RN1245

Zigbee 3.0 Controller and Switch

Rev. 2.8 — 12 December 2023 **Release notes**

Document information

Information	Content
Keywords	DK006 K32W148EVK
Abstract	These release notes provide information on the SDK compatibility, memory usage and change history for the JN-AN-1245 Zigbee 3.0 Controller and Switch Application Note

1 Public v2008 – 07-Nov-2023

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041/ K32W041A/ K32W041AM/ K32W1480.

1.1 Public v2008: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, K32W148 pre-built binaries are also supplied, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 1. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061/K32W041/ K32W041A/K32W041AM
K32W148EVK	K32W148EVK	-	K32W1480
MPCXpresso –Toolchain	-	v11.7.1 build 9221	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM K32W1480
Development Kit – SDK	K32W061DK6 K32W041ADK6 K32W041AMDK6	v2.6.13	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM
Development Kit – SDK	K32W1480	V2.12.6 MR3	K32W1480

1.2 Public v2008: New Features

Add build options for K32W1480.

1.3 Public v2008: Known Issues

JIRA MCZB_1848

Install code join not supported.

JIRA MCZB_1930

No API to get DIO inputs that caused a wake event.

JIRA MCZB_1649

Wear count performance issue for NVM implementation. Also, the actual NVM buffer size must be estimated by each AN.

2 Public v2007 – 11-Nov-2022

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041/ K32W041A/ K32W041AM.

2.1 Public v2007: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 2. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041 K32W041A/K32W041AM
MPCXpresso –Toolchain	-	v11.5.0 build 7232	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM
Development Kit – SDK	K32W061DK6 K32W041ADK6 K32W041AMDK6	v2.6.8 MR7	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM

2.2 Public v2007: Memory Usage

The applications of this Application Note have the following memory footprints:

```
   text data   bss    dec filename
 190328 1736 20300 212364 ColorSceneController_OM15082
 223132 1892 22704 247728 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 169308 1636 19052 189996 DimmerSwitch_OM15082
 196900 1788 21448 220136 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

2.3 Public v2007: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare   kb    banks filename
  3768  328     4 -------7 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
 17768 6808    24 ----4567 ColorSceneController_OM15082
  4088    8     4 -------7 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 16488 8088    24 ----4567 DimmerSwitch_OM15082
```

2.4 Public v2007: New Features

JIRA MCZB_1162

Fix address conflict after device reset, allowing not load address map through g_bRestoreAddrMap.

2.5 Public v2007: Bug Fixes

JIRA MCZB_1197

Fix incorrect response for “unicast nwk addr req with invalid ieee addr” certification test case.

JIRA MCZB_1173

Fix APDU leakage in SDK.

JIRA MCZB_1282

Fix NPDU leakage in SDK.

JIRA MCZB_1057

Fix MCPS leakage in SDK.

2.6 Public v2007: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

JIRA MCZB_710

framework flash driver limitation to K32W041AM variant.

JIRA MCZB_715

Deep Power-Down mode of the embedded MX25R8035F in K32W041AM couldn’t be set correctly with framework API.

JIRA MCZB_882

ZPS default confirmation is not implemented for fragmented transmission.

JIRA MCZB_1325

U32Reverse API is not available but it’s required for touchlink build.

JIRA MCZB_1337

Queue resources are allocated in framework/MemManager

3 Public v2006 – 20-Mar-2022

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041/ K32W041A/ K32W041AM.

3.1 Public v2006: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 3. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041 K32W041A/K32W041AM
MPCXpresso –Toolchain	-	v11.4.1 build 6260	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM
Development Kit – SDK	K32W061DK6 K32W041ADK6 K32W041AMDK6	v2.6.5 MR4	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM

3.2 Public v2006: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
184836 1708 19724 206268 ColorSceneController_OM15082
216040 1848 21616 239504 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
163812 1612 18476 183900 DimmerSwitch_OM15082
189804 1764 20360 211928 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

3.3 Public v2006: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare   kb    banks filename
  3720  376     4 -------7 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
 39540  236  4156    43932 GpEhSwitch_OM15082
 17160 7416    24 ----4567 ColorSceneController_OM15082
  4040   56     4 -------7 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 15880  504    16 -----567 DimmerSwitch_OM15082
```

3.4 Public v2006: New Features

JIRA MCZB_1051

Retry polling for association response during join.

JIRA MCZB_1041

MAC_ENUM_TRANSACTION_EXPIRED in default confirmation for poll with frame pending bit set but no data received.

3.5 Public v2006: Bug Fixes

JIRA MCZB_1067

ZPS_u32MacSetTxBuffers doesn't take effect in application.

JIRA MCZB_1037

FSl_CLOCK_SET_LDO_CALLED_INTERNALLY build flag must be defined to support BOD wakeup.

JIRA MCZB_1029

EEPROM_Init goes to panic when using MX25R8035F with zigbee-only application note.

JIRA MCZB_1003

Makefile optimization to force rebuild of zps and pdum gen file to avoid incompatibility issue for the same application with different build options in mcuxpresso.

JIRA MCZB_977

Fix Ntag unstable issue.

JIRA MCZB_996

sStackEvent.uEvent.sApsTcEvent.uTcData.pKeyDesc->au8LinkKey is not available to application

JIRA MCZB_939

New DIO wakeup mask set through PWR_vWakeUpConfig doesn't take effect.

JIRA MCZB_918

RND_u32GetRand crashes in OTA cluster when u8QueryJitter is 0.

JIRA MCB_2738

Unexpected wakeup from deep sleep.

JIRA MCZB_899

ZED can't sleep when leave the network and poll data again.

3.6 Public v2006: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

JIRA MCZB_710

framework flash driver limitation to K32W041AM variant.

JIRA MCZB_715

Deep Power-Down mode of the embedded MX25R8035F in K32W041AM couldn't be set correctly with framework API.

JIRA MCZB_882

ZPS default confirmation is not implemented for fragmented transmission.

4 Public v2005 – 06-Sep-2021

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041/ K32W041A/ K32W041AM.

4.1 Public v2005: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 4. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041 K32W041A/K32W041AM
MPCXpresso –Toolchain	-	v11.3.0 build 5222	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM
Development Kit – SDK	K32W061DK6 K32W041ADK6 K32W041AMDK6	v2.6.4 MR3 QPATCH1	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM

4.2 Public v2005: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
184064 1712 19728 205504 ColorSceneController_OM15082
214532 1852 21580 237964 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
163040 1616 18480 183136 DimmerSwitch_OM15082
188424 1752 20324 210500 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

4.3 Public v2005: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare  kb  banks filename
  3688  408    4 -------7 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
   17160 7416 24 ----4567 ColorSceneController_OM15082
  4008   88    4 -------7 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 15880  504   16 -----567 DimmerSwitch_OM15082
```

4.4 Public v2005: New Features

None.

4.5 Public v2005: Bug Fixes

JIRA MCZB_919

Accidental reset during device rejoin could lead to channel number change in NIB.

4.6 Public v2005: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

JIRA MCZB_710

Framework flash driver limitation to K32W041AM variant.

JIRA MCZB_715

Deep Power-Down mode of the embedded MX25R8035F in K32W041AM couldn’t be set correctly with framework API.

JIRA MCZB_939

New DIO wakeup mask doesn’t take effect after sleep/wakeup cycle.

JIRA MCZB_882

ZPS default confirmation is not implemented for fragmented transmission.

JIRA MCZB_996

sStackEvent.uEvent.sApsTcEvent.uTcData.pKeyDesc->au8LinkKey is not available to application.

5 Public v2004 – 20-Mar-2021

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041/ K32W041A/ K32W041AM.

5.1 Public v2004: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 5. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041 K32W041A/K32W041AM
MPCXpresso –Toolchain	-	v11.3.0 build 5222	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM
Development Kit – SDK	K32W061DK6 K32W041ADK6 K32W041AMDK6	v2.6.3 MR3	JN5189 / JN5188 K32W061/ K32W041/ K32W041A/K32W041AM

5.2 Public v2004: Memory Usage

The applications of this Application Note have the following memory footprints:

```
   text data   bss    dec filename
183176 1688 19040 203904 ColorSceneController_OM15082
213708 1860 20876 236444 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
162216 1592 17776 181584 DimmerSwitch_OM15082
187536 1760 19620 208916 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

5.3 Public v2004: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare  kb    banks filename
  3432  664    4 -------7 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
16456 8120    24 ----4567 ColorSceneController_OM15082
  3752  344    4 -------7 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 15160 1224   16 -----567 DimmerSwitch_OM15082
```

5.4 Public v2004: New Features

None.

5.5 Public v2004: Bug Fixes

Remove CoinCell in release.

5.6 Public v2004: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

JIRA MCZB_710

Framework flash driver limitation to K32W041AM variant.

JIRA MCZB_715

Deep Power-Down mode of the embedded MX25R8035F in K32W041AM couldn’t be set correctly with framework API.

6 Public v2003 – 23-Dec-2020

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041.

6.1 Public v2003: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 6. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041
MPCXpresso –Toolchain		v11.2.1 build 4149	JN5189 / JN5188 K32W061 / K32W041
Development Kit – SDK	K32W061DK6	v2.6.2 MR2	JN5189 / JN5188 K32W061 / K32W041

6.2 Public v2003: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
181848 1688 19152 202688 ColorSceneController_OM15082
212380 1860 21524 235764 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
160828 1588 17904 180320 DimmerSwitch_OM15082
186276 1756 20268 208300 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

6.3 Public v2003: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare   kb    banks filename
3496  600       4 -------7 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
16568 8008     24 ----4567 ColorSceneController_OM15082
3816 280        4 -------7 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
15288 1096     16 -----567 DimmerSwitch_OM15082
```

6.4 Public v2003: New Features

None.

6.5 Public v2003: Bug Fixes

Remove CoinCell in release.

6.6 Public v2003: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

7 Public v2002 – 21-Aug-2020

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041.

7.1 Public v2002: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 7. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041
MPCXpresso –Toolchain		v11.2.0 build 4120	JN5189 / JN5188 K32W061 / K32W041
Development Kit – SDK	K32W061DK6	v2.6.1 MR1	JN5189 / JN5188 K32W061 / K32W041

7.2 Public v2002: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
179384 1656 19072 200112 ColorSceneController_OM15082
209980 1828 21428 233236 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
158428 1556 17824 177808 DimmerSwitch_OM15082
183876 1740 20188 205804 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

7.3 Public v2002: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare   kb    banks filename
3496  600      4 -------7  DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
16456 8120    24 ----4567  ColorSceneController_OM15082
 3816  280     4 -------7  ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
 15176 1208   16 -----567  DimmerSwitch_OM15082
```

7.4 Public v2002: New Features

None.

7.5 Public v2002: Bug Fixes

MCUZIGBEE-2592: EndDevice RamOpt OTA via Router : fail to rejoin and continue when Router powered off

Application now monitors ZPS_EVENT_NWK_POLL_CONFIRM message, accumulate the error and do rejoin once the errors is bigger than the threshold. Find below code in AN.

```
#ifdef SLEEP_MIN_RETENTION
if (psStackEvent->uEvent.sNwkPollConfirmEvent.u8Status == MAC_ENUM_NO_ACK)
    u8NumOfPollFailure++;
else
    u8NumOfPollFailure = 0;
if(u8NumOfPollFailure > MAX_POLL_FAILURE)
{
    DBG_vPrintf(TRACE_APP, "\r\nPoll failure exceed MAX_POLL_FAILURE, start BDB
 rejoin\r\n");
    BDB_vRejoinCycle(TRUE);
    u8NumOfPollFailure=0;
}
#endif
```

MCB-1924: ZED sleep current is too high, should about 1.15uA for 4K RAM retention.

Update makefile to select correct mode for 32K clock. Find below code in makefile and AN.

```
CLK_32K = 1
ifeq ($(CLK_32K), 1)
CFLAGS += -DgClkUseFro32K=1
CFLAGS += -DgPWR_UseAlgoTimeBaseDriftCompensate=1
# 32k FRO automatic calibration (0 = disable, 1 = enable)
CFLAGS += -DgClkRecalFro32K=0
else
CFLAGS += -DgClkUseFro32K=0
endif
```

```
#ifdef APP_LOW_POWER_API
static void PreSleep(void)
#else
PWRM_CALLBACK(PreSleep)
#endif
{
…
/* Minimize GPIO power consumption */
BOARD_SetPinsForPowerMode();
}
```

7.6 Public v2002: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

8 Public v2001 – 17-Apr-2020

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041.

8.1 Public v2001: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for K32W061 chips on the K32W061DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 8. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
IoT_ZTB Development Kit	IoT_ZTB-DK006	-	K32W061 / K32W041
MPCXpresso –Toolchain		v11.1.1 build 3241	JN5189 / JN5188 K32W061 / K32W041
Development Kit – SDK	K32W061DK6	v2.6.0 RFP RC5	JN5189 / JN5188 K32W061 / K32W041

8.2 Public v2001: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
180052 1660 19072 200784 ColorSceneController_OM15082
210528 1840 21428 233796 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
159048 1560 17824 178432 DimmerSwitch_OM15082
184312 1736 20188 206300 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
 39344  208  3724  43276 GpEhSwitch_OM15082
```

8.3 Public v2001: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare kb    banks filename
16456  8120 24 ----4567  ColorSceneController_OM15082
3816    280  4 -------7  ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
15176  1208 16 -----567  DimmerSwitch_OM15082
3496    600  4 -------7  DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

8.4 Public v2001: New Features

None.

8.5 Public v2001: Bug Fixes

artf734822: OTA end request error due to server power off during OTA process

When server power off then power on, device will restart the OTA, but the flash driver needs to reinit as well.

8.6 Public v2001: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

MCUZIGBEE-2592 : End Device RamOptOTA via Router, fail to rejoin and continue when Router powered off

To do, optimize AN1245 to make end device OTA continue when parent Router powered off.

9 Public v2000 – 5-Mar-2020

Public release for DK006: JN5189 / JN5188 / K32W061 / K32W041.

9.1 Public v2000: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions. The supplied makefiles are configured to compile for JN5189 chips on the JN5189DK6 SDK which was also used to create the pre-built binaries, there is information on the main Application Note document on how to compile for different chips/SDKs.

Table 9. Versions

Product Type	Part Number	Version	Supported Chips
JN518x Development Kit	JN518x-DK006	-	JN5189 / JN5188
K32W061 Development Kit	K32W061-DK006	-	K32W061 / K32W041
MPCXpresso –Toolchain		v11.1.0 build 3209	JN5189 / JN5188 K32W061 / K32W041
Development Kit – SDK	JN5189DK6	v2.6.0 build 110	JN5189 / JN5188 K32W061 / K32W041

9.2 Public v2000: Memory Usage

The applications of this Application Note have the following memory footprints:

```
  text data   bss    dec filename
180024 1656 18880 200560 ColorSceneController_OM15082
210372 1836 21252 233460 ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
159016 1560 17648 178224 DimmerSwitch_OM15082
184216 1736 19996 205948 DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
 39264  208  3724  43196 GpEhSwitch_OM15082
```

9.3 Public v2000: End Device RAM Retention

The End Devices in this Application Note retain the following RAM during sleep:

```
retain spare kb    banks filename
16264   120 16 -----567  ColorSceneController_OM15082
3816    280  4 -------7  ColorSceneController_NtagIcode_Ota_RamOpt_OM15082
15000  1384 16 -----567  DimmerSwitch_OM15082
3496    600  4 -------7  DimmerSwitch_NtagIcode_Ota_RamOpt_OM15082
```

9.4 Public v2000: New Features

None – first release.

9.5 Public v2000: Bug Fixes

None – first release.

9.6 Public v2000: Known Issues

artf726309 : JN-AN-1245: Time interval large than 5s from OTA Upgrade End Response to Rejoin in ColorSceneController

To do, seems to be about 9 seconds, OTA completes successfully.

10 Note about the source code in the document

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11 Revision History

Table 10. Revision History

Document ID	Release date	Description
RN1245 v.2.0	20200311	New version v2000 built with JN5189 2.6.0 SDK
RN1245 v.2.1	20200417	New release v2001 built with K32W061 RFP RC5
RN1245 v.2.2	20200821	New release v2002 built with K32W061 2.6.1 MR1
RN1245 v.2.3	20201223	New release v2003 built with K32W061 2.6.2 MR2
RN1245 v.2.4	20210420	New release v2004 Update to include K32W041AM for MR3 SDK
RN1245 v.2.5	20210906	New release v2005 built on MR3 QPATCH1 SDK
RN1245 v.2.6	20220320	New release v2006 built on MR4 SDK2.6.5
RN1245 v.2.7	20221111	New release v2007 built on SDK2.6.8 SDK
RN1245 v.2.8	20231107	New release v2008 built on SDK2.6.13 SDK

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Date of release: 12 December 2023
Document identifier: RN1245