RF References





Katzenberg Tunnel

Eupen delivers TETRA optimised Radiating Cables

Customer

Deutsche Bundesbahn AG (DB) German State Railway

Situation

Katzenberg Tunnel is a railway tunnel constructed on the new Rhine Valley railway line extension, forming part of the Trans-European Transport Network (TENTec) Core Network Corridor Rhine - Alpine. It is located on Mannheim-Karlsruhe-Basel railway line, running between Mannheim in Germany and Basel, Switzerland via Heidelberg, Karlsruhe and Freiburg in Breisgau. The Katzenberg Tunnel is the biggest individual element constructed on the extension. It stretches 9.4km in length and is the longest two-tube tunnel and third longest tunnel in Germany, as of 2012. It was considered as one of the most advanced railway projects in Europe when it commenced in August 2003.

Challenges

The lengths of the Tunnel naturally pose challenges for any Radio Communications System in general and digital Radio networks in particular, as the high number of RF-Repeaters have, due to each additional one being a potential point of failure, a direct impact in the reliability of the System.

Additionally, limited on-site storage required 'just-in-time' delivery schedules, timed to coincide with installation schedule and tunnel access times.

RF References

Solution

To provide the required RF-coverage for the Rescue Services, a digital TETRA Radio Communication System is connected to a Eupen Radiating Cable. The use of Eupen TETRA optimised Radiating Cables, featuring industry leading low coupling loss, allowed for increased distances between Repeaters, reducing points of failure and cost. Naturally, all Eupen Radiating Cables meet the requirements concerning low flammability, no flame propagation, no toxic gas emission and low smoke emission protecting both the train passengers and the emergency services from more severe consequences in case of fire. The ability to rely on our own extensive and specially equipped transport fleet, proved crucial to provide customised logistics and just-in-time delivery to site.

Contact

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