

SEMI E19.3-0697 (Reapproved 0702) PORT STANDARD FOR MECHANICAL INTERFACE OF WAFER CASSETTE TRANSFER, 150 mm (6 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 & Carrier 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 150 mm (6 in.) Wafer Cassette

Port Door	A1	98.48 mm $\pm$ 0.13 mm	(3.875 in. $\pm$ 0.005 in.)
	A2	98.48 mm $\pm$ 0.13 mm	(3.875 in. $\pm$ 0.005 in.)
	A3	9.53 mm $\pm$ 0.25 mm	(0.375 in. $\pm$ 0.010 in.)
Guide Rails	B1	115.57 mm $\pm$ 0.13 mm	(4.550 in. $\pm$ 0.005 in.)
	B2	107.95 mm $\pm$ 0.13 mm	(4.250 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	106.68 mm $\pm$ 0.13 mm	(4.200 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	D1	152.40 mm $\pm$ 0.13 mm	(6.000 in. $\pm$ 0.005 in.)
	D2	76.20 mm $\pm$ 0.13 mm	(3.000 in. $\pm$ 0.005 in.)
	D3	165.10 mm $\pm$ 0.13 mm	(6.500 in. $\pm$ 0.005 in.)
	D4	82.55 mm $\pm$ 0.13 mm	(3.250 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

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