

SEMI G88-0211 (Reapproved 0217) SPECIFICATION FOR TAPE FRAME FOR 450 mm WAFER

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1 Purpose

1.1 The purpose of this Specification is to standardize the specifications for 450 mm wafer tape frames used between the dicing process and the die-bonding process and also used for shipping and handling.

2 Scope

2.1 This Standard is applicable to 450 mm wafer tape frames.

2.2 This Standard documents the dimensions, characteristics, and measurement methods for 450 mm wafer tape frames.

2.3 This Standard can be used as the specification sheet for tape frame upon purchasing.

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3 Reference Standards and Documents

3.1 ISO Standards¹

ISO 13468-1 — Plastics – Determination of the Total Luminous Transmittance of Transparent Materials – Part 1: Single Beam Instrument

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Terminology

4.1 Definitions

4.1.1 *tape frame* — the frame that the wafer tape is attached to. The frame supports the tape, which retains the wafer. It is used between the dicing process and the die-bonding process and also used for shipping, handling, and storage.

4.1.2 *wafer tape* — an adhesive plastic tape which retains the wafer or diced chip.

5 Requirements

5.1 *Dimensions* — Refer to Figure 1 and Table 1.

¹ International Organization for Standardization, ISO Central Secretariat, 1, ch. de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland; Telephone: +41.22.749.01.11, Fax: +41.22.733.34.30, <http://www.iso.org>

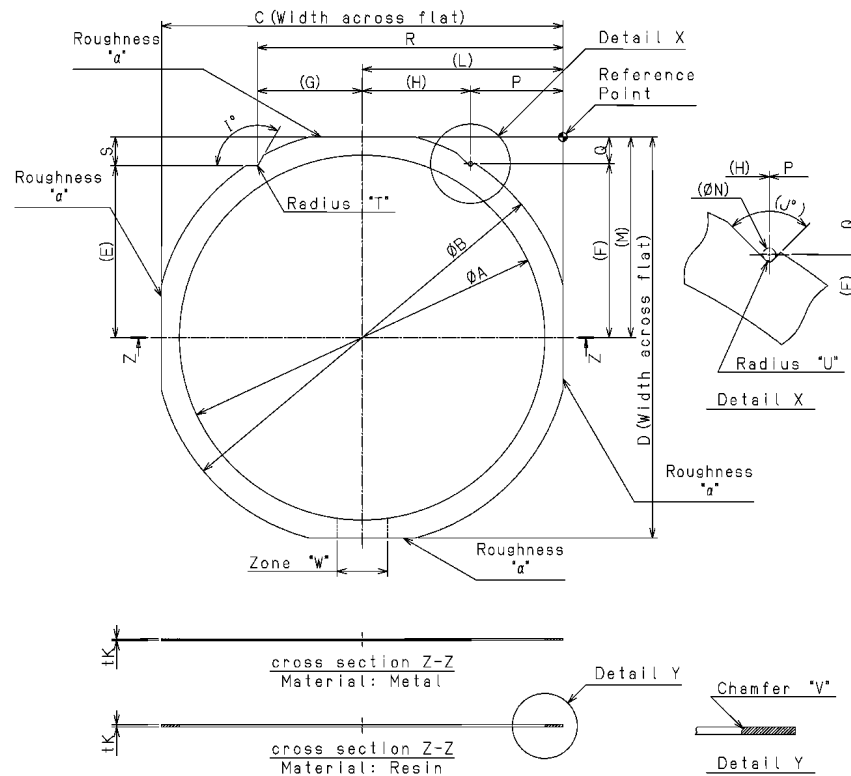


Figure 1
450 mm Tape Frame Dimensions (Top and Side View)

Table 1 450 mm Tape Frame Dimensions

Symbol	Dimension	Note
ϕA	$506 \pm 1.0 \text{ mm}$	Inner diameter
ϕB	$575 \pm 1.0 \text{ mm}$	Outer diameter
C	$556 +0/-0.8 \text{ mm}$	Width between two flats
D	$556 +0/-0.8 \text{ mm}$	Width between two flats
E	238 mm	Outline diameter
F	241 mm	Outline diameter
G	145 mm	Outline diameter
H	150 mm	Outline diameter
I	120°	
J	90°	Partition out with diameter N as standard
tK	$2.0 \pm 0.2 \text{ mm}$	Plate thickness (material: Metal)
	$3.5 \pm 0.2 \text{ mm}$	Plate thickness (material: Resin)
L	278 mm	
M	278 mm	
ϕN	6 mm	Outer diameter of pin
P	$128 \pm 0.5 \text{ mm}$	Diameter N position
Q	$37 \pm 0.5 \text{ mm}$	Diameter N position
R	423 mm	I notch position
S	$40 \pm 0.5 \text{ mm}$	I notch position