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# GLOBAL PRODUCT LINE

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Brochure



SIMPLIFICATION IS OUR INNOVATION

#### **MULTIPIN INDUSTRIAL CONNECTORS**

For use in railway and other industrial applications

#### CIRCULAR CONNECTORS DERIVED FROM MIL-STD-5015 VG95234

INDUSTRIAL SERIES	RAILWAY SERIES	DESCRIPTION		
KVBS	RF KVBS	Thermoplastic insert. Insulation according to NFF 61030		
CVB	RF CVB	Reverse bayonet, faster coupling and anti-vibration		
CVBS	RF CVBS	Bayonet protected by stainless steelstud, heavy dutyCoupling nut with roller-stud, highernumber of mating cycles		
CVBR	RF CVBR			
GVJ	RF GVJ	Reverse bayonet, oversized shell, more robust		
CVS	RF CVS	CVS Threaded connectors		
СТ	RF CT	Reverse bayonet derived from MIL-C-26482 series 1		





#### **MODULAR CONNECTORS**

SERIES	DESCRIPTION
GM	Modular connectors system
GMM	Modules available for many different applications: Ethernet data, RF coaxial, fiber optic, power, signals up to 14 wires
GMH	Modular connectors system with handle



#### DATA TRANSMISSION CONNECTORS

- Bayonet Ethernet connector, vibration and shock resistant
- Materials and finishes compliant with the requirements for railway applications

INDUSTRIAL SERIES	RAILWAY SERIES	DESCRIPTION
EVBS C7	RF EVBS C7	Ruggedized CAT 7, CAT 6A data connectors
EVBS	RF EVBS	Ruggedized CAT 5, CAT 5E and CAT 6 data connectors



#### **ATEX CONNECTORS**

- Can be used in hazardous and potentially explosive environments
- Oil and gas, mining and power plant industries
- Certification: 94/9/EC ATEX directive

#### INDUSTRIAL SERIES

CVBEX		Explosion-proof bayonet connector according to EN 60079-0/-1 and EN 61241-0 / -1



Radiall is a global manufacturer of leading-edge interconnect solutions. We offer an extensive range of RF coaxial connectors and cable assemblies, coaxial switches, fiber optic and microwave components, multipin connectors and more. Our global presence allows us to support our customers on a local level.

### **INNOVATION** LEADERS

Radiall is a global leader in the design, development and manufacturing of innovative interconnect solutions. Dedicated to understanding our customers' needs since 1952, we have built an award-winning reputation in engineering ingenuity by providing a constant flow of creative system solutions to the telecommunications, aerospace, defense, instrumentation, industrial and medical markets.



#### SPACE QUALIFIED COMPONENTS

- Comprehensive range of space qualified coaxial components up to 50 GHz
- Large connector interface selection: SMP, SMP-LOCK, 2.4 mm, SMA, SMA 2.9, TNC and Very High Power TNC
- Various products available for RF transmission in space including switches, connectors, attenuators,

loads, semi-rigid and low loss flexible cable assemblies, couplers, dividers and phase shifters



#### **RF COAXIAL CONNECTORS**

- Comprehensive range of RF connectors up to 100 GHz
- All standard series: SMA, SMP, SMPM, N, TNC, SMB, SMC, SSMC, MMCX, MCX, BNC
- Blind mate: SMP, SMPM, SMPW, BMA
- High frequency precision connectors for test: 2.4 mm, SMA 2.9, TNC18
- High-power antenna, low PIM connectors: NEX10, 4.3-10, 4.1-9.5, 7-16
- High voltage connectors: BNC HV/MHV, HN, SHV

- Locking connectors: SMP-LOCK, SMB-LOCK, TNC Self-lock, SMA 2.9 Self-lock
- MIL-PRF-39012 QPL connectors
  Quick Lock Formula (QLF) certified QMA and QN, and ruggedized
- version QRE • RF Board-to-Board interconnects: SMP-MAX, IMP-MAX, POWER-MAX, IMP, MMBX
- Switching connectors: Moebius, MC-Card, SMA, QN
- Waterproof, stainless steel, lightweight, hermetic and nonmagnetic connectors available





- Comprehensive range of components up to 50 GHz
- Type N, BNC, TNC, SMA, SMA 3.5, SMA 2.9, 2.4 mm
- Medium and high power terminations and attenuators up to 6 GHz and 1 kW
- Power dividers/combiners up to 26.5 GHz
- Rotary joints, phase shifters Low PIM models
- Low Plivi models
  Microwave filters





#### **RF COAXIAL ADAPTERS**

- Large selection of in-series and between-series
- 50 and 75 Ohm
- Push-on and quick disconnect models for production test
- Precision adapters for test lab
- Many configurations available: straight, bulkhead, flange mount, press in, right angle, sealed, hermetic







#### RF & MICROWAVE SWITCHES

- High reliability RAMSES patented modular technology
- More than 10 million cycles
- Frequency range up to 50 GHz
- Comprehensive range of SPDT, DPDT, DP3T, SPnT (1x3 through 1x12)
- Terminated and unterminated versions
- Smallest subminiature SPnT series
- TVAC switches (Thermal Vacuum) for ground segment application
- High performance titanium and platinum switches with long life

span and guaranteed repeatability of 0.03 dB on IL

- SPDT Quartz Series: Surface Mount Technology (SMT) up to 26.5 GHz
- Low PIM switch series -160 dBc: passive intermodulation



TESTPRO CABLE ASSEMBLIES

#### BENCH TEST CABLE ASSEMBLIES

- VNA TestPro grade 40, 50 and 67 GHz
- Lab TestPro grade 18, 26.5, 40, 50 and 67 GHz
- Low Loss TestPro
- 5,000 mating/unmating life cycles
- Flex life: over 50,000 flex cycles per MIL IEC966-1
- Phase and loss stability for long calibration intervals
- Connector series: SMA, SMA 3.5, SMA 2.9, 2.4 mm, 1.85 mm, N18, TNC18
   PC7 (ruggedized NMD
- version available) • Low profile connector
- configurations • TVAC options available
- Phase matching options



#### **MULTIPIN AEROSPACE** CONNECTORS

For use in both harness and equipment connections

#### **NSX-ARINC 600**

- Rack & Panel connectors
- Robust and cost-effective
- A large range of contacts and accessories
- RoHS and REACH compliant options military applications
- available off-the-shelf
- DSX-ARINC 404 & SAE AS 81659
- Rack & Panel connector
- Used in major civil and military programs

- Numerous configurations available
- Specific front-release, frontremovable contacts solution for receptacles
- MPX MIL-DLT83527
- Rack & Panel connector
- Rugged design for harsh and
- High-speed data link configurations
  High-conductivity and corrosion
  - resistance • Removable inserts with various
  - configurations • A large variety of inserts and
  - contacts for high-speed data links

#### EPX<sup>™</sup> - EN4644

- Disconnect panel, Rack & Panel and galley applications
- Modular and expandable design • Space saving with high-density inserts and stackable shells
- Time-saving, user-friendly and costeffective with a comprehensive range of rear accessories

#### OM

- Quick-mating with the Radiall Touch - one-finger mating in a snap
- Quick installation with rail fixation • Lightweight, compact and high-
- density

 Integrated ground blocks and backshells

#### HDOX SERIES

- High-density connector for #8 contacts
- Uses standard ARINC 600 quadrax contacts
- Compatible with #8 BMA, triaxial, twinax and coaxial contacts QUICKFUSIO™
- Miniature connector for sensors, EWIS and cabin applications

#### **ANTENNAS**

- · Manpack, vehicle and handheld radios
- UAV/UGV2 and other sensors
- Airborne, onboard and external
- Antenna frequency: 30 MHz and up MIL-STD 810 compliant
- Single, dual and multi-band, external or embedded
- Active and passive GPS (L1 and L1/L2)
- Overmolded, whip, patch printed
- N-type, TNC, SMA and specialty connectors

- Custom-designed applications, low to high-power
- In-house antenna measurement system
- Available in AEP brand products



#### **OPTICAL INTERCONNECT SOLUTIONS** HARSH ENVIRONMENT FO

CONNECTIVITY

- Ruggedized FO contacts: LuxCis® ARINC 801/EN4639-101 with its expandable range of rectangular and circular connectors
- ABS1379/EN4531-101 optical contacts
- High-density MT based interconnects for harsh environments: C-MTitan<sup>™</sup> and Q-MTitan<sup>™</sup> ARINC 846
- Various Expanded Beam solutions: ExoBeam<sup>™</sup> tactical cable

#### assemblies, EB-LuxCis®

• Ruggedized simplex and duplex LC, SC and ST connectors

#### **CAPABILITIES FROM DESIGN TO DELIVERY OF HIGH-END OPTICAL** SYSTEMS

links

- Simplex and multichannel assemblies designed by Radiall or built-to-print • Synergy with active optics from
- D-Lightsys®
- Fiber management accessories • Field kits, test and maintenance solutions and training

OPUS: push-pull compact solution

for fiber optic and coaxial outdoor



- **OUTDOOR INTERCONNECTIONS**
- OCTIS™: robust I/O solution for outdoor small cell and next generation RRU/RRH
- Lightning and EMI protection
- SFP/SFP+ transceiver integration, RJ45 for CAT 5E or CAT 6 Ethernet signal, power (AC/DC), signal, hybrid of power and signal
- R2CT<sup>®</sup>: flexible outdoor solution for FTTA and wireless telecom applications
- RXF: two and four channel outdoor optical connector

### **FULL CABLE ASSEMBLY & HARNESS**

#### Multipin Aerospace Connectors continued

- Versatile range with several shell styles and outputs
- Competitive costs with the use of standard SAE-AS-38999 Series II contacts
- Lightweight design, extreme compactness and high contact density
- Quick-mating with the Radiall Touch – one-finger mating in a snap







#### **RF CABLE ASSEMBLIES**

#### STANDARD CABLE ASSEMBLIES

- Hand-formable
- Semi-rigid
- RG flexible
- PROPRIETARY CABLE ASSEMBLIES
- Short-bend
- SHF Ultra Low Loss
  - Loss optimized up to 67 GHz
  - Phase matching option
  - Armored, lightweight and airframe versions

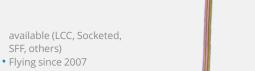
#### **ACTIVE OPTICS**

- Complete range of highperformance optoelectronic Active Optics by D-Lightsys®
- Fully qualified for harsh environments: DO-160; MIL-STD; ARINC 804
- Smallest form factor for single channel and multichannel modules (6.5 mm2/ch/Gbps)
- Lowest power consumption (<50 mW/ch Gbps)
- Protocol independent and large bandwidth per channel (from DC to 10 Gbps)
- Various packages and form factors

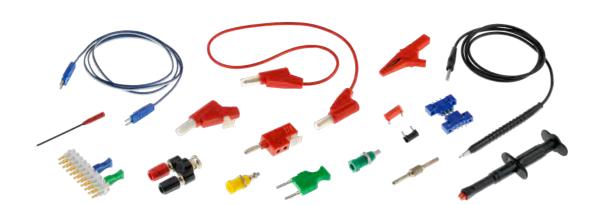
#### **BANANA PLUGS**

- 2 mm, 4 mm and adapters
- Excellent electrical conductivity
- Very low contact resistance
- Robust contact point pressure when connected
- Outstanding durability for high number of mating cycles

• Custom cable assemblies and lengths available







# Radial

## SIMPLIFICATION is our INNOVATION

We advance the design and engineering process for innovators, ground-breakers and pioneers of technology. We reduce weight, improve durability and streamline installation to provide leading-edge connectors that drive product performance.

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#### **GLOBAL PRESENCE**

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