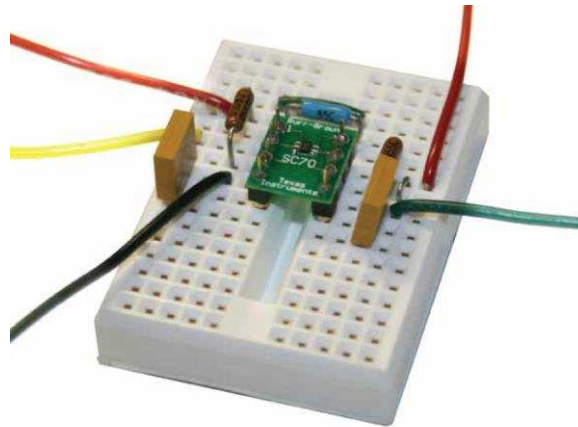


## ***EVM-LEADLESS1 User's Guide***

This document is the EVM User's guide for the EVM-LEADLESS1 which provides an easy evaluation of TI's common leadless packages.



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## 1 About this Manual

This user's guide describes the EVM-LEADLESS1 evaluation module (EVM) and its intended use.

## 2 Information About Cautions and Warnings

The information in a warning is provided for personal protection and the information in a caution is provided to show how to protect equipment from damage. Read each caution and warning carefully.



### CAUTION

This EVM contains components that can potentially be damaged by electrostatic discharge. Always transport and store the EVM in its supplied ESD bag when not in use. Handle using an antistatic wristband. Operate on an antistatic work surface. For more information on proper handling, see [Electrostatic Discharge \(ESD\)](#).

### 3 Description

The EVM-LEADLESS1 allows for quick testing and bread boarding of TI's common leadless packages. The board has a footprint to convert TI's DRC, DTP, DQE, RBW, RGY, RSE, RSV, RSW, RTE, RTJ, RUK, RUC, RUG, RUM, RUT, and YZP surface mount packages to 100-mil DIP headers.

#### 3.1 Features

The EVM has the following features:

- Quick testing of TI's surface mount packages
- Allows surface-mount packages to be plugged into 100-mil spaced bread board
- Supports TI's 16 most popular leadless packages with a single panel

Figure 1 illustrates the EVM-LEADLESS1 board.

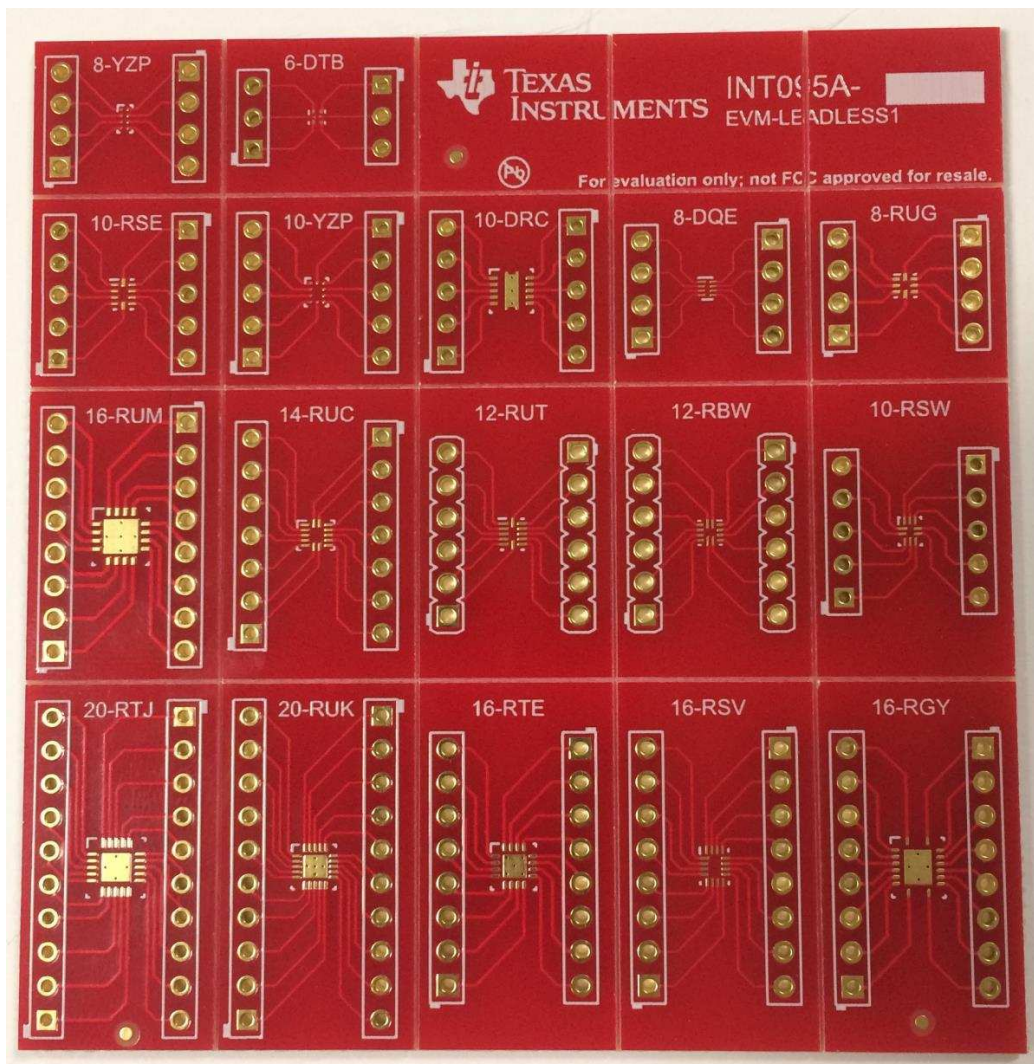


Figure 1. EVM-LEADLESS1-EVM

## 4 EVM-LEADLESS1 Connections Overview

### 4.1 Usage Instructions

Instructions for IC use follow:

1. Solder ICs to the adapter PCB. Parts may be hand-soldered or attached with infrared (IR) or hot air reflow techniques.
2. Use long-nose pliers to snap terminal strips (Sullins part number GBC36SAAN) into desired lengths.
3. Gently flex the panel at score lines to separate boards.
4. Insert terminal strips into a spare DIP socket to align pins.
5. Position the board over the pins and solder the connections.
6. Carefully remove from the DIP socket.

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

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*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.*

## **FCC Interference Statement for Class B EVM devices**

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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 or RSS-247*

#### **Concerning EVMs Including Radio Transmitters:**

This device complies with Industry Canada license-exempt RSSs. 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.

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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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[http://www.tij.co.jp/lstds/ti\\_ja/general/eStore/notice\\_01.page](http://www.tij.co.jp/lstds/ti_ja/general/eStore/notice_01.page)

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1. 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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