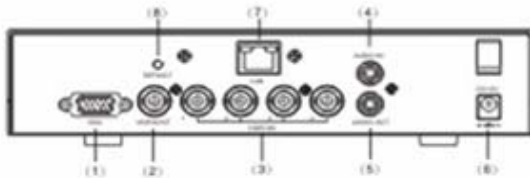


# DVR Stand Alone 4 Canales

APV-DV04MP

## REAR PANEL



- (1) XGA Output
- (2) Video Output: BNC x 1
- (3) Video IN: BNC x 4
- (4) Audio Input: RCA x 1, Line-In
- (5) Audio Output: RCA x 1, Line-Out
- (6) Power Input: For safety reasons, always use the original factory power adaptor attached.  
Adaptor : DC-12V / 3A -
- (7) LAN Output: (Optional)
- (8) DEFAULT : Reset to factory setting.



- 1 - Triplex (Recording, Playback, Network simultaneously).
- 2 - Up to 60fps Recording Speed.
- 3 - USB flash disk backup.
- 4 - Adjust Up/Down/Left/Right screen position.
- 5 - Video Input Signal: NTSC / PAL.
- 6 - Video Compression: Modified MJPEG.
- 7 - Manual, Motion, & Programmed.
- 8 - Motion Detection with Adjustable Time Duration.
- 9 - Search Data by Date and Time.
- 10 - Power Recover Auto Restore Record Mode.
- 11 - Hard Disk LED Indicator When Recording.
- 12 - Motion Detection.
- 13 - Audio Recording.
- 14 - SATA Hard Disk.
- 15 - Remote Control.
- 16 - XGA Output (TA-468X).
- 17 - LAN (Optional).

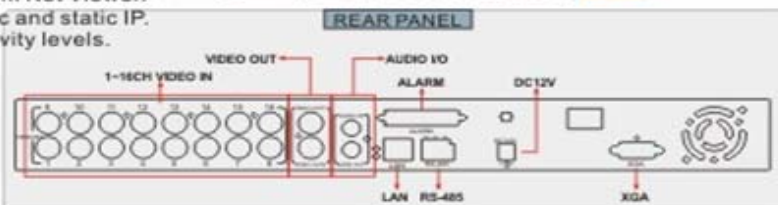
Model Number	TA-468/TA-468X	
Video Format	NTSC/PAL	
Operating System	Embedded RTOS	
VGA Output	D-SUB 15Pin VGA	
Video Input	BNC x 4 (1Vp-p 75Ω)	
Audio Input	RCA x 1, Line-In	
Video Output	BNC x 1(Main Monitor)	
Audio Output	RCA x 1, Line-Out	
Language	Multi-Language	
Display Frame	NTSC	120 fps (4 × 30 fps)
	PAL	100 fps (4 × 25 fps)
Recording Frame (EACH)	NTSC	Max. 60 fps
	PAL	Max. 50 fps
Video Operation	Triplex (Record, Playback, Internet Access)	
Resolution	Display	NTSC 640 x 448
		PAL 640 x 544
	Recording	NTSC 640x224
		PAL 640x272
Compression Format	Modified MJPEG	Normal 12K Bytes / Frame
		High 15K Bytes / Frame
		Highest 20K Bytes / Frame
HDD	SATA HDD x 1	
Backup	USB	
Search	Mode	Time/Date/Event
Motion Detect	Full screen	Yes
Loss Detect		Yes
Auto Switching		Yes
Buzzer Output		Yes
Brightness Adjust		Yes
Contrast Adjust		Yes
VGA Output	640*480/800*600/1024*768/1280*1024	
System Monitor	Power Recover Auto Restore Record Mode	
Web Transmission	MPEG4	
Format		
Power Supply	DC 12V / 3A(AC100V~240V 50/60HZ)	
Dimension	220mm x 228mm x 48mm (WxDxH)	
Weight	1.5KG	

# DVR Stand Alone 16 Canales

APV-DV16MP



- > Real time display 480fps
- > Recording resolution: 720\*240(NTSC) / 720\*288(PAL)
- > Recording speed: 120 fps (NTSC) / 100 fps (PAL)
- > USB flash disk backup and firmware update
- > Triplex. Simultaneous live display, record, playback, network transmission.
- > Ethernet function & management from Net Viewer.
- > TCP/IP, DHCP, support both dynamic and static IP.
- > 192 detective areas. Multiple sensitivity levels.
- > Support SATA HDD x 2.
- > Support RS-485 for PTZ control.
- > IR remote controller
- > 16 alarm input, 1 alarm output
- > 1 XGA output



Model Number	TA-1620
Video Type	NTSC PAL
Video Input	16-Ch Input / 1V p-p / 75 Ohm / BNC
Audio Input	1-Ch Input / RCA
Video Output	2-Ch Output / BNC
Audio Output	1-Ch Output / RCA
Display Mode	Full Mode · 4/8/9/13/16 Division, Circulate Auto Switcher
Display Resolution	720 x 480 720 x 576
Recording Resolution	720 x 240 720 x 288
Compression Rate	Normal image : 13~17KB 15~19KB Complex image : 20~25KB 22~27KB
Recording Speed	Max. 120 fps Max. 100 fps
Compression Algorithm	Modified M-JPEG
Operation System	Embedded Linux Operation System
Triplex	Record / Playback / Network
Recording Mode	Full-time, Manual, Schedule, Event
Schedule Recording	Every day circulation four sectors (full-time / minute)
Status Indicator (LED)	Power, Record, Playback, Network, USB Archive, Zoom magnify, Freeze, Key lock
Event Mode	Alarm Trigger, Motion Trigger Recording Duration: 10 ~ 99 second
Alarm Connect	Alarm In (16-ch) / Relay Out (1-ch / N.O. or N.C selectable)
Playback	Normal: x1 multiple speed Fast Forward : x2 / x4 / x8 / x16 multiple speed Reverse : x2 / x4 / x8 / x16 multiple speed Single still image per pushbutton Searching function: Time / Event / Manual / Schedule search
Network Protocol	TCP/IP · DHCP
Communication Protocol	RS-485
HDD Type	SATA HDD 3.5 inch / 7200 rpm *2
HDD Management	Pre-formatting not required (Automatic formatting by system)
P/T/Z Control	Internal Communication Protocol, RS-485 interface Control
Back Up	USB 1.1
Firmware Update	By USB 1.1 flash disk
Multinational Languages	English / Chinese / Other (Optional)
Control Mode	Front panel / IR remote controlled / Remote keypad (Optional)
Remote Control	Net Viewer (PC application program) to LAN download
Net Viewer Function	Live play viewer / network event list play back / USB flash drive file play / P/T/Z control
Power Supply	AC I/P VOL: AC115V~AC230V CUR: 5A MAX. FREQ: 50~60Hz
Dimension	43 (W)x31 (D)x4.8 (H)cm (Standard 1U machine)
Weight	About 3.5 kg (w/o HDD)
Operating Temperature	5 ° C ~ 40 ° C

## DVR Stand Alone 16 Canales

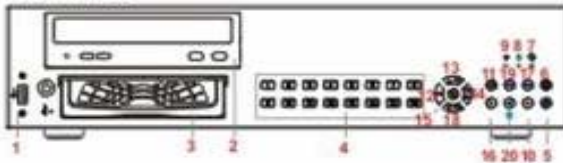
APV-DV16H2



- **Pentaplex Long Time Recorder**
- **MPEG4 H.264 Super Compression**
- **Compression Rate: Max. 2400:1**

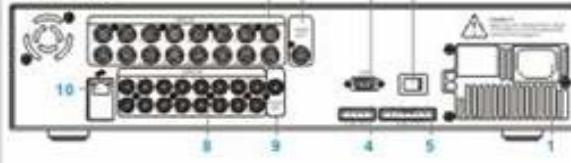
- **Recognition**  
evidenced images submitted to law enforcement agents
- **Recording Capacity**  
750GB HDD \* 2 (Max.)
- **Acquisition**  
video retrieved via DVD-RW, USB memory stick and client software
- **Authorization**  
system protected by given password
- **Remote Access**  
TCP/IP networking for dynamic IP, PPPoE and IE browser support
- **VGA PIP**  
live monitor picture in picture while playback mode

### FRONT PANEL



- ▶ **1.USB**
- ▶ **2.DVD-RW for File Backup**
- ▶ **3.HDD Caddy to install HDD**
- ▶ **4.Number 1-16 Buttons**
- ▶ **5.Button**  
Button is for Auto Scan function for a single, 4 split or 2 split windows in different page.
- ▶ **6.Button**  
Button is pressed under recording mode, the display images will be a single image, or 4 split windows or 8 split windows in different pages. Camera numbers depends on the pages.
- ▶ **7.Power Indicator**
- ▶ **8.Recording Indicator**
- ▶ **9.Playback Indicator**
- ▶ **10.Record/ Switch to Recording Display Button**
- ▶ **11.Setting / List Button**
- ▶ **12.Leftward Button / Playback Backward**
- ▶ **13.Upward button / Step Playback / Pause Playback**
- ▶ **14.Rightward Button / Playback Forward / Output Control**
- ▶ **15.Select / Backup Button**
- ▶ **16.Playback Button**
- ▶ **17.Subtract 1 / Next / Slow Speed Playback**
- ▶ **18.Downward Button / PIP Function**

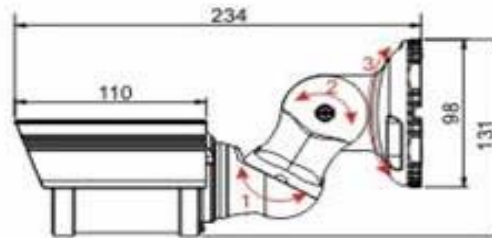
### REAR PANEL



- ▶ **1.Power Supply AC** 110V/60Hz or 220V/50Hz.
- ▶ **2.Power Switch**
- ▶ **3.VGA Output** VGA Output to connect to VGA monitor.
- ▶ **4.Input Terminals**  
Input terminal 1-4, for users to connect to sensor devices.
- ▶ **5.Output Terminals**  
Relay Output 1-4, for users to connect for controlling of external device
- ▶ **6.Video Input BNC-jacks** Mark 6 for Video Input 1-16
- ▶ **7.TV Monitor Output BNC-jack**  
Mark 7: TV output BNC-jack to connect to TV monitor.
- ▶ **8.Audio Input RCA-jack** 1-16 Audio Inputs.
- ▶ **9.Audio Output RCA-jack** Audio out jack for live audio monitoring, or audio output when playback saved files with audio.
- ▶ **10.Ethernet RJ45-jack**  
RJ45 Internet connection socket. 10Mbps/100Mbps Ethernet.

## Infrared Color Camera

B28IRHR



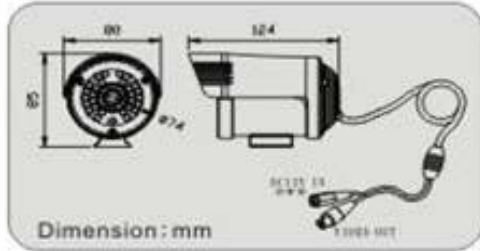
DIMENSION UNT:mm

- \* 1/3" SONY CCD
- \* Hi-Res. max. 480TVL
- \* 28pcs IR LED, IR Distance 20~25M
- \* 6mm lens standard
- \* 3 -AXIS mounting bracket , can be rotatable for user's demand

VIDEO SYSTEM	NTSC	PAL	NTSC	PAL
PICK UP ELEMENT	1 / 3" SONY CCD IMAGE SENSOR (INTER LINE)			
IMAGE SIGNAL PROCESS	DIGITAL SIGNAL PROCESSING SYSTEM			
LENS MOUNT	6.0 mm Lens ( Standard )			
NUMBER OF PIXEL	510(H)×492(V)	500(H)×582(V)	768(H)×494(V)	752(H)×582(V)
PICTURE ELEMENTS	APPROXIMATELY 250K	APPROXIMATELY 290K	APPROXIMATELY 380K	APPROXIMATELY 440K
HORIZONTAL RESOLUTION	MAX:420 TVL		MAX:480 TVL	
POWER SUPPLY	DC12V ± 1V (460 mA)			
POWER CONSUMPTION	5.6 W			
SYNCHRONIZATION	INTERNAL			
SCANNING SYSTEM	2 : 1 INTERLACE			
SENSITIVITY	0 LUX (IR ON)			
S/N RATIO	MAX:48dB			
AUTO GAIN CONTROL	AUTO			
BACK LIGHT COMPENSATION	ON / OFF			
WHITE BALANCE	AUTO			
ELECTRONIC SHUTTER	NTSC:AUTO: 1/60-1/10000s		PAL:AUTO: 1/50-1/10000s	
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT , 75 Ω			
IR RANGE	20-25M			
WAVELENGTH	850 nm			
OPERATING TEMPERATURE	- 5° C ~ +65° C			
DIMENSIONS (W × D × H )	Φ74 × 130 × 234 mm			
WEIGHT	About 0.6Kg			

## Infrared Color Camera

APV-B28IR

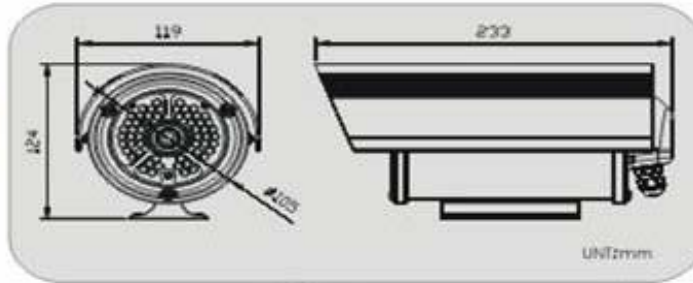


- 1/3" SuperHAD CCD
- 4mm lens, Max. 420TVL
- 28pcs IR LED, IR Distance 20M
- Double glass designed to prevent IR light refraction and diffusion.
- DC-12V

VIDEO SYSTEM	NTSC	PAL	NTSC	PAL
PICK UP ELEMENT	1 / 3 INCH SONY CCD IMAGE SENSOR (INTER LINE)			
IMAGE SIGNAL PROCESS	DIGITAL SIGNAL PROCESSING SYSTEM			
LENS MOUNT	4 / 6 / 8 mm (Option)			
NUMBER OF PIXEL	510 (H) × 492 (V)	500 (H) × 582 (V)	512 (H) × 492 (V)	542 (H) × 582 (V)
PICTURE ELEMENTS	APPROXIMATELY 250K	APPROXIMATELY 290K	APPROXIMATELY 270K	APPROXIMATELY 320K
HORIZONTAL RESOLUTION	420 TVL / 480 TVL			
POWER SUPPLY	DC 12V ± 1V ( 460 mA )			
POWER CONSUMPTION	5.6 W			
SYNCHRONIZATION	INTERNAL			
SCANNING SYSTEM	2 : 1 INTERLACE			
SENSITIVITY	0 LUX ( IR ON )			
S/N RATIO	Max. 48 dB			
AUTO GAIN CONTROL	YES			
BACK LIGHT COMPENSATION	ON (WHEN IR ON) / OFF (WHEN IR OFF)			
WHITE BALANCE	AUTO			
ELECTRONIC SHUTTER	AUTO: 1/60 S TO 1/10000 S	AUTO: 1/50 S TO 1/10000 S	AUTO: 1/60 S TO 1/10000 S	AUTO: 1/50 S TO 1/10000 S
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT, 75 OHM			
IR RANGE	20 M			
WAVELENGTH	850 nm			
OPERATING TEMPERATURE	-5° C ~ +65° C			
DIMENSIONS (W × D × H)	φ74 × 124 × 85 mm			
WEIGHT	About 330g			

## Infrared Color Camera

APV-B56IR



### Features

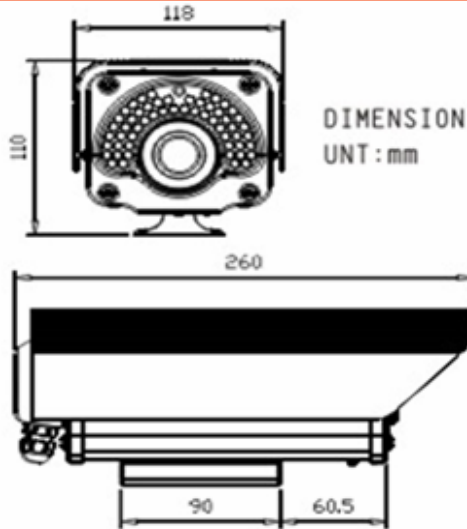
- ◆ IR RANGE : 35 M
- ◆ 56 PCS LEDs
- ◆ 1/3 INCH CCD IMAGE SENSOR
- ◆ HORIZONTAL RESOLUTION Max. 420 TV Lines
- ◆ Double glass designed to prevent the refraction and diffusion of IR light.



VIDEO SYSTEM	NTSC	PAL
PICK UP ELEMENT	1/3 INCH CCD IMAGE SENSOR ( INTER LINE )	
IMAGE SIGNAL PROCESS	DIGITAL SIGNAL PROCESSING SYSTEM	
LENS MOUNT	8.0 mm	
NUMBER OF PIXEL	510 (H) * 492 (V)	500 (H) * 582 (V)
PICTURE ELEMENTS	APPROXIMATELY 250K	APPROXIMATELY 290K
HORIZONTAL RESOLUTION	Max. 420 TV Lines	
POWER SUPPLY	AC 100-240V	
POWER CONSUMPTION	11W (at AC 110V)	
SYNCHRONIZATION	INTERNAL	
SCANNING SYSTEM	2 : 1 INTERLACE	
SENSITIVITY	0 LUX -IR ON	
S/N RATIO	Max 48 dB	
AUTO GAIN CONTROL	YES	
BACK LIGHT COMPENSATION	YES	
WHITE BALANCE	AUTO	
ELECTRONIC SHUTTER	AUTO: 1/60S TO 1/10000S	AUTO: 1/50S TO 1/10000S
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT, 75 OHMS	
IR RANGE	35 M	
WAVELENGTH	850 nm	
OPERATING TEMPERATURE	-5° C - +60° C	
DIMENSIONS (W x D x H)	Φ119 x 124 x 233 mm	
WEIGHT	About 1Kg	
WEIGHT	About 330g	

## Infrared Color Camera

APV-B56IR

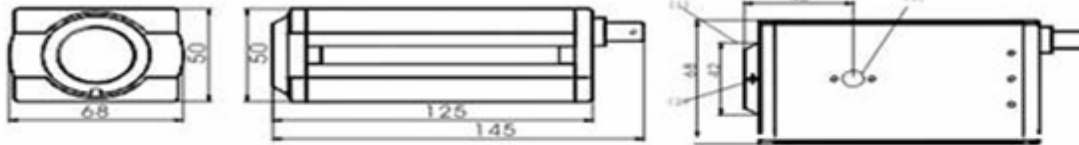


- ◆ Built-in Sun Visor
- ◆ Double Glass Design
- ◆ Aluminum Body, All Weather Proof
- ◆ IR Cut filter, Accurate Color Performance
- ◆ IR Range : 35 M
- ◆ 1/3 Inch CCD Image Sensor
- ◆ Horizontal Resolution Max. 520 TV Lines
- ◆ 56pcs IR LED

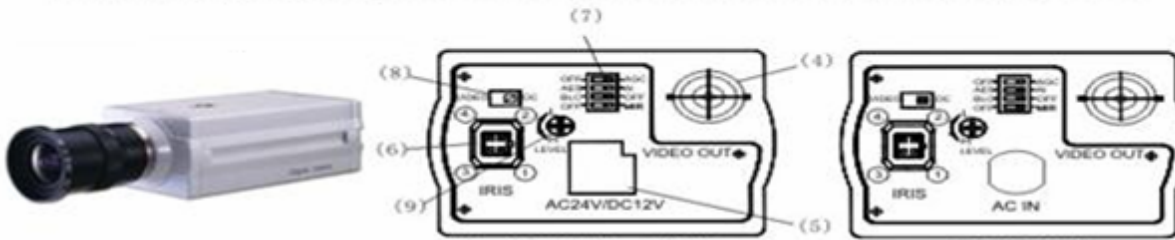
VIDEO SYSTEM	NTSC	PAL
PICK UP ELEMENT	1/3 inch CCD images Sensor	
IMAGE SIGNAL PROCESS	Digital Signal Processing System	
LENS MOUNT	4mm ~ 9mm (DC-Drive) Auto Iris IR Lens	
NUMBER OF PIXEL	768 (H) × 494 (V)	752 (H) × 582 (V)
PICTURE ELEMENTS	Approximately 380K	Approximately 440K
HORIZONTAL RESOLUTION	Max 520 TV Lines	
POWER SUPPLY	AC 100~240V	
SYNCHRONIZATION	Internal	
SCANNING SYSTEM	2 : 1 Interlace	
SENSITIVITY	0 LUX -IR ON	
S/N RATIO	Max 48 dB	
AUTO GAIN CONTROL	ON	
BACK LIGHT COMPENSATION	OFF	
WHITE BALANCE	AUTO	
OUTPUT	1 Vp-p Composite Video Outpu, 75 Ohms	
IR RANGE	35 M	
WAVELENGTH	850 nm	
OPERATING TEMPERATURE	-5° C ~ +60° C	
DIMENSION (W × D × H )	118 × 110 × 260 mm	

# Infrared Color Camera

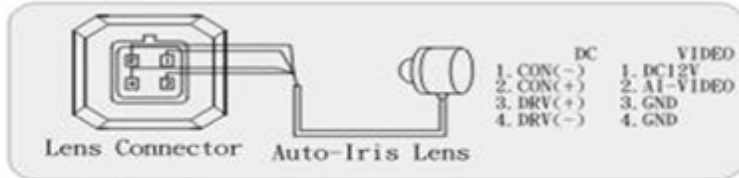
APV-BX200



DIMENSION UNIT: mm



- (1) Lens Mount  
For a CS mount. ( C mount adapter is required if use a c mount lens)
- (2) Mount Fixing Screw  
This screw is used for fixing the mount and adjusting the back focus
- (3) Screw Hole for Fixing Camera
- (4) Video Signal Output Connector
- (5) AC Power Supply
- (6) Auto-Iris Lens Connector
- (7) DIP Switch Function
  - 1. AGC : ON / OFF
  - 2. Electronic Iris : ON / OFF
  - 3. BLC : ON / OFF
  - 4. MIR : ON / OFF
- (8) Auto-Iris Drive Selection Switch (Video/DC drive)
- (9) DC Drive Level Adjuster  
This controller serves to adjust the video output level when DC Voltage Controlled Auto-Iris Lens is used.



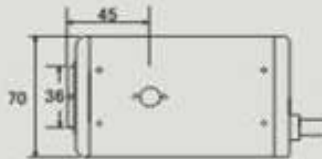
	NTSC	PAL
VIDEO SYSTEM	1/3 INCH CCD IMAGE SENSOR ( INTER LINE )	
PICK UP ELEMENT	DIGITAL SIGNAL PROCESSING SYSTEM	
IMAGE SIGNAL PROCESS	C/CS	
LENS MOUNT	768 (H) * 494 (V)	752 (H) * 582 (V)
NUMBER OF PIXEL	APPROXIMATELY 380K	APPROXIMATELY 440K
PICTURE ELEMENTS	520 TV Lines	
HORIZONTAL RESOLUTION	AC 24V / DC 12V	
POWER SUPPLY	4.5W	
POWER CONSUMPTION	INTERNAL	
SYNCHRONIZATION	2 : 1 INTERLACE	
SCANNING SYSTEM	0.01 LUX / 0 LUX ( IR ON TA-6698H)	
SENSITIVITY	56 dB	
S/N RATIO	AGC ON / OFF Alternative	
AUTO GAIN CONTROL	BLC ON / OFF Alternative	
BACK LIGHT COMPENSATION	MIR ON / OFF Alternative	
VIDEO Mirror	NTSC: OFF: 1/60 S ; AUTO: 1/60 S TO 1/100000 S	
ELECTRONIC SHUTTER	PAL: OFF: 1/50 S ; AUTO: 1/50 S TO 1/100000 S	
AUTO IRIS	DC Drive / Video Drive	
WHITE BALANCE	AUTO	
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT, 75Ω	
OPERATING TEMPERATURE	-5°C ~ +60°C	
DIMENSION (W x D x H)	68 x 50 x 145 mm	
WEIGHT	550g	

## Infrared Color Camera

APV-BX100



DIMENSION  
UNT: mm



PICK UP ELEMENT	1/3 INCH CCD IMAGE SENSOR (INTER LINE)	
IMAGE SIGNAL PROCESS	Digital Signal Processing System	
NUMBER OF PIXEL	NTSC: 510 (H) × 492 (V)	PAL: 500 (H) × 582 (V)
PICTURE ELEMENTS	NTSC: Approximately 250K	PAL: Approximately 290K
HORIZONTAL RESOLUTION	More Than 420 TV Lines	
POWER SUPPLY	110VAC / 220VAC / 24VAC Terminal Block / 12VDC DC Jack	
POWER CONSUMPTION	250mA	
SYNCHRONIZATION	Internal	
SCANNING SYSTEM	2 : 1 INTERLACE	
SENSITIVITY	0.1 LUX	
S/N RATIO	More than 48 dB	
AUTO GAIN CONTROL	Automatically	
BACK LIGHT COMPENSATION	BLC ON/OFF Switchable	
WHITE BALANCE	Auto White Balance	
ELECTRONIC SHUTTER	NTSC: OFF: 1/60 S ; AUTO: 1/60 S TO 1/10000 S	
	PAL: OFF: 1/50 S ; AUTO: 1/50 S TO 1/10000 S	
AUTO IRIS	DC DRIVE / VIDEO DRIVE	
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT, 75 OHMS	
LENS MOUNT	C/CS	
OPERATING TEMPERATURE	- 5°C - +50°C / less than 70%	
DIMENSIONS (W×H×D)	70 × 50 × 135 mm	
WEIGHT	600g	

## Infrared Color Camera

APV-SD14IR

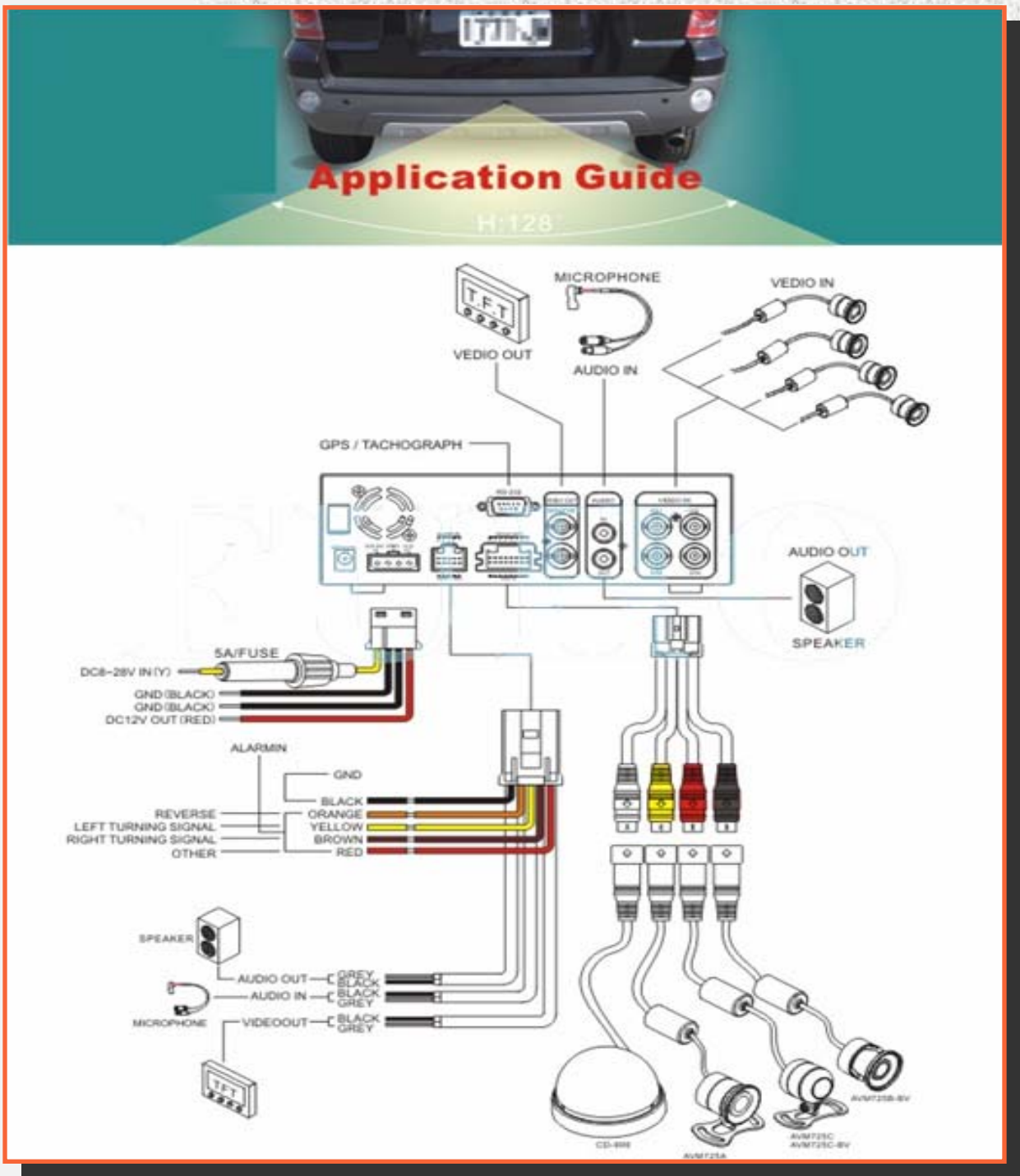
- IR RANGE : 10M
- 14 PCS LEDS
- SONY 1 / 3" CCD
- HORIZONTAL RESOLUTION  
Max. 420 TV Lines



VIDEO SYSTEM	NTSC	PAL
PICK UP ELEMENT	1/3 INCH CCD IMAGE SENSOR ( INTER LINE )	
IMAGE SIGNAL PROCESS	DIGITAL SIGNAL PROCESSING SYSTEM	
LENS MOUNT	4.0 mm	
NUMBER OF EFFECTIVE PIXELS	510 (H) x 492 (V)	500 (H) x 582 (V)
PICTURE ELEMENTS	Approximately 250k	Approximately 290k
HORIZONTAL RESOLUTION	Max. 420 TV Lines	
POWER SUPPLY	DC +12v	
POWER CONSUMPTION	120 mA IR OFF : 180 mA IR ON	
SYNCHRONIZATION	INTERNAL	
SCANNING SYSTEM	2 : 1 INTERLACE	
SENSITIVITY	0 LUX -IR ON	
S/N RATIO	Max 48 dB	
AUTO GAIN CONTROL	YES	
BACK LIGHT COMPENSATION	YES	
WHITE BALANCE	AUTO	
ELECTRONIC SHUTTER	AUTO: 1/60S TO 1/10,000S	AUTO: 1/50S TO 1/10,000S
OUTPUT	1 Vp-p COMPOSITE VIDEO OUTPUT, 75 OHMS	
IR RANGE	10 M	
IR WAVELENGTH	850 nm	
OPERATING TEMPERATURE	-5 °C ~ +60 °C	
DIMENSIONS ( D × H )	55x77mm	
WEIGHT	About 185g	



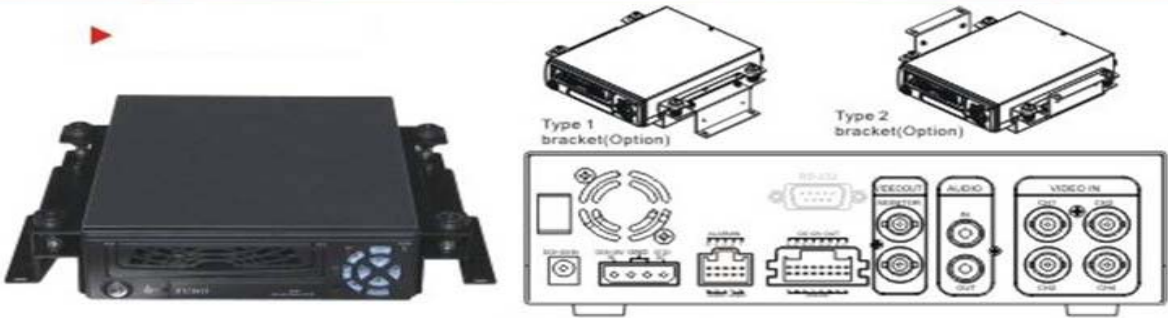
# Application Guide





# Vehicle Surveillance DVR

INTF SA4030C



**SPECIFICATION**

OPERATION SYSTEM			Embedded RTOS
Signal Format			NTSC/PAL
Video Input Channel			4CH Composite
Video Output Channel			2CH Composite
Display Frame	NTSC		120 fps (4x30 fps)
	PAL		100 fps (4x25 fps)
Recording Frame Rate(QUAD)	NTSC		Max. 30 fps
	PAL		Max. 25 fps
Recording Frame Rate(EACH)	NTSC		Max. 7.5 fps (30 fps / 4)
	PAL		Max. 6.25 fps (25 fps / 4)
Recording Mode			Continuous / Motion / Programmed
Resolution	Display	NTSC	720 x 480
		PAL	720 x 576
	Recording	NTSC	640 x 224
		PAL	640 x 272
Compression Format	Advanced MJPEG	Low	12K Bytes / Frame
		Normal	15K Bytes / Frame
	HDD	High	20K Bytes / Frame
			Max:500G(IDE / SATA)
Audio Recording			1ch audio input/output
And playing			real time recording and playing
Search Mode			time / date , events list
Motion detect			4ch motion detect
Video Loss display			YES
Auto ch switching			YES
buzzer output mode			v_loss,motion,sensor
Imaging adjust			Light,contrast,color
Other video input			4ch camera composite for DC12V max:0.5A
Alarm sensor input			4ch sensor ( reverse , left turning signal, right turning signal, other)
Operating Temperature			-30°C-65°C;-30°C col storage to start 10-20min
Power type			DC 8 - 28V (MAX:36V) about 15W add HD + heater 50W
Operating vibration			0.5G (10 - 500Hz)
Switching adapter			DC 12V/4A (AC100V-240V 50/60Hz)
Dimension			195mm x 265mm x 65mm (W x D x H)
Weight			About 2.9KG



# Vehicle Surveillance Camera

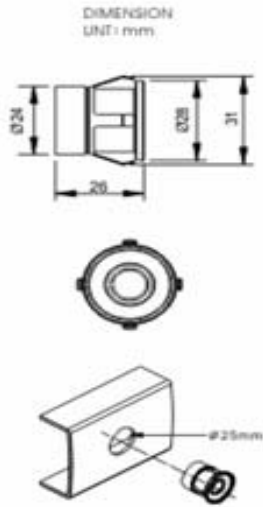
APV-AVM725B



### CONFIGURATION



**For Back-draft · Mirroring**  
 View Angle: H:110° V:80° D:136°  
 Max 380 TV Lines, 0.12 LUX .  
 Lens : 1.92mm



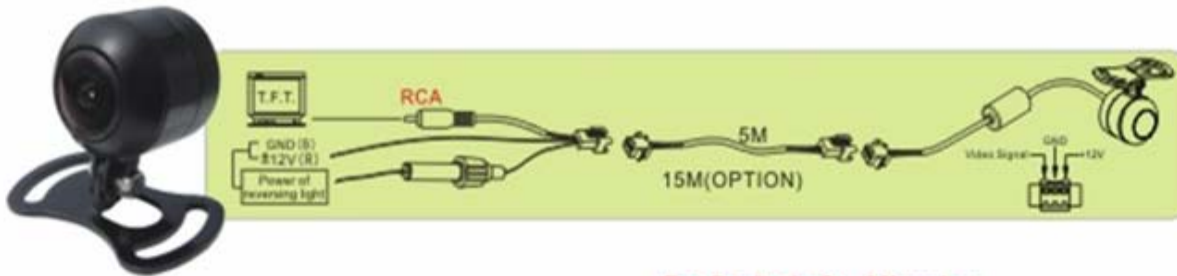
### SPECIFICATION

Model	AVM725B-BV	
	NTSC	PAL
Type	NTSC	
Pick Up	1/4 Inch Inter Line Transfer CCD	
Image Signal Process	Digital Signal Processing System	
Number Of Pixel	510(H) x 492(V)	512(H) x 582(V)
Picture Elements	NTSC: Approximately 250K PAL: Approximately 290K	
Horizontal Resolution	Max 380 TV Lines	
Sync System	Internal	
Scanning System	2 : 1 Interlace	
Sensitivity	0.12 LUX	
S/n Ratio	Max 48 dB	
Auto Gain Control	Yes	
Mirroring	Yes	
White Balance	Auto	
Electronic Shutter	NTSC: AUTO: 1/60 S TO 1/100,000 S PAL: AUTO: 1/50 S TO 1/100,000 S	
Video Output Signal	1 Vp-p Composite Video Output, 75 Ohms	
Power Supply	DC 12V ± 10%	
Power Consumption	Max 80mA	
Lens	1.92mm	
View Angle	H : 110° V : 80° Diagonal : 136°	
Operating Temperature	-20° C - +75° C	
Dimensions	Diameter : 28mm L : 26mm	
Weight	About : 66g	



# Vehicle Surveillance Camera

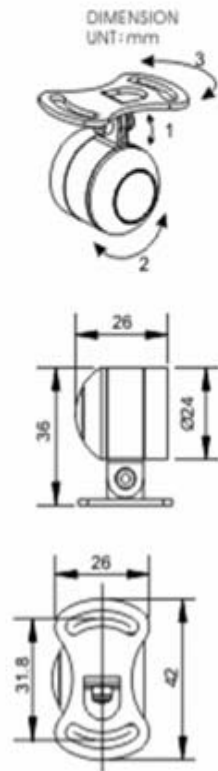
APV-AVM725C



**For Back-draft · Mirroring**

View Angle : H:128° V:97° D:160°  
 Max 380 TV Lines, 0.12 LUX .  
 Lens : 1.59mm

View Angle : H:128° V:97° D:160°  
 Max 380 TV Lines, 0.12 LUX .  
 Lens : 1.59mm



Model	AVM725C		AVM725C-BV	
	NTSC	PAL	NTSC	PAL
Type	NTSC			
Pick Up	1/4 Inch Inter Line Transfer CCD			
Image Signal Process	Digital Signal Processing System			
Number Of Pixel	510(H) x 492(V)	512(H) x 582(V)	510(H) x 492(V)	512(H) x 582(V)
Picture Elements	NTSC: Approximately 250K PAL: Approximately 290K			
Horizontal Resolution	Max 380 TV Lines			
Sync System	Internal			
Scanning System	2 : 1 Interlace			
Sensitivity	0.12 LUX			
S/n Ratio	Max 48 dB			
Auto Gain Control	Yes			
Mirroring	N/A		Yes	Yes
White Balance	Auto			
Electronic Shutter	NTSC:AUTO: 1/60 S TO 1/100,000 S PAL:AUTO: 1/50 S TO 1/100,000 S			
Video Output Signal	1 Vp-p Composite Video Output, 75 Ohms			
Power Supply	DC 12V ± 10%			
Power Consumption	Max 80mA			
Lens	1.59mm			
View Angle	H : 128° V : 97° Diagonal : 160°			
Operating Temperature	-20° C - +75° C			
Dimensions	Diameter : 24mm L : 26mm			
Tilt(1)	Max : 80°			
Rotation(2)	360°			
Pan(3)	Max : 60°			
Weight	About : 66g			



**●Function**

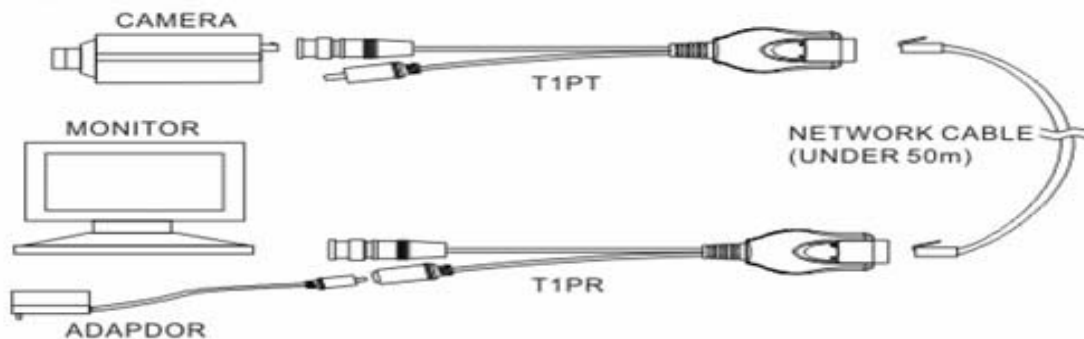
- 1.Short distance for video/power transmission.
- 2.One UTP Cable to transfer the Video signal and DC-12V simultaneously.
- 3.Maximum transmission distance --- 50 meter
- 4.Coaxial cable to be replaced with twisted pairs , cost-effective solution
- 5.Easy installation, suitable for DIY.

**●FunctionDescription**



- 1.VIDEO IN / OUT: To connect to Camera(input) or Monitor/DVR (output). (BNC connector, F connector option).
- 2.DC12V IN / OUT: Connect to Power adaptor(input) or camera(output).
- 3.RJ-45 : Ethernet socket.

**●Installation Sketch**



**●Caution**

- 1.Video input quality will determine the quality of output signal and resolution.
- 2.Qualified Power adaptor is recommended for better transmission distance.
- 3.Using Cat.5e or above degree twisted-pair cable.
- 4.Adjust the brightness and saturation on Monitor/DVR to have proper color performance. (If Video signal output is un-proper)
- 5.Wire connection of RJ-45 plug as below:



**Accessories**

**APV-VFMD**



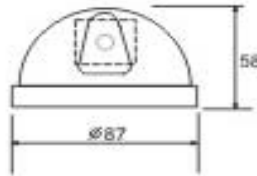
**Features**

CS mount lens adaptor on board  
 Auto iris lens support  
 0.01 low lux  
 Varifocal lens workable  
 FUM-230D4-HCS --- 480TV lines high resolution

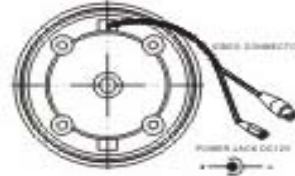
4mm-9mm varifocal auto iris lens built-in  
 0.01 low lux  
 FUM-230D4-HABL --- 480TV lines high resolution

MODEL	FUM-230D4-CS		FUM-230D4-ABL	
	NTSC	PAL	NTSC	PAL
PICK UP ELEMENT	1/3" SONY CCD IMAGE SENSOR			
IMAGE SIGNAL PROCESS	DIGITAL SIGNAL PROCESSING SYSTEM			
NUMBER OF PIXEL	510(H)x492(V)	500(H)x582(V)	510(H)x492(V)	500(H)x582(V)
PICTURE ELEMENTS	250K	290K	250K	290K
HORIZONTAL RESOLUTION	420TV LINES			
POWER SUPPLY	12VDC			
POWER CONSUMPTION	200mA			
SYNCHRONIZATION	INTERNAL			
SCANNING SYSTEM	2:1 INTERLACE			
S/N RATIO	48 dB			
SENSITIVITY	0.01 LUX			
AUTO GAIN CONTROL	AUTOMATICALLY			
BACK LIGHT COMPENSATION	BLC ON/OFF			
WHITE BALANCE	AUTO WHITE BALANCE			
ELECTRONIC SHUTTER	OFF: 1/60S ; AUTO : 1/60S ~ 1/10000S	OFF: 1/50S ; AUTO : 1/50S ~ 1/10000S	1/60S	1/50S
OUTPUT	1Vp-p COMPOSITE VIDEO OUTPUT, 75 Ohms			
OPERATION TEMPERATURE	-5°C ~ 60°C / LESS THAN 70%			
DIMENSION	Diameter: 12.1mm			
WEIGHT	0.3KG		0.33KG	

**▶ CD-900**



DIMENSION UNIT:mm



**FEATURES**

- ◆ 1/3" Color CCD Sensor
- ◆ High Sensitivity illumination
- ◆ 12VDC Power Jack
- ◆ NTSC & PAL Available

**FUNCTIONS**

- ◆ Auto Gain Control
- ◆ Back Light Compensation
- ◆ White Balance
- ◆ Auto Electronic Shutter

**SPECIFICATION**

MODE	NTSC	PAL
PICK UP	1 / 3 Inch Inter Line Transfer CCD	
IMAGE SIGNAL PROCESS	Digital Signal Processing System	
IMAGE SIZE	9.6 ( H ) × 7.5(V) μ m	9.8 ( H ) × 6.3(V) μ m
NUMBER OF PIXEL	510 ( H ) × 492 ( V )	500 ( H ) × 582 ( V )
PICTURE ELEMENTS	Approximately 250K	Approximately 290K
HORIZONTAL RESOLUTION	Max 420 TV Lines	
SYNC SYSTEM	Internal	
AUTO GAIN CONTROL	YES	
WHITE BALANCE	YES	
BACK LIGHT COMPENSATION	AUTO	
SCANNING SYSTEM	2 : 1 Interlace	
ELECTRONIC SHUTTER	AUTO: 1/60 S TO 1/10000 S	AUTO: 1/50 S TO 1/10000 S
S/N RATIO	48 dB	
SENSITIVITY	0 . 0 1 LUX	
VIDEO OUTPUT SIGNAL	1 Vp-p Composite Video Output, 75 Ohms	
POWER SUPPLY	DC 12V ± 1V	
POWER CONSUMPTION	120mA	
LENS	3.6 mm F2.0 ( Standard )	
OPERATING TEMPERATURE	-5°C - +45°C	
WEIGHT	About 180g.	
DIMENSIONS	∅ : 87mm L : 58mm	