

CCS Battery Charger

The CCS9620EB Evaluation Board is a battery charger module suitable for all common battery chemistries.

With a few settings only it is possible to charge batteries of different chemistries, different capacities and different battery voltages with one and the same charging circuit.

Absolute Maximum Ratings:

Supply Voltage	25VDC
V_{bat} to GND	$-3V < V_{bat} < 30V$
V_c , Prog, OVP	8V
I_{charge} (average)	1,5A
I_{charge} (pulse-peak)	2A
Ambient Temp	$-10..+60^{\circ}C$



Technical Data:

Dimensions	65x55x7mm	25.6x21.6x2.75in
Weight	17g	

	min.	typ.	max.	Value
Standby current without load		8		mA
LED current	10@2,2V	12@1,6V	18@5V	mA
5V output current			50	mA
Ambient Temp.	-10		+60	$^{\circ}C$
Efficiency				
Charging current		800	1200	mA
Nominal charge duration	1*		4*	h
Battery capacity			5	Ah

* full charge of an empty battery

Configuration:

	Component	
Battery type		
Battery voltage	R9	
Battery capacity		
Max. voltage	R17	
Charging current	R1	3
MT settings (charge mode)		
Charge controller	IC1	

Connecting the Board:

All measures are referenced to GND

Check correct resistor divider settings for selected battery.

Power LED terminal is connected to the anode of a (green) LED. Cathode of LED to GND.

Charge LED terminal is connected to the anode of a (red) LED. Cathode of LED to GND.

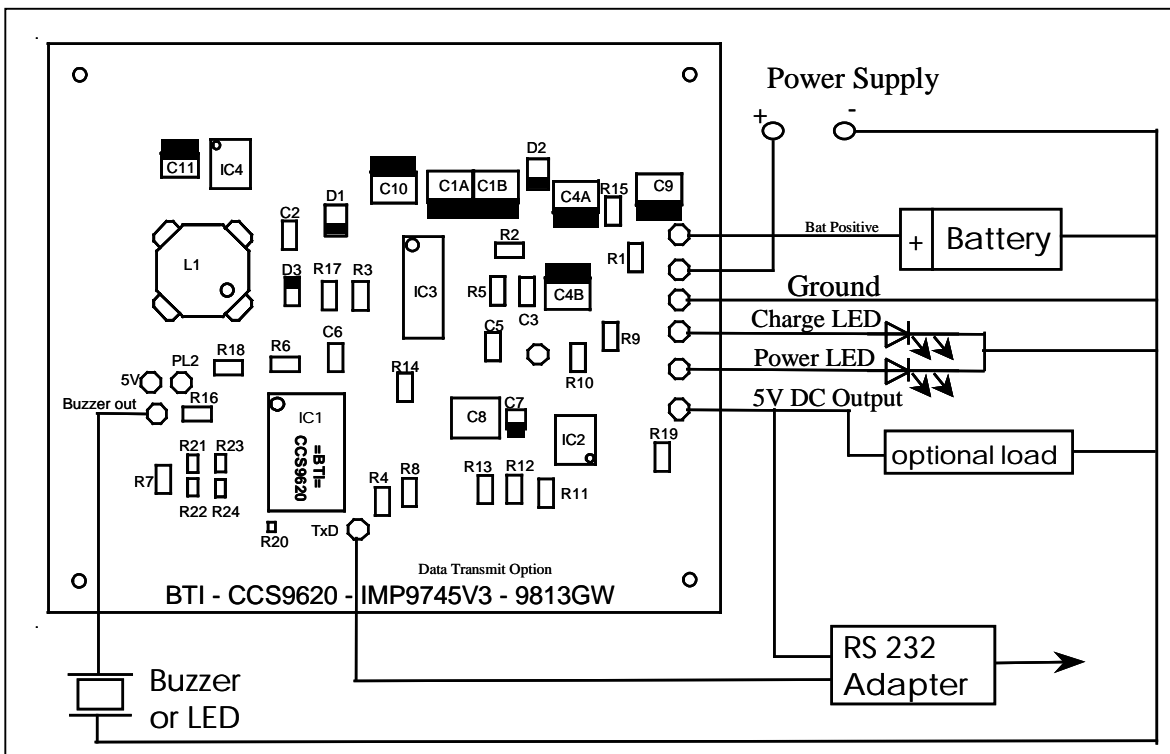
Connect Supply Voltage to DC (+) and GND. (Max. 25V)

Connect Battery Anode to Bat-Positive and the Cathode of the battery to GND.

Optionally connect an additional 5V circuit (load max. 50mA) to 5V-Output and GND.

Optionally connect a 5V Piezo-Buzzer to Buzzer-out (via) and GND.

Optionally connect a Data-Adapter to TxD (via) and GND.



Handling Instructions:

- | | |
|---|---|
| 1) Power supply on: | 1 beep and Power LED on (standby mode). |
| 2) Battery connected: | 2 short beep and Charge LED on. |
| 3) Charging: | click with 1 sec. period and Charge LED on. |
| 4) Battery full: | 1 beep and Charge LED off. |
| 5) Battery defective:
(false current or voltage) | 5 short beep and Charge LED flashing. |
| 6) Interrupt: | 3 times 2 short beep. |
| 7) Disconnect of the battery: | last signal repeated (full or defective). |