

RFS radiating MIMO cable sets world record in-tunnel speed in Norway

RFS partners with Telia, Telenor and Bane NOR to achieve speeds of 560mbps in Follo Line project



Munich, Germany – 7th November 2018 – RFS, the global designer and manufacturer of cable, antenna, and tower systems for wireless and broadcast infrastructure, today announces it has worked with mobile operators in Norway to successfully break the in-tunnel world record download speed of 560mbps as part of the Follo Line project.

The Norwegian Ministry of Transport is pushing to significantly improve mobile capacity and speeds across the country's rail network and the Follo Line project, due to complete in 2021, is acting as a test bed to develop the technology. RFS worked with

Telia, Telenor and Bane NOR to deploy in-tunnel infrastructure capable of delivering a mobile broadband connection. The deployment is geared towards delivering a Quality of Experience (QoE) that will allow passengers to use data intensive services with the aim of achieving 5 mbps per user.

The deployment

- The testing was conducted inside an abandoned road tunnel in Holmestrand, Norway.
- Inside the tunnel, RFS deployed its RADIAFLEX radiating cables connected to a radio transmitter with 4G 4x4 MIMO capability. The 2x2 MIMO setup utilized a horizontally polarized radiating cable and a vertically polarized radiating cable. This doubled in the 4x4 MIMO setup.
- The results achieved approximately 95 percent of theoretical maximum speeds for 4x4 MIMO in the tunnel.
- The results also demonstrate a 100% increase in download rates when going from SISO to 2x2 MIMO and an additional 100% increase in download rates from 2x2 MIMO to 4x4 MIMO.

Tom Kuklo, Global Product Manager In-Building Solutions at RFS commented, "Tunnels are still one of the most challenging environments when it comes to achieving reliable, high capacity mobile broadband. We have a huge focus on developing the technology to extend what is possible when it comes to in-tunnel connectivity. The Follo Line project was pretty unique in bringing all the players; hardware vendors, operators, government together, to push what is possible with in-tunnel mobile broadband to its limits and we look forward to exceeding those as the project continues."



About RFS

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

RFS serves OEMs, distributors, system 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. RFS is a leader in wireless infrastructure.

Trademarks

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