How to determine wakeup trigger from suspend caused by PMIC IRQ?

Solution Number 00027777

Please Note:
If Qualcomm documentation is referenced in this solution, your access to it is based on your company's

Language Key Words

Detail Information

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Solution Details

[366.151054] gic_show_resume_irq: 222 triggered

This debug message in the kernel log indicates that a PMIC SPMI IRQ was the wakeup trigger from suspend.

To enable additional debug message printing use the following cmds.

adb root
adb wait-for-devices
adb shell mount -t debugfs none /sys/kernel/debug
adb shell "echo 8 > /proc/sys/kernel/printk"
adb shell "echo 'func qpnpint_handle_irq +p' > /sys/kernel/debug/dynamic_debug/control"

Once the device wakes up from suspend, messages like the ones below will get printed out.

Example #1:
[26.935784] qpnpint_handle_irq: spec slave = 0 per = 18 irq = 0

slave = 0 indicates that it is PM8941. per = 18 indicates that it is PM8941 peripheral 0x12. If we look this up in the PM8941 register document it corresponds to SMBB_BAT_IF_PERPH. Looking at register 0x1218 indicates that irq = 0 corresponds to the BAT_PRES IRQ.

Example #2:

[23.708495] qpnpint_handle_irq: spec slave = 0 per = 19 irq = 1

slave = 0 indicates that it is PM8941. per = 19 indicates that it is PM8941 peripheral 0x13. If we look this up in the PM8941 register document it corresponds to SMBB_USB_CHGPTH_PERPH Looking at register 0x1318 indicates that irq = 1 corresponds to the USBIN_VALID IRQ.

Applicable Products PM8019, PM8110, PM8841, PM8926, PM8941, PM8962, PM8974, PMA8084-1, PMA8084-2