









PARIS AIR SHOW

At Le Bourget: Powering Aviation, Enabling Mobility, Elevating Space

At Radiall, we're shaping the future of flight with cutting-edge interconnect solutions that empower airframers to achieve bold sustainability goals. For over seventy years, our innovations have connected the world, driving progress across every horizon. Today, we stand at the forefront of technology--from soaring commercial aircraft and satellites to advanced defense systems--fueling a cleaner, smarter tomorrow.



















E-LIGHT™ TRANSCEIVER

Compact Form Factor with ARINC 801 Disconnect

The Radiall optoelectronic transceiver range expands with the E-Light package.

Engineered for demanding environments, this transceiver features a compact design and an ARINC 801 optical contact disconnect for enhanced performance and reliability.

The E-Light package is built to endure mil/aero environments and meets industry standards (ARINC, MIL). Featuring both optical and electrical disconnects, it streamlines handling on the host board. The transceiver is electrically pluggable and securely screw-mounted, while the optical patch cord offers a tool-free disconnect with a locking system for added convenience.

FEATURES & BENEFITS

- Qualified for harsh environments
- Small form factor
- Tool-less removable optical patch cord with ARINC 801 contact
- High optical link budget

- Digital video communication
- Radar
- Sensor interconnects
- Data processing
- · Industrial data links



Q-MTITAN™

Ruggedized, High-Density MT Quadrax Contact Solution

Q-MTitan™ ARINC 846 protects an MT ferrule and fits inside size 8 Quadrax cavities to provide high-density optical connectivity in harsh environments.

Q-MTitan[™] ARINC 846 has been designed to allow the mating of a minimum of 12 optical channels in size 8 Quadrax cavities of off-the-shelf multipin connectors such as MIL-DTL-38999, QuickFusio[™], ARINC 600, EPX® EN4644 and EN4165 connectors.

FEATURES & BENEFITS

- Protection of the MT ferrule for a ruggedized and sealed optical multifiber connection
- Easy retrofit of single size 8 Quadrax cavity into 12 or 24 fiber optic channels
- High-density optical contact compatible with ribbon and round cable
- Innovative and user-friendly solution: insertion and extraction using size 8 extraction tool
- Convenient and efficient visual inspection and cleaning kits available

- For all applications requiring high density and/or high count of fiber optic channels, such as:
 - Radar
 - *IFE* (in-flight entertainment)
 - Displays
 - UAVs
 - Space







MCC12

High RF Performances with Robust Size 12 Interface

Slide-on high frequency coaxial contacts, for use in standard multipin connectors such as circular type MIL-STD-38999 or rectangular type ARINC-600.

MCC12 is a size 12 contact rated DC - 40 GHz, and suitable for 38999, NSX, MPX and EPX^{TM} connectors.

FEATURES & BENEFITS

- DC 40 GHz
- Harsh environment
- Blind mating
- Robust interface

- Avionics
- EWIS
- Radio communications
- Electronic warfare and radars
- Missile



QUICK INSTALL

High-Density Lightweight Quick Connect

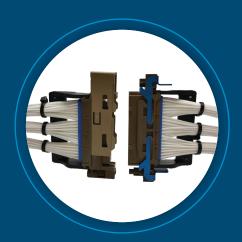
Quick Install is a high-density, lightweight, versatile and easy-to-use connector, making it the ideal solution for harsh environment applications.

Designed to address commercial aircraft signal, fiber and power distribution, Quick Install Radiall connectors can be the perfect solution for severe environment equipment and applications where density, weight and slim form factor is key. The Quick Install Range offers a wide range of products, to carry signal, power, fiber optics HF or data. Available in disconnect (cable-to-cable) or equipment (cable-to-PCB), Quick Install has been designed to simplify customer's work and total cost of ownership: instant assembly on the frame, instant tool-less mating, self inspection features allowing you to remove control steps.

FEATURES & BENEFITS

- 80% installation time saving: tool-less instant mating
- Self inspection (visual and sensitive indication of locking)
- Compact (slim shape)
- Lightweight (15% lighter than competition)
- FOD proof (foreign object damage): no screw
- Signal, power, data, HF compatible
- Temperature range: -55 °C to +175 °C
- Vibration: 16.9 Grms
- Mating/unmating: 100 cycles
- Corrosion salt spray: 96 h
- Altitude immersion: 50 kft

- EWIS (Electrical Wire Interconnect Systems)
- Equipment connection
- UAM / eVTOL (slim form factor & lightweight)
- New space satellites (power, signal, fiber, data)
- Industrial and transportation







QUICK SLIM CONNECTOR

A Shielded Modular Connector

The Quick Slim has been designed to protect the most critical electrical signals from electromagnetic interferences and guarantee a safe flight.

This new metalized composite connector provides exceptional performance, weight reduction and ground block or shielded backshell to easily ground the wire shields or target full EMI protection.

FEATURES & BENEFITS

- · Reduced weight
- Visible red mark
- Panel density
- Cam added to guarantee safe lock
- Slide technology

- Aircraft and equipment manufacturers
- Disconnect applications
 - Panel mount
- Cable-to-cable connection
 - EWIS



QUICKFUSIO®

Where Connectivity Meets Creativity

Radiall's QuickFusio[™] connector offers cost-saving benefits to aerospace and other harsh environment markets with a user-friendly installation approach. The QuickFusio[™] delivers a versatile selection of products designed to transmit signal, power, fiber optics, HF and data with efficiency and ease.

Radiall's groundbreaking QuickFusio™ connector series offers many advantages including a design that enables quick mating with the use of only one finger. The product's easy mating combined with its competitive price point are key factors in lowering the total cost of ownership for customers seeking rapid-mating interconnect solutions.

FEATURES & BENEFITS

- Cost effective
- · Lightweight 20 g
- Tool-less and quick mate
- Compact size
- Secure lock
- High performance
- Composite with high-conductive nickel plating
- Uses standard SAE-AS-38999 series 2 contacts
- Uses standard size 11
- SAE-AS-38999 rear accessories
- RoHS compliant

- Aerospace and other harsh environments
- Fuselage, cockpit and cabin
- *IFE* (in flight entertainment)
- Seat wiring
- EWIS
- Harness-to-harness connection
- Harness-to-equipment connection







EPX®

The High Density Solution

The EPX® Series offers a wide range of solutions based on two insert sizes with a large variety of shells and contacts. This product range provides an excellent trade-off between the number of available contacts and the space used.

The EPX® Series is completely modular and expandable.

FEATURES & BENEFITS

- 20% space savings compared to 38999
- Modular design allows for customization
- Available in rack & panel or disconnect style
- Options for EMI shielding available

- Disconnect or Rack & Panel application in aerospace civil industry
- Secondary power distribution
- Avionic bays on military airplanes and helicopters (radio, radar, calculators, screens, etc.)
- Ground military applications



NSX

Complementary Connector Solution

Radiall's comprehensive backshell offering provides reliable and easy-to-install solutions for EMI/RFI shielding and strain relief to respond to today's aerospace market challenges for increasing data rates and growing performance requirements.

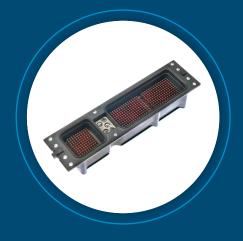
From off-the-shelf solutions to custom designs, Radiall's comprehensive range provides the widest array of solutions to meet customer requirements. By offering the perfect combination of robustness and flexibility, customers receive a unique and competitive solution.

Utilizing Radiall's expertise in rectangular connectors, an innovative backshell solution was designed in order to offer customers a reliable solution. NSX ARINC 600 backshells feature FOD-proof hardware and a unique adapter plate system. This exclusive design guarantees the insert position in the ARINC 600 connector and improved EMI shielding while preserving the integrity and performance of the electrical system.

FEATURES & BENEFITS

- SAE AS85049 Cat IIIB design
- Aluminum alloy per SAE AMS-QQ-A-250
- Electroless nickel finish per AMS-2404
- · Screws and washers: corrosion resistant material

- Avionics
- Aeronautical equipment







MPX

Developed for Harsh Environments

The Radiall MPX series is a robust rectangular connector for Rack & Panel applications compliant with the MIL-DTL-83527B specification and EN 3682 European Standard.

This series is well suited for military applications and commercial aircraft where harsh environmental issues are a concern.

In response to the market demand for higher bandwidth, density and reliability, Radiall MPX connectors integrate Physical Contact (PC), Expanded Beam (EB) and Multifiber (MT based) optical solutions.

FEATURES & BENEFITS

- High density connectors
- Compliant and qualify with optical solution
- Wide range of accessories
- Compliant with the MIL-DTL-83527B specification and EN 3682 European Standard

- Avionic bays on military airplanes and helicopters (radio, radar, calculators, screens, etc.)
- Ground military applications



TARANISTM

High-Power for Harsh Environments

To support Urban Air Mobility (UAM) and Electrical Vertical Take Off and Landing (eVTOL), Radiall designed a perfect solution for harsh environment electrical power generation, transformation, distribution and propulsion interfaces.

The Taranis range offers a versatile family of products. Available in both straight and right angles to ease the implementation in the narrowest environments, Taranis can secure power connections from cable-to-cable, or equipment (busbar) to cable in multiple formats (1, 2 or 3 poles). This solution offers a unique 100% 360° shielding and grounding continuity along the conductive lines.

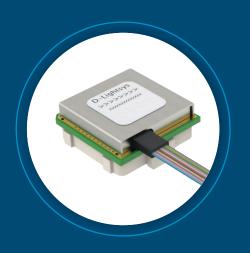
FEATURES & BENEFITS

- Operating range: 900 V / 115 A 25k ft
- Partial discharge: PDIV 1690 VDC 1690 VAC 25k ft
- Temperature range: -65 °C to 150 °C
- Vibration: 16.9 grms
- 100 mating/unmating cycles
- IP67
- Altitude immersion: 25k ft

- Battery connector
- Power transformation units (inverters)
- Electric motors
- Power distribution to busbar and equipment







D-LIGHTSYS® OPTO-ELECTRONIC MODULES

Harsh Environment Active Optics

D-Lightsys® opto-electronic modules are protocol-independent optical transmitters, receivers, and transceivers that offer transparent data transmission. They are engineered to perform reliably in harsh environments and meet the demands of high-performance applications across challenging markets.

These products operate in a wide temperature range and are available with a variety of options. There are several package options offered, including surface mount, pluggable and specific custom packages which cover data rates up to 12 Gbps.

FEATURES & BENEFITS

- Bit rate from DC up to 12 Gbps
- 1-channel duplex, 4-channel duplex and 12-channel transmitters or receivers
- Very compact form factor
- Low power consumption
- Custom pigtail length
- Large variety of termini/connector options
- Operating from -40 °C to +90 °C
- Qualified according to MIL and AERO standards

- Harsh environment
- Avionics
- Displays
- Radar
- Electronic warfare
- Processing units
- Space



EB-LUXCIS®

Easy Installation with Minimal Maintenance Required

The EB-LuxCis® product range combines the benefits of the LuxCis® ARINC 801 contact and Expanded Beam technology for commonly-used multipin connectors.

Radiall's EB-LuxCis® product range offers Expanded Beam technology for high performance and durability within multipin connector solutions. This product range features the commonly-used LuxCis® ARINC 801 fiber optic contact inserted into a 2 or 4-channel (MM or SM) Expanded Beam insert.

EB-LuxCis® is an easy-to-install and low-maintenance solution that can be used in various circular or rectangular connectors. This design combines the advantages of the LuxCis® ARINC 801 contact with Expanded Beam technology, which enables a simplified cleaning process and reduces sensitivity to contamination.

FEATURES & BENEFITS

- Optimized expanded beam technology provides easy cleaning and resistance to shock and vibration
- Contactless connection increases product life cycle
- Compatible with multi-mode and single-mode fiber
- Wide product range available: MIL-DTL-38999, EPX® EN4644, NSX ARINC 600, EN4165, MPX

- Avionics
- Power and flight management
- Radar
- Electronic warfare







IMP-SR

Groundbreaking Solution for RF, Signal and Data Rate Interconnection

To meet the new needs of active antenna radar applications, Radiall has created the IMP-SR, a groundbreaking solution to RF, data and signal interconnection.

The IMP-SR was created to meet the emerging needs of active antennas. Smaller than existing solutions with a minimum size of 3.1 mm and a diameter of 2.52 mm, the IMP-SR is a space-saving solution that meets manufacturers' expectations. The simple architecture makes the IMP-SR's length easily adaptable, making it the ideal product for customers needing seamless integration.

FEATURES & BENEFITS

- Up to 40 GHz
- Insertion Loss: 0.63 dB @ 40 GHz
- VSWR: 1.3 Max @ 40 GHz
- 1.2 N pressure force
- Data: over 100 Gbps PAM4
- Solderless

- Active antennas
- Radar
- Electronic warfare



FORTERO

Ultra-Rugged Connector for Ribbon Fiber Connections

The Fortero exceeds MIL-DTL38999 performance standards and adds ribbon fiber capability for demanding defense applications.

To meet the demand for extremely high rate of data transfer in a hive-minded military machine market where sensors and weapons share data at record-breaking rates in increasingly rugged environments, Radiall has developed the Fortero.

FEATURES & BENEFITS

- Enhanced crush resistance: withstands truck runovers and being stepped on
- Improved shock and vibration resistance: withstands dragging across decks or roads without damage
- Superior water sealing: unaffected by oceans or puddles
- Exceptional dirt and dust sealing: protects fiber from contamination

- Shipboard sensor and communication networks
- Shipboard and land-based testers
- Aircraft data system up and downlink connectors
- Land-based radars and sensors
- Land-based forward and deployable data centers
- Land-based Satcom terminals







SPACE SMPM-LOCK

The Most Miniature Connector to Ensure Reliable Performance

SMPM-LOCK is the smallest connector on the market with a locking system. This connector features electrical performance up to 32 GHz and provides a safe connection in shock and strong vibration environments, answering to space application requirements.

Radiall designed this micro miniature product to answer space customer demands for small connectors that provide security and performance. Made with the SMPM interface, Radiall has added a locking nut and a locking ring to secure connections in any installation, even in the tightest spaces. Radiall has reduced the length of this product by more than 40% compared to SMP-LOCK. The right-angle plug version saves even more space.

FEATURES & BENEFITS

- High frequency: 32 GHz
- Reduces SMP-LOCK's size by 42%
- Temperature range: -65 °C to 125 °C
- EMI shielding: 80 dB @ 3 GHz / 75 dB from 3 to 32 GHz
- · Quick and easy connection/disconnection

APPLICATIONS

Space payloads



SHF4M

Ultra Low Loss 40 GHz Cable

Radiall's end-to-end SHF cables and connectors reach high performance requirements to address customer concerns when doing RF measurements.

SHF4M is a best-in-class, 40 GHz, ultra low loss cable suitable for all applications where minimal loss is vital. Radiall's SHF cables support a wide range of applications in defense, aerospace, and Test & Measurement, while withstanding the extreme demands of space and harsh environments. Radiall is able to manufacture the ideally tuned cable to fulfill your exact specifications and the most demanding requirements. Radiall connectors for SHF cables are engineered specifically for compatibility and performance for SHF applications.

FEATURES & BENEFITS

- Ultra low loss
- Frequency: DC 40 GHz
- Phase and attenuation stability vs temperature and flexures
- Excellent resistance to environmental hazards
- Mechanical performances: flexibility, high temperature
- Versatile







HDQX CONNECTORS

High Speed Communication Solutions

Providing high speed communication, the HDQX series is specially designed for the transmission of Ethernet and RF high speed signal required in civil and military applications.

Specially designed to be fitted with standardized ARINC 600 Quadrax, HDQX shells will also cover #8 BMA, triaxial, twinax contact technologies.

Combining both the compact and rugged qualities necessary for high reliability and signal integrity, HDQX connectors provide customers with a high density and high performance solution for harsh aerospace environments.

FEATURES & BENEFITS

- Space saving and high density solution with 12 size 8 cavities
- Simple and secure connection
- Extremely high electrical continuity

- Data networks
- In-flight entertainment systems
- Video control centers
- Naval and military vehicle communications



COUPLERS

Comprehensive Range of Microwave Couplers

For over 30 years, Radiall has designed coaxial couplers and dividers/combiners for embedded RF systems in military and Test & Measurement applications.

Radiall offers a comprehensive range of microwave couplers from 150 MHz to 18 GHz. It includes 3 dB hybrid 90° and directional couplers, octave bands and wide bands. The offer is equipped with SMA and N connectors and is compliant with MIL-STD-202 environmental testing (MIL grade).

FEATURES & BENEFITS

- Broadband from 0.15 to 18 GHz
- 90° separation of phase on the output
- · High isolation, low VSRW
- High directivity

- Microwave switch matrices
- Microwave test benches
- Ground radar
- Airborne radar
- Satcom antennas
- Electronic warfare systems
- Automatic test equipment (ATE)







67 GHZ 1.85 MM TERMINATIONS & ATTENUATORS

High Performance Microwave Solutions

Radiall's Terminations and Attenuators offer exceptional VSWR performance and precise attenuation across a wide temperature range (-55 °C to +125 °C), ensuring measurement accuracy at high frequencies. Its reliability and high RF performance make it superior to the competition.

With demands for millimeter wave products increasing, Radiall has designed a new range of 67 GHz attenuators and terminations equipped with 1.85 mm connectors. This supports satellite communication using Q/V bands to increase the throughput of VHTS satellites and telecom applications with millimeter wave frequencies for high capacity, backhaul, point-to-point applications.

FEATURES & BENEFITS

- Exceptional VSWR performance
- Excellent stability in attenuation precision
- Wide temperature range: -55 °C to +125 °C
- Very small form factor

- RF Test & Measurement > 40 GHz
- RF military or telecom equipment > 40 GHz



COAXIAL SWITCHES

High Reliability Microwave Switches

Our wide range of microwave coaxial switches are highly reliable due to the Radiall Modular System for Electromechanical Switches (RAMSES). RAMSES is a patented concept that enables a typical operating life of 10 million cycles while ensuring no degradation in contact resistance reliability over time.

Radiall's coaxial switches offer exceptional RF performance with frequencies from DC up to 67 GHz and high power handling capabilities, making them ideal for harsh environments. Available in multiple configurations, these switches are engineered to deliver reliable performance across demanding applications.

FEATURES & BENEFITS

- Extended lifespan
- High power handling
- · Reliable, high quality, robust
- Modular concept: more than 20000 configurations
- Designed for severe environments

- Test & Measurement for various applications
- Satellite communication
- Automatic test equipment (ATE)
- Military and defense (radio communication, radar)
- Wireless communication (base station, manufacturing tests)







CO30CAN

Contactless Power & Data Connectors

Co30CAN is a contactless connector evaluation kit that provides 30W data and power transmission at a short distance without any physical contact through non-electrically conductive materials.

Contactless connectors offer unlimited mating cycles due to no contact between the transmitter and the receiver to transmit power and data in the same link. These contactless connectors allow greater freedom and movement while boosting system durability and lifespan.

FEATURES & BENEFITS

- Continuous power of 30W
- Distance of transmission up to 12 mm ±4 mm
- Misalignment tolerance ±2 mm
- Bi-directional data transmission

- Smart factory
- Industrial connected devices
- Renewable energies
- Medical equipment



LUXCIS® CONTACT

ARINC 801 Ruggedized Optical Fiber Solution

In service since 2003, the LuxCis® ARINC 801 contact delivers exceptional performance even in the harshest environments. Its innovative design offers high-density connectivity and ease of handling, making it the preferred solution for the ARINC 801 standard and trusted by leading companies across multiple industries.

FEATURES & BENEFITS

- Wide range of connectors: mates with various connectors including EPX®, NSX ARINC 600, MIL-DTL-38999 type and more
- Excellent optical performance: IL 0.1 dB / RL > 20 dB in multimode configuration
- Withstands harsh environments
- · Baseline of ARINC 801 standard
- Complete ruggedized product range, including hybrid and hermetic connectors
- Available in multimode, singlemode and singlemode APC

- Avionics
- *IFE* (in flight entertainment)
- Displays
- Flight management
- Radars
- Sensors















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