

GM8180 Platform Evaluation Kit

VIDEO SOLUTION

Overview

The GM8180 Platform Evaluation Kit provides the software packages, hardware station, and reference design for accelerating IP Cam/IPTV/DVR-related streaming applications. This development kit includes a Linux SDK, a streaming media SDK (optional), the GM8180 GHDK station, and a reference schematic.

Key Components

- GM Hardware Development Kit (GHDK) - V0/V1
- Linux SDKs
- GM Streaming Media (GSM) application software (optional)
- Development kit documentation

Hardware Development Kit (GHDK)

- GM8180 GHDK - V0:
GM8180 EDHSBGA-484 4-layer EVB + IPTV7137 NTSC/PAL board
+ 1.3-megapixel CMOS sensor
- GM8180 GHDK - V1:
GM8180 EDHSBGA-484 4-layer EVB + AV codec board
+ VGA CMOS sensor

Linux SDK

- Linux kernel
- Peripheral drivers (optional)
- Protocol stack
- Video applications
- Video decoder - ffmpeg
- Video encoder - ffmpeg
- HTML/CGI interfaces (optional)

GM Streaming Media (GSM) Application Software (Optional)

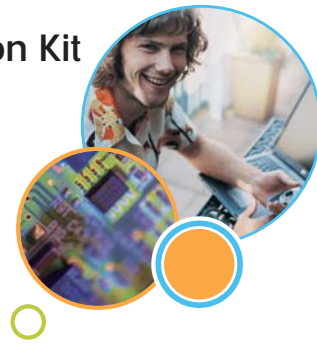
The GSM application software provides an easy development software package for accelerating image/video/audio- related streaming applications, such as video servers, IP cameras, and IPTV stations:

- GSM Server -
Video and Audio Encoder, Streaming Server, Control Server and Web Server
- GSM Client Player -
Video and Audio Decoder, GMPlayer, GMSurviewer and Player GUI

GM8180 Platform Evaluation Kit Documentation

- GHDK quick start guide
- GHDK reference schematic
- Application programming guide
- Linux programming guide
- FAQ for software and hardware





GM8180 GHDK - V0 Development Kit

GHDK-V0

GHDK-V0 is comprised of three parts:

- **EVB (Evaluation Board)**
The EVB provides the basic functions for the IP Cam/IPTV/DVR station system. It includes the GM8180 PBGA-484 IC, DDR-SDRAM, NOR flash, USB OTG, serial EEPROM, 802.3 ethernet PHY, video encoder, and audio codec.
- **IPTV 7137 Board**
This daughterboard can expand the functionality of the motherboard by adding an analog NTSC/PAL TV tuner, an NTSC/PAL multi-standard audio/video decoder, an SD card connector, and an IR emitter interface.
- **Megapixel CMOS Sensor Board**
The megapixel CMOS sensor board includes the MT9M131 1.3-megapixel CMOS sensor. Its frame rate can reach up to 15 fps (frames per second) at a resolution of 1280 x 1024.

GHDK-V1

GHDK-V1 is comprised of three parts:

- **EVB (Evaluation Board)**
The EVB provides the basic functions for the IP Cam/IPTV/DVR station system, which includes the GM8180 PBGA-484 IC, DDR-SDRAM, NOR flash, USB OTG, serial EEPROM, 802.3 ethernet PHY, video encoder, and audio codec.
- **AV Codec Board**
This daughterboard can expand the functionality of the motherboard. It includes a TW9910 video decoder and a WM8731 audio codec.
- **CMOS Sensor Board with High Frame Rates**
The CMOS sensor board with high frame rates includes the OV7720 VGA CMOS sensor. It can reach high frame rate performance up to 60 fps at a resolution of 640 x 480.



GM8180 GHDK - V1 Development Kit

GHDK Accessories

- 5 V 4 A power adapter
- RS232 cable
- 640 x 480 24-bit LCD module (optional)



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