

### Mandatory Requirements

#### VCAST Streaming Encoder 2130R (SCSI) (VC-EN2130R)

##### General Features:

- Support high-quality video/audio broadcast at various bit-rates for multiple devices (PC, TV via VBOX or Windows Mobile)
- Support live and on-demand video / audio broadcasting via any TCP/IP networks
- Ease of support and maintenance with remote management
- Support latest streaming technologies for best user experience over Internet, Intranet or Wireless
- Reliable for 7/24 operation with high availability and backup options
- Provided by **Certified Windows Media Hardware Product Vendor** (Integrated Capture/Encoding Solutions and Appliances) listed in [http://www.microsoft.com/windows/windowsmedia/service\\_provider/Hardware/default.aspx#capture](http://www.microsoft.com/windows/windowsmedia/service_provider/Hardware/default.aspx#capture)

##### Encoding Features:

- Professional turnkey streaming video encoder with video/audio inputs and streaming outputs
- Support real-time encoding in multiple bit-rates for each channel
- Support professional quality of audio and video encoding from live input(s) and transcoding from archived media files
- Support conventional and professional audio and video interfaces (e.g. S-Video, Composite Video, XLR Balanced and RCA Unbalanced audio)
- Integrated professional video and audio processing (e.g. high performance scalars, audio processor, video processor, AV matrix switch, etc)
- Simultaneous output to mixture of codecs, formats, resolutions and bitrates from one input source lets you optimize for multiple distribution channels
- Live monitoring of video and audio with interactive control of hardware pre-processing capabilities
- Fully synchronized audio and video streaming
- Hardware based video pre-processing including deinterlacing and noise reduction
- Elastic Frame Buffer architecture for absolute reliability and high image quality
- RAID Stripping with Advanced Data Streaming™ (ADS)
- Fully compatible and managed by Vcast Streaming Server and Vcast Content Management Server

#### Encoding Specifications

<b>Live Input Source:</b>	<b>Video:</b> <ul style="list-style-type: none"> <li>• S-Video (4-pin mini-DIN)</li> <li>• Composite Video (RCA)</li> </ul> <b>Audio:</b> <ul style="list-style-type: none"> <li>• RCA Unbalanced Stereo</li> <li>• XLR Balanced Stereo</li> </ul>
<b>Media File Input Source:</b>	<ul style="list-style-type: none"> <li>• AVI, MP3, MPEG1, MPEG2-PS, MPEG2-TS, MP4, Windows Media, Real Media v9,10 (rm), Real Media v9,10 (rmvb), Flash VP6, Flash H.264, Quicktime-3GPP2, Quicktime-3GPP, Quicktime-iPod, Quicktime-iTune and Quicktime-Sorenson</li> </ul>
<b>Live and Archive Streaming Output Format:</b>	<ul style="list-style-type: none"> <li>• Windows Media 6, 7, 8, 9, WMV-HD</li> <li>• Microsoft Silverlight (VC-1/Windows Media WMV, IIS Smooth Streaming)</li> <li>• VC-1 Advanced Features (Closed Captioning, muxing with non-WMA audio formats)</li> <li>• Real, Real Helix 9, 10</li> </ul> <b>Optional Upgrades:</b> <ul style="list-style-type: none"> <li>• MPEG-2 in Transport Stream (UDP/RTP with RTSP)</li> <li>• H.264 (AVC) progressive with AAC/MP3 Audio (RTMP for Adobe Flash, RTP/RTSP)</li> <li>• Adobe Flash 8 with On2 VP6</li> <li>• 3GPP (H.263, H.264, MPEG-4 Part 2, AAC and AMR audio)</li> <li>• Dolby® Digital and Dolby® Digital Plus (stereo or surround) in</li> </ul>

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	<b>Transport Stream</b>
<b>Archive Output Format</b>	<ul style="list-style-type: none"> <li>• QuickTime (MOV and MPEG4)</li> <li>• AVI</li> <li>• DivX support (codec not included)</li> <li>• WAV audio (multi-channel, RF64, Broadcast WAV)</li> <li>• AES3 audio (SMPTE 331M, AES3-2003)</li> <li>• MPEG-1 and MPEG-2 (4:2:0 and 4:2:2, compatible with CableLabs® VOD specifications)</li> </ul>
	<p><b>Optional Upgrades:</b></p> <ul style="list-style-type: none"> <li>• MPEG-4 Part 2 (via QuickTime®)</li> <li>• H.264 (AVC) – (Adobe® Flash®, Microsoft Silverlight; progressive FLV/F4V/MP4/MOV/ M4V/3GP file output; AAC and MP3 audio)</li> <li>• Avid DNxHD® in MXF (Requires MXF module, sold separately)</li> <li>• Omneon (MOV) (Container "wrapper" support. Additional codecs may be required for encoding or decoding the compressed essence within the container.</li> <li>• DVCPPro 25/50/100(HD) in AVI</li> <li>• AVC Encoder (AVC/H.264, MPEG4, AAC)</li> <li>• Sorenson ACE (MPEG4, AVC/H.264, Flash 7, MP3)</li> <li>• AC-3 Dolby Digital</li> <li>• MXF import</li> </ul>
<b>Encoding Bit-rate &amp; Frame Rate</b>	<ul style="list-style-type: none"> <li>• Up to 8Mbps@30fps</li> </ul>
<b>Concurrent Streams:</b>	<ul style="list-style-type: none"> <li>• 1 independent video stream in multiple bit-rates or format</li> <li>• Internal video/audio multiplexing</li> <li>• Up to 50 live streaming connections output</li> </ul>
<b>Capture Format:</b>	<ul style="list-style-type: none"> <li>• Motion JPEG Compressed Video</li> <li>• Uncompressed Video (YUV4:2:2, YUV4:2:0, or RGB)</li> </ul>
<b>Supported Live Input Source Resolution &amp; Frame Rates:</b>	<ul style="list-style-type: none"> <li>• Up to 720x480@30 fps (NTSC) or 720x576@25 fps (PAL)</li> </ul>
<b>Hardware Specifications</b>	
<b>Processor:</b>	<ul style="list-style-type: none"> <li>• Quad Core Intel® XEON E5405A or above</li> </ul>
<b>Memory:</b>	<ul style="list-style-type: none"> <li>• 2 x 1GB ECC Fully Buffered DDR2 RAM</li> </ul>
<b>Video Input Interface:</b>	<ul style="list-style-type: none"> <li>• 1 x S-Video (4-pin mini-DIN)</li> <li>• 1 x Composite Video (RCA)</li> </ul>
<b>Audio Input Interface:</b>	<ul style="list-style-type: none"> <li>• 1 x RCA Unbalanced Stereo</li> <li>• 1 x XLR Balanced Stereo</li> </ul>
<b>Storage Capacity:</b>	<p><b>Main Storage:</b></p> <ul style="list-style-type: none"> <li>• 1 x 146GB Ultra 320 SCSI hot-plug HDD</li> <li>• 2 x 146GB Ultra 320 SCSI hot-plug HDD (RAID 0)</li> <li>• Support RAID stripping with Advanced Data Streaming™ technology</li> <li>• Optical Drive (DVD+/-DL, DVD+/-RW, DVD+/-R, DVD-RAM, CD-ROM, CD-RW)</li> </ul>
	<p><b>Optional Upgrades:</b></p> <ul style="list-style-type: none"> <li>• External USB Floppy Disk Drive</li> </ul>
<b>Network Interface:</b>	<ul style="list-style-type: none"> <li>• 2 x 10/100/1000Mbps Ethernet (RJ45, Copper)</li> </ul>
<b>Power Input Voltage:</b>	<ul style="list-style-type: none"> <li>• 115 VAC (90 to 132 VAC related input) or 230 VAC (180 to 264 VAC related input)</li> </ul>
<b>Output Power:</b>	<ul style="list-style-type: none"> <li>• 510W</li> </ul>
<b>Keyboard &amp; Mouse:</b>	<ul style="list-style-type: none"> <li>• Wired keyboard and mouse</li> </ul>
<b>Chassis Enclosure and Dimension:</b>	<ul style="list-style-type: none"> <li>• 3U 19' inch rack-mountable chassis</li> <li>• 660 x 430 x 132 (D x W x H) mm</li> </ul>



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Mandatory Requirements	
<b>Preinstalled OS &amp; Software:</b>	<ul style="list-style-type: none"><li>• Microsoft® Windows Embedded Standard (32bit)</li><li>• Microsoft® Windows Media Encoder 9</li><li>• Microsoft® Windows Media Player 11</li><li>• Remote control tools for remote administration via TCP/IP</li></ul>