

Moonlight MPEG-2 Encoder on Nexperia/TriMedia SDK

Moonlight features the Moonlight MPEG-2 Encoder on Nexperia/TriMedia* which is a system on a chip (DSP) solution. The Moonlight MPEG-2 Encoder on Nexperia/TriMedia is a full D1 encoder and handles encoding of MPEG-2 streams at MP@ML profile. **Features include:** real-time encoding, shot detection, and Moonlight's proprietary Motion Estimation and Rate Control algorithms.

*TM1300, PNX 1300, PNX 1302

The Moonlight MPEG-2 Encoder on Nexperia/TriMedia SDK includes:

- MPEG-2 Video Encoder

Moonlight MPEG-2 Encoder on Nexperia/TriMedia Features	
Profile and Level	Up to Main Profile @ Main Level.
Available Bit Rates	Up to 6Mbps
GOP Structure	User defined
Resolution	CIF, Half-D1, Square pixel, Full-D1
Pre-Processing (Helper Code Included)	Color Conversion, Dynamic Filtering, and Deinterlacing
Shot Detection (Scene Change)	Yes (API Toggable)
Motion Estimation Engine	Coherent Motion Vectors based on Moonlight's patent-pending algorithm
Rate Control	Advanced compression method that solves the rate control limitations. Based on Moonlight's patented algorithm
Special Modes	Surveillance: I-frame only, low frame rate (enable low latency)
Chroma Format	4:2:0

Hardware Requirements					
Resolution			MHz (Minimum Requirement)	Minimum Memory [size, Interface rate @ MHz]	Comments
	NTSC	PAL			
CIF	352x240	352x288	143 MHz	8MB clocked at 100Mhz	
HD1	352x480	352x576	166 MHz	16MB clocked at 143Mhz	
SVCD	480x480	480x576	166 MHz	16MB clocked at 143Mhz	
Square Pixel	640x480	640x576*	166 MHz	16MB clocked at 166Mhz	
	768x480*	768x576	200Mhz	32MB clocked at 180Mhz	
4CIF	704x480	704x576	180 MHz	16MB clocked at 180Mhz	32MB recommended
Full-D1	720x480	720x576	180 MHz	16MB clocked at 180Mhz	32MB recommended
Notes: <ul style="list-style-type: none"> • * - non standard resolution • The performances are related to no-TSSA version • (TSSA library will be available at August, 2003) • Flash size requirement: 1.5Mb 					