

# IT-FHD-MR60

## Integrated HD Audio-visual Communication Terminal

**IT-FHD-MR60** is a new generation of integrated HD audio-visual communication terminal, which can be used as SIP terminal, H.323 terminal and SIP/H.323 mixed terminal. It is compatible with most popular MCU and GK brands, such as POLYCOM, Cisco etc.

Providing rich interfaces, built-in high-performance digital signal processing chip. It also supports dual 1080P60 HD video and AAC-LD broadband voice encoding and decoding. With ultimate conferencing and collaboration experience offered, it is an ideal choice for video conferencing, command control, online education, telemedicine and other professional applications.



### Features

#### Strong Compatibility

- Support H.323 / SIP dual-protocol stack, which make it achieve good interoperability with the industry standard terminals, MCU, GK, etc. It is convenient for customers' expansion and upgrading.
- The rich interface configuration make it fit for different application environment and compatible with mainstream audio/video input/output devices. It also can achieve rapid deployment, reducing the times to modify wiring.

#### Superior performance to present ultra HD video

- Built-in high-performance digital signal processing chip, support dual 1080p60 from both mainstream and auxiliary stream encoding simultaneously (optional), providing single-display, dual display and rich video window layout to enhance the user experience.
- Audio supports AAC-LD broadband codec, and use optimal algorithm to achieve echo cancellation, noise suppression and automatic gain control, thus to ensure high-fidelity, low-latency audio transmission.
- QoS settings and unique media error correction(MEC) technology can guarantee smooth audio and video effects under high bit error rate condition (priority to ensure audio quality under network degradation condition)

#### User-friendly design for operation and maintenance

- IT-FHD-MR60** adopts high integrated structural design(integrated camera), to present a simple and fashionable appearance, and provide matched brackets to achieve wall mount and upside down installation
- Built-in gravity sensor, making the image flip automatically under upside down mount mode.
- Flat UI style design, to make it easier for user to operate.
- Remote controller integrated part of function buttons, making it convenient and practical to achieve common function with only one click.
- U disk, web pages and other upgrades ways will help post-maintenance and system upgrades.
- Optional high quality 360 degree omnidirectional digital microphone array; simple wiring is helpful to quick installation.

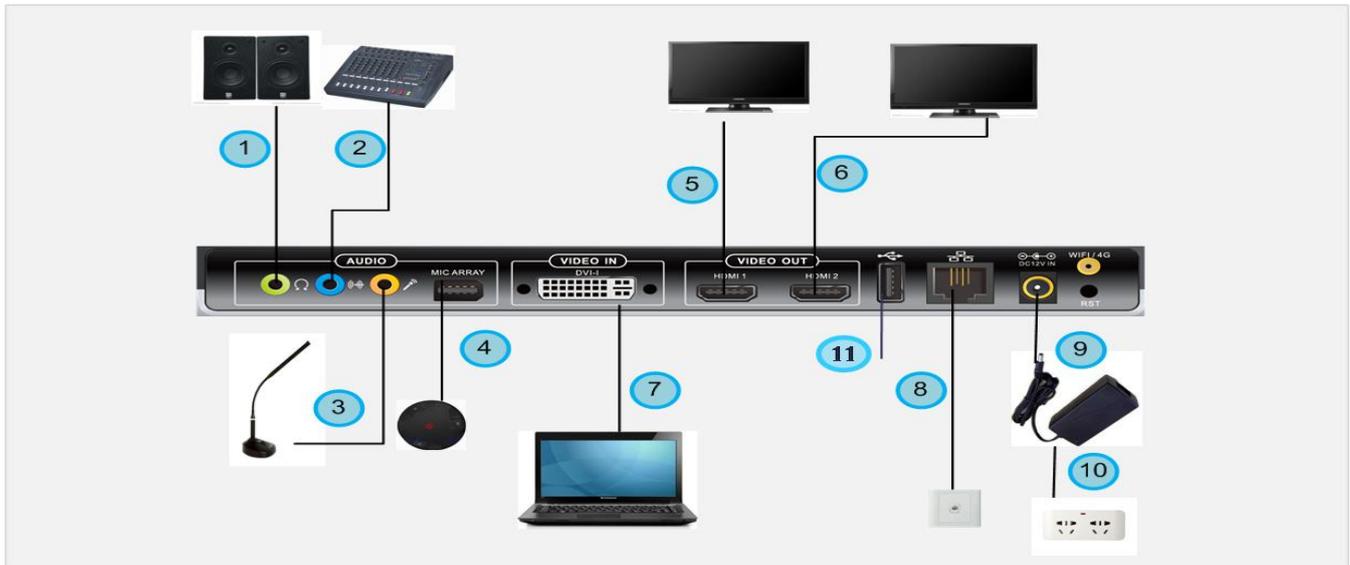
#### Multiple security mechanism ensures the security of content transmission.

- The system applies AES media encryption technology.
- User certificates, password protection, HTTPS security links and other encryption measures ensures safe operation of the system.
- Supports H.460, NAT, and configurable port ranges for firewall traversal

## Specification

Item	IT-FHD-MR60
Communication Protocol	H.323 (Including H.221, H.225, H.235, H.245, H.281, T.140, DTMF etc.) SIP
Camera Features	<ul style="list-style-type: none"> <li>● Optical Zoom:12X</li> <li>● View Angle:6.3°(tele) ~72.5°(wide)</li> <li>● Tilt:-30°~+90°; Pan:-170~+170°</li> <li>● Video Signal Format:1080p50/60,720p50/60</li> <li>● Auto Focus/Auto White Balance/Auto BLC</li> <li>● 2D &amp; 3D digital noise reduction</li> <li>● Video Adjustment: Brightness, Colour, Saturation, Contrast, Sharpness, B/W mode, Gamma curve.</li> </ul>
Camera Control	Support FECC remote control protocol
Video Encoding	H.261, H.263, H.264, H.264HP
Video Input	2 channels video inputs: one channel integrated camera video input, the other channel auxiliary video stream input video formats supported by DVI-I:1920x1080 (1080P),1280x720 (720P),1600x1200 (UXGA),1680x1050 (WSXGA+),1400x1050 (SXGA+),1366x768 (WXGA+),1280x1024 (SXG),1024x768 (XGA), 800x600 (SVGA)
Video Output	<ul style="list-style-type: none"> <li>● Main camera video output interface: HDMI</li> <li>● Auxiliary video output interface: HDMI</li> <li>● Video formats supported:1920x1080 (1080P),1280x720 (720P)</li> </ul>
Audio Encoding	G.711A, G.711U, G.722, G.722.1C, G.728, G.729A, AAC-LD
Audio processing technology	Echo canceller, noise suppression, AGC
Audio Input	<ul style="list-style-type: none"> <li>● 1xXLR</li> <li>● 1xRCA</li> <li>● 1x Microphone array</li> <li>● 1x HDMI audio (audio from auxiliary stream)</li> </ul>
Audio Output	<ul style="list-style-type: none"> <li>● 1xRCA</li> <li>● 1xHDMI audio</li> </ul>
Microphone array	Support 48KHz sampling, 6m audio pick up distance,360°omni-directional microphone
USB Interface	USB 2.0 (for FM upgrading and maintenance)
LAN Interface	10/100/1000M LAN
LAN Protocol	IPv4/v6, DHCP, NAT, QOS, NTP, SNMP, RTP/RTCP, H.460 , H.239 (H.323), BFCP (SIP)
Bandwidth requirement	64kbit/s-6Mbit/s
Security	AES, HTTPS, Certificate, Management interface password protection, TV configuration interface password protection
Control ways	Remote control+ TV interface Webpage management
Supply Adapter	AC 110-240V, 50Hz-60Hz to DC 12V Supply Adapter
Consumption	<60W
Dimension	270mm(L) x 184mm(W) x 187mm(H)
Weight	1.94kg
Working Temperature	0-40°C
Working Humidity	10%-80%
Store Temperature	-40-70°C
Store Humidity	0%-95%

## Device Connections



### 1. Audio output:

Option 1: Connecting acoustics.

Option 2: Use main monitor (5) to have audio output

### 2. Audio input:

Option 1: Connect with console (2)

Option 2: Connect with CANNON Microphone (3) (need to buy 3.5mm balance cable to convert to CANNON head)

Option 3: Connect with omnidirectional digital microphone array (4) (Suggested)

Option 4: Connect with auxiliary video input device (7)

### 3. Video output:

Connect Main Display/Monitor with HDMI cable (5)

Connect Auxiliary Display/Monitor with HDMI cable (6)

### 4. Video input:

Connect auxiliary streaming video Input (7) with DVI (HDMI) cable.

### 5. Network connection:

Option 1: Wired network connection (8)

Option 2: Wireless network connection (10)

Option 3: Wireless 4G LTE connection (10)

### 6. Maintenance and FM upgrading:

Via USB 2.0 port (11)

### 7. Power supply Connection (9) :

Connect with AC 12V Power supply.

After confirmation of the above connection, connect the DC power adapter with AC power supply, then power on.