

PCN Number:	20131011002	PCN Date:	10/17/2013
Title:	TUSB8040A1 Data Sheet		
Customer Contact:	PCN Manager	Phone:	+1(214) 480-6037
Change Type:	<input checked="" type="checkbox"/>	Dept:	Quality Services
	<input type="checkbox"/>	Electrical Specification	
PCN Details			

Description of Change:

The product datasheet(s) is being update, to add feature and add VBUS max.

The following change history provides further details. These changes may be reviewed at the datasheet links provided

From (Page 7):

- Supports On-Board and In-System EEPROM Programming Via the USB 2.0 Upstream Port
- Single Clock Input, 24-MHz Crystal or Oscillator

To (Page 7):

1 PRODUCT OVERVIEW

1.1 Features

- Supports On-Board and In-System EEPROM Programming Via the USB 2.0 Upstream Port
- Single Clock Input, 24-MHz Crystal or Oscillator
- **No Special Driver Requirements; Works Seamlessly With Any Operating System With USB Stack Support**

From (Page 11):

2.3 USB Upstream Signals

Table 2-3. USB Upstream Signals

USB_R1	PT	A50	Precision resistor reference. A 9.09-k Ω \pm 1% resistor should be connected between USB_R1 and USB_R1RTN.
USB_R1RTN	PT	B47	Precision resistor reference return
USB_VBUS	I	B44	USB upstream port power monitor. The VBUS detection requires a voltage divider. The signal USB_VBUS must be connected to VBUS through a 90.9-k Ω \pm 1% resistor, and to ground through a 10-k Ω \pm 1% resistor from the signal to ground.

To (Page 11):

2.3 USB Upstream Signals

Table 2-3. USB Upstream Signals

USB_R1	PT	A50	Precision resistor reference. A 9.09-k Ω \pm 1% resistor should be connected between USB_R1 and USB_R1RTN.
USB_R1RTN	PT	B47	Precision resistor reference return
USB_VBUS	I	B44	USB Upstream port power monitor. The USB_VBUS input is a 1.2-V I/O cell and requires a voltage divider to prevent damage to the input. The signal USB_VBUS must be connected to VBUS through a 90.9-k Ω \pm 1% resistor, and to signal ground through a 10-k Ω \pm 1% resistor. This allows the input to detect VBUS present from a minimum of 4 V and sustain a maximum VBUS voltage up to 10 V (applied to the voltage divider).

From (page 32):

6.1 Absolute Maximum Ratings⁽¹⁾

over operating free-air temperature range (unless otherwise noted)

		VALUE	UNIT
V _{DD33}	Supply voltage	-0.3 to 3.8	V
V _{DD}		-0.3 to 1.4	
T _{stg}	Storage temperature range	-65 to 150	°C

(1) Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under Recommended Operating Conditions is not implied. Expose to absolute-maximum-rated conditions for extended periods may affect device reliability

6.2 Recommended Operating Conditions

over operating free-air temperature range (unless otherwise noted)

		MIN	NOM	MAX	UNIT
V _{DD33}	Supply voltage	3	3.3	3.6	V
V _{DD} ⁽¹⁾		0.99		1.26	
T _A	Operating free-air temperature range	0	25	70	°C
T _J	Operating junction temperature range	0	25	105	°C

To (page 32):

6.1 Absolute Maximum Ratings⁽¹⁾

over operating free-air temperature range (unless otherwise noted)

		VALUE	UNIT
V _{DD33}	Steady-state supply voltage	-0.3 to 3.8	V
V _{DD11}		-0.3 to 1.4	
V _{IO}	USB 2.0 DP/DM	-0.3 to VDD33 + 0.3 ≤ 3.8	V
	SuperSpeed USB TXP/M and RXP/M	-0.3 to VDD33 + 0.3 ≤ 3.8	
	XI/XO	-0.3 to 1.98	
	3.3-V Tolerant I/O	-0.3 to VDD33 + 0.3 ≤ 3.8	
V _{USB_VBUS}		-0.3 to 1.2	V
T _{stg}	Storage temperature range	-65 to 150	°C

(1) Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under Recommended Operating Conditions is not implied. Expose to absolute-maximum-rated conditions for extended periods may affect device reliability

6.2 Recommended Operating Conditions

over operating free-air temperature range (unless otherwise noted)

		MIN	NOM	MAX	UNIT
V _{DD33}	Steady-state supply voltage	3	3.3	3.6	V
V _{DD11} ⁽¹⁾		0.99	1.1	1.26	
V _{IO}	USB 2.0 DP/DM	0		VDD33	V
	SuperSpeed USB TXP/M and RXP/M	0		VDD33	
	XI/XO	0		1.8	
	3.3-V Tolerant I/O	0		VDD33	
V _{USB_VBUS}		0		1.155	V
T _A	Operating free-air temperature range	0	25	70	°C
T _J	Operating junction temperature range	0	25	105	°C

The datasheet number will be changing.

Device Family	Change From:	Change To:
TUSB8040A1	SLLSEE5A	SLLSEE5B

The updated datasheet(s) can be accessed by the following link(s):

<http://www.ti.com/product/tusb8040a1>

Reason for Change:

To more accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

Electrical specification performance changes as indicated above.

Changes to product identification resulting from this PCN:

None

Product Affected:

TUSB8040A1RKMR

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
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