H.264 Main Profile Decoder: ANSI C

Component name	H.264 Main Profile Decoder: ANSI C		
Category (IP/ Reusable)	IP	**Component type (HW/SW/product etc)**	SW, Video Codec
HW Platform	ANSI C-reference code	**SW Platform /OS**	ANSI C, Windows/Linux
Applications / applicable products	Multimedia applications/ products		
Market/ industries applicable	Consumer Electronics		
Product Description	H.264 video codec is the best industry standardized video codec available today. It is developed by Joint video Team (JVT) with experts from Video Coding Experts Group (VCEG) from ITU-T and Moving Picture Experts Group (MPEG) from ISO/IEC. H.264 is known in many names (including MPEG- 4 Part 10 AVC (ISO/IEC) and ISO/IEC 14496 (ITU-T) H.26L, H.264, ISO/IEC 14496-10, JVT, MPEG-4 AVC, MPEG-4 Part 10.) H.264 is incorporated as mandatory standard to The HD-DVD specification of the DVD-Forum, The BD-ROM Video specification of the Blu-ray Disc Association and The DVB standards for European broadcast television. This IP implements the Main H.264 video decoder.		
Technical specifications	H.264 High Profile decoder, Optimized portable ANSI C reference Code		
Features /benefits	• Profiles: Main Profile • Frame Types: I and P and B Frames • Intra Prediction: In Spatial domain, 9 Intra-4x4 and 4 Intra-16x16 modes • Inter Prediction: Multi-frame Motion compensation. Luma- 16x16, 16x8, 8x16, 8x8, Chroma – 8x8, 8x4, 4x8, 4x4 blocks, Quarter-pel accuracy, 6-tap FIR filter for Half-pel and then bilinear for Quarter-pel. Only Bilinear Interpolation for Chroma., Weighted Prediction • Transform: 4x4 and 2x2 Integer Transform similar to DCT • De-blocking: in-loop filter. • Entropy coding: CAVLC, CABAC		
Other relevant details	Other tasks in roadmap 1. H.264 Baseline Profile decoder ported and optimized for ARM Cortex A8 platform 2. H.264 Baseline profile decoder Running on NVIDIA GPU 3. H.264 Main/High Profile decoder on NVIDIA GPU		
Readiness	Roadmap - readiness by Q2 2010		