

DESCRIPTION

The EV2607DL-00A is an evaluation board for the MP2607, a linear, high-performance single cell Li-Ion battery charger integrated system power path management. It takes power input from either AC adapter or USB port to power the system and charge the battery independently.

The charger section features trickle charge, constant current (CC) and constant voltage (CV) charging modes with programmable charge current, charging termination and charge status.

The system power path management function ensures continuous supply to the system. It features a low drop-out regulator from input to system and a switch from battery to system. If the input is valid, the power path management separates charging function and powering system load. If the input is removed, the system load will be powered by battery.

ELECTRICAL SPECIFICATION

Parameter	Symbol	Value	Units
Input Voltage	V_{IN}	4.5 to 5.9	V
Charge Current	I_{CHG}	650	mA

FEATURES

- 12V maximum Voltage for the input source
- Selectable Input Power Sources from AC Adapter or USB Port
- Programmable Charge Current
- Built-in current limit for USB port
- Complete Power Path Management for Simultaneously Powering the System and Charging the Battery.
- 0.75% V_{BATT} Accuracy
- Thermal Protection
- Fault and Charge Status Indicator
- Built-in Timer for Charge Termination

APPLICATIONS

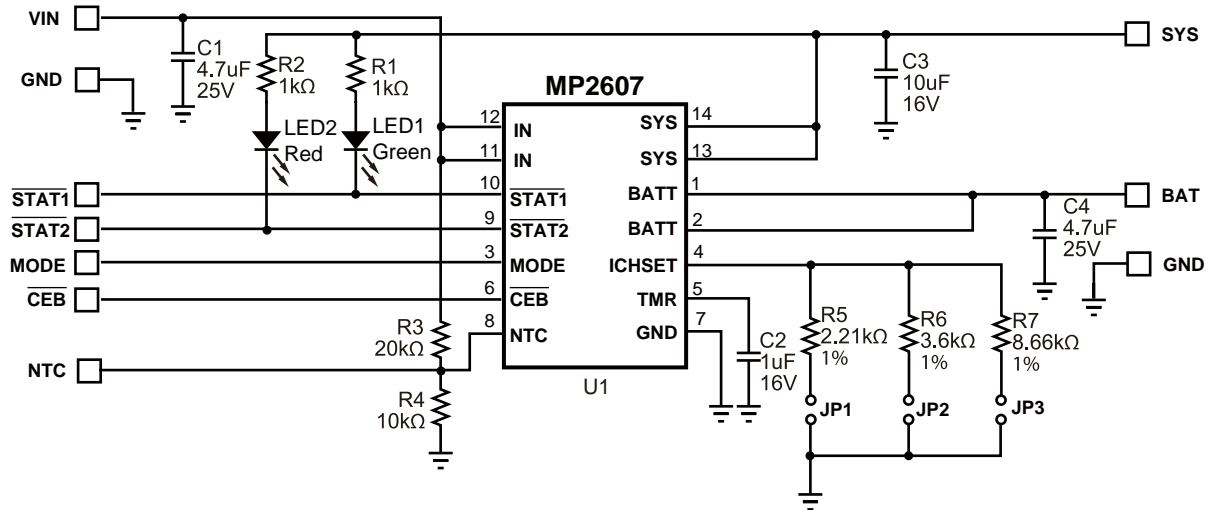
- Smart Handheld Devices
- Cell Phones, PDAs, MP3 Players
- Digital Cameras, GPS
- Handheld Test Equipment

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EV2607DL-00A EVALUATION BOARD



EVALUATION BOARD SCHEMATIC



EV2607DL-00A BILL OF MATERIALS

Qty	Ref	Value	Description	Package	Manufacturer	Manufacturer P/N
2	C1, C4	4.7uF	Ceramic Cap, 25V, X7R	1206	Murata	GRM31DR71E475K
1	C2	1uF	Ceramic Cap, 16V, X7R	0805	Murata	GRM21BR71C105K
1	C3	10uF	Ceramic Cap, 16V, X7R	1210	Murata	GRM32DR71C106K
3	JP1, JP2, JP3		2-Pin Connector Header, 0.100"		Molex	10-89-1601
1	LED1	Green	Led Green, Surface Mount	0805	Panasonic	LNJ306G5URA
1	LED2	Red	Led Red, Surface Mount	0805	Panasonic	LNJ206R5RRX
2	R1, R2	1K	Film Res, 5%	0603	Panasonic	ERJ-3GEYJ102V
1	R3	20k	Film Res, 1%	0603	Panasonic	ERJ-3EKF2002V
1	R4	10k	Film Res, 1%	0603	Panasonic	ERJ-3EKF1002V
1	R5	2.21K	Film Res, 1%	0603	Panasonic	ERJ-3EKF2211V
1	R6	3.6K	Film Res, 1%	0603	Panasonic	ERJ-3EKF3601V
1	R7	8.66K	Film Res, 1%	0603	Panasonic	ERJ-3EKF8661V
1	U1		Linear Charger	QFN14	MPS	MP2607DL

PRINTED CIRCUIT BOARD LAYOUT

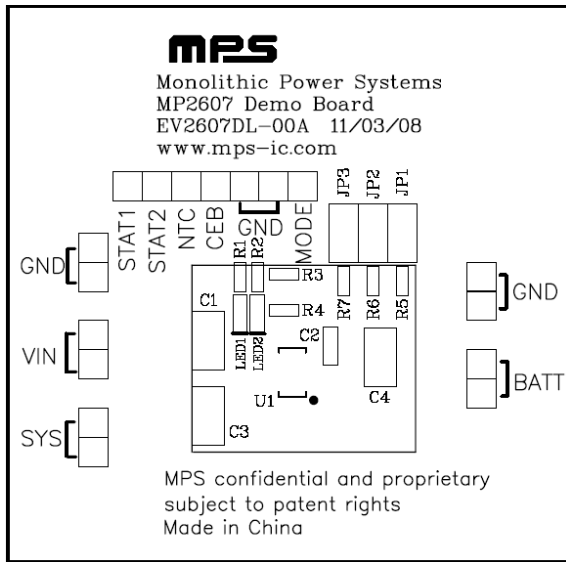


Figure 1—Top Silk Layer

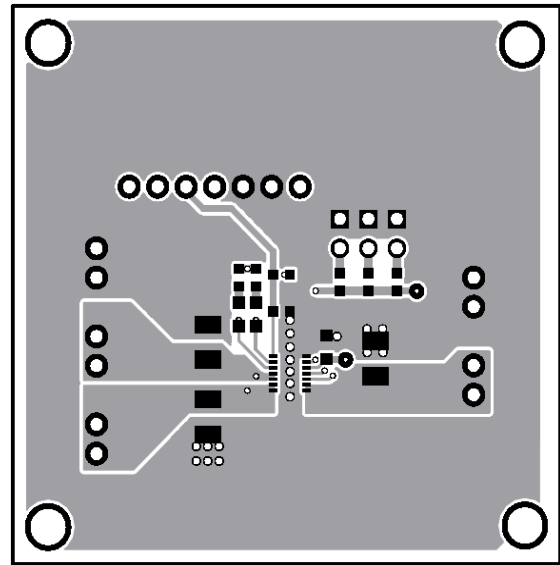


Figure 2—Top Layer

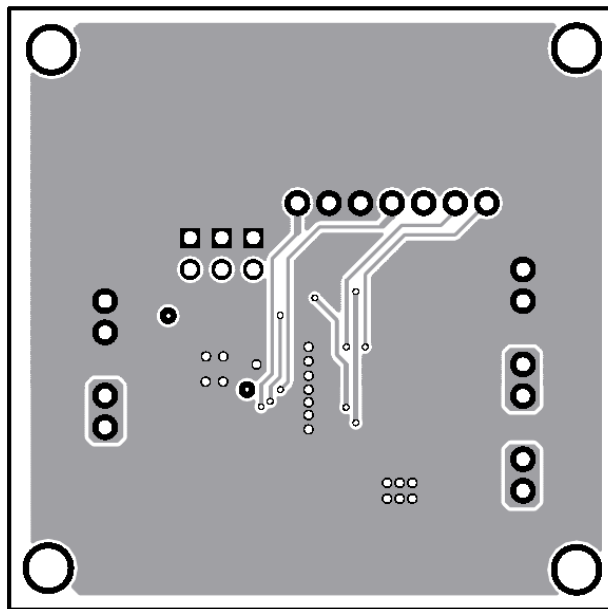


Figure 3—Bottom Layer