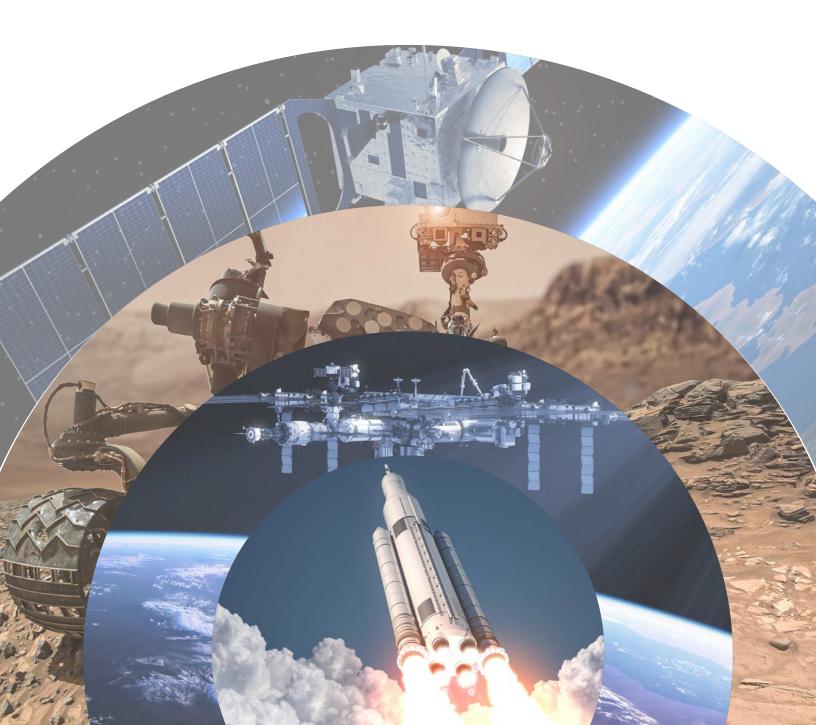


SPACE selection guide





QUALITY

the highest quality products.

PEI-Genesis maintains an AS9100D and ISO9001:2015 certified quality management system at its corporate headquarters in Philadelphia, PA and at production facilities in South Bend, IN; Southampton, UK and Zhuhai, China. Our South Bend, IN operation is ITAR registered with the US Department of State and Southampton, UK is registered with the BIS in the UK.



SPEED

In your world, you need products quickly without any lost production time.



VALUE-ADD

Enjoy better access to the brands you trust. We provide manufacturing capabilities with distribution flexibility.



EXPERTISE

You're the expert in your products; let us be the expert for your interconnects.

MANUFACTURERS

PEI-Genesis is an authorized distributor for the premier brands in the industry.

Amphenol **Amphenol** CANADA

Amphenol PCD Amphenol SOCAPEX



Connector and backshell solutions for harsh environments



Interconnect products for aerospace, transportation military, and commercial applications including Fibreco



High quality push-pull and ratchet-coupling connectors, tools and accessories

and PCB mount connectors.

QUALITY SPEED VALUE-ADD EXPERTISE

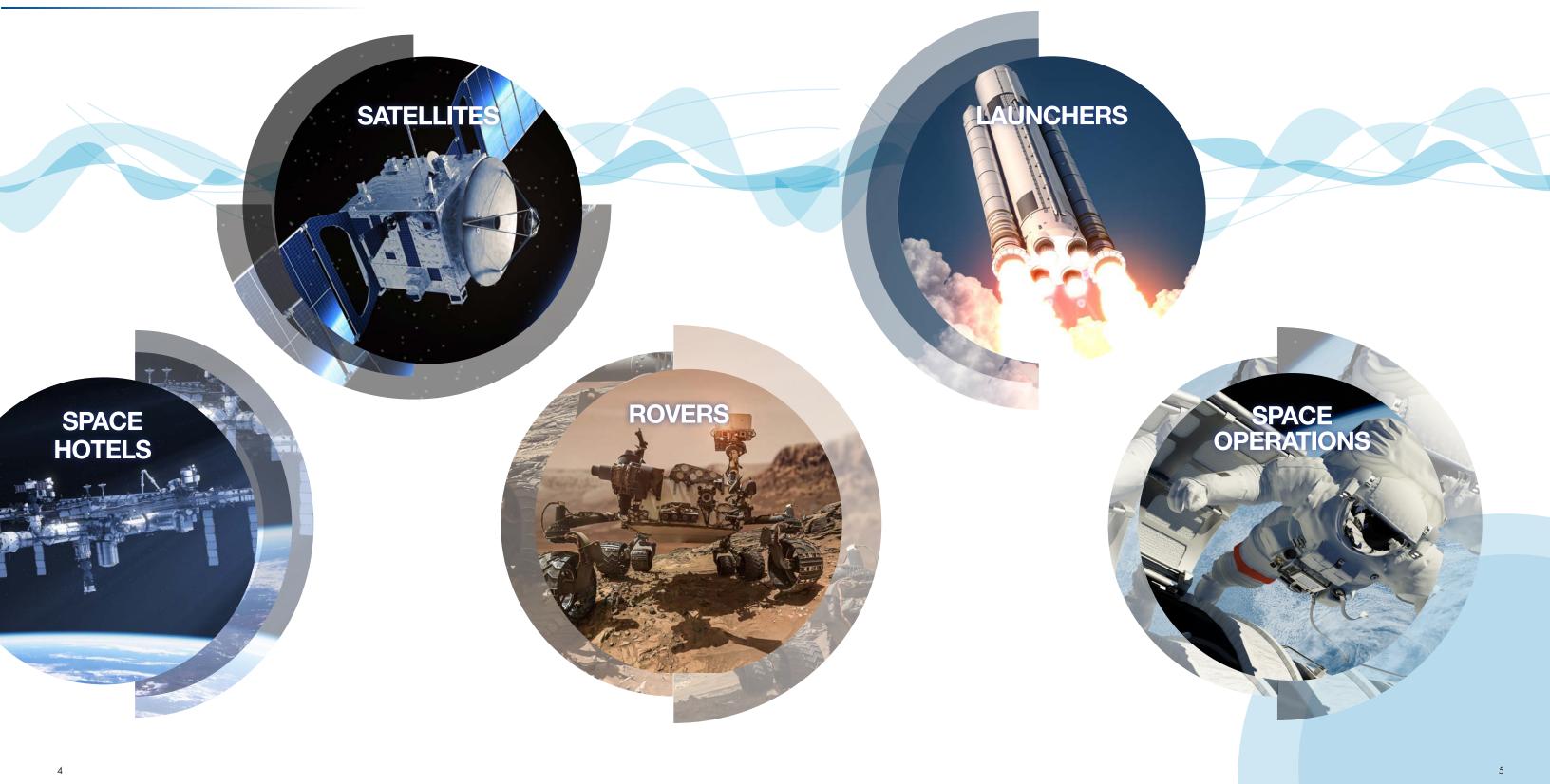


You need to protect your customers' and your brand's reputation by using



a wide variety of global industries

SPACE APPLICATIONS



SATELLITES

Satellites are sent into orbit to gather data for weather reports, GPS navigation, broadcasting, scientific research, and Earth observation. PEI-Genesis understands the importance of lightweight and reliable connectors needed for this application.

BULKHEAD FEED-THROUGH 38999 SERIES III // **AMPHENOL AEROSPACE**



 Double ended receptacles with feed through contacts Mates to standard D38999 plugs and tooled in standard inserts Removes the need for discrete wire termination when assembling connectors

HERMETIC 38999 SERIES III // AMPHENOL **AEROSPACE & AMPHENOL MARTEC**

- Available in standard 38999 and Series Five
- · Offers superior electrical performance in a glass or epoxysealed connector
- Superior leak rate performance and available in wide variety of Mil-Spec configurations

OCS (OVAL CONTACT SYSTEM) SERIES // AMPHENOL AEROSPACE



 Differential Twinax type contact system; many advantages for high speed data needs

• High speed data transmission up to 10 Gbps per pair Available in a variety of 38999 shell sizes and insert

arrangements

PCB 38999 SERIES III // AMPHENOL AEROSPACE

- · Ideal for printed circuit board applications
- · Significantly eases cable to board wiring and contacts come
- pre-assembled in connectors
- · Available in many shell varieties including double flange, clinch nut, and reduced flange

QUADRAX 38999 SERIES III // AMPHENOL AEROSPACE



Offers several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility

- Contacts form two 100 or 150 Ohm matched impedance differential pairs
- · Available in size 8 crimp or PC tail styles

SPLIT PAIR QUADRAX RECTANGULAR SERIES // AMPHENOL AEROSPACE



Supports up to 6.5 Gbps per pair and used with CAT6A Type Cable

- Used for a variety of high speed applications beyond current quadrax design
- Available in size 8 crimp and PC tail versions

TV/TVP 38999 SERIES III // AMPHENOL AEROSPACE



 Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments · Standard insert arrangements and accessory threads

Communication Systems

Imaging Systems

SUB SYSTEMS

- Propulsion Control
- Data Handling

KJ SERIES // ITT CANNON



· Low-Profile connector design High density layouts with up to 128 data connections · Features proven bayonet coupling, optional grounded plug for superior EMI shielding and rear-release contacts

SERIES FIVE // AMPHENOL AEROSPACE



 Meets all performance requirements of standard 38999 in a smaller and lighter option

- Can withstand higher voltage requirements than standard 38999 series
- Uses standard accessory threads and AS39029 gualified contacts

8LTS 38999 SERIES I // SOURIAU BY EATON



 Resistance to hydraulic fluids • RFI/EMI shielding and shell to shell continuity

· Quick mating- 3 point bayonet lock system

8TS 38999 SERIES II // SOURIAU BY EATON



· Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

JT/JTP 38999 SERIES II // AMPHENOL AEROSPACE



• Available in commercial and Class G QPL versions · Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

8DS 38999 SERIES III // SOURIAU BY EATON



Available in commercial and Class G QPL versions · Outgassing process to withstand space and other environments • Standard insert arrangements and accessory threads

D-SUB // AMPHENOL PCD

- Available in Class M, D, and K QPL versions
- M2000 Series D-Sub connectors are MIL Qualified & meet the requirement of MIL-DTL-24308



- Conforming to applicable material, dimensional and performance requirements of MIL-DLT-24308 Space Class
- · Terminations include cable or wire crimp and solder, straight and right angle PCB mount

D-SUB // POSITRONIC

- Includes: MACH-D, SCB, SND, SDD Series and Class M, D, K and GSFC gualified options
- · High-performance and M24308 intermateable



• Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

D-SUB // ITT CANNON



- Includes: D*M, D*MM, D*MA Series with NM, NMB and GSFC qualified options
- High-performance and M24308 intermateable
- · Conforming to applicable material, dimensional, and performance requirements of GSFC S-311-P4, GSFC S-311-P10, and MIL-DLT-24308 Class M
- · Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

DURA-CON[™] SERIES // CINCH



- Smaller, higher density than D-Subs
- · Electroless nickel finish with stainless steel hardware
- · Harness and PCB style terminations

MDM SERIES // ITT CANNON



- Micro twist pin contact system recessed into plug insulators
- · Designed to MIL-DTL-83513 specifications
- Unique mechanical engagement & locking mechanisms

SERIES 100 (VARIOUS) // AMPHENOL CANADA



- Harnessed connectors supplied pre-wired and fully potted
- · Available in straight and right angle termination style
- Metal shells to provide RFI/EMI shielding.
- Designed for compliance to MIL-DTL-83513

MICRO-D // NICOMATIC



Includes the DMM, EMM, and DLMM Series

• High modularity: contacts Signal (LF), Power (HP),

and Coax (HF) up to 10M arrangements · Board to board, board to wire, wire to wire, panel mount

(1 to 4 rows of contacts)

· Miniaturization: 2mm pitch, low profile

MICRO-MINIATURE CIRCULAR ///////

2M SERIES // AMPHENOL AEROSPACE



 Lightweight micro-miniature 38999-type connectors Many options to choose from including hermetic, high speed, and PCB

· Various shell styles available to meet the specific needs of customer

2M HIGH SPEED SERIES // AMPHENOL AEROSPACE



 Lightweight micro-miniature 38999-type connectors Multiple catalog insert arrangements available · Fluoropolymer inserts optimized for high speed capability

2M PYTHON SERIES // AMPHENOL AEROSPACE



 Low profile EMI/RFI plug and backshell combo • Reduces space requirements without compromising ruggedness or shielding performance

• Python assemblies provide superior low profile cable routing and 2M connector performance all in one

M SERIES // LEMO



• Smallest multi-pin, fully shielded, vibration-secure and sealed connector available

- 360° EMC shielding protection
- Triplestart fast-locking ratchet coupling type

MKJ SERIES // ITT CANNON



· Lightweight micro-miniature connectors · Many options to choose from including hermetic, high speed,

and PCB · Various shell styles available to meet the specific needs of customer

MODULAR POWER & SIGNAL ///////

SP MAX SERIES// POSITRONIC



- · Precision machined shell, available in three sizes, provides EMI/RFI protection · Combines a multitude of contact sizes in a single connector
- including #12, #16, #18, and #22 contacts • Performance compatibility to EN4165 and ESA/ESCC-3401

B, K, F SERIES // LEMO



 B/K/F Series: Self latching push pull coupling mechanism • Operating temperature ranges: -55°C up to +250°C Watertight IP66/68 sealing options

NANO (M32139 TYPE) // ITT CANNON



· Micro twist pin contact system 0.025 Contact spacing • 9 To 51 contact positions · Knurled jack screw assembly hardware

RMM SERIES // AMPHENOL CANADA

 Low profile & high density (2mm spacing) · Modular design allows for wide range of combinations signal,



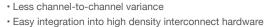
power and RF contacts • Focus on PCB tail receptacles, and crimp plugs as the ideal micro-, nano-, pico-satellite compact interconnect offering

RF & FIBER OPTIC ASSEMBLIES ///////

FIBER OPTICS // ITT CANNON



Reduced insertion loss



INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



· Low-loss, highly flexible, foam-core micro coaxial cables Triple-shield construction Low outgassing materials per ASTM E595

MAXGAIN® CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



 Optimized for lowest attenuation at 50 GHz · Ultra stable insertion loss, phase and VSWR with flexing · Flexible, low minimum bend radius

RF CONNECTORS & ASSEMBLIES // AMPHENOL SV MICROWAVE



Smaller diameters for RF cables Increased signal density and decreased weight

LAUNCHERS

Launchers are sent into space to transport a payload to space stations or deliver satellites to orbit Earth. PEI-Genesis has a wide range of lightweight interconnect solutions engineered to withstand vibration, shock, and extreme temperatures that may occur through liftoff. We provide compact connectors for applications where size and weight are at a premium.

HV38999 SERIES // AMPHENOL AEROSPACE



· Provides high voltage solutions for next-gen aircraft power requirements

- Insert optimizations allow these 38999 to safely carry high voltages and large currents at altitude
- Available in all MIL-DTL-38999 shell configurations and finishes

KJ SERIES // ITT CANNON



- · Low-Profile connector design
- · High density layouts with up to 128 data connections · Features proven bayonet coupling, optional grounded plug for superior EMI shielding and rear-release contacts

8

SUB SYSTEMS

- Propulsion Systems Control
- Guidance and Navigation
- Power Distribution
- Equipment Control

SERIES FIVE // AMPHENOL AEROSPACE



Meets all performance requirements of standard 38999 in a smaller and lighter option

Can withstand higher voltage requirements than standard 38999 series

 Uses standard accessory threads and AS39029 qualified contacts

STAINLESS STEEL 38999 // AMPHENOL AEROSPACE



• Available in Class K, S, and L QPL versions High corrosion resistance • Able to withstand higher temperatures

STAINLESS STEEL 38999 // CONESYS



• Available in Class K, S, and L QPL versions High corrosion resistance Able to withstand higher temperatures

8LTS 38999 SERIES I // SOURIAU BY EATON



 Resistance to hydraulic fluids • RFI/EMI shielding and shell to shell continuity • Quick mating- 3 point bayonet lock system

8TS 38999 SERIES II // SOURIAU BY EATON



Available in commercial and Class G QPL versions

 Outgassing process to withstand space and other environments · Standard insert arrangements and accessory threads

JT/JTP 38999 SERIES II // AMPHENOL AEROSPACE



• Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

8DS 38999 SERIES III // SOURIAU BY EATON



 Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

BREAK AWAY FAIL-SAFE LANYARD RELEASE 38999 SERIES III // AMPHENOL AEROSPACE & AMPHENOL SOCAPEX



10

 Ability to quickly disconnect a connector with no damage • Mates to existing D38999 receptacles Compatible with all Mil-Spec backshells and accessories

BULKHEAD FEED-THROUGH 38999 SERIES III // AMPHENOL AEROSPACE



 Double ended receptacles with feed through contacts Mates to standard D38999 plugs and tooled in standard inserts Removes the need for discrete wire termination when assembling connectors

HERMETIC 38999 SERIES III // AMPHENOL **AEROSPACE & AMPHENOL MARTEC**



· Available in standard 38999 and Series Five · Offers superior electrical performance in a glass or epoxy-

sealed connector · Superior leak rate performance and available in wide variety of Mil-Spec configurations

PCB 38999 SERIES III // AMPHENOL AEROSPACE



 Ideal for printed circuit board applications · Significantly eases cable to board wiring and contacts come pre-assembled in connectors Available in many shell varieties including double flange, clinch nut. and reduced flance

QUADRAX 38999 SERIES III // AMPHENOL AEROSPACE



 Offers several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility · Contacts form two 100 or 150 Ohm matched impedance

differential pairs

Available in size 8 crimp or PC tail styles

TV/TVP 38999 SERIES III // AMPHENOL AEROSPACE



 Available in commercial and Class G QPL versions · Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

5015 CV SERIES III // ITT CANNON

plated contacts for durability



backshell design Extensive offering of both Signal and Power layouts Available with both machined solder and crimp silver

· Lightweight Die cast aluminum hardware with integral

D-SUB // AMPHENOL PCD

- Available in Class M, D, and K QPL versions
- M2000 Series D-Sub connectors are MIL Qualified & meet the requirement of MIL-DTL-24308
- Conforming to applicable material, dimensional and performance requirements of MIL-DLT-24308 Space Class Terminations include cable or wire crimp and solder, straight
- and right angle PCB mount

D-SUB // POSITRONIC

· Includes: MACH-D, SCB, SND, SDD Series and Class M, D, K and GSFC qualified options



- · High-performance and M24308 intermateable · Conforming to applicable material, dimensional, and performance requirements of GSFC S-311-P4, GSFC
- S-311-P10, and MIL-DLT-24308 Class M · Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

D-SUB // ITT CANNON

- Includes: D*M. D*MM. D*MA Series with NM. NMB and GSFC qualified options
- High-performance and M24308 intermateable
- · Conforming to applicable material, dimensional, and performance requirements of GSFC S-311-P4, GSFC S-311-P10, and MIL-DLT-24308 Class M
- · Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

RJ45 SERIES // AMPHENOL PCD



• Rugged ethernet connection, a derivative from MIL-DTL-26482 No tooling required for installation because of patented RJStop system

· 360-degree EMI shielding available

DURA-CON[™] SERIES // CINCH



 Smaller, higher density than D-Subs Electroless nickel finish with stainless steel hardware Harness and PCB style terminations

MICRO-D // NICOMATIC



- · Includes the DMM, EMM, and DLMM Series
- High modularity: contacts Signal (LF). Power (HP).
- and Coax (HF) up to 10M arrangements · Board to board, board to wire, wire to wire, panel mount
- (1 to 4 rows of contacts) · Miniaturization: 2mm pitch, low profile

MDM SERIES // ITT CANNON



- · Micro twist pin contact system recessed into plug insulators
- Designed to MIL-DTL-83513 specifications
- Unique mechanical engagement & locking mechanisms

MICRO-MINIATURE CIRCULAR ///////

2M SERIES // AMPHENOL AEROSPACE



- Lightweight micro-miniature 38999-type connectors
- Many options to choose from including hermetic, high speed, and PCB
- Various shell styles available to meet the specific needs of customer

2M805 SERIES // AMPHENOL AEROSPACE



- Lightweight micro-miniature connectors
- Tri-Start fast coupling and waterproof sealing
- Excellent EMI shielding

2M HERMETIC // AMPHENOL AEROSPACE



- Provides superior sealing of 1x10-8 cc/sec helium
- Low profile shells for minimum box protrusion
- Available in a variety of coupling technologies including tri-start, push pull, bayonet, and dual start

KPD SERIES // ITT CANNON



- Monobloc-type hard insulators are made of strong, durable, thermosetting plastic
- The pin cavities feature a closed-down effect resulting in superior pin stability and positive axial alignment of the contacts · Features rear contact insertion, release and extraction

M SERIES // LEMO



- · Smallest multi-pin, fully shielded, vibration-secure and sealed connector available
- 360° EMC shielding protection
- Triplestart fast-locking ratchet coupling type

MKJ SERIES // ITT CANNON

· Lightweight micro-miniature connectors



Many options to choose from including hermetic, high speed.

and PCB Various shell styles available to meet the specific needs of

custome

MODULAR POWER & SIGNAL ////////

OPTIMUS EN4165 SERIES // NICOMATIC



· Rugged, rectangular & stackable Ultra-modular & customizable Weight savings

SIM EN4165 SERIES // AMPHENOL PCD AMPHENOL AIR LB FRANCE

-	
Ref.	1
	r.

 Modular, flexibility in design & reconfiguration Field replaceable inserts Weight savings

B, K, F SERIES // LEMO



- · B/K/F Series: Self latching push pull coupling mechanism Operating temperature ranges: -55°C up to +250°C
- Watertight IP66/68 sealing options

HDx[™] SERIES // ITT CANNON



 Anti-glare, non-reflective plating · Lightweight, compact design Ultra-high density layouts

RNJ SERIES // AMPHENOL SOCAPEX



- Lightweight space saving design with EMI shielding · Between 1 and 128 contacts in accordance with MIL-C-39029 standard Compatible with some M85049 rear accessories for
- MIL-DTL-38999 I connectors

ZMMA SERIES // AMPHENOL CANADA



· Blind mate low mating force modular connector Endless customer design possibilities for high-density contact arrangements ARINC 600 components

ZR393 SERIES // AMPHENOL CANADA

- · Rugged multiport support for RF contacts for reliable high-speed communications
- · PCB and crimp termination available
- Based on the standard R39 Series which is a compact rectangular format using D38999 contacts

NANO (M32139 TYPE) // ITT CANNON



· Micro twist pin contact system 0.025 Contact spacing • 9 To 51 contact positions · Knurled jack screw assembly hardware

RMM SERIES // AMPHENOL CANADA

Low profile & high density (2mm spacing)



- · Modular design allows for wide range of combinations signal, power and RF contacts
- Focus on PCB tail receptacles, and crimp plugs as the ideal micro-, nano-, pico-satellite compact interconnect offering

RF & FIBER OPTIC ASSEMBLIES ///////

INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



MAXGAIN® CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



· Optimized for lowest attenuation at 50 GHz Ultra stable insertion loss, phase and VSWR with flexing • Flexible, low minimum bend radius

RF CONNECTORS & ASSEMBLIES // AMPHENOL SV MICROWAVE



 Smaller diameters for RF cables Increased signal density and decreased weight

ROVERS

Rovers are ground-based objects that explore a planet's surface with cameras, sensors, and drills to collect scientific data. Our offering of rugged solutions is built to withstand moisture, sand, mud, and other contaminants present in this environment.

SUB SYSTEMS

- Onboard Systems
- Communication Systems
- Imaging Systems
- Navigation Systems
- RF Transmission and Receiving

PV 26482 SERIES II // ITT CANNON



 Offers environmental sealing protection Machined gold plated crimp contact terminations Operating temperature range from –55°C to 200°C

KJ SERIES // ITT CANNON



· Low-Profile connector design · High density layouts with up to 128 data connections • Features proven bayonet coupling, optional grounded plug for superior EMI shielding and rear-release contacts



SERIES FIVE // AMPHENOL AEROSPACE



- Meets all performance requirements of standard 38999 in a smaller and lighter option
- Can withstand higher voltage requirements than standard 38999 series
- Uses standard accessory threads and AS39029 qualified contacts

8TS 38999 SERIES II // SOURIAU BY EATON



- · Available in commercial and Class G QPL versions
- Outgassing process to withstand space and other environments
- Standard insert arrangements and accessory threads

JT/JTP 38999 SERIES II // AMPHENOL AEROSPACE



- Available in commercial and Class G QPL versions
- Outgassing process to withstand space and other environments
- Standard insert arrangements and accessory threads

8DS 38999 SERIES III // SOURIAU BY EATON



 Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

BREAK AWAY FAIL-SAFE LANYARD RELEASE 38999 SERIES III // AMPHENOL AEROSPACE & AMPHENOL SOCAPEX



Ability to guickly disconnect a connector with no damage Mates to existing D38999 receptacles

Compatible with all Mil-Spec backshells and accessories

BULKHEAD FEED-THROUGH 38999 SERIES III // AMPHENOL AEROSPACE



· Double ended receptacles with feed through contacts Mates to standard D38999 plugs and tooled in standard inserts Removes the need for discrete wire termination when assembling connectors

HERMETIC 38999 SERIES III // AMPHENOL **AEROSPACE & AMPHENOL MARTEC**



- Available in standard 38999 and Series Five
- · Offers superior electrical performance in a glass or epoxysealed connector
- · Superior leak rate performance and available in wide variety of Mil-Spec configurations

PCB 38999 SERIES III // AMPHENOL AEROSPACE

Ideal for printed circuit board applications

- · Significantly eases cable to board wiring and contacts come
- pre-assembled in connectors · Available in many shell varieties including double flange, clinch
 - nut, and reduced flange

QUADRAX 38999 SERIES III // AMPHENOL AEROSPACE



 Offers several advantages for high data transfer rates, low power consumption, and excellent EMI compatibility · Contacts form two 100 or 150 Ohm matched impedance differential pairs

· Available in size 8 crimp or PC tail styles

TV/TVP 38999 SERIES III // AMPHENOL AEROSPACE



Available in commercial and Class G QPL versions Outgassing process to withstand space and other environments Standard insert arrangements and accessory threads

5015 CV SERIES III // ITT CANNON



- · Lightweight Die cast aluminum hardware with integral backshell design
- Extensive offering of both Signal and Power layouts Available with both machined solder and crimp silver plated contacts for durability

D-SUB // AMPHENOL PCD

- · Available in Class M, D, and K QPL versions
- M2000 Series D-Sub connectors are MIL Qualified & meet the requirement of MIL-DTL-24308
- Conforming to applicable material, dimensional and performance requirements of MIL-DLT-24308 Space Class
- · Terminations include cable or wire crimp and solder, straight and right angle PCB mount

D-SUB // POSITRONIC

• Includes: MACH-D. SCB. SND. SDD Series and Class M, D, K and GSFC gualified options



- High-performance and M24308 intermateable · Conforming to applicable material, dimensional, and performance requirements of GSFC S-311-P4, GSFC
- - S-311-P10, and MIL-DLT-24308 Class M · Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

D-SUB // ITT CANNON

• Includes: D*M, D*MM, D*MA Series with NM, NMB and GSFC qualified options



- High-performance and M24308 intermateable · Conforming to applicable material, dimensional, and
- performance requirements of GSFC S-311-P4, GSFC S-311-P10, and MIL-DLT-24308 Class M
- · Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

DURA-CON[™] SERIES // CINCH



 Smaller, higher density than D-Subs · Electroless nickel finish with stainless steel hardware · Harness and PCB style terminations

MDM SERIES // ITT CANNON



 Micro twist pin contact system recessed into plug insulators Designed to MIL-DTL-83513 specifications Unique mechanical engagement & locking mechanisms

SERIES 100 (VARIOUS) // AMPHENOL CANADA



Harnessed connectors supplied pre-wired and fully potted · Available in straight and right angle termination style · Metal shells to provide RFI/EMI shielding. Designed for compliance to MIL-DTL-83513

MICRO-D // NICOMATIC

- · Includes the DMM, EMM, and DLMM Series
- High modularity: contacts Signal (LF), Power (HP),
- and Coax (HF) up to 10M arrangements
- · Board to board, board to wire, wire to wire, panel mount (1 to 4 rows of contacts)
- · Miniaturization: 2mm pitch, low profile

MICRO-MINIATURE CIRCULAR ///////

2M PCB SERIES // AMPHENOL AEROSPACE

- Lightweight micro-miniature 38999-type connectors
- · Many options to choose from including hermetic, high speed, and PCB

 Various shell styles available to meet the specific needs of customer

KPD SERIES // ITT CANNON



· Monobloc-type hard insulators are made of strong, durable, thermosetting plastic

- The pin cavities feature a closed-down effect resulting in superior pin stability and positive axial alignment of the contact
- · Features rear contact insertion, release and extraction

MKJ SERIES // ITT CANNON

- Lightweight micro-miniature connectors
- Many options to choose from including hermetic, high speed, and PCB



Various shell styles available to meet the specific needs of custome

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HDx[™] SERIES // ITT CANNON



- Anti-glare, non-reflective plating
- · Lightweight, compact design
- Ultra-high density layouts

NANO (M32139 TYPE) // ITT CANNON



- · Micro twist pin contact system
- 0.025 Contact spacing
- 9 To 51 contact positions
- Knurled jack screw assembly hardware

RF & FIBER OPTIC ASSEMBLIES ///////

FIBER OPTICS // ITT CANNON



- Reduced insertion loss
- Less channel-to-channel variance
- · Easy integration into high density interconnect hardware

INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



- · Low-loss, highly flexible, foam-core micro coaxial cables
- Triple-shield construction
- Low outgassing materials per ASTM E595

MAXGAIN® CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



- Optimized for lowest attenuation at 50 GHz
- Ultra stable insertion loss, phase and VSWR with flexing
- Flexible. low minimum bend radius

RF CONNECTORS & ASSEMBLIES // AMPHENOL SV MICROWAVE



- Smaller diameters for RF cables
- · Increased signal density and decreased weight

SPACE HOTELS

Space hotels are establishments that allow tourists to experience space travel for enjoyment. They offer the same amenities and accommodations as a typical hotel, all while floating in low earth orbit. Connectors from PEI-Genesis deliver signal, data, and power to stay connected in these extreme conditions.

38999 HIGH POWER SERIES // AMPHENOL AEROSPACE



· Able to incorporate RADSOK®, Temper-Grip, or standard high power contacts with 38999 Series

· Offers special insert arrangements designed to carry high current; up to 1000amps per connector

BULKHEAD FEED-THROUGH 38999 SERIES III // AMPHENOL AEROSPACE



Double ended receptacles with feed through contacts Mates to standard D38999 plugs and tooled in standard inserts Removes the need for discrete wire termination when assembling connectors

HERMETIC 38999 SERIES III // AMPHENOL **AEROSPACE & AMPHENOL MARTEC**



 Available in standard 38999 and Series Five · Offers superior electrical performance in a glass or epoxysealed connector

· Superior leak rate performance and available in wide variety of Mil-Spec configurations

SUB SYSTEMS

- I/O Signal Transmission and Control
- Power and Data Transmission
- Navigation Systems

PCB 38999 SERIES III // AMPHENOL AEROSPACE

Ideal for printed circuit board applications



· Significantly eases cable to board wiring and contacts come pre-assembled in connectors

 Available in many shell varieties including double flange, clinch nut, and reduced flange

QUADRAX 38999 SERIES III // AMPHENOL AEROSPACE



low power consumption, and excellent EMI compatibility Contacts form two 100 or 150 Ohm matched impedance differential pairs

Offers several advantages for high data transfer rates,

• Available in size 8 crimp or PC tail styles

D-SUB // AMPHENOL PCD

- · Available in Class M, D, and K QPL versions
- M2000 Series D-Sub connectors are MIL Qualified & meet the requirement of MIL-DTL-24308
- Conforming to applicable material, dimensional and performance requirements of MIL-DLT-24308 Space Class • Terminations include cable or wire crimp and solder, straight and right angle PCB mount

D-SUB // POSITRONIC



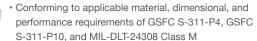
• Includes: MACH-D, SCB, SND, SDD Series and Class M, D, K and GSFC qualified options

- High-performance and M24308 intermateable
- · Conforming to applicable material, dimensional, and performance requirements of GSFC S-311-P4, GSFC S-311-P10, and MIL-DLT-24308 Class M
- Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

D-SUB // ITT CANNON

 Includes: D*M. D*MM. D*MA Series with NM. NMB and GSFC gualified options

High-performance and M24308 intermateable



· Terminations include cable or wire crimp and solder, straight and right-angle PCB mount

MICRO-MINIATURE CIRCULAR ///////

2M HIGH SPEED SERIES // AMPHENOL AEROSPACE



 Lightweight micro-miniature 38999-type connectors Multiple catalog insert arrangements available

· Fluoropolymer inserts optimized for high speed capability

KPD SERIES // ITT CANNON

· Monobloc-type hard insulators are made of strong, durable, thermosetting plastic

The pin cavities feature a closed-down effect resulting in superior pin stability and positive axial alignment of the contacts · Features rear contact insertion, release and extraction

M SERIES // LEMO



· Smallest multi-pin, fully shielded, vibration-secure and sealed connector available

- 360° EMC shielding protection
- Triplestart fast-locking ratchet coupling type

MKJ SERIES // ITT CANNON



- Lightweight micro-miniature connectors
- Many options to choose from including hermetic, high speed. and PCB
- · Various shell styles available to meet the specific needs of customer

B, K, F SERIES // LEMO



- · B/K/F Series: Self latching push pull coupling mechanism
- Operating temperature ranges: -55°C up to +250°C
- Watertight IP66/68 sealing options

RNJ SERIES // AMPHENOL SOCAPEX



- Lightweight space saving design with EMI shielding
- · Between 1 and 128 contacts in accordance with MIL-C-39029 standard
- Compatible with some M85049 rear accessories for MIL-DTL-38999 | connectors

RF & FIBER OPTIC ASSEMBLIES ///////

FIBER OPTICS // ITT CANNON



- Reduced insertion loss
- Less channel-to-channel variance
- · Easy integration into high density interconnect hardware

INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



- · Low-loss, highly flexible, foam-core micro coaxial cables
- Triple-shield construction
- Low outgassing materials per ASTM E595

MAXGAIN® CONNECTORS & ASSEMBLIES // TIMES MICROWAVE



- Optimized for lowest attenuation at 50 GHz
- · Ultra stable insertion loss, phase and VSWR with flexing
- Flexible. low minimum bend radius

RF CONNECTORS & ASSEMBLIES // AMPHENOL SV MICROWAVE



- Smaller diameters for RF cables
- Increased signal density and decreased weight

SPACE **OPERATIONS**

Space operations allow astronauts to perform extra-vehicular activity outside the spacecraft while remaining safe with proper equipment. Many of these interconnects have EMI/RFI shielding to protect against harmful radiation.

PCB 38999 SERIES III // AMPHENOL AEROSPACE



 Ideal for printed circuit board applications · Significantly eases cable to board wiring and contacts come pre-assembled in connectors

· Available in many shell varieties including double flange, clinch nut, and reduced flange

MICRO-MINIATURE CIRCULAR ///////

HERMETIC 2M SERIES // AMPHENOL AEROSPACE



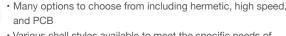
• Provides superior sealing of 1x10-8 cc/sec helium · Low profile shells for minimum box protrusion

• Available in a variety of coupling technologies including tri-start, push pull, bayonet, and dual start

MKJ SERIES // ITT CANNON



· Lightweight micro-miniature connectors



· Various shell styles available to meet the specific needs of customer

HDx[™] SERIES // ITT CANNON



· Anti-glare, non-reflective plating · Lightweight, compact design · Ultra-high density layouts

SUB SYSTEMS

Communication and Reporting System

NANO (M32139 TYPE) // ITT CANNON



 Micro twist pin contact system 0.025 Contact spacing • 9 To 51 contact positions · Knurled jack screw assembly hardware

RF & FIBER OPTIC ASSEMBLIES ///////

FIBER OPTICS // ITT CANNON



 Reduced insertion loss Less channel-to-channel variance

Easy integration into high density interconnect hardware



WHEN THE DESIGN **MATTERS**, **PEI-Genesis** DELIVERS

Our Engineered Solutions Group (ESG) offers expert engineering design services, taking your application requirements from concept to drawing to prototype to production. Our team is leveraged by world-class brands and specializes in custom, quick-turn, application-driven harsh environment interconnect and cable solutions. Contact us to get your solution!

OUTGASSING CAPABILITIES

For a connector to qualify as a space connector, the Volatile Organic Compounds (VOCs) must be extracted by baking the connectors at an elevated temperature in a vacuum-sealed oven. After this process is complete, the connectors are tested to verify that they meet the applicable standards (e.g., NASA, ESA, or military) for outgassing.

With our state-of-the-art equipment in our manufacturing facilities worldwide, PEI-Genesis can outgas a connector to meet space-gualified needs in a matter of hours rather than weeks. We have the ability to outgas electroless nickel-plated versions of MIL-DTL-38999s to convert them into space-grade Class G D38999s.



Watch our "More Thay a Distributor" Iideo Here!

///////////////////////////////////////	26482					389	999				
	PV 26482 SERIES II	HIGH POWER SERIES	HV38999 SERIES	KJ SERIES	SERIES FIVE		STAINLESS STEEL 38999	8LTS 38999 SERIES I	8TS 38999 SERIES II	JT/JTP 38999 SERIES II	8DS SERIES 38999 SERIES III
CONNECTOR SELECTOR											
///////////////////////////////////////	ITT CANNON	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	ITT CANNON	AMPHENOL AEROSPACE	CONESYS	AMPHENOL AEROSPACE	SOURIAU BY EATON	SOURIAU BY EATON	AMPHENOL AEROSPACE	SOURIAU BY EATON
Application	Rovers	Space Hotels	Launchers	Satellite, Launchers, Rovers	Satellites, Launchers, Rovers	Launchers	Launchers	Satellites, Launchers, Lunar	Satellite, Launchers, Rovers	Satellites, Launchers, Rovers	Satellites, Launchers, Rovers
Hermetic	Available	Available		Available	Available	Available	Available	No	No	Available	Available
RoHS Compliant	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
Wire Gauge Range	24 to 12	8 to 0		28 to 8	23 to 12	28 to 10	28 to 8	26 to 8	26 to 12	28 to 12	26 to 4
Number of Circuits	3 to 61	2 to 4		3 to 128	2 to 128	2 to 128	1 to 128	2 to 128	3 to 128	3 to 128	1 to 128
EMI/RFI Shielding	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
Operating Voltage	Up to 1,000 VAC		Up to 4,500 VAC	Up to 2,300 VAC	Up to 1,150 VAC	300 to 900 VAC		Up to 575 VAC	Up to 575 VAC	Up to 2,300 VAC	Up to 575 VAC
Current Rating (Amps)	Up to 23	40 to 150	Up to 250	Up to 23	Up to 23	Up to 33		Up to 45	Up to 23	1.5 to 23	Up to 80
Power & Signal on Same Layout	Yes			Yes	Yes	Yes		Yes	Yes	Yes	Yes
Operating Temperature	-67°F to 392°F -55°C to 200°C			-85°F to 392°F -65°C to 200°C	-85°F to 392°F -65°C to 200°C	-85°F to 392°F -65°C to 200°C		-85°F to 392°F -65°C to 200°C	-85°F to 392°F -65°C to 200°C	-85°F to 392°F -65°C to 200°C	-85°F to 392°F -65°C to 200°C
Type of Coupling	Bayonet		Interlock	Bayonet	Dual Start, Threaded	Bayonet, Tri-Start Threaded		Bayonet	Bayonet	Bayonet	Tri-Start Threaded
Life in Mating Cycles (min.)	500	10,000	500	500	500	500		500	500	500	500
Shell Material	Aluminum Alloy	Aluminum, Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminium Alloy, Stainless Steel	Aluminum, Aluminum Bronze, Stainless Steel	Stainless Steel Shell, Passivated, Firewall Stainless Steel Shell, Electrodeposited Nickel, Firewall		Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum, Stainless Steel
Shell Plating	Cadmium or Electroless Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Electroless Nickel, Passivated, Olive Drab, Cadmium	Durmalon, Black Zinc Nickel, OD Cad, Electroless Nickel, AP 93	Stainless Steel		Nickel	Nickel	Cadmium, Electroless Nickel, or Anodized	Nickel / Passivated
Positive Shell Polarization	Available			Available	Available	Available		Available	Available	Available	Available
Insert Polarization Options	Available			No	No	No		No	No	Available	No
Standard/Associated Specs.	MIL-DTL-26482 Series II		MIL-DTL-38999	MIL-DTL-38999 Series II	MIL-DTL-38999	MIL-DTL-38999		ESA/ESCC 3401/052 (QPL) MIL-DTL-38999 Series I class G (QPL)	ESA/ESCC 3401/044 (QPL) MIL-DTL-38999 Series II class G (QPL)	MIL-DTL-38999 Series I	ESA/ESCC 3401/056 (QPL) MIL-DTL-38999 Series III class G (QPL) SSQ21635 NATC (NASA Thread Coupling) intermateable
Contact Plating	Gold	Silver	Silver or Gold	Gold	Gold	Gold		Gold	Gold	Gold	Gold
Shock Test (g's)	150		300	300	300	300		75	75	300	75
Vibration Test (g's)	20			Per M38999	60			50	50	43.7	50
Shell Color	Olive Drab or Silver	Green, Silver, or Black	Green, Silver, or Black	Olive Drab or Silver	Green, Silver, or Black	Silver		Silver	Silver	Olive Drab, Silver, or Bronze	Silver
User Polarization	No			No	No	No		No	No	No	No
Crimp	х		Х	Х	Х	Х		Х	Х	Х	Х
Solder					Х						
Printed Circuit Solder	х			х	Х	х				х	х
Printed Circuit Press Fit											
Thermocouple	Х			Х						Х	
Wire Wrap											
Coax	х			Х		Х		Х		Х	Х
Pre-Terminated										~	
Fiber Optic	x			х						x	
High Voltage	~		x	x						~	
First-Mate Last-Break			~	~	У						
TIST-WALE LAST-DIEAK					Λ						

*SEALING METHODS MAY VARY

			38999			38999			5015
//////////////////////////////////////	BREAK AWAY FAIL-SAFE LANYARD RELEASE 38999 SERIES III	BULKHEAD FEED- THROUGH 38999 SERIES III	HERMETIC 38999 SERIES III	OVAL CONTACT SYSTEM 38999 SERIES III	PCB 38999 SERIES III	QUADRAX 38999 SERIES III	SPLIT PAIR QUADRAX RECTANGULAR 38999 SERIES III	TV/TVP SERIES 38999 SERIES III	5015 CV SERIES III
SELECTOR									
	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	ITT CANNON
Application	Launchers, Rovers, Space Hotels	Satellite, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Satellites	Satellites, Launchers, Rovers, Space Hotels, Space Operations	Satellites, Launchers, Rovers, Space Hotels	Satellites	Satellites, Launchers, Rovers	Rovers, Launchers
Hermetic	No	Available	Available	No	Available	No	No	Available	No
RoHS Compliant	Available	Available	Available	Available	Available	Available	Available	Available	Available
Vire Gauge Range	28 to 8		28 to 8	26 to 24		26 to 22	26 to 24	28 to 8	20 to 0
Number of Circuits	3 to 128	3 to 128	3 to 128	1 to 21	1 to 128	4 to 46	4 to 46	1 to 128	1 to 52
EMI/RFI Shielding	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No
Style	Circular	Circular	Circular	Circular	Circular	Circular	Rectangular	Circular	Circular
Operating Voltage	Up to 2300 VRMS at Sea Level		Up to 2300 VRMS at Sea Level				500 Vrms Max. At Sea Level, Dwv 1000 Vac Rms Between All Inner Contacts @ Sea Level	Up to 2,300 VAC	Up to 3,000 VAC
Current Rating (Amps)								1.5 to 46	Up to 150
Power & Signal on Same _ayout								Yes	Yes
Operating Temperature		-85°F to 392°F -65°C to 200°C	-67°F to 257°F -55°C to 125°C	-85°F to 347°F -65°C to 175°C		-40°F to 185°F -40°C to 85°C	-85°F to 347°F -65°C to 175°C	-85°F to 392° F -65°C to 200°C	-67°F to 257°F -55°C to 125°C, (Firewall) -67°F to 350.6°F -55°C to +177°C
ype of Coupling	Bayonet, Pull-Pull		Threaded, Bayonet					Threaded	Threaded
ife in Mating Cycles (min.)	400			500			500	500/1500	100
hell Material	Aluminum and Composite Hybrid	Aluminum, Composite, Stainless Steel	Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminum, Composite, Stainless Steel	Aluminium Alloy, Stainless Stee
Shell Plating	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Stainless Steel with Nickel Plate, Passivated Stainless Steel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Aluminum Bronze, Electroless Nickel, Stainless Steel, Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Electroless Nickel, Olive Drab, Cadmium, Zinc Cobalt
Positive Shell Polarization								Available	
nsert Polarization Options								Available	Available
Standard/Associated Specs.	MIL-DTL-38999, MIL-DTL- 38999/31D, MIL-STD-202F (Method 204), MIL-S-901D, MIL- STD-1760, MIL-C-8.	MIL-DTL-38999	MIL-DTL-38999	MIL-DTL-38999	MIL-DTL-38999, Contacts meet all applicable requirements of AS39029	MIL-DTL-38999 receptacle interface per EIA-364-10E	MIL-DTL-38999	MIL-DTL-38999 Series III	SAE-AS50151
Contact Plating								Gold	Gold
hock Test (g's)		300				40		300	500, 100 (Firewall)
ibration Test (g's)								60	20
hell Color	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Green, Silver, or Black	Olive Drab, Nickel or Stainless
ser Polarization								No	No
rimp								Х	Х
older									Х
rinted Circuit Solder								Х	Х
rinted Circuit Press Fit									
hermocouple								Х	х
Vire Wrap									
Coax							Х		
Pre-Terminated									
iber Optic								Х	
									x
High Voltage									X
High Voltage First-Mate Last-Break									

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	D-SUB SERIES	MACH-D SERIES	NM/NMB SERIES	SCB SERIES	SDD	SND	RJ45	DLMM	DMM	DURA-CON [™]
CONNECTOR SELECTOR	-			COLOR OF		Constant of the second se	O	Community of	No and a state of the state of	
	AMPHENOL PCD	POSITRONIC	ITT CANNON	POSITRONIC	POSITRONIC	POSITRONIC	AMPHENOL PCD	NICOMATIC	NICOMATIC	CINCH
Application	Satellites, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Satellites, Launchers, Rovers, Space Hotels	Launchers	Satellites, Launchers, Rovers	Satellites, Launchers, Rovers	Satellites, Launchers, Rovers
lermetic	Available	No	Available	No	No	No	Available	No	No	Available
RoHS Compliant	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
Vire Gauge Range	28 to 20	30 to 8	26 to 18	30 to 8	30 to 20	30 to 18	26 to 24	28 to 12	28 to 12	28 to 26
Number of Circuits	9 to 104	9 to 104 and Combo-D available	2 to 78	9 to 104 and Combo-D available	9 to 104 and Combo-D available	9 to 104 and Combo-D available	-	2 to 120	2 to 120	9 to 100
MI/RFI Shielding	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style	Rectangular	Rectangular	Rectangular	Rectangular	Rectangular	Rectangular	Circular	Rectangular	Rectangular	Rectangular
Operating Voltage	1,000 VAC	300 VAC	500 VAC	300 VAC	300 VAC	300 VAC	-	600 (signal) 800 (power & coax)	600 (signal) 800 (power & coax)	600 VAC
Current Rating (Amps)	5 to 7.5	Up to 75	7.5	Up to 50	Up to 12	Up to 18	-	3A (signal) 20A (power &	3A (signal) 20A (power &	3
Power & Signal on Same		·						coax)	coax)	
ayout	Signal	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes
Dperating Temperature	-67°F to 257°F -55°C to 125°C	-67°F to 257°F -55°C to 125°C	-67°F to 257°F -55°C to +125°C	-67°F to 257°F -55°C to 125°C	-67°F to 257°F -55°C to 125°C	-67°F to 257°F -55°C to 125°C	-40°F to 186°F -40°C to 85°C	-67°F to 257°F -55°C to 125°C	-67°F to 257°F -55°C to 125°C	-55°C to 125°C -67°F to 257°F
/pe of Coupling	Without Hardware	Jackscrews	Screwlock, Jackpost	Jackscrews	Jackscrews	Jackscrews	Threaded, Bayonet, Push		Screwlocks	Screwlocks
ife in Mating Cycles (min.)	500	500	500	1,000	1,000	1,000	Pull, Reverse Bayonet 500		500	500
shell Material	Steel, Brass	Aluminum, Stainless Steel	Stainless Steel, Brass or Aluminum	Brass	Brass	Brass	AL, Marine Bronze, Stainless Steel, Thermoplastic	Metalized Composite	Aluminum	Aluminum
Shell Plating	Nickel, Gold	Aluminum- Electroless Nickel, Cadmium and Chemical Conversion / Stainless Steel- Passivated	Passivated Gold, Nickel	0.000050 Inch [1.27 Microns] Gold Over Copper Plate	0.000050 Inch [1.27 Microns] Gold Over Copper Plate	0.000050 Inch [1.27 Microns] Gold Over Copper Plate	Olive Drab Cadmium, Black Zinc Nickel, Nickel, All-Over AL	Nickel	Nickel	Nickel
Positive Shell Polarization	Available	Available	Available	Available	Available	Available	No			Available
sert Polarization Options	-	Available	Keying available (Aluminum Shells)	Available	Available	Available	Available			Available
tandard/Associated Specs.	MIL-D-24308	MIL-DTL-24308	M24308, NASA S311P	GSFC S-311-P4 & GSFC S-311-P10, MIL-DTL-24308 Class M, ASTM E-595 & NASA- RP-1124		GSFC S-311-P4 & GSFC S-311-P10, MIL- DTL-24308 Class M, ASTM E-595 & NASA-RP-1125	MIL-DTL38999, EN3645, EN3155, VG (VG95328, VG95319, VG96944, VG95218, VG96949)	MIL-DTL-83513- G & MIL- DTL-55302-G	MIL-DTL-83513- G & MIL- DTL-55302-G	MIL-DTL-83513
Contact Plating	Gold	Gold	Gold	Copper Alloy	Copper Alloy	Copper Alloy	Gold	Gold	Gold	Gold
Shock Test (g's)	EIA-364-27, Test Condition E	Pass per MIL-DTL-24308J, EIA- 364-27, test condition E	Per M24308	N/A	N/A	N/A	IK06 - Weight of 250g drop from 40cm		100	50
ibration Test (g's)	EIA-364-28, Test Condition IV	43.92g	Per M24308	N/A	N/A	N/A	10g		20 gn (signal) 15 gn (power & signal)	20
hell Color	Bright Nickel/Gold Yellow	Silver or Gold Tone	Passivated Gold, Nickel	Gold	Gold	Gold	Olive Green, Black, Nickel, Marine Bronze, or Stainless Steel		Silver	Nickel
ser Polarization		Yes		Yes	Yes	Yes	No		Yes	Yes
Crimp	Х	Х	Х	Х	Х	х			Х	No
older	Х	Х	Х	Х	Х	х	Х		Х	х
rinted Circuit Solder	Х	Х	Х	Х	Х	Х	Х		Х	Х
rinted Circuit Press Fit		Х		Х	Х	Х				
hermocouple		Х		Х	Х	Х				
Vire Wrap										
Coax		Х	X (Combo-D)	Х					Х	Х
Pre-Terminated		Х		Х	Х	Х	Х			Х
Fiber Optic			X (Combo-D)							Х
High Voltage		Х	х	Х						
		Х								

///////////////////////////////////////		MICRO D-SUB				MICRO-MINIATURE CI			
	EMM	MDM	SERIES 100 (VARIOUS)	2M	2M805	2M HERMETICS	2M HIGH SPEED	2M PCB	2M PYTHON
CONNECTOR SELECTOR				OF	OF	OF			
	NICOMATIC	ITT CANNON	AMPHENOL CANADA	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPACE	AMPHENOL AEROSPA
Application	Satellites, Launchers, Rovers	SATELLITES, LAUNCHERS, ROVERS	Satellite, Rovers	Satellites, Launchers	Launchers	Launchers, Space Operations	Satellites, Space Hotels	Rovers	Satellite
Hermetic	No	No	Available	Available	Available	Available	Available	Available	Available
RoHS Compliant	No	Available	Available	Available	Available	Available	Available	Available	Available
Wire Gauge Range	30 to 24	32 to 24	32 to 24	20 to 12	20 to 12	20 to 12	28 to 24		20 to 12
Number of Circuits	2 to 60	9 to 100	9 to 148	1 to 130	1 to 130	1 to 130	2 to 79	1 to 130	1 to 130
EMI/RFI Shielding	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style	Rectangular	Rectangular	Rectangular	Circular	Circular	Circular	Circular	Circular	Circular
Operating Voltage	Up to 750 VAC	200 VAC	600 VAC	Up to 1800 VAC	Up to 1,800 VAC	Up to 1,800 VAC	Up to 1,800 VAC	Up to 1,800 VAC	Up to 1,800 VAC
Current Rating (Amps)	3.4	3	3	23	20	20	20	20	20
Power & Signal on Same Layout	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Operating Temperature	-85°F to 200°F -65°C to 260°C	-85°F to 257°F -65°C to 125°C, (High-temp) -85°F to 392°F -65°C to 200°C	-67°F to 302°F -55°C to 125°C	-85°F to 347°F -65°C to 175°C	-67°F to 392°F -55°C to 200°C	- 67°F to 392°F -55°C to 200°C	-40°F to 185°F -40°C to 85°C.	-67°F to 392°F -55°C to 200°C	-67°F to 392°F -55°C to 200°C
Type of Coupling	Screwlocks	Screwlock, Jackpost	M83513	Push Pull Bayonet, Triple & Dual-Lead Threaded	Tri-Start Threaded	Push Pull Bayonet, Triple & Dual- Lead Threaded	Push Pull, Bayonet, Triple-Lead Threaded	Push Pull Bayonet, Triple & Dual-Lead Threaded	Push Pull Bayonet, Triple & Lead Threaded
Life in Mating Cycles (min.)	500	500	500	250/2000	500		500		
Shell Material	High Performance Glass Fiber Composite	Aluminum Alloy	Aluminum, Thermoplastic	Aluminum, Stainless Steel	Aluminum, Stainless Steel, Passivated Stainless Steel	Stainless Steel	Aluminum, Stainless Steel, Passivated Stainless Steel	Aluminum, Stainless Steel, Passivated Stainless Steel	Aluminum, Stainless St Passivated Stainless S
Shell Plating	-	Cadmium, Electroless Nickel	Anodized, Zinc Nickel (Black Chromate), Cadmium (Yellow Chromate), Olive Drab Cadmium, Electroless Nickel, Gold, Nickel Teflon	Electroless Nickel, Black Anodized, Cadmium, Durmalon, Passivated, Zinc-Nickel (black or green)	Electroless Nickel, Stainless Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Passivated and Electrolytic Nickel	Electroless Nickel, Stainless Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Electroless Nickel, Stainless Steel, Olive Drab Cadmium, Durmalon, Black Zinc-Nickel	Electroless Nickel, Stain Steel, Olive Drab Cadmi Durmalon, Black Zinc-Ni
Positive Shell Polarization	Available	Available	Available	Available			Available		
Insert Polarization Options		Keystone-shaped shells	Available	Available			Available		
Standard/Associated Specs.	MIL-DTL-83513- G & MIL-DTL- 55302-G	MIL-DTL-83513			MIL-STD-810				
Contact Plating	Gold	Gold	Gold over Nickel	Gold	Gold or Copper Alloy		Gold		
Shock Test (g's)	160	50	50	300	300		250	300	
Vibration Test (g's)	45g	20	20	37	43.9		10		
Shell Color	Black	Silver or Yellow		Olive Drab, Silver, or Bronze	Green, Silver, or Black		Green, Silver, or Black	Silver	Green, Silver, or Black
User Polarization	Yes	No	Yes	No			Yes		
Crimp	Х	Х	Х	Х	Х		Х	Х	Х
Solder		Х	Х	Х	Х	Х	Х		Х
Printed Circuit Solder		Х	Х	Х	Х	Х	Х	Х	
Printed Circuit Press Fit			Х	Х				Х	
Thermocouple			Х						
Wire Wrap									
Coax		X	Х				Х		
		Х	Х				Х		
Pre-Terminated									
Pre-Terminated Fiber Optic			Х				Х		
Pre-Terminated		х	x x				X		

		MICRO-MINIATURE CIRCULAR		MODULAR POWER & SIGNAL	MODULA	R POWER & SIGNAL		PUSH PULL	
///////////////////////////////////////	KPD SERIES	M SERIES	MKJ SERIES	OPTIMUS EN4165	SIM EN4165	SP MAX	B SERIES	F SERIES	HDx™ SERIES
CONNECTOR SELECTOR	017	6			STATE STATE			Ĩ	
///////////////////////////////////////	ITT CANNON	LEMO	ITT CANNON	NICOMATIC	AMPHENOL PCD AMPHENOL AIR LB FRAN	POSITRONIC	LEMO	LEMO	ITT CANNON
Application	Launchers, Space Hotels, Rovers	Satellites, Launchers, Space Hotels	Satellites, Launchers, Space Operations, Rovers, Space Hotel	Launchers	Launchers	Satellites	Satellites, Launchers, Space Hotels	Satellites, Launchers, Space Hotels	Launchers, Space Operations, Rovers
Hermetic	Available	Available	No	No	No	No	Available	Available	Available
RoHS Compliant	Available	Available	Available	No	Available	Available	Available	Available	Available
Wire Gauge Range	24 to 20	32 to 1	28 to 8	22 to 8	23 to 8	26 to 10	32 to 0	32 to 18	28 to 22
Number of Circuits	2 to 4	1 to 114	1 to 130	1 to 20	1 to 30	6 to 64	2 to 64	2 to 66	9 to 16
EMI/RFI Shielding	Yes	Yes	Available	Yes	Yes	Yes	Yes	Yes	Yes
Style	Circular	Circular	Circular	Rectangular	Rectangular	Hybrid Rectangular	Circular	Circular	Circular
Operating Voltage	1500 to 2300 VAC RMS at Sea level. 375 to 500 VAC RMS at 70,000 Ft altitude	Up to 1,000 VAC	Up to 1800 VAC	Up to 1,500 VAC	Up to 1,800 VAC	Up to 600 VAC	Up to 3,000 VAC	Up to 1,000 VAC	Up to 250 VAC
Current Rating (Amps)	7.5	Up to 430	Up to 46	5 to 46	5 to 80	35	Up to 50	Up to 15	Up to 5
Power & Signal on Same Layout	Signal only	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
Operating Temperature	-67°F to 257°F -55°C to 125°C	-67°F to 392°F -20°C to 200°C	-85°F to 347°F 65°C to 175°C	-67°F to 392°F -55°C to 175°C	-67°F to 392°F -55°C to 175°C	-67°F to 392°F -55°C to 175°C	-67°F to 482°F -55°C to 250°C	-67°F to 392°F -55°C to 200°C	-59.8°F to 257°F -51°C to 125°C
Type of Coupling	Bayonet	Ratcheted Twist	Push-Pull, Bayonet, Breakaway, Triple & Double Start Threaded	Rack, Coupling Screw	Push Pull, Rack, Coupling Sc	rew Jackscrews, Keying Guides, Quick Locking System	Push Pull	Push Pull	Breakaway or Locking
Life in Mating Cycles (min.)	500	3,000	Up to 2,000	500	500	500	5,000	1,000	5,000
Shell Material	Aluminum Alloy and steel passivated	Aluminum or Brass	Aluminum Alloy, Stainless Steel	Aluminum	Aluminum Alloy, Thermoplas	stic Aluminum	Brass, Aluminum, or Stainless Steel	Aluminum or Brass	Brass
Shell Plating	Olive Drab Chromate Coating Over Cadmium Plating or Electroless Nickel	Anthracite Nickel or Chrome	Black Zinc Nickel, Electroless Nickel, Cadmium, Passivated, Teflon Nickel	Black Nickel, Olive Drab Cadmium	Black Nickel, Olive Drab Cadn Bright Nickel	nium, Electroless Nickel, Electroless Nickel PTFE	Chrome or Anodize	Anthracite Nickel or Chrome	Ruthenium, over Electroless Nickel
Positive Shell Polarization	Yes	Available	Available	No	No	Available	Available	Available	Available
Insert Polarization Options	Yes	Available	No	Available	Available	Available	Available	Available	Available
Standard/Associated Specs.	NASA 40M38298 and 40M39569	-	Nett Warrior (MKJ4)	EN4165	EN4165	Performance compatibility to EN4165 and DO-160	-	-	
Contact Plating	Gold	Gold	Gold	Gold	Copper or Aluminum	Gold flash, 0.76µm Au (min) over 0.76µm Ni (min) over Cu, 1.27µm Au (min) over 1.52µm Ni (min) over Cu	Gold	Gold	Gold
Shock Test (g's)	50 G's +/-15%	300	300	1 shock/direction of each axis, half sinus form, amplitude 100g, duration 6ms	1 shock/direction of each a half-sinusoidal form, amplitu 100gn, duration 6ms.	tis, Ide EIA 364-27 Condition D	100	100	50
Vibration Test (g's)	MIL STD 1344, Method 205, Test Condition II	30	30	Random Frequency from 10 to 2000Hz, spectral density	Random Frequency from 10 2000Hz, spectral density 0.4 Hz, 8h/axis		15	15	15
Shell Color	Silver or Olive drab	Anthracite Nickel or Matte Chrome	Olive Drab, Silver, Black	Olive Drab, Gray, Silver	Olive Drab, Gray, Silver, and E	Black Silver	Matte Chrome or Black	Anthracite Nickel or Matte Chrome	Dark Gray
User Polarization		No	No	Yes	Yes	Yes	No	No	No
Crimp	Х	Х	Х	Х	Yes	Х	Х	Х	
Solder	Х		Х			Х	Х		Х
Printed Circuit Solder	Х	Х	Х	Х	Х	Х	Х	Х	Х
Printed Circuit Press Fit					X	Х			
Thermocouple	Х	Х				Х	Х	Х	
Wire Wrap									
Coax		х			Quadrax, Concentric, and Differential Twinax Module Available		х		
Pre-Terminated					Х	Х			
Fiber Optic		Х	Х		Х	Х	Х	Х	
High Voltage	Х				Х	Х	Х		
First-Mate Last-Break						Х	Х		
28		*SEALING METHODS MAY VARY					*SEALING METHODS MAY VARY		29

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	K SERIES	RNJ SERIES	ZMMA SERIES	ZR393 SERIES	NANO (M32139 TYPE)	RMM	BACKSHELLS	2M BACKSHELLS
CONNECTOR SELECTOR								9
	LEMO	AMPHENOL SOCAPEX	AMPHENOL CANADA	AMPHENOL CANADA	ITT CANNON	AMPHENOL CANADA	AMPHENOL PCD	AMPHENOL AEROSPACE
Application	Satellites, Launchers, Space Hotels	Launchers, Space Hotels	Launchers	Launchers	Space Operations, Launchers, Rovers, Satellites	Satellites, Launchers	Satellites, Launchers	Launchers
Hermetic	Available	Available	Available	Available	No	No		
RoHS Compliant	Available	Available	Available	Available	Available	Available	Available	Available
Wire Gauge Range	32 to 0	28 to 12	30 to 0	30 to 8	32 to 30	26 to 24	-	
Number of Circuits	2 to 64	3 to 128	1 to 9999	1 to 9999	9 to 51	2 to 32	-	
EMI/RFI Shielding	Yes	No	Yes	Yes	No	No	Yes	Yes
Style	Circular	Circular	Rectangular	Rectangular	Rectangular	Rectangular	Straight, 45° and 90°	
Operating Voltage	Up to 3000 VAC	Up to 1,250 VAC	Up to 1500 VAC	Up to 1500 VAC	200 VAC	Up to 800 VAC		
Current Rating (Amps)	Up to 50		Up to 500	Up to 500	1		-	
Power & Signal on Same Layout	Yes		Yes	Yes	No	Yes	-	
Operating Temperature	-67°F to 392°F -55°C to 200°C	-85°F to 347°F -65°C to +175°C	-85°F to 257°F -65°C to 125°C	-85°F to 257°F -65°C to +125°C	-67°F to 257°F -55℃ to 125℃	-76°F to 302°F -60°C to +150°C	-85°F to 347°F -65°C to 175°C	-85°F to 347°F -65°C to 175°C
Type of Coupling	Push Pull		ARINC 600	AS39029	Scewlock, Jackpost	Custom	Self Locking	
Life in Mating Cycles (min.)	5,000	500	500	500	500	500	10	
Shell Material	Brass, Aluminum, Stainless Steel	Aluminum	Aluminum	Aluminum	Aluminum Alloy, Steel	Thermoplastic	Aluminum	Aluminum, Stainless Steel
Shell Plating	Chrome or Anodize	Olive Drab, Nickel	Anodized, Zinc Nickel (Black Chromate), Cadmium (Yellow Chromate), Olive Drab Cadmium, Electroless Nickel, Gold, Nickel Teflon	Anodized, Zinc Nickel (Black Chromate), Cadmium (Yellow Chromate), Olive Drab Cadmium, Electroless Nickel, Gold, Nickel Teflon	Cadmium, Electroless Nickel	-	Elecroless Nickel, Cadmium, Black Zinc Nickel	Electroless Nickel, OD Cad, Durmalon, Black Zinc Nickel, OD Zinc Nickel, Black Electroless Nickel, AP 93
Positive Shell Polarization	Available		Available	Available	Available	Available	-	
nsert Polarization Options	Available		Available	Available	No	No	-	
Standard/Associated Specs.	-	DAT C 5935 x 0005 HE308 21, 25, 26 & 27T					-	
Contact Plating	Gold	Gold	Gold over Nickel	Gold over Nickel	Gold	Gold over Nickel		
Shock Test (g's)	100	150g 3 m/s 1/3 sinus	50	50	100	50	1/2 Sine 100G 6Milli sec	
Vibration Test (g's)	15	28g	20	20	20	20	43.92 50-200Hts Frequency	
Shell Color	Matte Chrome or Black				Silver or Yellow			Silver, Black, Green
Jser Polarization	No	No	Yes	Yes		No		
Crimp	Х	Х	Х	Х	х	Х		
Solder	Х		Х	Х		Х		
Printed Circuit Solder	Х	Х	Х	Х	Х	Х		
Printed Circuit Press Fit			Х	Х		Х		
Thermocouple	Х		Х	Х		Х		
Wire Wrap		Х						
Coax	Х		Х	Х		Х		
Pre-Terminated			Х	Х		Х		
Fiber Optic	Х		Х	Х				
High Voltage	Х		Х	Х		Х		
First-Mate Last-Break	Х		Х	Х				

*SEALING METHODS MAY VARY

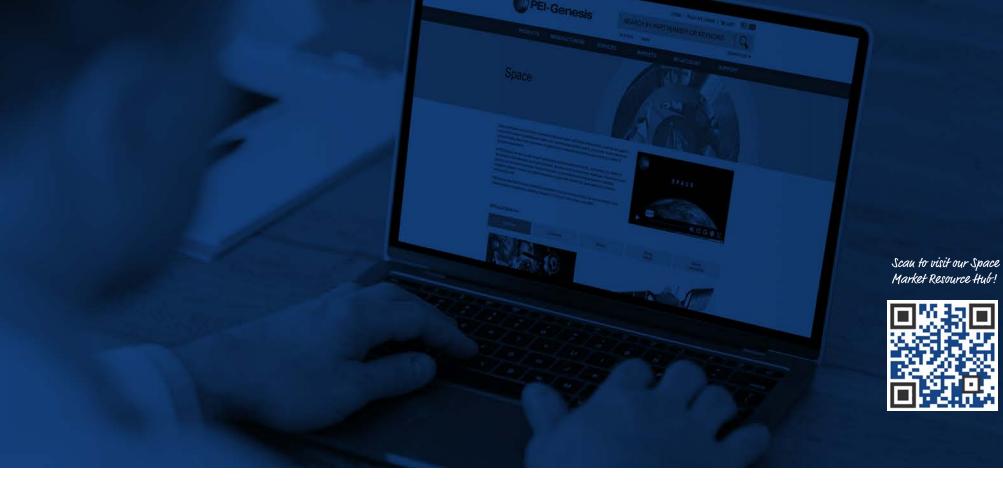


	AMPHENOL SV MICROWAVE	AMPHENOL SV MICROWAVE	AMPHENOL SV MICROWAVE	AMPHENOL SV MICROWAVE	
Coupling	Threaded	Threaded	Threaded	Push-On	
Body Finish	Passivated	Passivated	Passivated	Passivated	
Cable Type	.047 / .085 Flexible Coax	.047 / .085 / .141 Flexible Coax	.047 / .085 / .141 Flexible Coax	.047 / .085 Flexible Coax	
Frequency	50 GHz	40 GHz	18 GHz	18 GHz, 26.5 GHz, 40 GHz available	
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	
Shielding Effectiveness	≥-100dB	≥-100dB	≥-90dB	≥ -80 dB DC - 3 GHz, ≥ -65 dB 3 - 26.5 GHz	
Dielectric Withstanding Voltage	500 VRMS	750 VRMS	1000 VRMS	500 VRMS	
Mating Cycles	500	500	500	LD - 500, FD - 100, SB - 1000	
Intermateability	1.85mm	SMA	2.92mm	N/A	
Temperature Rating	-85°F to 329°F -65°C to +165°C				
Vibration	MIL-STD-202, Method 204, Condition D				
Corrosion (salt spray)	MIL-STD-202, Method 101, Condition B				
Shock	MIL-STD-202, Method 213, Condition I				
Moisture Resistance	MIL-STD-202, Method 106, Less Step 7B	MIL-STD-202, Method 106, Less Step 7B	MIL-STD-202, Method 106, Less Step 7B	MIL-STD-202, Method 106, Less Step 7B	
Thermal Shock	MIL-STD-202, Method 107, Condition B				
Barometric Pressure (Altitude)	MIL-STD-202, Method 105, Condition C, 70k Ft.				
			*Also available in BG cable		

*Also available in RG cable types

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CONNECTOR
SELECTOR
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CONNECTOR	MAXGAIN® CONNECTORS & ASSEMBLIES MGS-300	MAXGAIN® CONNECTORS & ASSEMBLIES MGS-200	MAXGAIN® CONNECTORS & ASSEMBLIES MGS-160	MAXGAIN® CONNECTORS & ASSEMBLIES MGS-130	INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES IBPS-092	INSTABEND® PHASE STABLE CONNECTORS & ASSEMBLIES IBPS-047
//////////////////////////////////////	62	82	53	8.2 ·	7	7
	TIMES MICROWAVE	TIMES MICROWAVE				
Connector 1	SMA Male Straight	SMA or Type K Male Straight	SMA or 2.92mm Male Straight	2.4mm Male Straight	SMA, Type K Male Straight or Mini SMP Female	SMA Male, Type K Male or Female Straight
Connector 2	SMA Male Straight	SMA or Type K Male Straight	SMA or 2.92mm Male Straight	2.4mm Male Straight	SMA, Type K Male Straight or Mini SMP Female	SMA Male, Type K Male or Female Straight
Connector Loss (per pair)	0.06 x √f (GHz)	0.06 x √f (GHz)	0.08 x √f (GHz)	0.08 x √f (GHz)	0.06 x √f (GHz)	0.06 x √f (GHz)
Center Conductor	Silver Plated Copper	Silver Plated Copper	Silver Plated Copper	Silver Plated Copper	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel
Dielectric	Microporus PTFE	Microporus PTFE	Microporus PTFE	Microporus PTFE	TF4® Dielectric	TF4® Dielectric
Shield	Silver Plated Copper	Silver Plated Copper Flat Braid				
Interlayer	Metalized Tape	Metalized Tape	Metalized Tape	Metalized Tape	Metalized Polyimide Tape	N/A
Outer Braid	Silver Plated Copper	Silver Plated Copper	Silver Plated Copper	Silver Plated Copper	Silver Plated Metal Clad Fiber	Silver Plated Copper
Jacket	Blue FEP	Blue FEP	Blue FEP	Blue FEP	Black Tefzel	Blue FEP
Diameter	.314"	.201"	.159"	.130"	.103"	.062"
Weight	0.093 lbs/ft	0.037 lbs/ft	0.026 lbs/ft	0.018 lbs/ft	.0113 lbs/ft	.031 lbs/ft
Min Bend Radius	1.75"	1.25"	0.75"	0.625"	0.50"	0.25"
Max Frequency	18 GHz	30 GHz	40 GHz	53 GHz	40 GHz	40 GHz
Velocity of Propagation	81%	80%	80%	80%	79.50%	76.00%
Capacitance	24.8 pF/ft	25.4 pF/ft	25.4 pF/ft	25.4 pF/ft	25.4 pF/ft	26.7 pF/ft
Delay	1.25 ns/ft	1.27 ns/ft	1.27 ns/ft	1.27 ns/ft	1.24 ns/ft	1.25 ns/ft
Shielding Effectiveness	>90dB	>90dB	>90dB	>90dB	-90dB	>80dB
Impedance	50 Ohms	50 Ohms				
Temperature Rating	-67°F to 302 °F -55°C to +150°C	-85°F to 302 °F -65°C to +150°C	-85°F to 302 °F -65°C to +150°C			
Insertion Loss @ 1m*	1.21dB @ 18 GHz	1.43dB @ 30 GHz	1.98dB @ 40 GHz	1.87dB @ 50 GHz	1.06dB @ 40 GHz	1.45dB @ 40 GHz
Insertion Loss @ 2m*	2.09dB @ 18 GHz	2.31dB @ 30 GHz	3.41dB @ 40 GHz	2.64dB @ 50 GHz	1.29dB @ 40 GHz	1.94dB @ 40 GHz
Insertion Loss @ 3m*	2.64dB @ 18 GHz	4.07dB @ 30 GHz	4.81dB @ 40 GHz	6.62dB @ 50 GHz	1.53dB @ 40 GHZ	2.43dB @ 40 GHZ
Max VSWR*	1.25 @ 18 GHz	1.35 @ 30 GHz	1.40 @ 40 GHz	1.40 @ 50 GHz	1.35 @ 40 GHz	1.35 @ 40 GHz



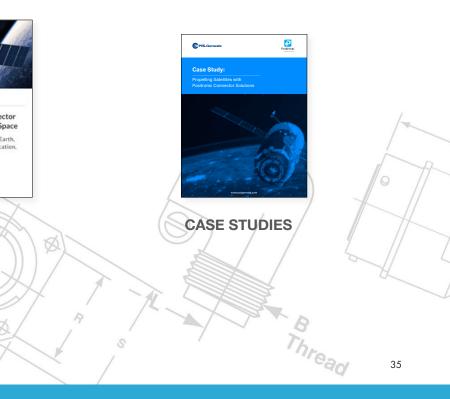
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