



BM83 Getting Started Guide

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1. INTRODUCTION

BM83 offered multiple collateral to support different application scenario. The product page provides datasheets, software variants , PC tools and a set of documentation to help user to apply BM83 in their product.

This document provides general introduction of each collateral so users can easily get their needs for their applications. Also, this document will provide some guideline to have a quick start and basic idea to start with BM83.

2. HISTROY

Release Version	Date	Changes	MBD Version	Remark
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3. BM83 COLLATERAL OVERVIEW

BM83 documents and Turnkey software package can be downloaded through [BM83](#) / [IS2083](#) website. BM83 EVB samples and information can be obtained through [BM83 EVB website](#). The SDK software package can be obtained through your local ESE / FAE.

3.1 Collateral in BM83 / IS2083 Website



























Items	Name and link	Coverage
Datasheets	BM83 Bluetooth Stereo Audio Module Data Sheet	Module information
	IS2083 Bluetooth Stereo Audio SoC Data Sheet	IC information
User Guide or Application note	BM83 Bluetooth Audio Development Board User Guide	Development board configuration and usage
	IS2083/BM83 Bluetooth Applications Design Guide	General BM83 applications and feature's configuration
	IS2083/BM83 Battery Charger Application Note	IS2083/BM83 internal battery charger applications and configuration
Software Release Notes	BM83 MSPK2 v1.3 Release Notes	Multi-speaker firmware release notes v1.3
	BM83 Audio Transceiver v1.0 Release Notes	Audio Transceiver firmware release notes v1.0
Turnkey Software Package	IS2083 Turnkey Software and Tools v1.2.0	Contains MSPK2 v1.3 release, MBA and PIC32 software, tools and software documents
	IS2083 Turnkey Software and Tools v1.1.0	Contains MSPK2 v1.2 and AT 1.0 firmware release, MBA and PIC32 software, tools, and software documents
Chip Down Reference Design	IS2083 Chip Down Reference Design Package	Contains IS2083 chip down design files, MP tools and ISRT tools
Reference schematic	BM83 Embedded Mode Reference Circuit	Same as the name
	BM83 J-Link 6-Pin Adapter Board	
	BM83 Digital Microphone Daughter Board	
	BM83 Evaluation Board	
	BM83 Carrier Board	
Certifications	BM83SM Regulatory Approval Documentation	
	BM83 BTQF Certification	

3.2 Collateral in BM83 EVB website

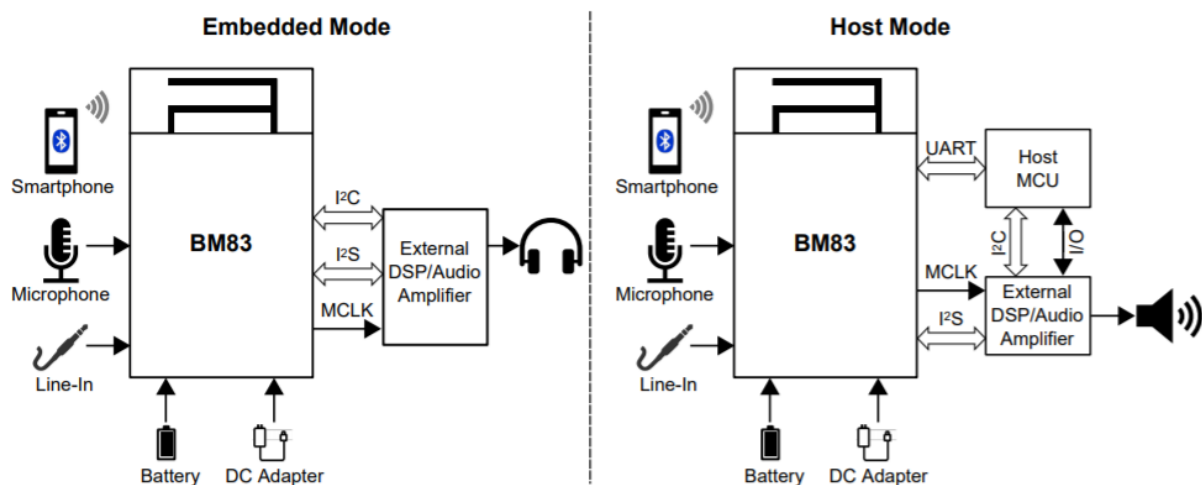
Items	Name and link	Coverage
User Guide or Application note	BM83 Bluetooth Audio Development Board User Guide	EVB configuration and usage Firmware update
Reference schematic	BM83 Embedded Mode Reference Circuit BM83 J-Link 6-Pin Adapter Board BM83 Digital Microphone Daughter Board BM83 Evaluation Board BM83 Carrier Board	Same as the name
Test Report	BM83 EVB EMC Test Report	

3.3 Collateral in Turnkey Software Package

Folder	Sub-folder or items	Usage
Root	<ul style="list-style-type: none"> ▼ IS2083 Turnkey_1.x <ul style="list-style-type: none"> Document > Software > Tools 	1. Contains software document, software images and source code and PC tools for BM83
Root\Document	<ul style="list-style-type: none"> AudioUARTCommandSet_Summary_table_V2.08.xlsx AudioUARTCommandSet_v2.08.pdf MSPK2v1.3.2 Release Notes.pdf 	1. It is a summary table to list down the supported UART command of different BT audio FW. Users need to check which UART command BM83 is supporting. 2. It is a complete UART command set of all BT audio product. 3. The existing turnkey release notes
Root\Software	<ul style="list-style-type: none"> > IS2083 Image MBA Mobile App > PIC32 Image > Source Code 	1. Contains IS2083 images 2. Contains MBA image 3. Contains PIC32 image 4. Contains MBA and PIC32 source code
Root\Tools	<ul style="list-style-type: none"> ▼ Tools <ul style="list-style-type: none"> > Config Tool isupdate SPKCommandSetTool 	1. Config Tool is a PC tools to configure BM83 software features and settings. 2. isUpdate tool is a PC tools to program BM83 image. 3. SpkCommandSet tool is a PC tool to evaluate UART command
Root\IS2083 Image	<ul style="list-style-type: none"> ▼ IS2083 Image <ul style="list-style-type: none"> ▼ MSPK2v1.3.2 <ul style="list-style-type: none"> > GFP > PBAP > SPP 	1. Current MSPK2 firmware version 2. Provide three variants of BM83 images: SPP, PBAP and GFP. Please refer to IS2083/BM83 Bluetooth Applications Design Guide Table 1 for the feature's details.

Root\IS2083 Image\MSPK2v1.x\	<ul style="list-style-type: none"> ▼  GFP <ul style="list-style-type: none">  Embedded Mode  Host Mode ▼  PBAP <ul style="list-style-type: none">  Host Mode ▼  SPP <ul style="list-style-type: none">  Embedded Mode  Host Mode 	1. Both GFP and SPP provide “Embedded mode” and “Host mode” while PBAP only provide “Host mode” as it is controlled by external MCU.
Root\IS2083 Image\MSPK2v1.x\ *\Embedded Mode or Root\IS2083 Image\MSPK2v1.x\ *\Host Mode	 IS208x_UI_1.3.12_Demo_Package_Embedded_Mode_GFP.hex  MSPK2.0_DSP_FW_V1.04.000A.HEX  MSPKv2_1.03.0206_GFP.hex	<p>Contains 3 images:</p> <ol style="list-style-type: none"> 1. MSPKv2_xxx_yyy.hex: BM83 8051 FW 2. MSPK2.0_DSP_xxx.hex : BM83 DSP FW 3. IS208x_UI_xxx.hex : BM83 configuration settings <p>➤ Please follow the “Section 3 – Device Firmware Update” example 2 in “Root\Tools\isUpdate\ IS2083 isUpdate Tool User's Guide” to download the images to BM83 EVB.</p>
Root\Software\MBA Mobile App	 MBA_v1.6.4.ipa  MBA_v4.10_Android-release.apk	<p>Contains 2 images:</p> <ol style="list-style-type: none"> 1. iOS MBA : MBA_xxx.ipa 2. Android MBA : MBA_xxx_Android-release.apk
Root\Software\PIC32 Image	<ul style="list-style-type: none">  Software <ul style="list-style-type: none">  IS2083 Image  MBA Mobile App  PIC32 Image  v1.6.6  Bluetooth_Basic_Demo_BM83_EVB.X.production.hex 	<p>Contains PIC32 images to demo Host mode. Users need to download the PIC32 image to BM83 EVB.</p> <p>➤ Please follow the “Appendix E - Updating PIC32 MCU Parameters” in BM83 Bluetooth Audio Development Board User Guide to download PIC32 image to BM83 EVB.</p>
Root\Software\Source Code	<ul style="list-style-type: none"> ▼  Software <ul style="list-style-type: none"> >  IS2083 Image  MBA Mobile App >  PIC32 Image ▼  Source Code <ul style="list-style-type: none"> >  Mobile App >  PIC32 MCU 	<p>Contains 2 source code:</p> <ol style="list-style-type: none"> 1. Mobile App : Contains both Android and iOS source code. 2. PIC32 MCU : Contains PIC32 source code.
Root\Software\Source Code\Mobile App		

4. BASIC IDEA OF BM83 APPLICATIONS MODE



BM83 can work as standalone (Embedded mode) or control by external Host MCU (Host mode). User need to decide which mode they are looking.

5. COLLATERAL INTRODUCTION