



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



FAN5350 Evaluation Board User Manual

- 3MHz Fixed Frequency Operation
- 16 μ A Typical Quiescent Current
- Best-in-Class Load Transient
- Up to 600mA Output Current
- 2.7V to 5.5V Input Voltage Range
- 1.82V Fixed Output Voltage
- Synchronous Operation
- Pulse Skip and Power Save Mode
- 6-lead 3x3mm MLP and 5-bump 1x1.37mm WLCSP Packages

Description:

The **FAN5350 Evaluation Board** is a compact circuit including the FAN5350 MPX or FAN5350 UCX, a 1 μ H inductor and one small 4.7 μ F input and output capacitor. The FAN5350 demo board is a completely assembled and tested surface mount board, providing easy probe access points to all inputs and outputs so that electrical characteristics and waveforms can be easily measured.

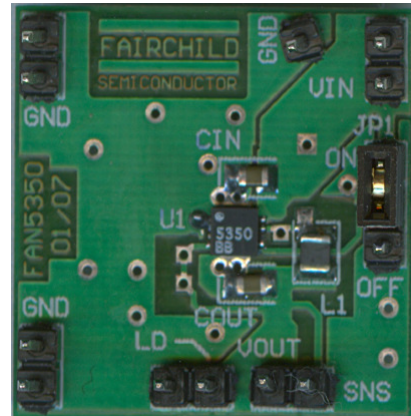


Figure 1: FAN5350 MPX

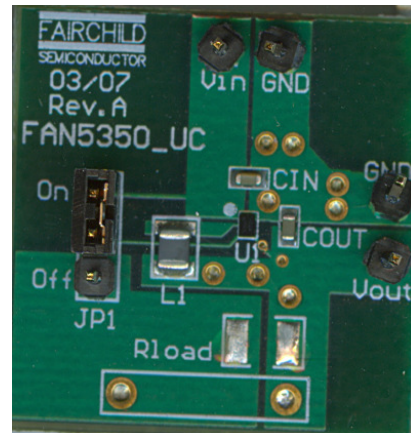


Figure 2: FAN5350 UCX

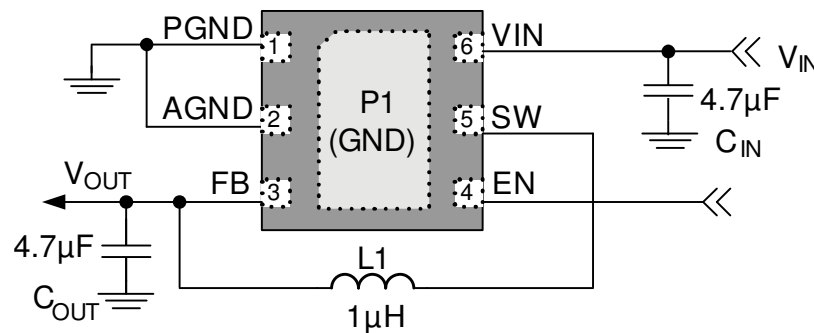


Figure 3: MLP Schematic Diagram

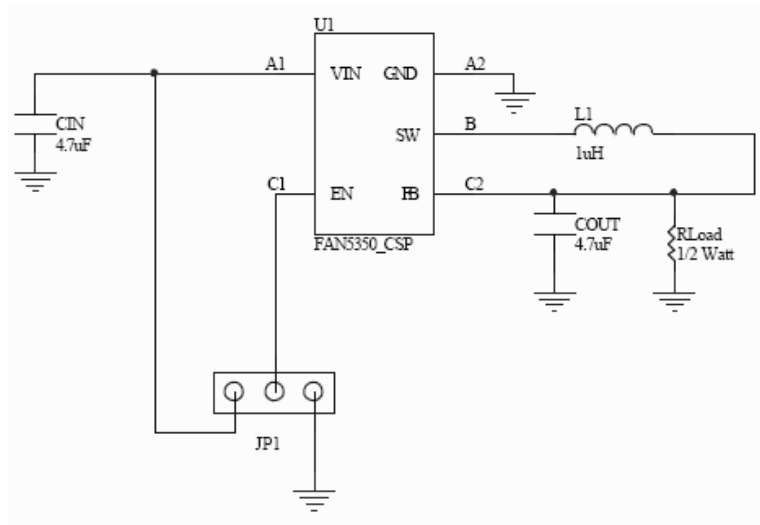


Figure 4: WLCSP Schematic Diagram

Where To Begin:

- 1: Connect V_{IN} (2.7 to 5.5V) and GND (0V).
- 2: Use jumper JP1 to select "ON" and "OFF" modes.
- 3: Verify that the output voltage V_{OUT} , remains constant at 1.82V for varying input voltages and the load current
- 4: To measure the supply current in non-switching condition, the FB pin has to be forced with an external voltage higher than V_{OUT} nominal. $V_{FB} = 2V$ is a good choice. To measure the supply current in switching condition, the digital current meter readings should be averaged until a stable value is displayed.
- 5: Observe that in OFF mode (EN connected to GND) the supply current drops below $1\mu A$. A typical value at room temperature is $\sim 50nA$ provided that there is no leakage current through the PCB. Please ensure the PCB surface is very clean when performing this measurement.

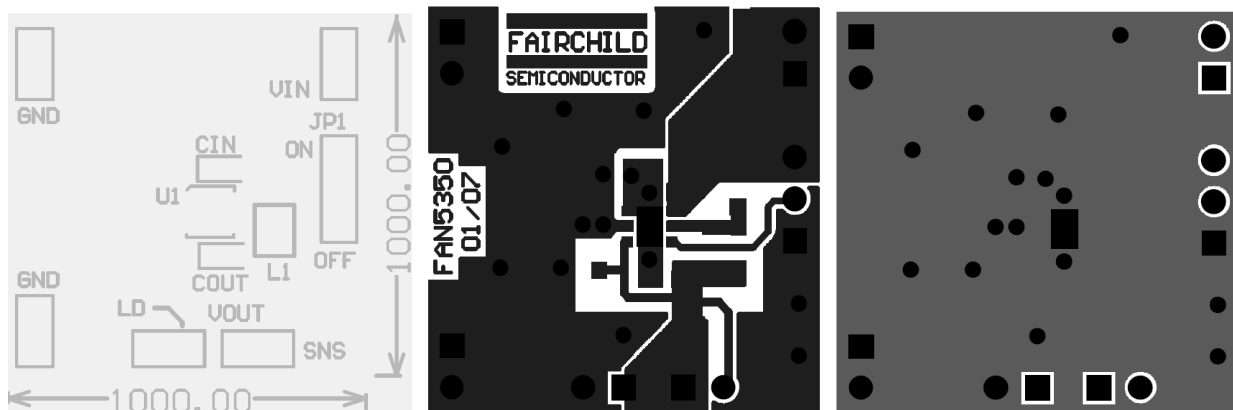


Figure 3: MLP PCB Layout

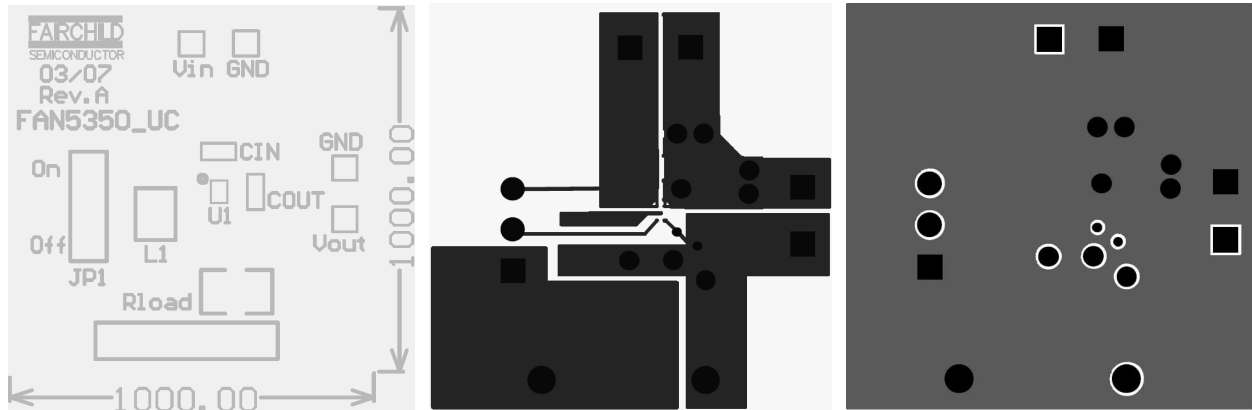


Figure 4: WLCSP PCB Layout

Table 1: WLCSP Bill of Materials

Description	Qty	Ref.	Vendor	Part Number
Inductor 1.3uH, 1.2A, 90mohm	1	L1	FDK	MIPSA2520D1R0
Capacitor 4.7uF, 10%, 6.3V, X5R, 0603	2	CIN,COUT	MURATA	GRM39 X5R 475K 6.3
Hardware Connector Header .1 SINGLE STR 36POS	7	Vin,Vout,GND, ON/OFF(JP1)	Digi-Key	S1011-36-ND
IC DC/DC Regulator in CSP, 5 bumps	1	U1	Fairchild	FAN5350UC
Load Resistor	1	Rload	Any	
Hardware, SHUNT, PHBR 15 AU	1	ON, PWM	DIGI-KEY	A26227-ND

Table 2: MLP Bill of Materials

Description	Qty	Ref.	Vendor	Part Number
Inductor 1.3uH, 1.2A, 90mohm	1	L1	FDK	MIPSA2520D1R0
Capacitor 4.7uF, 10%, 6.3V, X5R, 0603	2	CIN,COUT	MURATA	GRM39 X5R 475K 6.3
Hardware Connector Header .1 SINGLE STR 36POS	14	Vin,Vout,GND, LD, ON/OFF(JP1)	Digi-Key	S1011-36-ND
IC DC/DC Regulator in MLP, 6 pin	1	U1	Fairchild	FAN5350MPX
Hardware, SHUNT, PHBR 15 AU	1	ON, PWM	DIGI-KEY	A26227-ND

Table 3: Ordering Information

Product Number	Pb-Free	Operating Temperature Range	Package Type
FAN5350UCX	Yes	-40°C to 85°C	5-bump WLCSP 1x1.37mm
FAN5350MPX	Yes	-40°C to 85°C	6-pin MLP 3x3mm