Register Map

Starting address code offset Index data type length Address Field	HEX DEC		Type e	Len gth	R/W	Content	Unit	Note
		0	UINT32	4	RW	Enter sleep voltage VolSmartSlee p 0x0000	mV	
	0x0004	4	UINT32	4	RW	Cell undervoltage protection VolCellUV	mV	
	R 0x0008	8	UINT32	4	RW	Cell undervoltage protection recovery VolCellUVP	mV	
	0x000C 12	UINT32		4	RW	Cell overcharge protection VolCellOV	mV	
	R 0x0010	16	UINT32	4	RW	Single cell overcharge protection recovery voltage VolCellOVP	mV	
	g 0x0014	20	UINT32	4	RW	Trigger balanced voltage difference VolBalanTri	mV	
		24	UINT32	4	RW	SOC-100% voltage VolSOC100% 0x0018	mV	
	28 UINT32			4	RW	SOC-0% voltage VolSOC0% 0x001C	mV	
	0x0020	32	UINT32	4	RW	Recommended charging voltage VolCellRCV	mV	
	0x0024	36	UINT32	4	RW	Float charge voltage VolCellRFV	mV	
	0x0028	40	UINT32	4	RW	Automatic shutdown voltage VolS ysPwrOff	mV	
	0x002C 44	UINT32		4	RW	Continuous charging current CurBatCOC	mA	
	0x0030	48	UINT32	4	RW	Charge overcurrent protection delay TIMBatCOCPDl y		
	y 0x0034	52	UINT32	4	RW	Charge overcurrent protection release TIMBatCOCPRDl		
	0x0038	56	UINT32	4	RW	Continuous discharge current CurBatDcOC	S S	
	y 0x003C 60	UINT32		4	RW	Discharge overcurrent protection delay TIMBatDcOCPDl		
	y 0x0040	64	UINT32	4	RW	Discharge overcurrent protection release TIMBatDcOCPRDl		
	y 0x0044	68	UINT32	4	RW	Short circuit protection release TIMBatSCPRDl		
	0x0048	72	UINT32	4	RW	Maximum balancing current CurBalanMax	mA	
	TMPBatCOT	0x004C 76	INT32	4	RW	Charging over-temperature protection	S S S	
	R 0x0050	80	INT32	4	RW	Charge over temperature recovery TMPBatCOTP	mA	
	TMPBatDcOT	0x0054 84	INT32	4	RW	Discharge over temperature protection	0.1 ÿ	
	R 0x0058	88	INT32	4	RW	Discharge over temperature recovery TMPBatDcOTP	0.1 ÿ	
	TMPBatCUT	0x005C 92	INT32	4	RW	Charging low temperature protection	0.1 ÿ	
	R 0x0060	96	INT32	4	RW	Charging low temperature recovery TMPBatCUTP	0.1 ÿ	
	TMPMosOT	0x0064 100	INT32	4	RW	MOS over temperature protection	0.1 ÿ	
	R 0x0068	104	INT32	4	RW	MOS over temperature protection recovery TMPMosOTP	0.1 ÿ	
				4	RW	CellCount 0x006C 108 UINT32	0.1 ÿ	0.1 ÿ ÿ
	0x0070 112	UINT32		4	RW	Charging switch BatChargeEN		1: On; 0: Off1: On; 0:
	116 UINT32			4	RW	Discharge switch BatDisChargeEN 0x0074		Off1: On; 0: Off
		120	UINT32	4	RW	BalanEN 0x0078		

0x1000	0x007C 124 UINT32	4 RW Battery design capacity CapBatCell	I		
	0x0080 128 UINT32	4 RW Short circuit protection delay SCPDela y	us		
	0x0084 132 UINT32	4 RW Balanced start voltage VolStartBalan	mV		
	0x0088 136 UINT32	4 RW Connection line internal resistance 0CellConWireRes0	uÿ		
	0x008C 140 UINT32	4 RW Connection line internal resistance 1CellConWireRes1	uÿ		
	0x0090 144 UINT32	4 RW Connection line internal resistance 2CellConWireRes2	uÿ		
	0x0094 148 UINT32	4 RW Connection line internal resistance 3CellConWireRes3	uÿ		
	0x0098 152 UINT32	4 RW Connection line internal resistance 4CellConWireRes4	uÿ		
	0x009C 156 UINT32	4 RW Connection line internal resistance 5CellConWireRes5	uÿ		
	0x00A0 160 UINT32	4 RW Connection line internal resistance 6CellConWireRes6	uÿ		
	0x00A4 164 UINT32	4 RW Connection line internal resistance 7CellConWireRes7	uÿ		
	0x00A8 168 UINT32	4 RW Connection line internal resistance 8CellConWireRes8	uÿ		
	0x00AC 172 UINT32	4 RW Connection line internal resistance 9CellConWireRes9	uÿ		
	0x00B0 176 UINT32	4 RW Connection line internal resistance 10CellConWireRes10	uÿ		
	0x00B4 180 UINT32	4 RW Connection line internal resistance 11CellConWireRes11	uÿ		
	0x00B8 184 UINT32	4 RW Connection line internal resistance 12CellConWireRes12	uÿ		
	0x00BC 188 UINT32	4 RW Connection line internal resistance 13CellConWireRes13	uÿ		
	0x00C0 192 UINT32	4 RW Connection line internal resistance 14CellConWireRes14	uÿ		
	0x00C4 196 UINT32	4 RW Connection line internal resistance 15CellConWireRes15	uÿ		
	0x00C8 200 UINT32	4 RW Connection line internal resistance 16CellConWireRes16	uÿ		
	0x00CC 204 UINT32	4 RW Connection line internal resistance 17CellConWireRes17	uÿ		
	0x00D0 208 UINT32	4 RW Connection line internal resistance 18CellConWireRes18	uÿ		
	0x00D4 212 UINT32	4 RW Connection line internal resistance 19CellConWireRes19	uÿ		
	0x00D8 216 UINT32	4 RW Connection line internal resistance 20CellConWireRes20	uÿ		
	0x00DC 220 UINT32	4 RW Connection line internal resistance 21CellConWireRes21	uÿ		
	0x00E0 224 UINT32	4 RW Connection line internal resistance 22CellConWireRes22	uÿ		
	0x00E4 228 UINT32	4 RW Connection line internal resistance 23CellConWireRes23	uÿ		
	0x00E8 232 UINT32	4 RW Connection line internal resistance 24CellConWireRes24	uÿ		
	0x00EC 236 UINT32	4 RW Connection line internal resistance 25CellConWireRes25	uÿ		
	0x00F0 240 UINT32	4 RW Connection line internal resistance 26CellConWireRes26	uÿ		
	0x00F4 244 UINT32	4 RW Connection line internal resistance 27CellConWireRes27	uÿ		
	0x00F8 248 UINT32	4 RW Connection line internal resistance 28CellConWireRes28	uÿ		
	0x00FC 252 UINT32	4 RW Connection line internal resistance 29CellConWireRes29	uÿ		
	0x0100 256 UINT32	4 RW Connection line internal resistance 30CellConWireRes30	uÿ		
	0x0104 260 UINT32	4 RW Connection line internal resistance 31CellConWireRes31	uÿ		

0x0108 264 UINT32			4	RW	Device address DevAddr	H	
0x010C 268 UINT32			4	RW	Discharge precharge time TIMProdischarge	S	
0x0114 276 UINT16			2	RW	Heating switch HeatEN		1: On; 0: Off1: On; BIT0
				RW	Temperature sensor shield Disable temp-sensor		0: Off1: On; 0: Off BIT1
				RW	GPS Heartbeat		BIT2
				RW	Multiplexing port function Port Switch		1: RS485; 0: CAN 1: BIT3
				RW	LCD Always On		open; 0: close 1: BIT4
				RW	Special Charger		open; 0: close 1: BIT5
				RW	SmartSleep		open; 0: close 1: BIT6
				RW	Disable parallel current limiting DisablePCLModule		open; 0: close 1: BIT7
				RW	Data timing storage TimedStoredData		open; 0: close 1: BIT8
				RW	Charging Float Mode ChargingFloatMode		open; 0: close 1: open; 0: close BIT9
0x0118 280		UINT8	2	RW	Intelligent sleep time TIMSmartSleep	H	
		UINT8		R	Data field enable control 0		
0x0000	0 UINT16		2	R	CellVol0	mV	
0x0002	2 UINT16		2	R	CellVol1	mV	
0x0004	4 UINT16		2	R	CellVol2	mV	
0x0006	6 UINT16		2	R	CellVol3	mV	
0x0008	8 UINT16		2	R	CellVol4	mV	
0x000A 10 UINT16			2	R	CellVol5	mV	
0x000C 12 UINT16			2	R	CellVol6	mV	
0x000E	14 UINT16		2	R	CellVol7	mV	
0x0010	16 UINT16		2	R	CellVol8	mV	
0x0012	18 UINT16		2	R	CellVol9	mV	
0x0014	20 UINT16		2	R	CellVol10	mV	
0x0016	22 UINT16		2	R	Cell voltage 11CellVol11	mV	
0x0018	24 UINT16		2	R	CellVol12	mV	
0x001A 26 UINT16			2	R	Cell voltage 13CellVol13	mV	
0x001C 28 UINT16			2	R	Cell voltage 14CellVol14	mV	
0x001E 30 UINT16			2	R	CellVol15	mV	
0x0020	32 UINT16		2	R	Cell voltage 16CellVol16	mV	
0x0022	34 UINT16		2	R	Cell voltage 17CellVol17	mV	
0x0024	36 UINT16		2	R	Cell voltage 18CellVol18	mV	
0x0026	38 UINT16		2	R	Cell voltage 19CellVol19	mV	
0x0028	40 UINT16		2	R	CellVol20	mV	

0x002A 42	UINT16	0x002C	2	R	Cell voltage 21CellVol21	mV		
44 UINT16	0x002E	46	2	R	Cell voltage 22CellVol22	mV		
UINT16 0x0030			2	R	Cell voltage 23CellVol23	mV		
	48	UINT16	2	R	Cell voltage 24CellVol24	mV		
0x0032	50	UINT16	2	R	Cell voltage 25CellVol25	mV		
0x0034	52	UINT16	2	R	CellVol26	mV		
0x0036	54	UINT16	2	R	CellVol27	mV		
0x0038	56	UINT16	2	R	Cell voltage 28CellVol28	mV		
0x003A 58	UINT16	0x003C	2	R	CellVol29	mV		
60 UINT16	0x003E	62	2	R	CellVol30	mV		
UINT16 0x0040			2	R	Cell voltage 31CellVol31	mV		
	64	UINT32	4	R	Battery status CellSta		BIT[n] is 1, indicating that the battery is present.	
0x0044	68	UINT16	2	R	CellVolAve average voltage of a single cell	mV		
0x0046	70	UINT16	2	R	Maximum pressure difference CellVdifMax	mV		
0x0048	72	UINT8	2	R	Maximum voltage cell number MaxVolCellNbr			
		UINT8		R	Minimum voltage cell number MinVolCellNbr			
0x004A 74	UINT16	0x004C	2	R	Balance line resistance 0CellWireRes0	mÿ		
76 UINT16	0x004E	78	2	R	Balance line resistance 1CellWireRes1	mÿ		
UINT16 0x0050			2	R	Balance line resistance 2CellWireRes2	mÿ		
	80	UINT16	2	R	Balance line resistance 3CellWireRes3	mÿ		
0x0052	82	UINT16	2	R	Balance line resistance 4CellWireRes4	mÿ		
0x0054	84	UINT16	2	R	Balance line resistance 5CellWireRes5	mÿ		
0x0056	86	UINT16	2	R	Balance line resistance 6CellWireRes6	mÿ		
0x0058	88	UINT16	2	R	Balance line resistance 7CellWireRes7	mÿ		
0x005A 90	UINT16	0x005C	2	R	Balance line resistance 8CellWireRes8	mÿ		
92 UINT16	0x005E	94	2	R	Balance line resistance 9CellWireRes9	mÿ		
UINT16 0x0060			2	R	Balance line resistance 10CellWireRes10	mÿ		
	96	UINT16	2	R	Balance line resistance 11CellWireRes11	mÿ		
0x0062	98	UINT16	2	R	Balance line resistance 12CellWireRes12	mÿ		
0x0064 100	UINT16	0x0066	2	R	Balance line resistance 13CellWireRes13	mÿ		
	102	UINT16	2	R	Balance line resistance 14CellWireRes14	mÿ		
0x0068	104	UINT16	2	R	Balance line resistance 15CellWireRes15	mÿ		
0x006A 106	UINT16	0x006C	2	R	Balance line resistance 16CellWireRes16	mÿ		
108 UINT16	0x006E	110	2	R	Balance line resistance 17CellWireRes17	mÿ		
UINT16			2	R	Balance line resistance 18CellWireRes18	mÿ		

	0x0070 112	UINT16	0x0072	2	R	Balance line resistance 19CellWireRes19	mÿ		
		114	UINT16	2	R	Balance line resistance 20CellWireRes20	mÿ		
	0x0074 116	UINT16	0x0076	2	R	Balance line resistance 21CellWireRes21	mÿ		
		118	UINT16	2	R	Balance line resistance 22CellWireRes22	mÿ		
	0x0078	120	UINT16	2	R	Balance line resistance 23CellWireRes23	mÿ		
	0x007A 122	UINT16	0x007C	2	R	Balance line resistance 24CellWireRes24	mÿ		
	124 UINT16	0x007E	126	2	R	Balance line resistance 25CellWireRes25	mÿ		
	UINT16 0x0080	128	UINT16	2	R	Balance line resistance 26CellWireRes26	mÿ		
	0x0082			2	R	Balance line resistance 27CellWireRes27	mÿ		
		130	UINT16	2	R	Balance line resistance 28CellWireRes28	mÿ		
	0x0084 132	UINT16	0x0086	2	R	Balance line resistance 29CellWireRes29	mÿ		
		134	UINT16	2	R	Balance line resistance 30CellWireRes30	mÿ		
	0x0088	136	UINT16	2	R	Balance line resistance 31CellWireRes31	mÿ		
	0x008A 138	INT16	0x008C	2	R	Power board temperature Tem pMos	0.1 ÿ		
	140 UINT32	0x0090	144	4	R	Balance line resistance status CellWireResSta		BIT[n] is 1, indicating that the balance line alarm	
	UINT32 0x0094	148	UINT32	4	R	Total battery voltage BatVol	mV		
0x1200	0x0098			4	R	Battery power BatWatt	m W		
		152	INT32	4	R	Battery current BatCurrent	mA		
	0x009C 156	INT16	0x009E	2	R	Battery temperature TempBat 1	0.1 ÿ		
	158 INT16			2	R	Battery temperature TempBat 2 Balancing	0.1 ÿ		
						line resistance is too large AlarmWireRes		1: Fault; 0: Normal1:	BIT0
						MOS overtemperature protectionAlarmMosOTP		Fault; 0: Normal1: Fault;	BIT1
						Cell quantity does not match the set valueAlarmCell Quantit y Current		0: Normal1: Fault; 0:	BIT2
						sensor abnormalityAlarmCurSensorErr Cell overvoltage		Normal1: Fault; 0:	BIT3
						protectionAlarmCellOVP Battery overvoltage		Normal1: Fault; 0:	BIT4
						protectionAlarmBatOVP Charging overcurrent		Normal1: Fault; 0:	BIT5
						protectionAlarmChOCP Charging short		Normal1: Fault; 0:	BIT6
						circuit protectionAlarmChSCP Charging		Normal1: Fault; 0:	BIT7
						overtemperature protectionAlarmChOTP		Normal1: Fault; 0:	BIT8
						Charging low temperature		Normal1: Fault; 0:	BIT9
						protectionAlarmChUTP Internal communication		Normal1: Fault; 0:	BIT10
	0x00A0 160		UINT32 4		R	abnormalityAlarmCPUAuxCommuErr Cell		Normal1: Fault; 0:	BIT11
						undervoltage protectionAlarmCellUVP		Normal1: Fault; 0:	BIT12
						Battery undervoltage protectionAlarmBatUVP		Normal1: Fault; 0:	BIT13
						Discharge overcurrent protectionAlarmDchOCP Discharge short circuit protectionAlarmDchSCP		Normal1: Fault; 0: Normal1: Fault; 0: Normal1: Fault; 0: Normal1:	BIT14

					Discharge over temperature protection		1: Fault; 0: Normal1:	BIT15
					AlarmDchOTP Charging tube abnormality		Fault; 0: Normal1:	BIT16
					AlarmChargeMOS Discharge tube abnormality		Fault; 0: Normal1:	BIT17
					AlarmDischargeMOS GPS disconnected		Fault; 0: Normal1:	BIT18
					GPSDisconnecte d Please modify the authorization		Fault; 0: Normal1:	BIT19
					password in time Modify PWD. in time		Fault; 0: Normal1:	BIT20
					Discharge on Failed Discharge on Failed Battery over		Fault; 0: Normal1: Fault; 0: Normal	BIT21
					temperature alarm Battery Over Temp Alar m Temperature			
					sensor anomaly Parallel module failure PLCModule anomaly			
0x00A4 164	INT16		2	R	BalanCurrent	mA		
0x00A6	166	UINT8	2	R	Balanced state BalanSta	%	2: discharge; 1: charge; 0: off	
		UINT8		R	Remaining power SOCStateOfchar ge			
0x00A8 168	INT32	0x00AC	4	R	Remain ng capacity SOCCa pRemai n	mAH		
172 UINT32	0x00B0	176	4	R	Battery actual capacity SOCFullChargeCap	mAH		
UINT32 0x00B4	180	UINT32	4	R	Cycle Count	ÿ		
			4	R	Total cycle capacity SOCC ycleCap	mAH		
0x00B8	184	UINT8	2	R	SOH Valuation SOCSOH	%		
		UINT8		R	Precharge state Precharge		1: On; 0: Off	
0x00BA 186	UINT16	0x00BC	2	R	User layer alarm UserAlarm			
188 UINT32			4	R	RunTime	s		
0x00C0 192		UINT8	2	R	Charge status		1: On; 0: Off1: On; 0:	
		UINT8		R	Discharge state Dischar ge		Off	
0x00C2 194	UINT16	0x00C4	2	R	User layer alarm 2UserAlarm2			
196 UINT16	0x00C6	198	2	R	Discharge overcurrent protection release time TimeDcOCP R	s		
UINT16 0x00C8	200	UINT16	2	R	Discharge short circuit protection release time TimeDcSCP R	s		
0x00CA 202	UINT16	0x00CC	2	R	Charge overcurrent protection release time TimeCOCP R	s		
204 UINT16	0x00CE	206	2	R	Charging short circuit protection release time TimeCSCP R	s		
UINT16			2	R	Single cell undervoltage protection release time TimeUVP R	s		
			2	R	Single cell overvoltage protection release time TimeOVP R	s		
0x00D0 208		UINT8	2	R	MOS Temperature SensorMOS Tem pSensorAbsent			BIT0
					Battery Temperature Sensor 1 BATTem pSensor1Absent		1: normal; 0: missing1:	BIT1
					Battery Temperature Sensor 2 BATTem pSensor2Absent		normal; 0: missing1:	BIT2
					Battery Temperature Sensor 3 BATTem pSensor3Absent		normal; 0: missing1:	BIT3
					Battery Temperature Sensor 4 BATTem pSensor4Absent		normal; 0: missing1:	BIT4
					Battery Temperature Sensor 5 BATTem pSensor5Absent		normal; 0: missing1: normal; 0: missing	BIT5

			UINT8		R	Heating status		1: On; 0: Off
	0x00D2 210	UINT16	0x00D4	2	R	Reserved		
	212 UINT16	0x00D6	214	2	R	Emergency switch time TimeEmer genc y	S	
	UINT16	0x00D8	216 UINT16	2	R	Discharge current correction factor BatDisCurCorrect		
	0x00DA 218	UINT16	0x00DC	2	R	Charging current sensor voltage VolChar gCur	mV	
	220 FLOAT	0x00E4	228	2	R	Discharge current sensor voltage VolDischar gCur	mV	
	UINT16	0x00E6	230 INT16	4	R	Battery voltage correction factor BatVolCorrect		
				2	R	Battery voltage BatVol		
				2	R	Heating current HeatCurrent	0.01VmA	
	0x00EE 238		UINT8	2	R	Retain RVD		
			UINT8		R	Charger statusChargerPlugged		1: inserted; 0: not inserted
	0x00F0 240	UINT32	0x00F8	4	R	System Beat SysRunTicks	0.1S	
	248 INT16	0x00FA	250	2	R	Battery temperature TempBat 3	0.1 ÿ	
	INT16	0x00FC	252 INT16	2	R	Battery temperature TempBat 4	0.1 ÿ	
	0x0100 256	UINT32	0x0108	2	R	Battery temperature TempBat 5	0.1 ÿ	
	264 UINT32			4	R	RTC counter RTCTicks		Starting from 2020-1-1
				4	R	Enter sleep time TimeEnterSlee p Parallel	S	
	0x010C 268		UINT8	2	R	current limiting module status PCLModuleSta		1: On; 0: Off
			UINT8			Reserve RVD		
0x1400	0x0000	0	ASCII	16	R	Manufacturer Model ManufacturerDeviceID		
	0x0010	16	ASCII	8	R	Hardware version number HardwareVersion		
	0x0018	24	ASCII	8	R	Software Version		
	0x0020	32	UINT32	4	R	Accumulated running time ODDRunTime	S	
	0x0024	36	UINT32	4	R	Power-on times PWROnTimes	times	
	0x00B2 178		UINT8	2	RW	Serial port 1 protocol UART1MPRTOLNbr		
			UINT8		RW	CAN protocol CANMPRTOLNbr		
	0x00B4 180	UINT8		16	R	Serial port 1 protocol control UART1MPRTOLEnable		
	0x00D4	212	UINT8	2	RW	Serial port 2 protocol UART2MPRTOLNbr		
			UINT8		R	Serial port 2 protocol control UART2MPRTOLEnable[0]		
	0x00E4 228		UINT8	2	RW	LCD buzzer trigger source LCDBuzzerTrigger		
			UINT8			Dry node 1 trigger source DRY1Trigger		
	0x00E6 230		UINT8	2	RW	Dry node 2 trigger source DRY2Trigger		
			UINT8		R	UART protocol library version UARTMPTLVer		
	0x00E8 232	INT32	0x00EC	4	RW	LCD buzzer trigger value LCDBuzzerTriggerVal		
	236 INT32			4	RW	LCD buzzer recovery value LCDBuzzerReleaseVal		

	0x00F0 240	INT32 0x00F4	4	RW	Dry node 1 trigger value DRY1TriggerVal			
	244 INT32 0x00F8 248		4	RW	Dry node 1 trigger value DRY1ReleaseVal			
	INT32 0x00FC 252	INT32	4	RW	Dry node 2 trigger value DRY2TriggerVal			
	0x0100 256	INT32	4	RW	Dry node 2 recovery value DRY2ReleaseVal			
			4	RW	Data storage period DataStoredPeriod			
	0x0104	260 UINT8	2	RW	Charging time RCVTime	0.1H		
					Floating charge time RFVTime	0.1H		
	0x0106	262 UINT8	2	R	CAN protocol library version CANMPTLVer			
					Preserve RVD			
0x1600	0x0000	0 UINT16	4	W	Voltage Calibration	mV		
	0x0004	4 UINT16	2	W	protection board shutdown			
	0x0006	6 UINT16	4	W	Current Calibration	mA		
	0x000A 10 UINT16	0x000C	2	W	one-button ternary LI-ION			
	12 UINT16		2	W	One-click Lithium Iron LIFEPO4			
	0x000E	14 UINT16	2	W	One-click Lithium Titanate LTO			
	0x0010	16 UINT16	2	W	Emergency start			
	0x0012	18 UINT32	4	W	Timecalibration			