RADIAFLEX® Vario Radiating Cables

Optimize 5G performance in tunnels with consistently high system performance

Mobile operators and organizations around the world are using 3.5 GHz spectrum to bring 5G services to tunnels. However, when traditional radiating cables are used in these deployments, system loss continuously increases along the cable, reducing throughput and overall system performance. Amplifiers can be added to reduce system loss, but the additional equipment increases installation complexity and costs.

RFS RADIAFLEX Vario radiating cables feature a specialized slot pattern that minimizes the system loss that occurs as radiating cable length increases. This unique design allows RADIAFLEX Vario cables to maintain 5G throughput levels over longer cable lengths and with fewer amplifiers than traditional radiating cables. As a result, Vario cables deliver higher system performance at lower total cost of ownership.

Maintain 5G throughput levels over longer cable lengths with fewer amplifiers for higher system performance at lower total cost of ownership

Varied slot pattern compensates for losses along the cable

System loss is the sum of coupling loss and insertion loss. In RADIAFLEX Vario cables, the slot pattern changes to match the loss patterns found at different cable lengths. The variations in slot pattern allow the cable to gradually decrease coupling loss to the extent necessary to compensate for insertion loss. This compensation enables the cable to maintain a low and stable level of system loss across the entire cable length.

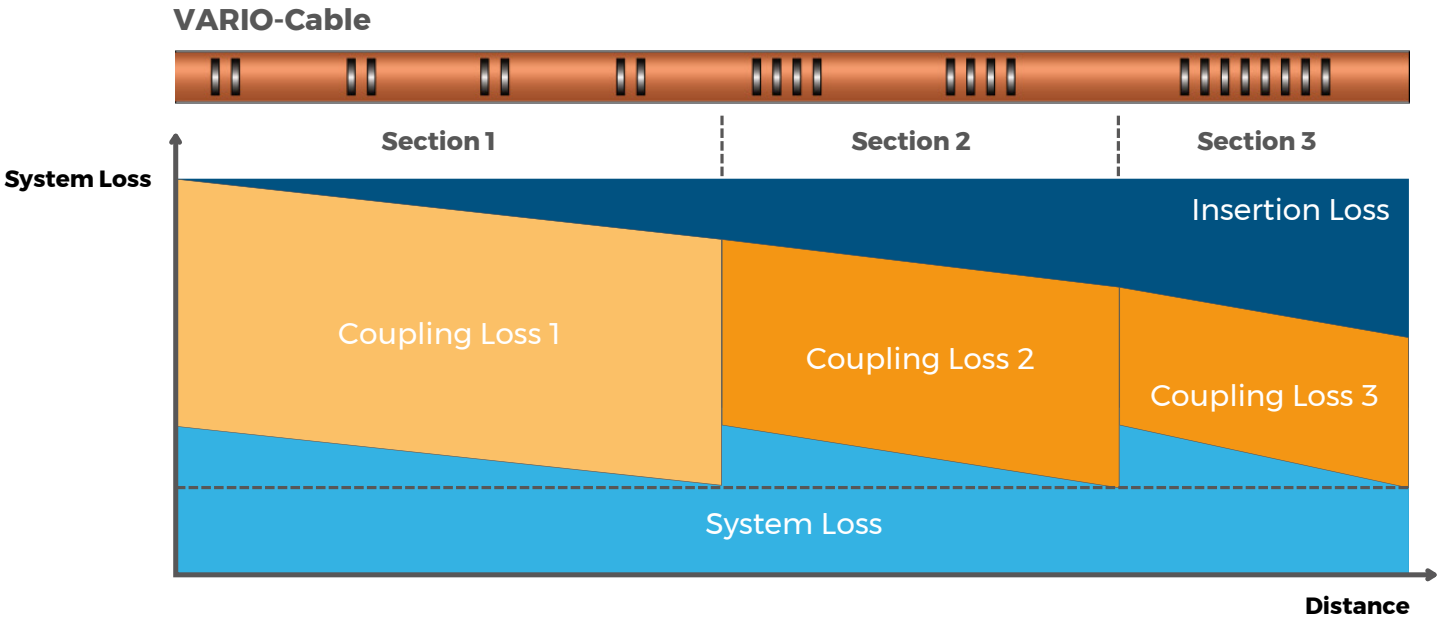
With stable system loss, RADIAFLEX Vario cables deliver a far more consistent relative power level over the cable length than traditional radiating cables.

Exclusive Features and Benefits

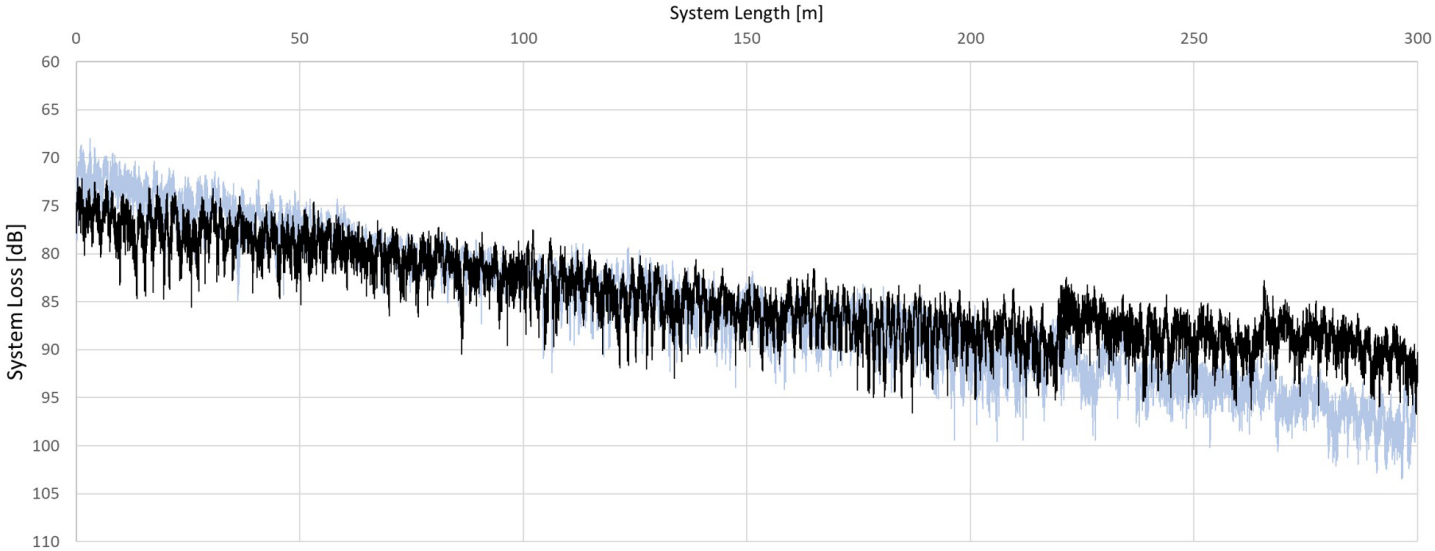
Step into the future of in-tunnel communications

- **Graded slot pattern to optimize system loss performance**
  Maintains nearly constant system loss and low amplitude variation along the cable
- **Ultra-wideband to support all wireless frequency bands up to 3.8 GHz**
  Increases deployment flexibility
- **Simultaneously supports multiple one-way and two-way communications systems**
  Increases return on investment
- **Low-loss cellular polyethylene foam dielectric and smooth copper outer conductor**
  Ensures superior electrical performance and good bending properties
- **Custom cable lengths**
  Ensures RADIAFLEX Vario cables deliver optimal performance for each application and tunnel environment
- **Low-smoke and halogen-free, meet all major international standards for flame and fire retardancy and achieved a CPR rating of B2ca with a d0 droplets rating**
  Provides the highest levels of fire safety

VARIO SOLUTION
How It Works



5G RADIATING CABLE SOLUTIONS
Standard vs. Vario Radiating Cables



This graph shows the significant system loss improvement using Vario type cable to either improve in-tunnel signal strength to achieve better KPI's or to allow for larger amplifier spacing to reduce overall TCO.

Place an order or request more information:
https://info.rfsworld.com/contact-us