## Serial Communication

Parameter	Format
Baud Rate	115200
Word Length	8 (including Parity)
Parity	None
Stop Bits	1

## Monitor commands

Command	Response	Explanation	
AT+OK?	OK		
AT+OV?	A total list of all parameters		
	(no AT structure)		
AT+RC?	RC: <reported remaining<="" td=""><td>[Ah]</td></reported>	[Ah]	
	Capacity>		
AT+RSC?	RC: <reported of<="" state="" td=""><td>[%]</td></reported>	[%]	
	Charge>		
AT+TTE?	TTE: <time empty="" tot=""></time>	[Seconds]	
AT+TTF?	TTF: <time full="" tot=""></time>	[Seconds]	
AT+CV1?	CV1: <voltage 1="" cell="" of=""></voltage>	CV1: +3.5906 [V]	
AT+CV2?	CV2: <voltage 2="" cell="" of=""></voltage>		
AT+CV3?	CV3: <voltage 3="" cell="" of=""></voltage>	· ·	
AT+CV4?	CV4: <voltage 4="" cell="" of=""></voltage>		
AT+CVT?	CVT: <voltage of="" pack="" total=""></voltage>	ack> CVT: +14.3525	
AT+PC?	PC: <current from="" system="" td="" to<=""><td>[A]</td></current>	[A]	
	battery (Pack Current)>		
AT+TH1?	TH1: <temperature 1=""></temperature>	[°C]	
AT+TH2?	TH2: <temperature 2=""></temperature>		
AT+TH3?	TH3: <temperature 3=""></temperature>		
AT+TH4?	TH4: <temperature 4=""></temperature>		
AT+THD?	THD: <die temperature=""></die>		
AT+ST1?	ST1: <0xcontent status	[Hex value] Status 00h Alert	
	register>	status and chip status	
AT+ST2?	ST2: <0xcontent status	Status2 B0h maintains status	
	register>	of hibernate mode	
AT+ST3?	ST3: <0xcontent status	ProtStaus D9h Fault status of	
	register>	the protection functionality	
AT+ST4?	ST4: <0xcontent status	ProAlrt Afh History of previous	
	register>	fault status of the protection	
		functionality	

AT+ST5?	ST5: <0xcontent status register>	CommStat 61h protection control and status of each page register
AT+ENPB	ENPB OK	Enable passive balancing
AT+DSPB	DSPB OK	Disable passive balancing
AT+RST	RESET OK: successful reset	Reset monitor IC
	Reset NOK: unsuccessful reset	
AT+INT	INT OK: successful init Initialize monitor IC	

## Charger commands

Command	Response	Explanation
AT+OK?	ОК	
AT+OV?	A total list of all parameters	
	(no AT structure)	
AT+RSIV	RSIV	Set input voltage to 4.736V
AT+RSMV	RSMV	Set max charge voltage to
		16.768V
AT+INT	INT	Initialize chargecontroller
AT+RSTV	RSTV	Reset voltage
AT+RSTP	RSTP	Reset power
AT+CUR0	CUR=0: OK	Set current to 0A
AT+CUR1	CUR=1: OK	Set current to 0.128A
AT+CUR2	CUR=2: OK	Set current to 0.256A
AT+CUR3	CUR=3: OK	Set current to 0.512A
AT+CUR4	CUR=4: OK	Set current to 1.024A
AT+CUR5	CUR=5: OK	Set current to 2.048A
AT+CUR6	CUR=6: OK	Set current to 4.096A
AT+CUR7	CUR=7: OK	Set current to 8.192A
AT+CUR8	CUR=8: OK	Set current to 12.288A
AT+CUR9	CUR=9: OK	Set current to 14.336A
AT+CURA	CUR=A: OK	Set current to 16.256A

## **Error Codes**

Parameter	Format	Description
AT_UNDIFINED_ERROR	0	We could not identify the error, but there is one
AT_WRONG_VALUE	1	The supplied value is not supported, e.g. when enabling something only 0 and 1 are allowed
AT_WRONG_COMMAND	2	The supplied AT command is not recognized