



4Caster™ Mobile Series

Real-Time MPEG-4 Encoders Optimized for Mobile Networks



4Caster Mobile M1 shown

- **Real-time MPEG-4 encoding**
- **Broadcast digital multichannel television and audio services over mobile networks**
- **Deliver live and on-demand programming to mobile devices to generate new revenue streams**
- **Open, standards-based platform and architecture**
- **ISMA, 3GPP, 3GPP2, DVB-H, and ISDB-T compliant**
- **Output to IP or DVB-ASI**

4Caster™ Mobile series is a product family of real-time MPEG-4 encoders that optimally distribute audio and video to mobile phone and mobile television subscribers. The encoding systems are compliant with international mobile delivery standards, including 3GPP, DVB-H, and ISDB-T. Optimal processing produces very low bit rate content, making this series ideal for mobile operators wanting to enrich their services beyond voice to offer live and on-demand video, and for broadcasters wanting to repurpose content for mobile television and mobile phone subscribers.

4Caster Mobile Series Features

- Optimized video processing for low bit rate video transmission to mobile devices
 - Opens new markets for video content by enabling digital mobile television and live streaming to cell phones
- ISMA, 3GPP, 3GPP2, DVB-H and ISDB-T compliant
 - Supports video delivery using existing mobile telephone equipment and emerging mobile video technology.
- Real-time encoding of MPEG-4 AVC (H.264) video and AAC+ audio
 - Offers content subscribers a high-quality multimedia experience on their mobile devices.
- Available in either a one rack unit or two rack unit hardware configuration or as software only
 - Provides the ease of a turnkey system or enables the flexibility of custom configuration.
- Control and monitor multiple encoding sessions via a web interface
 - Easily manage entire encoding system from one application, even from a remote location.

Technical Specifications

	4Caster Mobile SE	4Caster Mobile M1	4Caster Mobile M2
Input			
<i>Video</i>	File import (AVI, MOV, DV) DirectShow and VFW compatible capture cards	Analog Composite (PAL/NTSC) S-Video	Analog Composite (PAL/NTSC) S-Video SDI - Serial Digital Interface (625 /525) Component
<i>Audio</i>	File import (AVI, MOV, DV) DirectShow and VFW compatible capture cards	1 Channel (1 stereo or dual mono) 2 Analog Balanced/Unbalanced	4 channels (4 stereo or dual mono) 4 Analog Balanced/Unbalanced 2 digital AES/EBU/1 SDI Embedded
Output			
<i>File output</i>	3GP2, 3GPP, 3GPP multirate MPEG-4 file output	3GP2, 3GPP, MPEG-4 file output	3GP2, 3GPP, MPEG-4, MPEG-2 TS file output
<i>Output</i>	N/A	1 x Ethernet (10/100 Base T)	2 x Ethernet (10/100 and 100/1000 Base T)
<i>Streaming</i>	RTP/UDP; IP Unicast or Multicast, SDP IPv4 and IPv6 supported	RTP/UDP; IP Unicast or Multicast, SAP, SDP IPv4 supported (IPv6 as upgrade)	RTP/UDP; IP Unicast or Multicast, SAP, SDP IPv4 supported (IPv6 as upgrade)
<i>MPEG-2 transport</i>	N/A	N/A	MPEG-2 TS over UDP, DVB-ASI (OPTION)
Encoder			
<i>Video</i>	SQCIF to CIF resolution MPEG-4 SP levels 0-3 H263 H.264 baseline level 1-2 Data rate: 20 kbps to 2 Mbps	SQCIF to CIF resolution MPEG-4 SP and ASP levels 0-3 H263 Upgradeable to H.264 baseline level 1-2 Data rate: 20 kbps to 2 Mbps	SQCIF to CIF resolution MPEG-4 SP and ASP levels 0-3 H.264 baseline and main level 1-2 Data rate: 20 kbps to 2 Mbps
<i>Audio</i>	MPEG-4 Advanced Audio Coding (AAC-LC) MPEG-4 HE-AAC (with Parametric Stereo) AMR-NB, AMR-WB, QCELP Data rate: 8 to 384 kbps	MPEG-4 Advanced Audio Coding (AAC-LC) Upgradeable to HE-AAC (with Parametric Stereo) AMR-NB, AMR-WB, QCELP Data rate: 8 to 384 kbps	MPEG-4 Advanced Audio Coding (AAC-LC) MPEG-4 HE-AAC (with Parametric Stereo) MPEG-2 HE-AAC Data rate: 8 to 128 kbps
Supported Standards			
	ISMA Profile 0, 1 and 2 3GPP version 4, 5 and 6 3GPP2	ISMA Profile 0 and 1, Upgradeable to Profile 2 3GPP version 4 5 and Upgradeable to version 6 3GPP2 Upgradeable to DVB, A, B, C profiles	ISMA Profile 0, 1 and 2 3GPP version 4, 5 and 6 3GPP2 DVB IP A, B and C profiles (128-700Kbits/s)
Advanced Processing			
	Audio and video adjustments (volume, brightness, contrast) Audio resampling Frame resizing, frame subsampling, cropping Scene change detection with adaptive GOP Low delay mode Inverse Telecine / Deinterlace, Noise Filtering Error resilience (MPEG-4) Advanced output rate control with bandwidth smoothing Double-pass encode (offline mode only)	Audio and video adjustments (volume, brightness, contrast) Audio resampling Frame resizing, frame subsampling Scene change detection with adaptive GOP Low delay mode Inverse Telecine / Deinterlace, Noise Filtering Error resilience (MPEG-4) Advanced output rate control with bandwidth smoothing	Audio and video adjustments (volume, brightness, contrast) Audio resampling Frame resizing, frame subsampling Scene change detection with adaptive GOP Low delay mode Inverse Telecine / Deinterlace, Noise Filtering Error resilience (MPEG-4) Advanced output rate control with bandwidth smoothing Motion compensated temporal filtering, Look-ahead
Advanced Features			
	Batch/Preview/Command-line mode Presets and advanced configurations File recording Metadata insertion 3GPPv6 multirate output format (offline mode)	Store and Forward Presets and advanced configurations File recording	Store and Forward Presets and advanced configurations File recording
Control			
<i>Local</i>	Windows GUI Pre-programmable Setups	Front-panel LCD control Pre-programmable Setups	Front-panel LCD control Pre-programmable Setups
<i>Remote</i>	SNMP monitoring	SNMP control MIB and monitoring Web-based management, Available API for remote control	SNMP control MIB and monitoring Web-based management, Available API for remote control
Software			
<i>Supported OS</i>	Windows 2000/ Windows Server 2003/ XP Pro	N/A	N/A
<i>Recommended Hardware</i>	PC: Intel Pentium 4, 2.4Ghz, 256 MB RAM Capture card: Viewcast Osprey series	N/A N/A	N/A N/A
Physical and Power			
<i>Dimensions</i>	N/A N/A N/A	1RU 483mm (W) x 508 mm (D) x 45 mm (H), 8kg 19" (W) x 20" (D) x 1.75" (H), 18 lbs	2RU 25" 483mm (W) x 508 mm (D) x 90 mm (H), 23kg 19" (W) x 20" (D) x 3.5"(H), 50lbs
<i>Power Supply</i>	N/A	100-240 VAC auto-ranging, 150 W maximum	100-240 VAC auto-ranging, 150 W maximum
<i>Operating Conditions</i>	N/A N/A N/A	Operating temperature: 0 to 50° C (32 to 122° F) Non-operating/storage -40 to 70° C (-40 to 158° F) Relative humidity: Non-operating: 95% at 30° C (86° F) no-condensing	Operating temperature: 0 to 50° C (32 to 122° F) Non-operating/storage -40 to 70° C (-40 to 158° F) Relative humidity: Non-operating: 95% at 30° C (86° F) no-condensing