

TEXAS INSTRUMENTS

# Sensors & Controls Supplier Receipt Label Specifications

*Shipping to Attleboro, U.S.*

September 2003  
Revised  
Texas Instruments Incorporated

Sensors & Controls Group  
34 Forest Street  
Attleboro, MA 02703

**Document ID:**

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# Supplier Receipt Project Label Specifications

## Table of Contents

1.0 Introduction and Scope .....	3
1.1 Content Changes from Previous Document .....	3
2.0 General Specifications .....	3
2.1 Label Format.....	3
2.2 Bar Code Specifications .....	3
3.0 Data Identifiers .....	4
4.0 TI Label Specification .....	5
4.1 Building Blocks .....	5
4.1.1 Regular Building Blocks .....	5
4.1.1.1 Title.....	5
4.1.1.2 Human Readable.....	6
4.1.1.3 Bar Code .....	6
4.1.2 Human Readable Only Building Blocks .....	6
4.2 TI Master Supplier Receipt Label .....	6
4.2.1 Customer Segment.....	6
4.2.2 Supplier Segment.....	7
4.3 TI Container Label.....	7
4.3.1 Customer Segment.....	7
4.3.2 Supplier Segment.....	8
4.4 TI Mixed Load Label.....	8
5.0 How Applied.....	8
6.0 Submission requirements .....	9
7.0 Contacting TI .....	9
Appendix A Sample Master Supplier Receipt Label.....	10
Appendix B Sample Container Label .....	11
Purchase Order - Standard Sample.....	12
Purchase Order - Blanket Sample .....	13
Appendix C Mixed Load Label .....	14
Appendix D How to Order ANSI X3.182-1990, Bar Code Print Quality Guideline .....	15
Appendix E How to Order ANSI MH10.8.2-1995, F.A.C.T. Data Identifier Standard .....	16

## **1.0 Introduction and Scope**

In support of our material receipt process, Texas Instruments(TI) requires each TI supplier to identify all shipments of material with a Master Supplier Receipt Label and Container Label. This document specifies that label.

The Master Supplier Receipt Label is the master label that will be scanned in the receiving area to receive the goods into inventory, helping eliminate slowdowns in the payment cycle.

The Container Label is the label that is to be applied to each individual container that will identify product when it is on the production floor.

### **1.1 Content Changes from Previous Document**

This document has been condensed from the previous one. Information on required data in the previous document was integrated into the section on label formatting. The following key content changes were made. This is being provided only as a summary. Other changes were made.

- Bar Code symbology was changed from code 39 to code 128.
- Line Number and Shipment Number were added to the Master Supplier Receipt Label.
- The length of the TI item number was increased from 15 to 17.
- Supplier revision was added to the Container Label.

## **2.0 General Specifications**

This section contains general information about the label and the bar codes.

### **2.1 Label Format**

The format specifications presented in this document are based on bar code label specifications from the American National Standards Institute (ANSI). In this document, the ANSI-based label is called the *Master Supplier Receipt Label* and *Container Label*. See sample labels in Appendix A & B. All information needed to produce these labels is contained within this document and referenced documents.

### **2.2 Bar Code Specifications**

*All* bar codes appearing on the label, whether printed for TI's use or others, shall meet the specifications contained herein.

- *All* bar codes shall be Code 128, and shall be at least a grade "C/10/660 (grade B/10/660 preferred) overall profile grade as defined in section 5.3.1.5 of the ANSI X3.182-1990, *Bar Code Print Quality Guideline*. Code 128 symbology is an industry standard that

produces a higher quality, higher density code. Code 128 supports many more characters than 39 and is recognized more widely in industry. See Appendix C, How to Order ANSI X3.182-1990, Bar Code Print Quality Guideline, for ordering information.

- The allowable range of the X dimension (narrow element width) for any bar code on the label shall be 0.010 to 0.017 inch.
- The allowable range of the achieved Wide to Narrow Ratio shall be 2.2:1 to 3.2:1.
- There shall be a minimum “quiet zone” of 0.25 inch on both sides of each bar code.
- As a guideline, the bar code should be at least 0.50 inches in height. However, depending on your application, the codes may have to be shorter to accommodate all the required data. If this is the case, make the bar codes as tall as possible while still printing all data. TI will evaluate the fitness of the sample you provide.
- Some maximum data widths, like TI’s item and the supplier serial number, may be too wide to meet these specifications. TI asks that in cases like this, the supplier do the best they can to meet the specifications. Any time the specification is violated, it should be noted on the sample label you provide to TI.

### **3.0 Data Identifiers**

*A standard F.A.C.T. Data Identifier (DI), whether printed for TI’s use or others, shall prefix all bar codes appearing on the label. These Data Identifiers are defined in the current issue of the ANSI MH10.8.2-1995, F.A.C.T. Data Application Identifier Standard. See Appendix D, How to Order ANSI MH10.8.2-1995, F.A.C.T. Data Identifier Standard, for ordering information.*

The data identifiers for the fields defined in this document are:

<b><u>Field Name</u></b>	<b><u>Identifier</u></b>
<b>Purchase Order</b>	<b>K</b>
<b>Release Number</b>	<b>5K</b>
<b>Line Number</b>	<b>4K</b>
<b>Shipment Number</b>	<b>Z</b>
<b>Item Number</b>	<b>P</b>
<b>Quantity</b>	<b>Q</b>

<b>Packing List</b>	<b>11K</b>
<b>Serial Number</b>	<b>S</b>
<b>Supplier Heat Number or Lot Number</b>	<b>1T</b>

A data identifier is an extra piece of information that is appended to the beginning of the data being bar coded. For example, for packing list number 123456, the bar code when scanned should read 11K123456, if lot number 345QXT, the bar code when scanned should read 1T345QXT, etc. Data identifiers are used by the reading application to perform data validation. If supported, the application can position the data in the correct entry field even if the user scans the codes out of sequence. The data identifier itself should not be printed in the human readable part of a bar code field. So, using the packing list example above, the field on the label would look something like this:

<b>Packing List</b>	
<b>(11K)</b>	<b>123456 (human readable)</b>
	<b>11K123456 (in bar-coded form)</b>

#### **4.0 TI Label Specification**

This section contains the specification for the Master Supplier Receipt Label, Container Label, and Mixed Load Label. It also contains the data definition for each label element. All labels shall be 4 inches wide and 6 inches high. See sample labels in Appendix A and B.

#### **4.1 Building Blocks**

Each segment is divided into *Building Blocks*. There are two types of building blocks: *Regular and Human Readable Only (HRO)*. Regular building blocks contain a single piece of information that appears in both human readable and bar code form. HRO building blocks contain only human readable data and may contain several lines of information.

Building blocks are arranged vertically within a segment and are separated by a single horizontal line. **Each building block shall be bar coded unless otherwise noted.**

##### **4.1.1 Regular Building Blocks**

Regular building blocks contain a single piece of information (the “field”). The components of a regular building block are:

###### **4.1.1.1 Title**

The title for each building block should be printed in small type at the top of the block. A Data Identifier enclosed in parentheses shall follow the title. See the section on Data Identifiers. The title should be in a typeface that is at least 0.06 inch and not more than 0.13 inch in height.

#### 4.1.1.2 Human Readable

A human readable version of the field value, without identifier prefix, shall appear below the title. It should be indented approximately 0.75 inch from the left side of the label. The typeface must be at least 0.20 inch in height.

#### 4.1.1.3 Bar Code

Some building blocks are Human Readable Only and do not contain bar codes. All others shall contain a single bar code of the field value, prefixed by the building block identifier.

### 4.1.2 Human Readable Only Building Blocks

HRO building blocks supply data in human readable fashion only and do not contain bar codes. There may be one or more lines of data within the building block and each line within a given building block should be in the same typeface.

## 4.2 TI Master Supplier Receipt Label

Each Master Supplier Receipt Label, regardless of the format used, contains the information listed below. Data lengths specified do NOT include the data identifiers, bar code start and stop characters, and the check sum character. All data identifiers are a maximum of 3 characters, so the maximum number of additional characters added to the data in a bar code is 5. The following data may appear on the TI Master Supplier Receipt Label. **All fields shall be bar coded unless otherwise noted.** See sample label in Appendix A.

### 4.2.1 Customer Segment

- |                            |  |
|----------------------------|--|
| TI Purchase Order Number - | The title for this building block is “Purchase Order Number(K)”. The Purchase Order Number can be a maximum of 8 characters.   |
| TI Item Number -           | The title for this field is “Item (P)”. This is TI’s item number for the product being supplied. This field can contain no more than 17 characters.  |
| TI Release Number -        | The title for this building block is “Purchase Order Release Number(5K)”. The Release Number can be a maximum of 5 characters. This number is only referenced for Blanket Purchase Orders. |

- TI Line Number - The title for this building block is “Purchase Order Line Number(4K)”. The Line Number can be a maximum of 5 characters.
- TI Shipment Number - The title for this building block is “Purchase Order Shipment Number(Z)”. The Shipment Number can be a maximum of 5 characters.

#### 4.2.2 Supplier Segment

- Quantity - The title for this field is “Quantity Wght/Pcs(Q)”. For an item, it is the total quantity of the parts in all containers for this shipment and **in the units specified on the purchase order.**
- Packing List - The title for this field is “Packing List(11K)”. This is a data block containing the supplier’s packing list number. This field has a maximum of 12 characters.
- Date Shipped - An HRO building block(not bar coded), containing the date the Material was shipped. The date should be of the form “Date Shipped: 2003/09/12”

### 4.3 TI Container Label

Each Container Label, regardless of the format used, contains the information listed below. Data lengths specified do NOT include the data identifiers, bar code start and stop characters, and the check sum character. All data identifiers are a maximum of 3 characters, so the maximum number of additional characters added to the data in a bar code is 5. The following data may appear on the TI Container Label. **All fields shall be bar coded unless otherwise noted.** See sample label in Appendix B.

#### 4.3.1 Customer Segment

- TI Purchase Order Number - The title for this building block is “Purchase Order Number(K)”. The Purchase Order Number can be a maximum of 8 characters
- TI Item Number - The title for this is field is “Item (P).” It is TI’s item number for the product being supplied. This field can contain no more than 17 characters.

### 4.3.2 Supplier Segment

- Quantity - The title for this field is “Quantity Wght/Pcs(Q)”. This is the total quantity of the parts in this container in the units specified on the purchase order.
- Serial No. - The title for this field is “Serial No.(S)”. This is the serial number or code assigned by the Supplier to an entity for its lifetime, (e.g., computer serial number, traceability number, contract tool identification). No two containers should ever have the same serial number.
- Supplier Heat No. or Lot - The title for this field is “Supplier Heat(1T)”or “Lot (1T)”. This is the Traceability number assigned by the Supplier to identify/trace a unique group of entities,(e.g., heat, batch, lot). Include special data and alloy, in human readable form only (no bar code).
- Date Shipped - An HRO building block(not bar coded), containing the date the Material was shipped. The date should be of the form “Date Shipped: 2003/09/12”
- Supplier Revision - An HRO building block(not bar coded), containing the revision of your item contained in this box. **Revisions should not be mixed in boxes without permission from Texas Instruments.**

### 4.4 TI Mixed Load Label

The label “Mixed Load” in human readable form only (no bar code) is to be placed on skids containing product with more than one purchase order or item. See sample label in Appendix C.

### 5.0 How Applied

The Master Supplier Receipt Label(s) must be applied to the back of the packing slip. If multiple shipments, lines, and releases are being shipped on this packing list, there must be a label for each discrete requirement. If there is insufficient space to apply all labels on the back of the packing slip, they should be placed in a pouch or envelope, and that should be attached to the packing slip.

The Container Label must be applied to each individual box of the shipment. It should be applied to the upper right hand corner of the narrow side of the box. For boxes with a square footprint, the label may be applied to any side. For all others, it should be applied to the narrower side.



## **6.0 Submission requirements**

All suppliers are required to submit sample labels to TI for approval. Each supplier shall submit ten original (not photocopied) labels for approval. These labels should be sent to the following address:

**Texas Instruments Incorporated**  
**Attn: Linda Hutchison, MS 10-06**  
**34 Forest Street**  
**P.O. Box 2964**  
**Attleboro, MA 02703-0964**


## **7.0 Contacting TI**

Any supplier who requires more information about complying with these specifications should contact their buyer.


Appendix A Sample Master Supplier Receipt Label

(may not be exactly to 4X6 scale and the height and width of the bar codes will not be exact to specification due to the font used)


**Supplier Name**

**Purchase Order Number (K)**  
  
50045910


---

**Item (P)**  
  
MZ-LC


---

**Purchase Order Release Number (5K)**  
  
3


---

**Purchase Order Line Number (4K)**  
  
1


---

**Purchase Order Shipment Number (2)**  
  
1

---

**Quantity Wght/Pcs (Q)**  
  
500

---

**Padding List (11K)**  
  
12345


---

**Date Shipped: 2003/09/12**


**Appendix B Sample Container Label**

(may not be exactly to 4X6 scale and the height and width of the bar codes will not be exact to specification due to the font used)


**SUPPLIER NAME**  
Supplier Name

**Purchase Order Number (K)**  
  
50045910


---

**Item (P)**  
  
MZ-LC


---

**Quantity Wght/Pcs (Q)**  
  
500

---

**Serial No. (S)**  
  
1234

---

**Supplier Heat/Lot Number (LT)**  
  
5678

---

**Date Shipped:** 2003/09/12

---

**Revision:** A

---



SALES & USE TAX  
STATE/EXEMPTION #: MA 750-289-970-2

VENDOR:

*PO 1.*  
*Note: No Release # on Standard POs*

PURCHASE ORDER		
PO NUMBER (RELEASE)	REVISION	PAGE
50045909	1	1
THIS PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING LISTS, CARTONS AND CORRESPONDENCE RELATED TO THIS ORDER.		
SHIP TO: Texas Instruments, Inc. Building 11, Door 16, TIA 34 Forest Street Attleboro, MA 02703 United States VAT#:		
BILL TO: Texas Instruments, Inc. Accounts Payable Dept. P.O. Box 666 Attleboro, MA 02703 United States VAT#:		

REFER INQUIRIES TO: Oliveira, Marta

CUSTOMER ACCT NO.	VENDOR NO.	DATE OF ORDER / BUYER	REVISED DATE / BUYER
	3021	25-OCT-01 Oliveira, M	25-OCT-01 Oliveira, M
PAYMENT TERMS	SHIP VIA	F.O.B.	
1/10 NET 30	FEDEX LOGISTICS	FOB Origin	
FREIGHT TERMS	REQUESTOR / DELIVER TO	CONFIRM TO / TELEPHONE	
Collect		(973) 467-1200	

LINE	LINE / DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
1	All prices and amounts on this order are expressed in : US dollar				1	10,000.00	
	MZ-IC ITEM 2		10,000.0	EA			
	Order test for Mike Z.						
	SHIPMENT NUMBER 1	02-NOV-01	1,000.0	EA			N
	o SHIP TO: SHIPMENT # Address at top of page						
	SHIPMENT NUMBER 2	05-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
	SHIPMENT NUMBER 3	06-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
	SHIPMENT NUMBER 4	07-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
	SHIPMENT NUMBER 5	08-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
	SHIPMENT NUMBER 6	09-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
	SHIPMENT NUMBER 7	12-NOV-01	1,000.0	EA			N
	o SHIP TO: Address at top of page						
FOR ROUTING INSTRUCTIONS SHIPPER MUST CALL FEDEX LOGISTICS AT 1-800-854-3364. FAILURE TO COMPLY, CHARGES WILL REVERT TO SHIPPER.						TOTAL	Continued
THIS ORDER IS EXPRESSLY CONDITIONAL UPON SELLER'S ASSENT TO ITS EXPRESS TERMS AND CONDITIONS, INCLUDING THOSE SET FORTH IN BUYER'S PURCHASE ORDER POSTED AT THE FOLLOWING TEXAS INSTRUMENTS INCORPORATED (TI&C) WEBSITE: <a href="http://www.ti.com/mcdocs/terms.htm">http://www.ti.com/mcdocs/terms.htm</a> AND NO ADDITIONAL OR INCONSISTENT TERMS SHALL APPLY WITHOUT TI'S EXPRESS WRITTEN CONSENT. UPON BUYER'S RECEIPT OF A WRITTEN REQUEST FROM SELLER, TI WILL PROVIDE A PRINTED COPY OF SUCH TERMS AND CONDITIONS OF PURCHASE. SELLER SHALL BE DEEMED TO HAVE ACCEPTED THIS ORDER AND SUCH TERMS AND CONDITIONS UNLESS WRITTEN OBJECTIONS THERETO ARE FURNISHED TO TI BY SELLER WITHIN 10 DAYS OF SELLER'S RECEIPT OF THIS ORDER.						12	
						SIGNATURE	



BLANKET PO.

1, po

3 Release

SALES & USE TAX  
STATE/EXEMPTION #: MA 750-289-970-2

VENDOR:

PURCHASE ORDER		
PO NUMBER (-RELEASE)	REVISION	PAGE
50045910-3	0	1
THIS PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING LISTS, CARTONS AND CORRESPONDENCE RELATED TO THIS ORDER.		
SHIP TO: Texas Instruments, Inc. Building 11, Door 16, TIA 34 Forest Street Attleboro, MA 02703 United States VAT#:		
BILL TO: Texas Instruments, Inc. Accounts Payable Dept. P.O. Box 666 Attleboro, MA 02703 United States VAT#:		

REFER INQUIRIES TO: Oliveira, Marta

CUSTOMER ACCT NO.	VENDOR NO. 3021	DATE OF ORDER / BUYER 07-NOV-01 Oliveira, M	REVISED DATE / BUYER
PAYMENT TERMS 1/10 NET 30	SHIP VIA FEDEX LOGISTICS	F.O.B. FOB Origin	
FREIGHT TERMS Collect	REQUESTOR / DELIVER TO	CONFIRM TO / TELEPHONE (973) 467-1200	

LINE	LINE / DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
	Blanket Agreement Release						
4	All prices and amounts on this order are expressed in : US dollar						
1	MZ-LC ITEM 2. --- TEST LOT CONTROLLED ITEM SHIPMENT NUMBER 1 - shipment # 5. o SHIP TO: Address at top of page	09-NOV-01	500.0	EA	.25	125.00	N
	SHIPMENT NUMBER 2 o SHIP TO: Address at top of page	16-NOV-01	1,000.0	EA	.25	250.00	N

FOR ROUTING INSTRUCTIONS SHIPPER MUST CALL FEDEX LOGISTICS AT 1-800-854-3364. FAILURE TO COMPLY, CHARGES WILL REVERT TO SHIPPER.		<b>TOTAL</b>	375.00
<small>THIS ORDER IS EXPRESSLY CONDITIONAL UPON SELLER'S ASSENT TO ITS EXPRESS TERMS AND CONDITIONS, INCLUDING THOSE ITEMS set forth in Buyer's Purchase Order posted at the following Texas Instruments Incorporated (M&amp;C) website: <a href="http://www.ti.com/mc/docs/term.htm">http://www.ti.com/mc/docs/term.htm</a> AND NO ADDITIONAL OR INCONSISTENT TERMS SHALL APPLY WITHOUT TI'S EXPRESS WRITTEN CONSENT. Upon Buyer's receipt of a written request from Seller, TI will provide a printed copy of such terms and conditions of purchase. SELLER SHALL BE DEEMED TO HAVE ACCEPTED THIS ORDER AND SUCH TERMS AND CONDITIONS UNLESS WRITTEN OBJECTIONS THERETO ARE FURNISHED TO TI BY SELLER WITHIN 10 DAYS OF SELLER'S RECEIPT OF THIS ORDER.</small>			13
		SIGNATURE	

*Appendix C Mixed Load Label*

**MIXED**  
**LOAD**

**Appendix D How to Order ANSI X3.182-1990, Bar Code Print Quality Guideline**

To Customer:           The price of this publication varies.

**Global Engineering Documents  
Attn: Sales Department  
15 Inverness Way East  
Englewood, CO 80112-5776**

To order you may call the Sales Dept. at 800-854-7179 (U.S.A.)

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Fax 303-397-2740 Western region

Fax 314-726-6418 Eastern region

e-mail: [global@ihs.com](mailto:global@ihs.com)

<http://global.ihs.com>

**Appendix E How to Order ANSI MH10.8.2-1995, F.A.C.T. Data Identifier Standard**

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