

Your IP Partner Your Virtual Team



Foundation IP

Standard Cell	12nm	16nm	22nm	28nm	40nm	55nm	90nm	110nm	115nm	130nm	150nm	152nm	180nm
Standard Cell	●	●	●	●	●	●	●	●	●	●	●	●	●

Memories	6nm	7nm	12nm	16nm	22nm	28nm	40nm	55nm	65nm	90nm	110nm	115nm	130nm	150nm	152nm	180nm
Memories	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

I/O	3nm	5nm	6nm	7nm	12nm	16nm	22nm	28nm	40nm	55nm	90nm	110nm	130nm	150nm	152nm	180nm
GPIO					●	●	●	●	●	●	●	●	●	●	●	●
GTL									●							
LPDDR3								●		●						
ONFI	●	●	●	●	●	●	●	●	●	●						
EMMC/SDIO							●	●	●							
LVDS						●			●							
Crystal I/O				●					●							

Analog IP	3nm	5nm	6nm	7nm	12nm	14nm	16nm	22nm	28nm	40nm
Phase-locked Loop (PLL)	●	●	●	●	●		●	●	●	●
Data Converter (ADC)	●	●	●	●	●	●	●	●		
Temperature Sensor					●		●	●		
Voltage Detector (VDT)					●		●	●		
Power on Reset (POR)					●		●	●	●	
Process Voltage Temperature Sensor (PVT)			●	●	●		●			

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High Speed Interface IP

USB PHY	2nm	3nm	4nm	5nm	6nm	7nm	12nm	14nm	16nm	22nm	28nm	40nm	55nm	65nm	90nm	110nm
USB 1.1												●	●		●	
USB 2.0					●	●	●	●	●	●	●	●	●	●		
USB 3.2 Gen1 (5Gbps)				●	●	●	●	●	●	●	●	●	●			
USB 3.2 Gen2 (10Gbps)				●	●	●	●	●	●		●					
USB 3.2 Gen2x2 (10Gbpsx2)		●		●	●	●	●		●		●					
USB4 Gen3x2 (20Gbpsx2)				●	●	●	●		●							
BCK USB 1.1												●	●	●		●
BCK USB 2.0										●		●	●			●
BCK USB 3.2 Gen1 (5Gbps)										●		●	●			●
eUSB2 V2	●															
eUSB2	●	●	●	●	●	●					●					

MIPI	3nm	4nm	5nm	6nm	7nm	8nm	12nm	16nm	22nm	28nm	40nm	55nm
M-PHY v3.1							●	●		●	●	●
M-PHY v4.1		●	●	●	●							
M-PHY v5.0	●	●	●									
M-PHY v5.1			●			●						
D-PHY TX							●	●	●	●	●	●
D-PHY RX							●	●	●	●	●	●
C/D-PHY Combo TX	●	●	●	●	●		●	●	●	●	●	
C/D-PHY Combo RX	●	●	●	●	●		●	●	●	●	●	

DisplayPort PHY	7nm	12nm	22nm	28nm
DP/eDP TX	●	●		●
DP/eDP RX	●	●	●	

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PCIe	3nm	4nm	5nm	6nm	7nm	12nm	14nm	16nm	22nm	28nm	40nm	55nm
PCIe 2.1 PHY						●	●	●	●	●	●	●
PCIe 3.1 PHY				●	●	●	●	●	●	●	●	
PCIe 4.0 PHY	●			●	●	●		●				
PCIe 5.0 PHY				●	●	●		●				
PCIe 5.0 PHY, CXL 2.1						●		●				

LPDDR/ONFI PHY	4nm	5nm	6nm	7nm	8nm	12nm
ONFI 5.1	●	●	●	●	●	●
ONFI 6.0		●			●	
LPDDR 4/4X						●
LPDDR 5/5X				●		

SerDes	5nm	6nm	7nm	12nm	14nm	16nm	22nm	28nm
5G(PCIe 2.1/USB 3.2 Gen1) 1.8V process I/O				●		●	●	
5G(PCIe 2.1/USB 3.2 Gen1) 2.5V process I/O							●	
10G(PCIe 3.1/USB 3.2 Gen2)								●
1.25G ~ 10.3125G	●	●	●		●			
25G				●		●		

Integration Service (PHY + Controller)	6nm	12nm	16nm	22nm
USB 3.2 Gen2 + Dual-Role	●			
USB 3.2 Gen1 + Dual-Role				●
USB 2.0 + Dual-Role		●	●	●
MIPI D-PHY + CSI/DSI		●	●	●
MIPI CD-PHY + CSI/DSI		●		
PCIe 5.0/4.0/3.1/2.1		●		

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