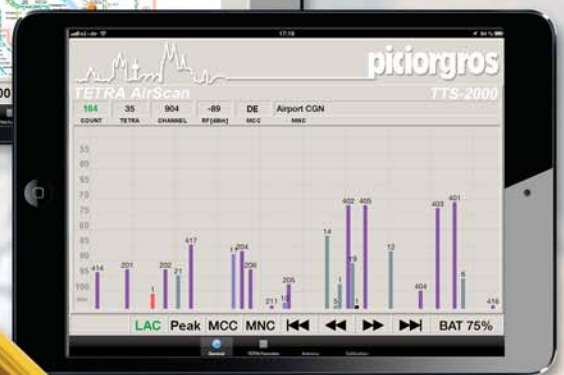




Coverage Analyzer



TetraModem.com

piciorgrors

TETRA Coverage Analyzer



TTS-2000 - TETRA Site Survey Test Set / TETRA Network Analyzer

The TTS-2000 is a complete TETRA Site Survey Test Device to take measures of the RSSI Field Strength of the TETRA carrier as well as all reported neighbour cells. The data is stored as a -dBm value together with the location coordinates, bit error rate, antenna gain or attenuation value, and the RSSI values from all reported neighbour cells.

Additional (Option) a TETRA Spectrum Scanner and a TETRA Base Station Network Monitor is available. As graphical user interface, an Apple Mini iPad - that can be easily installed on the car windshield - is used for measuring, configuration as well as for parameter setting and for the device calibration.

During the measuring process that is done once per second (or distance depending), all relevant TETRA parameters like RSSI, LAC, Channel Number and coordinates are shown on the iPad in big, well readable numbers.

The device can be operated using a mains power supply, a car power connector, or for several hours with the internal rechargeable battery. And once the measuring process is completed, the csv data can be sent with just a finger tip to any M-Mail address.

Users who do not want to send their mission critical data over the internet can use the E-Mail Server Tool that is part of the TTS-2000 package.

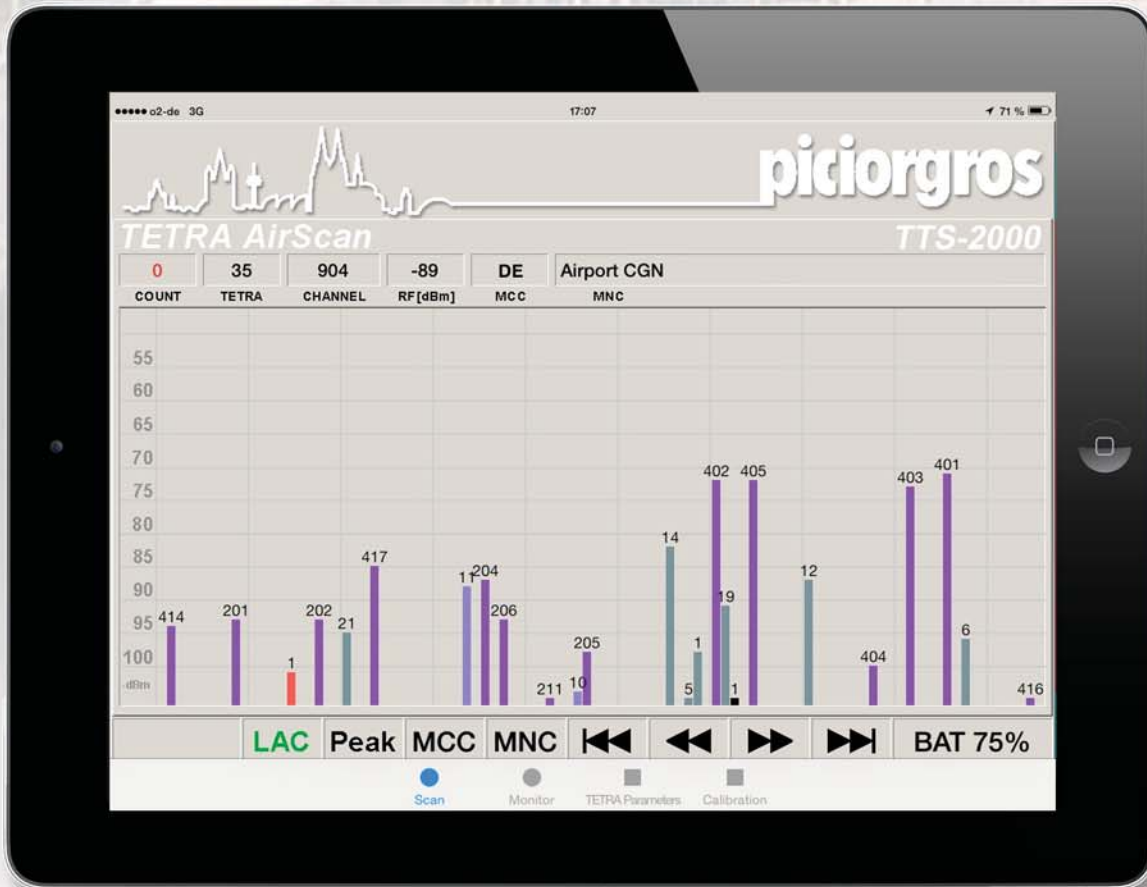
With the powerful Google Maps based "CoverMap" application the user can view the data as graphical coverage overview on a PC or process it with his own Excel application. He also can simulate certain conditions like switching off Base Stations or setting -dBm levels to check his network in extreme conditions.

The TTS-2000 is installed in a small Pelicase box of only about 24 * 11 * 19 cm and can be used in a car or - due to its very light weight - is also ideal for hand carry measuring.

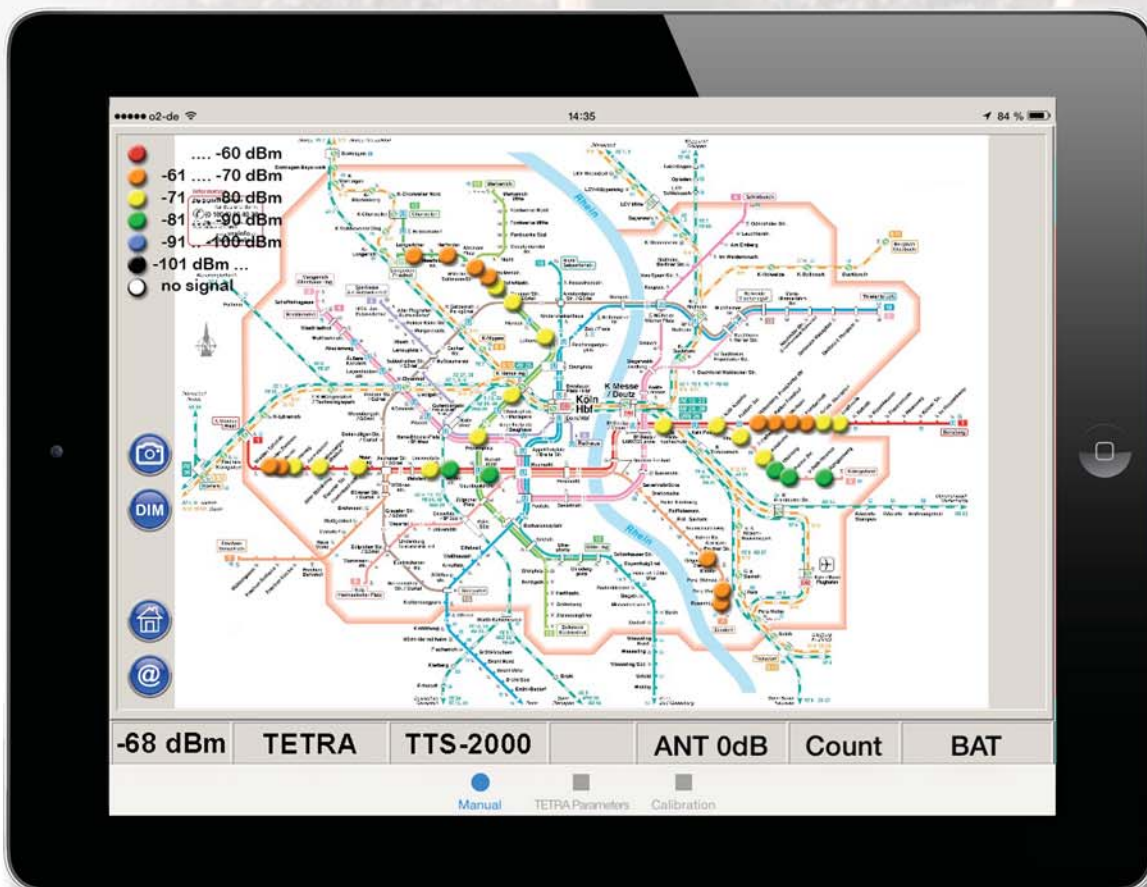
TTS-2000

- Coverage Test
- Manual Test
- Neighbour Cells
- Sysinfo Display
- Spectrum Scanner
- Network Monitor
- Data Recorder

Spectrum Display Mode shows all TETRA Channels

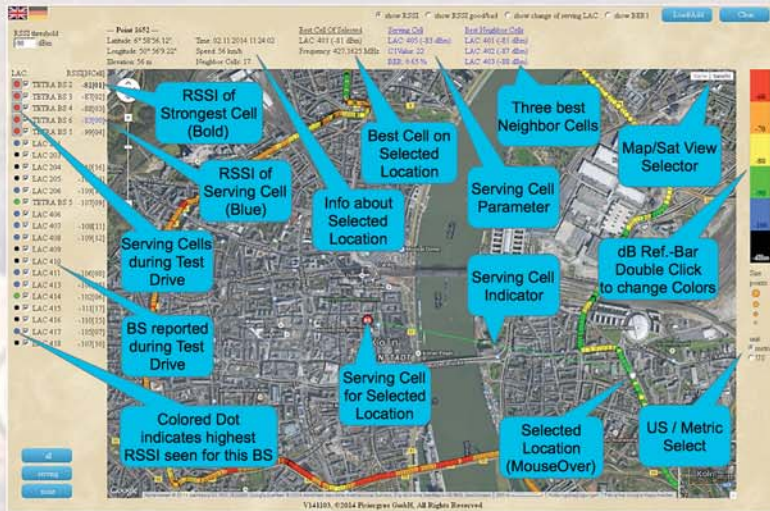


User Map with manually selected measuring points





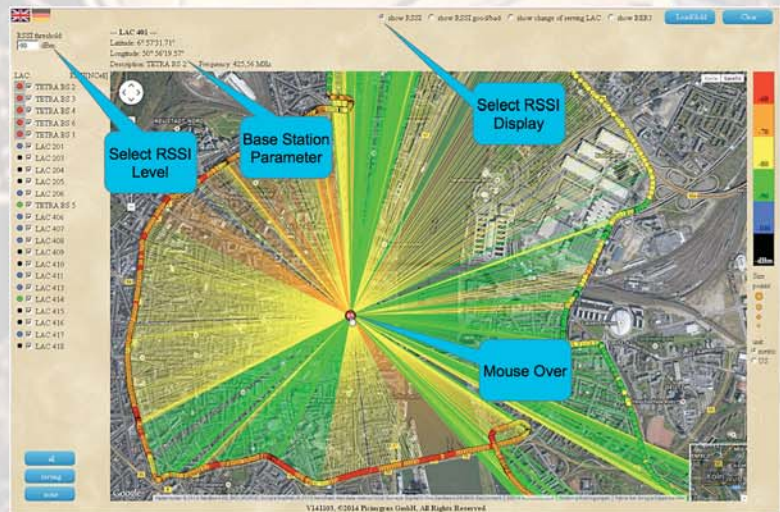
CoverMap PC Tool



CoverMap - Basic Functions

This powerful tool is exactly what the user needs to process the (csv) data that has been collected with the TTS-2000 test box. Based on Google-Maps, the CoverMap application displays every single data point in various ways. The field strength will be shown in -dBm, the Bit Error Rate (BER) in %, a good / bad analysis referring to a -dBm threshold, the change of the serving cell, and the coverage rate of the tested area in %. Supplementary information is available when using the "On Mouse Over" function, where the coordinates,

the strongest cell, the serving cell and all neighbor cells will be displayed. And last but not least there are two unique features, only provided by CoverMap: The TETRA-Cell-Cross-Check and the Base-Station-Fail-Simulator. The TETRA-Cell-Cross-Check feature is able to detect misconfigurations, whenever a Base Station (BS1) reports another (BS2) as its neighbor, but this neighbour (BS2) does not report (BS1). A really helpful tool that is useful for new TETRA installations, but also for existing networks. While the TETRA-Cell-Cross-Check is able to detect misconfigurations of TETRA networks, the Base-Station-Fail-Simulator can simulate failures of single or multiple Base Stations. With just a mouse click the user can "turn off" any Base Station and see the remaining coverage in their network.



FUNK-ELECTRONIC
piciorgros
GMBH

Funk-Electronic Piciorgros GmbH
Claudiastr. 5 * 51149 Cologne, Germany
Tel.: +49 2203 911 77-0
Fax: +49 2203 911 77-99
Web: www.TetraModem.com
www.piciorgros.com
Mail: info@piciorgros.com

(c) S. Piciorgros Jan.2015 TTS-2000

TETRA Solutions Made in Germany

micro-link

MICRO-LINK d.o.o. • Jarušičica 9a • 10000 Zagreb
Croatia • t. +385 1 36 36 884 • f. +385 1 36 45 850
microlink@microlink.hr • www.microlink.hr