

Product Data Sheet

Zero8 high-profile unshielded plug,
Part No. 405-54020-51



Illustration similar



Parallel



SMT



High Density



High Speed



Rugged

- Height: 7.15 mm
- Contact overlap: 1.5 mm
- Number of poles: 20
- SMT Connectivity
- Grid 0.8 mm
- Performance Level 1



» to product on www.ept.de



» to product group Zero8

Product Data Sheet

Zero8 high-profile unshielded plug, Part No. 405-54020-51



Technical Specifications

Basics

Performance Level <i>IEC 60512-9-1:2010</i>	1
No. of Contacts	20
Termination Technology	SMT
Board-to-Board Distance	12.0 mm to 19.5 mm
Operating Temperature Range	-55°C to +125°C

Material

Insulator Material	LCP, UL 94 V-0
CTI value <i>IEC 60112</i>	150
Contact Material	copper alloy
Plating	Above Ni
Termination area	Sn over Ni

Mechanical

Pitch	0.8 mm
Mating Force per Pin	≤ 0.5 N
Separating Force per Pin	≤ 0.4 N
Durability <i>IEC 60512-9-1</i>	500 insertion cycles
Coplanarity	≤ 0.1 mm
Vibration, sinusoidal <i>IEC 60512-6-4</i>	10–2000 Hz, 20 g
Contact mating problems if vibrations occur, sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μs
Shock, semi-sinusoidal <i>IEC 60512-6-3</i>	50 g, 11 ms
Contact mating problems if shock occur, semi-sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μs
Overmating Distance	0.8 mm
Wipe length	1.5 mm
Center offset	± 0.7 mm
Axial offset when mated (x/y)	± 0.4 mm
Angular offset	± 5°

Product Data Sheet

Zero8 high-profile unshielded plug,
Part No. 405-54020-51



Technical Specifications

Electrical

Operational Current <i>IEC 60512-5-2</i>	1.7 A per pin at 20°C (80 of 80 pins powered) 5.5 A per pin at 20°C (2 of 80 pins powered) 5.1 A per pin at 20°C (4 of 80 pins powered)
Contact Resistance <i>IEC 60512-2-1</i>	≤ 20 mΩ
Clearance and Creepage	0.25 mm
Insulation Resistance <i>IEC 60512-3-1</i>	> 5 GΩ
Test Voltage <i>IEC 60512-4-1</i>	500 VAC
Data Transfer Rate	16 Gbit/s

Processing

Soldering Temperature <i>JEDEC J-STD-020E</i>	20–40 seconds at 260°C
MSL <i>JEDEC J-STD-020E</i>	1
Assembly	Pick and Place

Approval / Compliance

UL file	E130314
Environment	RoHS compliant

Product Data Sheet

Zero8 high-profile unshielded plug,
Part No. 405-54020-51



Derating Diagram

Product Data Sheet

Zero8 high-profile unshielded plug,
Part No. 405-54020-51



Modifications

Available on request

- other pole counts
- other quality grades

Drawings

Component data in 2D and 3D format you can download here:

[» PDF](#)

[» 3D IGES](#)

[» 3D STEP](#)

[» 3D PDF](#)