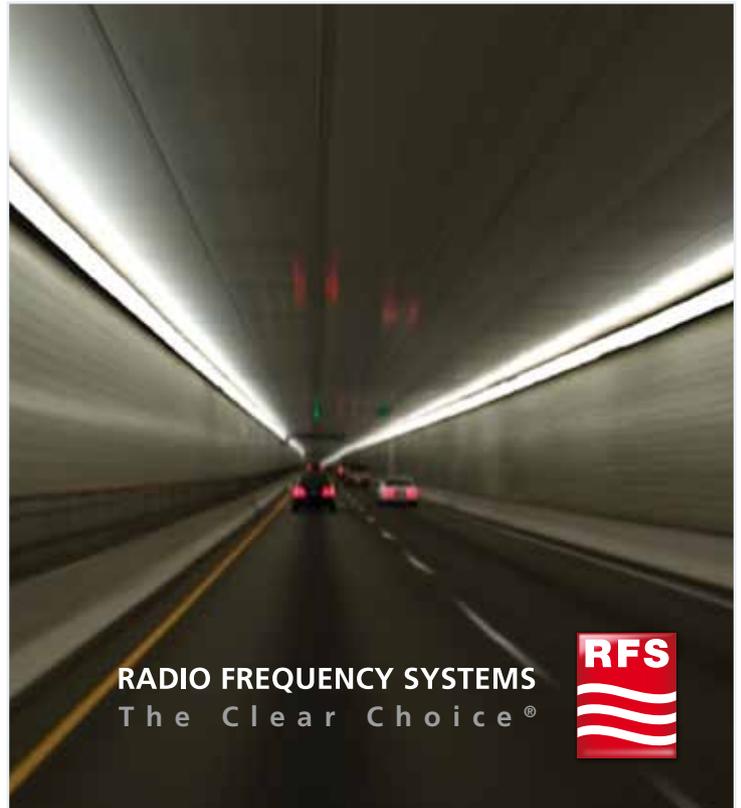


RFS Solutions for Transportation

Innovations for in-tunnel, in-building and outdoor communications



RADIO FREQUENCY SYSTEMS
The Clear Choice®



RFS: The telecommunications partner of the transportation industry

Best-in-class technology

Transportation operators rely on mission-critical communications to ensure the safety of millions of passengers, employees and assets every day. Their communications solutions must enable continuous, high-quality communications across tunnels, complex in-building environments and diverse outdoor terrains. At the same time, these solutions must support commercial applications that increase passenger satisfaction and provide new revenue opportunities.

For more than 40 years, RFS has provided innovative communications solutions for the world's metros, railways, road tunnels, mines, ships and airports.

Today, RFS offers the most advanced active, passive and hybrid RF distribution systems for in-tunnel coverage, in-building station and terminal coverage and outdoor trackside and roadside coverage.

RFS brings transportation operators all of the essential elements of an end-to-end RF communications offering:

- ➔ Best-in-class technology
- ➔ Solutions for mission-critical and commercial communications
- ➔ The ability to deliver turnkey solutions for optimized communications



RFS' best-in-class communications technology for the transportation market is LTE-ready. Transportation operators can benefit from our technology advantages today, confident in the knowledge they can evolve to LTE when the timing is right for their business — without having to purchase additional equipment.

RFS' RADIAFLEX® suite of radiating cables showcases RFS' technology leadership. The RADIAFLEX cables feature RFS' patented "higher order mode suppression technique" in radiating cable design.

This unique design allows RFS to offer cable series that support current and future in-tunnel and in-building commercial and private radio services from 698 MHz to 2700 MHz – including LTE – for valuable cost savings.

The RADIAFLEX cables also ensure low insertion loss and excellent coupling performance and feature halogen-free, non-corrosive, low-smoke and flame-retardant jacket material for safe and reliable long-term cable operation.



Mission-critical and commercial solutions for communications

RFS solutions for the transportation market are expertly scaled for mission-critical Terrestrial Trunked Radio (TETRA) and GSM-Railway (GSM-R) wireless services in bands ranging from 380 MHz to 2700 MHz as well as for indoor 2G, 3G and LTE commercial radio services.

Our mission-critical and commercial communications solutions include:

- ⇒ RADIAFLEX radiating cables for seamless and highly reliable in-tunnel communications
- ⇒ RF-over-fiber repeater systems for commercial radio in the longest tunnels and mission-critical wireless services in all tunnels
- ⇒ Heavy-duty antennas for trackside and roadside communications
- ⇒ Passive Distributed Antenna Systems (DAS), including plenum-rated cables for in-station, in-terminal and ship-board communications
- ⇒ High-performance RF cables and antennas for TETRA and GSM-R communications
- ⇒ Omni and yagi antennas designed for Positive Train Control (PTC) initiatives in North America

Turnkey solutions for optimized communications

RFS turnkey solutions for optimized communications include all of the RF communications products, solutions and services transportation operators need to simplify and de-risk communications upgrades.

All RFS turnkey solutions can be customized for different system topologies, output power and band-combination needs. They are designed to meet each transportation operator's specific quality of service (QoS) requirements while optimizing costs.

Examples of RFS turnkey solutions for optimized communications include:

- ⇒ Distributed antenna solutions for on-board communications
- ⇒ Cable and antenna solutions for signaling and train control applications
- ⇒ Cable and antenna solutions for tunnel construction radio communications

Leveraging RFS' technology expertise and comprehensive services

Strong technical design and services capabilities, along with a first-rate reputation, make RFS turnkey solutions for optimized communications the choice of leading transportation operators.

RFS has delivered turnkey solutions for a wide range of applications, including:

- **Beijing Metro:** mission-critical TETRA wireless communications systems
- **Hong Kong Metro:** PCS 1800 (DCS) services
- **Bangkok Blue Line:** multi-carrier, multi-band commercial services
- **Larnaca International Airport, Cyprus:** in-building GSM and UMTS wireless communications
- **Guarulhos International and Congonhas Airports, São Paulo, Brazil:** in-building GSM, GPRS, EDGE and UMTS wireless communications

In-tunnel solutions that set the global standard

Enabling seamless coverage and high-quality reception in the world's tunnels

Highly reliable and available communications in tunnels is a mission-critical and commercial necessity along rail lines, metro lines and roadways. RFS designs and delivers best-in-class systems for mission-critical and commercial applications in multi-carrier, multi-service tunnel environments. As the globally acknowledged expert in in-tunnel RF coverage systems, RFS brings nearly 40 years of experience and know-how gained from installing many hundreds of coverage systems for metros and for rail and road tunnels around the world. RFS' success in one of the world's most challenging environments from an RF perspective highlights our expertise in in-tunnel wireless coverage.

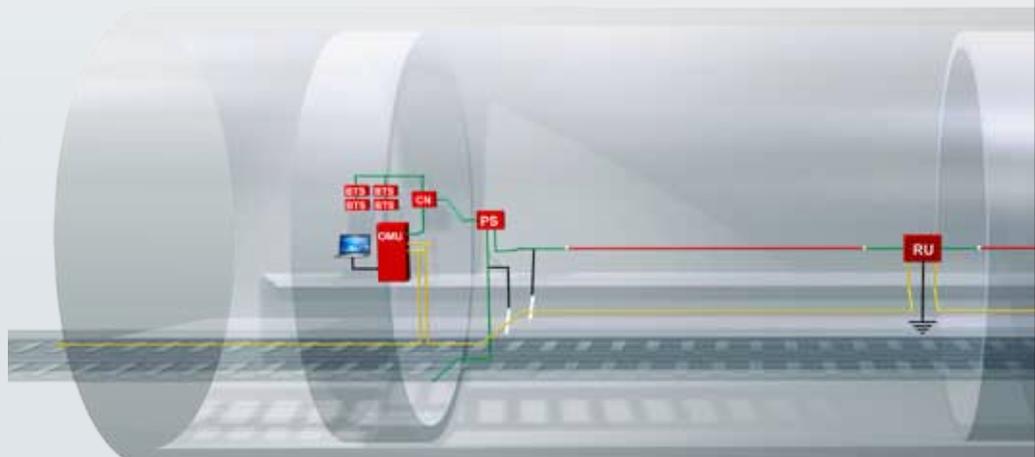
RFS incorporates cutting-edge, fail-safe technologies and redundant design concepts to target the areas that matter most in in-tunnel wireless communications: system reliability and availability, network performance and coverage.

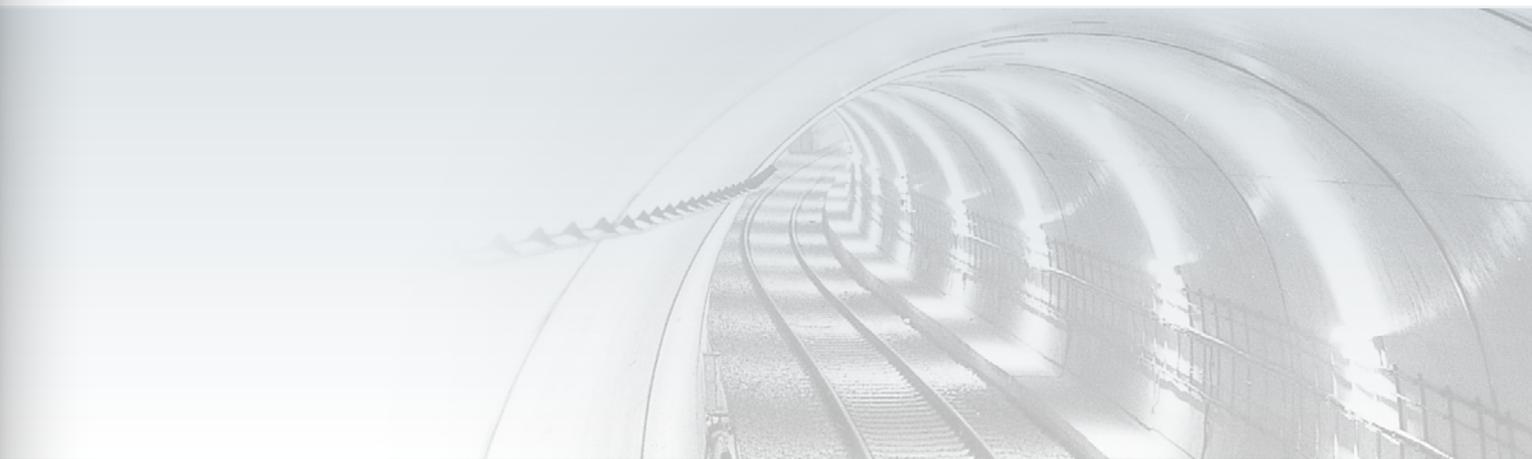
Our in-tunnel coverage designs are based on passive distribution technologies, including the world-renowned RADIAFLEX radiating cables. They are backed by RFS' wide range of passive and active supporting technologies, including bi-directional amplifiers and RF-over-fiber backbones, along with installation accessories – all designed for ease-of-installation and high performance in harsh tunnel environments.



RFS in-tunnel coverage solutions minimize the total number of system components to ensure system availability and reduce maintenance costs. They are also fully scalable and expandable to meet future requirements.

CN Combining Network
PS Power Splitter
BTS Base Transceiver Station
OMU Optical Master Unit
RU Remote Unit



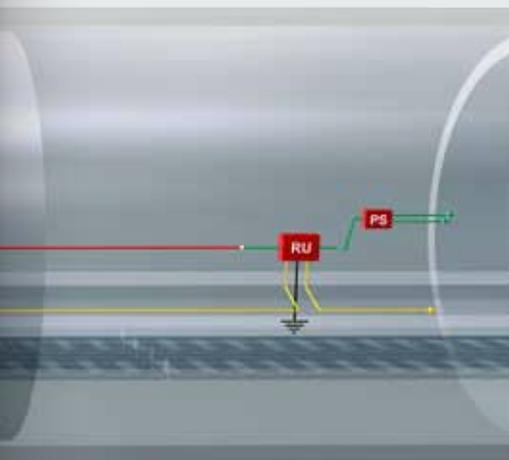


Bringing mission-critical communications to the Beijing Metro

RFS' selection as the systems integrator for the TETRA wireless communications system along the Beijing Metro Changping Line demonstrates its unrivalled global leadership in delivery and deployment of in-tunnel wireless communications solutions.

RFS won the Changping Line contract over both local and global competitors due to its superior design and services capabilities and its proven reputation for excellence. In 2009, RFS successfully designed and integrated the TETRA wireless communications system for the Beijing Metro Line 4.

— CELLFLEX Cable
— RADIAFLEX Cable
— Fiber Optic Cable



As the systems integrator, RFS is providing a complete TETRA wireless communications system and related services, including coverage design, delivery of TETRA digital radio communications system and related equipment, site surveys, supervision, system commissioning and acceptance as well as project and documentation management.

➡ Leading-edge technology to meet in-tunnel coverage demands

The Changping Line tunnel coverage designs are based on RFS' RADIAFLEX radiating cables, supported by a wide range of passive and active technologies, including TETRA fiber optic repeater systems, antennas and accessories to meet precise coverage, traffic and route requirements.

RFS' innovative TETRA fiber optic repeater system is specifically designed for long-distance metro environments. It will allow RFS to ensure reliable signal relays across the largest number of repeaters to be deployed along a metro line in recent years.

The in-tunnel leader in China

Success in China – the world leader in metro and high-speed railway projects – is the benchmark for success in the transportation industry. RFS is the undisputed leader in in-tunnel coverage solutions in China with more than 50 percent of the in-tunnel wireless coverage market.

RFS cable and antenna solutions have been deployed in tunnels along numerous metro and rail lines across China, including the:

- Beijing Metro
- Shanghai Metro
- Shenzhen Metro
- Shenyang Metro
- Ningbo-Taizhou-Wenzhou Railway
- Wenzhou-Fuzhou High-Speed Railway

“ We were very impressed by RFS' outstanding expertise and rich experience in the area of in-tunnel coverage design and solutions when we selected the subsystem integrator partner for the line's TETRA wireless communications system. ”

Luo Ming, General Manager of the Beijing Metro Project Department at ZTE, general integrator of the Changping Line's communications system project

RADIAFLEX: The optimal confined-coverage solution

Confined coverage for today and tomorrow

Wireless has moved indoors – and RADIAFLEX is an important part of the solution. RADIAFLEX is the world's leading “leaky feeder” cable solution. Designed to deliver contoured RF indoor coverage, RFS RADIAFLEX cables provide a scalable and practical means of tailoring RF coverage in even the most challenging confined spaces.

The RADIAFLEX family of cables features a unique broadband design, providing confined coverage solutions that will meet transportation operators' needs today and tomorrow.

➔ Broadband solution

RADIAFLEX cables support all major services from 75 MHz to 6 GHz, making them optimally suited for multi-operator and multi-band applications.

➔ Flame and fire retardant

RADIAFLEX cables are low-smoke and halogen-free to meet all major international flame- and fire-retardancy standards.

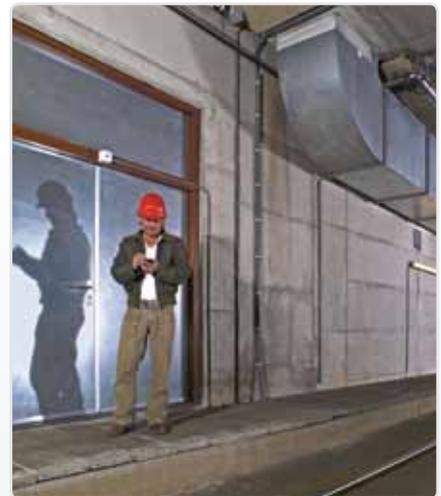
➔ Low loss

Featuring low longitudinal and coupling losses, RADIAFLEX cables are available with optional “vario” coupling loss configurations for longer installation runs.

➔ Comprehensive range

With diameters spanning 1/2-inch to 1-5/8-inch, RADIAFLEX cables are available with different jacketing, coupling losses and bending radii.

Ideal for confined coverage applications



RADIAFLEX cables support a wide range of applications, including:

- ➔ Wireless telephony (analog, 2G/3G, 4G digital, including LTE, TETRA and GSM-R)
- ➔ Mission-critical communications
- ➔ Trunked radio
- ➔ AM and FM radio and television
- ➔ DAB and DVB services





RF-over-fiber repeater systems

Radiating cables for your specific requirements

To meet the demands of different locations and applications, RADIAFLEX cables are available in seven distinct series:

ALF/RLF series – Heavy-duty wideband radiating cables for multi-use applications in tunnels of all kinds.

RLK series – Low coupling-loss radiating cables for tunnel and building applications.

RLV (VARIO) series – Variable or staged coupling-loss radiating cables that enable nearly constant system loss and low amplitude variation.

RAY series – Radiating cables that are optimized for high frequencies and digital applications where low coupling loss is required.

RCF series – Small-bending radii radiating cables with corrugated outer conductors for heavy-duty applications.

RSF series – Flexible radiating cables with corrugated outer conductors for in-vehicle applications.

RHCA series – Plenum-rated air dielectric radiating cables for use in buildings where the highest standard of flame and fire retardance is required.

For the most demanding in-tunnel requirements



To ensure highly reliable and available commercial radio services in the longest of tunnels and mission-critical communications in all tunnels, RFS offers high-capacity RF-over-fiber repeater systems. These in-tunnel signal distribution systems support multiple operators, providing coverage for 2G, 3G, 4G, TETRA and GSM-R in bands ranging from 380 MHz to 2700 MHz.

RFS' RF-over-fiber repeater systems are HSPA- and LTE-ready, providing the flexibility needed to meet a variety of system topologies, output power and band combination needs. They include integrated, heavy-duty fiber remote units that can be deployed up to 20 km (12.4 mi) from the master unit. With support for extended distances, fewer optical fibers are needed, less power is consumed and floor space requirements are minimized.



CN Combining Network
PS Power Splitter
BTS Base Transceiver Station

OMU Optical Master Unit
RU Remote Unit

CELLFLEX Cable
RADIAFLEX Cable
Fiber Optic Cable

In-building solutions tailored to meet your needs

There is no standard rail or metro station, no standard airport terminal or ship. Each environment presents unique communications challenges and each transportation operator has unique application requirements. RFS supplies end-to-end in-building coverage solutions that are purpose-built to match individual transportation operator's business objectives, physical environment and application requirements. Our offerings are based on a rich mix of current and emerging RF technologies, supported by comprehensive professional services, from design to pre-activation testing.

A true broadband wireless experience for any in-building environment

With RFS' in-building communications solutions, transportation operators in all sectors (rail, metro, road, air and maritime) gain reliable communications from floor-to-floor, sector-to-sector, deck-to-deck and office-to-office no matter how varied and complex their needs.

RFS focuses on providing premium performance solutions that deliver capacity and QoS for a true in-building broadband wireless experience. Because they are based on passive RF technologies, RFS in-building solutions are virtually maintenance-free. This unique combination of technology and ease-of-support ensures premium return-on-investment and minimizes total cost of ownership.

RFS in-building solutions also support multiple carriers and multiple bands to enable cost sharing in multi-tenant environments.

Delivering mission-critical and commercial communications in buildings

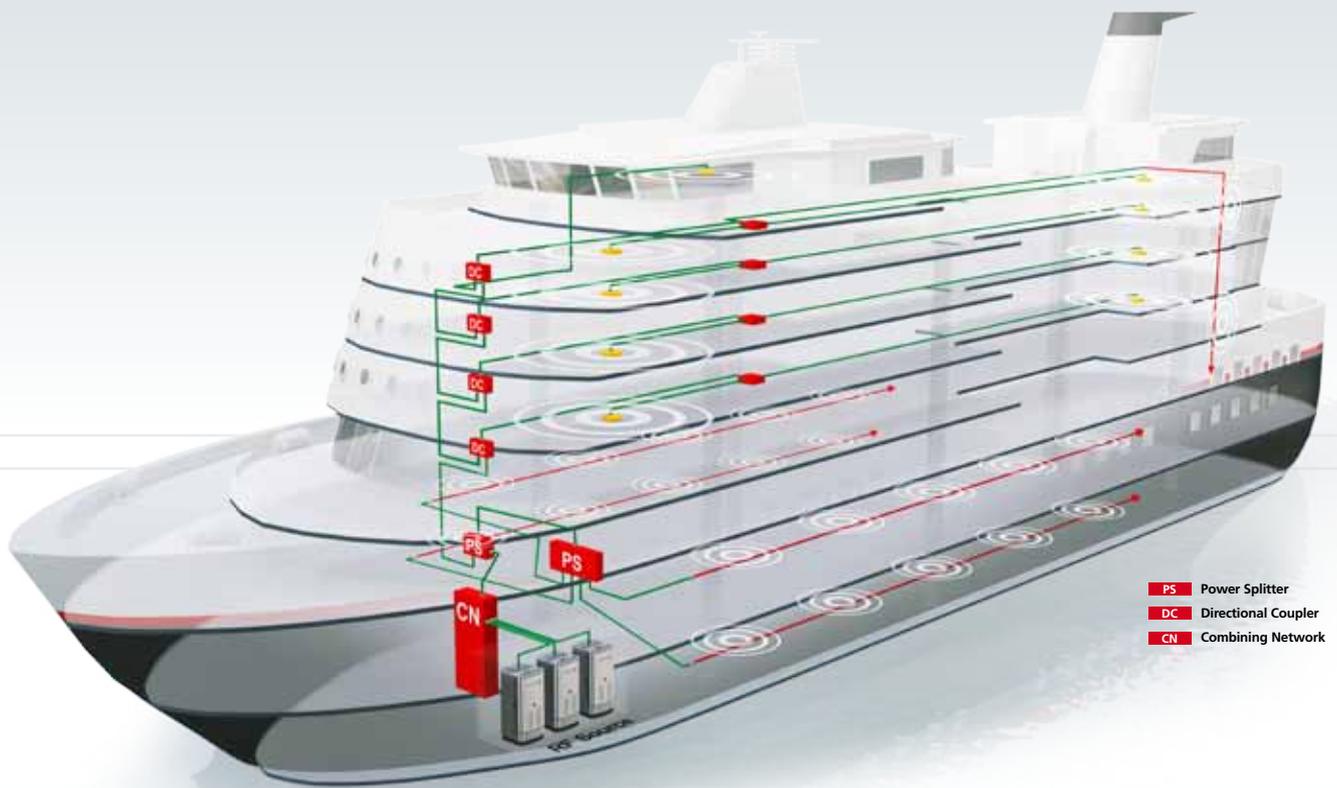
RFS' 40 years of in-building design, development and installation experience is supported by the market's broadest selection of **passive and active in-building RF technologies, including:**

- ⊕ Distributed antenna systems
- ⊕ Broadband cabling solutions
- ⊕ Point-of interface solutions
- ⊕ RF-over-fiber extension systems

Together, these solutions support a wide variety of in-building communications, including:

- ⊕ Analog security and emergency services
- ⊕ Paging services
- ⊕ Analog and digital cellular networks for mission-critical and commercial applications
- ⊕ Wireless data transmissions over wireless LAN, Ethernet and Bluetooth
- ⊕ Broadcast services for FM, VHF and UHF DAB and DVB





A complete RF Passive Distributed Antenna System for in-building coverage

RFS provides all of the components needed to implement an in-building DAS. Together, these components support a wide variety of applications and frequency bands from 380 MHz to 6 GHz and are particularly well suited to distribution of cellular services in the 698 MHz to 2700 MHz frequency range.

Our DAS portfolio includes:

- ➔ CELLFLEX® and CELLFLEX Lite low-loss foam dielectric coaxial cables
- ➔ High-performance RADIAFLEX radiating cables
- ➔ Broadband and ultra-broadband indoor antennas
- ➔ Broadband and ultra-broadband indoor couplers and splitters with low insertion loss

Plenum-rated cables for in-building installations

RFS plenum-rated wideband cables deliver outstanding electrical performance and support all wireless in-building applications. These air dielectric coaxial cables are CATVP-rated, with low flame-spread and low-smoke characteristics. With this combination of features, RFS plenum-rated cables are ideal for use within the ceiling area defined as the “environmental air handling space” as well as for more traditional plenum applications.

RFS plenum-rated cables are tested in accordance with the US National Fire Protection Agency (NFPA) testing method 262, ensuring they meet the most stringent flame-retardant and smoke-suppressant requirements.

Due to their low attenuation, outstanding heat transfer properties and temperature-stabilized dielectric materials, RFS plenum-rated cables offer a safe, long-term operating life at high-transmit power levels.

RFS plenum-rated cables feature:

- ➔ Support for a wide range technologies and applications, including LMR, public safety, 700 MHz LTE, cellular, paging, PCS/AWS, Wi-Fi and WiMAX in bands ranging from 450 MHz to 5900 MHz.
- ➔ A solid outer conductor that creates a continuous RFI/EMI shield to minimize system interference.
- ➔ Solid inner and outer conductors and state-of-the-art manufacturing that virtually eliminate intermodulation.

Outdoor solutions for trackside and roadside communications

Mission-critical communications along outdoor rail tracks are not optional for rail operators. Trackside communications solutions must support TETRA and GSM-R communications as well as industry requirements, such as PTC in North America. Moreover, both road and rail operators must provide continuous access to commercial services throughout the traveler's journey. RFS provides heavy-duty, high-performance antennas, cables and supporting components for mission-critical and commercial trackside and roadside applications.

Solutions for safety and highly available communications

➤ Base station antennas and RF conditioning products

RFS base station antennas and RF conditioning products have long been the choice of leading rail and road operators:

Best-in-class yagi antennas deliver highly directional trackside coverage for point-to-point communications.

High-gain, narrow panel antennas ensure travelers have roadside access to mobile services.

A complete line of compact and lightweight diplexers enables cable sharing between systems.

➤ Transmission line products

RFS high-performance transmission line products are recognized around the globe for their state-of-the-art design and value:

CELLFLEX foam dielectric coaxial cables combine high flexibility with superior strength and electrical performance while **CELLFLEX Lite** aluminum cables give rail and road operators the lightest cables on the market.

OMNI FIT™ Premium connectors provide a single solution for both copper and aluminum cables.

➤ Microwave antenna systems

RFS offers a variety of microwave antenna systems to fit rail and road operators' specific requirements. Complete microwave antenna systems are available in:

Bands ranging from 2.3 GHz to 60 GHz, including 3.65 GHz

Sizes ranging from 1 ft to 15 ft.

Styles that include Standard, SlimLine, CompactLine and CompactLine EASY



PTC solutions for North American rail operators



As a long-time partner of rail operators in North America, RFS is fully committed to delivering wireless communications solutions for PTC initiatives.

RFS brings all of the crucial wireless communications solutions, know-how and expertise needed to help North American rail operators meet PTC requirements by 2015:

- ⇒ Base station and wayside antennas at 160 MHz and 220 MHz
- ⇒ Cables, jumpers and tower components
- ⇒ Filter and combining solutions

⇒ Omni and yagi antennas designed for PTC applications

Our offerings for PTC include omnidirectional and yagi antennas that were developed with direct input from North American rail operators:

Dual-band (160-165 MHz and 220-225 MHz) exposed dipole omnidirectional antennas are designed for switching yards and mountainous, curving geographies where line of sight is challenging and broad coverage is required.

Single-band (218-225 MHz) and **dual-band** (160-165 MHz and 218-225 MHz) yagi antennas are designed for point-to-point control station, paging and repeater applications along linear tracks where highly directional coverage is required.

Ultra-rugged broadband antennas for repeater sites



RFS offers circular polarized broadband antennas for trackside and roadside repeater sites. These extremely robust and durable antennas can withstand wind speeds of 350 km/h, yet are fast and easy to install and easy to hide in roadside environments.

They operate in the 824 MHz to 960 MHz band to support a range of services, including GSM-R, and provide a highly directive pattern to support isolation from mother cell antennas. This versatility and performance helps transportation operators reduce both their antenna footprint and cable run requirements. Upper sidelobe suppression makes these antennas an attractive alternative to yagi antennas.

Four corners of the globe: RFS is tried, tested and true



Mobile coverage for Singapore's metro

As part of its overall mandate to provide indoor coverage for Singapore's Metropolitan Area Network (MAN), RFS brought mobile coverage to the Singapore Metro's stations and trains. RFS provided turnkey design services and solutions for all of the RF equipment required for indoor GSM 900, GSM 1800 and 3G mobile services for Singapore's MAN.



Brazil's two busiest airports enjoy in- building coverage

In São Paulo, Brazil, Guarulhos International Airport and Congonhas Airport both relied on RFS to design, implement, test and project manage solutions for in-building GSM 1800, GPRS, EDGE and UMTS 2100 wireless coverage. The fully passive solutions are also ready to support Wi-Fi in the 800 MHz to 2500 MHz range and UHF communications at 450 MHz.



Turnkey GSM services for the Hong Kong Metro

RFS' ability to deliver turnkey solutions for optimized communications made it the right choice to provide PCS 1900 services along more than 100 km of tunnels and 44 stations in the Hong Kong Metro. RFS provided design, supply, installation, installation supervision, testing, commissioning, training, maintenance and project management services for the project.



Commercial services for Bangkok's metro

A turnkey wireless indoor solution from RFS brought multi-carrier, multi-band commercial services to Thailand's first underground rail system – the Bangkok Blue Line. RFS relied on its RADIAFLEX radiating cables, feeder cables, antennas and couplers to design, supply and install the complete wireless solution along 20 km (12.4 mi) of tunnel and 18 subway stations.



Enabling GSM-R communications in the UK

The United Kingdom's Network Rail relied on RFS to enable its mission-critical GSM-R communications. RFS provided CELLFLEX cables and accessories for the radio sites and RADIAFLEX radiating cables and accessories for the 36 rail tunnels. RFS' ability to deliver cables that exceeded design requirements and to provide local service and support were key factors in its selection.



Ensuring safety along China's high-speed railway

With trains traveling at speeds of up to 200 km/h (124.2 mi/h), safety is a critical concern for China's prestigious Ningbo-Taizhou-Wenzhou railway (also known as the Yong-Tai-Wen railway). To ensure continuous GSM-R coverage within the tunnels along the entire length of the 260-km (161.6-mi) railway, RFS supplied RADIAFLEX radiating cables, along with heavy-duty clamps, DC blocks, surge arresters and connectors.



Wireless communications in the world's longest road tunnel

At 24.5 km (15.2 mi) long, the Laerdal road tunnel in western Norway is the world's longest road tunnel. Reliable wireless coverage is essential for emergency and personnel communications, accident prevention and fire safety. With RFS' proven in-tunnel wireless technology, travelers, workers and public safety authorities can be assured of access to wireless communications when they need it most.



Leveraging RFS expertise in China's Shenzhen Metro

RFS provided the RF commercial, TETRA and security wireless communications subsystems along the 32 km (19.9 mi) Shenzhen Metro Line 3 and its 22 stations. The results ensure that personnel, passengers and public safety authorities can access wireless communications at all times. RFS' in-depth understanding of the way wireless signals propagate and interact with other RF signals in metro tunnels was critical to this project.



Cyprus airport gets vital wireless services

RFS provided mobile operators MTN Cyprus and Cyta with a complete active indoor wireless solution that ensures Larnaca International Airport's travelers and personnel can connect to world-class mobile services. A vital element of the ultramodern airport terminal, the sophisticated wireless in-building system provides GSM and UMTS coverage and is ready to deliver TETRA, Wi-Fi and WiMAX access.



Commercial radio coverage in the Sydney Harbour Tunnel

An RFS RF distribution system enables commercial radio coverage along a key stretch of the Sydney Harbour Tunnel, a major road tunnel in Australia. In addition to assisting with the RF solution design, RFS supplied base station antennas, RADIAFLEX radiating cables and remote management for the fiber-fed repeaters as part of the multi-operator, multi-band solution.

RFS Services: Turnkey solutions for optimized communications

Decades of experience in designing and manufacturing high-performance RF equipment has made RFS very successful in the global marketplace. In addition to supplying all of the products and solutions needed to enable a broad range of in-tunnel, in-building and outdoor wireless communications, RFS has extensive international experience in providing a complete range of services – from basic system design to full turnkey solutions. Our experience includes designing, installing and commissioning complex broadband wireless solutions across China, Europe, Hong Kong, Singapore and the Americas.

A world of services to choose from

To meet transportation operators' needs for both mission-critical and commercial wireless services, RFS' turnkey solutions for optimized communications include a wide range of essential services:

➔ Consulting

Helping transportation operators choose the right technologies and the right deployment strategy the first time

➔ Site survey

Setting the stage for successful deployments

➔ System design

Leveraging our broad experience and deep technical expertise

➔ Project management

Keeping complex, multi-provider deployments on-schedule and on-budget

➔ Supervision

Ensuring sub-contractors meet transportation operators' stringent specifications for quality and timeliness

➔ Installation

Focusing on efficient and cost-effective deployments

➔ Commissioning

Getting new solutions up and running without delay

➔ Acceptance testing

Proving new solutions meet transportation operators' specific requirements and KPI's

➔ Training

Providing personnel with the knowledge required for smooth daily operations

➔ Maintenance

Reducing the risk of failures and system downtime

With RFS as their strategic telecommunications partner, transportation operators enjoy the freedom and flexibility to choose the product, solution and service combination that is optimal to meet their business objectives.



Why RFS?

A worldwide leader in wireless and broadcast infrastructure



Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, along with active and passive RF conditioning modules, providing total-package solutions for wireless and broadcast infrastructure.

RFS serves OEMs, distributors, systems integrators, operators and installers in the broadcast, wireless communications, land-mobile and microwave market sectors.

As an ISO-compliant organization with manufacturing and customer-service facilities that span the globe, RFS offers cutting-edge engineering capabilities, superior field support and innovative product design.

Serious about services

Customers know they can count on RFS for comprehensive logistical capabilities, flawless execution and outstanding technical skills and support. The company's dedicated shipment coordinators, hotline staff and on-site engineers go well beyond mere technology, striving to offer tailored solutions to meet even the most complex site-engineering and delivery challenges.

RFS' value-added services match the exact needs of business partners large and small.

Ever-present quality guarantee

From design to manufacture, ISO 9001 and ISO 14001 certification standards encompass all aspects of RFS' business worldwide. Every product RFS ships has stood up to the most stringent technical, environmental and quality control tests, continuously meeting and surpassing the expectations of a long list of wireless carriers, transportation and utility operators, and broadcasters.

RFS backs every product bearing its name with a quality guarantee that is unrivaled in the market.

A legacy of innovation

A total commitment to design and develop the world's most advanced technology for wireless communication has kept RFS at the forefront of the industry for more than 70 years. Dedicated R&D teams, plus a privileged partnership with Bell Labs, are at the source of breakthroughs that are ensuring the mobility of an increasingly wireless world.

RFS is at the frontier of wireless technology innovation, sustaining the boldest ventures to enhance the way people communicate and live.

A truly global company

With on-the-ground personnel in more than 20 countries and on every continent, RFS always delivers on its commitments, providing a comprehensive range of premium products, systems and services. Its clients benefit from all the advantages of a global supplier, while relying on dedicated support from RFS' local engineering, manufacturing and shipping teams.

RFS' products, systems and personnel can be found in every corner of the planet. As a global group, RFS is committed to upholding the most stringent environmental, health and safety standards, and seeks to integrate green initiatives in every aspect of its business.

