

# Customer Service Note

## Whole Wafer Packaging

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### Introduction

Whole wafers of Aptina's image sensors are packaged in vendor boxes according to specific procedures to help avoid damage during shipping. Aptina's wafer shipments include various labels on the inner and outer packages to enable easy identification of contents and verification of orders. Micron Technology customer service note, CSN-17, "Packaging Materials," provides complete shipping and recycling information about each of the materials used for shipping Aptina™ products.

### Storage Requirements

Aptina™ die products are packaged for shipping in a cleanroom environment. Upon receipt, the customer should transfer the die or wafers to a similar environment for storage. Aptina recommends the die or wafers be maintained in a filtered nitrogen atmosphere until removed for assembly. The moisture content of the storage facility should be maintained at 30% ±10% relative humidity. Electrostatic discharge (ESD) damage precautions are necessary during handling. The die must be in an ESD-protected environment at all times for inspection and assembly.

Under these conditions, die products can remain in storage up to six months.

### Packaging Procedures

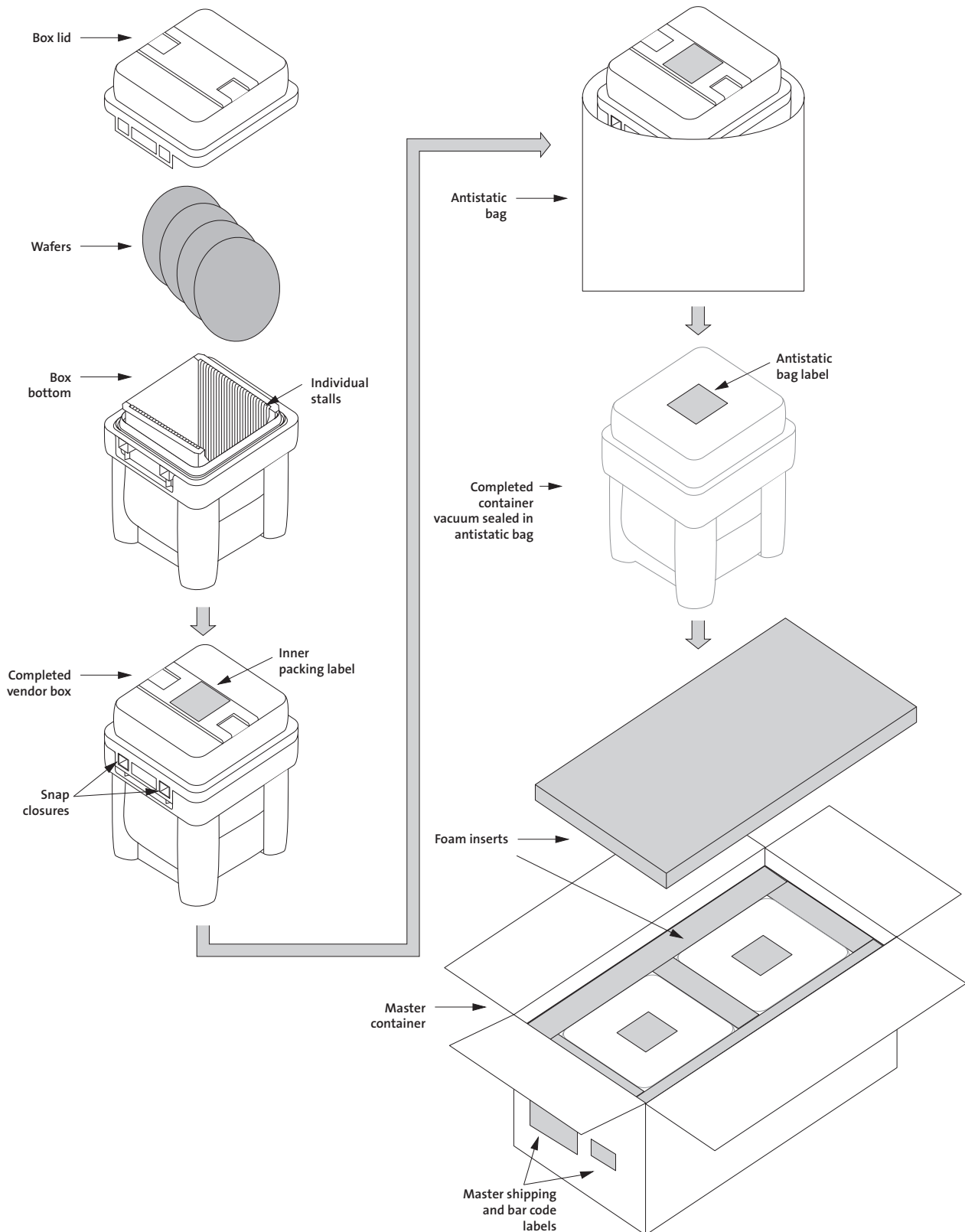
Aptina's wafer shipments are packaged in vendor boxes. In addition to the inner packing container, this shipping method includes the following: a static-shielding bag; internal padding, such as PadPak® or foam inserts; boxes; and packing labels.

### Vendor Boxes

Full-thickness imager wafers of  $750\mu\text{m} \pm 25\mu\text{m}$  are shipped in vendor boxes that hold up to 25 wafers per box. Wafers are inserted vertically into individual stalls in the vendor box, which is securely closed and vacuum sealed in a class 100 antistatic bag. Up to two vacuum-sealed vendor boxes are placed in a master container measuring 16in x 13.25in x 16.75in (single) or 24.5in x 16in x 16.75in (double) and then surrounded by thick foam inserts. Figure 1 on page 2 shows how vendor boxes for our 200mm wafers are packaged for shipping.

Follow the procedure in Figure 1 for repacking and returning full-thick wafers to Aptina. When requesting an RMA from your inside sales representative, please also request a specific return address and any additional information needed on returning wafers to Aptina.

Figure 1: Vendor Box Packaging



## Shipping Labels

Shipments of Aptina’s whole wafers are identified by several shipping and bar code labels, which include the purchase order number, an inventory of the packaged contents, and the number of separate packages in each order. This section contains descriptions and examples of the labels that may appear on Aptina’s shipments.

### Master Container Shipping and Bar Code Labels

Aptina attaches a standard shipping label, a standard bar code label, and a singulated die/wafer bar code label to all master containers used in whole wafer shipments. Refer to Figure 2 for details on the standard shipping label. Refer to Figure 3 and Figure 4 on page 4 for information on the bar code labels. Aptina affixes a third label to the inner shipping containers, which is described in the section “Inner Packing Container Labels.” Figure 1 shows the approximate placement of these labels.

### Master Container Shipping Label Information

Aptina’s master container shipping labels include the following information:

- Ship-from name: Aptina’s name and address
- WB #: Courier waybill number
- Child W/B: Waybill number(s) for multiple piece(s) in shipment
- Piece: Master container package count
- PO #s: Customer purchase order number
- Ship-to name: Customer’s name and ship-to address
- PKG ID: Invoice or packing slip number
- Shipping plant: Aptina location from which the order was shipped:
  - AP01 = Boise, Idaho
  - AP03 = Singapore

Figure 2: Standard Master Container Shipping Label


Aptina Pte Ltd c/o 990 Bendemeer Road 339942 Singapore Singapore	AP03
	COMPANY NAME ADDRESS CITY STATE/PROVINCE ZIP CODE COUNTRY
WB # 638030055867 / 0087659818 Child W/B:63803005867 *****	
Piece 1 of 1 *****	
PO #s XXXXXXXX XXXXXXXX	PKG ID: 87659819A1 

Figure 3: Standard Master Container Bar Code Label


(3S) PKG ID: 87189127A1 	Ship_To_Name Address City, ST ZIP Code Country
(1P) SPLR PROD ID: MT9M131C12STC 	Aptina Pte Ltd c/o 990 Bendemeer Road 339942 Singapore Singapore
(Q) QUANTITY: 1793 EA 	PACKAGE COUNT: 1 OF 1 16.0 x 12.0 x 8.0 in 40.6 x 30.5 x 20.8 cm
(K) TRANS ID: 2596PW3329100 	PACKAGE WEIGHT: 10.9 lb/4.9 kg SHIP DATE: 05/26/2008
(P) CUST PART NO: MT9M131C12STC 	(4L) COUNTRY OF ORIGIN  US

Master Container Bar Code Label Information for Singulated Die and Wafer Products

Aptina's master container bar code labels include the following information:

- Lot number, which is represented by the bar code at the top of the label
- Aptina's marketing part number, which is represented by the bar code at the bottom of the label
- Device ID
- Fab in which the product was made
- Quantity of individual die in shipment
- Quantity of individual wafers in shipment
- Date code, if designated
- Customer revision, if designated
- Wafer thickness, in microns

Figure 4: Singulated Die/Wafer Master Container Bar Code Label

		
C26AM9C36385889.003		
MT9T013D00STCP C26AC1		
C26A		
FAB X	XXXX DIE	X WAFERS
DATECODE	CUST REV	XXXum
		
		

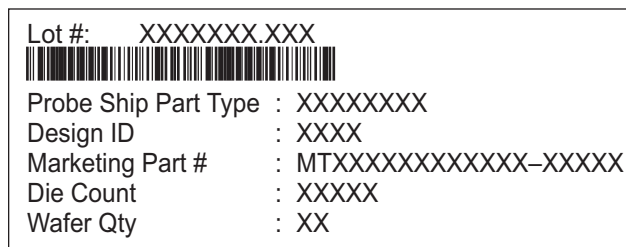
### Inner Packing Container Labels

Aptina also affixes a standard label to each shipment's inner packing container as well as affixing a label to the antistatic bag. This label is shown in Figure 5. Figure 6 shows an additional inner packing container label that Aptina affixes to the front-side of horizontal wafer shipper containers.

**Figure 5: Standard Inner Packing Container and Antistatic Bag Label**



**Figure 6: Horizontal Wafer Shipper Front-Side Inner Packing Container Label**



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## Revision History

<b>Rev. A</b> .....	<b>6/08</b>
• Initial release.	