

## Known Good Die Delivery Specification

Rev. V2

### Scope

This application note describes M/A-COM's standard Known Good Die (KGD) delivery practices for use in high volume commercial applications. All KGD are electrically tested, visually inspected, and delivered in wafer form. Consult the factory if your application requires special test, inspection, screening, or packaging.

### Electrical Test

All die are functionally tested to the product test plan.

**Table 1: Packaging**

Packaging Material	Wafer Diameter	Part Number	Notes
Wafer Tape	4 inch	Semiconductor Equip. Corp. 18733-10.4	Standard Blue Tape Not UV sensitive, Figure 1
Grip Ring Carrier	4 inch	Perfection Products GRP-2620-5	Inside Diameter: 6.689" Outside Diameter: 7.322" Thickness: 0.236", Figure 1
Grip Ring Shipper	4 inch	Perfection Products GRS-3970-5b	Mechanical and ESD Protection Figure 2

### Labeling

Carrier and shipper will be marked per Table 2. Barcode format is code 39 using data identifiers per Table 3.

**Table 2: Labeling**

Mark Location	Attribute	Human Readable	Barcode
Carrier	M/A-COM Wafer ID	X	X
Shipper	M/A-COM	X	
	M/A-Com Part Number	X	X
	Lot Number	X	X
	Quantity	X	X
	Date	X	
	Date Code	X	
	Country of Origin	X	
	ESD Warning	X	

### Visual Inspection

All die will be inspected using an automated vision system. Die will be compliant with MIL-STD-883, Method 2010, Class B criteria.

### Packaging

Die will be delivered on wafer tape per Table 1. Unit of measure is die. Quantity per shipping container will vary.

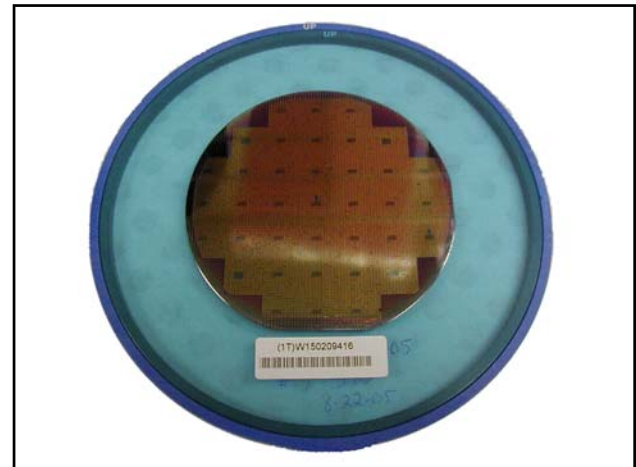


Figure 1: Carrier & Label

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**Table 3: Barcode Data Identifier**

Information	Data Identifier
Part Number	(P)
Lot Number	(1T)
Quantity	(Q)



Figure 2: Shipper & Label

**Defect Identification**

Noncompliant die will be identified per Table 4.

**Table 4: Defect Identification**

Description	Availability	Notes
Electronic Map	Standard	Customer / user qualification required
Ink	Consult Factory	Consult factory for die measuring less than 0.5 mm per side

**Wafer Map Format**

- SEMI E142 compliant
- XML file format
- ASCII bin format
- Map file name is equivalent to the wafer lot number with the ".xml" extension added.

**Electronic Map Availability**

Maps will be available for customer down load at the M/A-COM web site: [www.macom.com](http://www.macom.com). Consult factory for customer account and login.