Easy-On FFC/FPC Connector Core Products Guide for Hardware Interface Standard

Standard						MIPI D-PHY	MIPI M-PHY	USB 3.1 Gen 2 Type-C	USB 3.1 Gen 2	USB 3.1 Gen 1	HDMI 2.0	DisplayPort 1.4	Serial ATA 3.0	PCI Express 3.0
Impedance (Ω)						80 to 125	80 to 110	85±9	90±10	90±10	100±15	100±10	100±15	85±15
Rise Time [picosecond (%)]						100 (20 to 80)	200 (10 to 90)	40 (20 to 80)	40 (20 to 80)	50 (20 to 80)	200 (10 to 90)	130 (20 to 80)	70 (20 to 80)	35 (10 to 90)
Pitch (mm)	Image	Series No.	Contact Position	Maximum Usable Frequency (GHz)	Data Rate (Gbps)									
0.50		503480	Top	20	40	✔	✔	✔		✔	✔	✔	✔	✔
		503480	Bottom	20	40	✔	✔				✔	✔	✔	
		505110	Bottom	5	10		✔							
		52745	Top	5	10									
		52435	Top	5	10									
		54104	Top	5	10									
		52746	Bottom	5	10									
		52437	Bottom	5	10									
		54132	Bottom	5	10									
		501951	Vertical	5	10		✔							
		52559	Vertical	3	6									
1.00		200528	Bottom	15	30	✔	✔		✔	✔	✔	✔	✔	
		52207	Top	5	10		✔							
		52271	Bottom	5	10	✔	✔				✔			
		52610	Vertical	3	6									
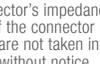
*This chart was produced from simulation results. The conformance to the standards is based on the impedance requirements in each specification.
*Please note that the connector's impedance value is subject to the customer's board design, and conformance to the standards may vary based on that board design.
*The "Usable Frequency" of the connector is determined by the frequency at which the insertion loss starts to exceed -3dB. The data rate is calculated by doubling the "Usable Frequency" in this chart.
*Return loss and crosstalk are not taken into account in these values but must be considered (in addition to insertion loss) when assessing the connector's performance.
*Data is subject to change without notice.

Circuit assignment: GSSGSSG

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