

SEMI E19.3-0697

PORT STANDARD FOR MECHANICAL INTERFACE OF WAFER CASSETTE TRANSFER, 150 mm (6 inch) PORT

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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