

NANO PEGASUS

Small, easy to use connectors that provide exceptional performance in tight spaces.



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Description

Nano-Pegasus & Nano-Luminus build upon APCD's success in light weight, plastic circular connectors in the aerospace market, in a 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 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-Pegasus 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 and Benefits

1/4 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	Up to 60db EMI shielding typical, depending on frequency of interest

Typical 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.

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Specifications

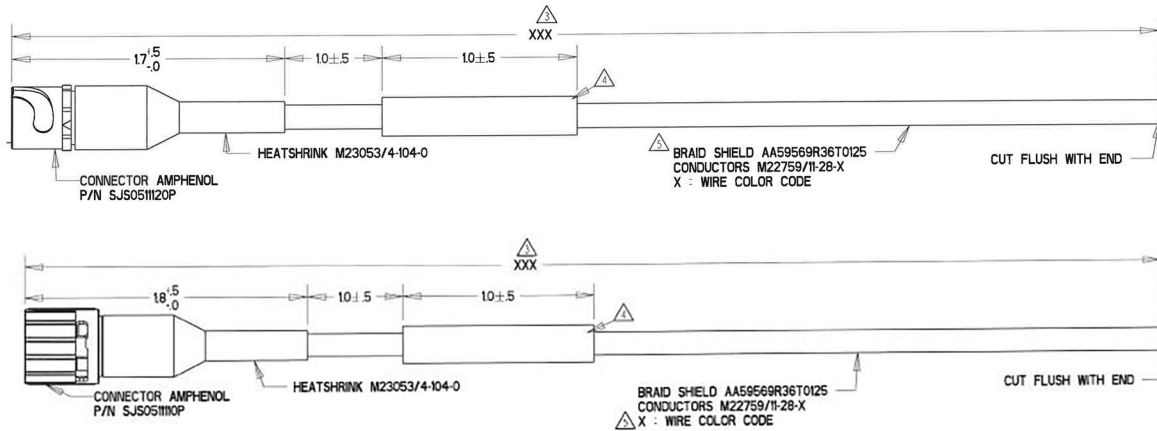
Shock	300G, 3 Axis
Vibration	43.9G Random
Flammability & Toxicity	Meets FAR Par 25 Appendix F, Part 1
Sealing	IP67 when mated
Fluid Resistance	Skydrol, Ethylene Glycol, Jet A, more
DWV	250VAC @ Sea-level; 100VAC @ 70k ft
Salt Spray	5% solution @ 70K ft
Temperature	-65°C to +175°C
EMI Shielding	50db typical

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)

Existing Cable Assemblies

	Position	Style	Pigtail	Plug/Receptacle	Crimp/Solder	Cable Type
MCN0001A0511APPS-006	11	Nano Pegasus	Pigtail	Receptacle	Solder	M22759/11-28-x
MCN0001B0511APSS-006	11	Nano Pegasus	Pigtail	Plug	Solder	M22759/11-28-x
MCN0002A0511APPS-006	11	Nano Pegasus	Pigtail	Receptacle	Solder	M22759/32-30-x
MCN0002B0511APSS-006	11	Nano Pegasus	Pigtail	Plug	Solder	M22759/32-30-x



Configurations & Ordering Info

	Solder Cup Contacts	Crimp Contacts (Available in pigtail configurations only)
11 pin inline plug	SJS0511110P	SJS051111P
11 pin inline receptacle	SJS0511120P	SJS051121P
11 pin Jamnut panel mount	TBD	TBD
11 pin Jamnut pcb mount	TBD	TBD
11 pin Oval flange mount	TBD	TBD

Cable Configurations & Drawings

MCS XXXX B SS WW A P P C - VVV

MCS: Standard size Luminus/pegasus

MCN: Nano Luminus/Pegasus

XXXX: Unique Alpha Numeric Identifier

0001: Standard

Connector Style

A: Inline Receptacle

B: Inline Plug

C: Square Flange

D: Circle Flange

E: Jamnut Pcb

F: Oval Flange

G: Jamnut Flange Front Mount

H: Jamnut Flange Rear Mount

SS: Actual shell size

05

06

07

08

09

10

11

12

13

14

WW: Number of positions in connector

Example 11: 11 Positions

Key Field

A/B/C/D/E/F

N: Not plated

P: Plated

Contact Type

P: Pins

S: Sockets

Termination Type

C: Crimp

S: Solder

VVV: Cable Length

Example 072: 72