SENSIO®

SENSIO® AUTODETECT
V2.0

SIMPLE STEREOSCOPIC 3D FORMAT DETECTION

IMPLEMENTING SENSIO® AUTODETECT IN EQUIPMENT DESIGNED FOR HYBRID 2D AND STEREOSCOPIC 3D ENVIRONMENTS PROVIDES AUTOMATIC FORMAT DETECTION WITHOUT THE NEED FOR END-USER INTERVENTION

SENSIO® Autodetect is designed to automatically detect, with superior reliability, all the most commonly-used frame-compatible stereo 3D video formats (HDMI 1.4a): SENSIO® Hi-Fi 3D, (Side-by-Side, Top-and-Bottom) or a 2D signal. Integrating smoothly into manufacturers' products, and operating seamlessly with the SENSIO® 3D Decoder, SENSIO® Autodetect eliminates issues associated with configuration of input and output formats.

SUPERIOR RELIABILITY

- High-accuracy detection
- Easy detection of stereoscopic 3D vs 2D video content
  - No need to know the 3D format in advance
  - Not based on flags or metadata
  - Detection always active in 2D
- Tested and proven technology

EASY INTEGRATION

- Resolution-independent (progressive or interlaced)
- Video-format-independent: HD, SD, HDMI
- Supports all the most commonly-used 3D formats:
  - SENSIO® Hi-Fi 3D
  - Side-by-Side (SbS)
  - Top-and-Bottom (TaB)
- Easy FPGA implementation
- Fully interoperable with the SENSIO® 3D Decoder

MARKET SEGMENTS:

- Broadcast
- Professional
- Displays / projection
- Satellite
- IP-based content delivery
- Archives

APPLICATIONS 3D/2D DEVICES:

- Viewing devices:
  - Multi-viewers
  - Monitors
  - Projectors
- Video processors
- Stereoscopic 3D video encoders / decoders
- MPEG encoders / decoders
- Professional IRDs (integrated receiver-decoders)
- Stereoscopic 3D video servers
- Stereoscopic 3D-capable VTRs
- Media players

SENSIO® AUTODETECT ENABLES EFFORTLESS AND OPTIMAL DETECTION OF STEREOSCOPIC 3D & 2D CONTENT, SIMPLIFYING EQUIPMENT R&D AND BROADCAST PRODUCTION.

TECHNICAL SPECIFICATION:

- VHDL-based code
- Fully synchronous design for accurate detection
- Format- and resolution-independent
- Supported formats:
  - 2D
  - SENSIO® Hi-Fi 3D
  - Side-by-Side (SbS)
  - Top-and-Bottom (TaB)
- Detection always active
- 8-bit luminance processing only (supports multiple video sampling; i.e. 4 :2 :0 / 4 :2 :2 / 4 :4 :4)
- Processing delay: 2 fields/frames
- Requires external DPRAM
- SENSIO® SSI (standard synchronization interface)
- Optional APB (advanced peripheral bus)

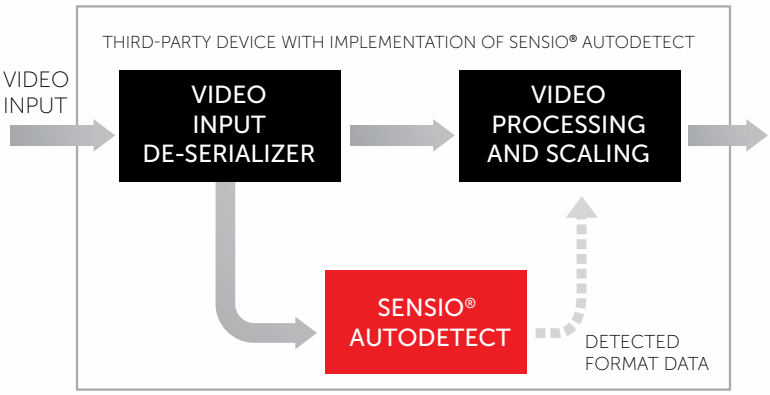
RESOURCE REQUIREMENTS:

ALTERA STRATIX 3					
	Logic Cells			DSP	Block RAM
	LUT	DFF	RAM	9x9	9kb
FPGA resources	9252	9977	60	27	22

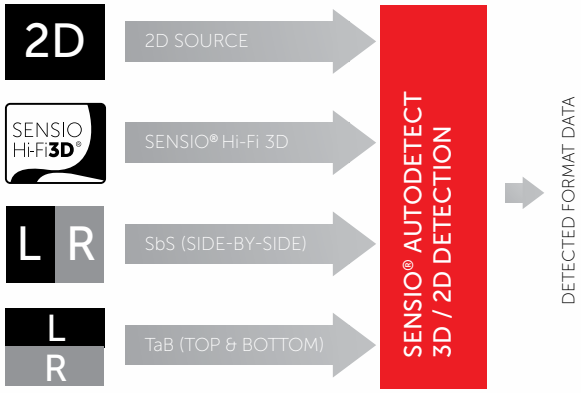
XILINX VIRTEX 5					
	Logic Cells			DSP	Block RAM
	LUT	DFF	RAM	25x18	18kb
FPGA resources	10784	9682	84	16	17

**all values are approximate* ***technology available for multiple FPGAs – contact us for more information*

TYPICAL USE:



SUPPORTED FORMATS:



Application notes available on request.

SENSIO® Autodetect is part of SENSIO's comprehensive suite of stereoscopic 3D technologies, specially designed to be fully interoperable and easily integrated into broadcasting equipment. Offering an end-to-end response to broadcast production requirements, SENSIO's proven solutions reduce integration for a faster time-to-market.

Contact the SENSIO sales team to discuss your needs: broadcastsales@sensio.tv

SENSIO Technologies Inc. | 1751 Richardson, Suite 4206, Montréal (Québec) H3K 1G6, Canada | T.+1 514 846-2022 | sensio.tv