Release Notes: JN-AN-1246
DK006: JN5189 / JN5188 / K32W061 / K32W041

Zigbee 3.0 Sensors

These release notes provide information on the SDK compatibility, memory usage and change history for the JN-AN-1246 Zigbee 3.0 Sensors Application Note.

1 Public v2003– 23-Dec-2020

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

1.1 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.

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

1.2 Public v2003: Memory Usage

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

```
  text data    bss    dec filename
167312 1584 17616 186512 LightSensor_OM15081R2
191776 1744 19984 213504 LightSensor_NtagIcode_Ota_OM15081R2
168920 1688 18160 188768 LTOSensor_OM15081R2
193200 1856 20512 215568 LTOSensor_NtagIcode_Ota_OM15081R2
170244 1596 17600 189440 OccupancySensor_OM15082
195580 1748 19968 217296 OccupancySensor_NtagIcode_Ota_OM15082
```

1.3 Public v2003: End Device RAM Retention

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

```
 retain spare kb    banks filename
  18120 6456    24 ----4567 LTOSensor_NtagIcode_Ota_OM15081R2
  15080 1304    16 -----567 OccupancySensor_OM15082
  17480 7096    24 ----4567 OccupancySensor_NtagIcode_Ota_OM15082
  15080 1304    16 -----567 LightSensor_OM15081R2
  17480 7096    24 ----4567 LightSensor_NtagIcode_Ota_OM15081R2
  15736  648    16 -----567 LTOSensor_OM15081R2
```

1.4 Public v2003: New Features

None.

1.5 Public v2003: Bug Fixes

None.

1.6 Public v2003: Known Issues

None.

2 Public v2002– 21-Aug-2020

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

2.1 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.

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

2.2 Public v2002: Memory Usage

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

```
  text data   bss    dec filename
164912 1552 17520 183984 LightSensor_OM15081R2
189312 1712 19888 210912 LightSensor_NtagIcode_Ota_OM15081R2
166520 1640 18064 186224 LTOSensor_OM15081R2
190800 1824 20416 213040 LTOSensor_NtagIcode_Ota_OM15081R2
167844 1564 17504 186912 OccupancySensor_OM15082
193180 1716 19872 214768 OccupancySensor_NtagIcode_Ota_OM15082
```

2.3 Public v2002: End Device RAM Retention

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

```
 retain spare kb    banks filename
 17992 6584    24 ----4567 LTOSensor_NtagIcode_Ota_OM15081R2
 14952 1432    16 -----567 OccupancySensor_OM15082
 17352 7224    24 ----4567 OccupancySensor_NtagIcode_Ota_OM15082
 14952 1432    16 -----567 LightSensor_OM15081R2
 17352 7224    24 ----4567 LightSensor_NtagIcode_Ota_OM15081R2
 15592  792    16 -----567 LTOSensor_OM15081R2
```

2.4 Public v2002: New Features

None.

2.5 Public v2002: Bug Fixes

None.

2.6 Public v2002: Known Issues

None.

3 Public v2001– 17-Apr-2020

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

3.1 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.

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

3.2 Public v2001: Memory Usage

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

```
  text data    bss    dec filename
165812 1548 17520 184880 LightSensor_OM15081R2
190280 1704 19872 211856 LightSensor_NtagIcode_Ota_OM15081R2
167268 1644 18064 186976 LTOSensor_OM15081R2
191552 1824 20416 213792 LTOSensor_NtagIcode_Ota_OM15081R2
168604 1556 17504 187664 OccupancySensor_OM15082
194008 1720 19856 215584 OccupancySensor_NtagIcode_Ota_OM15082
```

3.3 Public v2001: End Device RAM Retention

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

```
retain spare kb    banks filename
 14952  1432 16 -----567 LightSensor_OM15081R2
 17336  7240 24 ----4567 LightSensor_NtagIcode_Ota_OM15081R2
 15592   792 16 -----567 LTOSensor_OM15081R2
 17992  6584 24 ----4567 LTOSensor_NtagIcode_Ota_OM15081R2
 14952  1432 16 -----567 OccupancySensor_OM15082
 17336  7240 24 ----4567 OccupancySensor_NtagIcode_Ota_OM15082
```

3.4 Public v2001: New Features

None.

3.5 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.

3.6 Public v2001: Known Issues

None.

4 Public v2000– 5-Mar-2020

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

4.1 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.

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		v11.1.0 build 3209	JN5189 / JN5188 K32W061 / K32W041
Development Kit – SDK	JN5189DK6	v2.6.0 build 110	JN5189 / JN5188 K32W061 / K32W041

4.2 Public v2000: Memory Usage

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

```
  text data    bss     dec filename
165780 1548  17328  184656 LightSensor_OM15081R2
190120 1704  19696  211520 LightSensor_NtagIcode_Ota_OM15081R2
167236 1644  17888  186768 LTOSensor_OM15081R2
191388 1812  20240  213440 LTOSensor_NtagIcode_Ota_OM15081R2
168572 1556  17328  187456 OccupancySensor_OM15082
193848 1720  19680  215248 OccupancySensor_NtagIcode_Ota_OM15082
```

4.3 Public v2000: End Device RAM Retention

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

```
retain spare kb    banks filename
 14760  1624 16 -----567 LightSensor_OM15081R2
 17160  7416 24 ----4567 LightSensor_NtagIcode_Ota_OM15081R2
 15416   968 16 -----567 LTOSensor_OM15081R2
 17816  6760 24 ----4567 LTOSensor_NtagIcode_Ota_OM15081R2
 14776  1608 16 -----567 OccupancySensor_OM15082
 17160  7416 24 ----4567 OccupancySensor_NtagIcode_Ota_OM15082
```

4.4 Public v2000: New Features

None – first release.

4.5 Public v2000: Bug Fixes

None – first release.

4.6 Public v2000: Known Issues

None – first release.

Important Notice