Performance specifications summary

INTRODUCTION

<table>
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<tr><td>Dielectric withstanding voltage (DWV)</td><td>
<table>
<tr><th>Insert Arrangement</th><th>Altitude</th><th>Voltage</th></tr>
<tr><td>All Shown Herein</td><td>Sea level</td><td>5,000 VAC</td></tr>
<tr><td></td><td>15,000 ft</td><td>3000, VAC</td></tr>
</table>
</td><td>EIA-364-20, Method A, 2 seconds dwell
2 mA maximum leakage current
Mated pairs</td></tr>
<tr><td>Partial discharge, typical values</td><td>
<table>
<tr><th>Inception/ Extinction</th><th>Altitude</th><th>Voltage</th></tr>
<tr><td>PDIV</td><td>Sea level</td><td>1,870 VAC</td></tr>
<tr><td>PDEV</td><td>Sea level</td><td>1,850 VAC</td></tr>
</table>
</td><td>15pC threshold</td></tr>
<tr><td>Insulation resistance at ambient</td><td>5000 megohms minimum</td><td>EIA-364-21, at 500 VDC</td></tr>
<tr><td>Contact resistance at 25°C, crimp contacts</td><td>
<table>
<tr><th rowspan="2">Contact / Wire Size</th><th rowspan="2">Test Current Amperes</th><th colspan="2">Voltage Drop (millivolts)</th></tr>
<tr><th>Initial Max</th><th>Crown Ring Typical</th></tr>
<tr><td>0000</td><td>225</td><td>53</td><td>13</td></tr>
<tr><td>00</td><td>185</td><td>48</td><td>11</td></tr>
<tr><td>0</td><td>150</td><td>53</td><td>14</td></tr>
<tr><td>2</td><td>100</td><td>43</td><td>12</td></tr>
<tr><td>4</td><td>80</td><td>58</td><td>14</td></tr>
<tr><td>8</td><td>46</td><td>65</td><td>17</td></tr>
</table>
</td><td>AS39029 Para. 3.5.4 (Table 6),
EIA-364-06</td></tr>
<tr><td>Shell-to-shell conductivity</td><td>
<table>
<tr><th>Finish Code</th><th>Shell Mat'l/ Finish</th><th>Millivolt Drop (mV)</th></tr>
<tr><td>ME</td><td>Al / EN</td><td>1.0</td></tr>
<tr><td>MT</td><td>Al / Ni-PTFE</td><td>2.5</td></tr>
<tr><td>NF</td><td>Al / OD Cad</td><td>2.5</td></tr>
<tr><td>ZR</td><td>Al / Zn-Ni</td><td>2.5</td></tr>
<tr><td>Z1</td><td>SST / pass.</td><td>10.0</td></tr>
<tr><td>ZL</td><td>SST / Ni</td><td>1.0</td></tr>
</table>
</td><td>EIA-364-83</td></tr>
<tr><td>Contact engaging /separation force</td><td>Contact forces shall meet AS39029 Table 9 requirements</td><td>AS39029 Para. 3.5.5,
EIA-364-37</td></tr>
<tr><td>Temperature cycling (thermal shock)</td><td>No evidence of damage detrimental to the function of the connector</td><td>EIA-364-32, Method A, Duration A, Mated connectors, max/min temps in accodance with temperature rating of connector</td></tr>
<tr><td>Random vibration, 43.92 grms</td><td>No discontinuities of 1 microsecond or longer</td><td>EIA-364-28, Test Condition VI, Letter J, Ambient, 8 Hrs, 2 Axis, 200°C</td></tr>
<tr><td>Mechanical shock, 50g</td><td>No discontinuities of 1 microsecond or longer</td><td>EIA-364-27, Test Condition A</td></tr>
</table>

Performance specifications and test summary

POWERPLAY™ PERFORMANCE SPECIFICATION		
Test Description	**Requirement**	**Procedure**
Fluid immersion	No damage to plastic, elastomeric or bonding materials detrimental to the function of the connector. Connector shall mate and unmate properly and meet coupling torque and DWV requirements after immersion.	EIA-364-10 Various aviation fluids, fuels, and oils (See GT-21-155)
Salt spray, dynamic	Finish Code / Shell Mat'l/ Finish / Hours ME / Al / EN / 96 MT / Al / Ni-PTFE / 500 NF / Al / OD Cad / 500 ZR / Al / Zn-Ni / 500 Z1 / SST / pass. / 1000 ZL / SST / Ni / 1000	MIL-DTL-38999 Para. 4.5.13.2 EIA-364-26 150 mating cycles total

POWERPLAY™ TEST SUMMARY					
Test Description	**Test Specification**	**Result**	**Test Description**	**Test Specification**	**Result**
Backshell and Connector Durability	EIA-364-83	Pass	Dielectric Withstanding Voltage at Sea Level	EIA-364-20	Pass
Backshell Coupling Strength	–	Pass	Insert Retention	EIA-364-35	Pass
Backshell-to-Connector Shell Conductivity	EIA-364-83	Pass	Insulation Resistance at Ambient Temperature	EIA-364-21	Pass
Contact Insertion and Removal Force	EIA-364-05	Pass	Post Test Examination	–	Pass
Contact Resistance	EIA-364-06	Pass	Shell-to-Shell Conductivity	EIA-364-83	Pass
Contact Retention (100%)	EIA-364-29	Pass	Temperature Cycling (thermal shock)	EIA-364-32	Pass
Corrosion (Dynamic)	EIA-364-26	Pass	Visual, Mechanical, and Workmanship Inspection	ASTM B 571	Pass
Coupling and Uncoupling Torque	EIA-364-114	Pass			