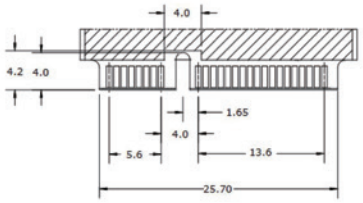
Industrial Mini PCIe DOM & mSATA Series

Co-layout design of Mini PCIe DOM and mSATA

For manufacturers or system integrators, the exciting benefit is they can have a circuit board with co-layout design of Mini PCIe DOM and mSATA. This feature allows users to enjoy wider applications by installing optional Mini PCIe DOM or mSATA in the same placement site.

Mini PCIe DOM: For conventional main board, better performance than CF card

We have realized IPC customers need a steady supply for their design-in cases by using Mini PCIe DOM or CF card as boot drive or storage. However, Mini PCIe DOM obviously has better performance in read/write over 4 times than CF card. Boasting its easy use in plug-and-play and driverless (Windows XP and above) capabilities, the Mini PCIe DOM is no doubt the best choice for the conventional motherboard. In the following table, we recommend one cost-effective MLC model and one reliable SLC model.

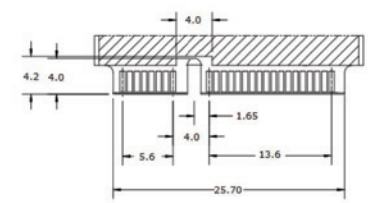


mini PCIe DOM 1ME: Pin Directions
Pin33: PETp0
Pin31: PETn0
Pin23: PERn0
Pin25: PERp0

mSATA: For space-limited main board, up to read/write speed of 470/220 MB/sec

Nowadays, more and more compact gadgets are designed to satisfy eager users. Smaller than a business card, the mSATA has become the must-have storage to deliver instant data transfer.

In the following table, we recommend five models categorized by the flash type and size.



mSATA 3SE: Pin Directions
Pin33: Rx+
Pin31: Rx-
Pin23: Tx+
Pin25: Tx-

Model Name		IPE-5300IM/WM	IPE-5320IM/WM	IPE-5320AM/AWM	IPE-5200IP/WP	IPE-5210IPM/WPM
Picture						
Key Features		1. Excellent data transfer speed 2. High quality SLC-based solution	1. Excellent data transfer speed and IOPS 2. Budget- friendly MLC-based solution	1. Excellent data transfer speed and IOPS 2. Budget- friendly MLC-based solution	1. PCI Express interface 2. Driverless 3. Multi OS supported	1. PCI Express interface 2. Driverless 3. Multi OS supported
Interface		SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	PCI Express Gen 1 x1	PCI Express Gen 1 x1
Flash Type		SLC	MLC	MLC	SLC	MLC
Capacity (GB)		2GB~32GB	8GB~512GB	8GB~256GB	4GB~64GB	8GB~256GB
Sequential R/W		470/250	340/200	430/170	170/120	130/100
Max.Power Consumption		1.2 W (3.3V x 360 mA)	1.3W (3.3V x 390 mA)	1.3W (3.3V x 390 mA)	1.2W (3.3V x 370mA)	1.2W (3.3V x 370mA)
Thermal Sensor		Wide temperature model only	Wide temperature model only	Wide temperature model only	Wide temperature model only	Wide temperature model only
ATA Security		Yes	Yes	Yes	Yes	Yes
S.M.A.R.T		Yes	Yes	Yes	Yes	Yes
Dimensions (mm)		29.8 x 50.8 x 4.4	29.8 x 50.8 x 4.4	29.8 x 50.8 x 4.4	30 x 50.95 x 4.4	30 x 50.95 x 4.4
Environment		Vibration: 20G@7~2000Hz, Shock: 1500G@0.5ms, Storage Temperature: -55°C ~ +95°C, MTBF: >3 million hours				
P/N	Standard (0°C~+70°C)	IPE-5300IM-1GB IPE-5300IM-2GB IPE-5300IM-4GB IPE-5300IM-8GB IPE-5300IM-16GB IPE-5300IM-32GB	IPE-5320IM-8GB-R21 IPE-5320IM-16GB-R21 IPE-5320IM-32GB-R21 IPE-5320IM-64GB-R21 IPE-5320IM-128GB-R21 IPE-5320IM-256GB-R21 IPE-5320IM-512GB-R21	IPE-5320AM-8GB-R20 IPE-5320AM-16GB-R20 IPE-5320AM-32GB-R20 IPE-5320AM-64GB-R20 IPE-5320AM-128GB-R20 IPE-5320AM-256GB-R20	IPE-5200IP-4G-R21 IPE-5200IP-8G-R21 IPE-5200IP-16G-R21 IPE-5200IP-32G-R21 IPE-5200IP-64G-R21	IPE-5210IPM-8GB-R10 IPE-5210IPM-16GB-R10 IPE-5210IPM-32GB-R10 IPE-5210IPM-64GB-R10 IPE-5210IPM-128GB-R10 IPE-5210IPM-256GB-R10
	Wide Temperature (-40°C~+85°C)	IPE-5300WM-1GB IPE-5300WM-2GB IPE-5300WM-4GB IPE-5300WM-8GB IPE-5300WM-16GB IPE-5300WM-32GB	IPE-5320WM-8GB-R21 IPE-5320WM-16GB-R21 IPE-5320WM-32GB-R21 IPE-5320WM-64GB-R21 IPE-5320WM-128GB-R21 IPE-5320WM-256GB-R21 IPE-5320WM-512GB-R21	IPE-5320AWM-8GB-R20 IPE-5320AWM-16GB-R20 IPE-5320AWM-32GB-R20 IPE-5320AWM-64GB-R20 IPE-5320AWM-128GB-R20 IPE-5320AWM-256GB-R20	WPE-5200WP-4G-R21 WPE-5200WP-8G-R21 WPE-5200WP-16G-R21 WPE-5200WP-32G-R21 WPE-5200WP-64G-R21	IPE-5210WPM-8GB-R10 IPE-5210WPM-16GB-R10 IPE-5210WPM-32GB-R10 IPE-5210WPM-64GB-R10 IPE-5210WPM-128GB-R10 IPE-5210WPM-256GB-R10