

SEMI E19.2-0697 (Reapproved 0702) PORT STANDARD FOR MECHANICAL INTERFACE OF WAFER CASSETTE TRANSFER, 125 mm (5 inch) PORT

This standard was technically approved by the Global Physical Interfaces & Carriers Committee and is the direct responsibility of the North American Physical Interfaces & Carriers Committee. Current edition approved by the North American Regional Standards Committee on March 17, 2002. Initially available at www.semi.org June 2002, to be published July 2002. Originally published in 1991; previously published June 1997.

The complete specification for this interface includes all general requirements of SEMI E19.

Table 1 Port Dimensions for 125 mm (5 in.) Wafer Cassette

Port Door	A1	85.72 mm $\pm$ 0.13 mm	(3.375 in. $\pm$ 0.005 in.)
	A2	85.72 mm $\pm$ 0.13 mm	(3.375 in. $\pm$ 0.005 in.)
	A3	9.53 mm $\pm$ 0.25 mm	(0.375 in. $\pm$ 0.010 in.)
Guide Rails	B1	102.87 mm $\pm$ 0.13 mm	(4.050 in. $\pm$ 0.005 in.)
	B2	95.25 mm $\pm$ 0.13 mm	(3.750 in. $\pm$ 0.005 in.)
	B3	6.35 mm $\pm$ 0.25 mm	(0.250 in. $\pm$ 0.010 in.)
	B4	6.35 mm $\pm$ 0.25 mm	(0.250 in. $\pm$ 0.010 in.)
	B5	17.78 mm (0.700 in.)	maximum
	B6		
	B7	12.70 mm (0.500 in.)	minimum
	B8	3.18 mm $\pm$ 0.25 mm	(0.125 in. $\pm$ 0.010 in.)
	B9	6.35 mm (0.250 in.)	maximum radius
Latch Pins	C1	93.98 mm $\pm$ 0.13 mm	(3.700 in. $\pm$ 0.005 in.)
	C2	6.35 mm $\pm$ 0.13 mm	(0.250 in. $\pm$ 0.005 in.)
	C3	63.50 mm $\pm$ 0.13 mm	(2.500 in. $\pm$ 0.005 in.)
	C4	3.18 mm $\pm$ 0.05 mm	(0.125 in. $\pm$ 0.002 in.) diameter
	C5		
	C6	6.35 mm $\pm$ 0.25 mm	(0.250 in. $\pm$ 0.010 in.)
	C7	Full spherical radius	
	C8	4.44 mm (0.175 in.)	minimum
Registration Pins	D1	127.20 mm $\pm$ 0.13 mm	(5.000 in. $\pm$ 0.005 in.)
	D2	63.50 mm $\pm$ 0.13 mm	(2.500 in. $\pm$ 0.005 in.)
	D3	139.70 mm $\pm$ 0.13 mm	(5.500 in. $\pm$ 0.005 in.)
	D4	69.85 mm $\pm$ 0.13 mm	(2.750 in. $\pm$ 0.005 in.)
	D5	6.35 mm $\pm$ 0.08 mm	(0.250 in. $\pm$ 0.003 in.)
	D6	10.16 mm $\pm$ 0.25 mm	(0.400 in. $\pm$ 0.010 in.)
	D7	Full spherical radius	
Latch Pin Force each	F1	1.36 kg (3 lb)	minimum
	F2	1.36 kg (3 lb)	minimum
Position of Cassette	G1	12.70 mm $\pm$ 0.25 mm	(0.500 in. $\pm$ 0.010 in.)
	G2	0.50 mm (0.020 in.)	maximum

NOTICE: These standards do not purport to address safety issues, if any, associated with their use. It is the responsibility of the user of these standards to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. SEMI makes no warranties or representations as to the suitability of the standards set forth herein for any particular application. The determination of the suitability of the standard is solely the responsibility of the user. Users are cautioned to refer to manufacturer's instructions, product labels,



product data sheets, and other relevant literature respecting any materials mentioned herein. These standards are subject to change without notice.

The user's attention is called to the possibility that compliance with this standard may require use of copyrighted material or of an invention covered by patent rights. By publication of this standard, SEMI takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of any such patent rights or copyrights, and the risk of infringement of such rights, are entirely their own responsibility.

SUPERSEDED