

**MEDIATEK**

*everyday genius*

## MT8788 DRAM Bring Up SOP

Version: 1.0  
Release date: 2019-10-1615

© 2015 - 2019 MediaTek Inc.

This document contains information that is proprietary to MediaTek Inc. ("MediaTek") and/or its licensor(s). MediaTek cannot grant you permission for any material that is owned by third parties. You may only use or reproduce this document if you have agreed to and been bound by the applicable license agreement with MediaTek ("License Agreement") and been granted explicit permission within the License Agreement ("Permitted User"). If you are not a Permitted User, please cease any access or use of this document immediately. Any unauthorized use, reproduction or disclosure of this document in whole or in part is strictly prohibited. THIS DOCUMENT IS PROVIDED ON AN "AS-IS" BASIS ONLY. MEDIATEK EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF ANY KIND AND SHALL IN NO EVENT BE LIABLE FOR ANY CLAIMS RELATING TO OR ARISING OUT OF THIS DOCUMENT OR ANY USE OR INABILITY TO USE THEREOF. Specifications contained herein are subject to change without notice.

Specifications are subject to change without notice.

## Document Revision History

---

Revision	Date	Description
0.1	2019-03-15	Initial Draft

## Table of Contents

---

<b>Document Revision History</b> .....	3
<b>Table of Contents</b> .....	4
<b>1. Introduction</b> .....	5
1.1 Purpose .....	5
1.2 Definitions, Acronyms and Abbreviations .....	5
1.3 References .....	5
1.4 Overview .....	5
<b>2. Configuration DRAM</b> .....	6
2.1 Configure Part Number .....	6

## 1. Introduction

### 1.1 Purpose

This document shows how to configuration the DRAM for the first time bringup.

### 1.2 Definitions, Acronyms and Abbreviations

### 1.3 References

### 1.4 Overview

MT8183 chip can support discrete LPDDR4.

Please choose the DRAM type from **Qualified Pass Memory List**, otherwise some DDR may give us surprise at bringup phase.

The **Qualified Pass Memory List** can be found in MemoryDeviceList\_MT6771.xls file which Board ID is MT8183\_EVB.

File path:

\\vendor\mediatek\proprietary\bootable\bootloader\preloader\tool\emigen\MT6771\MemoryDeviceList\_MT6771.xls

Vendor	Part Number	Type	Mode	Density (Mb)	Board ID
Micron	MT53B512M32D2NP	Discrete LPDR4X	R0_NORMAL+R1_NORMAL	8192+8192	MT8183_EVB
Hynix	H9HCNNBPUMLHR	Discrete LPDR4X	R0_NORMAL+R1_NORMAL	8192+8192	MT8183_EVB
Samsung	K4F6E3S4HM_MGCJ	Discrete LPDR4X	R0_NORMAL+R1_NORMAL	16384	MT8183_EVB

## 2. Configuration DRAM

### 2.1 Configure Part Number

Add Part Number at file custom\_MemoryDevice.h of project folder of preloader.

File path:

\vendor\mediatek\proprietary\bootable\bootloader\preloader\custom\CUSTOM\_PROJECT  
\inc\custom\_MemoryDevice.h

You can reference for the project aiv8183m1\_64\_bsp.

File path:

\vendor\mediatek\proprietary\bootable\bootloader\preloader\custom\aiV8183m1\_64\_bsp  
\inc\custom\_MemoryDevice.h

```
#define BOARD_ID                MT8183_EVB

#define CS_PART_NUMBER[0]      MT53B512M32D2NP
#define CS_PART_NUMBER[1]      H9HCNNNBPUMLHR
#define CS_PART_NUMBER[2]      K4F6E3S4HM_MGCJ

#endif /* __CUSTOM_MEMORYDEVICE__ */
```