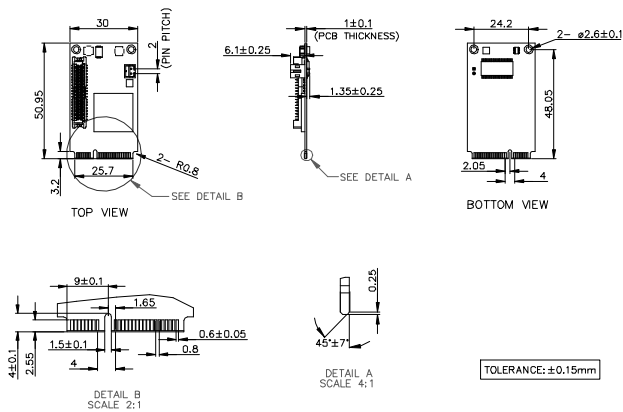


### Features

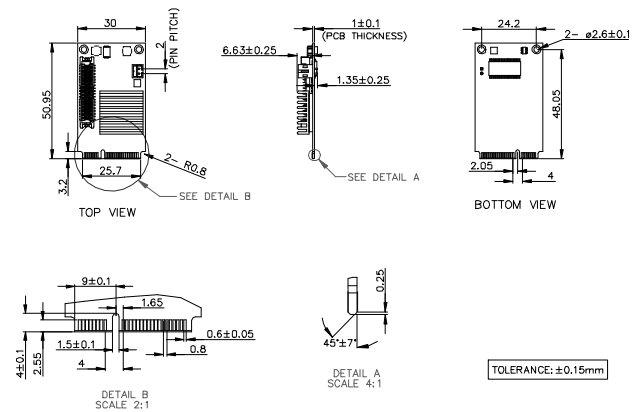
- VGA Output up to 1920x1080, up to 75Hz vertical rate
- LVDS resolution supports up to 1600 x 1200
- EMPV-1202-C1/W1 Support 18 bit panel and 24 bit JEIDA LVDS
- EMPV-1202-C2/W2 Support 24 bit VESA LVDS
- Allow for 90°, 180°, and 270° rotation of on-screen images.
- Optional Industrial Temperature (-40°C to +85°C) support.
- 30μ" golden finger, 3 years warranty.
- Industrial design. Manufactured in innodisk Taiwan.

### Mechanical Drawing

#### Standard Temp



#### Wide Temp



### Specifications

**Headquarters (Taiwan)**  
 5F., No. 237, Sec. 1, Datong Rd.,  
 Xizhi Dist., New Taipei City 221,  
 Taiwan  
 Tel: +886-2-77033000  
 Email: sales@innodisk.com

**Branch Offices:**  
**USA**  
[usasales@innodisk.com](mailto:usasales@innodisk.com)  
 +1-510-770-9421

**Europe**  
[esusales@innodisk.com](mailto:esusales@innodisk.com)  
 +31-040-282-1818

**Japan**  
[jpsales@innodisk.com](mailto:jpsales@innodisk.com)  
 +81-3-6667-0161

**China**  
[sales\\_cn@innodisk.com](mailto:sales_cn@innodisk.com)  
 +86-755-21673689

[www.innodisk.com](http://www.innodisk.com)

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 are subject to change without  
 prior notice.

December 8, 2016

Form-Factor	mini PCIe
Input I/F	PCI Express 1.0
Output I/F	VGA, 18/24 bit LVDS (C1 for JEIDA, C2 for VESA)
Output Connector	40pin 1.25mm (40DP-1.25)
TDP	1.98W(3.3V x 600mA)
Dimension (WxLxH)	50.95 x 30 x 8.2 mm, Weight: 8.5g
Temperature	Operation: STD: 0°C ~ +70°C WT: -40°C ~ +85°C Storage: -55°C ~ +95°C
Environment	Vibration: 5G @7~2000Hz, Shock: 50G @ 0.5ms
Notes	Need to connect external 5V power for LVDS panel. OS Support : Windows XP (32 bit), Windows 7 (32/64 bit), Windows 8 (64 bit), Linux Ubuntu 12.10(64 bit), Linux Fedora 18, Linux RedHat Enterprise 6.3. Please download driver from Myinnodisk website.

### Order information

**EMPV-1202-C1(Standard Temp.)**

**EMPV-1202-W1(Wide Temp.)**

mPCIe to VGA & 18 bit panel and 24 bit JEIDA LVDS format module

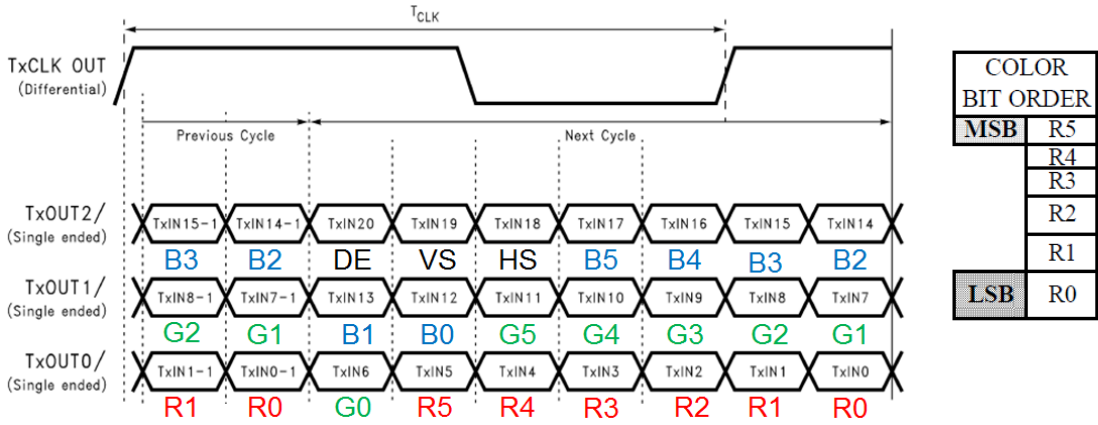
**EMPV-1202-C2(Standard Temp.)**

**EMPV-1202-W2(Wide Temp.)**

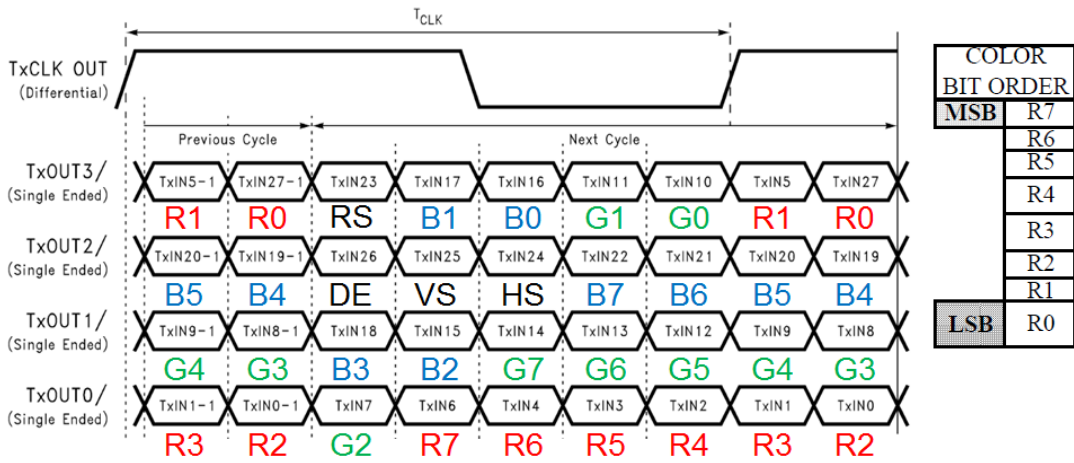
mPCIe to VGA & 24 bit VESA LVDS format module

### Data Mapping Diagram

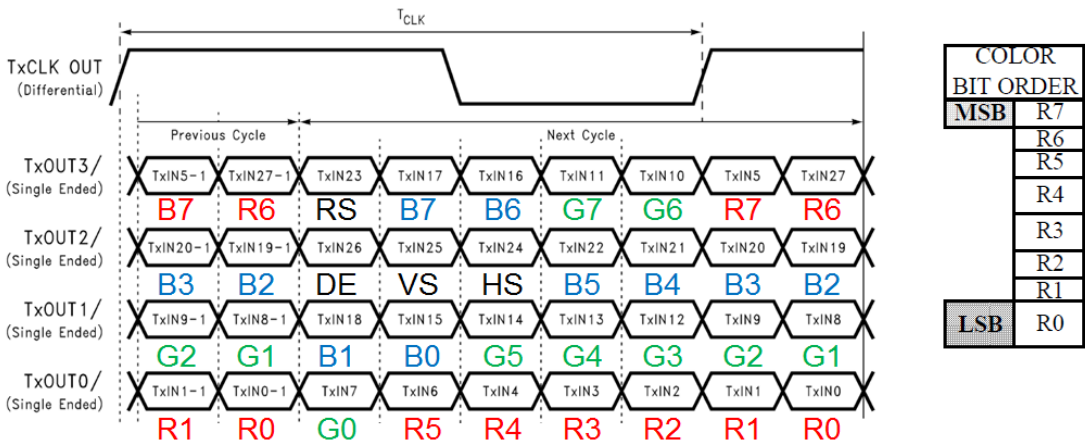
#### EMPV-1202-C1, 18 Bit



#### EMPV-1202-C1, JEIDA LVDS, 24 Bit



#### EMPV-1202-C2, VESA LVDS, 24 Bit



### Display resolution

Please see below table for EMPV-1202 support list of display resolution.

Color	Clone mode				Extend mode			
	WIN7		WIN8	WIN 10	WIN7		WIN8	WIN 10
	16bit	32bit	32bit	32bit	16bit	32bit	32bit	32bit
60HZ								
640x480	v	v	v	v	v	v	v	v
800x600	v	v	v	v	v	v	v	v
1024x600	v	v	v	v	v	v	v	v
1024x768	v	v	v	v	v	v	v	v
1280x720	v	v	v	v	v	v	v	v
1280x800	v	v	v	v	v	v	v	v
1280x1024	v	v	v	v	v			
1360x768	v	v	v	v	v			
1440x900	v	v	v	v	v			
1440x960	v	v	v	v	v			
1600x1200	v	v	v	v	v			
1680x1050	v	v	v	v	v			
1920x1080	v	v	v	v	v			

### Pin assignment

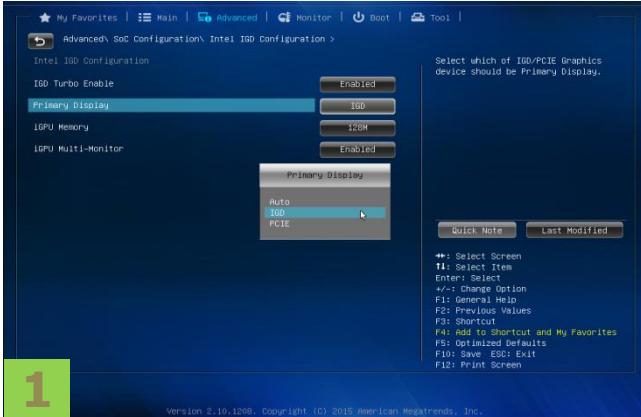
#### Output I/F: LVDS & VGA

Signal Name	Pin#	Pin#	Signal Name
+5V	2	1	+3.3V
+5V	4	3	+3.3V
I2C_DATA	6	5	I2C_CLK
GND	8	7	GND
LVDS_D0+	10	9	LVDS_D1+
LVDS_D0-	12	11	LVDS_D1-
GND	14	13	GND
LVDS_D2+	16	15	LVDS_D3+
LVDS_D2-	18	17	LVDS_D3-
GND	20	19	GND
R_0	22	21	B_0
G_0	24	23	
GND	26	25	GND
H_Sync	28	27	DDC_SCL
V_Sync	30	29	DDC_SDA
GND	32	31	GND
LVDS_CLK+	34	33	
LVDS_CLK-	36	35	
GND	38	37	GND
	40	39	

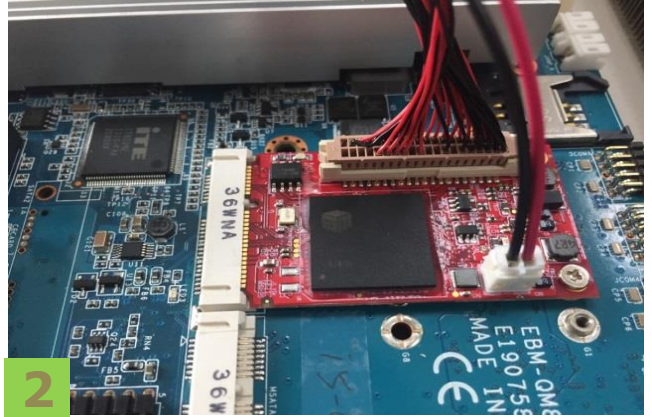
#### Device I/F: mPCIe

Signal Name	Pin #	Pin #	Signal Name
NC	51	52	+3.3V
NC	49	50	GND
NC	47	48	NC
NC	45	46	NC
GND	43	44	NC
+3.3V	41	42	NC
+3.3V	39	40	GND
GND	37	38	NC
GND	35	36	NC
PERP0	33	34	GND
PERN0	31	32	NC
GND	29	30	NC
GND	27	28	NC
PETP0	25	26	GND
PETN0	23	24	+3.3V
GND	21	22	PERST#
NC	19	20	NC
NC	17	18	GND
GND	15	16	NC
REFCLK+	13	14	NC
REFCLK-	11	12	NC
GND	9	10	NC
GND	7	8	NC
NC	5	6	NC
NC	3	4	GND
NC	1	2	+3.3V

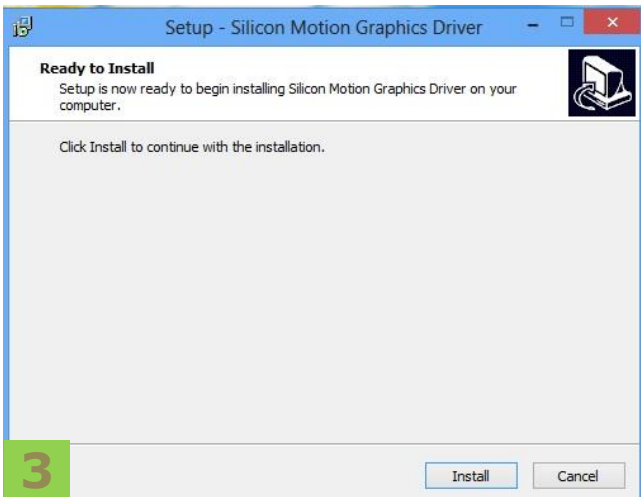
### Installation Guide



Please press "Delete" to enter BIOS setting then select "IGD" in primary display, and make sure "PCIe" display is available.



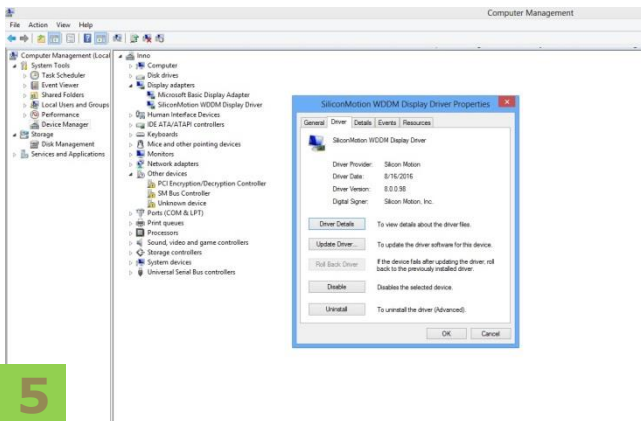
Please connect power cable and LVDS cable to monitor in EMPV-1202 slot.



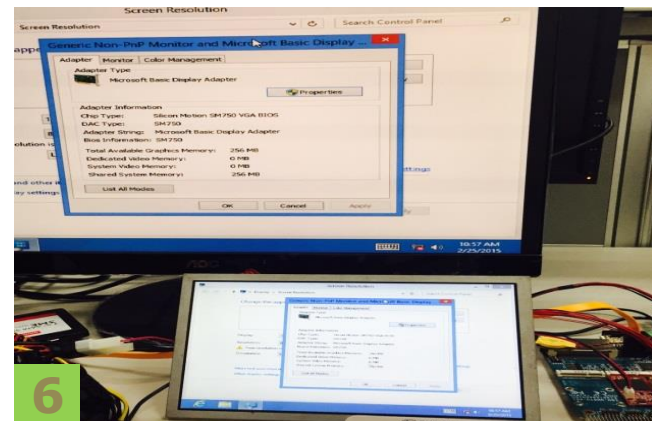
Please install driver.



Please restart system when installation accomplish.



Enter "Device Manager" → "Display adapters", to check driver install status.  
 "Silicon Motion SM718/SM750"(Under WinXP)  
 "SM750 Family-Silicon Motion-WDDM"(Under Win7)  
 "SiliconMotion WDDM Display"(Under Win8)



EMPV-1202 has completed the setting for multiple display.