

# mm156

## Next generation broadband videophone with IP and PSTN connectivity

- Outstanding video and audio
- Easy set up and operation
- Toll-free operation over broadband or corporate connections
- Supports H.323 and Packet Buddy™ IP video calls through Ethernet interface
- Supports H.324 video and regular audio calls through telephone line interface
- Wideband, full-Duplex hands-free audio
- Flash memory for easy software upgrades

### Outstanding video and audio over any network!

Psychologists say 80% of communication is non-verbal, but with increasing pressures on time, cost, and the environment, a face-to-face meeting should no longer require a road trip or flight.

Recent improvements in the cost and availability of bandwidth in the home and business, together with advances in video compression technology mean that quality video communication has at last come of age.

With up to 30 frames per second, superior picture quality, hands free audio, and a simple, intuitive user interface, mm156 offers the ultimate in videophone technology without expensive network provisioning.

### Video calls where and when you want them

Having a connection to the world that you can use instantly will never be a problem with the mm156! With a regular analog telephone line connection capable of supporting audio and video calls, you can simply plug the phone into the line, or a PBX with analog interface and dial.

### Connect to a wider audience

The telephone line connection also gives you the flexibility to call devices that don't support IP such as telephones, mobile phones, and H.324 only videophones!

### IP Network flexibility

For increased quality, fast call setup times, and toll-free video calls across the Internet, the mm156 supports

broadband IP connections through two 10/100 Ethernet ports.

Individual calls can be dialed, and adaptively scaled to any bandwidth between 32 and 384 kbps, working in perfect synergy with the variable bandwidth available from broadband (cable or ADSL) and corporate networks.

### Versatility

mm156 features two different IP video protocols. Motion Media's own Packet Buddy protocol enables communication through non H.323-ready firewalls and routers.

Over the right infrastructure, the H.323 protocol is available allowing IP calls to other H.323 videophones, personal systems and group conferencing systems.

### Ease of use

mm156 features an instant and familiar telephone interface. Simply dial as with a regular telephone to originate a call. Or call from the speed dial directory in just a few key presses.

### Excellent audio quality

mm156 features a full-duplex sub-band adaptive echo canceller, allowing natural hands-free speech without the need to pause when the conversation changes direction.

### Software updates

Flash memory ensures an easy upgrade path to future IP video telephony standards or a range of custom options and features.



mm156



# mm156

## Video in/out

- TV
- VCR
- Monitor
- Camcorder
- Camera

## Audio in/out

- TV speaker
- External mic with preamp
- VCR
- Camcorder

## Power

## Port 2

- RS-232
- Composite Video In
- Audio In

## Port 3

- RS-232

## Port 1

- PTZ camera
- RS-232 equipment
- PC

## 2 Network ports

- LAN/WAN
- Cable or DSL Modem (via broadband)
- And PC

## PSTN Port

- Telephone line connection

Specifications subject to change without notice

## Technical specifications

### Communication Standards Supported

- Multiplexing: H.323, H.324 & PacketBuddy™
- Video H.263, H.261
- Audio G.723, G.711, G.722
- Capability/Control Protocol: H.245

### System Performance

- CIF video format: 352 x 288 pixels
- QCIF video format: 176 x 144 pixels
- CIF, 15fps, QCIF, 30fps

### Video Inputs

- Internal colour camera (manual tilt)
- Composite input: Phono
- Format: NTSC/PAL Composite 1 Vpp
- Termination: 75 Ohms
- Peripheral camera port: MiniDin-8

### Audio Inputs

- Handset and internal microphone
- Line level input: Phono
- Format: Line level (-10dbm typical)
- Termination: 10k Ohms (minimum)
- Peripheral audio port: MiniDin-8

### Video Outputs

- Integrated 5" TFT LCD display
- Video output: Phono
- Format: NTSC/PAL Composite 1 Vpp
- Impedance: 75 Ohms

### Audio Outputs

- Handset and internal speaker
- Audio output: Phono
- Format: Line level (-10dbm typical)
- Impedance: 600 Ohms (minimum)

### RS-232 Data Port

- Connector: DB9F
- Format: RS-232, DCE Pin-out
- For use with external PTZ cameras, peripherals and PC's
- Operating modes include camera control, transparent data channels and host control
- Data rates supported from 1200-15,200 bps

### Peripheral Video and Audio Ports

- Connectors: 2, 8 pin DIN proprietary
- Format: RS-232 data, Power, Video, Audio and Control

- For use with custom applications and peripherals

### Network Communications Interface

- Interface 10/100 Ethernet
- H.323 and Packet Buddy for transmission over non-QoS networks
- 2 x RJ-45 Jack connectors
- User Datagram Protocol (UDP)
- Dynamic Host Control Protocol (DHCP)
- PPP Over Ethernet
- Compatible with standard 802.3 IP based networks
- Configurable IP port addressing for firewall compatibility
- Throughput - 32 to 384 kbps
- Adaptive bandwidth utilization

### Software Features

- 50 entry phone book and integrated speed dial function
- Synchronize phonebook from a master unit over the network
- Remote source and camera controls
- Camera control drivers for Sony and Canon PTZ cameras
- Digital Pan/Tilt/Zoom for non-PTZ cameras
- Image quality control to select resolution and motion vs.details
- Full-duplex acoustic echo canceller
- Remote site user ID display with overlay on picture
- Picture-in-Picture (PIP) display (moveable, sizeable)
- Image snapshot and privacy modes
- Auto answer mode
- Secure PIN access
- Compatible with eyesite series security products
- On-screen diagnostics and call reporting
- Call logging
- Remote software updates

### Interoperability

- Supports H.323 MCUs, Gateways, Gatekeepers and videoconferencing equipment

### Telephone Line

- Supports regular analog calls and H.324 video calls at 33.6 kbps
- Worldwide V.34 modem supporting the following countries: USA, UK, Switzerland, Sweden, Spain, Portugal, Norway, Netherlands, Mexico, Korea, Japan, Italy, Ireland, India, Greece, Germany, France, Finland, Denmark, China, Belgium, Australia, Austria

### Power

- DC input requirement 12 VDC
- Power consumption < 22W active < 5W standby
- UL, CSA and CE listed AC adapter, 110 or 240V a.c., 50/60Hz

### Physical/Environmental

- Dimensions (HxWxD): 180 x 210 x 250mm
- Weight: 1.2kg
- Operating temperature: 0° to 40°C ambient
- Operating humidity: 5% to 95% relative humidity, non-condensing
- Storage temperature: 0° to 70°C ambient
- Storage humidity: 5% to 95% relative humidity, non-condensing

### Package includes

- Network cable
- AC Power adapter
- User manual
- Quick start guide

### Approvals

- FCC part 15B, and ACTA part 68
- CE Europe
- UL/C-UL listed

### Warranty

- One year parts and labour

## Models

- mm156 PAL
- mm156 NTSC