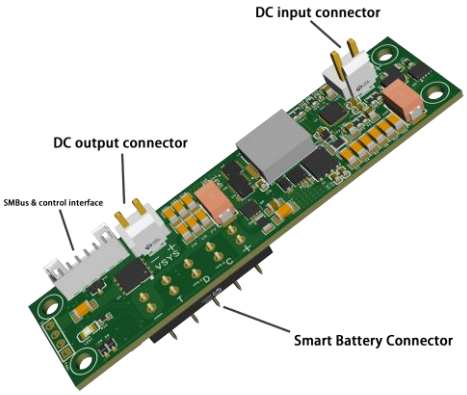
Battery Power Management Board

Model：GSPMB20



Features

Boost-buck design, supporting a wide input voltage range

Uninterrupted power supply between the AC and battery

Compatible with SMbus V1.1 protocol

Adaptive battery charging voltage and charging current

No development required, ready to use upon receipt

Use multiple GSPMB20 to support parallel applications of multiple batteries

Application

Portable electronics, medical equipment, ruggedized computers, embedded systems, etc.

Electrical performance

Input voltage	DC 5V~20V
Input limiting current	3.25A
Battery charging voltage	5~16.8V (Adaptive smart battery charging voltage demand)
Battery charging current	0~2A (Adaptive smart battery charging voltage demand)
Output current	5A
Standby current	DC input power on： ＜10mA（DC Input） DC input power off： ＜1mA（Battery）

Operation Mode

NVDC (Narrow Voltage DC) M-pin input high level or not connected, default	Battery removal：VSYS=VMIN (VMIN defaults to 5.2V when powered on, and automatically updates to the battery charging voltage after inserting the battery) Battery insertion：VSYS=VBAT
PTM (Pass Through Mode) M-pin input ground level, enter PTM mode, load current needs to be<3A	Battery removal：：VSYS=VIN（VSYSand VIN Pass Through） Battery insertion：VSYS=VBAT

Interface

VIN	VH3.96-2P	+/-	Connect DC power input
VSYS	VH3.96-2P	+/-	Connect the power output of the host system
SMBus&Ctrl	PH2.0-6P	CS/C/D/CHG/M/GND	CS: Communication enable input, pull-down valid C/D: SMBus communication clock and data lines CHG: Charging status indicator output, adapter powered on: continuous low level; During charging: high and low voltage levels change by 1 Hz; Battery fully charged: continuous low level M: Work mode selection input GND: Signal and communication ground
BAT	GSC550M09010D	+/C/D/T/-	Connect smart battery

Dimensions

Length	87.4mm
Width	22.4mm