STC3117 OCV registers:

How to fill the STC3117 registers depending on battery characteristics

• Example for a 3.7V battery (4.2V max charge voltage)

register Address	SOC (%)	register REG_SOCTAB	
		Dec (0.5%)	Hex (0.5%)
0x50	0	0	00
0x51	3	6	06
0x52	6	12	0C
0x53	10	20	14
0x54	15	30	1E
0x55	20	40	28
0x56	25	50	32
0x57	30	60	3C
0x58	40	80	50
0x59	50	100	64
0x5A	60	120	78
0x5B	65	130	82
0x5C	70	140	8C
0x5D	80	160	A0
0x5E	90	180	B4
0x5F	100	200	C8

	correspon	Default OCV		
register	ding	curve		
Address	SOC (%)	voltage (V)	mariatan DEC OCATAD Value	
Address	300 (%)	SIC311/	register REG_OCVTAB Value	
		(4.2V max		
		battery)	Dec (0.55 mV)	Hex (0.55 mV)
0x30, 0x31	0	3.3	6000	1770
0x32, 0x33	3	3.541	6438	1926
0x34, 0x35	6	3.618	6578	19B2
0x36, 0x37	10	3.658	6651	19FB
0x38, 0x39	15	3.695	6718	1A3E
0x3A, 0x3B	20	3.721	6765	1A6D
0x3C, 0x3D	25	3.747	6813	1A9D
0x3E, 0x3F	30	3.761	6838	1AB6
0x40, 0x41	40	3.778	6869	1AD5
0x42, 0x43	50	3.802	6913	1B01
0x44, 0x45	60	3.863	7024	1B70
0x46, 0x47	65	3.899	7089	1BB1
0x48, 0x49	70	3.929	7144	1BE8
0x4A, 0x4B	80	3.991	7256	1C58
0x4C, 0x4D	90	4.076	7411	1CF3
0x4E, 0x4F	100	4.176	7593	1DA9

• Example for a 3.8V battery (4.35V max):

register Address	SOC (%)	register REG_SOCTAB	
		Dec (0.5%)	Hex (0.5%)
0x50	0	0	00
0x51	3	6	06
0x52	6	12	0C
0x53	10	20	14
0x54	15	30	1E
0x55	20	40	28
0x56	25	50	32
0x57	30	60	3C
0x58	40	80	50
0x59	50	100	64
0x5A	60	120	78
0x5B	65	130	82
0x5C	70	140	8C
0x5D	80	160	A0
0x5E	90	180	B4
0x5F	100	200	C8

	correspon	Default OCV		
register	ding	curve		
Address	SOC (%)	voltage (V)	register REG_OCVTAB Value	
		\$103117		
		(4.35V max battery)	Dec (0.55 mV)	Hex (0.55 mV)
0x30, 0x31	0	3.3	6000	1770
0x32, 0x33	3	3.571	6493	195D
0x34, 0x35	6	3.651	6638	19EE
0x36, 0x37	10	3.675	6682	1A1A
0x38, 0x39	15	3.71	6745	1A59
0x3A, 0x3B	20	3.743	6805	1A95
0x3C, 0x3D	25	3.761	6838	1AB6
0x3E, 0x3F	30	3.77	6855	1AC7
0x40, 0x41	40	3.79	6891	1AEB
0x42, 0x43	50	3.825	6955	1B2B
0x44, 0x45	60	3.914	7116	1BCC
0x46, 0x47	65	3.953	7187	1C13
0x48, 0x49	70	3.99	7255	1C57
0x4A, 0x4B	80	4.088	7433	1D09
0x4C, 0x4D	90	4.197	7631	1DCF
0x4E, 0x4F	100	4.313	7842	1EA2



