

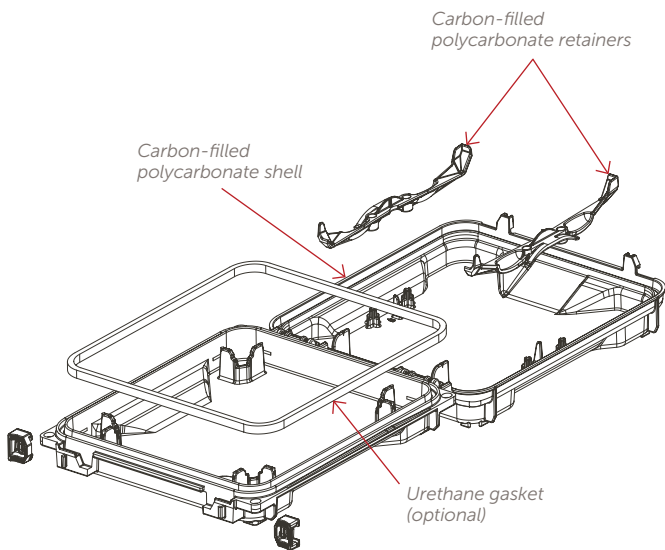
SMP625 Product Specifications

SPECIFICATIONS

Reticle size	152 mm × 152 mm × 6.35 mm (6" × 6" × 0.250")
Reticle capacity	1
Mass	Approximately 500 g
Color	Black

Materials of construction

DESCRIPTION	MATERIAL	SURFACE RESISTIVITY OHMS/SQ
Cover and base	Carbon-filled polycarbonate	10 ⁶ –10 ⁸
Retainers	Carbon-filled polycarbonate	10 ⁴ –10 ⁵



ORDERING INFORMATION

Part number	Description
SMP625-201-66N02	Without gasket
SMP625-211-66N02	With gasket

PERFORMANCE DATA

Outgassing

Organic outgassing

Sample	Entegris SMP625 with gasket	Entegris SMP625 without gasket
Outgassing organics (µg)*	0.00	0.06

*Ambient laboratory background subtracted. Data are of actual product tests. It does not define specification or tolerance limits on performance.

Storage

Six mask blanks were inspected and placed in six mask packages and placed on a perforated table in a class 100 cleanroom at SEMATEC – Albany, NY. The package remained on the table uninterrupted for a period of seven days. Particle adders were measured on the top surface of the mask as placed in the package.

Storage test results

Mask package	Total particle adders >54 nm*
Toppan 6025	311
Pozzetta PZT 600	99
Pozzetta PZT 600	464
Toppan 6025	786
Entegris SMP625	4
Entegris SMP625	1

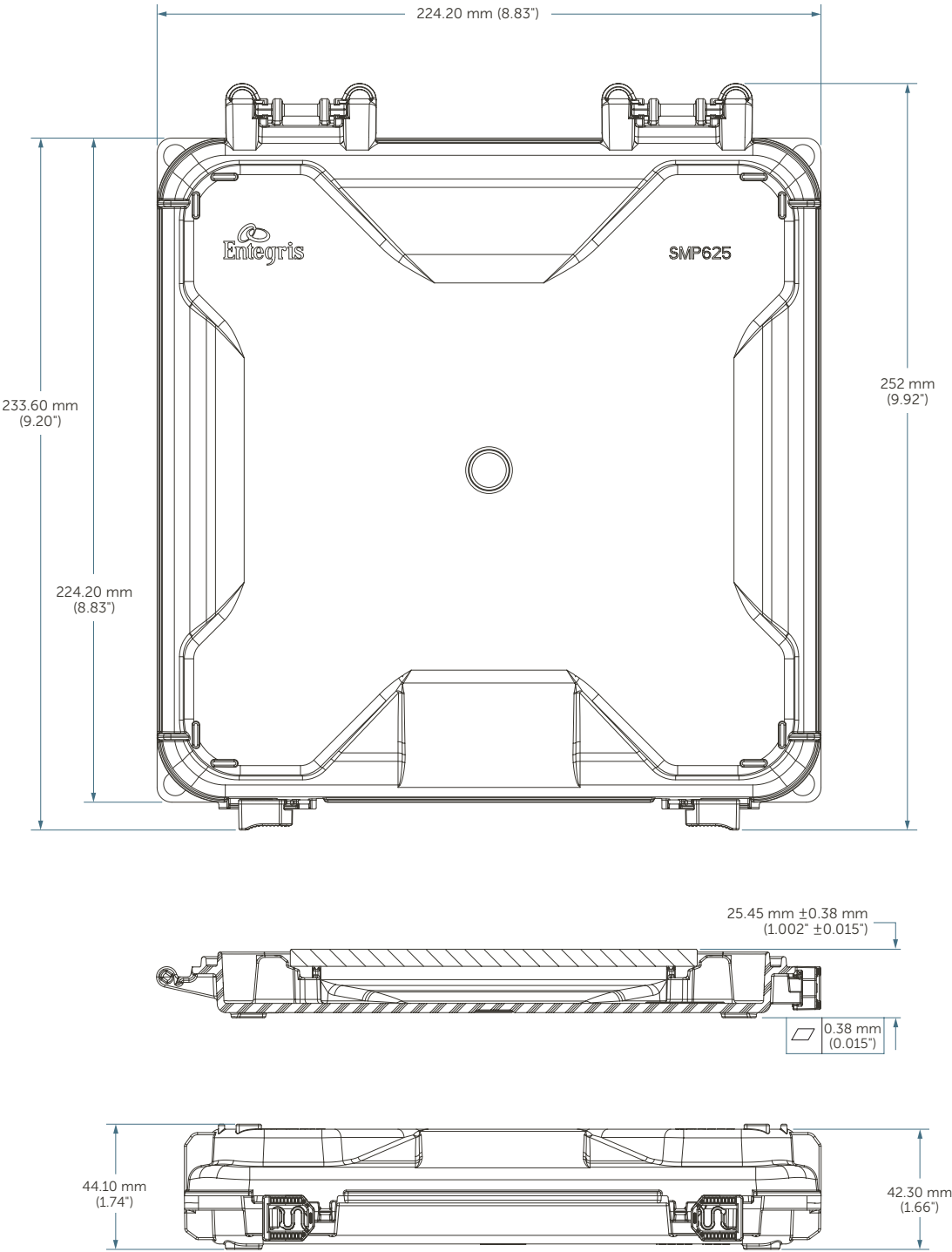
* Data are of actual product tests. It does not define specification or tolerance limits on performance.

DIMENSIONS

Critical dimensions

Dimension	Specification	Tolerance	Note
Length and width (base product)	224.2 mm (8.825")	0.80 mm (0.020")	Compatible with current production environment and competitive products.
Length maximum (includes tabs and hinge)	252.0 mm (9.92")	—	Dimension should be considered for secondary packaging design and shipping.
Reticle seating plane	25.5 mm (1.002")	0.4 mm (0.015")	Measured with reticle in place. Ensures precise reticle location.
Closed package (stacking height)	42.4 mm (1.67")	—	Ensures compatibility with existing storage setup.
Closed Package (maximum height)	44.1 mm (1.74")	—	Dimension should be considered for secondary packaging design and shipping.

DIMENSIONS (CONTINUED)



FEATURES & BENEFITS

RETICLE POD FEATURE	PERFORMANCE BENEFIT	ULTIMATE FAB BENEFIT
PRECISE RETICLE ACCESS		
Precise reticle position	More repeatable reticle access <ul style="list-style-type: none"> • Less particle generation on reticles • Eliminates "X" axis movements • Less scratches/breakage <ul style="list-style-type: none"> – Less unscheduled downtime 	Reduces need to clean and inspect reticles
Tighter dimensional tolerances	More reliable reticle access <ul style="list-style-type: none"> • Less particle generation • Less scratches/breakage 	Higher tool uptime and productivity
RELIABLE MECHANICAL INTERFACE		
Tighter dimensional tolerances	More reliable interface with reticle sorters <ul style="list-style-type: none"> • Fewer pod-induced handling faults causing unscheduled downtime 	Higher tool uptime and productivity
Latch mechanism	Less particle generation on equipment or masks <ul style="list-style-type: none"> • Less scheduled and unscheduled downtime for cleaning reticles and equipment 	Higher device yields at tool
Product design and manufacturing	Better dimensional consistency and product-to-product assembly <ul style="list-style-type: none"> • Reduces administrative costs associated with monitoring, detecting and returning defective product • Reduces on-site inventory required • No need to over-inventory due to unknown percentage of defective products • Reduces inventory, purchasing and administrative costs 	Improved factory profitability
CONSISTENT MICROCONTAMINATION CONTROL		
Designed for cleanability	Effective particle removal during cleaning and reduced drying time	Higher overall device yields and reduced costs to clean product
Controlled environment	Effective microcontamination barrier <ul style="list-style-type: none"> • Torturous path prevents particle migration • Optional gasket 	Higher overall device yields
SAFE RETICLE TRANSPORTATION		
Unique latch design	More reliable operation <ul style="list-style-type: none"> • Latch returns to closed position • Single piece construction 	Higher overall device yields Reduced risk

FEATURES & BENEFITS (CONTINUED)

RETICLE POD FEATURE	PERFORMANCE BENEFIT	ULTIMATE FAB BENEFIT
Reticle retainer system	Improved reticle safety <ul style="list-style-type: none">Limits reticle movement during transportationMore reliable equipment interfaceProvides edge contact in accordance with I300I guidelinesLess particle generation on equipmentLess scheduled and unscheduled downtime for cleaning	Reduced scrap due to damaged reticles Less particle generation from reticle contact Higher device yields at tool
PROVEN MATERIALS		
Carbon-filled polycarbonate	Excellent materials properties <ul style="list-style-type: none">All plastic, nonmetal constructionLow outgassing/contaminantsGood dimensional stabilityStatic dissipative properties	Higher overall device yields
	Less particle generation on reticles	Higher overall device yields
	ESD path to ground from reticle to equipment <ul style="list-style-type: none">Reduced possibility of an ESD event causing damage to the reticle during storage	Reduce scrapped reticles due to ESD events
	Less particle generation on equipment <ul style="list-style-type: none">Less downtime for cleaning	Higher device yields at tool

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