

PCB Connector Technical Parameter Table

Parameter Category	Parameter Name	Parameter Description	Common Standard/Typical Value
Basic Specifications	Product Model	Connector model number	Custom
	Connector Type	Board-to-board, wire-to-board, wire-to-wire, socket, header	Board-to-board, wire-to-board
	Mounting Style	SMT (Surface Mount Technology)	SMT, DIP (Through-Hole Technology), Vertical
	Pitch (Pitch)	Center distance between adjacent pins	1.27/2.0/2.54 mm
	Pin Count (Pin number)	Total number of pins	2~60 Pin
	Row Count	Single row	Single row, double row
	Termination Method	Soldering	Soldering, SMT, crimping
Electrical Performance	Rated Voltage	Long-term safe operating voltage	5V/12V/24V/250VAC
	Rated Current	Maximum current carrying capacity per pin	3.0A-5.0A
	Contact Resistance	Contact resistance of contact points	$\leq 10 \text{ m}\Omega$ / $\leq 20 \text{ m}\Omega$
	Insulation Resistance	Insulation resistance between pins	$\geq 1000 \text{ M}\Omega$
	Withstanding Voltage (Dielectric Strength)	No breakdown within 1 minute	AC500V/1000V/1500V
	Characteristic Impedance	For high-speed signal applications	50 Ω / 75 Ω / 90 Ω / 100 Ω
	Operating Frequency	Applicable for high-frequency connectors	0~6 GHz
Mechanical Performance	Insertion Force	Insertion force per pin	50~300 gf
	Extraction Force	Extraction force per pin	50~300 gf
	Mechanical Life	Number of mating cycles	500/1000/2000cycles
	Terminal Retention Force	Force to prevent terminal pull-out	$\geq 5\text{N}$ / $\geq 10\text{N}$ / $\geq 15\text{N}$
	Vibration Performance	Vibration resistance level	5-500 Hz, 5 g
	Shock Performance	Shock resistance level	50 g~100 g

Environmental Parameters	Operating Temperature	Normal operating temperature range	-40°C~+30°C / -55°C~+30°C
	Storage Temperature	Storage temperature range	-55°C~+25°C
	Flammability Rating	Plastic fire resistance rating	UL94 V-0
	Ingress Protection Rating	Dust and water resistance	IP40/IP44/IP65
	Salt Spray Test	Corrosion resistance duration	24h/48h/72h
Material Parameters	Terminal Material	Conductive metal material	Brass, phosphor bronze, beryllium copper
	Terminal Plating	Surface plating	Gold plating , tin plating, nickel plating
	Plastic Material	Insulating housing material	PA66, LCP, PPS, PBT
Certification & Standards	Executed Standard	Industry standard	CQC, UL, ROHS
	Environmental Requirement	Compliance with environmental regulations	ROHS, REACH

