H.264 Full HD Multi Channel Codec
SC2M15

**Overview**

“SC2M15” provides H.264/AVC, audio and system decoding, transcoding and encoding on a single chip. The SC2M15 is slave type device controlled by host CPU via serial command interface (UART).

**Features**

- Easy to use command interface allows external host CPU to control various functions of SC2M15
- High-quality video encoding even at low latency and low bit-rate
- High-end decoding for full-HD/60p video data

**Applications**

- Broadcasting
- Video capture
- Security
- Video conference
- Medical
## Specifications

### Video
- **Encoding**: H.264 4:2:0 8bit (up to 1080p60, 1080i60)  
  Multiple channel operation: one input to three output
- **Decoding**: H.264 4:2:0 8bit (up to 1080p60, 1080i60)  
  MPEG2 4:2:0 8bit (up to 1080p60)
- **Transcoding**: MPEG2 to H.264, H.264 to H.264  
  Multiple channel operation: maximum 1080i60 x 3 channels

### Audio
- **Encoding**: MPEG-2 AAC, HE-AAC and MPEG-1 Audio Layer 2
- **Transcoding**: MPEG-2 AAC, HE-AAC and MPEG-1 Audio Layer 2
- **Pass through (Plan)**: MPEG-2 AAC, HE-AAC and MPEG-1 Audio Layer 2, AC3

### Image Pre-Processing
- Scaling  
- OSD overlay (Plan)  
- De-Interlacer

### Interface
- **Control**: UART(TXD/RXD) x 1ch
- **Stream**: TS-Serial Input x 2ch, Output x 2ch, Ethernet MAC(RGMII) x 1ch  
  USB Storage(2.0 x 1ch, 3.0 x 1ch)
- **Peripheral**: I2S Input x 1ch, I2S Output x 1ch, Video Parallel Input(YCbCr422) x 1ch, Video Parallel Output(YCbCr422) x 1ch, HDMI-Tx x 1ch  
  Support CEA-861(EAV/SAV isn’t supported)

### System
- **CPU**: ARM Cortex-A9 1GHz Dual core (2500 DMIPS)
- **Memory**: (16bit x 2) DDR3 1600Mbps x 2
- **Boot Device**: NAND

### Technology
- **Process**: 40nm
- **Package**: FC-BGA(35mm2, 1.0mm-pin pitch)