

# FW1178 User's Manual

## (Product Guide)

Version 4.12(Rev.E)

February 7, 2012



### **Class A Digital Device (industrial & commercial environment)**

This equipment has been tested and found to comply with the limits for a Class A 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## **FW1178 User's Manual**

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### **About This Document**

This document is prepared for users of FW1178 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. FW1178**

FlexWATCH® 1178 is a stand-alone device transmitting video from built-in PTZ camera over IP(Internet Protocol) network. There is one type of FW1178 model: DP.

It can transmit up to 30fps@D1 over the existing network. You can monitor video of FW1178 through web browser(ie. MS Internet Explorer), if FW1178 is connected to network. FW1178 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, FW1178 provides 6 levels of video quality.



**Picture 1 : FW1178-DP-E**

### 1.2. Key Features

- Standalone device 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 Stream (Motion JPEG & H.264)
- 1ch Voice Encoding / 1ch Voice Decoding
- Support Dynamic IP users by IPCCTVDNS server
- Support PTZ (Pan/Tilt/Zoom) function
- Support Sensor Input, Digital Output
- Support Transparent
- Built-in 2 way Audio transmission (1ch A-in, 1 A-out)
- Encryption function by user authentication
- Image transmission function via FTP, Email

**1.3. Technical Specification**

	FW1178-PE
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"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 (1,800K~10,500K),AWC,MWB
Lens	IRIS control: Auto & Manual F1.8-2.8, f=3.8-38 Angle of view: 5.58~51.2 horizontal Shutter speed: x128, 1/60~1/120,000 sec
Minimum illumination	Color : 0.7 Lux (F1.8) B*W : 0.005 Lux (F1.8)
Video related special functions	AGC : Low/ High/ Off Day & Night : Auto / Day / Night (IR Cut Filter Change) DNR : Low / Middle / High / Off
Video compression	Motion JPEG H.264
Resolution	720x480, 704x480, 352x240, 176x112
Frame rate (each channel)	Motion JPEG: Up to 30 fps @ 4CIF (Other Stream at QCIF) H.264: Up to 30 fps @ 4CIF (Other 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, H.264) Color: color, black & white
Pan/Tilt /Zoom	Zoom : x10 (digital x10) Pan : 360°(Endless) Tilt : 0°~180°(Auto-Flip On) , 0°~ 95°(Auto-Flip Off) Max speed : 410°/sec(preset) 0.5°~ 120°/sec (Zoom Proportional, Manual) 1°~ 180°/sec(scan) 128 Presets with zoom, focus, blc and 16 digits of title 4 Patterns, 1,000 Commands / Pattern (Approx. 5 minutes in normal operations)
Audio	8 bit PCM (G.711-u-law), Sampling rates 8KHz, Mono Audio 1ch in
LAN interface	10/100BaseT Ethernet auto sensing
Alarm I/O Interface	1 Photo-coupled inputs and 1 Relay output

Audio Input(MIC)	Input Impedence : 4 KOhm Pantom Power : 3.3 Volt Gain : 20 dB Jack : 3.5mm Mono
Audio Output(SPK)	Output Impedence : 160 Ohm Output Power : 50 mWatt Output Voltage : Peek To Peek 1 Volte Jack : 3.5mm Stereo
Power Over Ethernet	None
Serial Interface	Two serial ports for console, serial input/output device, PTZ COM Port is RS-232, <i>Max Baudrate : 115200 bit/s</i>
Security features	Multi user level protection for amera access PTZ, Alarm I/O
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
PTZ & UART Control Support	Built-in PTZ device is controled through AUX UART control X10 device Dial in/out via PSTN or GSM modem
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	Transformer Input : 100~240VAC, 1A Output : AC 24 Volt, 3A
PWR Consumption	AC 12Volt 1.0A
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
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 <a href="http://www.flexwatch.com">www.flexwatch.com</a>
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 <a href="http://www.flexwatch.com">http://www.flexwatch.com</a> , 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 24 V AC / Power cord CD (User's Manual, installation wizard and etc)
Approvals	MIC FCC : Class A CE : Class A RoHS IP66
Dimensions (HxWxD) and weight (1lbs = 454g)	141Ø x 140(H) (in mm) About 1.8kg without power supply

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

**Table 1 : FW1178 Data Sheet**



**1.4. FW1178 Packing List**

FW1178-DP (Bracket Separate)	1ea	
Power Supply Unit (24V AC Power Cord)	1ea	
CD (User's Manual, installation wizard and etc)	1ea	

**Table 2 : FW1178 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. FW1178



Picture 2 : FW1178

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

Table 3 : FW1178

### 3. FW1178 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 FW1178.

#### 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
Wireless LAN (Option)	Disabled

**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 FW1178

Following steps are the physical installation process for FW1178.

1. Fix the FW1178 in place
2. Connect the FW1178 to the Internet cable through the LAN port.
3. Connect the power supply of FW1178.

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"