

# CONTENTS

(click on the links below)

## VS APPLICATIONS

- Point-to-Point Application - Encoder (Source) to Decoder (Output)
- Point-to-Point Application - IPTV Camera (Source) to Decoder (Output)
- Video Recording Application
- Multi-Camera Application
- Multicast Applications

## SOFTWARE

- VMS -116, 20, 36, 64 & 128 Network Video Management Software

## ENCODER / DECODER

- VS-14E
- VS-103E-HDSDI
- VS-104-3GSDI



## HD BOX CAMERA (ZOOM)

- VS-530-HDI / VS-530-HDSDI
- VS-543-HDI / VS-543-HDSDI
- VS-544-HDI / VS-544-HDSDI
- VS-545-HDI / VS-545-HDSDI
- VS-546-HDI / VS-546-3GSDI



## PTZ CAMERA (ZOOM)

- VS-571A-CVBS / VS-571A-HDSDI
- VS-573A-CVBS / VS-573A-HDSDI
- VS-574A-CVBS / VS-574A-HDSDI
- VS-575A-CVBS / VS-575A-HDSDI
- VS-576A-CVBS / VS-576A-3GSDI



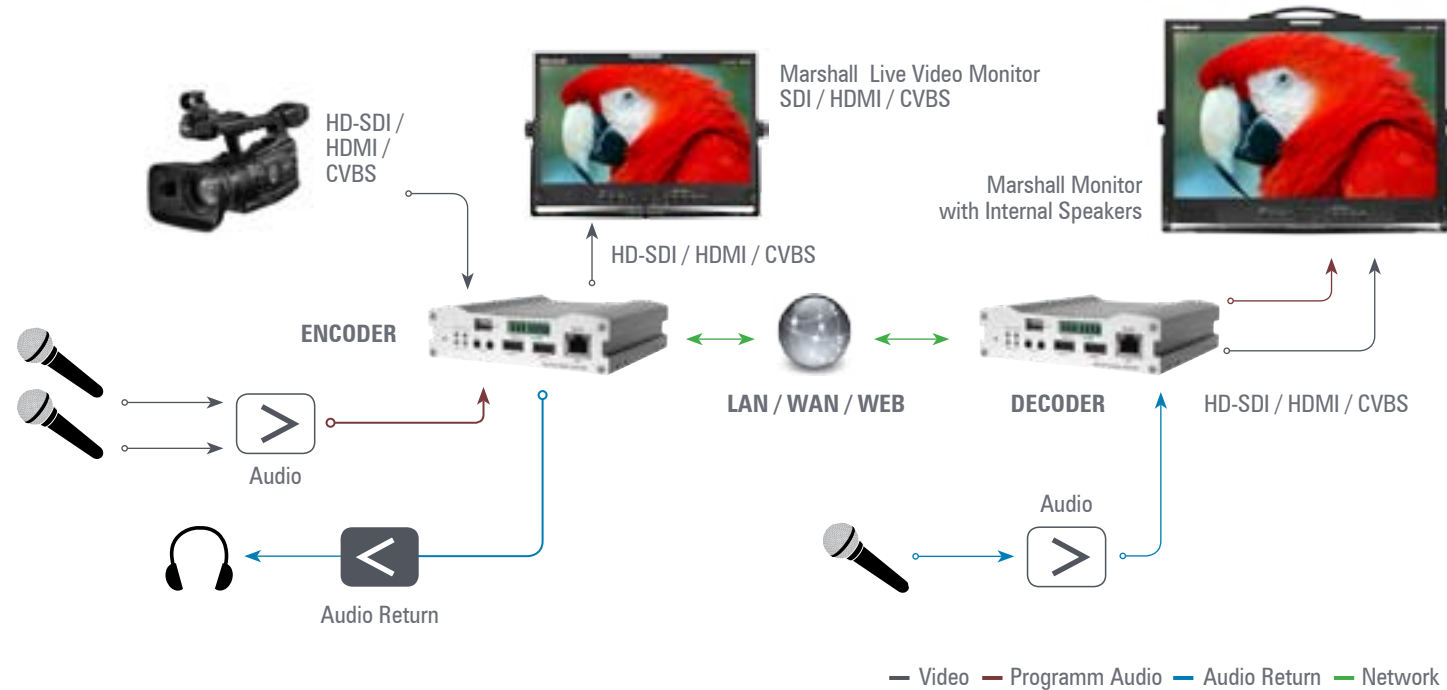
## ACCESSORIES

- Mounting Brackets for V-370A and VS-57XA Series Dome Cameras
- PTZ Keyboard Controller
- CS Mount Varifocal Lenses with DC Auto Iris
- Wide Angle Lens Adapters
- PoE+ In-Line Injector
- Power Supply
- Rack mount holder for mounting up to 16 VS Encoder / Decoders in a 5 RU space
- Audio Accessories
- Weatherproof Pan & Tilt Housing



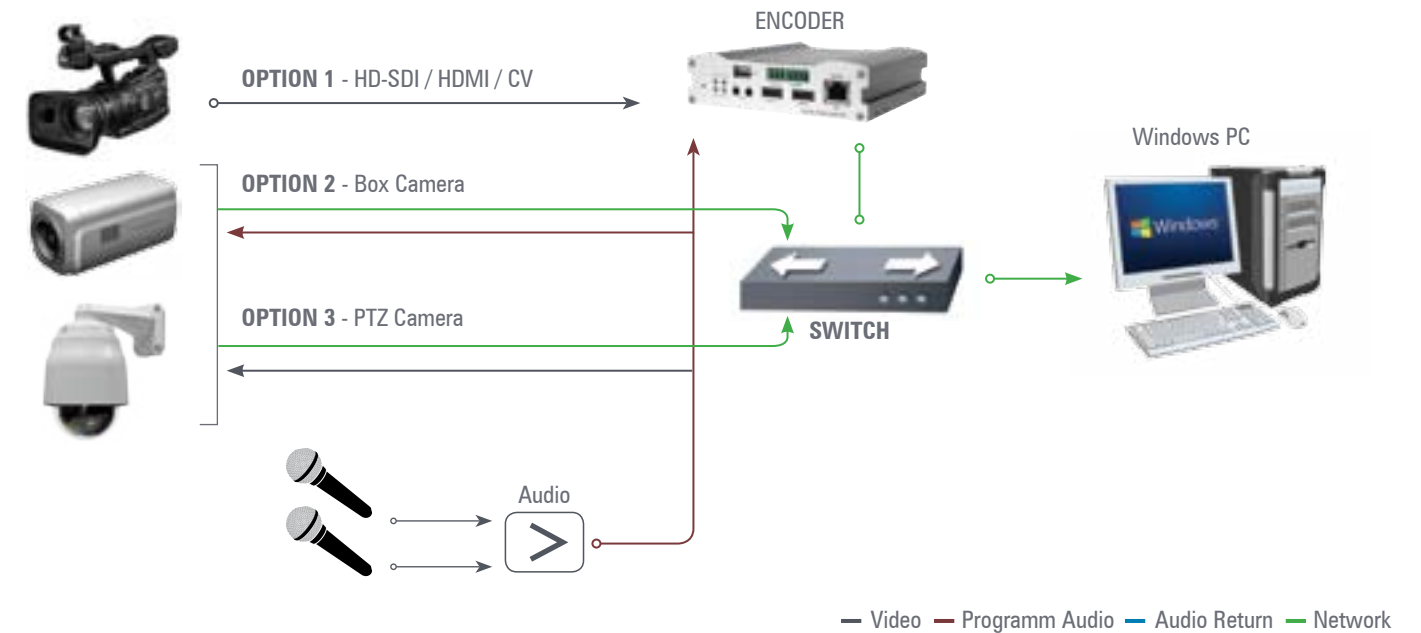
## 1 POINT-TO-POINT APPLICATION - ENCODER (SOURCE) TO DECODER (OUTPUT)

Showing a Professional Camera with Stereo Audio and Talkback [IFB] (Audio Return). This design works for both Intranet (Internal) and Internet (External) Applications. This Application features Bi-Direction Analog Audio in Stereo.



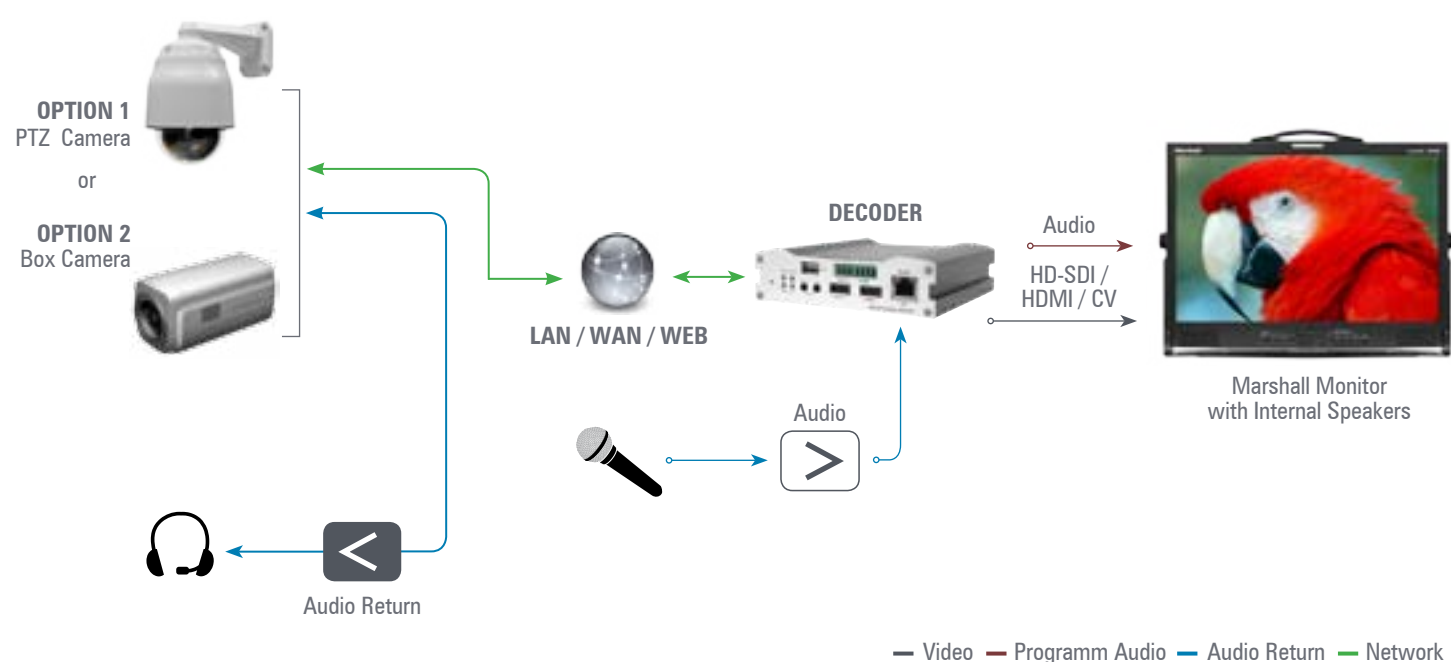
## 3 VIDEO RECORDING APPLICATION

Using a Marshall IPTV Camera (Source) or Encoder (Source) to Record on a PC an AVI File. This design works only on the Intranet (Internal). This design records AVI Files in Stereo except for the PTZ Camera, which is Mono.



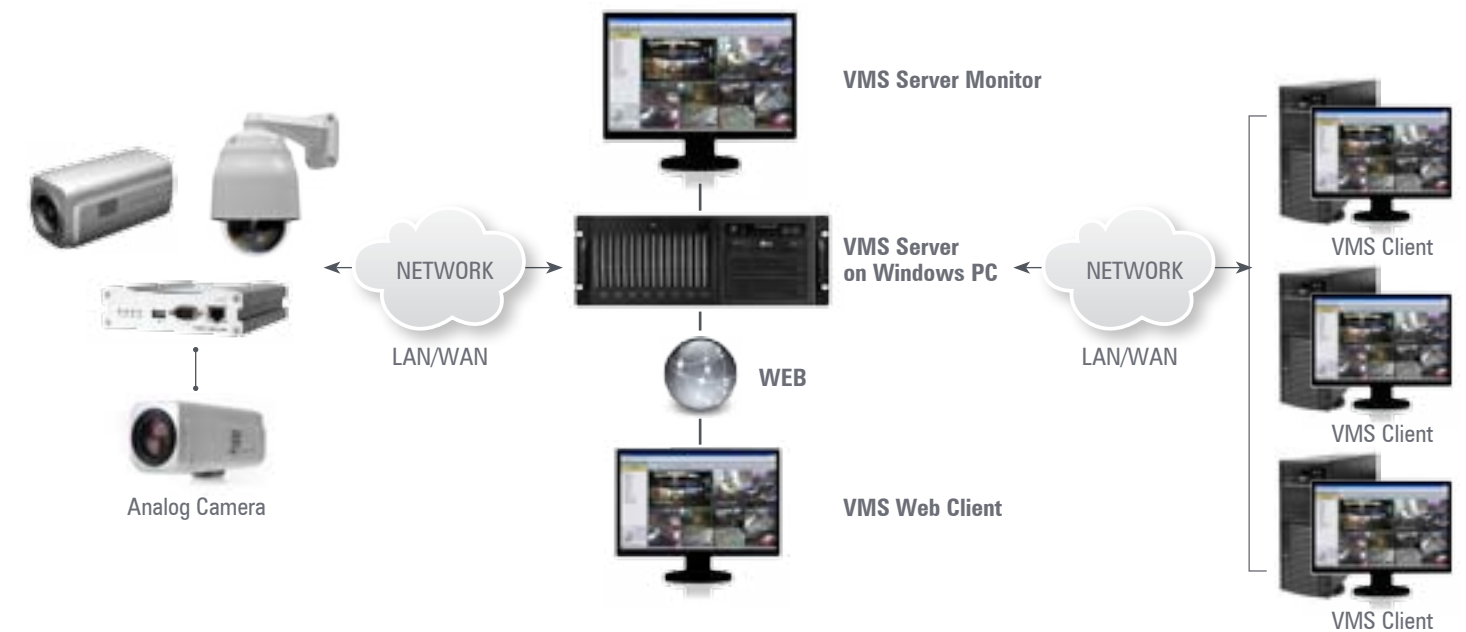
## 2 POINT-TO-POINT APPLICATION - IPTV CAMERA (SOURCE) TO DECODER (OUTPUT)

Showing a Marshall IPTV Camera with Audio and Talkback [IFB] (Audio Return). This design works for both Intranet (Internal) and Internet (External) Applications. This Application features Bi-Direction Analog Audio in Mono for PTZ (Pan Tilt & Zoom) Cameras and Stereo for Box Cameras.



## 4 MULTI-CAMERA APPLICATION

Using a Marshall IPTV Cameras (Source) and Marshall VMS (Video Management Software) Application. This design support both Intranet (Internal) and Internet (External) Applications at the same time.

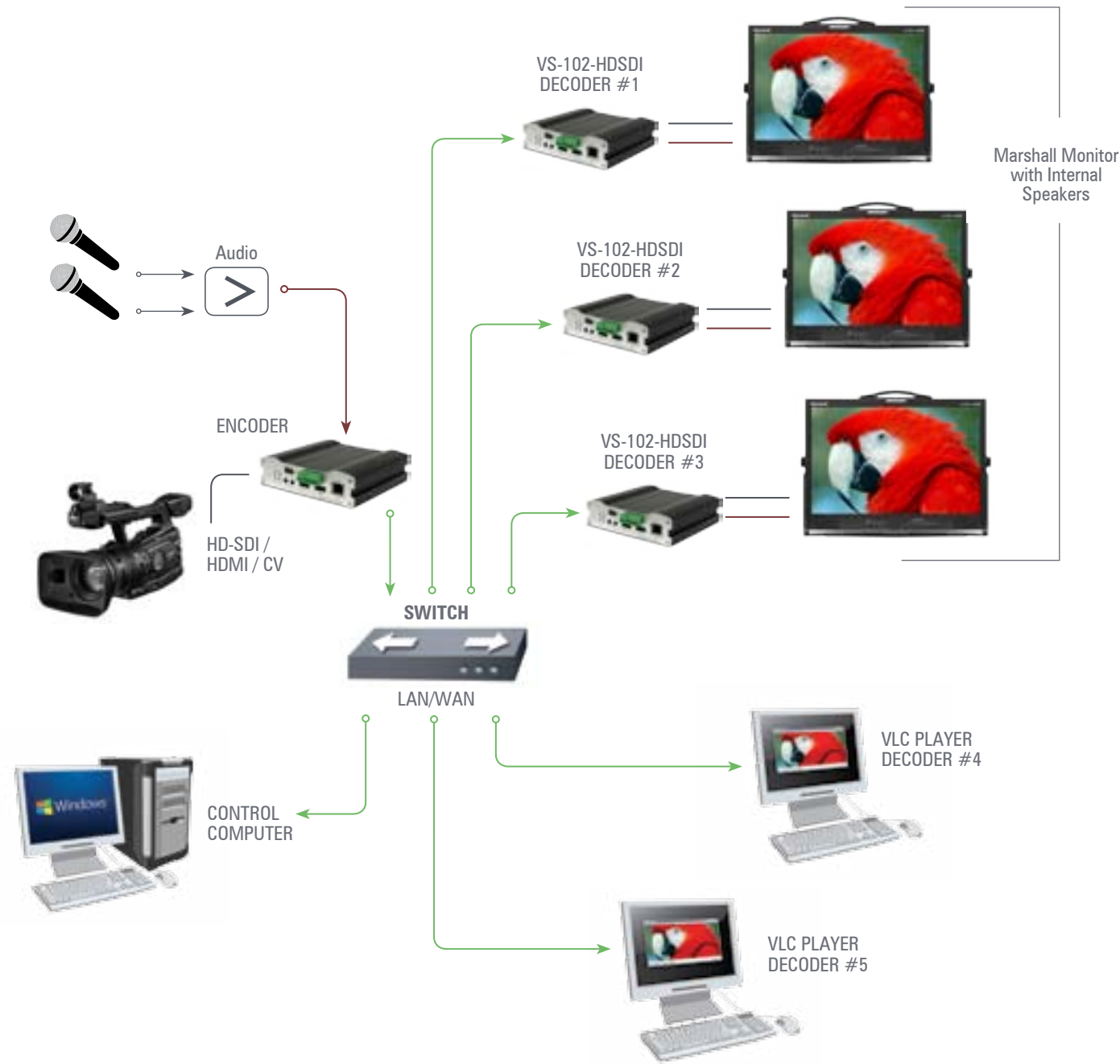


Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.



## 5 MULTICAST APPLICATION

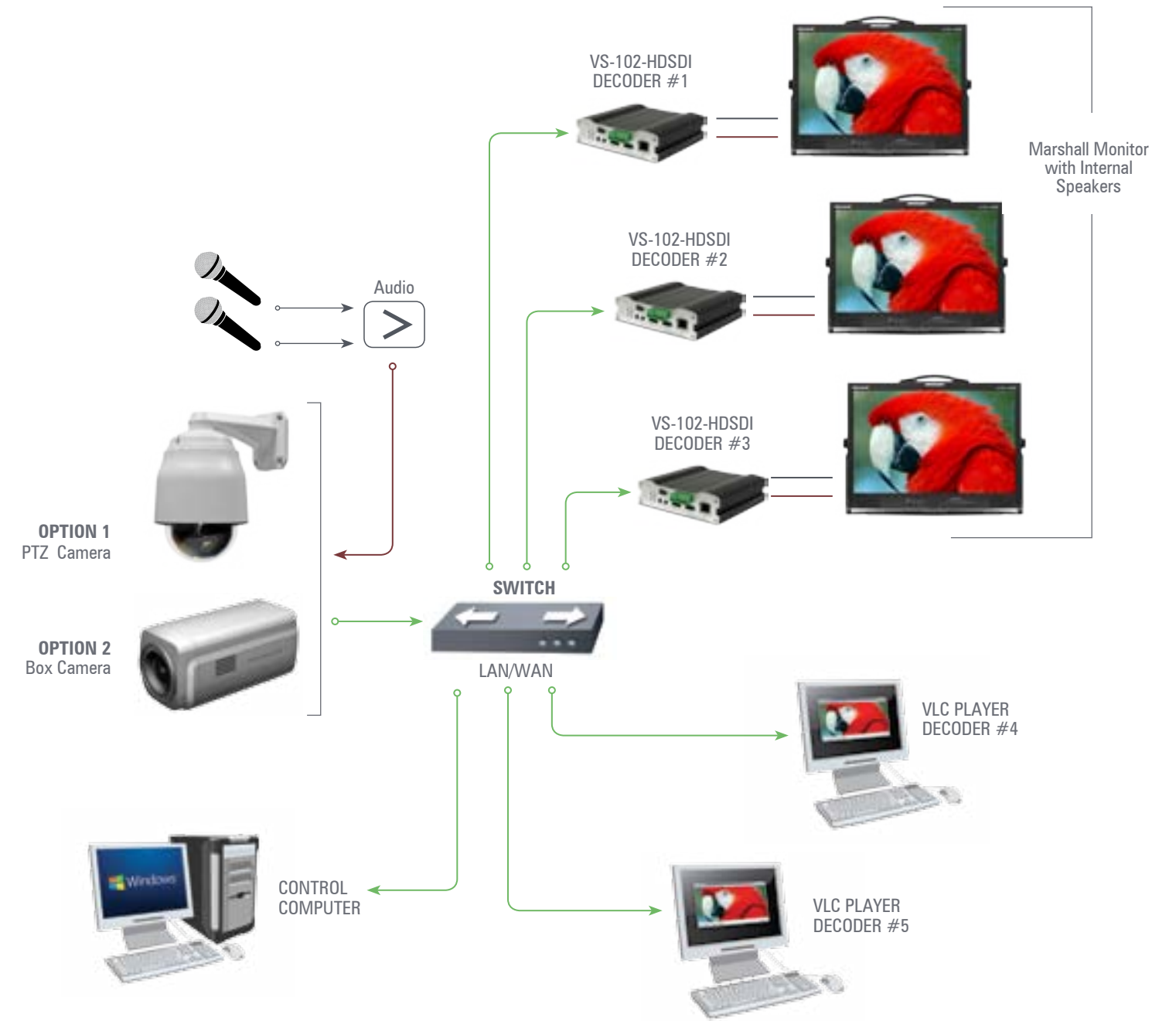
Using a Marshall Hardware Encoder (Source) and Decoders (Output) together with Software Decoders (Output).  
This design works only on the Intranet (Internal) network.



— Video — Programm Audio — Audio Return — Network

## 6 MULTICAST APPLICATION

Using a Marshall IPTV Camera (Source) and Decoders (Output) together with Software Decoders (Output).  
This design works only on the Intranet (Internal) network and supports Stereo except for PTZ Cameras which are Mono.



— Video — Programm Audio — Audio Return — Network



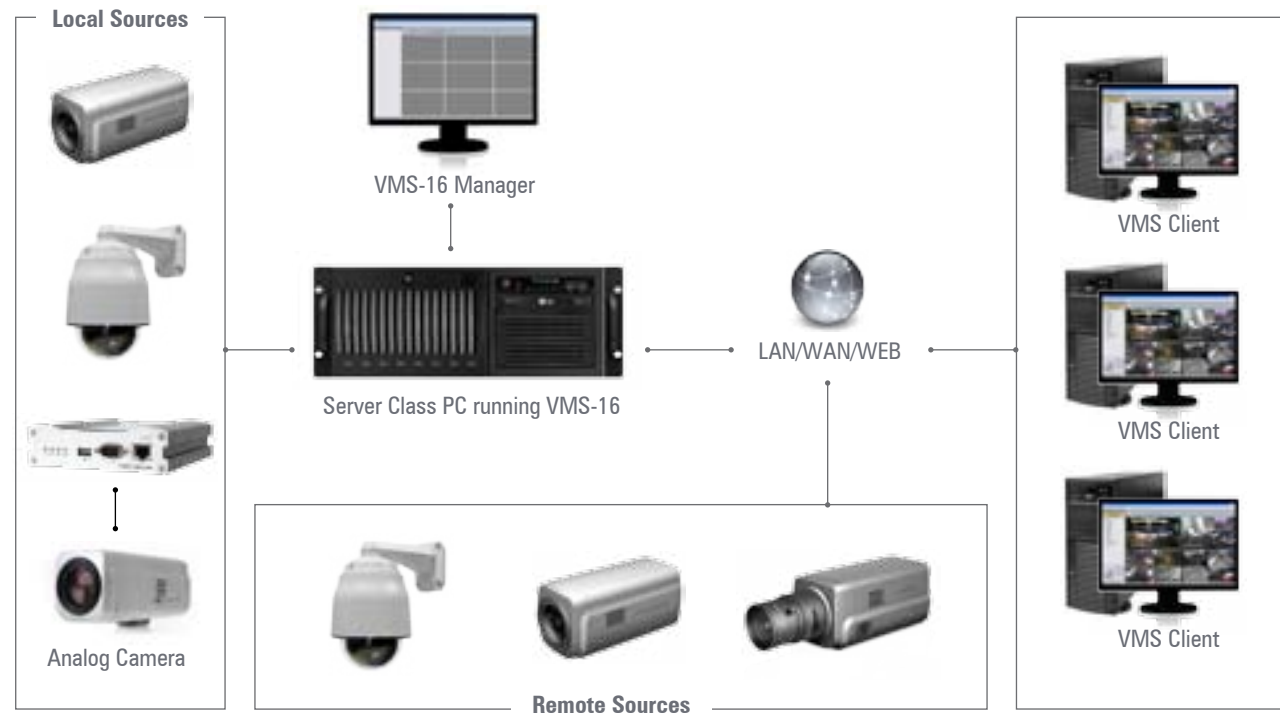
## VIDEO MANAGEMENT SOFTWARE



VMS-16 is a Powerful IP Video Recording and Monitoring Software Application that provides rich features and functionality. VMS-16 provides Live Monitoring, Camera Control and Recording of up to 16 IP Cameras and Video Encoders with a common "simple-to-use" Windows Interface. The Application supports various types of event and schedule-based recording functions customizable to meet every customer's needs. Additionally, the Relay function uses the VMS Server to retransmit streams to multiple VMS Clients. This real-time feature improves system performance and stability.

This software can be downloaded on our website: [www.lcdracks.com](http://www.lcdracks.com)

### Applications



### Features

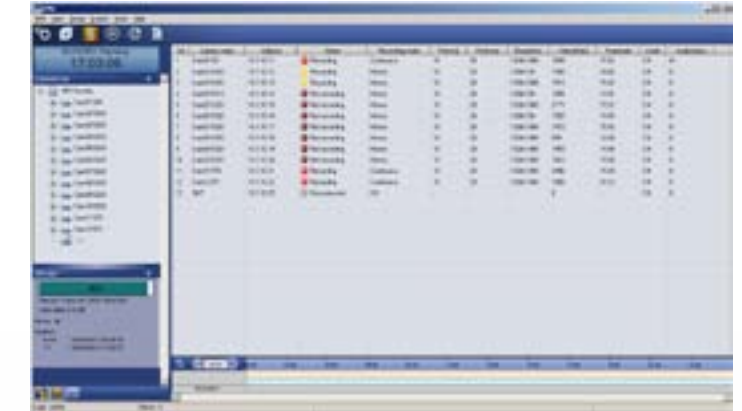
- Manage up to 16 cameras
- 16CH simultaneous live monitoring
- 16CH simultaneous recording
- 16CH simultaneous search & playback
- E-MAP based recording
- Streaming relay function
- Easy installation
- Supports Four Display Monitors
- Two-way audio communication
- Recording based on schedule-associated events
- Various events monitoring and alarm notification
- Supports H.264 and MJPEG video compression
- Camera group monitoring
- Supports megapixel cameras
- Customized event creation by event handler
- Dongle License Available for more Sources, VMS-20, VMS-36, VMS-64 and VMS-128

### LIVE VIEW



- Automatic camera IP discovery
- Automatic display unit mapping
- On-screen PTZ Control
- Decoding visible channels function
- JPEG snapshot with watermarking
- Transfer of snapshot image through e-mail and FTP
- Automatic video encoding setting according to various screen modes
- Reading setup from cameras

### RECORD MODE



- Recording status can be monitored in this mode. More cameras can be accommodated for recording and streaming as they do not use CPU load for decoding and display.
- Pre & Post-event recording
  - Customized schedule recording
  - Manual storage setup
  - AVI, MP4 and WMV file backup
  - Copies same recording setup for many cameras

### E-MAP



- Map-based monitoring
- Easy placement of cameras on a map
- Automatic video pop-up based on events
- List of all cameras on network
- Audio broadcast function
- Two-way audio communication with cameras

### SEARCH & PLAYBACK



- 16CH simultaneous playback
- Remote search by events
- Bookmark function
- Holiday setup
- Easy control interface

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.



## D1 4CH Encoder

### Features

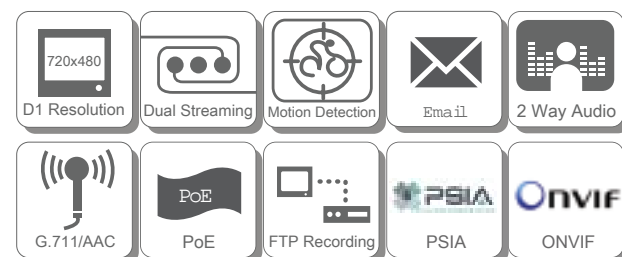
- Each Channel 30fps at Full D1 Resolution
- Dual Streaming (H.264/H.264, H.264/MJPEG)
- Two Way Audio Communication (G.711, AAC)
- 4 x Composite Video Input (1CH De-mist)
- 1 x Composite Video Output (Quad)
- PoE (Power Over Ethernet)



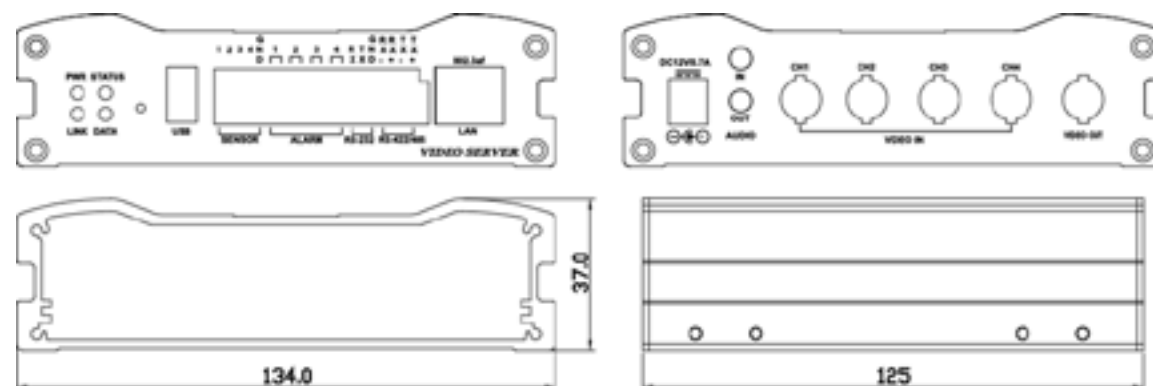
FRONT



REAR



Measurements in mm



- USB Recording
- Watchdog for System Recovery
- RS-232, RS-422/485 Communication
- Motion Detection
- 4CH Sensor Input / 4CH Alarm Output
- Adjustable Video Bit Rate: 32kbps ~ 16Mbps
- Adjustable Serial Data I/O: 2,400bps ~ 115,200bps
- Ethernet 10/100/1000 Base – T (RJ-45)
- Various Protocols: TCP/IP, Multicast, UDP, HTTP, SMTP, FTP, DHCP, DNS, Dynamic DNS, RTP, RTSP, SNMP
- Full Technical Support with SDK & API

### VS-14E specifications

System	System Mode	Encoder
Video	Compression	H.264, MJPEG
	Framerate	Max 30fps @ 720x480, Max 25fps @ 720x576
	Bitrate	Primary: 32Kbps ~ 4Mbps (each ch), Secondary: 32Kbps ~ 1Mbps (each ch)
	Resolution	352x240 ~ 720x480 (NTSC), 352x288 ~ 720x576 (PAL)
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	Multi-lingual
	Input	4 x Composite (1 Vpp 75 Ohm, BNC)
Output	1 x Composite Quad Out (1 Vpp 75 Ohm, BNC)	
Audio	Compression	G.711 / AAC
	Sample rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input	1 x Line-In (mono, mini-stereo type)
Output	1 x Line-Out (mono, mini-stereo type)	
Network	Interface	1 x Ethernet 10/100/1000base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP,RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP,
	Security	Password protection, IP address filtering, HTTPS encryption
	DDNS	G.711 / AAC
	Security	Password protection, IP address filtering, HTTPS encryption
	Application Programming Interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
Event and Alarm	Event sources	Motion, Sensor input, video loss, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
General	Housing	Aluminum
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO)
	Edge storage	1 x USB 2.0 port
	Power Supply	Min DC12V/TBD, PoE (Power over Ethernet): 802.3af
	Power Consumption	DC12V/PoE: Max 7.2W
	Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	134.08(W) X 125.5(D) X 36.87(H)mm
Weight	480g	

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.



## 1080p60 Full HD Video Server

### Features

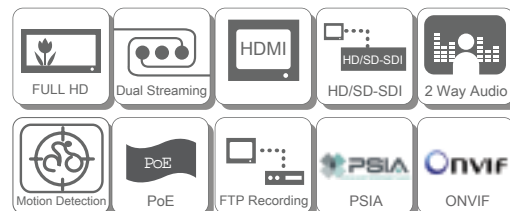
- Max. 60fps at 1920 x 1080
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- MPEG2-TS Supported
- Two Way Audio Communication (G.711, AAC)
- 3G/HD/SD-SDI, HDMI, & CVBS I/O
- Audio Embedded in 3G/HD/SD-SDI & HDMI
- Over 30 Types of PTZ Protocol Supported



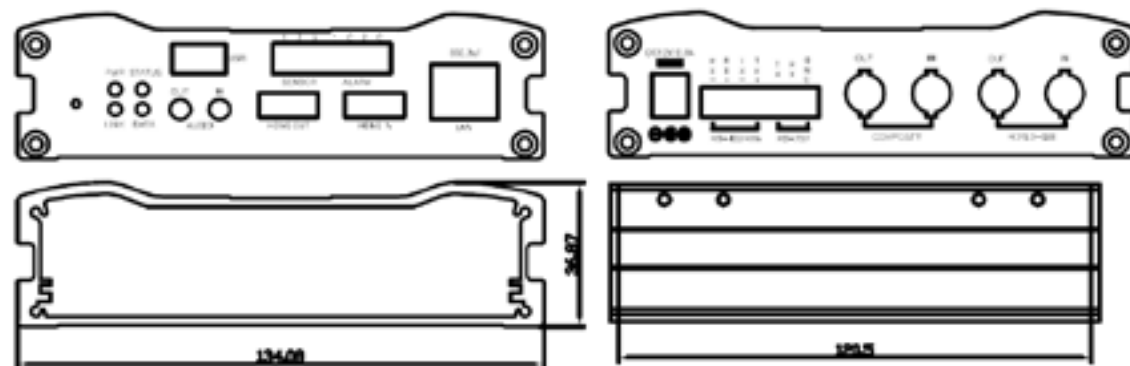
FRONT



REAR



Measurements in mm



### VS-103E-HDSDI specifications

<b>System</b>	System Mode	Encoder
<b>Video</b>	Compression	H.264, MJPEG
	Framerate	Max 60fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolution	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3: H.264/MJPEG
	Burn-in OSD	Multi-lingual
	Input	1 x HDMI (Type A) 1 x Composite (BNC) 1 x 3G-SDI (BNC)
Output	1 x HDMI (Type A), Input Loop-Through 1 x CVBS (BNC), Input Loop-Through 1 x 3GSDI (BNC), Input Loop-Through	
<b>Audio</b>	Compression	G.711 / AAC
	Sample rate	G.711: 8KHz, AAC: 32/44.1/48KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input	1 x Line-In (stereo, mini-stereo type)
Output	1 x Line-Out (stereo, mini-stereo type)	
<b>Network</b>	Interface	Ethernet 10/100/1000 base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP (Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application Programming Interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>General</b>	Event sources	Motion, Sensor input, Video loss, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	Aluminum
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-232 port 1 x RS-422/485 port 1 x Buzzer (88dB min)
	Edge storage	1 x USB 2.0 port
	Power Supply	Min DC12V/1.0A, PoE (Power over Ethernet): 802.3af
	Power Consumption	DC12V/PoE: Max 9.6W
	Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	134.08(W) X 125.5(D) X 36.87(H)mm
	Weight	470g

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

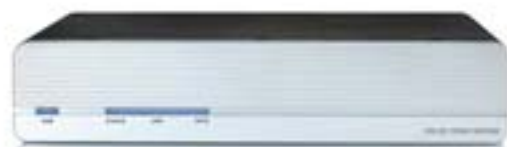


## 1080p60 Full HD Video Server

### Features

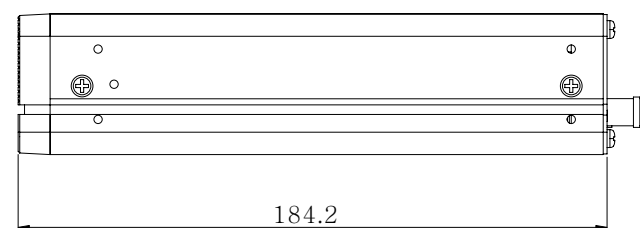
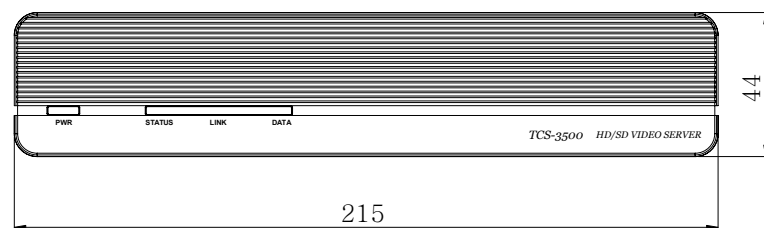
- Max. 60fps at 1920 x 1080
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- MPEG2-TS Supported
- Two Way Audio Communication (G.711, AAC)
- 3GSDI, HDSDI, SDI and CVBS I/O Supported
- Embedded Audio is supported in 3GSDI, HDSDI, SDI and HDMI, Stereo Analog is also provided
- Over 30 Types of PTZ Protocol Supported
- The VS-104-3GSDI can be used as either a Encoder or Decoder (User Selectable)

- PoE+ (Power over Ethernet): 802.3at
- USB Recording
- Watchdog for System Recovery
- RS-232, RS-422/485 Communication
- Motion Detection
- 2CH Sensor Input / 2CH Alarm Output
- Adjustable Video Bitrate:  
32Kbps ~ 16Mbps for Primary Video,  
32Kbps ~ 4Mbps for Secondary to Quartic Video
- Adjustable Serial Data I/O
- Various Protocols:  
TCP/IP, Multicast, UDP, HTTP, SMTP, FTP, DHCP, DNS, Dynamic DNS, RTP, RTSP, SNMP
- Full Technical Support with SDK & API

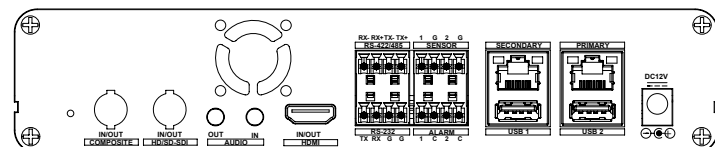


FRONT

REAR



Measurements in mm



### VS-104-3GSDI specifications

System	System Mode	Encoder / Decoder
Video	Compression	H.264, MJPEG
	Framerate	Max 60fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolution	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3: H.264/MJPEG
	Burn-in OSD	Multi-lingual
Audio	Input/Output	1 x HDMI (Type A), Input/Output configurable 1 x Composite (BNC), Input/Output configurable 1 x 3G-SDI (BNC), Input/Output configurable
	Compression	G.711 / AAC
	Sample rate	G.711: 8KHz, AAC: 32/44.1/48KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
Network	Input	1 x Line-In (stereo, mini-stereo type)
	Output	1 x Line-Out (stereo, mini-stereo type)
	Interface	2 x Ethernet 10/100/1000Base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
General	Application Programming Interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
	Event sources	Motion, Sensor input, Video loss, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
	Housing	Aluminum
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-232 port 1 x RS-422/485 port 1 x Buzzer (88dB min)
	Edge storage	2 x USB 2.0 port
	Power supply	Min DC12V TBD, PoE+ (Power over Ethernet): 802.3at
	Power Consumption	DC12V/PoE+ / Max: TBD
	Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	215mm(W) x 184.2mm(L) x 44mm(H)
Weight	940g	

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

# VS-530-HDI VS-530-HDSDI

NEW PRODUCT

## Marshall Electronics

IPTV Division

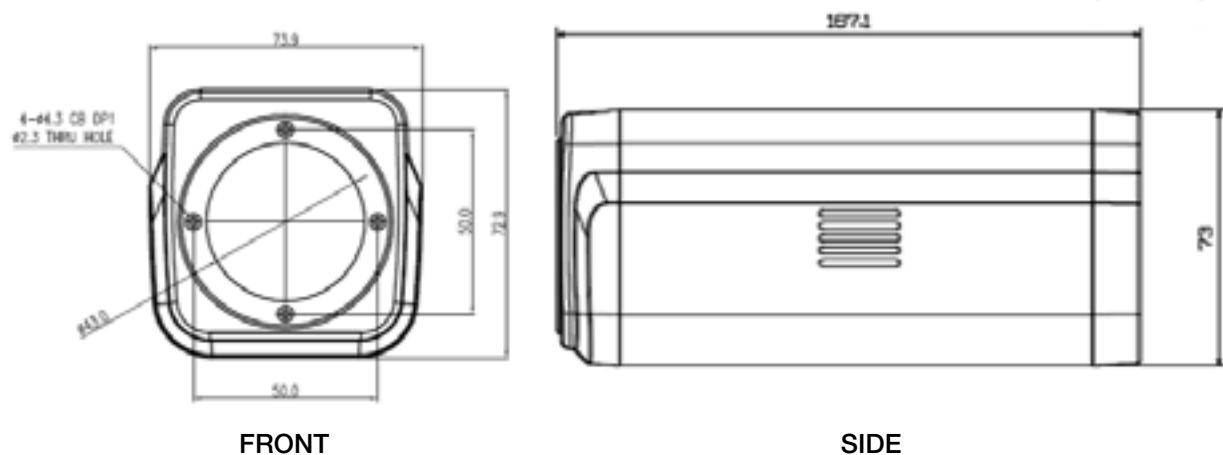
### 1080p x3 Zoom Box Camera

#### Features

- 1/2.8" type Exmor CMOS
- Max 30fps @ 1920 x 1080 with H.264 compression algorithm
- x3 Optical Zoom, x12 Digital Zoom
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Various Type of Protocol supported
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE (Power over Ethernet): 802.3af
- Composite / HDMI / HD-SDI Video Output (Optional)
- BLC (Back Light Compensation)



Measurements in mm



#### VS-530-HDI / VS-530-HDSDI specifications

<b>Camera</b>	Image sensor	1/2.8" type Exmor CMOS
	Lens type	Motorized x3 Vari-focal lens
	Lens mount	N/A
	Zoom	Optical x3, Digital x12
	Focal length	f= 3 ~ 9mm
	Maximum aperture ratio	F1.2 ~ F2.1
	Angle of view	Horizontal: 90°(wide) ~ 32°(tele)
	Minimum illumination	0.03 Lux (ICR on) 0.1Lux (ICR on) with 50IRE
	Electronic shutter speed	1/1 ~ 1/10,000 sec
	Privacy masking	4 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AGC, AE, AWB, TDN, BLC, DNR, DSS
IR LED	N/A	
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolutions	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3: H.264/MJPEG
	Burn-in OSD	Multi-lingual
	Output	Models Available for HDMI and HDSDI Outputs
<b>Audio</b>	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (stereo, mini-stereo type) 1 x Line-Out (stereo, mini-stereo type)
<b>PTZ control</b>	Interface	Ethernet 10/100base-T (RJ-45)
<b>Network</b>	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, Alarm control, Recording
<b>General</b>	Housing	N/A
	Certifications	CL, FCC, KC, ROHS
	External devices	1 x Sensor-In (dry contact, NO/NC) 1 x Alarm-Out (dry contact, NC) 1 x RS-485 port: PTZ control etc.
	Local Storage	SD/SDHC slot
	Power supply	Min DC 12V/1.5A, PoE (Power over Ethernet): 802.3af
	Power consumption	DC12V/PoE: Max TBD
	Operating condition	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	73.9(W) x 188(L) x 72.9(H)
	Weight	760g

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0



# VS-543-HDI VS-543-HDSDI

NEW PRODUCT

## Marshall Electronics

IPTV Division

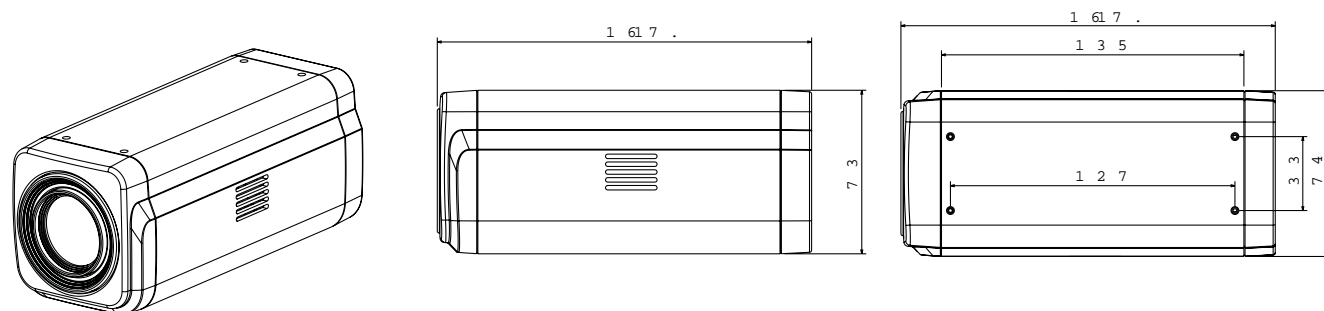
720p, x20 IP Zoom Camera

### Features

- 1/4" CMOS Image Sensor
- 30fps @ 1280 x 720
- x20 Optical Zoom, x12 Digital Zoom
- f=3.5 ~ 70mm, F. 1.6 ~ 3.5
- Dual Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Various Type of Protocol supported
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3af
- Adjustable Video Bitrate:  
32Kbps ~ 10Mbps for Primary Video, 32Kbps ~ 1Mbps for Secondary Video
- Models available for HDMI and HDSDI Outputs
- WDR (Wide Dynamic Range), BLC (Back Light Compensation)



Measurements in mm



### VS-543-HDI / VS-543-HDSDI specifications

Camera	Image sensor	1/4" Exmor CMOS
	Lens type	AF, Auto iris
	Lens mount	N/A
	Zoom	Optical x20, Digital x12
	Focal length	f= 3.5 ~ 98mm
	Maximum aperture ratio	F1.35 ~ F3.7
	Angle of view	Horizontal: 55.4°(wide) ~ 2.9°(tele)
	Minimum illumination	Normal: 1.0Lux (color), 0.3Lux (B/W, ICR On) with 50IRE High Sensitivity: 0.25Lux (color), 0.03Lux (B/W ICR On) with 50IRE
	Electronic shutter speed	1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, BLC, WDR, DNR, DSS
	IR LED	N/A
Video	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1280x720
	Bitrate	Primary: 32Kbps ~ 10Mbps, Secondary: 32Kbps ~ 1Mbps
	Resolutions	352x240 ~ 1280x720
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	English
	Output	Composite / HD-SDI / HDMI
Audio	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (stereo, mini-stereo type), 1 x Line-Out (stereo, mini-stereo type)
PTZ control	Interface	Ethernet 10/100base-T (RJ-45)
Network	Protocol	IPv4/v6, TCP, UDP, IGMP (Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
Event and Alarm	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
General	Housing	IP: N/A
	Certifications	CE, FCC, KC, RoHS
	External devices	1 x Sensor-In (dry contact, NO/NC) 1 x Alarm-Out (dry contact, NO) 1 x RS-485 port
	Local Storage	SD/SDHC slot
	Power supply	Min DC12V/1.0A, PoE(Power over Ethernet): 802.3af
	Power consumption	DC12V/PoE: Max 8.4W
	Operating condition	-10°C ~ 50°C ( 14°F ~ 122°F ) / 20% ~ 80% RH
	Dimension	74 (W) x 188.1 (L) x 73 (H) [mm]
	Weight	795g

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-544-HDI VS-544-HDSDI

NEW PRODUCT

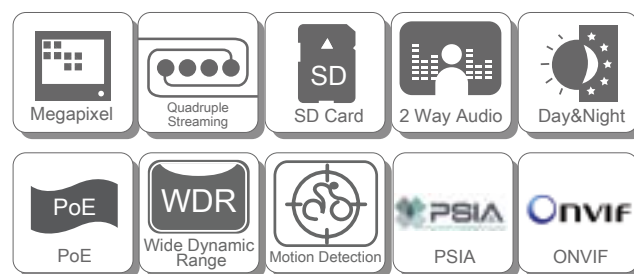
## Marshall Electronics

IPTV Division

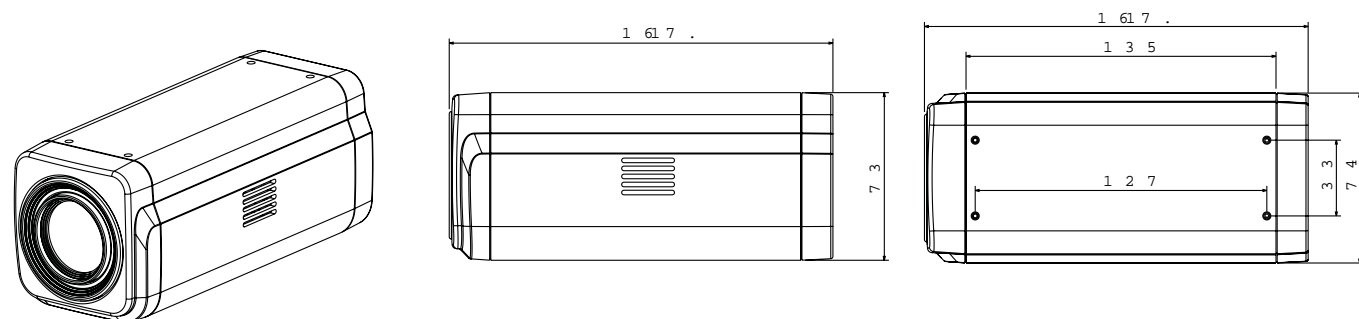
2.0MP, x20 IP Zoom Camera

### Features

- 1/4" EXMOR CMOS Image Sensor
- Max. 30fps @ 1280 x 720
- x28 Optical Zoom, x12 Digital Zoom
- f=3.5 ~ 98mm, F. 1.6 ~ 3.7
- Dual Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Various Type of Protocol supported
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3af
- Adjustable Video Bitrate: 32Kbps ~ 10Mbps for Primary Video, 32Kbps ~ 1Mbps for Secondary Video
- Models available for HDMI and HDSDI Outputs
- WDR (Wide Dynamic Range), BLC (Back Light Compensation)



Measurements in mm



### VS-544-HDI / VS-544-HDSDI specifications

Camera	Image sensor	1/4" Exmor CMOS
	Lens type	AF, Auto iris
	Lens mount	N/A
	Zoom	Optical x28 Digital x12
	Focal length	f= 3.5 ~ 98mm
	Maximum aperture ratio	F1.35 ~ F3.7
	Angle of view	Horizontal: 55.9°(wide) ~ 2.1°(tele)
	Minimum illumination	Normal: 1.0Lux(color), 0.3Lux(B/W, ICR On) with 50IRE High Sensitivity: 0.25Lux(color), 0.03Lux(B/W ICR On) with 50IRE
	Electronic shutter speed	1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, BLC, WDR, DNR, DSS
IR LED	N/A	
Video	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1280x720
	Bitrate	Primary: 32Kbps ~ 10Mbps, Secondary: 32Kbps ~ 1Mbps
	Resolutions	352x240 ~ 1280x720
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	English
Audio	Output	Models Available for HDMI and HDSDI Outputs
	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
Network	Streaming	Full duplex
	Input/Output	1 x Line-In (stereo, mini-stereo type), 1 x Line-Out (stereo, mini-stereo type)
	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
Event and Alarm	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
Event and Alarm	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
	Housing	IP: N/A
	Certifications	CE, FCC, KC, RoHS
	External devices	1 x Sensor-In (dry contact, NO/NC) 1 x Alarm-Out (dry contact, NO) 1 x RS-485 port
	Local Storage	SD/SDHC slot
	Power supply	Min DC12V/1.0A, PoE (Power over Ethernet) : 802.3af
	Power consumption	DC12V/PoE: Max 8.4W
	Operating condition	-10°C ~ 50°C ( 14°F ~ 122°F ) / 20% ~ 80% RH
	Dimension	74 (W) x 188.1 (L) x 73 (H) [mm]
Weight	845g	

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-545-HDI VS-545-HDSDI

**NEW PRODUCT**

## Marshall Electronics

IPTV Division

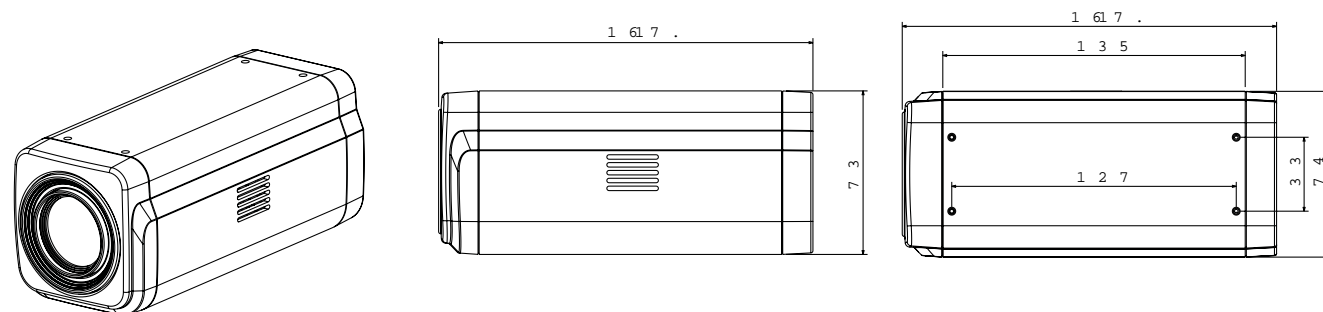
1080p30 Full HD x30 IP Zoom Camera

### Features

- 1/2.8" Exmor CMOS
- Max. 30fps @ 1920 x 1080
- x30 Optical Zoom, x12 Digital Zoom
- f=4.6 ~ 138mm, F. 1.6 ~ 4.7
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Various Type of Protocol supported
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3af
- Adjustable Video Bitrate: 32Kbps ~ 16Mbps for Primary Video, 32Kbps ~ 4Mbps for Secondary Video
- Composite / HDMI / HD-SDI Video Output (Optional)
- WDR (Wide Dynamic Range)



Measurements in mm



### VS-545-HDI / VS-545-HDSDI specifications

<b>Camera</b>	Image sensor	1/2.8" Exmor CMOS
	Lens type	AF, Auto iris
	Lens mount	N/A
	Zoom	Optical x30 Digital x12
	Focal length	f=4.6 ~ 138mm
	Maximum aperture ratio	F1.6 ~ F4.7
	Angle of view	Horizontal: 59.5°(wide) ~ 2.1°(tele) with 1080p30 mode
	Minimum illumination	Normal: 1.7Lux(color), 0.3Lux(B/W, ICR on) with 50IRE High Sensitivity: 0.5Lux(color), 0.095Lux(B/W ICR On) with 50IRE
	Electronic shutter speed	1/1 ~ 1/10,000 sec
	Privacy masking	4 regions
	Flip mode	Horizontal, Vertical
	<b>Video</b>	Image enhancement
IR LED		N/A
Compression		H.264, MJPEG
Frame rate		Max 30fps @ 1920x1080
Bitrate		Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
Resolutions		352x240 ~ 1920x1080
Streaming		Primary: H.264, Secondary x 3: H.264/MJPEG
<b>Audio</b>	Burn-in OSD	Multi-lingual
	Output	Composite / HD-SDI / HDMI
	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
<b>Network</b>	Streaming	Full duplex
	Input/Output	1 x Line-In (stereo, mini-stereo type) 1 x Line-Out (stereo, mini-stereo type)
	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
<b>Event and Alarm</b>	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>General</b>	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
	Event sources	Motion, Sensor input, Client disconnection
	Housing	IP: N/A
	Certifications	CE, FCC, KC, RoHS
	External devices	1 x Sensor-In (dry contact, NO/NC) 1 x Alarm-Out (dry contact, NO) 1 x RS-485 port
	Edge storage	SD/SDHC slot
	Power supply	Min DC12V/1.5A, PoE (Power over Ethernet): 802.3af
	Power consumption	DC12V/PoE: Max DC12V/8.76W
	Operating condition	-10°C ~ 50°C ( 14°F ~ 122°F ) / 20% ~ 80% RH
	Dimension	74 (W) x 188.1 (L) x 73 (H) [mm]
Weight	920g	

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-546-HDI VS-546-3GSDI

NEW PRODUCT

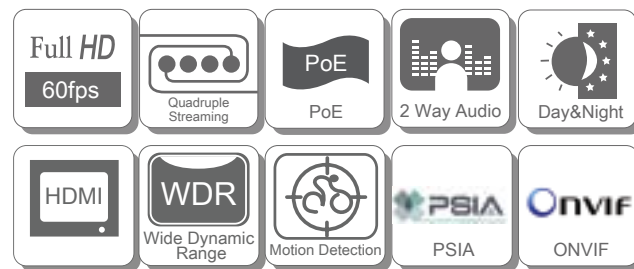
## Marshall Electronics

IPTV Division

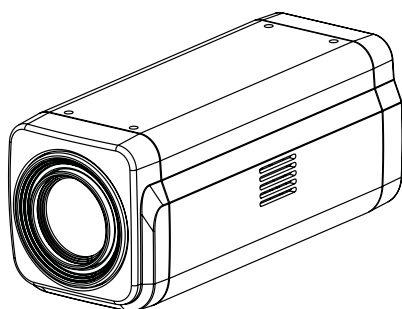
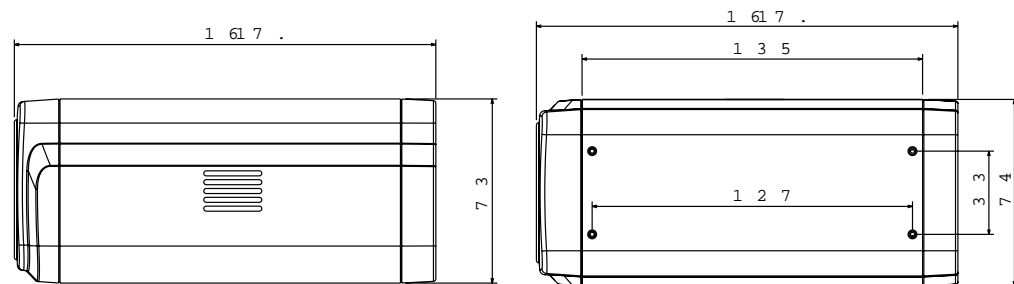
1080p60 Full HD x20 IP Zoom Camera

### Features

- 1/3" Panasonic CMOS
- Max. 60fps @ 1920 x 1080
- x20 Optical Zoom, x12 Digital Zoom
- f=4.7 ~ 94mm, F. 1.6 ~ 3.5
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Various Type of Protocol supported
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3af
- Adjustable Video Bitrate:  
32Kbps ~ 16Mbps for Primary Video, 32Kbps ~ 4Mbps for Secondary Video
- Models available for HDMI and 3GSDI Outputs
- WDR (Wide Dynamic Range)



Measurements in mm



### VS-546-HDI / VS-546-3GSDI specifications

Camera	Image sensor	1/3" Panasonic CMOS
	Lens type	AF, Auto Iris
	Lens mount	N/A
	Zoom	Optical x20, Digital x12
	Focal length	f= 4.7 ~ 94mm
	Maximum aperture ratio	F1.6 ~ F3.5
	Angle of view	Horizontal: 59.4°(wide) ~ 3.0°(tele)
	Minimum illumination	0.2Lux(color), 0.01Lux(B/W) with 50IRE
	Electronic shutter speed	2 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, WDR, TDN, DSS
IR LED	N/A	
Video	Compression	H.264, MJPEG
	Frame rate	Max 60fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolutions	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3 : H.264/MJPEG
	Burn-in OSD	Multi-lingual
	Output	Composite / 3G-SDI / HDMI
Audio	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (stereo, mini-stereo type), 1 x Line-Out (stereo, mini-stereo type)
Network	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP,DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
Event and Alarm	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
General	Housing	IP: N/A
	Certifications	CE, FCC, KC, RoHS
	External devices	1 x Sensor-In (dry contact, NO/NC) 1 x Alarm-Out (dry contact, NO) 1 x RS-485 port: PTZ control etc.
	Edge storage	SD/SDHC slot
	Power supply	Min DC 12V/TBD
	Power consumption	DC12V: Max TBD
	Operating condition	-10°C ~ 50°C ( 14°F ~ 122°F ) / 20% ~ 80% RH
	Dimension	74 (W) x 188.1 (L) x 73 (H) [mm]
	Weight	900g

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-571A-CVBS VS-571A-HDSDI

## Marshall Electronics

IPTV Division

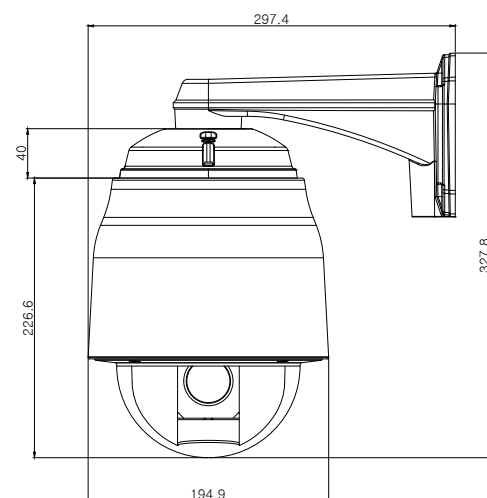
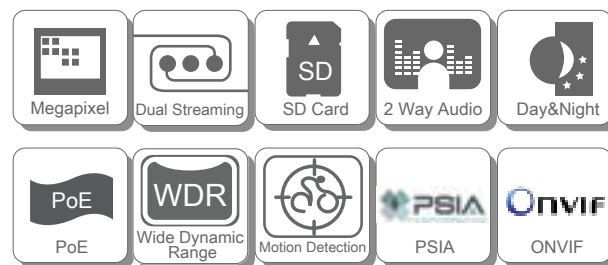
**NEW PRODUCT**

1080p, x20 Zoom IP PTZ Camera

### Features

- 1/3" Progressive scan CMOS
- Max. 30fps @ 1920 x 1080
- x20 Optical Zoom, x12 Digital Zoom
- Dual Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Pelco D or Pelco P Protocol
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3at
- Adjustable Video Bitrate: 32Kbps ~ 10Mbps for Primary Video, 32Kbps ~ 1Mbps for Secondary Video
- Models available for CVBSI and HDSDI Outputs
- Fast & Smooth Motion with 360° Pan Rotation
- Max. 128 Presets, Max. 8 Swings, Max. 4 Patterns, Max. 8 Groups Function, Privacy Mask Function
- Vandal-Proof & IP67
- WDR (Wide Dynamic Range), BLC (Back Light Compensation)
- Auto Parking / Power Up Action function

\* Shown with optional Wall Mounting Bracket VS-B570A-W



Measurements in mm

### VS-571A-CVBS / VS-571A-HDSDI specifications

<b>Camera</b>	Image sensor	1/3" Progressive scan CMOS
	Zoom	Optical x20 Digital x12
	Focal length	f= 4.45 ~ 89mm
	Maximum aperture ratio	F1.6 ~ F2.9
	Angle of view	Horizontal: 55.4°(wide) ~ 2.9°(tele)
	Minimum illumination	Normal: 1.7Lux(color), 0.3Lux(B/W, ICR On) with 50IRE High Sensitivity: 0.5Lux (color), 0.095Lux (B/W ICR On) with 50IRE
	Electronic shutter speed	1/1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, WDR, BLC, DNR, DSS
IR LED	N/A	
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 10Mbps, Secondary: 32Kbps ~ 1Mbps
	Resolutions	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	English
	Output	Composite / HD-SDI
<b>Audio</b>	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (mono, RCA type), 1 x Line-Out (mono, RCA type)
<b>PTZ control</b>	Operating angle	Horizontal: 360°, Vertical: 90°
	Speed	Continuous (Jog) move speed: 0.1° ~ 360°/sec Position move speed: 2° ~ 500°/sec
	PTZ functionalities	Preset (128), Pattern (4), Swing (8), Group (8), Auto parking, Zoom proportional jog, Freeze on position move, Power-up action, Event holding
<b>Network</b>	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	IP67
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-485 port: Direct PTZ control etc.
	Edge storage	SD/SDHC slot
	Power supply	Min DC12V/3.0A, Min AC24V/2.5A, PoE+(Power over Ethernet) : 802.3at
	Power consumption	DC12V/PoE+: Max 21.6W, AC24V : Max 48W
	Operating condition	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	Dome: Ø148 mm/ Ø 5.8"
Weight	3,060g	

Features, specifications, and dimensions are subject to change without notice. Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-573A-CVBS VS-573A-HDSDI

## Marshall Electronics

IPTV Division

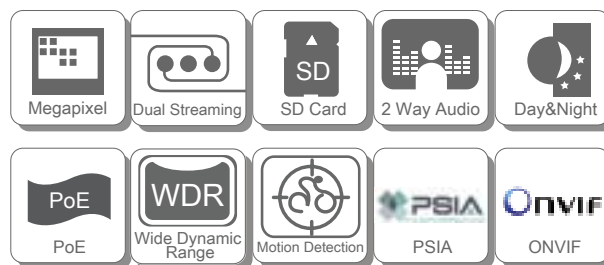
**NEW PRODUCT**

720p, x20 Zoom IP PTZ Camera

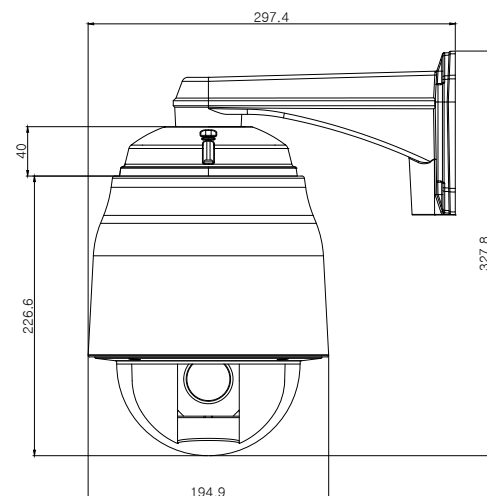
### Features

- 1/4" CMOS Image Sensor
- 30fps @ 1280 x 720
- Supports BLC (Backlight compensation) & WDR
- Supports ASER (Auto Slow Exposure Response)
- True day & night (ICR)
- Adjustable video bitrate: 32kbps ~ 10mbps
- Support SD card, FTP recording
- Two way audio communication (G.711/AAC)
- PoE+ (Power over Ethernet): 802.3at
- X240 zoom control (x20 optical, x12 digital)
- f=3.5mm ~ 70mm, F1.6 ~ F3.5
- Models available for CVBSI and HDSDI Outputs
- Fast & smooth motion with 360° pan rotation
- Maximum 128 presets, 8 swings, 4 patterns, 8 groups function
- Privacy mask function
- Vandal-proof, IP67-rated protection
- ONVIF, PSIA compliant

\* Shown with optional Wall Mounting Bracket VS-B570A-W



Measurements in mm



### VS-573A-CVBS / VS-573A-HDSDI specifications

<b>Camera</b>	Image sensor	1/4" Exmor CMOS
	Zoom	Optical x20 Digital x12
	Focal length	f= 3.5 ~ 98mm
	Maximum aperture ratio	F1.35 ~ F3.7
	Angle of view	Horizontal: 55.9°(wide) ~ 2.9°(tele)
	Minimum illumination	Normal: 1.0Lux(color), 0.3Lux(B/W, ICR On) with 50IRE High Sensitivity: 0.25Lux (color), 0.03Lux(B/W, ICR On) with 50IRE
	Electronic shutter speed	1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, WDR, BLC, DNR, DSS
IR LED	N/A	
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1280x720
	Bitrate	Primary: 32Kbps ~ 10Mbps, Secondary: 32Kbps ~ 1Mbps
	Resolutions	352x240 ~ 1280x720
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	English
	Output	Models Available for CVBSI and HDSDI Outputs
<b>Audio</b>	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (mono, RCA type), 1 x Line-Out (mono, RCA type)
<b>PTZ control</b>	Operating angle	Horizontal: 360°, Vertical: 90°
	Speed	Continuous (Jog) move speed: 0.1° ~ 360°/sec Position move speed: 2° ~ 500°/sec
	PTZ functionalities	Preset (128), Pattern (4), Swing (8), Group (8), Auto parking, Zoom proportional jog, Freeze on position move, Power-up action, Event holding
<b>Network</b>	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	IP67
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-485 port: Direct PTZ control etc.
	Edge storage	SD/SDHC slot
	Power supply	Min DC12V/3.0A, Min AC24V/2.5A, PoE+ (Power over Ethernet): 802.3at
	Power consumption	DC12V/PoE+: Max 24W, AC24V: Max 48W
	Operating condition	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	Dome: Ø148 mm/ Ø 5.8"
	Weight	3,060g

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-574A-CVBS VS-574A-HDSDI

## Marshall Electronics

IPTV Division

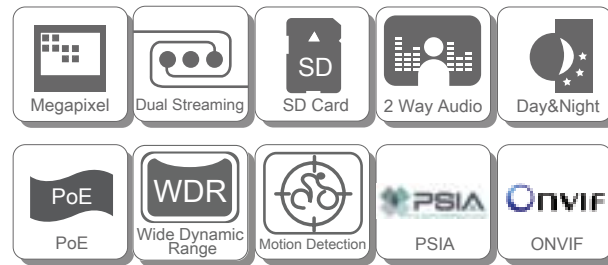
**NEW PRODUCT**

720p, x28 Zoom IP PTZ Camera

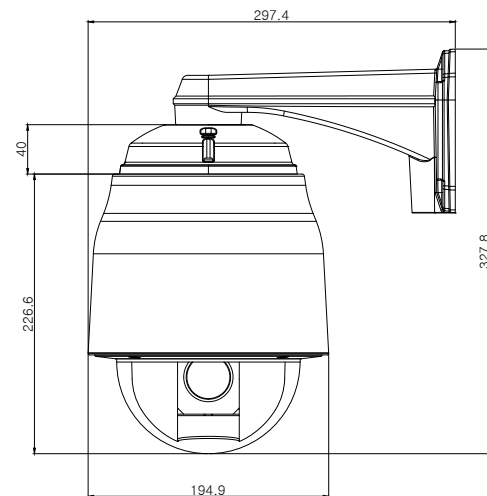
### Features

- 1/4" CMOS Image Sensor
- 30fps @ 1280 x 720
- Supports BLC (Backlight compensation) & WDR
- Supports ASER (Auto Slow Exposure Response)
- True day & night (ICR)
- Adjustable video bitrate: 32kbps ~ 10mbps
- Support SD card, FTP recording
- Two way audio communication (G.711/AAC)
- PoE+ (Power over Ethernet): 802.3at
- X336 zoom control (X28 optical, X12 digital)
- f=3.5mm ~ 98mm, F1.6 ~ F3.7
- Models available for CVBSI and HDSDI Outputs
- Fast & smooth motion with 360° pan rotation
- Maximum 128 presets, 8 swings, 4 patterns, 8 groups function
- Privacy mask function
- Vandal-proof, IP67-rated protection
- ONVIF, PSIA compliant

\* Shown with optional Wall Mounting Bracket VS-B570A-W



Measurements in mm



### VS-574A-CVBS / VS-574A-HDSDI specifications

<b>Camera</b>	Image sensor	1/4" Exmor CMOS
	Zoom	Optical x28 Digital x12
	Focal length	f= 3.5 ~ 98mm
	Maximum aperture ratio	F1.35 ~ F3.7
	Angle of view	Horizontal: 55.9°(wide) ~ 2.1°(tele)
	Minimum illumination	Normal: 1.0Lux (color), 0.3Lux (B/W, ICR On) with 50IRE High Sensitivity: 0.25Lux (color), 0.03Lux (B/W, ICR On) with 50IRE
	Electronic shutter speed	1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, WDR, BLC, DNR, DSS
IR LED	N/A	
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1280x720
	Bitrate	Primary: 32Kbps ~ 10Mbps, Secondary: 32Kbps ~ 1Mbps
	Resolutions	352x240 ~ 1280x720
	Streaming	Primary: H.264, Secondary: H.264/MJPEG
	Burn-in OSD	English
	Output	Models Available for CVBSI and HDSDI Outputs
<b>Audio</b>	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC : 32KHz
	Bitrate	G.711 : 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
	Input/Output	1 x Line-In (mono, RCA type), 1 x Line-Out (mono, RCA type)
<b>PTZ control</b>	Operating angle	Horizontal: 360°, Vertical: 90°
	Speed	Continuous(Jog) move speed: 0.1° ~ 360°/sec Position move speed: 2° ~ 500°/sec
	PTZ functionalities	Preset (128), Pattern (4), Swing (8), Group (8), Auto parking, Zoom proportional jog, Freeze on position move, Power-up action, Event holding
<b>Network</b>	Interface	Ethernet 10/100base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification(E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	IP67
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-485 port: Direct PTZ control etc.
	Edge storage	Local Storage
	Power supply	Min DC12V/3.0A, Min AC24V/2.5A, PoE+ (Power over Ethernet): 802.3at
	Power consumption	DC12V/PoE+: Max 24W, AC24V: Max 48W
	Operating condition	-10°C ~ 50°C (14°F ~ 122°F) / 20% ~ 80% RH
	Dimension	Dome: Ø148 mm/ Ø 5.8"
Weight	3,060g	

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

# VS-575A-CVBS VS-575A-HDSDI

## Marshall Electronics

IPTV Division

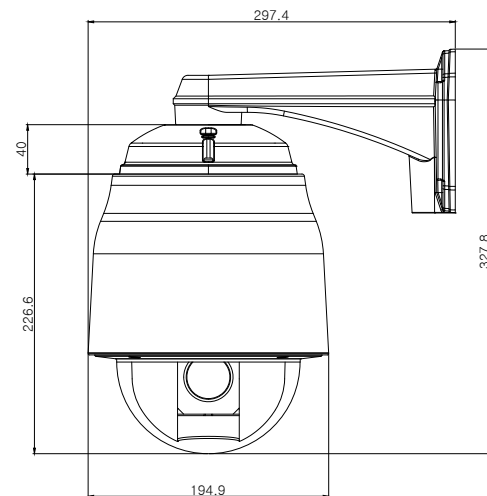
**NEW PRODUCT**

1080p30, x30 Zoom IP PTZ Camera

### Features

- 1/2.8" Exmor CMOS
- Max. 30fps @ 1920 x 1080
- x30 Optical Zoom, x12 Digital Zoom
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Pelco D or Pelco P Protocol
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3at
- Ethernet 10/100/1000 base-T (RJ-45)
- Adjustable Video Bitrate: 32Kbps ~ 16Mbps for Primary Video, 32Kbps ~ 4Mbps for Secondary Video
- Models available for CVBSI and HDSDI Outputs
- Fast & Smooth Motion with 360° Pan Rotation
- Max. 128 Presets, Max. 8 Swings, Max. 4 Patterns, Max. 8 Groups Function, Privacy Mask Function
- Vandal-Proof & IP67
- WDR (Wide Dynamic Range)
- Auto Parking / Power Up Action function

\* Shown with optional Wall Mounting Bracket VS-B570A-W



Measurements in mm

### VS-575A-CVBS / VS-575A-HDSDI specifications

<b>Camera</b>	Image sensor	1/2.8" Exmor CMOS
	Zoom	Optical 30x, Digital 12x
	Focal length	f=4.6 ~ 138.3mm
	Maximum aperture ratio	F1.6 ~ F4.7
	Angle of view	Horizontal: 59.5°(wide) ~ 2.1°(tele) with 1080p30 mode
	Minimum illumination	Normal: 1.7Lux(color), 0.3Lux(B/W, ICR Off) with 50IRE High Sensitivity: 0.5 Lux (color), 0.095 Lux (B/W ICR On) with 50IRE
	Electronic shutter speed	1/1 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, DNR, BLC, WDR, DSS, EIS
IR LED	N/A	
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 30fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolutions	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3: H.264/MJPEG
	Burn-in OSD	Multi-lingual
<b>Audio</b>	Output	Models Available for CVBSI and HDSDI Outputs
	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC : 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
<b>PTZ control</b>	Input/Output	1 x Line-In (mono, RCA type), 1 x Line-Out (mono, RCA type)
	Operating angle	Horizontal: 360°, Vertical: 90°
	Speed	Continuous (Jog) move speed: 0.1° ~ 360°/sec Position move speed: 2° ~ 500°/sec
	PTZ functionalities	Preset (128), Pattern (4), Swing (8), Group (8), Auto parking, Zoom proportional jog, Freeze on position move, Power-up action, Event holding
<b>Network</b>	Interface	Ethernet 10/100/1000base-T (RJ-45)
	Protocol	IPv4/v6, TCP, UDP, IGMP(Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming interface	MEI Protocol/SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	IP67
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-485 port: Direct PTZ control etc.
	Edge storage	Local Storage
	Power supply	Min DC12V/3.0A Min AC24V/2.5A PoE+ (Power over Ethernet): 802.3at
	Power consumption	DC12V/PoE+: Max 30W AC24V: Max 48W
	Operating condition	+12VDC: -10°C ~ 50°C (14°F ~ 122°F)
	Dimension	Dome: Ø148 mm/ Ø 5.8"
	Weight	3,020g

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0



# VS-576A-CVBS VS-576-3GSDI

## Marshall Electronics

IPTV Division

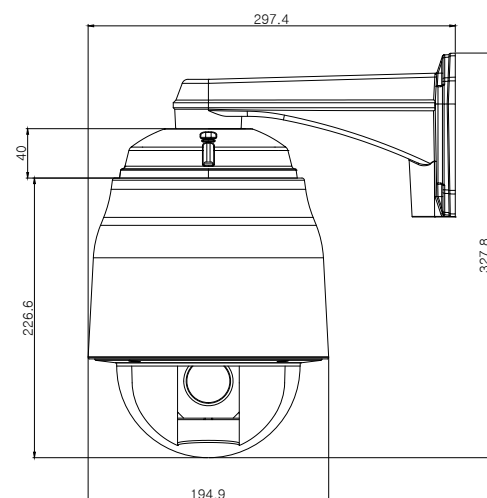
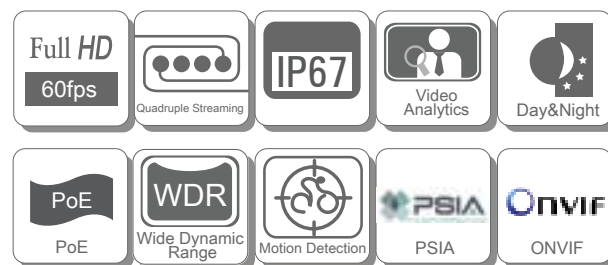
**NEW PRODUCT**

1080p60, x20 Zoom IP PTZ Camera

### Features

- 1/3" Panasonic CMOS
- Max. 60fps @ 1920 x 1080
- x20 Optical Zoom, x12 Digital Zoom
- Quad Streaming (H.264/H.264, H.264/MJPEG)
- True Day & Night (ICR)
- RS-485 Communication, Pelco D or Pelco P Protocol
- Motion Detection for Instant Alarm & Recording
- Two Way Audio Communication (G.711/AAC)
- ONVIF, PSIA Compliant
- SD Card, FTP Recording
- PoE+ (Power over Ethernet): 802.3at
- Ethernet 10/100/1000 base-T (RJ-45)
- Adjustable Video Bitrate: 32Kbps ~ 16Mbps for Primary Video, 32Kbps ~ 4Mbps for Secondary Video
- Models available for CVBSI and 3GSDI Outputs
- Fast & Smooth Motion with 360° Pan Rotation
- Max. 128 Presets, Max. 8 Swings, Max. 4 Patterns, Max. 8 Groups Function, Privacy Mask Function
- Vandal-Proof & IP67
- WDR (Wide Dynamic Range)
- Auto Parking / Power Up Action function

\* Shown with optional Wall Mounting Bracket VS-B570A-W



Measurements in mm

### VS-576A-CVBS / VS-576-3GSDI specifications

<b>Camera</b>	Image sensor	1/3" Panasonic CMOS
	Zoom	Optical x20, Digital x12
	Focal length	f= 4.7 ~ 94mm
	Maximum aperture ratio	F1.6 ~ F3.5
	Angle of view	Horizontal: 59.4°(wide) ~ 3.0°(tele)
	Minimum illumination	0.2Lux (color), 0.01Lux (B/W) with 50IRE
	Electronic shutter speed	2 ~ 1/10,000 sec
	Privacy masking	8 regions
	Flip mode	Horizontal, Vertical
	Image enhancement	AE, AWB, AGC, TDN, DSS, WDR
	IR LED	N/A
<b>Video</b>	Compression	H.264, MJPEG
	Frame rate	Max 60fps @ 1920x1080
	Bitrate	Primary: 32Kbps ~ 16Mbps, Secondary: 32Kbps ~ 4Mbps
	Resolutions	352x240 ~ 1920x1080
	Streaming	Primary: H.264, Secondary x 3: H.264/MJPEG
	Burn-in OSD	Multi-lingual
<b>Audio</b>	Output	Models Available for CVBSI and 3GSDI Outputs
	Compression	G.711 / AAC
	Sampling rate	G.711: 8KHz, AAC: 32KHz
	Bitrate	G.711: 64Kbps, AAC: 64Kbps/128Kbps
	Streaming	Full duplex
<b>PTZ control</b>	Input/Output	1 x Line-In (mono, RCA type), 1 x Line-Out (mono, RCA type)
	Operating angle	Horizontal: 360°, Vertical: 90°
	Speed	Continuous (Jog) move speed: 0.1° ~ 360°/sec Position move speed: 2° ~ 500°/sec
	PTZ functionalities	Preset (128), Pattern (4), Swing (8), Group (8), Auto parking, Zoom proportional jog, Freeze on position move, Power-up action, Event holding
<b>General</b>	Interface	Ethernet 10/100/1000base-T (RJ-45)
	Protocol	Ethernet 10/100/1000base-T (RJ-45), IPv4/v6, TCP, UDP, IGMP (Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, Zero Configuration, NTP, DDNS
	Security	Password protection, IP address filtering, HTTPS encryption
	Application programming Interface	MEI Protocol / SDK, ONVIF, PSIA, MPEG-TS
<b>Event and Alarm</b>	Event sources	Motion, Sensor input, Client disconnection
	Event actions	Notification (E-mail), FTP, PTZ preset, Alarm control, Recording
<b>General</b>	Housing	IP67
	Certifications	CE, FCC, KC, ROHS
	External devices	2 x Sensor-In (dry contact, NO/NC) 2 x Alarm-Out (dry contact, NO) 1 x RS-485 port: Direct PTZ control etc.
	Edge storage	Local Storage
	Power supply	Min DC12V/TBD, Min AC24V/TBD, PoE+(Power over Ethernet): 802.3at
	Power consumption	DC12V/PoE+: Max TBD, AC24V: Max TBD
	Operating condition	-10°C ~ 50°C ( 14°F ~ 122°F ) / 20% ~ 80% RH
	Dimension	Dome: Ø148 mm/ Ø 5.8"
	Weight	3,060g (Housing Net: 3,500g)

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

VER. 1.0

Mounting Brackets for V-370 and VS-570 Series Dome Cameras



**VS-B370-10W**  
Wall Mount Bracket  
(For Indoor and Outdoor use)  
VS-370-X12 Camera



**VS-B370-10C**  
Wall Mount Bracket  
(For Indoor and Outdoor use)  
VS-370-X12 Camera



**VS-B570A-W**  
Wall Mount Bracket  
(For Indoor and Outdoor use)  
VS-57XA / VS-370A Series Cameras



**VS-B570A-C**  
Ceiling Mount Bracket  
(For Indoor / Outdoor use)  
VS-57XA / VS-370A  
Series Cameras



**VS-B570-P**  
Pipe Mount Bracket  
(For Indoor / Outdoor use)  
VS-57X / VS-57XA / VS-370 /  
VS-370A Series Cameras



**VS-B570-R**  
Corner Mount Bracket  
(For Indoor / Outdoor use)  
VS-57X / VS-57XA / VS-370 /  
VS-370A Series Cameras



**VS-C570**  
Mounting Cup for Speed Dome  
Cameras. Fits all VS Speed Dome  
Cameras except the  
VS-370-X10 and VS-370-X12

VS-TKC-100 PTZ Keyboard Controller



- USB mouse function
- Operates with a 9V battery
- Controls up to 255 cameras
- Multiple protocols supported in each channel
- RS-485 / RS-422 communication (Tx: 3 port, TRx: 1 port)
- Programmable user preferences (Preset, Tour, Pattern, etc.)

- Built-in 3-Axis proportional joystick
- Easy upload of programming data via serial communication
- Built-in LCD with 2 lines of characters
- User password support
- Programmable transmission speed for each ID (2.4~57.6Kbps)

Keyboard Communication	Interface: RS-485 / RS-422	Power Consumption	Max. 140mA
	Operation distance: 4000ft (1.2km) on 24 AWG wire	LCD Display	Graphic Display 16 characters x 2 lines
	Protocol: Multiple (Pelco-D, Pelco-P, Etc.) (Baud rate selectable)	Operating Temperature	0°C ~ 45°C
Connector Type Data	TERMINAL BLOCK (8p)	Humidity	10% ~ 70% Non-condensing
Keyboard Button	Rubber button	Dimensions	280(W) x 100.08(H) x 179.3(D)mm
	Numeric keypad and camera function keys	Weight	~ 1.5 lbs
Joystick	3-axis, variable speed with zoom	In the package	TKC-100 Keyboard, AC Power Adapter (100-240V)
Input Voltage	DC 12V or 9V battery (Battery mode)		USB Cable, Manual, Terminal block (8p)

CS Mount Varifocal Lenses with DC Auto Iris

For use with VS-series CS mount MegaPixel Box Cameras

Varifocal lenses permit users to change the effective focal length (EFL) and the horizontal angle of view. This flexibility allows camera installations in a variety of places that often require lenses of different focal lengths.



CS Mount Megapixel Varifocal Lenses:

Model	Focal Length (mm)	F-Stop	1/4" Sensor	1/3" Sensor	1/2.5" Sensor
VS-M246A	2.4 ~ 6	F1.4	74° ~ 34°	90° ~ 43°	98° ~ 49°
VS-M408A	4 ~ 8	F1.4	48° ~ 25°	62° ~ 33°	70° ~ 38°
VS-M4012A	4 ~ 12	F1.4	48° ~ 17°	62° ~ 22°	70° ~ 36°
VS-M550A	5 ~ 50	F1.4	40° ~ 4°	50° ~ 5.4°	58° ~ 6.3°

Wide Angle Lens Adapters

For use with VS-540 and VS-541 to increase angle of view

High quality optical glass lens adapters increase the viewing angle from 0.7x to 0.3x magnification. Various lens adapter rings are included for use on other models of cameras and camcorders.



Wide Angle Lens Adapters:

Model	Description	Adapter Rings Included	Camera Compatibility	
			VS-540	VS-541
VS-LRX-3035	0.3x wide angle lens adapter	27mm 30mm, 30.5mm, 34mm, 37mm, 43mm	OK	N/A
VS-LRX-5050	0.5x wide angle lens adapter	27mm, 30mm, 30.5mm, 34mm 37mm, 43mm	OK	N/A
VS-LRX-731	0.7x wide angle lens adapter	37mm, 43mm, 49mm, 52mm 55mm	OK	OK

VS-P1000V PoE+ In-Line Injector

For use with VS-370, VS-57X & VS-57XA Dome Cameras.

- 10/100/1000Mbps
- Input: 100-240V
- Output: 56V 0.6A (33.6W)
- CISPR 22 'B', VCCI 'B', FCC 'B' Compliance
- Lightweight: 185 g
- Efficiency 83% Typical
- Over-Voltage Protective Installation
- Short-Circuit Protective Installation
- Protection Type: Auto-Recover
- 802.3at Compatible
- Operating Temperature -10°C~55°C
- FOR INDOOR USE ONLY



Power Supply

VS-PS12-5V  
12V / 5 Amp Barrel Plug Power Supply for box and PTZ IP Cameras.



## VS-TRM-200 / VS-TRM-202 / VS-TRM-204

Rack mount holder for mounting up to 16 VS Encoder / Decoders in a 5 RU space

### Operating Conditions

- Temp: 5 - 50 °C

### Connections

- Power: 100-240 VAC, 50/60 Hz, 1.6 A

### Dimensions and Weight

- Height: 210 mm / 8.3 in (5 RU)
- Width: 482.8 mm / 19 in
- Depth: 145 mm / 5.7 in
- Weight: 6.7 kg / 14.8 lbs

<b>VS-TRM-200</b>	Rack mount holder for 16 pcs of VS-11
<b>VS-TRM-202</b>	Rack mount holder for 16 pcs of VS-102
<b>VS-TRM-204</b>	Rack mount holder for 16 pcs of VS-14



\* Shown with optional modules installed



## VS-H60

Weatherproof Housing for IP Cameras.  
Optional Sunshield, Heater, Blower, Defroster, Wiper & PoE+

- IP66 rated water proof and vandal resistant enclosure
- Die cast aluminum construction resists damage
- Built-in heater, blower and sunshield (VS-60-SHB)
- Includes wall mount bracket with cable feed-through
- Easy access to the camera
- Special M20 cable gland provides easy access to RJ 485 connector
- Includes wall mount bracket



\* Camera Not Included  
\* Shown with optional Wiper

Models	VS-H60 VS-H60-S VS-H60-SH VS-H60-SHB VS-H60-SHBD VS-H60-SHBDW VS-H60-SHBDWP	External Dimensions	VS-H60: 173(W) x 116(H) x 428(D)m/m VS-H60-S: 184.6(W) x 127.3(H) x 460(D)m/m VS-H60-SHB: 184.6(W) x 127.3(H) x 460(D)m/m VS-H60-SHBD: 7.3(W) x 5.0(H) x 18.11(D)in VS-H60-SHBDW:
Usage	Indoor / Outdoor	Weight	VS-H60: 2.3kg / 5lbs VS-H60-S: 3.0kg / 6.6lbs VS-H60-SHB: 3.6kg / 7.9lbs VS-H60-SHBD: VS-H60-SHBDW:
Input Power	24VAC	Material	Aluminum, Glass, Plastic
Power Consumption	VS-H60-SHB 24VAC: 22W VS-H60-SHBD 24VAC: 30W VS-H60-SHBDW 24VAC: 36W	Ingress Protection	IP66
Environmental	VS-H60 / VS-H60-S Temperature: -15°~+50°, Humidity: 100% VS-H60SHB Temperature: -35°~+55°, Humidity: 100% VS-H60-SHBD Temperature: -40°~+55°, Humidity: 100% VS-H60-SHBD-W Temperature: -40°~+55°, Humidity: 100%		G.711: 64Kbps, AAC: 64Kbps, 128Kbps
Thermostat	Heater: ON 4°±3°, Blower: ON 45°±5°		

## VS-PTH-500 / VS-PTH-500IR

Weatherproof Pan & Tilt Housing with IR LED (Composite ONLY)

## VS-PTH-550 / VS-PTH-550IR

Weatherproof Pan & Tilt Housing with IR LED (Composite and HD-SDI)



\* Camera Not Included

The **VS-PTH-500** is a rugged weather-proof pan & tilt housing for below and above the horizon viewing with 360° panning (endless) capability. The integrated wiper, heater, and fan allow use in even the most hostile environments. Optional IR lighting is available for up to 300 feet (100 meters) distance of IR Illumination. A range of built-in control protocols allow easy system integration.

The **VS-PTH-550** is a rugged weather-proof pan & tilt housing for below and above the horizon viewing with 360° panning (endless) capability. The integrated wiper, heater and fan allow use in even the most hostile environments. Optional IR lighting is available for up to 300 feet (100 meters) distance of IR Illumination. A range of built-in control protocols allow easy system integration.

Internal Communication	RS-485 (Pelco D, Pelco P, AD, Phillips) [Only Available on VS-PTH-550(IR)]	Power	AC24V 2A (Camera Out: DC12V) Power: 25W (Heater open 36W)
Pan Range	360° Endless	Operating Temperature	-31°F ~ +122°F (-35°C ~ +50°C)
Pan Speed	0.01° ~ 120°/sec	Size	395(W) x 480(D) x 450.5(H)mm
Tilt Range	+40° ~ -90°/sec	Internal Size	87(W) x 270(D) x 80(H)mm
Tilt Speed	0.01° ~ 100°/sec	Housing Window Size	67(W) x 57(H)mm
IR Illuminator	Hybrid IR 30pcs Dual Max 100m (VS-PTH-500IR / 550IR)	Overall Dimensions	15.6"(W) x 18.9"(D) x 13.8"(H) (395 x 480 x 349mm)
Fan/Heater/Wiper	Auto Temperature Control	Weight	37.5 lbs (17 kg)
Waterproof	IP67		
Max Load Weight	13.2 lbs (6 kg) Camera		

Features, specifications, and dimensions are subject to change without notice.  
Physical appearance of products may vary slightly from images shown on this document. Please visit our website for updates and information.

## Audio Production Accessories



### VS-LSC L/R In-Out Lip SYNC Corrector

The Stereo Lip SYNC Corrector is a compact device that corrects audio delay between audio and video. When distributing video over long distances through multiple devices like distribution amplifiers and set top boxes there can sometimes be a noticeable delay which results in audio being played before the video. This device lets you manually adjust the audio delay from 0 ~300 ms allowing you to perfectly synchronize your audio and video, so when it reaches the display your media is synched and ready to go. The Lip SYNC Corrector is an affordable and compact device that can be used to correct audio sync going to your Video Encoder or Producer's Station Audio Input.



### VS-HAE HDMI Audio Extractor

The HDMI Audio Extractor is a device that allows you to extract audio signals from your HDMI source. When connecting with a TV or display you don't always get great audio, or in the case of a display, no audio at all, so with this Audio Extractor you can take your original HDMI audio signal and convert it to optical and analog L/R audio. What this means is that you can output your audio signal to external speakers or extend your audio signal. Ideal for your VS-102 Encoder or PS-102 Producer's Station.



### VS-HAI HDMI Audio Inserter

The HDMI Audio Inserter is a device that lets you insert external audio into your HDMI/DVI source. The device allows you to insert stereo and multi-channel surround sound to give users the capability to select and insert their Sweetened audio formats into the HDMI program feed. Ideal for your VS-102 Decoder.

# **Marshall Electronics**

Tel.: 800-800-6608 / Fax: 310-333-0688 / [www.marshall-usa.com](http://www.marshall-usa.com)