
DSPK v2.1.5 Release Notes

Version 2.1.5

v2.1.5 is a patch release which based on v2.1.3 with updated BM6x firmware.

The following issues has been resolved and/or enhancement has been added in this release:

Utility Tool Updates:

Items	Version
isUpdate Tool	2.97
DSP Tool	15
UI Tool	2.1.26
MP Tools	2.1.32.6327
SpkCommandSetTool	202.523

Firmware Changes / Enhancement:

1. Fixed SweynTooth BLE vulnerability.
2. Fixed BIAS (Bluetooth Impersonation AttackS) vulnerability.
3. Pair mobile phone with “Disconnect BR/EDR Link When Enter Pairing” setting, BM6x may result in inoperable. Fixed this issue.
4. Enable wide band audio in Config tools, pair BM6x with window (version 1903 or above), the window cannot show 16KHz HFP audio. Fixed this issue.
5. Added “Disable All Voice Function(NR/AEC)” option in DSP tool to disable voice effect of HFP decoded data.
6. Added “only accept paired device” option in UI tool to accept connection from paired device only when BM6x is not in pairing mode.

Version 2.1.3

The following issues has been resolved and/or enhancement has been added in this release:

1. Removed iAP1 as only iAP2 is required for MFi certification.
2. Improved UL SRC(48K->8/16K) by fixing bug.
3. Line IN noise issue is resolved.
4. Bluetooth SIG BR/EDR security patch added(CERT VU#918987): Encryption key size update for SIG errata 11838, encryption key size shall be at least 7 bytes.
5. Enabled Stereo capability for Tones/Voice is irrespective of SRC.
6. Bluetooth classic name and BLE advertisement name can be set separately in UI tools.

Version 2.1.2

The following issues has been resolved and/or enhancement has been added in this release:

1. DSP's internal codec goes to Low Power mode when inactive. In previous versions, the internal codec is enabled all the time.
2. I2S harmonics when 1 kHz tone is played in BM64.
3. Sampling rate conversion from 44.1 kHz to 48 kHz for audio from auxiliary input has been fixed.
4. Memory corruption in BLE advertisement.
5. BM62 was incorrectly appending MMI data, which affected the functionality of MBA app. Issue is resolved.
6. Bluetooth Midi feature enabled.
7. Bluetooth device stopped responding to UART commands after 200 requests. Issue is resolved.
8. Attempts to update certain Bluetooth Low Energy parameters caused Bluetooth Low Energy to reset. Issue is resolved.
9. Max tone not played in I2S Slave mode.
10. I2S clock issue in I2S slave mode @44.1 kHz.
11. MFI ACP3.0 support added.
12. Data transfer through iAP2 while A2DP/HFP is active.
13. Multi-link operation failed when one link was transferring data and the second link disconnected. Issue resolved. First link now maintains data transfer uninterrupted.
14. Audio discontinuity issue at the end of AAC song.
15. SPP/RFCOMM disconnects when BLE transfer is initiated. Issue resolved.
16. Bluetooth Low Energy connection prevented SPP connection. Issue resolved.
17. MBA app would periodically display "Disallowed command." Issue resolved.
18. Customized EQ effects were not implemented properly. Issue resolved.
19. No voice prompt when slide switch in turn on/off.
20. No sound for voice (mSBC) when playing on device running Microsoft 10.0.150xx.xxx or later versions. Issue resolved.
21. BLE services stopped when GATT parameters were updated, required the Bluetooth device to be reset. Issue resolved.
22. BM6x request re-pairing to phone after its been power-cycled and the phone has deleted the module's pairing information. Pop up message on phone no longer occurs.
23. Option in UI tool to downgrade AVRCP v1.6 to AVRCP v1.3
24. BLE HID works in iOS devices by enabling security feature in GATT table.
25. UART or MBA command requesting Bluetooth device version resulted in truncated response by 1 byte. Issue resolved.
26. Samsung Galaxy S8/S9 shows 10% battery level when battery detection is disabled in UI Tool.
27. Implemented sample rate conversion from 48 kHz on I2S (input) to 8/16 kHz voice frequency per HFP/HSP profiles.

Version 2.1

The following are the resolved attributes of this firmware version for specific system requirements and device settings.

1. USB Firmware upgrade
2. GATT services
3. Audio SRC (44.1 kHz to 48 kHz) is enabled
4. Voice SRC (8/16 kHz to 48 kHz) is enabled
5. Seven Native voice prompts are supported
6. Customized voice prompt through EEPROM
7. Voice/Tone in Stereo mode
8. EEPROM option to disable disconnect, when entering Pairing mode
9. iOS/Android Microchip Bluetooth Audio (MBA) App
10. I2S can be configured in Master/Slave mode and I2S can be set to 48 kHz
11. MTU size change notification
12. UART commands to query local GATT service table
13. Option to disable Bluetooth low energy advertisement at power on
14. iAP2 support is enabled
15. Different Bluetooth MAC address for Bluetooth low energy and Bluetooth classic
16. Command added to query current A2DP codec (SBC/AAC/LDAC)
17. HID Mouse demo on BM64
18. A2DP and Bluetooth low energy can operate independently. Option made available to prevent Bluetooth low energy, when entering Pairing mode
19. Inter-channel phase delay 7 degree in DSP signal
20. When BM62 EVB is in Mute condition, pressing Volume down key makes audio unmute
21. Audio can be toggled between Aux-in and Bluetooth audio
22. Incorrect voice prompt with Slide switch "on/off" setting on BM62 EVB
23. Unable to configure EQ Settings for Voice function
24. Unable to transfer files using SPP between source and sink during A2DP and HFP call
25. MMI Data is appended with headers, when host MCU is not used
26. "Fixed Ring Tone Volume" setting is not functional
27. SPP connection sequence is limited

Note: SPP connection is not established, after BLE connection. Therefore BLE connection is fine, after SPP connection..

Version 1.1

The following are the resolved attributes of this firmware version for specific system requirements and device settings.

1. Two Simultaneous A2DP Link
2. Two Simultaneous HF Link
3. Support I2S audio output (BM64)
4. Support Analog audio output
5. Support Aux-in
6. External Voice Prompt
7. Battery temperature detection for charging protection
8. Enable hardware Under Voltage Protection (UVP) after power-on
9. Bluetooth low energy enabled/disabled by UART command
10. Bluetooth low energy Auto enable in Standby mode
11. Bluetooth low energy Transparent service
12. Bluetooth low energy Service data handling by Host MCU
13. Bluetooth low energy Musical Instrument Digital Interface (MIDI)
14. UART command pass through SPP/Bluetooth low energy Transparent service (Embedded SPP)

Note: SPP connection is not established, after BLE connection. Therefore BLE connection is fine, after SPP connection..

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