

FW-1177-DE User's Manual

Part 1

(Product Overview)

Version 4.0

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1. Product Overview

1.1. FW-1177-DE

FlexWATCH® FW-1177-DE is a standalone network camera that has a built-in PTZ Analog Camera and is capable of transmitting the video over the IP Network. FW-1177-DE has built-in web server, so it can transmit the video at the rate of up to 30fps (NTSC@4CIF) over the network such as LAN, leased line, DSL or Cable modem. Users can monitor the video transmitted from FW-1177-DE on web browser such as Internet Explorer or Firefox.

FW-1177-DE supports video compression format of both Motion-JPEG and H.264, and it can encode the video signal into the two different video formats and transmit them over the network at the same time. This way, users have the choice which video format to use for their intention. FW-1177-DE supports both NTSC and PAL standards, and users can select from 5 different video resolutions and 6 levels of video qualities.



1.2. Key Features

- Standalone device with built-in web server
- 10/100Base-T Auto-Sensing Ethernet
- Configuring and controlling through Web browser
- Up to 30 fps transmission rate on TCP/IP network
- Effective Bandwidth & Bit-rate Control (VBR/CBR) by H.264
- Dual Streaming in Motion JPEG and H.264
- 1-channel Voice Encoding / 1-channel Voice Decoding
- Built-in 2 way Audio transmission (1ch A-in, 1 A-out)
- Support Dynamic-IP users by IPCCTVDNS server
- Support PTZ (Pan/Tilt/Zoom) functions
- Support Sensor Input, Digital Output
- Support transparent mode
- Encryption on user authentication level
- Support dialup modem (Dial-in, Dial-out)
- Image transmission via FTP and Email

1.3. Technical Specification of FW-1177-DE

Hardware	32bit Embedded CPU Flash 8Mbytes / SDRAM: 128Mbytes Linux version 2.6.xx operating system Battery backed-up real-time clock
Image Sensor	1/4" Sony 410K Super HAD CCD Resolution: 520 TV Lines [Detail] S/N ratio: 50dB or more (AGC OFF) Electronic shutter speed: 1/60 ~ 1/100,000 sec (NTSC) 1/50 ~ 1/100,000 sec (PAL) White Balance: ATW (indoor: 3,000K~6,500K / outdoor: 1,800K~10,500K), AWC, MWB
Lens	IRIS control: Auto & Manual F1.4-30, f=3.3 mm wide to 99.0 mm tele Angle of view: 2.3~62.0 horizontal Shutter speed: Auto or 1/120~1/60,000 sec
Minimum Illumination	Color: 0.4 Lux (F1.6) B/W: 0.1 Lux (F1.6) DSS(Digital Slow Shutter) : 0.0007 Lux (F1.6)
Video Related Features	DIS (Digital Image Stabilizer) - protection from variation AGC (Auto Gain Control) DSS (Digital Slow Shutter) BLC (Back Light Compensation) ICR (Day & Night) SSNR (Noise Reduction at Low Light)
Video Compression	Motion JPEG / H.264
Resolution	NTSC: 720x480, 704x480, 704x240, 352x240,176x112 PAL: 720x576, 704x576, 704x288, 352x288,176x144
Frame Rate (each channel)	Motion JPEG: Up to 30/25 fps @4CIF (Secondary Stream at QCIF) H.264: Up to 30/25 fps @4CIF (Primary Stream at QCIF)
Video Streaming	Motion JPEG and H.264 Dual Streaming (Simultaneously) Controllable frame rate and bandwidth
Image Setting	Compression levels: 6 (Motion JPEG) / 6 (H.264) Color: color, black & white
Zoom	33x optical zoom, 10x digital zoom Smart Zoom (Speed control by zoom ratio)
Pan / Tilt	Max Speed: Pan 360°/sec, Tilt 200°/sec@preset mode Rotation Angle: Pan 360°(endless), Tilt: 92° (auto flip) 32 Preset Positions Swing, Group, tour, 16 privacy zone
Voice	4 bit ADPCM, Sampling rates 8KHz, Mono Audio 1ch in & 1ch out Bandwidth: 2KByte/sec (per channel) Min/Max Audio Freq.: 300Hz ~ 3.4KHz
LAN Interface	10/100Base-T Ethernet auto-sensing
Alarm I/O Interface	1 Photo-coupled inputs and 1 Relay output

Audio Input (MIC)	Input Impedance : 4 K Ω Phantom Power : 5 Volt Gain : 20 dB Jack : 3.5mm Mono
Audio Output (SPK)	Output Impedance : 160 Ω Output Power : 50 mW Output Voltage : 1 Volt (peak-to-peak) Jack : 3.5mm Stereo
Power Over Ethernet	Optional
Serial Interface	Two serial ports for console, modem(PSTN & GSM), serial input/output device, PTZ COM Port is RS-232, AUX port connected to Built-In PTZ Max Baud Rate: 115200 bit/s
Security Features	Multi-user level protection for camera access, PTZ, Alarm I/O
Advanced Service	Up to 15.5M memory for Pre/Post alarm buffer e-mail, FTP, alarm Buffer by event or schedule IP notification, Alarm Notification to e-mail, CGI Call by event or schedule
Built-in Motion Detections	Accuracy: 12x12=144 blocks Motion Sensitivity: -100 ~ 100 (100 is hypersensitive)
PTZ & UART Control Support	Built-in PTZ device is controlled through AUX UART control X10 device Dial in/out via PSTN or GSM modem
Others	Transmit Serial input data transfer with Video IP notification by e-mail
Management	Configurable by serial, web or telnet Remote system update via telnet, FTP OR web browser.
Developer Support	Provides HTTP CGI API ActiveX control development kit
Power Supply	Power Adaptor included Input: 100/240 VAC, 1A Output: AC 24 Volt, 1.5A
Power Consumption	AC 24Volt, 1A
Operating Environment	Temperature: 32° ~ 122°F (0° ~ 50°C) Humidity: 20 ~ 80% RH (non-condensing)
Miscellaneous	Free version NDVR Software Works with FW-Manager(NDVR S/W) Dynamic IP support through IPCCTVDNS Server
Simultaneous Users	Live-cast for up to 16 clients
Installation, Management and Maintenance	Installation CD and web-based configuration Firmware upgrades over HTTP or FTP, firmware available at http://www.flexwatch.com
Video Access from Web Browser	Supported on Microsoft Internet Explorer or Firefox
Minimum Web Browsing Requirements	Pentium III CPU 500 MHz or higher Windows XP, 2000, NT4.0*, Internet Explorer 6.x or later

System Integration Support	<p>Powerful API for software integration available at http://www.flexwatch.com, including Simple Viewer API, FlexWATCH Control SDK, event trigger data in video stream, embedded scripting and access to serial port peripherals over HTTP/TCP</p> <p>User can be installed user program daemon for event notification or sending image.</p> <p>Embedded operating system: Linux 2.6</p>
Supported Protocols	HTTP, TCP/IP, FTP, Telnet, RARP, PPP, PAP, CHAP, DHCP, SMTP client(e- mail), NTP, RTP/RTSP
Applications (not included)	FlexWATCH Manager 16/25/32/64/128/256
Included Accessories	<p>Power Adaptor 24 V AC / Power cord</p> <p>Mounting brackets</p> <p>Connector kit</p> <p>Installation Guide (Hard copy)</p> <p>CD (Installation wizard, user's manual, quick install guide & software),</p>
Approvals	<p>KCC</p> <p>FCC : Class A</p> <p>CE : Class A</p> <p>IP66</p> <p>RoHS</p>
Dimensions and Weight	<p>216.8mm (Diameter) X 289.2mm (Height) (8.53" x 11.38")</p> <p>5.5 Kg (12.1lbs) without power supply.</p>

Table 1 : FW-1177-DE Specification

1.4. FW-1177-DE Packing List

FW-1177-DE's packing box includes the following items





FW-1177-DE	1ea	
Power Adaptor Unit (Power Cable & DC12V, 3A Adapter)	1ea	
CD (User's Manual, installation wizard and Pictures)	1ea	

Table 2 : FW-1177-DE Packing List

 *Please make sure all the listed items are included in the package. For any missing items, please contact your local distributor.*

2. Hardware Description

2.1. FW-1177-DE

Picture 2. FW-1177-DE with Wall Mount Bracket



	Name	Description
A	PTZ Camera	Camera supporting PTZ(Pan/Tilt/Zoom)
B	BODY Frame	Body Frame for Camera
C	Bracket	Wall Mount Bracket

3. FW-1177-DE HW installation and basic setup

3.1. Before installation

- Read User's Manual carefully
- Check User's Network (IP Address, Network Mask and default gateway)
- Secure IP address for FW-1177-DE.

3.2. Factory Default Condition

The table below shows the factory default conditions. Please refer to this when you need to change the values on admin menu.

Item	Factory Default
Admin ID	root
Admin password	root
IP address	10.20.30.40
Network mask	255.255.255.0
Gateway	10.20.30.1

Table 3 : Factory Default Condition

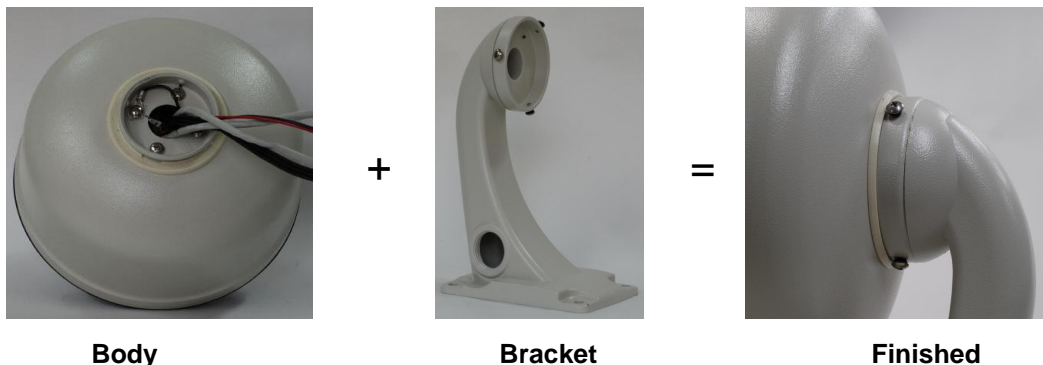


Admin ID and Password are case sensitive.

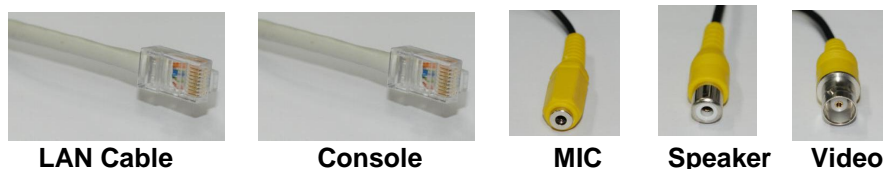
3.3. Hardware installation

Following pictures show the installation steps for FW-1177-DE.

1. Attach Body of FW-1177-DE to the bracket



2. Connect all the cables.



3. Connect power cable to FW-1177-DE.



Next, you need to follow the steps below.

1. Network Configuration on FW-installer.
2. Camera Configuration on FW-installer or admin-menu.
3. Service Configuration on FW-installer or admin-menu.

For further details, please refer to the related part in the User's Manual. Configuring FW-1177-DE is mostly done on a web browser, so users should set up the network first.