

Release Notes

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Product name	BSEC
Compatible hardware	BME680 and BME688
Release version (number)	2.4.0.0
Date of release	23-01-2023
Name of release package	BSEC_2.4.0.0 Generic_Release_23012023
Release type (reason for the release)	Website release of Version 2.4.0.0

Purpose of the software	Software components required for BME680 and BME688
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Components included	<ul style="list-style-type: none"> • BSEC binaries • Integration Guide • BSEC Binary Size Information • Config String for specific settings • Example code for integration
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New features and changes implemented compared to the previous release	<ul style="list-style-type: none"> • Multi instance interface support – BSEC will support multiple sensors. Additional interface file ‘bsec_interface_multi.h’ added to support multi instance APIs. • Unified static library to support sensor variants, Configuration files offered separately for BME680 and BME688 sensors. • Reduced library size by optimizing configuration and state properties for catering to multi instance support.
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Defects fixed according to the previous release	<ul style="list-style-type: none"> • CO₂ scaling factor corrected to adapt the IAQ algorithm improvement done as part of Version 2.2.0.0
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Known issues	<ul style="list-style-type: none"> • Enabling the pressure channel for gas scanning is only recommended in applications with clear correlation to classes. In other cases, misclassification can happen due to “unknown / untrained” pressure signal characteristics. • Raw temperature outputs might not be within +/-2 degrees of surrounding environment during scan mode. • IAQ outputs are calculated as well in scan mode, but are not accurate and thus not recommended to be used.
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Additional comments (optional)	<ul style="list-style-type: none"> • BME AI Studio 2.0.0 supports this BSEC version. • BME Development Kit firmware 2.0.6 supports this BSEC version. • BSEC header files 'bsec_datatypes.h' and 'bsec_interface.h' present in binary file folders are removed as they are already packaged under 'inc' folder.
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Version history	Changes
BSEC 2.2.0.0	<ul style="list-style-type: none"> • configuration update. • IAQ algorithm improved w/r to interaction and performance by optimized baseline adaptation. Accordingly, the IAQ adaptation points have been updated to 50 & 200 for best user experience (former versions used 25 & 250). • IAQ output available in continuous mode operation (ODR 1 Hz). • Temperature-Humidity compensation in IAQ output updated (adopted from BSEC version 1.4.8.0). • Merged BSEC 1.x and BSEC 2.x (means BSEC 2.2.0.0 incl. full functionality of BSEC 1.4.9.2). • Static code error/warning fixes.
BSEC 2.0.6.1	-/- (initial release)