

CONFIDENTIAL

Table of Contents

1. Overview	1
1.1 Overview.....	1
1.2 Function	1
1.3 Reference	2
1.3.1 Standard.....	2
1.3.2 Related documents	3
1.4 Restrictions	3
1.5 Notice.....	3
2. Terminology.....	4
3. System Configuration	5
3.1 Hardware Environment.....	5
3.2 Software Configuration.....	6
4. Function	9
4.1 CPU Hotplug.....	9
4.1.1 CPU Offline	9
4.1.2 CPU Online	10
4.2 CPU Idle	11
4.3 CPU Freq	14
4.3.1 DVFS.....	14
4.3.2 Frequency and AVS support	17
4.4 Runtime PM.....	19
4.5 System Suspend to RAM	23
4.6 Thermal Management	26
4.6.1 IPA	28
4.6.2 EMS.....	29
4.6.3 System Shutdown.....	30
5. External Interface.....	31
5.1 CPU Hotplug.....	32
5.1.1 CPU Hotplug definition.....	32
5.1.2 CPU Hotplug operation	32
5.2 CPU Idle	33
5.2.1 CPU Idle definition	33
5.2.2 CPU Idle operation.....	34
5.3 CPU Freq	35
5.3.1 CPU Freq definition	35
5.3.2 CPU Freq operation.....	37
5.4 System Suspend to RAM	38
5.4.1 System Suspend to RAM definition	38
5.4.2 System Suspend to RAM operation	38
5.5 Runtime PM.....	39
5.5.1 Runtime PM Definition	39
5.5.2 Runtime PM operation	39
5.6 Thermal management (IPA/EMS)	42
5.6.1 Thermal management (IPA/EMS) definition	42
5.6.2 Thermal management (IPA/EMS) operation.....	44
5.6.3 Disabling thermal management (IPA/EMS) operation.....	45

CONFIDENTIAL

6. Integration46

6.1 Directory Configuration..... 46

7. Reference48

7.1 Design Note for System Suspend to RAM support..... 48

7.2 Power management function depend on PMIC..... 51