

Introduction

The CL12842M8R2JM4TIP2500 is an ideal means to link Camera Modules or CMOS Image Sensor (CIS) to ISP (Imaging Signal Processor) and DSP. The CL12842M8R2JM4TIP2500 is designed to support data rate in excess of maximum 2.5Gbps utilizing SLVS-EC / sub-LVDS / MIPI D-PHY v-1.2/ CMOS 1.8V interface specification. The CL12842M8R2JM4TIP2500 can change Interface type to same PAD for changing mode.

Feature

- SLVS-EC ver.1.2 / MIPI D-PHY ver.1-2 compliant
- Supporting for four kind Differential Input Signals
 - 1) SLVS-EC (Maximum 2.4Gbps)
 - 2) sub-LVDS (Maximum 800Mbps)
 - 3) MIPI D-PHY (Maximum 2.5Gbps)
 - 4) CMOS 1.8V (Maximum 166MHz)
- Xtal Input Clock Frequency Selectable 24MHz / 37.125MHz / 54MHz / 72MHz
- Maximum Input Clock Frequency ~1.25GHz, Maximum Input Data Transfer Rate ~2.5Gbps
- Maximum Output Clock Frequency ~312.5MHz
- Power Supply : Vcc=1.8V (IO and Analog) Vdd=0.9 V (Inside Core)
- Maximum Lane Number : 8-Lane
- 10-bit/Lane Parallel Outputs (SLVS-EC)
 - 8-bit/Lane Parallel Outputs (sub-LVDS Serial / MIPI D-PHY)
 - 1-bit/Lane Parallel Outputs (sub-LVDS Parallel)
- Including Power Down Mode
- Including "Hi-Z" Detect Circuit for SLVS-EC
- Consumption Current (Condition Process: FF, Temperature: 125-degree, Supply Voltage: Maximum)
 - Maximum Operation Current (SLVS-EC): 141.0mA (Vdd=0.99V) / 82.1mA (Vcc=1.89V)
 - Maximum Power Down Current : 3.0uA (Vdd=0.99V) / 4420uA (Vcc=1.89V)
- TSMC 28nm HPC Process 1P10M5X2R (Using of Standard Vth Transistor)
- Poly Direction: South-North
- Various process porting support available (Please contact us.)
- Supporting Link-layer: CD12842M8LRM3BM4AIP312P5(SLVS-EC/LVDS, CSI2 Combo) soft macro

If you have any questions or requirements,
such as a detailed information of Curious IP products,
please feel free to contact us at the email address :
curious.info@curious-jp.com

Confirmed Sensor List**SLVS-EC**

Vendor	Product	Note
Sony	IMX277	
	IMX272	
	IMX271	

MIPI-CSI2

Vendor	Product	Note
Sony	IMX377	
	IMX283	
	IMX274	4K/60fps
	IMX179	
	IMX132	
Panasonic	MN34223	WDR
	MN34220	WDR
	MN34210	WDR
	MN34110	
Omni Vision	OV10810	
	OV4689	
	OV2718	HDR

LVDS (subLVDS)

Vendor	Product	Options
Sony	IMX290	DOL
	IMX269	
	IMX226	
	IMX136	
	IMX117	
	IMX036	
	IMX035	
Panasonic	MN34223	WDR
	MN34220	WDR
	MN34210	WDR
	MN34110	WDR
	MN34041	
	MN34031	
On Semiconductor (Aptina)	AR0238	HDR
	AR0237	HDR
Omni Vision	OV10810	
	OV2718	