FEB 03, 2022

DA1458x/DA1468x PLT

PLT Release Notes for v4.4 (v_4.3.0.310)

Table of Contents

1.0 Introduction

1.1   Scope

This document describes the release of the DA1458x/DA1468x Production Line Tool from Dialog Semiconductor.

1.2   Terms and Abbreviations

ADC Analog Digital Converter
DK Development Kit
DUT Device Under Test
HID Human Interface Device
OTP One Time Programmable memory
PER Packet Error Rate
PLT Production Line Tool
TCS Trim and Calibration Settings
UART Universal Asynchronous Receiver/Transmitter
XTAL Crystal Oscillator

1.3   Release Data

PROJECT DA1458x/DA1468x Production Line Tool (PLT)
RELEASE DATE 16 Jul 2018
VERSION NR. v4.3 (v_4.3.0.310)
RELEASE TYPE[1] FULL (GA)
RELEASE MASTER Evangelos Filippatos

1.4   License

Licenses covering this software release are listed in the licensing.txt file, in the PLT root folder.

1.5   History

VERSION	RELEASE MASTER	DATE
v4.3 (v_4.3.0.310)	Evangelos Filippatos	16 Jul-2018
v4.4 (v_4.3.0.310)	Rebranded to Renesas	03 Feb-2022

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[1] Releases can be of the following types: FULL (GA), FULL (LA), RELEASE CANDIDATE, ENGINEERING, PATCH or BINARY

2.0 Release Description

2.1 Major Changes

#	DESCRIPTION
OVERVIEW	
This is a full release of the DA1458x/DA1468x Production Line Tool (PLT) v4.3.	
NEW FEATURES	
1	Automated GU firmware upgrade.
2	External 32KHz connection test.
3	HID barcode scanner support.
4	DA14585 range extender tests.
5	Option to burn OTP image and header as a single binary.
7	Improvements for DA14683 secure boot.
8	DA14683 32MHz hardware support.
9	Warning pop-up window when any OTP write is enabled.
10	Peripheral current measurements.
11	GPIO toggle for external watchdog.
12	DA1468x DK power profiler as current measurement instrument.
13	Set/Get GPIO status test.
14	DA1458x configurable SPI and EEPROM memories.
15	DA1458x memory enable GPIO.
16	DA1458x sleep clock selection (needed for boost mode).
17	OTP TCS section write.
18	Scan advertisements using the production test firmware.
19	Added PER limits in RF RSSI tests.
FIXES / IMPROVEMENTS	
1	Updated Homekit setup code generator.
2	Configurable firmware download retries.
3	CSV OTP re-burn protection.
4	Support latest Anritsu MT8852B firmware (5.00.009).
5	Barcode scanner improvements.
6	Increase QSPI operation timeouts.
7	Remove all DA1468x QSPI dependencies from production test firmware.
8	DA1468x uartboot QSPI initialization only when required. Uartboot and plt_fw now operate even with no QSPI mounted.
9	Improve external script execution.
10	Idle current measurement removed.
11	Added DUT IC name in DUT logs.
12	DA14585 SPI boot header fix.
13	Fix DA1468x configurable UART boot pins.
DOCUMENTATION	
UM-B-040	DA1458x_DA1468x_Production_Line_Tool_libraries_4v3.pdf
UM-B-041	DA1458x_DA1468x_Production_Line_Tool_4v3.pdf

2.2 Issues or Limitations

#	OPEN ISSUES & LIMITATIONS
1	DA1458x_DA1468x_CLI_PLT.exe needs all fields in params.xml configuration file to be filled-in even if these are not actually used by the current test setup.
2	The DA1458x memory programming may fail at 1M UART baud rate at some specific PCs and at a rate of around 1-2%. This is solved by splitting the data to be burned into chunks (3960bytes is a good tested chunk) or lowering the UART baud rate to 115200. This PLT version has configurable chunk sizes through the PLT configuration tool, with the default set to 3960 bytes and tested to be safe to operate at 1M UART baud rate.
3	Sleep current measurement tests need production test firmware changes in order to power down the external peripherals used (e.g. sensors, memory flashes, etc.).

2.3 Major Release Files

#	FILE NAME	DESCRIPTION
1	DA1458x_DA1468x_PLT_v_4.3.0.310.zip	RELEASE PACKAGE
2	DA1458x_DA1468x_PLT_Release_Notes_v4.3.doc	RELEASE NOTES