This document describes the SN6505A and SN6505B evaluation module (EVM). It allows designers to analyze and evaluate the SN6505A and SN6505B oscillator/power driver from TI.

In addition to the SN6505A and SN6505B, the EVM contains a small form-factor transformer, simple rectifier circuit, and voltage regulator. This combination simulates a complete isolated power supply system suitable for many different applications.

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1 Introduction

1.1 Overview

This SN6505A and SN6505B evaluation module allows the user to evaluate the performance and features of the SN6505A and SN6505B in an actual isolated power application. This includes the transformer, rectifier, and low-dropout (LDO) voltage regulator shown in Figure 1.

The complementary output signals (D1 and D2) from the SN6505x are ground-referenced, N-channel, power switches that drive the primary side of the center-tapped transformer. The secondary of the transformer has its center-tap referenced to an isolated ground, and the complementary outputs are rectified through a simple two-diode bridge. The make-before-break feature of the two driver outputs from the SN6505x ensures that only one side of the transformer is driven at a time. After being rectified, the dc voltage is smoothed and routed to the TPS76701QD voltage regulator. The regulator outputs a stable, regulated +5-Vdc output that is used to drive downstream circuitry.

The EVM is the SN6505x EVM which is configured for +5-Vdc/ input and +5-Vdc output.

Figure 1. SN6505xEVM Pinout and Functional Block Diagram

1.2 SN6505xEVM Kit Contents

- SN6505xEVM Printed-Circuit Board
- SN6505xEVM Evaluation Module User’s Guide
- SN6505x data sheet

2 Printed-Circuit Board

The SN6505xEVM printed-circuit board (PCB) contains an SN6505x, transformer, and voltage regulator. The board has separate and isolated grounds across the isolation transformer allowing evaluation of the isolated power supply system contained on the EVM. Although the transformer secondary can be wound to provide any isolated voltage, the EVM uses a transformer with a 1:1.1 turns ratio, ideal for generating the rectified voltage required by the TPS76701QD regulator.

Refer to the SN6505xEVM schematic and bill of materials (BOM) to become familiar with the PCB components and layout. The PCB files (Gerber/ODB) are available from TI on request.
2.1 SN6505x EVM Operation

2.1.1 Left-Side Operation: SN6505x and Transformer Primary

**DC Power** — The SN6505x (installed on the left-side of the isolation transformer) is operated using either a single +5-V (±10%), or single +5-V (±10%) dc power supply. On this EVM, the turns-ratio of the transformer is 1:1.1, providing a slight step-up voltage function. This allows evaluation of the system performance using a supply voltage anywhere within the range of +5-Vdc to 5.5-Vdc. The small amount of dc current required also allows operation of the EVM from a battery. The input dc power supply must be connected to the J1 terminal block on the left side of the EVM. No other controls are required to operate the EVM. The SN6505X oscillates and drives the transformer when dc voltage is applied.

2.1.2 Right-Side Operation

**DC Output Power** — The right side of the isolation transformer contains a two-diode rectifier, filter capacitors, and a voltage regulator. Because the purpose of the EVM is to generate isolated power across the transformer, a separate power supply on the right side of the EVM is unnecessary. The rectified, unregulated output voltage is observed at TP5. Monitor the output from the transformer while varying the input voltage to the SN6505X. The regulated output is available at TP7. Connect external circuitry and/or loading to evaluate the operating range, line regulation, load regulation, and efficiency of the EVM. Note that the ground reference on the right side of the transformer (GND2) is not connected to the ground of the SN6505X (GND1). This demonstrates the isolation feature of the EVM.

CAUTION

Although the transformer has an isolation rating of 2.5-kV$_{rms}$ for 750315371 and 5-kV$_{rms}$ for 750315240, the PCB provides only 50 V of isolation between GND1 and GND2 to prevent electrical shock or injury. Do not attempt to apply high voltage between GND1 and GND2.

2.1.3 Functional Test Procedure

Please find the functional test procedure for the SN6505x EVM board.

1. Insert Shunt J5.
2. Connect 5-V, 200 mA Voltage source between TP1 (VIN) and TP2 (GND1)
3. Measure voltage with a DMM at TP5 (VOUT) w.r.t TP8 (GND2) should be greater than 5.5-V
4. Measure voltage with DMM at TP7 (VLDO) w.r.t. TP6 (GND2) should be between 4.9-V and 5.1-V.
## 2.2 Bill of Materials and Schematic

### 2.2.1 Bill of Materials

The bill of materials for the SN6505xEVM is shown in Table 1.

<table>
<thead>
<tr>
<th>Designator</th>
<th>Quantity</th>
<th>Value</th>
<th>Description</th>
<th>Package Reference</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB</td>
<td>1</td>
<td></td>
<td>Printed Circuit Board</td>
<td>INT008 (for SN6505ADBVR) INT021 (for SN6505BDBVR)</td>
<td>Any</td>
</tr>
<tr>
<td>C1, C4, C7</td>
<td>3</td>
<td>0.1-uF</td>
<td>CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603</td>
<td>0603 06033C104JAT2A</td>
<td>AVX</td>
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<tr>
<td>C2, C5, C8</td>
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<td>1-uF</td>
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<td>0603 GRM18BR61H105 KAALD</td>
<td>MuRata</td>
</tr>
<tr>
<td>C3, C6, C9</td>
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<td>10-uF</td>
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<td>MuRata</td>
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<tr>
<td>D1, D2</td>
<td>2</td>
<td>40-V</td>
<td>Diode, Schottky, 40 V, 1 A, SOD-123</td>
<td>SOD-123 1N5819HW-7-F</td>
<td>Diodes Inc.</td>
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<td>H1, H2, H3, H4</td>
<td>4</td>
<td>0.25 X 0.075, Clear</td>
<td>75x250 mil</td>
<td>SJ5382</td>
<td>3M</td>
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<td>J1, J2, J3, J4, J5</td>
<td>5</td>
<td>Header, 2.54 mm, 2x1, Gold, R/A, SMT</td>
<td>Header, 2.54 mm, 2x1, R/A, SMT</td>
<td>87898-0204</td>
<td>Molex</td>
</tr>
<tr>
<td>LBL1</td>
<td>1</td>
<td></td>
<td>Thermal Transfer Printable Labels, 0.650&quot; W x 0.200&quot; H - 10,000 per roll</td>
<td>PCB Label 0.650&quot;H x 0.200&quot;W</td>
<td>Brady</td>
</tr>
<tr>
<td>R1</td>
<td>1</td>
<td>97.6k</td>
<td>RES, 97.6 k, 1%, 0.1 W, 0603</td>
<td>0603 CRCW060397K6F KEA</td>
<td>Vishay-Dale</td>
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<tr>
<td>R2</td>
<td>1</td>
<td>30.1k</td>
<td>RES, 30.1 k, 1%, 0.1 W, 0603</td>
<td>0603 CRCW063301K1F KEA</td>
<td>Vishay-Dale</td>
</tr>
<tr>
<td>SH-J5</td>
<td>1</td>
<td></td>
<td>Shunt, 100mil, Gold plated, Black</td>
<td>Shunt 2 pos. 100 mil</td>
<td>TE Connectivity</td>
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<tr>
<td>T1</td>
<td>1</td>
<td>105 uH</td>
<td>Transformer, 105 uH, SMT</td>
<td>12.60x8.30mm 750315371 (for SN6505BDBVR)</td>
<td>Wurth Elektronik</td>
</tr>
<tr>
<td></td>
<td></td>
<td>110 uH</td>
<td>Transformer, 110 uH, SMT</td>
<td>10.41x12.32mm 750315240 (for SN6505ADBVR)</td>
<td>Wurth Elektronik</td>
</tr>
<tr>
<td>TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8</td>
<td>8</td>
<td></td>
<td>Test Point, Miniature, SMT</td>
<td>Test Point, Miniature, SMT</td>
<td>5019 Keystone</td>
</tr>
<tr>
<td>U1</td>
<td>1</td>
<td>LOW-NOISE 1A TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0006A</td>
<td>DBV0006A SN6505BDBVR</td>
<td>Texas Instruments</td>
<td></td>
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<tr>
<td>U2</td>
<td>1</td>
<td>Single Output Fast Transient Response LDO, 1 A, Adjustable 1.5 to 5.5 V Output, 2.7 to 10 V Input, with Low IQ, 8-pin SOIC (D), -40 to 125 degC, Green (RoHS &amp; no Sb/Br)</td>
<td>D0008A TPS76701QD</td>
<td>Texas Instruments</td>
<td></td>
</tr>
<tr>
<td>FID1, FID2, FID3</td>
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<td></td>
<td>Fiducial mark. There is nothing to buy or mount.</td>
<td>Fiducial</td>
<td>N/A</td>
</tr>
</tbody>
</table>
2.2.2 Schematic

Figure 2 shows the electrical schematic for the SN6505xEVM.

Figure 2. SN6505xEVM Schematic
3 SN6505xEVM Printed Circuit Board

Figure 3 through Figure 6 contain the PCB layout views.
STANDARD TERMS AND CONDITIONS FOR EVALUATION MODULES

1. **Delivery:** TI delivers TI evaluation boards, kits, or modules, including any accompanying demonstration software, components, or documentation (collectively, an “EVM” or “EVMs”) to the User (“User”) in accordance with the terms and conditions set forth herein. Acceptance of the EVM is expressly subject to the following terms and conditions.

1.1 EVMs are intended solely for product or software developers for use in a research and development setting to facilitate feasibility evaluation, experimentation, or scientific analysis of TI semiconductors products. EVMs have no direct function and are not finished products. EVMs shall not be directly or indirectly assembled as a part or subassembly in any finished product. For clarification, any software or software tools provided with the EVM (“Software”) shall not be subject to the terms and conditions set forth herein but rather shall be subject to the applicable terms and conditions that accompany such Software.

1.2 EVMs are not intended for consumer or household use. EVMs may not be sold, sublicensed, leased, rented, loaned, assigned, or otherwise distributed for commercial purposes by Users, in whole or in part, or used in any finished product or production system.

2 **Limited Warranty and Related Remedies/Disclaimers:**

2.1 These terms and conditions do not apply to Software. The warranty, if any, for Software is covered in the applicable Software License Agreement.

2.2 TI warrants that the TI EVM will conform to TI's published specifications for ninety (90) days after the date TI delivers such EVM to User. Notwithstanding the foregoing, TI shall not be liable for any defects that are caused by neglect, misuse or mistreatment by an entity other than TI, including improper installation or testing, or for any EVMs that have been altered or modified in any way by an entity other than TI. Moreover, TI shall not be liable for any defects that result from User's design, specifications or instructions for such EVMs. Testing and other quality control techniques are used to the extent TI deems necessary or as mandated by government requirements. TI does not test all parameters of each EVM.

2.3 If any EVM fails to conform to the warranty set forth above, TI's sole liability shall be at its option to repair or replace such EVM, or credit User's account for such EVM. TI's liability under this warranty shall be limited to EVMs that are returned during the warranty period to the address designated by TI and that are determined by TI not to conform to such warranty. If TI elects to repair or replace such EVM, TI shall have a reasonable time to repair such EVM or provide replacements. Repaired EVMs shall be warranted for the remainder of the original warranty period. Replaced EVMs shall be warranted for a new full ninety (90) day warranty period.

3 **Regulatory Notices:**

3.1 **United States**

3.1.1 Notice applicable to EVMs not FCC-Approved:

This kit is designed to allow product developers to evaluate electronic components, circuitry, or software associated with the kit to determine whether to incorporate such items in a finished product and software developers to write software applications for use with the end product. This kit is not a finished product and when assembled may not be resold or otherwise marketed unless all required FCC equipment authorizations are first obtained. Operation is subject to the condition that this product not cause harmful interference to licensed radio stations and that this product accept harmful interference. Unless the assembled kit is designed to operate under part 15, part 18 or part 95 of this chapter, the operator of the kit must operate under the authority of an FCC license holder or must secure an experimental authorization under part 5 of this chapter.

3.1.2 For EVMs annotated as FCC – FEDERAL COMMUNICATIONS COMMISSION Part 15 Compliant:

**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.
FCC Interference Statement for Class B EVM devices

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 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 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 isotope 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.

3.3 Japan

3.3.1 Notice for EVMs delivered in Japan: Please see http://www.tij.co.jp/lads/ti_ja/general/eStore/notice_01.page 日本国内に輸入される評価用キット、ボードについては、次のとをご覧ください。http://www.tij.co.jp/lads/ti_ja/general/eStore/notice_01.page

3.3.2 Notice for Users of EVMs Considered “Radio Frequency Products” in Japan: EVMs entering Japan may not be certified by TI as conforming to Technical Regulations of Radio Law of Japan.

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:

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.
【無線電波を送信する製品の開発キットをお使いになる際の注意事項】 開発キットの中には技術基準適合証明を受けていないものがあります。技術基準適合証明を受けていないもののご使用に際しては、電波法遵守のため、以下のいずれかの措置を取っていただく必要がありますのでご注意ください。

1. 電波法施行規則第6条第1項第1号に基づく平成18年3月28日総務省告示第173号で定められた電波暗室等の試験設備でご使用いただく。
2. 実験局の免許を取得後ご使用いただく。
3. 技術基準適合証明を取得後ご使用いただく。

なお、本製品は、上記の「ご使用にあたっての注意」を譲渡先、移転先に通知しない限り、譲渡、移転できないものとします。

上記を遵守頂けない場合は、電波法の罰則が適用される可能性があることをご留意ください。

日本テキサス・インスツルメンツ株式会社
東京都新宿区西新宿6丁目24番1号
西新宿三井ビル

3.3.3 Notice for EVMs for Power Line Communication: Please see http://www.tij.co.jp/lsds/ti_ja/general/eStore/notice_02.page

電力線搬送波通信についての開発キットをお使いになる際の注意事項については、次のところをご覧ください。http://www.tij.co.jp/lsds/ti_ja/general/eStore/notice_02.page

4 EVM Use Restrictions and Warnings:

4.1 EVMs ARE NOT FOR USE IN FUNCTIONAL SAFETY AND/OR SAFETY CRITICAL EVALUATIONS, INCLUDING BUT NOT LIMITED TO EVALUATIONS OF LIFE SUPPORT APPLICATIONS.

4.2 User must read and apply the user guide and other available documentation provided by TI regarding the EVM prior to handling or using the EVM, including without limitation any warning or restriction notices. The notices contain important safety information related to, for example, temperatures and voltages.

4.3 Safety-Related Warnings and Restrictions:

4.3.1 User shall operate the EVM within TI’s recommended specifications and environmental considerations stated in the user guide, other available documentation provided by TI, and any other applicable requirements and employ reasonable and customary safeguards. Exceeding the specified performance ratings and specifications (including but not limited to input and output voltage, current, power, and environmental ranges) for the EVM may cause personal injury or death, or property damage. If there are questions concerning performance ratings and specifications, User should contact a TI field representative prior to connecting interface electronics including input power and intended loads. Any loads applied outside of the specified output range may also result in unintended and/or inaccurate operation and/or possible permanent damage to the EVM and/or interface electronics. Please consult the EVM user guide prior to connecting any load to the EVM output. If there is uncertainty as to the load specification, please contact a TI field representative. During normal operation, even with the inputs and outputs kept within the specified allowable ranges, some circuit components may have elevated case temperatures. These components include but are not limited to linear regulators, switching transistors, pass transistors, current sense resistors, and heat sinks, which can be identified using the information in the associated documentation. When working with the EVM, please be aware that the EVM may become very warm.

4.3.2 EVMs are intended solely for use by technically qualified, professional electronics experts who are familiar with the dangers and application risks associated with handling electrical mechanical components, systems, and subsystems. User assumes all responsibility and liability for proper and safe handling and use of the EVM by User or its employees, affiliates, contractors or designees. User assumes all responsibility and liability to ensure that any interfaces (electronic and/or mechanical) between the EVM and any human body are designed with suitable isolation and means to safely limit accessible leakage currents to minimize the risk of electrical shock hazard. User assumes all responsibility and liability for any improper or unsafe handling or use of the EVM by User or its employees, affiliates, contractors or designees.

4.4 User assumes all responsibility and liability to determine whether the EVM is subject to any applicable international, federal, state, or local laws and regulations related to User’s handling and use of the EVM and, if applicable, User assumes all responsibility and liability for compliance in all respects with such laws and regulations. User assumes all responsibility and liability for proper disposal and recycling of the EVM consistent with all applicable international, federal, state, and local requirements.

5. Accuracy of Information: To the extent TI provides information on the availability and function of EVMs, TI attempts to be as accurate as possible. However, TI does not warrant the accuracy of EVM descriptions, EVM availability or other information on its websites as accurate, complete, reliable, current, or error-free.
6. **Disclaimers:**

6.1 EXCEPT AS SET FORTH ABOVE, EVMS AND ANY WRITTEN DESIGN MATERIALS PROVIDED WITH THE EVM (AND THE DESIGN OF THE EVM ITSELF) ARE PROVIDED "AS IS" AND "WITH ALL FAULTS." TI DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING SUCH ITEMS, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADE SECRETS OR OTHER INTELLECTUAL PROPERTY RIGHTS.

6.2 EXCEPT FOR THE LIMITED RIGHT TO USE THE EVM SET FORTH HEREIN, NOTHING IN THESE TERMS AND CONDITIONS SHALL BE CONSTRUED AS GRANTING OR CONFERRING ANY RIGHTS BY LICENSE, PATENT, OR ANY OTHER INDUSTRIAL OR INTELLECTUAL PROPERTY RIGHT OF TI, ITS SUPPLIERS/LICENSORS OR ANY OTHER THIRD PARTY, TO USE THE EVM IN ANY FINISHED END-USER OR READY-TO-USE FINAL PRODUCT, OR FOR ANY INVENTION, DISCOVERY OR IMPROVEMENT MADE, CONCEIVED OR ACQUIRED PRIOR TO OR AFTER DELIVERY OF THE EVM.

7. **User's Indemnity Obligations and Representations.** User will defend, indemnify and hold TI, its licensors and their representatives harmless from and against any and all claims, damages, losses, expenses, costs and liabilities (collectively, "Claims") arising out of or in connection with any handling or use of the EVM that is not in accordance with these terms and conditions. This obligation shall apply whether claims arise under statute, regulation, or the law of tort, contract or any other legal theory, and even if the EVM fails to perform as described or expected.

8. **Limitations on Damages and Liability:**

8.1 **General Limitations.** In no event shall TI be liable for any special, collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of these terms and conditions or the use of the EVMs provided hereunder, regardless of whether TI has been advised of the possibility of such damages. Excluded damages include, but are not limited to, cost of removal or reinstallation, ancillary costs to the procurement of substitute goods or services, retesting, outside computer time, labor costs, loss of goodwill, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit or action shall be brought against TI more than one year after the related cause of action has occurred.

8.2 **Specific Limitations.** In no event shall TI's aggregate liability from any warranty or other obligation arising out of or in connection with these terms and conditions, or any use of any TI EVM provided hereunder, exceed the total amount paid to TI for the particular units sold under these terms and conditions with respect to which losses or damages are claimed. The existence of more than one claim against the particular units sold to user under these terms and conditions shall not enlarge or extend this limit.

9. **Return Policy.** Except as otherwise provided, TI does not offer any refunds, returns, or exchanges. Furthermore, no return of EVM(s) will be accepted if the package has been opened and no return of the EVM(s) will be accepted if they are damaged or otherwise not in a resalable condition. If User feels it has been incorrectly charged for the EVM(s) it ordered or that delivery violates the applicable order, User should contact TI. All refunds will be made in full within thirty (30) working days from the return of the components(s), excluding any postage or packaging costs.

10. **Governing Law:** These terms and conditions shall be governed by and interpreted in accordance with the laws of the State of Texas, without reference to conflict-of-laws principles. User agrees that non-exclusive jurisdiction for any dispute arising out of or relating to these terms and conditions lies within courts located in the State of Texas and consents to venue in Dallas County, Texas. Notwithstanding the foregoing, any judgment may be enforced in any United States or foreign court, and TI may seek injunctive relief in any United States or foreign court.
IMPORTANT NOTICE

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