# **RF CONNECTOR** & CABLE SOLUTIONS

PEI-Genesis is your global partner for a broad range of interconnect and cable solutions, specializing in harsh environments and industrial applications. With over \$100 million of connector inventory from industry-leading manufacturers, our dedicated team of engineers and specialists provide superior standard and custom solutions.

## **Amphenol<sup>®</sup> RF**

Amphenol RF solutions include waterproof IP-rated, nonmagnetic, QPL military approved, 12G SDI, ruggedized, board-to-board, low PIM, high-frequency, quicklocking, ultra-miniature and tamper resistant options.



Designs and manufactures RF/Microwave coaxial connectors, cable assemblies and passive components designed for military, IoT, 5G, satellite, high speed, aerospace, commercial and telecommunications applications.



#### Micro-Mode

A leader in RF and microwave components, catering to wireless communication, aerospace, and defense industries for over 50 years. Their extensive product line includes RF exonnectors, adapters, terminators, and tools, tailored for diverse applications.







The breadth of products available within the Johnson range includes board and cable mount connectors as well as semi-rigid, conformable, and flexible RF coaxial cables, with so many configurations available with same and between series adapters.

#### **MIDWEST MICROWAVE**

Midwest offers a range of products for military and commercial applications, including Attenuators, Adapters, Terminations, Power Dividers, Couplers, and more. They also provide QPL-approved products in several series.



www.peigenesis.com sales@peigenesis.com 866.734.9111 (North America) +44 (0) 23 8062 1260 (Europe) +86 756 7683 088 (Asia)

Times Microwave designs and manufactures highperformance coaxial cables, connectors, and custom solutions for demanding applications such as aerospace, military and defense, wireless infrastructure, and more.

#### **SEMFLEX**

Semflex offers cost-effective solutions with a broad line of RF and microwave products, providing rapid turnaround time for new designs and high-quality products. The cable assemblies and connectors are specifically designed for optimal electrical, mechanical, and environmental performance.

#### TROMPETER

Trompeter provides MIL-STD-1553B products such as couplers, connectors, cable assemblies, terminations, RFI caps, and adapters. They also supply Triax interconnect solutions for precision Test and Measurement applications and are a key supplier to the Video and Broadcast markets.



### **RF QUICK REFERENCE GUIDE**

Product		RF Band	Brands	Markets	Parametric Data						
					Coupling Type	Impedance	Temperature Rating	Power handling	Insertion Loss	Cable Termination Style	Connector Family
Twinax	1 TO	Up to 200 MHz (extendable to 500 MHz with caution)	Amphenol RF Cinch - Trompeter	Broadband, Military, Instrumentation	Threaded, Bayonet	Non-Constant 50 Ohm (can be used with 50, 75, 93 Ohm)	-55°C to +85°C (PTFE) -45°C to +121°C (Rexolite)	Not rated	Not rated	Crimp, Solder	Standard
UHF		Up tp 300 MHz, Extendable to 1 GHz	Amphenol RF	Antenna, Military, DAS, Public Safety, Low Freq. Application	Threaded	Non-Constant 50 Ohm	-65°C to +165°C (-55°C to +85°C for Rexolite)	500 W @ 100 MHz @ 25°C	Not rated	Crimp, Solder	Standard
Triax		Up to 300 MHz (Triax-C) Up to 500 MHz (Triax BNC, TNC)	Amphenol RF Cinch - Trompeter	Industrial, Military, Instrumentation	Threaded, Bayonet	Non-Constant (can be used with 50, 75, 93 Ohm)	-55°C to +85°C (PTFE) -45°C to +121°C (Rexolite)	Not rated	Not rated	Crimp, Solder	Standard
SMB		Up to 4 GHz, Extendable to 10 GHz	Amphenol RF Cinch - Johnson	Antennas, Telecom, Radio Boards, PC/LAN, GPS, Satcom, Base Stations, Instrumentation	Threaded, Push-On	50 Ohm	–65°C to +165°C	95 W @ 1 GHz @ 25°C	.30 dB @ 1.5 GHz Max (Straight) .60 dB @ 1.5 GHz Max (Right Angle)	Crimp, Clamp, PCB, Solder, End Launch	Sub-Miniature
BNC	Co Co	Up to 4 GHz, Extendable to 12 GHz	Amphenol RF Cinch - Trompeter	Wireless, SATCOM, Military, Medical, Broadcast, Telco, LAN, Instrumentation	Bayonet	50, 75 Ohm	–65°C to +165°C	316 W Max @ 1 GHz @ 25°C	0.2 dB Max @ 3 GHz	Crimp, Clamp, Solder, Twist On	Miniature
ммсх	Ť.	Up to 6 GHz	Amphenol RF Cinch - Johnson	Antennas, Instrumentation, Satcom, Base Stations, Telecommunications, Broadband, GPS	Snap-On	50 Ohm	-40°C to +90°C	63 W Max @ 1 GHz	.1 √(f(GHz)) dB Max	Crimp, Solder, Press Fit	Sub-Miniature
UMC		Up to 6 GHz	Amphenol RF Cinch - Johnson	PC, Wireless LAN, Mobile Phones, GPS, Bluetooth, Microwave Radio	Snap-On	50 Ohm	-40°C to +90°C	14W @ 1 GHz @ 25°	0.1dB max @ 3 GHz, 0.15dB max @ 6GHz	PCB	Ultra-Miniature
Ν	Ø	Up tp 11 GHz, Extendable to 18 GHz	Amphenol RF	Antenna, Military, Instrumentation, Radar, Broadcast	Threaded	50, 75 Ohm	-65°C to +165°C (-40°C to +85°C for Phosphor Bronze contact)	300 W @ 10 GHz @ 25℃	0.15 dB Max @ 9 GHz (straight) 0.30 dB Max @ 10 Gz (right angle)	Crimp, Clamp, Solder, PCB Mount, others	Standard
TNC	10	Up tp 11 GHz, Extendable to 18 GHz	Amphenol RF SV Microwave	Antenna, Industrial, Wireless, Military, Broadband	Threaded	50, 75 Ohm	–65°C to +165°C	316 W Max @ 1 GHz @ 25°C	0.18 dB Max @ 9 GHz (straight) 0.21 dB Max @ 9 Gz (right angle)	Crimp, Clamp, Solder, Twist On	Miniature
МСХ	Ì	Up to 12 GHz	Amphenol RF Cinch - Johnson	WLAN, GPS, PC/LAN, Automotive, Base Station, Head End, Radios, Antennas, Instrumentation, Telecommunications	Snap-On	50 or 75 Ohm	–65°C to +165°C	95 W Max @ 1 GHz @ 25 °C	0.10 db Max @ 1 GHz	Crimp, PCB, Solder, End Launch	Sub-Miniature



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					Coupling Type	Impedance	Temperature Rating	Power handling	Insertion Loss	Cable Termination Style	Connector Family
SMA	Não.	Up tp 18 GHz, Extendable to 34 GHz	Amphenol RF SV Microwave Cinch - Johnson	Antenna, Instrumentation, Wireless, PC/LAN	Threaded	50 Ohm	-65°C to +165°C (-40°C to +85°C for Phosphor Bronze contact)	75 W @ 10 GHz @ 25℃	0.06 √(f(GHz)) dB Max	Crimp, Solder	Sub-miniature
BMA	C.	Up to 22 GHz	SV Microwave	Military, Aerospace, Microwave applications	Push-On, Snap-On	50 Ohm	–65°C to +165°C	Not rated	Not rated	Crimp, Solder, PCB Mount, others	Sub-miniature
SMP	TA	Up tp 26.5 GHz, Extendable to 40 GHz	Amphenol RF SV Microwave Micro-Mode Cinch - Johnson	Antenna, Instrumentation, Military, Broadband, Medical, Quantum Computing	Push-On, Snap-On	50 Ohm	−65°C to +165°C	32 W @ 1 GHz @ 25°C	0.1 √(f(GHz)) dB Max	Crimp, Solder, PCB Mount, others	Sub-miniature
SMPM		Up tp 26.5 GHz, Extendable t 65 GHz	Amphenol RF SV Microwave Micro-Mode Cinch - Johnson	Antenna, Instrumentation, Military, Broadband, Medical, Quantum Computing	Push-On, Snap-On	50 Ohm	–65°C to +165°C	16 W @ 1 GHz @ 25°C	0.1 √(f(GHz)) dB Max	Crimp, Solder, PCB Mount, others	Micro-miniature
SMPS	O	Up tp 26.5 GHz, Extendable to 65 GHz	SV Microwave Micro-Mode	Military, Aerospace, Board-to- board, High-density multiport, Instrumentaion	Push-On, Snap-On	50 Ohm	–65°C to +165°C	Not rated	Not rated	Solder	Micro-miniature
2.92mm		Up to 40 GHz	SV Microwave Cinch - Johnson	Military, SATCOM, Microwave, Instrumentaion, Quantum computing	Threaded	50 Ohm	–65°C to +165°C	Not rated	Not rated	Solderless, Solder	Sub-miniature
2.4mm	100	Up to 50 GHz	SV Microwave	Military, Aerospace, PCB, High- density multiport, Instrumentaion	Threaded	50 Ohm	–65°C to +165°C	Not rated	Not rated	Solderless, Solder	Sub-miniature
1.85mm	A Constant	Up to 65 GHz	SV Microwave Cinch - Johnson	Military, Aerospace, SATCOM, Test & Measurement	Threaded	50 Ohm	-65°C to +165°C	-	.04 √ f (GHz) dB max	PCB, Solder, End Launch	Sub-Miniature