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## Triotrace Test Systems



### TTS Extensions CTCS-3/ETCS L2

Approved Technology for  
the GSM-R Test

Datasheet

# TTS Extensions CTCS-3/ETCS L2

The TTS extension for the Chinese and European Train Control System (CTCS/ETCS) boost the TrioTrace Test System to a new stage of high performance GSM-R measurements.

## Features

The CTCS-3/ETCS L2 test extension for the TTS GSM-R devices opens the possibility of measuring a subset of values defined in the „ERTMS/GSM-R Quality of Service Test Specification“ [1]

- Connection set-up
  - Data call establishment in manual operation
- Transfer delay of user data frames
  - Measured at the GSM-R air interface RA0 Layer
  - Round trip delay evaluation with additional loopback terminal
  - Accuracy: 20 msec
- Data transmission interference
  - Statistics of Channel State, Start Time, End Time, Frame Erroneous, Frames Error Free and Frame Lost
- Data throughput (additional to [1])
  - The maximum possible data transmission rate is measured at the GSM-R air interface (bit/sec)

## Products with CTCS/ETCS

- TTS-S75 Rail CTCS-3/ETCS L2
- TTS-S75 Rail GPS CTCS-3/ETCS L2
- TTS-TRM-3T USB Rail CTCS-3/ETCS L2
- TTS-TRM-3aT USB Rail CTCS-3/ETCS L2
- TTS-TRC-3 CTCS-3/ETCS L2

[1] QoS Working Group: ERTMS / GSM-R Quality of Service Test Specification; Version v1.2.i; 06-07-2006  
[2] e.g. TTS-TRM-3aT USB Rail ETCS L2

