

[Description]:

How to configure the SDP charger ICL in XBL?

[Platform]:

MSM8998, SDM845, SDM660, SDM670

[Solution]:

For SDP charger, we should only configure usb3.0/2.0 and usb500/usb100, pm_schg_usb_set_usbin_current_limit_cfg() is not available for SDP type, for protecting the USB port.

Below is an example to configure USB ICL to 500mA for SDP.

```
@boot_images\QcomPkg\Library\PmicLib\app\chg\src\pm_app_chgr.c
pm_err_flag_type pm_sbl_chg_check_weak_battery_status(uint32 device_index)
{pm_err_flag_type pm_sbl_chg_check_weak_battery_status(uint32 device_index)
{
.....
if(chgr_src_detected == PM_SCHG_USB_APSD_RESULT_STATUS_SDP_CHARGER)
{
err_flag |= pm_schg_usb_configure_usbin_icl_options(device_index,
PM_SCHG_USB_ICL_OPTIONS_USB51_MODE, TRUE);
err_flag |= pm_schg_usb_configure_usbin_icl_options(device_index,
PM_SCHG_USB_ICL_OPTIONS_USBIN_MODE_CHG, FALSE);
pm_log_message("Manually set USB500 mode");

typedef enum
{
PM_SCHG_USB_ICL_OPTIONS_USBIN_MODE_CHG, /**< 0x0 : USB_100_OR_500_MODE 0x1 :
USB_HIGH_CURRENT_MODE >*/
PM_SCHG_USB_ICL_OPTIONS_USB51_MODE, /**< 0x0 : USB_100_MODE 0x1 : USB_500_
MODE >*/
PM_SCHG_USB_ICL_OPTIONS_CFG_USB3P0_SEL, /**< 0x0 : USB_2P0_SEL 0x1 : USB_3P0_
SEL >*/
PM_SCHG_USB_ICL_OPTIONS_INVALID
}pm_schg_usb_icl_options_type;
```

The ICL value is decided by below relationship:

USB 2.0 (USB100/USB500) (100mA/500mA)

USB 3.0 (USB100/USB500) (150mA/900mA)

For some customers want to force a lower or higher ICL(like 450mA or 550mA), they can try to override the ICL:

```
pm_schg_usb_set_usbin_current_limit_cfg(0, 450);  
pm_schg_usb_enable_icl_override_after_apsd(0, TRUE);
```

Qualcomm

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zk_sw@wingtech.com