TMPV7502 Evaluation Board
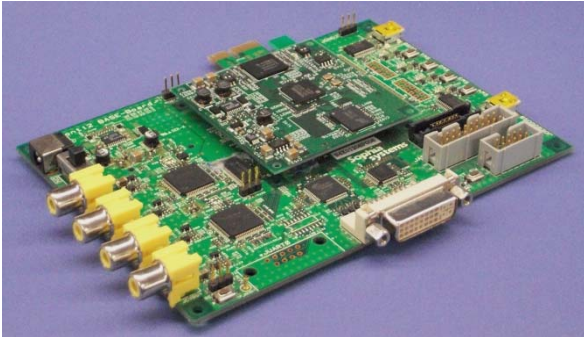
Supports image recognition processor produced by Toshiba
Reduces overall system development time of H/W & S/W

Main Features

· Compact and lightweight and best for demonstration
· Easy to make prototype
· 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)
· **Attaches Schematics and parts list**

Applied Products

●In-vehicle camera   ●Monitoring camera
●OTHERS

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
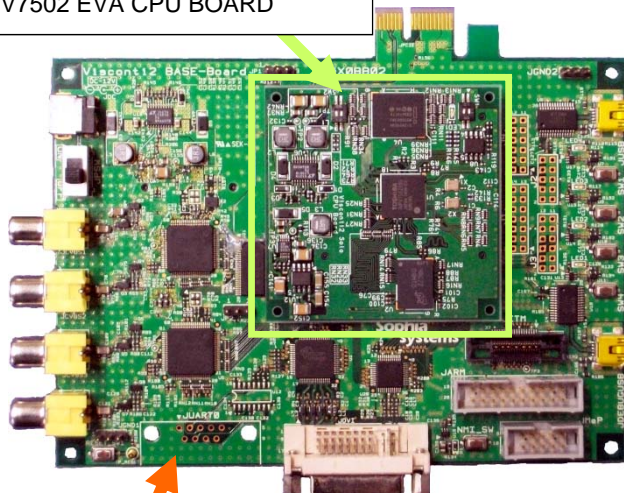 required for driver development

Specifications

CPU BOARD PARAMETER	SPECIFICATIONS
CPU	TMPV7502
Memory	DDR2 SDRAM : 256MByte (2Gbit×1) NOR Flash : PC28F512M29EWHD (64MByte)
Power Supply	External : 12V Internal : 3.3V,1.8V,1.1V
Size	60 [mm] × 60 [mm]
Operating Temperature range	0 [℃] ～ 35 [℃]
Interface Connector	BSH-060-01-L-D-A×2 120pin×2 (It connects with a EVA BASE BOARD)

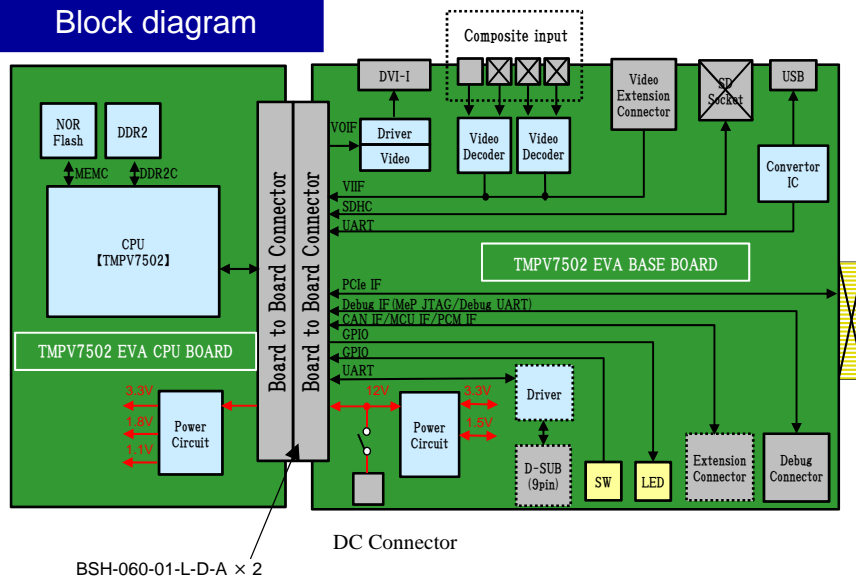| BASE BOARD PARAMETER	SPECIFICATIONS
PanelLink Transmitter	SII164CTG64 (VGA to UXGA)
Video DAC	ADV7123KSTZ140
Video decoder	TC90105FG × 2
Power Supply	External : 12V/2A Internal : 3.3V,1.5V
Size (PCIe端子含む)	105 [mm] × 148 [mm] (117.75 [mm] × 148 [mm])
Operating Temperature range	0 [℃]～35 [℃]
Interface Connector	BTH-060-01-L-D-A × 2 120pin×2 (It connects with a EVA CPU BOARD) BSH-060-01-L-D-A × 2 120pin×2 (It connects with a VIDEO extension Connector)
Video output	1ch : DVI-I 29pin digital(DVI)＋Analog(VGA)
Composite input	1ch
Audio input	1ch : Only pattern
Audio output	1ch : Only pattern
GPIO	LED×4bit : Lights Green LED s SW×4bit : Button type
UART RS-232C Transceiver	1ch : D-SUB 9pin
Debug I/F (JTAG I/F)	MeP : 10pin
Debug I/F (UART I/F)	USB to serial UART I/F
HDMI Expander board	HDMI Input 2ch(*) *When use with TMPV7502 this valid CN1 only.

TMPV7502 EVA CPU BOARD

TMPV7502 EVA BASE BOARD

* MeP: Media embedded Processor

Composite input

DVI-I

VOIF

Driver
Video

VIIF
SDHC
UART

Video Decoder

Video Decoder

Video Extension Connector

SD Socket

USB

Convertor IC

NOR Flash

DDR2

MEMC   DDR2C

CPU
【TMPV7502】

TMPV7502 EVA CPU BOARD

Board to Board Connector

Board to Board Connector

TMPV7502 EVA BASE BOARD

PCIe IF
Debug IF(MeP JTAG/Debug UART)
CAN IF/MCU IF/PCM IF
GPIO
GPIO
UART

3.3V
1.8V
1.1V

Power Circuit

12V

3.3V
1.5V

Power Circuit

Driver

D-SUB (9pin)

SW   LED

Extension Connector

Debug Connector

HDMI expander board

DC Connector

BSH-060-01-L-D-A × 2

※The control signal of CPU is connected.
DDR2C : DDR2 SDRAM Controller
MEMC   : SRAM/NOR Memory Controller
VIIF   : Video Input Interface
VOIF   : Video Output Interface
GPIO   : General Purpose I/O ports
CANIF   : CAN Interface
MCUIF   : Micro Controller Unit Interface
PCMIF   : PCM Interface
Debug IF : Debug Interface
          (JTAG I/F(MeP), Debug UART)
HDMI IF : (For Video Extension Connector)
 Function : HDMI → MIPI-CSI2 →
  24bit Parallel → Input to TMPV75xx VIIF (*1)
  Input I/F : HDMI connector 2ch (*2)
  Board size : (approx)80mm X 105mm

(*1) Input spec of HDMI-MIPI convert bridge is
     1920x1080, 60fs, 24bpp. But, resolution is
     depends on the settings of SDK.

(*2) When use with TMPV7502 this valid CN1 only.

Description	●Set of CPU board & base board	●JTAG emulator	●Debugger	●Cable
Product code	■Board BDS048NH　TMPV7502 EVA BOARD ■Adaptor & Cable (EU/US) VK0066 TMPV7500 Series AC-CABLE-E VK0067 TMPV7500 Series AC-CABLE-U	SCD001: EJSCT	■MeP SCM0600E: WP DBG for EJS MeP	■MeP SCP6000: SCP MeP
Price	Please contact us	Please contact us	Please contact us	Please contact us
Configuration	AC adaptor, cable　CD-ROM 2pcs　Users Manual Warranty / Free version of SDK	Emulator main unit	CD-ROM	Debugger cable
Free version of SDK	1 license is available for use for 3 months after registration . Binary only Operation guarantee is only for the evaluation board produced by SST. （U60428) SDK-1-B-3M-SO			
Notes		Debugger and cable are required to use.	It is necessary to purchase yearly Sophia Support Service	

Software Development Kit made by Toshiba (Option)

Description	Product code	Product name	Price	Number of License	Notes
① Limited edition	U60429	SDK-5-S-6M-SO	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.
② Extension of Limited edition	U60430	SDK-5-S-3ME-SO	Please contact us		①Limited edition can be extended for 3 months Operation guarantee is only for the evaluation board produced by SST
③ Official edition	U60423	SDK-5-S-3Y	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 and Toshiba Solutions Corporation
④ Add'l license (Stand-alone)	U60424	SDK-1-S-3YE	Please contact us	1 license	Additional Official license Includes source code Operation guarantee is for the evaluation board produced by SST and Toshiba Solutions Corporation
⑤ Add'l license (Server)	U60425	SDK-5-S-3YE	Please contact us	5 licenses	Additional Official license Includes source code Operation guarantee is for the evaluation board produced by SST and Toshiba Solutions Corporation
⑥ Upgrade to official edition	U60426	SDK-5-S-3YUG	Please contact us		Upgrade to Official edition Includes source code Operation guarantee is for the evaluation board produced by SST and Toshiba Solutions Corporation

※Please refer to the batch file attached to evaluation board when using with the SST evaluation board.

(Ver.151125)