LM26LVEVM User's Guide

User's Guide



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Introduction

The LM26LVEVM allows users to evaluate the performance of the LM26LV factory present temperature switch and temperature sensor. The EVM comes with a LM26LV present to trip at 80C and features a test point header for easy probing the LM26LV pins.



LM26LVEVM Components

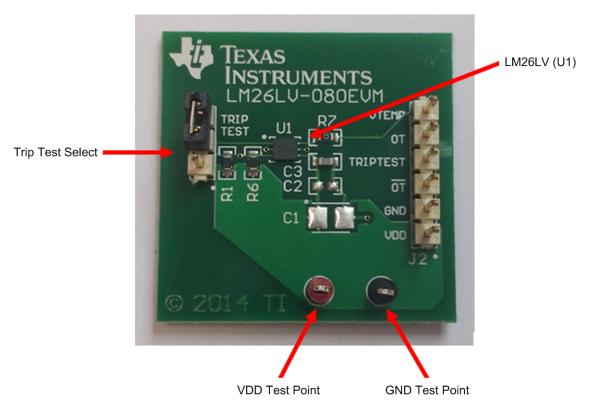


Figure 1. LMT01EVM Evaluation Board

Table 1. Device and Package Configurations

DEVICE	IC	PACKAGE
U1	LM26LV	WSON-6



Setup and Operation

Connector Descriptions

J1.P1-P2: Trip Test enabled, VTEMP = analog temperature voltage

J1.P2-P3: Trip Test disabled, OVERTEMP and /OVERTEMP asserted, VTEMP = temperature trip voltage

J2.VTEMP: Analog temperature voltage output

J2.OT: Active high over temperature switch output

J2.TRIPTEST: Trip test output

J2./OT: Active low over temperature switch output

J2.GND: Ground connection J2.VDD: Power connection

2 Operation

1. Connect a power supply to the VDD and GND pins labeled on the test point header J2

2. Select the functionality of TRIPTEST on J1

3. Measure VTEMP, OT, /OT, or TRIPTEST on J2



Board Layout

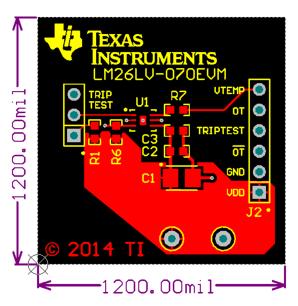


Figure 2. Top Assembly Layer

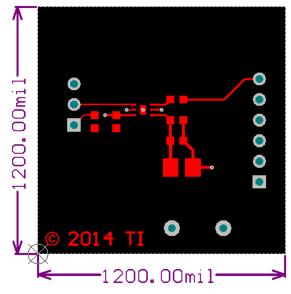


Figure 3. Top Layer Routing



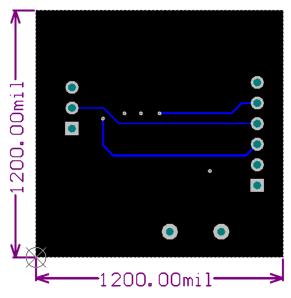


Figure 4. Bottom Layer Routing

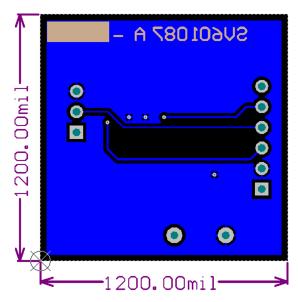


Figure 5. Bottom Assembly Layer



Schematic

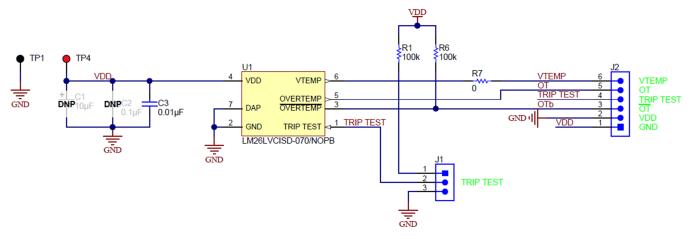


Figure 6. LM26LVEVM Schematic



Bill of Materials

Table 2. LM26LVEVM Bill of Materials

Designator	Quantity	Value	Description	Part Number	Manufacturer
!PCB	1		Printed Circuit Board	SV601087	Any
C3	1	0.01uF	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	C1608C0G1E103J	TDK
J1	1		Header, TH, 100mil, 3x1, Gold plated, 230 mil above insulator	TSW-103-07-G-S	Samtec
J2	1		Header, TH, 100mil, 6x1, Gold plated, 230 mil above insulator	TSW-106-07-G-S	Samtec
R1, R6	2	100k	RES, 100k ohm, 1%, 0.1W, 0603	CRCW0603100KFKE A	Vishay-Dale
R7	1	0	RES, 0 ohm, 5%, 0.1W, 0603	CRCW06030000Z0E A	Vishay-Dale
SH-J1	1	1x2	Shunt, 100mil, Gold plated, Black	969102-0000-DA	ЗМ
TP1	1	Black	Test Point, Miniature, Black, TH	5001	Keystone
TP4	1	Red	Test Point, Miniature, Red, TH	5000	Keystone
U1	1		1.6V Factory Preset Temperature Switch and Temperature Sensor, 6-pin LLP, Pb-Free	LM26LVCISD- 070/NOPB	Texas Instruments
C1	0	10uF	CAP, TANT, 10uF, 16V, +/-10%, 0.8 ohm, 3528-21 SMD	TPSB106K016R0800	AVX
C2	0	0.1uF	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	06033C104JAT2A	AVX

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CAUTION

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Interference Statement for Class A EVM devices

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- · Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

3.2 Canada

3.2.1 For EVMs issued with an Industry Canada Certificate of Conformance to RSS-210

Concerning EVMs Including Radio Transmitters:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Concernant les EVMs avec appareils radio:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Concerning EVMs Including Detachable Antennas:

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. This radio transmitter has been approved by Industry Canada to operate with the antenna types listed in the user guide with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Concernant les EVMs avec antennes détachables

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante. Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés dans le manuel d'usage et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur

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If User uses EVMs in Japan, not certified to Technical Regulations of Radio Law of Japan, User is required by Radio Law of Japan to follow the instructions below with respect to EVMs:

- Use EVMs in a shielded room or any other test facility as defined in the notification #173 issued by Ministry of Internal Affairs and Communications on March 28, 2006, based on Sub-section 1.1 of Article 6 of the Ministry's Rule for Enforcement of Radio Law of Japan,
- 2. Use EVMs only after User obtains the license of Test Radio Station as provided in Radio Law of Japan with respect to EVMs, or
- 3. Use of EVMs only after User obtains the Technical Regulations Conformity Certification as provided in Radio Law of Japan with respect to EVMs. Also, do not transfer EVMs, unless User gives the same notice above to the transferee. Please note that if User does not follow the instructions above, User will be subject to penalties of Radio Law of Japan.

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