



The Future of Analog IC Technology™

# EV2000DJ-00A

## Low Input Voltage 150mA Linear Regulator Evaluation Board

### DESCRIPTION

The EV2000DJ-00A is the evaluation board for the MP2000DJ. The board operates from a 1.35V to 6.0V input voltage and regulates the output voltage at 1.2V with 2% accuracy. By adjusting the resistor divider values, the board can regulate the output voltage from 0.5V to 5V. It can also supply up to 150mA of load current.

### ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Value	Units
Input Voltage	V <sub>IN</sub>	1.35 – 6.0	V
Output Voltage	V <sub>OUT</sub>	1.2	V
Operating Temperature		-40 – +85	°C

### FEATURES

- Excellent Load Transient Response
- Excellent Line Regulation
- 1.35V to 6V Input Voltage
- 1.2V Output Voltage
- Up to 150mA Load Current

### APPLICATIONS

- 802.11 PC Cards
- Mobile Handset PLL Power
- Audio Codec Power

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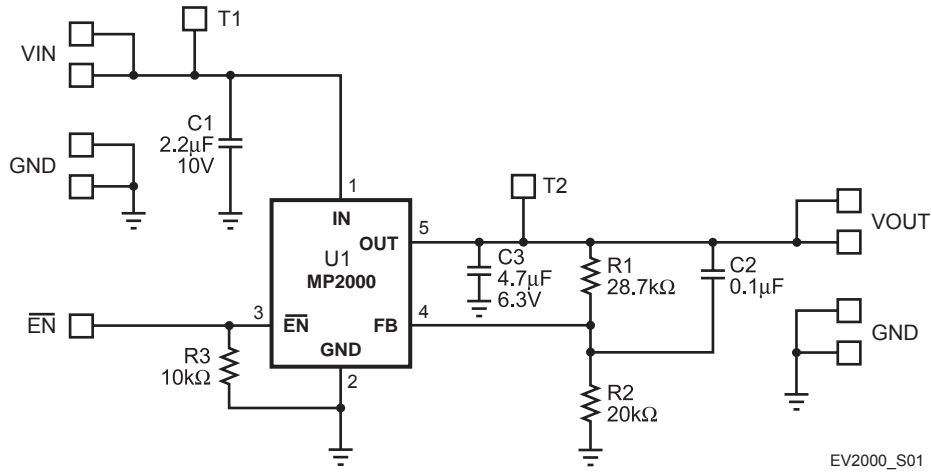
## EV2000DJ-00A EVALUATION BOARD



(L x W H) 2.0" x 2.0" x 0.4" (5.1cm x 5.1cm x 1.1cm)

Board Number	MPS IC Number
EV2000DJ-00A	MP2000DJ

**EVALUATION BOARD SCHEMATIC**



EV2000\_S01

**EV2000DJ-00A BILL OF MATERIALS**

Qty	Ref	Value	Description	Package	Manufacturer	Manufacturer P/N
1	C1	2.2µF	Ceramic Capacitor, 10V, X5R	0805	TDK	C2012X5R1A225K
1	C2	0.1µF	Ceramic Capacitor, 25V, X7R/X5R	0805	TDK	C2012X7R1E104K
1	C3	4.7µF	Ceramic Capacitor, 6.3V, X5R	0805	TDK	C2012X5R0J475K
1	R1	28.7kΩ	Resistor, 1%	0805	Panasonic	ERJ-6ENF4022V
1	R2	20.0kΩ	Resistor, 1%	0805	Panasonic	ERJ-6ENF4992V
1	R3	10kΩ	Resistor, 5%	0805	Panasonic	ERJ-6ENF1002V
1	U1		Low Voltage 150mA Linear Reg.	TSOT23-5	MPS	MP2000DJ

## PRINTED CIRCUIT BOARD LAYOUT

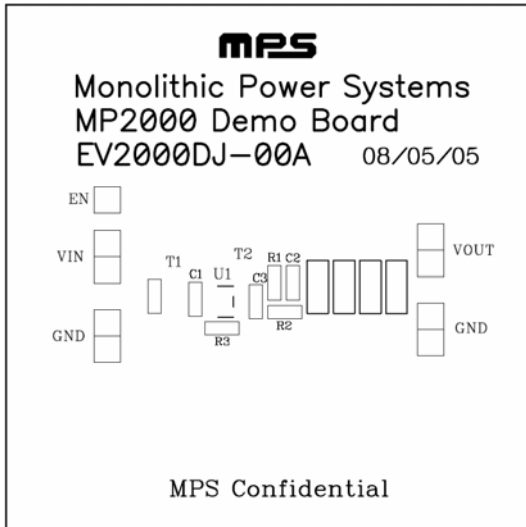


Figure 1—Top Silk Layer

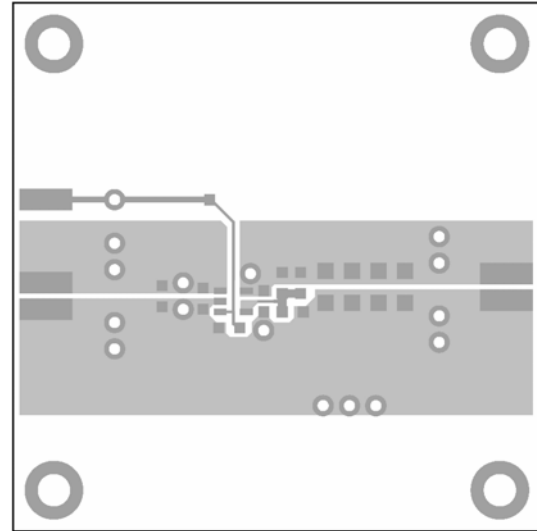


Figure 2—Top Layer

## QUICK START GUIDE

The output voltage of this board is set to 1.2V. The  $\overline{EN}$  pin is connected to ground with a 10kΩ resistor for automatic startup. You can connect  $\overline{EN}$  to VIN to disable the MP2000.

1. Attach the positive and negative ends of the load to the VOUT and GND pins, respectively.
2. Attach the input voltage ( $1.35V \leq V_{IN} \leq 6V$ ) and input ground to the VIN and GND pins, respectively.
3. The default resistor values on the board are R1=28.7kΩ and R2=20kΩ. Changing these resistor values will change the output voltage. Use the following equation to determine resistor values for different output voltages:

$$V_{OUT} = 0.5V \times \left( 1 + \frac{R1}{R2} \right)$$

T1 and T2 are test points for accurately measuring the input and output voltages.

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