

Series 792 Product Specification

DESCRIPTION	REQUIREMENT	PROCEDURE															
Contact resistance, size #23 contacts	SAE AS39029 Table V <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Max. Wire Size (AWG)</th> <th>Test Current (A)</th> <th>Maximum Voltage Drop (mV)</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>5</td> <td>73</td> </tr> <tr> <td>24</td> <td>3</td> <td>45</td> </tr> <tr> <td>26</td> <td>2</td> <td>52</td> </tr> <tr> <td>28</td> <td>1.5</td> <td>54</td> </tr> </tbody> </table>	Max. Wire Size (AWG)	Test Current (A)	Maximum Voltage Drop (mV)	22	5	73	24	3	45	26	2	52	28	1.5	54	EIA-364-06 Silver-coated copper wire, 25°C
Max. Wire Size (AWG)	Test Current (A)	Maximum Voltage Drop (mV)															
22	5	73															
24	3	45															
26	2	52															
28	1.5	54															
Low-level contact resistance, size #23 contacts	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Wire Size</th> <th>Milliohms Max</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>15</td> </tr> <tr> <td>24</td> <td>20</td> </tr> <tr> <td>26</td> <td>31</td> </tr> <tr> <td>28</td> <td>50</td> </tr> </tbody> </table>	Wire Size	Milliohms Max	22	15	24	20	26	31	28	50	EIA-364-23					
Wire Size	Milliohms Max																
22	15																
24	20																
26	31																
28	50																
Insulation resistance	5000 megohms minimum	EIA-364-21															
Dielectric withstanding voltage	No breakdown or flashover	EIA-364-20 #23 contact 750 volts															
Current carrying capacity	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Contact Size</th> <th>Max Current</th> </tr> </thead> <tbody> <tr> <td>23</td> <td>5 A</td> </tr> </tbody> </table>	Contact Size	Max Current	23	5 A	EIA-364-70 Method 1											
Contact Size	Max Current																
23	5 A																
Shell-to-shell resistance (with ground spring)	2.5 millivolt maximum	EIA-364-83															
Shielding effectiveness	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Frequency</th> <th>Attenuation dB</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>75</td> </tr> <tr> <td>1000</td> <td>50</td> </tr> <tr> <td>3000</td> <td>44</td> </tr> <tr> <td>6000</td> <td>38</td> </tr> <tr> <td>10000</td> <td>35</td> </tr> </tbody> </table>	Frequency	Attenuation dB	100	75	1000	50	3000	44	6000	38	10000	35	EIA-364-66			
Frequency	Attenuation dB																
100	75																
1000	50																
3000	44																
6000	38																
10000	35																
Ingress protection	IP67 rating	IEC-60529															
Vibration, sine	No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle.	EIA-364-28 Test Condition IV 100 milliamp test current 10- 2,000 Hz 20 g, 196 m/s ²															
Vibration, random	No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle.	364-28 Test Condition V Letter E 100 milliamp test current 50- 2,000 Hz 16.91 g rms, 8 hrs. each axis															
Mechanical shock	No discontinuity of greater than 1 microsecond, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle.	EIA-364-27 Condition D 3 shocks X 3 axes X 2 directions = 18 shocks 2941 m/s ² (300 g's), 3 ms, half-sine															
Thermal shock	No mechanical damage or loosening of parts. Following thermal shock, connector shall meet contact resistance, DWV, insulation resistance and shell-to-shell resistance requirements	EIA-364-32 Test Condition IV 5 cycles consisting of -65° C 30 minutes, +25° C 5 minutes max., +150° C 30 minutes, +25° C 5 minutes max.															
Humidity	No deterioration which will adversely affect the connector. 100 megohms minimum insulation resistance during the final cycle. Following the recovery period, connectors shall meet contact resistance, shell-to-shell resistance and DWV requirements.	EIA-364-31 Method IV 80-98% RH 10 cycles (10 days) +25° C to +65° C Step 7b vibration deleted. 24 hour recovery period.															

SERIES 792

High-Speed Ultraminiature Rectangular Connectors



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DESCRIPTION	REQUIREMENT	PROCEDURE						
Altitude – low temperature	5000 megohms minimum insulation resistance.	EIA-364-105 -65° C 100,000 feet (11 mbar) Wired, mated pairs						
Mechanical durability, at ambient temperature	No deterioration which will adversely affect the connector after 500 cycles of mating and unmating. Connectors shall meet contact resistance, insulation resistance, shell-to-shell resistance, DWV, and mating and unmating force.	EIA-364-09						
Insert retention	50 PSI	EIA-364-35						
Corrosion (salt mist)	No exposure of base metal. Connectors shall meet DWV and contact resistance requirements following the test.	EIA-364-26, 5% salt solution, 35° unmated connectors Code M: electroless nickel 48 hours Code MT: nickel PTFE 500 hours Code ZR: black zinc nickel 500 hours						
Solderability, PC tail contacts	95% solder coverage. Smooth, bright and even finish.	EIA-364-52 Category 3 8 hours steam aging prior to test 245° C 4-5 sec. dwell 10X magnification						
Resistance to soldering heat, PC tail connectors	No damage to connector. Connectors shall meet insulation resistance and waterproof sealing requirements.	EIA-364-56 260° C, 10 seconds						
Impact, cable connectors	No impairment of function. Connector shall meet contact resistance, insulation resistance and waterproof sealing.	EIA-364-42 1 meter 8 drops						
Fluid immersion <i>Note: El Ochito contacts should not be exposed to these fluids</i>	No damage from immersion in various fuels and oils. Connector shall meet mating/unmating force and dielectric withstanding voltage.	EIA-364-10						
Altitude immersion <i>Note: Sealing backshell required for optimal altitude immersion performance</i>	No evidence of moisture on connector interface or contacts. Connector shall meet dielectric withstanding voltage.	EIA-364-03 75,000 feet simulated altitude						
Contact retention	<table border="0"> <tr> <td>Contact Size</td> <td>Min Pounds</td> </tr> <tr> <td>23</td> <td>6</td> </tr> <tr> <td>8</td> <td>25</td> </tr> </table>	Contact Size	Min Pounds	23	6	8	25	EIA-364-29
Contact Size	Min Pounds							
23	6							
8	25							
Contact separation force	<table border="0"> <tr> <td>Contact Size</td> <td>Min Ounces</td> </tr> <tr> <td>23</td> <td>0.5</td> </tr> </table>	Contact Size	Min Ounces	23	0.5	SAE AS39029 Table 9		
Contact Size	Min Ounces							
23	0.5							
Magnetic permeability	2 μ maximum	EIA-364-54						
Thermal vacuum outgassing	All nonmetallic materials shall not release greater than 1.0 percent total mass loss (TML) and 0.1 percent collected volatile condensable material (CVCM)	ASTM E595 Test to be performed following 24 hours vacuum bakeout at +125 °C, 10 ⁻⁶ Torr.						