

Product Change Notification

MultiTech Conduit[®] Programmable Gateway

Select Devices Include:

- **Substitute Components**
- **mPower™ Edge Intelligence Software Updates**



Date: January 27, 2022

Product Change Notification (PCN) Number

PCN 01272022-001 (Conduit - mPower)

Overview

In response to the global demand for semiconductors and microelectronics, MultiTech has qualified substitute components for MultiTech Conduit[®] Programmable Gateways (MTCDD Series). In addition to substitute components, an updated version of mPower Edge Intelligence Software is required.

Schedule:

- Starting in January 2022, MultiTech will ship select MTCDD devices with substitute components
- Starting in January 2022, select MTCDD devices shipping from MultiTech will require an updated version of mPower embedded software
- See [part numbers impacted](#) for details
- See [Schedule](#) for Date of Manufacture details

Suggested Action Plan

Customers

1. Recognize that MTCDD device shipments starting in 2022 will include an updated version of mPower
2. Evaluate new MTCDD devices and updated mPower version with your application and make updates if needed
3. Additional information
 - Technical inquiries: support.multitech.com
 - Sales inquiries: email sales@multitech.com

CONTENTS

[Overview](#)

[Suggested Action Plan](#)

[Hardware Overview](#)

[Debug Connector](#)

[mPower Overview](#)

[Schedule](#)

[Model Numbers](#)

[Additional Information](#)

Distributors

- Forward this announcement to others in your organization who are actively involved in the sale or support of programmable IoT gateways
- Notify existing customers that select MTCDT devices are now shipping with substitute components and an updated version of mPower software
- Encourage customers to evaluate new MTCDT devices and updated mPower version in their environment. Updates to the mPower operating system may result in updates to the customer application

Hardware Overview - MTCDT with Substitute Components

The MTCDT devices with original components require a number of long lead time items that challenge MultiTech’s shipping schedule and our customers’ deployment schedules. MultiTech has qualified substitute components for select MTCDT devices to reduce the need for longer lead time components. Starting in January 2022, select MTCDT devices ship with substitute components and an updated version of mPower software.

Overview of Changes

MultiTech Conduit Programmable Gateway	MTCDT Original Components	MTCDT Substitute Components
Models Impacted	See part numbers impacted	See part numbers impacted
New Model Numbers	Existing model numbers will continue to be used	
Technical Overview of Hardware Change	Original device design	Substitute components
Debug Cable Connector	USB Micro B Connector	Proprietary 3-Pin Connector
Debug Cable	Standard USB A-Male to Micro B cable	Custom USB A-Male to 3-Pin Cable
Hardware Version (*)	MTCDT-0.1	MTCDT-0.2
mPower Versions	mPower 5.3.X mPower 5.2.X mPower 5.0.X	mPower 5.3.7
mPower Downgrade Protection	Not required	Downgrade protection prevents earlier versions of mPower from being loaded
Date of Manufacture	Starting May 2017 DOM 2017.05.01 (DOM differs by model)	Starting January 2022 DOM 2022.01.12 (DOM differs by model)

Identifying MTCDT Hardware

There are a number of ways to determine if the MTCDT device includes original components or substitute components:

1. **Model Numbers:** New model numbers are not required for MTCDT devices using substitute components. Existing model numbers will continue to be used.

2. **Hardware Version:**

- MTCDT device with original components – Hardware Version “MTCDT-0.1”
- MTCDT with substitute components – Hardware Version “MTCDT-0.2”

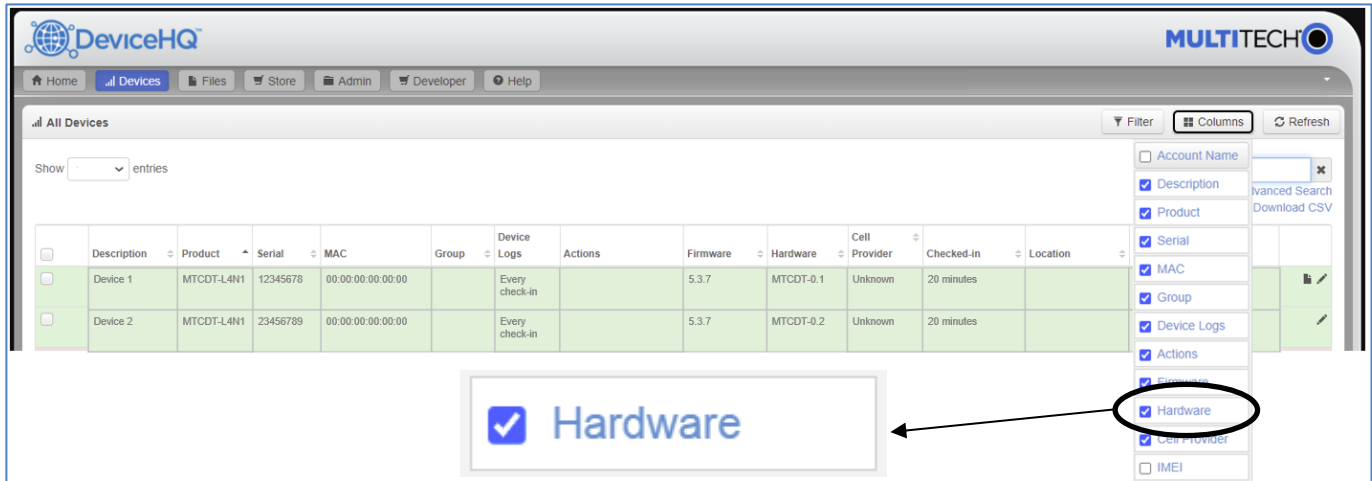
3. **API Commands:**

The MTCDT uses RESTful JSON API for managing configurations, polling statistics, and issuing commands. Executing either of the following API commands will return the hardware version of the MTCDT device:

- API Commands:
 - <https://192.168.2.1/api/system>
 - <https://192.168.2.1/api/system/hardwareVersion>
- Instructions:
 1. Log into the MTCDT device using a web browser
 2. Open a new tab and enter <https://192.168.2.1/api/system> or <https://192.168.2.1/api/system/hardwareVersion>
 - Command is case sensitive
 - Change the device IP address if necessary
 3. Press Return
 4. MTCDT device returns one of the following responses
 - **“hardwareVersion” : “MTCDT-0.1”**, - MTCDT device with original components
 - **“hardwareVersion” : “MTCDT-0.2”**, - MTCDT with substitute components
- API Reference: http://www.multitech.net/developer/software/mtr-software/mtr-api-reference/rcell_api_appendix/find-out-the-hardware-version/

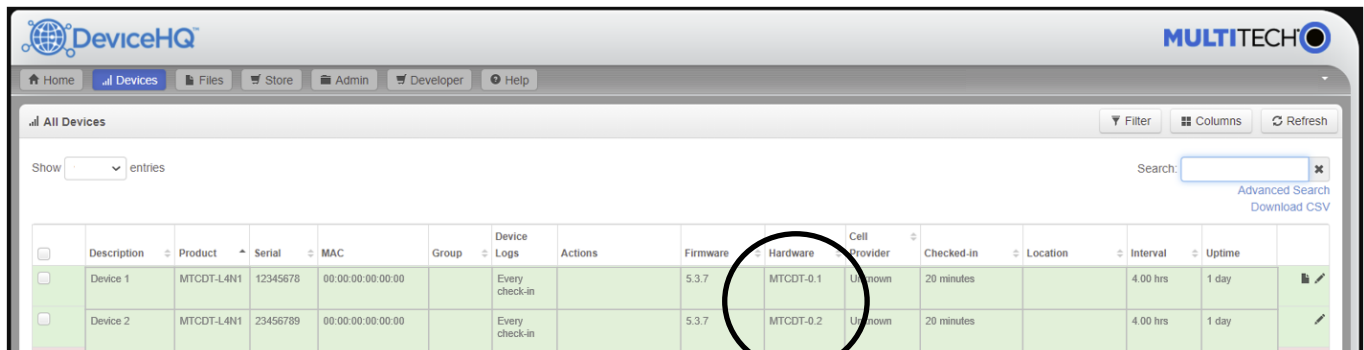
4. **DeviceHQ:**

MultiTech DeviceHQ[®] is a cloud-based tool set for managing the latest generation of MultiTech devices, including the MTCDDT devices. On the **DeviceHQ Device Page**, ensure that the Hardware field is chosen as a column selection in order to identify the hardware version.



Once this selection is made, the DeviceHQ dashboard will show the hardware version of each device:

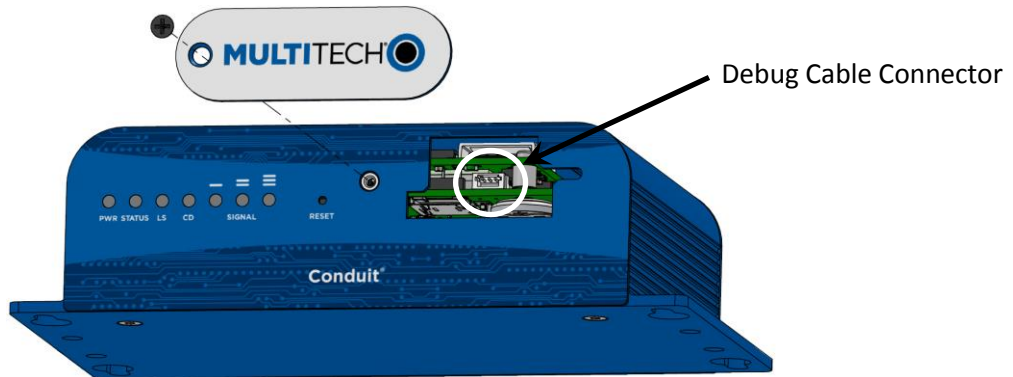
- **MTCDDT-0.1** - MTCDDT device with original components
- **MTCDDT-0.2** - MTCDDT with substitute components



Changes to Debug Connector and Cable

The debug cable connector is located behind the MultiTech nameplate on the Conduit device. Using this connection, the host device has access to the Conduit USB COM port.

The current debug cable connector is a standard USB Micro B Connector. This connector has been available on Conduit devices for several years. A standard USB A-Male to Micro B cable is used to connect a host device to the Conduit.



Conduit devices with substitute components will ship with a custom 3-pin cable connector:

- A new 3-pin connector is used in place of the USB Micro B connector
- A custom USB A-Male to 3-pin connector cable is needed to connect a host device to the Conduit

Custom 3-Pin Debug Cable Specifications

The custom 3-pin debug cable can be purchased from MultiTech or built by the customer.

MultiTech Part Number: CA-MTCDT-DEBUG

Description: USB Cable Type A to 3-pin connector (3 feet)

Contact MultiTech Sales Manager for details

The 3-pin debug cable is built using the following components:

- USB to 3.3V Serial UART cable

Description	Manufacturer	Product Number
Olinuxino Serial Console Cable (USB to 3.3V Serial UART cable)	Olimex LTD	USB-SERIAL-F
Debug Cable for Raspberry Pi (USB to 3.3V Serial UART cable)	FTDI	TTL-232R-RPi

- JST-ZHR-3 connector (3-pin connector with crimp-style contacts)

Description	Manufacturer	Product Number	Contacts
3-pin connector with crimp-style contacts (female socket)	JST	JST-ZHR-3	SZH-002T-P0.5

- Custom crimping tool (for use with JST connector only)
- Information on the 3-pin debug cable is also available in the Conduit Hardware Guide.

mPower Edge Intelligence Overview

mPower™ Edge Intelligence is MultiTech’s embedded software offering delivering programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions. mPower Edge Intelligence simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency, control network and cloud services costs, and ensure core functionality – even in instances when network connectivity may not be available.

MTCDDT devices with substitute components (hardware version MTCDDT-0.2) will begin shipping with mPower 5.3.7. mPower Software Release Notes can be downloaded at <https://www.multitech.com/documents/publications/sales-flyers/mPower%20Software%205.x.x%20Conduit%20Gateways.pdf>

mPower Software Release Notes is a separate document and includes the release notes and cumulative changelog for mPower Edge Intelligence embedded software. Detailed information is listed in reverse chronological order, starting with the most recent mPower release:

- Operating system updates
- New hardware supported
- New features
- Enhanced features
- Known behaviors
- Bug fixes
- Feature deprecations

Schedule

MTCDDT devices with substitute components and mPower 5.3.7

- Manufacturing: Starting January 2022
 - Date of Manufacture: Starting January 12, 2022
 - See [part numbers impacted](#) for details
 - Identifying Date of Manufacture (chassis label)



DOM: 2022.01.12
DOM = Date of Manufacture
2022 = Year
01 = January
12 = Day

Ordering Part Numbers Impacted

The following ordering part numbers are impacted by these updates:

Model Name Ordering Part Numbers	Ordering Part Numbers	Ordering Part Numbers
Conduit® IoT Programmable Gateways		
Status: Active	Status: Active	mPower version
MTCDT-240A-US-EU-GB ⁽¹⁾ MTCDT-246A-US-EU-GB ⁽¹⁾	MTCDT-L4E1-246A-EU-GB ⁽¹⁾ MTCDT-L4N1-240A-US ⁽¹⁾ MTCDT-L4N1-246A-US ⁽¹⁾ MTCDT-LAP3-246A-AU ⁽¹⁾	mPower 5.3.7
Conduit® IoT Programmable Gateways with LoRa Accessory Cards		
Status: Active	Status: Active	mPower version
MTCDT-246A-868-EU-GB ⁽¹⁾ MTCDT-246A-915-US-EU-GB ⁽¹⁾ MTCDT-246A-923-JP ⁽¹⁾	MTCDT-L4E1-246A-868-EU-GB ⁽¹⁾ MTCDT-L4E1-246A-868-EU-GB ⁽¹⁾ MTCDT-L4N1-246A-915-US ⁽¹⁾ MTCDT-LAP3-246A-915-AU ⁽¹⁾	mPower 5.3.7

Footnotes:

	mPower Version	Manufacturing Updates	Comments
(1)	mPower 5.3.7	January 2022	Active devices start shipping with substitute components and mPower 5.3.7

Additional Information

If you have any questions regarding this Product Change Notification/Software Release Notice, please contact your MultiTech sales representative or visit the technical resources listed below:

World Headquarters – USA

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EMEA Headquarters – UK

+(44) 118 959 7774 | sales@multitech.co.uk

MultiTech Developer Resources:

www.multitech.net

An open environment where you can ask development related questions and hear back from MultiTech engineering or a member of this community.

Knowledge Base:

<http://www.multitech.com/kb.go>

Immediate access to support information and resolutions for all MultiTech products.

MultiTech Support Portal:

support.multitech.com

Create an account and submit a support case directly to our technical support team.

MultiTech Website:

www.multitech.com

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