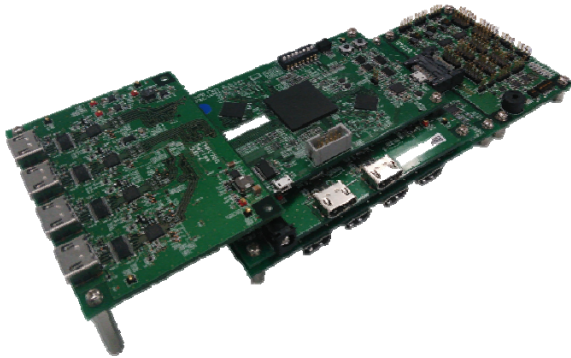


TMPV7608 EVA Board

For image processing products development.
Reduce turn around time and cost!



Main Features

- Best board configuration of TMPV760 series evaluation.
- Best solution for evaluation of Image processing solution that for CoHOG and Enhanced CoHOG.
- Shortens the overall development time by developing hardware and software concurrently
- Free version of SDK (binary only) included
- Optional Toshiba SDK available (including various driver C source codes)
- **Attaches Schematics and parts list**

Applied Products

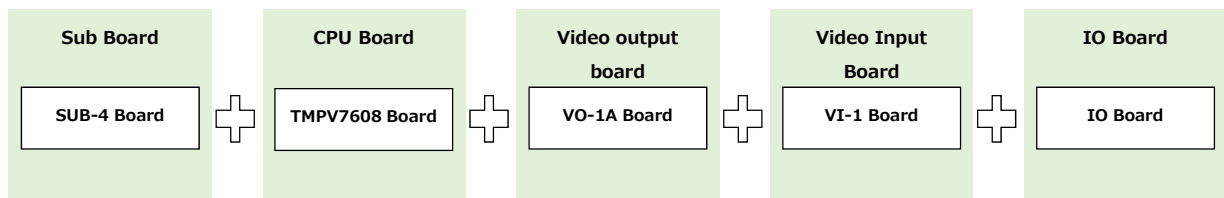
- In-vehicle camera
- Monitoring camera
- Take in multiple channel for image processing and so on

We can meet customers' needs such as

- to expedite the development delivery time and **release earlier** than competitors
- to **reduce** development expense and product cost
- to **save time** for learning know-how and knowledge about new development theme
- to **get quickly** the accurate and helpful information required for driver development

Specifications

This evaluation board supports Toshiba image recognition processor "TMPV 760 series". It consists of CPU board, video output board, video input board, IO board, and sub board, and it provides the optimized interface by combination. TMPV7608 device is mounted on the CPU board.



Board Name	Function
SUB-4 Board	HDMI input board. 4ch Input. Converts HDMI to MIPI CSI-2.
CPU Board	Main board that mounted a CPU, memory and debug interface.
VO-1A Board	Power supply and HDMI output board. 1ch Output.
VI-1 Board	HDMI Input Board. 2ch Input.
IO Board	Input and Output Board. CAN, GPIO, UART, I2C, etc and Buzzer.

CPU Board Specifications

CPU Board are mounted CPU and memory.
 TMPV7608 CPU Board is mounted 2Gbyte.
 Power is supplied from Video Output Board(VO-1A) for operate those boards.
 JTAG Connector and USB Connector(convert from UART) are mounted for debug.

Item	Specifications	Qty
CPU	TMPV7608XBG	1
LPDDR2 memory	MT42L128M32D1GU-25WT:A (4Gbit)	4
SPI flash memory	N25Q512A13GF840E	1
USB interface 1	FT232RL	1
USB interface 2	FT232HL	1
Size	W:130.0mm × D:80.0mm	
Operating Temperature/Humidity	0 ~ 35°C / 10 ~ 90%r.H.(Non-Condensing)	
Preservation Temperature/Humidity	0 ~ 80°C / 10 ~ 90%r.H.(Non-Condensing)	

VO-1A Board Specifications

VO-1A Board is one of Video Output Board. It converts to HDMI output from VOIF output of CPU.
 HDMI Output is 1ch.
 And this EVA Board mounted power circuit.

Item	Specifications	Qty
Power IC	TPS5401DGQ : for MIPI (+3.3V)	1
	MAX1993ETG+ : CPU CORE (+1.1V)	1
	TPS7A8001DRB : for I/O (+3.3V)	1
	TPS7A8001DRB : for MIPI (+1.2V)	1
	TPS62140RGTT : LPDDR2 for memory (+1.2V)	2
	TPS7A8001DRB : LPDDR2 for memory (+1.8V)	2
	TPS54620RHL : (+5V)	1
	TPS54620RHL : for peripheral (+5.0V)	1
	TPS54620RHL : for peripheral (+3.3V)	1
	TPS7A8001DRB : (+1.8V)	1
	TPS51206DSQ : LPDDR2 for memory (+0.6V)	2
Power monitor IC	MAX6709OUB+	2
Parallel to HDMI	ADV7513BSWZ	1
Main power supply	+12.0V±5%, Center plus, PL03B	
Size	W:130.0mm × D:100.0mm	
Operating Temperature/Humidity	0 ~ 35°C / 10 ~ 90%r.H.(Non-Condensing)	
Preservation Temperature/Humidity	0 ~ 80°C / 10 ~ 90%r.H.(Non-Condensing)	

VI-1 Board Specifications

VI-1 Board converts HDMI Input video data to VIIF format that can input to VIIF to CPU.
HDMI Input are 2ch.

Item	Specifications	Qty
Power IC	TPS7A8001DRB : (+2.5V)	1
	TPS7A8001DRB : (+1.2V)	1
HDMI to MIPI	TC358743XBG	2
MIPI to Parallel	TC358746AXBG	2
CLOCK Buffer	CDCLVC1104PWR	2
I2C expander	PCA9547PW	1
Size	W:150.0mm × D:100.0mm	
Operating Temperature/Humidity	0 ~ 35°C / 10 ~ 90%r.H.(Non-Condensing)	
Preservation Temperature/Humidity	0 ~ 80°C / 10 ~ 90%r.H.(Non-Condensing)	

IO Board Specifications

IO Board provide various interfaces of the CPU.
It's mounted GPIO,UART,CAN,I2C,LED,DIPSW,etc, as general purpose interface.



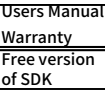



Item	Specifications	Qty
CAN transceiver	MCP2562FD	3
Buzzer	PS1240P02BT	1
GPIO LED	SML-D12M8WT(Green)	8
ALARM LED 0	SML-D12M8WT(Green)	1
ALARM LED 1	SML-D12U8WT(Red)	1
Size	W:100.0mm × D:60.0mm	
Operating Temperature/Humidity	0 ~ 35°C / 10 ~ 90%r.H.(Non-Condensing)	
Preservation Temperature/Humidity	0 ~ 80°C / 10 ~ 90%r.H.(Non-Condensing)	

SUB-4 Board Specifications

SUB-4 Board converts Input video data to HDMI format that can input to MIPI-CS12 of CPU.
HDMI Input are 4ch.

Item	Specifications	Qty
Power IC	TPS54620RHL : (+5.0V)	1
	TPS62140RGTT : (+3.3V)	1
	TPS7A8001DRB : (+2.5V)	1
	TPS7A8001DRB : (+1.2V)	1
HDMI to MIPI	TC358743XBG	4
Size	W:110.0mm × D:80.0mm	
Operating Temperature/Humidity	0 ~ 35°C / 10 ~ 90%r.H.(Non-Condensing)	
Preservation Temperature/Humidity	0 ~ 80°C / 10 ~ 90%r.H.(Non-Condensing)	

Selection Guide

Description	●Set of CPU board & sub board	●JTAG emulator	●Debugger	●Cable
Product code	BDS050 : TMPV7608 EVA Board	UP0006 : Universal Probe Blue	UP0011 : WP DBG for UniPro MeP	SCP6000 : SCP MeP
Price	Please contact us	Please contact us	Please contact us	Please contact us
Configuration	  			
Free version of SDK	1 license is available for use for 3 months after registration. Binary only(Not include C source code. Operation guarantee is only for the evaluation board produced by SST.			
Notes		Debugger and cable are required to use.	It is necessary to purchase yearly Sophia Support Services.	

Software Development Kit made by Toshiba (Option)

Description	Product name	Price	Number of License	Notes
①Limited edition	V4SDK-5-S-6M	Please contact us	5 licenses	Available for use for 6 months after registration. Includes source code. Operation guarantee is only for the evaluation board produced by SST.
②Extension of Limited edition	V4SDK-5-S-3ME	Please contact us	5 licenses	Limited edition can be extended for 3 months. Operation guarantee is only for the evaluation board produced by SST.
③Official edition	V4SDK-5-3Y-AB	Please contact us	5 licenses	Available for use for 3 years after registration Includes source code. Operation guarantee is for the evaluation board produced by SST.
④Add'l license(Stand-alone)	V4SDK-1-3YE	Please contact us	1 license	Additional Official license for Stand alone machine. Includes source code. Operation guarantee is for the evaluation board produced by SST.
⑤Add'l license(Server)	V4SDK-5-S-3YE	Please contact us	5 licenses	Additional Official license for Server. Includes source code. Operation guarantee is for the evaluation board produced by SST.
⑥Upgrade to official edition	V4SDK-5-S-3YUG-AB	Please contact us	5 licenses	Upgrade to Official edition. Includes source code. Operation guarantee is for the evaluation board produced by SST.

※This product does not use in-vehicle compatible parts. For circuit design of in-vehicle products, please use in-vehicle compatible parts.

※All brands and product names are trademark or register trademarks of their respective companies.

※All configurations are subject to change without notice.

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