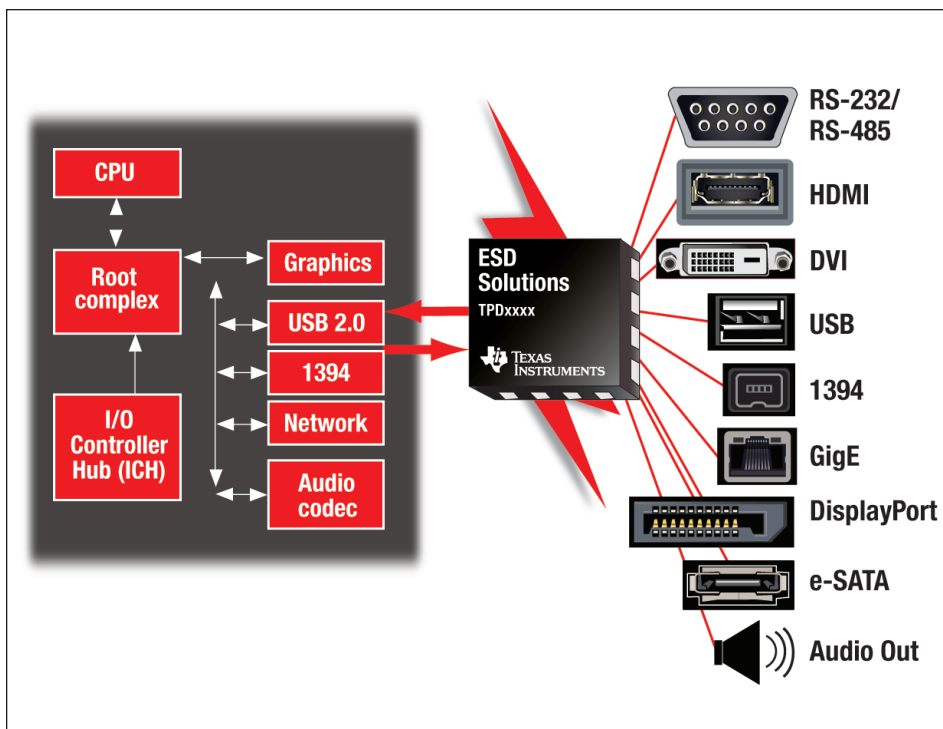


System-level ESD protection devices quick reference card



Space-saving, low capacitance solutions – System-level ESD strikes are a constant threat to device reliability and functionality. Many low-voltage core chips only offer device-level, human-body model (HBM) ESD protection, which doesn't address the system-level risks. TI's TPD family of stand-alone ESD devices provides space-saving and cost-effective solutions to protect the system interconnects from external ESD strikes. For multiple external interfaces including video, audio and serial data transfer, the TPD family offers IEC61000-4-2 level ESD protection.



Features and benefits

- Low I/O capacitance ideal for high-speed applications
- Space-saving package solutions help reduce board footprint
- Operating voltage range flexibility for low-power applications

End equipments

- Mobile handset
- STB
- Television
- Game console
- External HD
- Digital camera
- SIM cards
- Notebook
- PDA
- Consumer medical

Featured products in portfolio include:

Device	# Channels	Supply Voltage (V _{DD})	I/O Level (V)	I/O Capacitance (PF)	V _{BR} (min) (V)	Package	Application
TPD2E001	2	0.9-5.5	0-V _{DD}	1.5	11	SOT-5, SON-6	USB 2.0, RS-232 / RS-485
TPD3E001	3	0.9-5.5	0-V _{DD}	1.5	11	SOT-5, SON-6	USB OTG
TPD4E001	4	0.9-5.5	0-V _{DD}	1.5	11	SOT-6, SON-6	USB 2.0, Ethernet, Firewire, e-SATA, RS-232 / RS-485
TPD6E001	6	0.9-5.5	0-V _{DD}	1.5	11	QFN-10, QFN-12	USB 2.0, Ethernet, Firewire, e-SATA, RS-232 / RS-485
TPD4E004	4	0.9-5.5	0-V _{DD}	1.6	6	SOT-6, SON-6	USB 2.0, Ethernet, Firewire, e-SATA
TPD6E004	6	0.9-5.5	0-V _{DD}	1.6	6	QFN-8	USB 2.0, Ethernet, Firewire, e-SATA
TPD4S009	4	0.9-5.5	0-V _{DD}	0.9	9	SOT23-6, SC70-6, SON-6	e-SATA, LVDS signaling
TPD8S009	8	0.9-5.5	0-V _{DD}	0.9	9	SON-15	HDMI, DisplayPort
TPD12S520	12	0.9-5.5	0-V _{DD}	0.9	9	TSSOP-38	HDMI receiver port
TPD12S521	12	0.9-5.5	0-V _{DD}	0.9	9	TSSOP-38	HDMI transmit port

www.ti.com/esd
Get samples and datasheets.

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