



<b>Project:</b>	<b>BSEC 1.x</b>
<b>Release Title:</b>	<b>BSEC_1.4.8.0</b>
<b>Date:</b>	<b>08-7-20</b>
<b>Release Type</b>	<b>New version of BSEC</b>

## 1. Scope:

Development of software components required for BME680

## 2. Features/Changes Implemented:

Version	Changes
BSEC 1.4.8.0	<ul style="list-style-type: none"><li>• enable high power mode with temperature &amp; humidity offset &amp; sensitivity compensation of IAQ calculation</li><li>• add lib for Linux gcc, Windows gcc, macOS</li><li>• Bugfix in example code about buffer size</li></ul>
BSEC 1.4.7.4	<ul style="list-style-type: none"><li>• Extended BSEC working range down to temperatures up to -40°C</li><li>• Removed lib compiled by MPLAB</li></ul>
BSEC 1.4.7.3	<ul style="list-style-type: none"><li>• Bugfix in state file: Added 2 more parameters to state file so that it is not set incorrectly with update subscription</li></ul>
BSEC 1.4.7.2	<ul style="list-style-type: none"><li>• Added release for compiler IAR version 8</li><li>• Removed unexpected "bsec_datatypes_hidden.h" file</li><li>• Added both hard and soft FPU version for cortex m4 with GCC compiler</li><li>• Added lib compiled by maplab with compiler xc16</li></ul>
BSEC 1.4.7.1	<ul style="list-style-type: none"><li>• Added new outputs (see bsec_datatypes.h)</li><li>• Simulate data sets from multiple sensors using 1 BSEC instance (see "2.8 Simulate multiple sensors using single BSEC instance" in integration guide)</li><li>• Added Arduino library to log BME680 data without the need of BSEC (bme680_data)</li><li>• Enable LP ODR for Temperature, Pressure, Humidity while IAQ is in ULP (example: basic_config_state_ULP_LP)</li></ul>
BSEC 1.4.6.0	<ul style="list-style-type: none"><li>• New ULP+ feature for additional measurements on demand,</li><li>• Improved behavior on dynamic changes in LP mode,</li><li>• BSEC lite version with reduced memory requirements included,</li><li>• size of state string defined, size of config string reduced,</li><li>• Option to (temporarily) disable baseline tracker for special applications,</li><li>• Documentation &amp; code improvements.</li></ul>
BSEC 1.4.5.1	<ul style="list-style-type: none"><li>• Improved humidity compensation,</li><li>• Improved accuracy status,</li><li>• Additional config strings included,</li><li>• Fixed accuracy / IAQ value after initialization,</li><li>• Code optimization.</li></ul>
BSEC 1.3.4.1	-/- (initial release)

## 3. Features/Changes not implemented:

- No item



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#### 4. Release Package list (files in the packages):

The following are the Release items included in this release:

- BSEC binaries
- Integration Guide
- BSEC Binary Size Information
- Config String for different settings
- Example code for integration

#### 5. Known Issues, concerns and workarounds

- Not system tested in all target microcontroller platforms

#### 6. Change Requests (if applicable)

- Not Applicable

#### 7. Testing

- System testing performed

#### 8. Additional Information

- Config string is not mandatory for LP and ULP mode.