



# callisto electronics Ltd.

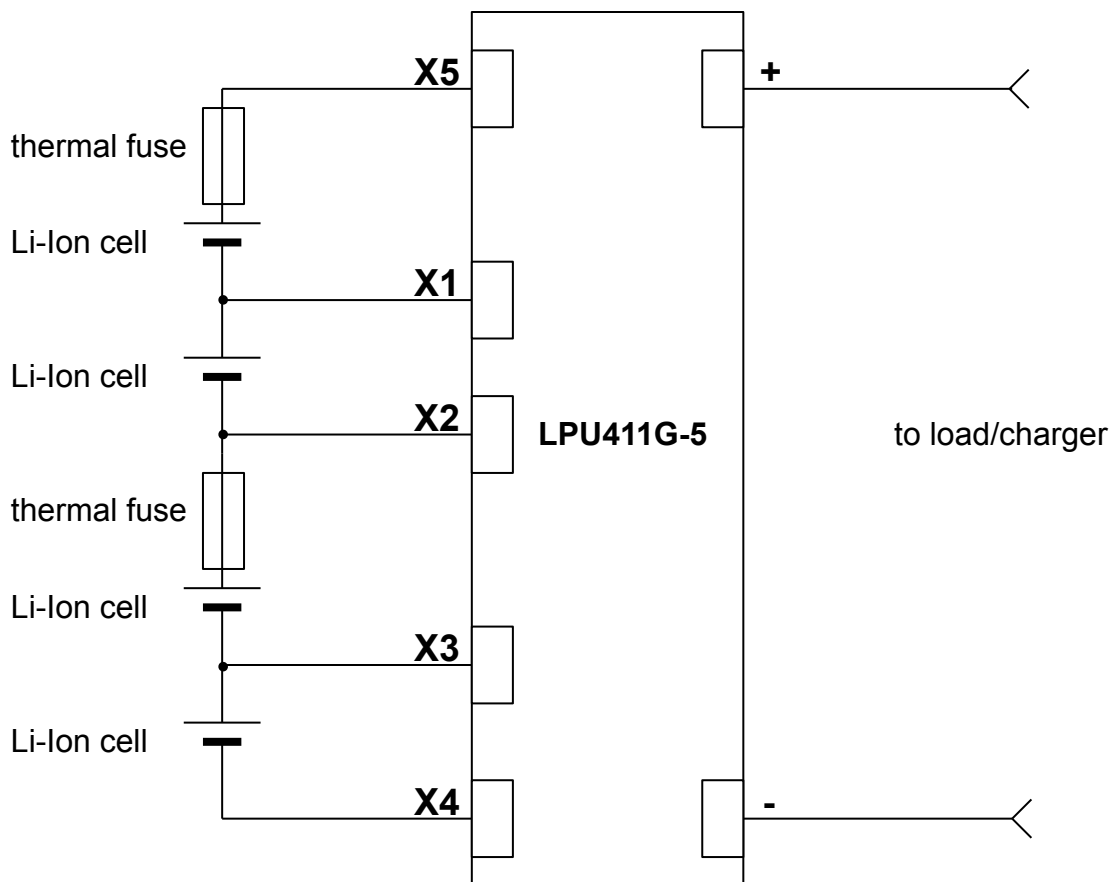
## Specifications Li-Ion pack protection module LPU411G-5

The LPU411 is a Li-Ion protection module designed to protect Li-Ion battery packs with three or four cells off overcharge, deep discharge as well as excessive discharge and charge currents. Certain parameters can be adjusted on request.

The following specifications apply :

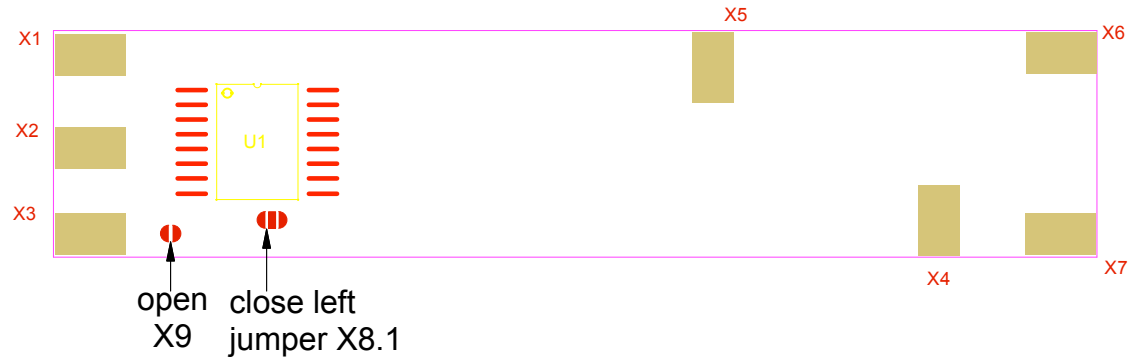
- Overcharge protection voltage 4.35±0.05V per cell
- Deep discharge detection voltage 2.3±0.1V per cell
- Max. discharge/charge current 5A
- Max. input voltage 20V
- Overcurrent protection delay about 50ms
- Short circuit protection delay about 700µs
- Deep discharge protection delay about 15ms
- Overcharge protection delay about 15ms
- Max. current consumption, active 40µA
- Max. current consumption, sleep 7.5µA, at  $V_{bat} < 2.4V$  per cell
- Max. dimension 46mm x 10mm x 3.9mm (LxWxH)

## Application diagram

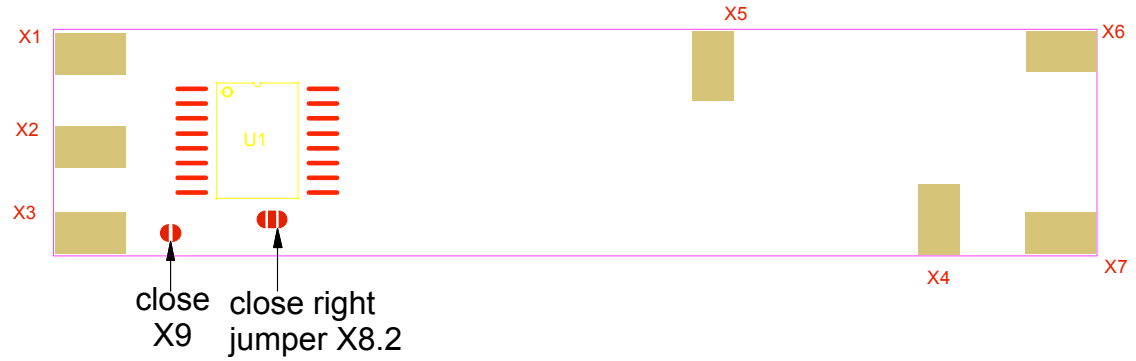




4-Cell configuration



3-Cell configuration



				unspecified tolerances according ISO 2768m		all dimensions in mm				
						scale not to scale		callisto electronics Ltd.		
rev.	comment	date	sign.	date	sign.	drawing name <b>LPU41x jumper settings for 3 and 4 cell operation</b>				
A1	generalized for LPU410/1/2	16.12.09	LS	drawn 09.12.2003	LS					
				check.						
				appr.						
				material		drawing number		MOD.LPU41xR.2		page 1
						replaced by		replacement date		of 1