

# NANO PEGASUS

## Overview

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. With 0.050" spacing, this gives 1000MΩ insulation resistance, and 250Vrms withstand at sealevel.

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 +150C, 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 & 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	1.5A 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











## Materials & 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
Salt Spray	5% solution 96 hrs.
Temperature	-65°C to +150°C
EMI Shielding	50db 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.

## Cable Configurations & Drawings

SERIES	ALPHA NUMERIC IDENTIFIER	CONNECTOR STYLE	SHELL SIZE	POSITIONS	KEY FIELD	PLATING	CONTACT TYPE	TERMINATION TYPE	CABLE LENGTH
MCS	0001	A: Inline Receptacle	05 (11, Size 28)	Example: 11=11 Positions	A	N: Not Plated	P: Pins	C: Crimp	Example: 072=72 in. Lengh
Standard size Luminus/Pegasus	APCD Unique Identifier				B			S: Solder	
MCN		B: Inline Plug			C	P: Plated	S: Sockets		
Nano Luminus/Pegasus					D				
		E: Jamnut Pcb			E				
					F				
		F: Oval Flange							
									
		H: Flange Rear Mount							
									

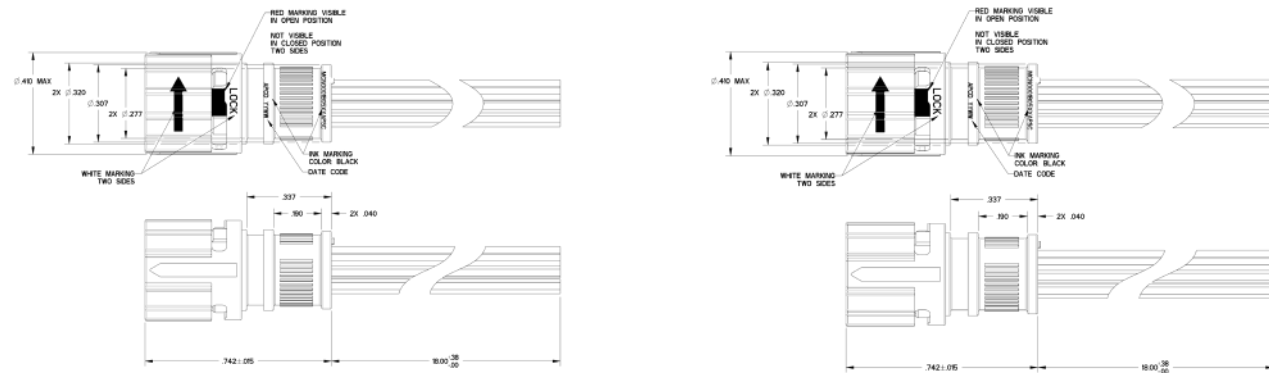
\* TBD: Square Flange, Circular Flange, Flange Front Mount

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
MCN0000A0511ANPC-006	11	Nano Luminus	Pigtail	Receptacle	Crimp	28 AWG wire, no braid
MCN0000B0511ANSC-006	11	Nano Luminus	Pigtail	Plug	Crimp	28 AWG wire, no braid
MCN0000A0511ANPS-006	11	Nano Luminus	Pigtail	Receptacle	Solder	28 AWG wire, no braid
MCN0000B0511ANSS-006	11	Nano Luminus	Pigtail	Plug	Solder	28 AWG wire, no braid
MCN0001A0511APPS-006	11	Nano Pegasus	Pigtail	Receptacle	Solder	28 AWG wire, metal Braid
MCN0001B0511APSS-006	11	Nano Pegasus	Pigtail	Plug	Solder	28 AWG wire, metal braid
MCN0001A0511APPC-006	11	Nano Pegasus	Pigtail	Receptacle	Crimp	28 AWG wire, metal braid
MCN0001B0511ASPC-006	11	Nano Pegasus	Pigtail	Plug	Crimp	28 AWG wire, metal braid
MCN0002A0511ANPC-006	11	Nano Luminus	Pigtail	Receptacle	Crimp	28 AWG wire, Nomex braid
MCN0002B0511ANSC-006	11	Nano Luminus	Pigtail	Plug	Crimp	28 AWG wire, Nomex braid
MCN0002A0511ANPS-006	11	Nano Luminus	Pigtail	Receptacle	Solder	28 AWG wire, Nomex braid
MCN0002B0511ANSS-006	11	Nano Luminus	Pigtail	Plug	Solder	28 AWG wire, Nomex braid



Configurations & Ordering Info

Description	Product Line	Solder Cup	Crimp (Available as a crimp pigtail configurations only)
11 pin inline plug	Nano Pegasus	SJS0511110P	SJS051111P
11 pin inline receptacle	Nano Pegasus	SJS0511120P	SJS0511121P
11 pin Jamnut panel mount	Nano Pegasus	SJS0511190P	SJS0511191P
11 pin Jamnut pcb mount	Nano Pegasus	SJS0511160P	SJS0511161P
11 pin Oval flange mount	Nano Pegasus	SJS0511170P	SJS0511171P
11 pin inline plug	Nano Luminus	SJS0511110	SJS0511111
11 pin inline receptacle	Nano Luminus	SJS0511120	SJS0511121
11 pin Jamnut panel mount	Nano Luminus	SJS0511190	SJS0511191
11 pin jamnut pcb mount	Nano Luminus	SJS0511160	SJS0511161
11 pin Oval flange mount	Nano Luminus	SJS0511170	SJS0511171

Amphenol Pcd



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

