MotionEngine™ SmartTV

Designed to utilize natural motion, MotionEngine SmartTV libraries give users the freedom to control and interact with devices and screens in an intuitive way. Moving controllers in 3D space to control a 2D screen is intuitive and relaxing thanks to our patented orientation compensation. Pointing and clicking speeds up interactions with grid based menus and inputs. Swipes, shakes, circles, and other gestures enable custom functionality and simplify complex interactions. These capabilities, all provided with low latency, are easily extended to other applications like set-top boxes, AR/VR, PC, gaming, in-flight entertainment, and more.

FEATURE HIGHLIGHTS

- High Performance Cursor – Precise control down to pixel level accuracy
- Orientation Compensation – Essential and patented feature that ensures 'up' is always 'up', allowing for a relaxing and intuitive system control
- Intelligent Power Management – Manages sensor states to conserve power without sacrificing quality of motion data
- Intelligent Motion Stabilization – Stabilizes motion caused by hand tremor and in-air button clicks
- Virtual Controls – Sub-degree accuracy on tilts, twists, and rolls for a unique approach to UI control
- Low Latency – system optimized with low latency for a responsive feel
- Relative Pointing – allows for small, easy motions to control the whole screen with no line of sight requirement for the remote control
- Dynamic Calibration - Our algorithms constantly monitor changes in sensor performance and temperature during live operation to deliver the highest performance

SIMPLIFIED BLOCK DIAGRAM

Remote Control

Accelerometer
Gyroscope
RF/MCU

HOST

Host receives raw data.

MotionEngine™
SmartTV calibrates, fuses, and processes the data on the host

ABOUT CEVA

CEVA is the leading licensor of wireless connectivity and smart sensing technologies. We offer Digital Signal Processors, AI processors, wireless platforms and complementary software for sensor fusion, image enhancement, computer vision, voice input and artificial intelligence, all of which are key enabling technologies for a smarter, connected world. We partner with semiconductor companies and OEMs worldwide to create power-efficient, intelligent and connected devices for a range of end markets, including mobile, consumer, automotive, robotics, industrial and IoT. Our ultra-low-power IPs include comprehensive DSP-based platforms for 5G baseband processing in mobile and infrastructure, advanced imaging and computer vision for any camera-enabled device and audio/voice/speech and ultra-low power always-on/sensing applications for multiple IoT markets. For sensor fusion, our Hillcrest Labs sensor processing technologies provide a broad range of sensor fusion software and IMU solutions for AR/VR, robotics, remote controls, and IoT. For artificial intelligence, we offer a family of AI processors capable of handling the complete gamut of neural network workloads, on-device. For wireless IoT, we offer the industry's most widely adopted IPs for Bluetooth (low energy and dual mode), Wi-Fi 4/5/6 (802.11n/ac/ax) and NB-IoT.