

ZHUHAI ISMARTWARE TECHNOLOGY CO., LTD.

SW6106 Register List

1. History

V1.0: initial version for IC version 6;

2. Register

Note: reserved bits should not be modified

2.1. REG 0x01: BG Control

Bit	Description	R/W	Default
7:6	i2c register operation enable	W/R	0x0
	0: register operation disable		
	1: first operation for register enable		
	2: second operation for register enable		
	3: nothing		
	Other bits of this register can be writen after first operation and second operation.		
5-4	reserved	R	0x0
3	PD PDO settings	R/W	0x0
	0: configured according to power configure		
	1: configured according to mcu		
2	BG force close	W/R	0x0
	0: nothing		
	1:BG force close		
1	BG force open	W/R	0x0
	0: nothing		
	1: BG force open		
0	reserved	/	/

2.2. REG 0x03: Key Event Ctrl

Bit	Description	R/W	Default



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7:5	/	/	/
4	output power off event	W/R	0x0
	0: nothing		
	1: output power off		
	This function is valid when Reg0x49[3] is '1'		
	This bit is automatically cleared by hardware		
3-1	/	/	/
0	short key event	W/R	0x0
	0: nothing		
	1: short key event		
	This bit is automatically cleared by hardware		

2.3. REG 0x05: IRQ Pending1

Bit	Description	R/W	Default
7	vbusC overvoltage pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	This bit is cleared by writing 1		
	Pending bit will be set to '1' when irq enable and vbusC overvoltage event happed		
6	vbusB overvoltage pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	Note: this bit is cleared by writing 1 after vbusB exiting overvoltage		
5	charger overtime pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
4	UVLO pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	Note: this bit is cleared by writing 1 after exiting UVLO		
3	NTC over temperature pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
2	/	/	/
1	OTP (IC over temperature protect) pending bit	W/R	0x0
	0: no irq		
	1: irq pending		



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·	this bit is cleared by writing 1		
0	SCP/OLP pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	Note: this bit is cleared by writing 1 after exiting SCP/OLP		

2.4. REG 0x06: IRQ Pending2

Bit	Description	R/W	Default
7	short key pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
6	port C plug out pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
5	port C plug in pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
4	port B plug out pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
3	Port B plug in pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
2	port A plug out pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
1	port A plug in pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
0	vbat overvoltage pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		

Mode: iSW_Release_RG006_1_v1.0

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2.5. REG 0x07: IRQ Pending3

Bit	Description	R/W	Default
7	/	/	/
6	fuel gauge Below 5% pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
5	charger <i>close</i> pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
4	charger open pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
3	boost close pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
2	boost open pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
1	gauge percent change pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		
0	fast charge status change pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		

2.6. REG 0x08: IRQ Pending4

Bit	Description	R/W	Default
7:2		/	/
1	wled on/off pending bit	W/R	0x0
	0: no irq		



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	1: irq pending		
	this bit is cleared by writing 1		
0	charger full event pending bit	W/R	0x0
	0: no irq		
	1: irq pending		
	this bit is cleared by writing 1		

2.7. REG 0x09: IRQ Enable

Bit	Description	R/W	Default
7:4		1	/
3	Reg0x07[1] /Reg0x07[6]/Reg0x8[1:0] irq enable	W/R	0x0
	0: disable		
	1: enable		
2	Reg0x07[0] /Reg0x07[5:2] irq enable	W/R	0x0
	0: disable		
	1: enable		
1	Reg0x06[7:1] irq enable	W/R	0x1
	0: disable		
	1: enable		
0	Reg0x05[7:0] /Reg0x06[0] irq enable	W/R	0x0
	0: disable		
	1: enable		

2.8. REG 0x0A: IRQ Maskbits1

Bit	Description	R/W	Default
7	vbusC overvoltage irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
6	vbusB overvoltage irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
5	charger overtime irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		



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4	UVLO irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
3	NTC overtempt irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
2	/	/	/
1	OTP irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
0	SCP/OLP irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		

2.9. REG 0x0B: IRQ Maskbits2

Bit	Description	R/W	Default
7	short key irq mask bit	W/R	0x1
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
6	port C plug out irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
5	Port C plug in irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
4	port B plug out irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
3	port B plug in irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		



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2	port A plug out irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
1	port A plug in irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		
0	vbat overvoltage irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low;		

2.10. **REG 0x0C: IRQ Maskbits3**

Bit	Description	R/W	Default
7		/	/
6	fuel gauge below 5% irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
5	charger close irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
4	charge open irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
3	boost close irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
2	boost open irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
1	gauge percent change irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		



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0	fast charge status change irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		

2.11. **REG 0x0D: IRQ Maskbits4**

Bit	Description	R/W	Default
7:2	/	/	/
1	wled on/off irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		
0	charge full event irq mask bit	W/R	0x0
	0: disable		
	1: enable		
	Only when mask bit is 1 and irq pengding is 1, irq pin will be low		

2.12. REG 0x10: Protocol Indication

Bit	Description	R/W	Default
7:6		/	/
5:4	sink protocols indication (SW6106 as sink)	R	0x0
	1: PD		
	2: high voltage input/ FCP /AFC, refer to reg0x5F[7:5]		
	3: reserved		
3	1	/	/
2:0	source protocols indication	R	0x0
	0: nothing		
	1: PD		
	2: QC2.0		
	3: QC3.0		
	4: FCP		
	5: PE2.0/1.1		
	6: SFCP		
	7: AFC		

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2.13. **REG 0x11: System Status**

Bit	Description	R/W	Default
7:6	/	/	/
5	boost status	R	0x0
	0: boost close		
	1: boost open		
4	charger status	R	0x0
	0: charger close		
	1: charger open		
3		1	/
2	port C status	R	0x0
	0: port C off		
	1: port C on		
1	port B status	R	0x0
	0: port B off		
	1: port B on		
0	port A status	R	0x0
	0: port A off		
	1: port A on		

2.14. REG 0x13: Boost DAC Data

Bit	Description	R/W	Default
7	ADC data type	W/R	0x0
	0: filtered data		
	1: raw data;		
	note: only Vbat/Ichg/Idischg/Ts can select fiter data and raw data		
6-0	boost output voltage value	R	0x0
	$V_{Boost} = (5.0 + 0.1*Reg0x13[6:0]) V$		

2.15. REG 0x14: ADC Vbat Data

Bit	Description	R/W	Default
7-0	battery voltage	R	0x0
	Vbat[7:0]		
	V _{BAT} = ((Reg0x15[3:0]<<8)+ Reg0x14[7:0]) *1.2 mV		



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2.16. **REG 0x15: ADC Vbat/Vout Data**

Bit	Description	R/W	Default
7-4	Vout voltage	R	0x0
	Vout[11:8]		
	Vout= ((Reg0x15[7:4]<<8)+ Reg0x16[7:0]) *4 mV		
3-0	battery voltage	R	0x0
	Vbat[11:8]		
	$V_{BAT} = ((Reg0x15[3:0] << 8) + Reg0x14[7:0]) *1.2 mV$		

2.17. REG 0x16: ADC Vout Data

Bit	Description		R/W	Default
7-0	output voltage		R	0x0
	Vout[7:0]	<i>A O</i>		
	Vout = ((Reg0x15[7:4]<<8)+ Reg0x16[7:0]) *4 mV			

2.18. **REG 0x17: ADC Ichg Data**

Bit	Description	R/W	Default
7-0	Charge current	R	0x0
	Icharge[7:0]		
	$I_{Charge} = ((Reg0x18[3:0] << 8) + Reg0x17[7:0])*25/7 mA$		

2.19. REG 0x18: ADC Ichg/Idischg Data

Bit	Description	R/W	Default
7-4	Discharge current	R	0x0
	Idischarge[11:8]		
	$I_{Discharge} = ((Reg0x18[7:4] << 8) + Reg0x19[7:0])*25/7 mA$		
3-0	Charge current	R	0x0
	Icharge[11:8]		
	I _{Charge} = ((Reg0x18[3:0]<<8)+ Reg0x17[7:0])*25/7 mA		



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2.20. REG 0x19: ADC Idischg Data

Bit	Description	R/W	Default
7-0	Discharge current	R	0x0
	Idischarge[7:0]		
	$I_{Discharge} = ((Reg0x18[7:4] << 8) + Reg0x19[7:0])*25/7 mA$		

2.21. **REG 0x1A: ADC Die Temp Data**

Bit	Description	R/W	Default
7-0	IC internal temperature	R	0x0
	Tdie[7:0]		
	T _{Die} = ((Reg0x1B[3:0]<<8)+ Reg0x1A[7:0] - 1851)*1/6.82 °C		

2.22. **REG 0x1B: ADC IC Temperature/NTC Data**

Bit	Description	R/W	Default
7-4	NTC resistor voltage	R	0x0
	Vntc[11:8,]		
	$V_{NTC} = ((Reg0x1B[7:4] << 8) + Reg0x1C[7:0])*1.1mV;$		
	Note NTC resistance is computed according to adc_NTC voltage and current. the current		
	value is 80uA.		
3-0	IC internal temperature	R	0x0
	Tdie[11:8]		
	T _{Die} = ((Reg0x1B[3:0]<<8)+ Reg0x1A[7:0] - 1851)*1/6.82 °C		

2.23. REG 0x1C: ADC NTC Data

Bit	Description	R/W	Default
7-0	NTC resistor voltage	R	0x0
	Vntc[7:0]		
	$V_{NTC} = ((Reg0x1B[7:4] << 8) + Reg0x1C[7:0])*1.1mV$		

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2.24. REG 0x22: Control Power

Bit	Description	R/W	Default
7:6	control power operation bit	/	/
	0: control disenable		
	1: first operation for control enable		
	2: second operation for control enable		
	3: nothing		
	Other bits of this register can be writen after first operation and second operation.		
5	Force open boost	R/W	0x0
	0: nothing	1	
	1: force open boost		
	Writing "1" to this bit will force open boost when BG force open(reg0x01[1])		
4	Force close boost	R/W	0x0
	0: nothing		
	1: force close boost		
3:2		/	/
1	force open charger	R/W	0x0
	0: nothing		
	1: force open charger		
0	force close charger	R/W	0x0
	0: nothing		
	1: force close charger		

2.25. **REG 0x23: PDO Config 1**

Bit	Description	R/W	Default
7		/	/
6:5	in mcu configure mode(reg0x01[3]=1), 9V PDO current setting , Imax_9v[1:0]		
	Vbus = $9V$, $I_{max} = ((reg0x32[7:5] << 2) + reg0x23[6:5]) *0.1 A$		
4-0	in mcu configure mode(reg0x01[3]=1), 5V PDO current setting , Imax_5v[4:0]	R/W	0x0
	Vbus = 5V, $I_{max} = reg0x23[4:0]*0.1 A;$		
	Note, only setting 2A or 3A		

2.26. **REG 0x24: Fast Charge Config1**

Bit	Description	R/W	Default
7	Port A source fast charge	R/W	ОТР
	0: disable		



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1: enable		
Port C source fast charge	R/W	ОТР
0: disable		
1: enable		
reserved	R/W	ОТР
PD enable	R/W	ОТР
0: disable		
1: enable		
Note:		
PD source is enable only when reg0x24[3] and reg0x5D[0] are 1; reg0x5D[0] default is 1.		
PD sink is enable only when reg0x24[3] and reg0x5F[1] are 1;reg0x5F[1] default is 1.		
PE source enable	R/W	ОТР
0: disable		
1: enable		
FCP source enable	R/W	ОТР
0: disable		
1: enable		
Note: FCP sink enable is reg0x5E[7];		
SFCP enable	R/W	ОТР
0: disable		
1: enable		
	Port C source fast charge 0: disable 1: enable reserved PD enable 0: disable 1: enable Note: PD source is enable only when reg0x24[3] and reg0x5D[0] are 1; reg0x5D[0] default is 1. PD sink is enable only when reg0x24[3] and reg0x5F[1] are 1;reg0x5F[1] default is 1. PE source enable 0: disable 1: enable FCP source enable 0: disable 1: enable Note: FCP sink enable is reg0x5E[7]; SFCP enable 0: disable	Port C source fast charge 0: disable 1: enable reserved PD enable 0: disable 1: enable Note: PD source is enable only when reg0x24[3] and reg0x5D[0] are 1; reg0x5D[0] default is 1. PD sink is enable only when reg0x24[3] and reg0x5F[1] are 1; reg0x5F[1] default is 1. PE source enable 0: disable 1: enable FCP source enable 0: disable 1: enable Note: FCP sink enable is reg0x5E[7]; SFCP enable 0: disable 1

2.27. REG 0x25: Fast Charge Config2

Bit	Description	R/W	Default
7-4		/	/
3	QC Source enable	R/W	ОТР
	0: disable		
	1: enable		
2:0	reserved	R	ОТР

2.28. REG 0x26: Version Info

Bit	Description	R/W	Default
7-3		/	/
2-0	IC version	R	0x6



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2.29. **REG 0x32: PDO Config2**

Bit	Description	R/W	Default
7-5	in mcu configure mode(Regx01[3]=1), 9V PDO current setting , Imax_9v[4:2]	R/W	0x0
	Vbus = 9V, $I_{max} = ((Reg0x32[7:5] << 2) + Reg0x23[6:5]) *0.1 A$		
4-0	in mcu configure mode(Reg0x01[3]=1), 12V PDO current setting , Imax_12v[4:0]	R/W	0x0
	Vbus = 12V, $I_{max} = Reg0x32[4:0] *0.1 A$		

2.30. REG 0x37: Typec Indication

Bit	Description		R/W	Default
7-4	reserved		R/W	ОТР
3-2	port C power role indication		R	0x0
	1: Sink			
	2: Source	A U		
	0/3: no attach			
1-0	port C sink power level indication		R	0x0
	0: default power			
	1.5A			
	2: 3.0A			
	3: reserved			

2.31. REG 0x38: Plug Out Config

Bit	Description	R/W	Default
7-4		/	/
3-1	port A unloading detect current threshold (assuming power path MOS resistance is	R/W	ОТР
	30mohm)		
	when VOUT<7.65V or VOUT>7.65V and reg0x38[0] = 0		
	000: 60mA		
	001: 10mA		
	010: 20mA		
	011: 40mA		
	100: 80mA		
	101: 6.66mA		
	other: reserved		
	when VOUT>7.65V and Regox38[0] = 1		
	000: 40mA		
	001: 10mA		



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	010: 10mA			
	011: 20mA			
	100: 40mA			
	101: 6.66mA			
	other: reserved			
0	port A unloading detect current threshold change when vout > 7.65v	R/	/W	ОТР
	0: disable			
	1: enable			

2.32. **REG 0x3A: Charger Config1**

Bit	Description	R/W	Default
7-6	battery charge current setting when high voltage input	R/W	ОТР
	0: 3.5A		
	1: 3.7A		
	2: 4.0A		
	3: 4.2A		
5-3	battery charge current setting when 5V input	R/W	OTP
	0: 0.5A		
	1: 1.0A		
	2: 1.5A		
	3: 2.0A		
	4: 2.5A		
	5: 3.0A		
	6: 3.2A		
	7: 3.5A		
2-0	charger temperature loop setting	R/W	OTP
	0: 100°C		
	1: 105℃		
	2: 110℃		
	3: 115℃		
	4: 80℃		
	5: 85℃		
	6: 90℃		
	7: 95℃		

2.33. **REG 0x3B: Charger Config2**

Bit Description	R/W	Default	
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7	charger end current threshold	R/W	ОТР
/		N/ VV	OIP
	0: 300mA		
	1: 200mA		
6-4	charger 5V input voltage threshold	R/W	OTP
	0: 4.6V		
	1: 4.7V		
	2: 4.8V		
	3: 4.9V		
	4: 4.2V		
	5: 4.3V		
	6: 4.4V		
	7: 4.5V		
	note: if input voltage lower than threshold, charger will stop.		
3-2	battery type	R	ОТР
	0: 4.2V		
	1: 4.3V		
	2: 4.35V		
	3: 4.4V		
1-0	reserved	/	/

2.34. **REG 0x3C: Charger Config3**

Bit	Description	R/W	Default
7-6		/	/
5-3	12V input voltage threshold	R/W	ОТР
	0: 11.538V		
	1: 11.650V		
	2: 11.765V		
	3: 11.881V		
	4: 11.215V		
	5: 11.215V		
	6: 11.321V		
	7: 11.429V		
	note: if input voltage lower than threshold, charger will stop.		
2-0	9V input voltage threshold	R/W	ОТР
	0: 8.490V		
	1: 8.612V		
	2: 8.738V		
	3: 8.867V		
	4: 8.072V		
	5: 8.182V		



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6: 8.295V	
7: 8.392V	
note: if input voltage lower than threshold, charger will stop.	

2.35. **REG 0x3D: Boost Config**

Bit	Description	R/W	Default
7-6	/	/	/
5-4	port A unloading detect time (current of port A lower than threshold)	R/W	OTP
	0: 16s		
	1: 4s		
	2: 8s		
	3: 32s		
3	cable compensation setting	W/R	OTP
	0: enable		
	1: disable		
2-0	boost temperature loop setting	R/W	ОТР
	0: 100℃		
	1: 105℃		
	2: 110℃		
	3: 115℃		
	4: 80 °C		
	5: 85℃		
	6: 90℃		
	7: 95℃		

2.36. REG 0x3E: PDO Config3

Bit	Description	R/W	Default
7	PDO setting	R/W	OTP
	0: 5V/3A, 9V/2A, 12V/1.5A		
	1: 5V/2A, 9V/2A, 12/1.5A		
	This bit is valid when Reg0x01[3]=0;		
6-0	/	/	/



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2.37. **REG 0x48: RDC Config**

Bit	Description	R/W	Default
7	RDC calculation enable	R/W	ОТР
	0: disable		
	1: enable		
6	RDC calculation status	R	0x0
	0: not finish		
	1: finish		
5-0	Resesrved	R/W	ОТР

2.38. REG 0x49: Gauge Config

Bit	Description	R/W	Default
7	battery ovp enable	R/W	ОТР
	0: disable		
	1: enable		
6	RDC automatically calculation enable	R/W	ОТР
	0: disable		
	1: enable		
5	RDC calculation temperature compensation enable	R/W	ОТР
	0: disable		
	1: enable		
4	reserved	R/W	0x 0
3	key control output power off enable	R/W	ОТР
	0: disable		
	1: enable output power off		
2	charge prior to discharge enable	R/W	ОТР
	0: disable		
	1: enable		
	If this bit is 1, port A and port C(as source) will close when port B or port C(as sink) open.		
1	fuel gauge reaches 100% condition	R/W	ОТР
	1: charge done		
	0: wait 15 after reach 99%		
0	AFC source support 12v	R/W	ОТР
	0: not support AFC 12v output		
	1: support AFC 12v output		
	·		



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2.39. **REG 0x4A: Rdc Value by Compensation**

Bit	Description	R/W	Default
7-0	RDC_comp[7:0] value including temperature compensation and ocv voltage compensation	R	0x00
	$R_{DC_Comp} = ((Reg0x4C[5:3] << 8) + Reg0x4A[7:0])*0.336 m\Omega$		

2.40. REG 0x4B: RDC Value Precompensation

Default: 0x9FH

Bit	Description	R/W	Default
7-0	RDC_org[7:0]	R/W	0x9F
	$R_{DC_Orig} = ((Reg0x4C[2:0] << 8) + Reg0x4B[7:0])*0.336 m\Omega$		
	Note : this register can be written only when BG is opened		

2.41. REG 0x4C: RDC Value Compensation Hibit

Bit	Description	R/W	Default
7-6		/	/
5-3	RDC_comp[10:8]	R	0x00
	$R_{DC_Comp} = ((Reg0x4C[5:3] << 8) + Reg0x4A[7:0])*0.336 m\Omega$		
2-0	RDC_org[10:8]	R/W	0x00
	$R_{DC_Orig} = ((Reg0x4C[2:0] << 8) + Reg0x4B[7:0])*0.336 m\Omega$		
	Note: this register can be written only when BG is opened		

2.42. REG 0x4D: OCV Current Percent

Bit	Description	R/W	Default
/	1	/	/
6-0	OCV current percent	R	0x0
	1%/step		

2.43. **REG 0x4E: OCV Useful Percent**

Bit	Description	R/W	Default
7		/	/



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6-0	OCV useful percent	R	0x0
	1%/step.		

2.44. **REG 0x4F: Final Percent**

Bit	Description	R/W	Default
7	1	/	/
6-0	final percent	R	0x0
	1%/step.		

2.45. **REG 0x50: LED Percent Config1**

Bit	Description	R/W	Default
7-6		/	/
5-3	charger LED2 percent offset[2:0]	R/W	OTP
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		
2-0	charger LED1 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		

Note: LED default level refer to Appendix 1

2.46. REG 0x51: LED Percent Config2

Bit	Description	R/W	Default
7-6		/	/



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5-3	charger LED4 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		
2-0	charger LED3 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		

2.47. **REG 0x52: LED Percent Config3**

Bit	Description	R/W	Default
7-6	1	/	/
5-3	boost LED2 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		
2-0	boost LED1 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		



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2.48. **REG 0x53: LED Percent Config4**

Bit	Description	R/W	Default
7-6	/	/	/
5-3	boost LED4 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		
2-0	boost LED3 percent offset[2:0]	R/W	ОТР
	0: 0%		
	1: 3%		
	2: 6%		
	3: 9%		
	4: -3%		
	5: -6%		
	6: -9%		
	7: -12%		

2.49. **REG 0x5D: Fast Charge Config3**

Bit	Description	R/W	Default
7-1		/	/
0	PD src enable	R/W	ОТР
	0: disable		
	1: enable		
	PD source is enable only when reg0x24[3] and reg0x5D[0] are 1		

2.50. REG 0x5E: Fast Charge Config4

Bit	Description	R/W	Default
7	FCP sink enable	R/W	OTP
	0: disable		
	1: enable		



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6	AFC sink enable	R/W	ОТР
	0: disable		
	1: enable		
5	AFC source enable	R/W	ОТР
	0: disable		
	1: enable		
4-2	reserved	R/W	ОТР
1	Port C support unloading detect	R/W	ОТР
	0: not support		
	1: support		
0	WLED pin function setting	R/W	OTP
	0: mapping to Lightnning port Data pin		
	1: WLED mode		

2.51. **REG 0x5F: Fast Charge Config5**

Bit	Description	R/W	Default
7	high voltage sink indication	R	/
	0: nothing		
	1: input protocol is high voltage protocol		
6	FCP sink indication	R	/
	0: nothing		
	1: input protocol is FCP protocol		
5	AFC sink indication	R	/
	0: nothing		
	1: input protocol is AFC protocol		
4	FCP source indication	R	/
	0: nothing		
	1: output protocol is FCP protocol		
3	AFC source indication	R	/
	0: nothing		
	1: output protocol is AFC protocol		
2	reserved	R/W	ОТР
1	PD sink enable	R/W	ОТР
	0: disable		
	1: enable		
0	Led display threshold configuration at 9V/12V input/output	R/W	ОТР
	0: same with 5v		
	1: differtent with 5v		



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2.52. **REG 0x60~0x6F: OCV curve**

Appendix 1. Led default level

Discharge:	3 LED	4 LED	5 LED
D_P1	30%	20%	16%
D_P2	63%	48%	38%
D_P3	/	73%	57%
D_P4	/	/	78%

Charge:	3 LED	4 LED	5 LED
C_P1	45%	35%	29%
C_P2	84%	64%	53%
C_P3	/	92%	76%
C_P4	/	/	95%