



SEMI E19.2-91

PORT STANDARD FOR MECHANICAL INTERFACE OF WAFER CASSETTE TRANSFER, 125 mm (5 inch) PORT

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

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