

# Ittiam

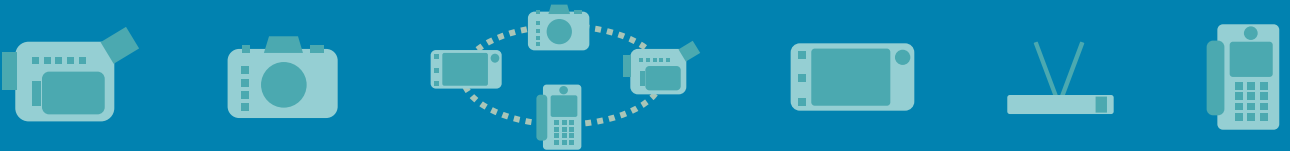
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## Codec Solutions September 2007

Ittiam Systems Private Limited  
2007



DSF' Professionals Survey by Forward Concepts





# A World Class DSP Systems Company

## Focus

Digital Signal Processing (DSP) Systems for Media Processing and Communications.

## Vision

World Class DSP Systems Company.

## Model

Licensing of DSP IP (Intellectual Property) to Semiconductor and Electronics OEM Companies.



# IP Delivery on Strategic Platforms

	RISC	DSP
IP Core	ARM	
Silicon		TI DM270 / 320 TI DM342 / 642 TI DaVinci 64xx TI DaVinci C64x+ TI DaVinci DM647/8 TI OMAP 24xx



# Detailed IP Portfolio

Media Processing	Media Streaming	SOC IP
<b>Video</b>	<b>IP Video Phone</b>	<b>Wireless LAN</b>
MPEG-2	Video Codecs: H.264, H.263 and MPEG-4 SP	802.11 a/b/g PHY
MPEG-4 Simple Profile		802.11 MAC with e+i Support
MPEG-4 Advanced Simple Profile	Speech Codecs: G.7xx	
DivX 3.11/4/5	Multi-way conferencing	
H.263	RTP / RTCP / RTSP	
H.264 / MPEG-4 AVC	Acoustic Echo Cancellor	
VC-1 / WMV9	Adjustable Jitter Buffer	
<b>Audio</b>	SIP User Agent	
MPEG-1/2 Layers 1,2,3	<b>IP Set Top Box</b>	
MPEG-4 AAC-LC / BSAC	Complete Media Subsystem	
HE-AAC v1 and v2	Scaling / Positioning	
Dolby AC-3	Alpha Blending / Chroma Keying	
Windows Media Audio	Audio Mixing	
Ogg Vorbis	<b>Streaming Solutions</b>	
<b>Speech</b>	MPEG-2 TS over IP	
ITU-T G.7xx	ISMA compliant streaming	
GSM AMR	HTTP streaming	
<b>DRM and Device Protocols</b>		
MSDRM10 for portable and networked devices		
UPnP		

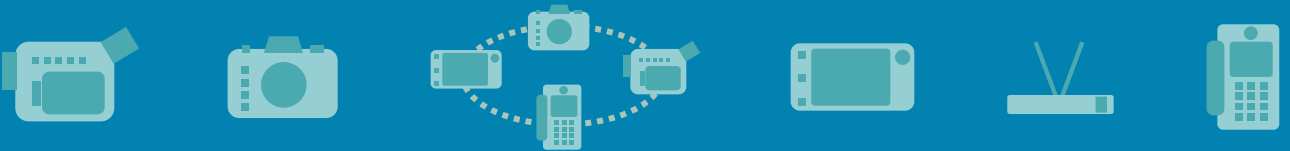
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## Video Solutions



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# Ittiam Video : Highlights

➔ Video – Platform DAVINCI – C64X Plus – DM644x

➔ Encoders

- H.264 BP
- MPEG 2 MP@ML
- VC1 / WMV9
- MPEG 4 SP, H.263 and MPEG 4 ASP
- JPEG

➔ Decoders

- H.264 BP and H.264 MP
- MPEG 2 MP@ML and MPEG 2 720p HD
- VC1 SP, MP and AP up to 720p HD
- MPEG 4 SP and ASP up to 720p HD
- JPEG



# Ittiam Video : Highlights

➔ Video – Platform DAVINCI – C64X Plus – DM647/8

➔ Encoders

- H.264 BP High Density – 2\*D1 or 8\*CIF
- MPEG 2 MP@ML
- MPEG 4 SP High Density – 4\*D1 or 16\*CIF
- H.264 MP (BP+Cabac) – September 07
- JPEG

➔ Decoders

- H.264 BP and H.264 MP
- MPEG 2 MP@ML and MPEG 2 720p HD
- MPEG 4 SP and ASP up to 720p HD
- JPEG



# Ittiam Video : Highlights

→ Video – Platform DM642 – C64X – DM642

→ Encoders

- H.264 BP
- MPEG 2 MP@ML
- MPEG 4 SP, H.263 and MPEG 4 ASP
- JPEG

→ Decoders

- H.264 BP and H.264 MP
- MPEG 2 MP@ML
- VC1 SP and MP
- MPEG 4 SP and ASP
- JPEG

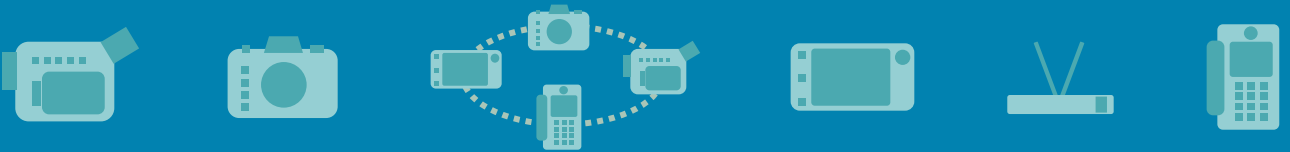
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## Audio Solutions



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# Ittiam Audio : Highlights

➔ Audio – Platform DAVINCI – C64X Plus – DM644x and DM647/8

➔ Encoders

- MPEG 1 Layer 1 & 2
- MP3
- WMA
- MPEG 4 AAC LC, AAC HE V1 and AAC HE V2
- Dolby AC 3 Stereo. (5.1 on request)

➔ Decoders

- MPEG 1 Layer 1 & 2
- MP3
- WMA, WMA Pro, WMA Lossless
- MPEG 4 AAC LC, AAC HE V1 and AAC HE V2
- Dolby AC 3 – 5.1



# Ittiam Audio : Highlights

➔ Audio – Platform DM642 – C64X – DM642

➔ Encoders

- MPEG 1 layer 2
- WMA
- MP3
- AAC LC
- AAC HE

➔ Decoders

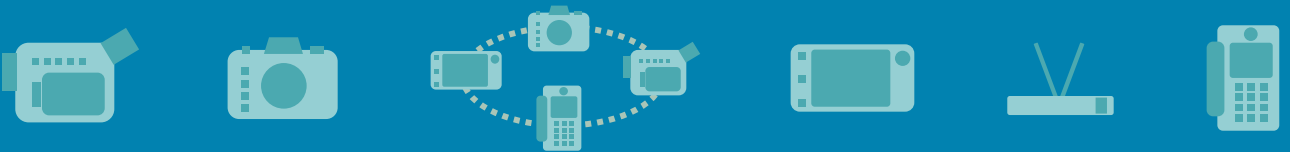
- MPEG 1 Layer 2
- WMA
- MPEG 4 AAC LC
- MPEG 4 AAC HE
- Dolby AC 3



# Demo Solutions



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# Ittiam Demo : Highlights

- ➔ Video – Platform DAVINCI – C64X Plus
- ➔ Demo Encoders
  - DM644X DaVinci : H.264 BP – 1\*D1 + Streaming running on DV EVM : Available
  - DM647/8 DaVinci : H.264 BP High Density – 8\*CIF + Streaming running on DV EVM : Available
  - DM647/8 DaVinci : H.264 BP High Density – 2\*D1 + Streaming running on DV EVM : Sept 07

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## Thank You

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