# TranSURF

## Video Transcoding Acceleration Blade

Designed especially to meet the rapidly escalating market demand for delivering high quality video from multiple sources to multiple devices, TranSURF is a DSP-based video transcoding acceleration blade, enabling optimal video-stream density on PCIe and AMC form factors.

## More Streams from a Single Blade

TranSURF provides the ability to transcode hundreds of high-resolution video streams in real-time, on a single blade, offering a huge advantage to video service and content providers.

Now you can accelerate your multimedia transcoding through the implementation of an innovative software/hardware solution for both live and on-demand content.

## Easy Integration

Clearly there is a need for a high density solution that can be simply and quickly integrated into your current system. You can choose from different levels of API's, including Command Line Interface (CLI) and C-level, to integrate TranSURF's functionality into your existing system.

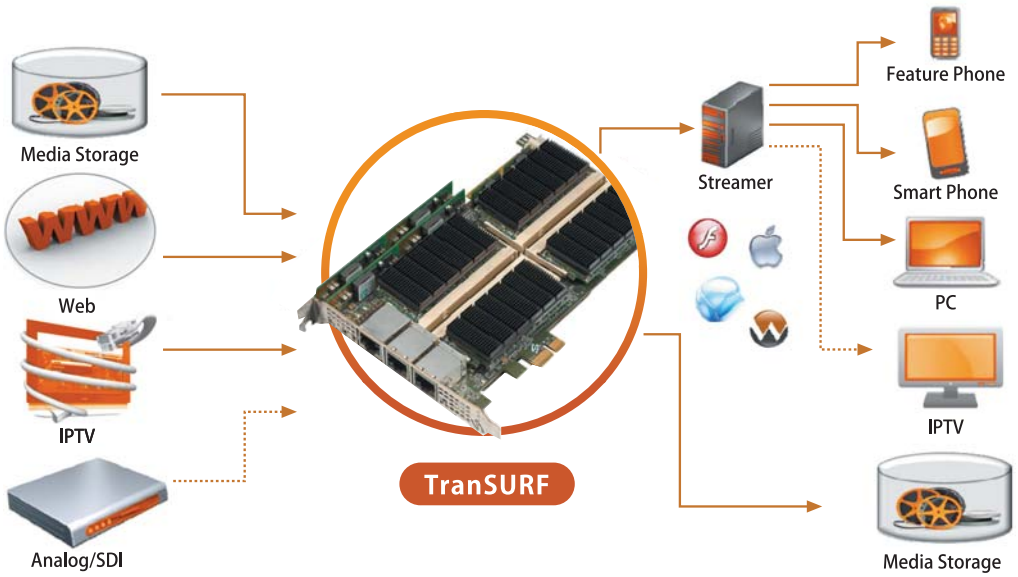
TranSURF was designed to integrate with the leading video servers including: Adobe® Flash® Media Server, HTTP-Live Server (iPhone®), Microsoft® Silverlight® and Wowza© Media Server.

## Content Enrichment

TranSURF not only boosts transcoding capabilities, but also provides enrichment tools for content monetization including text overlay, picture-in-picture and logo insertion.

## Market Proven

SURF's versatile line of media processing products powers dozens of systems, installed in hundreds of sites, and serving many millions of concurrent streams. You too, can benefit from feature-rich solutions, vast industry experience and product maturity, all in a single board. In selecting SURF, you join a club of Tier-1 vendors who place quality, economy, richness and time-to-market first.



## SPECIFICATIONS

### SOFTWARE SPECIFICATIONS

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|---|---|
| INPUTS/OUTPUTS | MP2TS (Unicast/Multipcast), RTP (Unicast/Multicast), local files, remote files (NFS), uncompressed video (YUV) |
| DELIVERY PROTOCOLS | RTP, HTTP Live (iPhone), HTTP progressive download*, Microsoft Silverlight*, RTMP*, RTSP* |
| VIDEO CODECS | H264 BP, MP (decoder only), H263 BP, MPEG4 SP, MPEG2 (Decoder only) |
| VOICE\AUDIO CODECS | AAC-LC, MP3 (decoder only), WB/NB-AMR, WMA (decoder only), MPEG1 layer II, PCM |
| CONTAINERS | ASF, F4V, 3GP, AVI, MP3, MP4, MP2TS (.TS +.M3U8) |
| PROCESSING | Synchronized transcoding/transrating to multiple output profile and formats<br>Bitrate range: 10Kbps-2Mbps (CBR & VBR)<br>Frame rate: 1-30 FPS<br>Resolution: up to SD<br>Video segmentation for HTTP Live (iPhone)<br>Logo insertion - up to 6 logos simultaneously<br>Scrolling text Overlay<br>On-the-fly bitrate adaptation<br>On-the-fly transcoding parameters modification |
| PERFORMANCE EXAMPLE | 32 SD MPEG2 → H.264 transcoders per board |
| MANAGEMENT | High level API over TCP, log & error messages, CLI, remote upgrade, distributed management |
| HOST OPERATING SYSTEM | Linux<br>Windows |

### HARDWARE SPECIFICATIONS

| | |
|---|---|
| HARDWARE | Form factor: single lane PCI Express (PCIe)<br>I/O: 2 x 100/1000 Base-T Ethernet ports |
| POWER | Maximum power required for the SurfExpress/PCIe FL board: 52W |
| REGULATORY COMPLIANCE | • **EMC:** US: FCC part 15 Class A with shielded telecom cables and STP Ethernet Cables, Canada: IECS-003 with shielded telecom cables and STP Ethernet cables, EU: EN55024:1998 A1: 2001/A2:2003; EM55022:1998 A1:2000/A2:2003, Class B with shielded telecom cables and STP Ethernet cables<br>• **Safety:** US: UL Std No 60950-1, Canada: CAN/CSA-22.2 Number 60950-1-03, EN:<br>• **Storage and Transportation**: IEC 60068-2-1/2 High & Low Temperature, IEC 60068-2-14 Temperature cycle, IEC 60068-2-30 Humidity 90-100%, +25+55C, IEC 60068-2-64 Random vibration, IEC 60068-2-27 Shock, IEC 60068-2-32 Free fall, IEC 60068-2-64 Random vibration, IEC 60068-2-27 Shock, IEC 60068-2-32 Free fall |

* When integrated with appropriate web/streaming server

## ABOUT SURF COMMUNICATION SOLUTIONS

SURF Communication Solutions (SURF) is an industry leader in high-capacity processing solutions for real-time multimedia communication systems and applications. Since 1996, SURF's products have delivered the integral technology behind many of the leading vendor's multimedia servers and gateways deployed to operators and service providers worldwide. SURF-powered multimedia applications are delivering value added services to millions of end-users every day. Today, SURF is ideally positioned to stimulate change in the way we communicate. The video-ready SURF solution supports multimedia processing including full video, voice and data IP to IP communications, as well as modem and fax over IP. It is a fully converged multimedia processing subsystem that integrates easily into media gateways and servers. Since there is no such thing as "one size fits all," the SURF offering is available as a solution platform or in various form factors or DSP chips affording unmatched density and optimal performance.