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| **Important Notice**  Only devices procured directly from TI or an authorized distributor are warranted for failure verification.  **Mandatory** indicates section must be completed prior to TI accepting devices for failure verification. |

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| **Distributor:**  **Mandatory** |  | | | **Customer:**  **Mandatory** | |  | | |
| Contact Name: |  | | | Contact Name: | |  | | |
| City Address: |  | | | City Address: | |  | | |
|  | | |  | | |
|  | | |  | | |
| Phone: |  | | | Phone: | |  | | |
| E-Mail: |  | | | E-Mail: | |  | | |
|  | | | | | | | | |
| Priority: | Standard |  | Major | |  | | Critical |  | |
| Send Date: |  | | Customer Tracking No.: | | | |  | | |

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| **Product Details – Mandatory** | | | |
| Customer P/N: |  | Quantity returned for analysis: |  |
| TI Orderable P/N: |  | Customer failure rate: |  |
| Quantity failed: |  | Lot Trace Code 1) :  (Device symbol) |  |
| Quantity passed: |  |

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| **Failure Details and Description – Mandatory** Provide detail about the failure mode. Attach application schematics, device photos, scope graphs, bench analysis reports, etc. | | | |
|  | | | |
| Failed functional |  | Failed parametric |  | |
| Operating Temperature |  | Operating Voltage |  | |
| Failure Temperature |  | Operating Frequency |  | |
| Is the device in a new application? | | | Yes  No | |
| Did replacing the device with a new device solve the problem? | | | Yes  No | |
| Was the failing device installed on a passing board causing that board to fail? | | | Yes  No | |
| Is the failing device used in more than one location in the application board? | | | Yes  No | |
| Is it just one location that is consistently causing the failures? | | | Yes  No | |

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| **Application – Mandatory** | | | | | |
| Automotive |  | Avionics |  | Computer |  |
| Consumer |  | Industrial |  | Medical |  |
| Military / Space |  | Telecom |  | Wireless |  |
| Other (pls specify) |  |  | | | |

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| **Detection Place – Mandatory (check all that apply)** | | | | | |
| Incoming Test |  | Reliability Test |  | Qualification Test |  |
| Prototype Failure |  | Burn-In Test |  | Assembly Line Test |  |
| In-Circuit Test |  | System Level Test |  | Final Production Test |  |
| 0 km Failure |  | Field Failure |  | Bench |  |
| Other (pls specify) |  |  | | | |

Lot Trace Code 1) (for reference see: [**http://www.ti.com/topsidesymbol**](http://www.ti.com/topsidesymbol))

**Guidelines for returning parts for failure verification**

* Units must be extracted from the board (if failure occurred at board level) and must be returned in testable condition (avoid bending leads, solder bridging) and in proper containers (units not free to move).   
  Please see below recommended ESD packing methodology.
* If multiple devices are returned, each device must be uniquely marked with a silver pen or an adhesive label.
* The problem description must be provided for every device returned.
* For devices were the observed failure requires FLASH validation, the security fuse should not be burned.

**ESD packing methodology**

The electronic industry has placed a growing emphasis on reliability and quality assurance. ESD damage to parts and assemblies can be minimized by using ESD controlled handling. **EIA-625** (Requirements for handling Electrostatic Discharge Sensitive Devices) is a good specification to use as reference.

* Handle electrostatic discharge sensitive devices (ESDS) only in an ESD protected area (EPA).
* Avoid electrostatic potential differences and electrostatic discharges.
* No electrostatic generating materials (normal PE, PVC, PS, etc.) are allowed.
* Use only approved ESD protective packaging materials such as **Electrically Shielding Bags**,
* **Hinged Utility Boxes** and **Adhesive Grid Tape** to return parts for analysis to TI.

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| **Electrically Shielding Bags** | **Hinged Utility Boxes** | **Adhesive Grid Tape** |

**TI’s Quality Tracking System (QTS) Process Overview**

All customer returns related to a quality will be entered into the TI **Q**uality **T**racking **S**ystem (**QTS**) for tracking and follow up at the different investigation stages.

**Shipping Information**

Contact the following persons for shipment locations and details.

**Texas Instruments Inc., (Dallas)**

**12500 TI Blvd., M/S 8701**

**Dallas, TX 75243**

**Attn: Halimah Yusof**

**214-480-4836**