



## Product Change Notification / SYST-01HYUJ319

---

### Date:

08-Apr-2022

### Product Category:

USB Hubs

### PCN Type:

Document Change

### Notification Subject:

Data Sheet - USB7016 6-Port USB 3.2 Gen 1 Type-C Controller Hub Datasheet Document Revision

### Affected CPNs:

[SYST-01HYUJ319\\_Affected\\_CPN\\_04082022.pdf](#)

[SYST-01HYUJ319\\_Affected\\_CPN\\_04082022.csv](#)

### Notification Text:

SYST-01HYUJ319

Microchip has released a new Product Documents for the USB7016 6-Port USB 3.2 Gen 1 Type-C Controller Hub of devices. If you are using one of these devices please read the document located at [USB7016 6-Port USB 3.2 Gen 1 Type-C Controller Hub](#).

### Notification Status: Final

#### Description of Change:

- Cover Section
  - Updated product title
  - Added USB Billboard Device bullet
  - Added USB-IF bullet
  - Added Automotive as target application
  - Added Multi-Host Endpoint Reflector bullets
  - Updated Windows compatibility list to include Windows 11
  - Updated USB 3.2 Gen 1 pins voltage tolerance to 1.32
- Section2.1 "General Description" - Added Multi-Host Endpoint Reflectorparagraph

- Figure 3-1 - Corrected pins 4 and 80 as 'NC'
- Section 3.2 "Pin Descriptions"
  - Added note regarding pull-up/down resistor values.
  - Updated SPI\_CLK pin description.
  - Updated DP1\_VBUS\_MON, and VBUS\_MON\_UP descriptions VBUS high value.
  - Added additional note to VBUS\_MON\_UP
- Section 8.1 "Downstream Battery Charging" - Replaced reference to "USB Battery Charging with Microchip USB70xx Hubs" with "AN2810 Configuration of USB7002/USB7006/ USB7016/ USB705x"
- Section 9.1 "Absolute Maximum Ratings\*" - Corrected absolute maximum range of VCORE domain. VCORE absolute maximum range specification erroneously had same limits VCORE operational limits.
- Section 9.1 "Absolute Maximum Ratings\*" - Changed "Digital Core Supply Voltage (VCORE)" to "1.2 V and Digital Core Supply Voltage (VCORE)" since VCORE power domain also supplies voltage to analog circuitry.
- Section 9.1 "Absolute Maximum Ratings\*" - Relaxed absolute maximum limit of XTAL from 3.63V to 4.6V
- Section 9.4 "Power Consumption" - Updated Power Consumption table to replace 'TBD' values with correct calculations.
- Section 9.4 "Power Consumption" Added note about real world power consumption variability.
- Section 9.6.1 "Power Supply and RESET\_N Sequence Timing" - Added additional clarification on VBUS\_MON\_UP with respect to power sequencing requirements.
- Table 9-11 Load Capacitance updated to 10pF NOM and Shunt Capacitance updated to 5pF NOM.
- Table 9-3 Updated I and IS buffer types VIH min values.
- Table 9-4 Updated treset min time to 1ms
- Table 9-6 Extended minimum RESET\_N pulse from 5 $\mu$ s to 1ms. This is to provide additional buffer for maximum process and operational variables (i.e.: end application voltage and temperature variations).
- Table 9-7 Extended minimum tSMBUS\_RDY pulse from 40ms to 100ms. This is to provide additional buffer for maximum process and operational variables (i.e.: end application voltage and temperature variations).
- Table 9-8 Extended minimum tATTACH\_RDY from 5 $\mu$ s to 150ms. This is to provide additional buffer for maximum process and operational variables (i.e.: end application voltage and temperature variations) as well as to account for additional delays in tATTACH\_RDY due to additional OTP memory utilization (i.e.: Additional OTP content pre-programmed into USB7016 adds time to device initialization after USB Attach command is issued)

**Impacts to Data Sheet:** None

**Reason for Change:** To Improve Productivity

**Change Implementation Status:** Complete

**Date Document Changes Effective:** 08 Apr 2022

**NOTE:** Please be advised that this is a change to the document only the product has not been changed.

**Markings to Distinguish Revised from Unrevised Devices: N/A**

## **Attachments:**

**USB7016 6-Port USB 3.2 Gen 1 Type-C Controller Hub**

Please contact your local **Microchip sales office** with questions or concerns regarding this notification.

## **Terms and Conditions:**

If you wish to receive Microchip PCNs via email please register for our PCN email service at our **PCN home page** select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the **PCN FAQ** section.

If you wish to change your PCN profile, including opt out, please go to the **PCN home page** select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

USB7016-I/KDX

USB7016-I/KDXVAO

USB7016/KDX

USB7016T-I/KDX

USB7016T-I/KDXVAO

USB7016T/KDX