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# EVB-USB2602-CRB Users Guide Rev B1

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#### Customer Evaluation Board for SMSC USB2602 Integrated USB2.0 Compatible 4-port HUB and Flash Media Controller EVB-USB2602-CRB Rev B1 EVB-USB2602-QFP128 B

### Features

- Operates from a single voltage (+5.0V, regulated) wall wart external power supply
- Low cost 2-Layer PCB design
- Serial EEPROM for configuration information can be update from USB
- USB 2.0 HUB with three down-stream USB ports with individual port power control, over-current sense and green LED indicators
- Multi-TT enabled
- High-speed/Full-speed capable
- Supports these Media Types: Compact Flash, Micro Drive, MultiMediaCard, xD picture Card, Smart Media, Secure Digital, Memory Stick, High Speed Memory Stick, Memory Stick Pro
- · Access to up to Four Memory Devices at the same time
- Less than 1mA VBUS current consumption

The EVB-USB2602-CRB features the integrated USB2602 USB 2.0 HUB and card reader. The board has one power connector to 5.0V external supply (J1: 2.1mm, tip -- POS), one upstream USB port on J2 and one USB down-stream port J3 on the rear side of the board. On the front side are two USB down-stream ports J6 and J7, and all card media sockets. This board demonstrates the first integrated USB HUB and card reader low-cost implementation in a single package.

# **Board Illustrations**

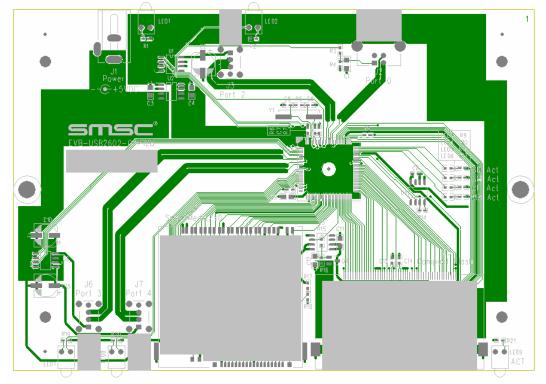


Figure 1. Top side.

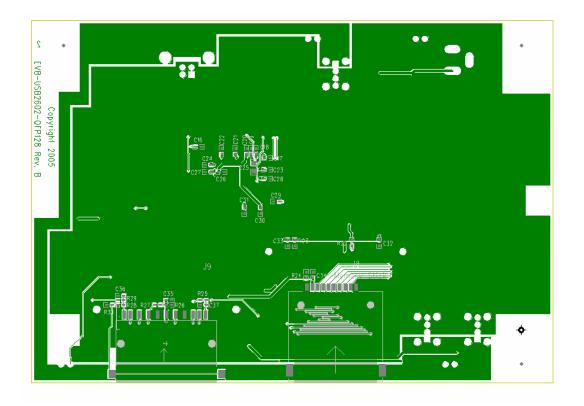


Figure 2. Bottom side.

# **EEPROM Configuration Settings**

The board features an on-board EEPROM for configuration for VID/PID/DID of both Hub controller and card reader controller and serial number for the card reader. The USBDM windows application is used for viewing and changing the configuration stored in EEPROM. USBDM has several tabs to view and set different sections of the configuration. For more details see Software Release Notes. Figures 3 through 5 shows the default configuration for the EVB-USB2602-CRB.

🞁 USB Mass Storage Class	Drive Manager	
<u>File E</u> dit <u>V</u> iew <u>H</u> elp		
Erase	Fmt DFU B C	
USB MSC Device	Info Branding Configuration Hub	
Drive I - Lun2/H Drive G - Lun0 Drive H - Lun1 Drive J - Lun3	NVSTORE Data Reset Defaults Update Now	
Drive 5 - Luis	Vendor ID: x 0424	
	Product ID: x 2228	
	Language ID: x 0409	
	Manufacturer String: SMSC	
	Product String: 2228 Flash Card Reader	
	Serial Number String: 260201288006 (12 hex digits)	
	Inquiry Reported Data	
	Inquiry Product: 2228	
	Inquiry Manufacturer: SMSC	
Ready	NUM	

Figure 3. USBDM Branding Tab – VID/PID and string descriptor configuration.

👸 USB Mass Storage Class	Drive Manager	
<u>File E</u> dit <u>V</u> iew <u>H</u> elp		
Erase	Fmt DFU	
USB MSC Device Drive I - Lun2/H Drive G - Lun0 Drive H - Lun1 Drive J - Lun3	Info Branding Configuration Hub NVSTORE Data Attribute Bytes	Reset Defaults       Update Now         custom modify before updating to test features         IrDA         Mode Pin Inactive         Enable Transceiver Shutdown         Transceiver Shutdown Polarity         CIR         RC5 Mode         LUN Configuration         FF         FF         Compact Flash         CF         LUN #1 - ID         FF         Smart Media         SM         LUN #2 - ID         FF         Secure Digital/MMC         SD/MMC         LUN #3 - ID         FF         NAND         x         01         bMaxPower         x         10         FF         NAND         x         10         Bink Interval         x         12         Lun Power Mask 1         x         12         D         bink Interval         x         12         LUN Power Mask 2         x         13
Ready		NUM

Figure 4. USBDM Configuration Tab – Card reader configuration.

積 USB Mass Storage Clas	s Drive Manager		
<u>File E</u> dit <u>V</u> iew <u>H</u> elp			
Erase	E Fmt DFU		
USB MSC Device Drive I - Lun2/H Drive G - Lun0 Drive H - Lun1 Drive J - Lun3	Finit DFU Configuration Hu Info Branding Configuration Hu NVSTORE Data Vendor ID: x 0424 Product ID: x 2602 Device ID: x 0000 Configuration (in hex) 9B HUB Options Byte #1 18 HUB Options Byte #2 02 Non Removable Device 00 Port Disable Self-Powered 00 Port Disable Bus-Powered	Image: Defaults       Update Now         Image: Defaults       Update N	
l Ready	)	[]	

Figure 5. USBDM Hub Tab – USB Hub configuration.