.</p> <ul style="list-style-type: none"> • IPmux-1E and IPmux-11 are optimal for small and medium-sized enterprise sites such as: • City Governments • School Districts • University Metropolitan Area Networks • Health Agencies • Government Agencies • Enterprise Campus Environments 	<ul style="list-style-type: none"> • The IPmux-14 is ideal for small and medium-sized enterprises with its compact size, ease of installation and support for multiple legacy and next generation Ethernet and IP-based services. • End users continue to receive all familiar services, while carriers and service providers maintain revenues from legacy services. 	<ul style="list-style-type: none"> • It is especially suitable for use as an economical, compact remote distribution node. • It is ideal for small to mid-size business entities, providing mixed services for both business and residential customers. • It can be deployed at the carriers point-of-presence in the exchange, as well as remote distribution mode, such as in an office building basement. 	<ul style="list-style-type: none"> • T1/E1 commercial voice services with all Class 5 features • Private line voice networking between enterprise locations • Disaster recovery by rerouting voice circuits over diversified cable facilities
Technology	TDMoIP Gateways	TDMoIP Gateways	Modular Integrated Access Multiplexers	TDMoIP Multiplexing Technology

For more information contact:



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