

FW1174 User's Manual

(Product Guide)

Version 4.12(Rev.E)

September 30, 2011



Class B Digital Device (residential environment)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation.

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About This Document

This document is prepared for users of FW1174 supplied by Seyeon Tech Co., Ltd. It is assumed that the users are familiar with Microsoft Windows operating systems and Web browsers such as Internet Explorer. It is also assumed that the users are well aware of how to install and use the network equipment such as LAN, Hub, router, and having basic knowledge of network terminologies. If you have any questions regarding network installations, please contact your network equipment vendor or network administrator or Internet service providers.

For updated contents, detailed features and other applications from Seyeon Tech, please refer to the user's manual in CD-ROM provided with the product you purchased, or visit Seyeon Tech's Internet homepage at <http://www.flexwatch.com/>.

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1. Product Overview

1.1. FW1174

FlexWATCH® 1174 is a stand-alone device transmitting video from built-in megapixel camera over IP(Internet Protocol) network. FW1174 model is divided into 2 different types: VC and MC.

It can transmit up to 30fps@VGA(VC)/1.3M(MC) over the existing network. You can monitor video of FW1174 through web browser(ie. MS Internet Explorer), if FW1174 is connected to network. FW1174 supports video compression both Motion-JPEG and H.264 simultaneously so that user can choose appropriate video compression for the purpose. For both Motion-JPEG and H.264, FW1174 provides 6 levels of video quality. FW1174 also supports both ONVIF and PSIA.

Built-in SD slot is provided for local recording and built-in PoE function is optional.

FW1174-VC/MC can be upgraded to VO/MS which supports two way audio, DI/DO, USB interface including SD by pin connectors. External PoE is used for this model.



Picture 1 : FW1174

1.2. Key Features

- Standalone device with a built-in web server
- 10M/100M Auto-Sensing Ethernet
- Configuring and controlling through Web browser
- Max 30 fps transmission speed on TCP/IP network
- Effective Bandwidth & Bit-rate Control (VBR/CBR) by H.264
- Supports Dual Streaming in Motion JPEG and H.264
- Support Dynamic IP network by IPCCTVDNS Server
- Encryption function by user authentication
- Image transmission function via FTP and Email
- Built-in SD card slot
- Optional PoE(Power over Ethernet)
- Support both ONVIF/PSIA

1.3. Technical Specification

	FW1174-VC	FW1174-MC
Hardware	32bit Embedded CPU NAND Flash 128Mbytes/DDR2: 128Mbytes Linux version 2.6.xx operating system Battery backed up real-time clock	
Image sensor	1/4" optical format CMOS Sensitivity : 1500 mV/lux.sec MAX Active pixel resolution: 652x488 [Detail] S/N ratio: 46dB White Balance: AWB	1/3" progressive scan MOS Active pixels 1280H x 1024V, 1.31M Effective pixels 1376H x 1070V, 1.47M Pixel size: 3.75 (H) μm x 3.75 (V) μm Color filter Bayer arrangement of primary colors: R, G, B Bit number of internal ADC: 12 bits Parallel output: 54 MHz, 12 bits Output frame rate: 30 fps
Lens	3.6mm F1.8 fixed lens	3.7mm F.2.0 fixed megapixel lens
Minimum illumination	Color: 0.5 Lux(F1.8) B/W: 0.01 Lux(F1.8)	1 Lux(F2.0)
Video related special functions	Backlight (OFF/LOW/MIDDLE/HIGH) AGC (OFF/LOW/MIDDLE/HIGH) Lens (MANUAL/DC) Shutter (ESC/MANUAL/FlickerLess) White Balance (ATW/AWC/MANUAL) DNR	Day & Night (ON/OFF) AGC, AWB Lens (MANUAL/DC) Shutter (MANUAL/AUTO) Vertical/Horizontal Flip Frequency Control (50/60) Brightness/Contrast/Sharpness Control
Video compression	Motion JPEG H.264	
Resolution	VGA(640x480), CIF(320x240), QCIF(160x112)	1.3M(1280x1024), HD(1280x720), VGA(640x352), CIF(320x176), QCIF(160x96)
Frame rate (each channel)	Motion JPEG: Up to 30/25 fps @VGA (Secondary Stream at QCIF) H.264: Up to 30/25 fps @VGA (Primary Stream at QCIF)	Motion JPEG: Up to 30 fps @ 1280H x 1024V (Other Stream at QCIF) H.264: Up to 30 fps @ 1280H x 1024V (Other Stream at QCIF)
Video Streaming	Motion JPEG and H.264 Dual Streaming (Simultaneously) Controllable frame rate and bandwidth	
Video Standards	ONVIF PSIA	
Image setting	Compression levels: 6 (Motion-JPEG, H.264) Color: color, black & white	
LAN interface	10/100BaseT Ethernet auto sensing IEEE 802.3af Built-in POE (optional)	
Video Output	None	Option
Power Over Ethernet	Option	
Security features	Multi user level protection for camera access	

Advanced Service	Up to 5.6M memory for Pre/Post alarm buffer E-Mail, FTP, 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
Others	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
PWR Supply	SMPS Input: 100~240VAC, AC 50/60Hz, 300mA Output: DC 12 Volt, 1A
PWR Consumption	DC 12Volt Max 300 mA
Operating Environment	Temperature : 32°~ 122°F (0°~ 50°C) Humidity : 20 ~ 80% RH(non-condensing)
Miscellaneous	Freely downloadable NDVR Software Work 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 www.flexwatch.com
Video access from Web browser	Video access from Web browser
Minimum Web browsing requirements	Pentium 4, 2 GHz, 2GB(RAM) or higher Video Card: 256MB RAM, 1024x768 resolution or higher 100Mbps Network Adaptor or faster Windows XP Pro or later Internet Explorer 6.x or later
System integration support	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 User can be installed user program daemon for event notification or sending image Embedded operating system: Linux 2.6
Supported protocols	HTTP, RTP/RTSP, TCP/IP, FTP, Telnet, RARP, PPPoE, PAP, CHAP, DHCP, SMTP client(e- mail), NTP
Applications (not included)	FlexWATCH Manager 16/32/128/256
Included Accessories	Power supply 12 V DC CD (User's Manual, installation wizard and etc)
Approvals	KCC FCC : Class B CE : Class B RoHS
Dimensions (HxWxD) and weight (1lbs = 454g)	100Ø x 70(H) (in mm) About 0.190kg without power supply.

** All specifications are subject to change without prior notice.*

Table 1 : FW1174 Data Sheet

1.4. FW1174 Packing List

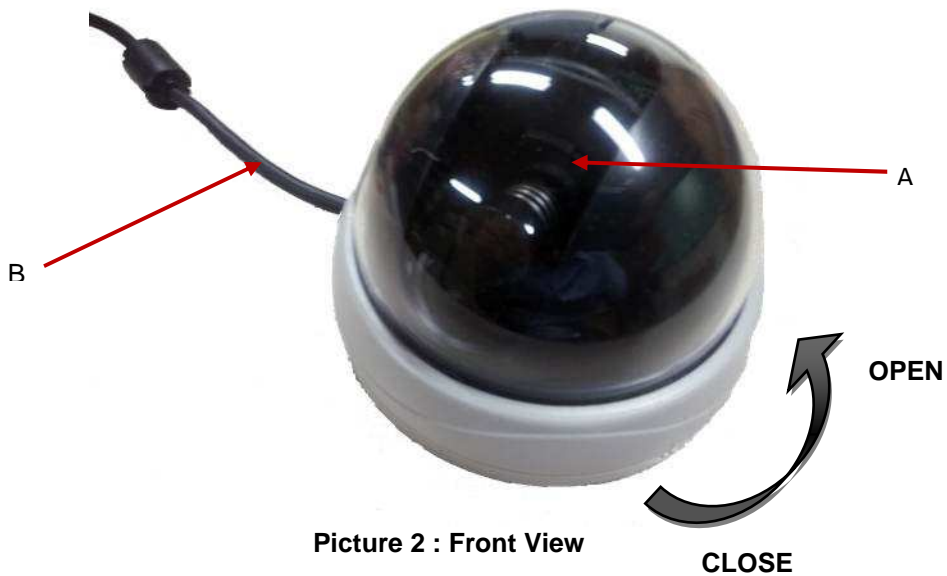
FW1174	1ea	
Screw and Anchor Bolt Set	1ea	
Power Supply Unit (Power Cable & SMPS DC12V 1.0A Adapter)	1ea	
CD (User's Manual, installation wizard and etc)	1ea	

Table 2 : FW1174 Packing List

Note: Please check all the listed items are included in your package. For any missing items, please contact your local distributor.

2. Hardware Description

2.1. Front View with Dome Cover



Picture 2 : Front View

	Name	Description
A	Dome Cover	Mini dome cover
B	Cable	Outing cable for connection

Table 3 : FW1174 Front View

2.1. Outing Cable



Picture 3 : FW1174 Outing Cable

	Name	Description
A	Cable	Outing cable for connection
B	Power Conn.	Power Connector. (Removed when built-in PoE is selected)
C	LAN	LAN Connector.

Table 4 : FW1174 Outing Cable

3. FW1174 Installation and Basic Setup

3.1. Before Installation

- Read carefully User's Manual.
- Check User's Network (IP Address, Network Mask and default gateway)
- Secure IP address for FW1174.

3.2. Factory Default Settings

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

	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 5 : Factory Default

Note: Factory default Admin ID and Password are all lower case letters. You can change the password with Capital letters.

3.3. Installing FW1174

Following steps are the physical installation process for FW1174.

1. Fix the FW1174 in place
2. Connect the FW1174 to the Internet cable through the LAN port.
3. Connect the power supply of FW1174.

After that, you need to follow the steps below.

- Network Configuration: Refer to "IP Installer User's Manual"
- Camera Configuration: Refer to "FlexWATCH Admin Menu User's Manual"
- Service Configuration: Refer to "FlexWATCH Admin Menu User's Manual"