

NANO PEGASUS SERIES NANO LUMINUS SERIES

Amphenol Pcd



Amphenol Pcd is one of the world's leading suppliers of interconnect products for Military, Commercial Aerospace and Industrial applications. Located north of Boston in Beverly, Massachusetts, the company designs and manufactures a wide range of products; System Attachments, Junction Modules, Relay Sockets, Terminal Blocks, Rectangular & Circular Connectors, Cable Assemblies and Adapters. Each product is made and engineered with the highest quality standards in the industry. With facilities in North America and Asia, Amphenol Pcd products are chosen by thousands of OEMs around the world, reliant on Amphenol's technical excellence, global network of distributors, and cost-effective solutions for custom systems.

Nano-Pegasus & Nano-Luminus

Nano-Pegasus & Nano-Luminus build upon APCD's success in light weight, plastic circular connectors in the aerospace market, in very small way. Nano-Pegasus & Nano-Luminus are small, plastic, easy to use connectors designed specifically for sensing, command and control applications where a Micro or Nano Dsub would be used. Nano-Pegasus & Nano-Luminus provide exceptional performance in tight spaces, packing 11 high grade contacts in a shell size 5 housing (0.325" outer diameter). That's equivalent to 132 contacts per square inch! Contacts are rated for 1a, 350 Vdc operation. With a 0.050" spacing, this gives 500 Vdc insulation resistance, and 350 Vac dielectric withstanding at 70k feet.

Scoop proof construction and enclosed contacts protect the small gauge contacts during mating. When mated, IP67 sealing is guaranteed by the interfacial seal, helping ensure the contacts are free from dust, moisture and corrosion. And unlike many of the competitive connectors, which are multi-piece assemblies, Nano-Pegasus & Nano-Luminus shells are a single piece housing, impervious to humidity and dust, further enhancing clean, crack free operations over the full operating temperature and environmental conditions. Shells are a high grade polyetherimide construction, providing a temperature range of -65C to +175C, and high mating cycles, making Nano-Luminus suitable for man/machine interfaces. Nano-PegasusS adds a copper & nickel overplate, providing 40db to 60db EMI shielding.

Available in solder cup for user assembly or as a finished good pig tail assembly.

Features & Benefits

¼ Turn Cam Lock

Easy to use, blind mate with audible click and visual locking aids

Interfacial & Wire sealing

IP67 performance for use in human interface, wet and damp applications

Polyetherimide Single Piece Housing

High temperature resistance, resistance to a large number of harsh fuels & chemicals, a long working life & high mating cycles

7.5 grams / mated pair

Lighter weight means longer flight times, larger payloads, longer battery life in non-static applications

28 awg wire barrel

1a continuous over full voltage and temperature range

0.050" Contact Spacing

Very high density interconnect, equivalent to 132 contacts per sq inch

30µ inch gold plated contacts

Long working life & high mating cycles

Nickel / Copper plating (Nano-Pegasus ONLY)

Up to 60db EMI shielding typical, depending on frequency of interest

Supported Contacts

Integral Solder Cup or wire crimp. C54400 Bronze Alloy with 30 micro-inches gold plate. 28 awg pin barrel. Wire barrel accepts 28 or 30 wire gauges. (0.126" / 0.32mm or 0.01" / 0.254mm)

Key connector specifications (Preliminary)

| | |
|------------------------------|---------------------------------------|
| Shock | 300G, 3 Axis |
| Vibration | 43.9G Random |
| Flammability & Toxicity | Meets FAR Par 25 Appendix F, Part 1 |
| Sealing | IP67 when mated |
| Fluid Resistance | Skydrol, Ethylene Glycol, Jet A, more |
| DWV | 250VAC @ Sea-level; 100VAC @ 70k ft |
| Salt Spray | 5% solution @ 70K ft |
| Temperature | -65°C to +175°C |
| EMI Shielding (Pegasus ONLY) | 50db typical |

Configurations & Ordering Info

Solder Cup

| | |
|---------------------------|-------------|
| 11 pin inline plug | SJS0511110P |
| 11 pin inline receptacle | SJS0511120P |
| 11 pin Jamnut panel mount | TBD |
| 11 pin Jamnut pcb mount | TBD |
| 11 pin Oval flange mount | TBD |

*Ends in "0" Solder Cup

Applications

- Communications via single and dual USB2.0, CAN Bus, USB3.0, CAT5 & CAT6 ethernet, or user defined low and medium speed requirements.
- Command and Control as typically found in subsystem interconnects with user defined high density data and low power signaling.
- Sensor connectivity, such as found in missile and munition guidance systems, infrared target acquisition and tracking gimbels, angle of attack and inertial guidance systems.
- Low pin count Micro (M83513) & Nano (M32139) DSub alternative where a circular connector is more appropriate.