# Reception Quality and Timing Synchronisation

***Does your Mobile Station lose timing synchronisation at low RF levels resulting in a drift into an adjacent timeslot? The Reception Quality and Timing Synchronisation software combines a test program and graphical analysis tool that provides a complete picture of your Mobile's reception and uplink timing.***

A feature of GSM compliance testing is that basic RR functionality is tested in isolation with no consideration to interdependencies within a Mobile design. In the case of RxQual and RxLev, both are tested in isolation and, in the case of RxQual, testing is performed at an optimum RF level using an interferer which is not representative of how the Mobile is expected to function in a live Network. ***In fact, problems have been discovered relating to off-the-shelf Type Approved Mobiles losing timing synchronisation at low RF output levels.***

The Reception Quality and Timing Synchronisation software comprises a Test Program that can be run on a basic **Rohde & Schwarz CRTx02 or CRTU-G** and a Graphical Analysis Tool that runs on any Windows 2000 or XP PC. Figures 1 and 2 shows the 2 different display formats relating to RF Output level changes representing the Mobile response against time and the RxQual to BER respectively.

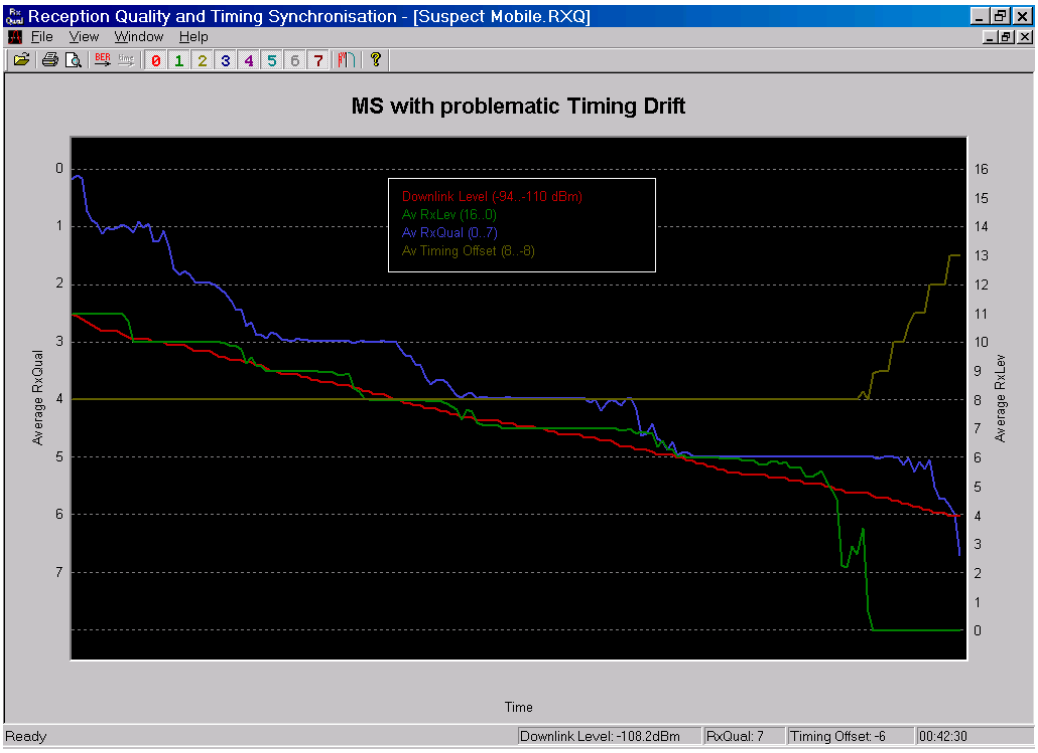


Fig. 1: RxQual, RxLev and Timing response to level change against time

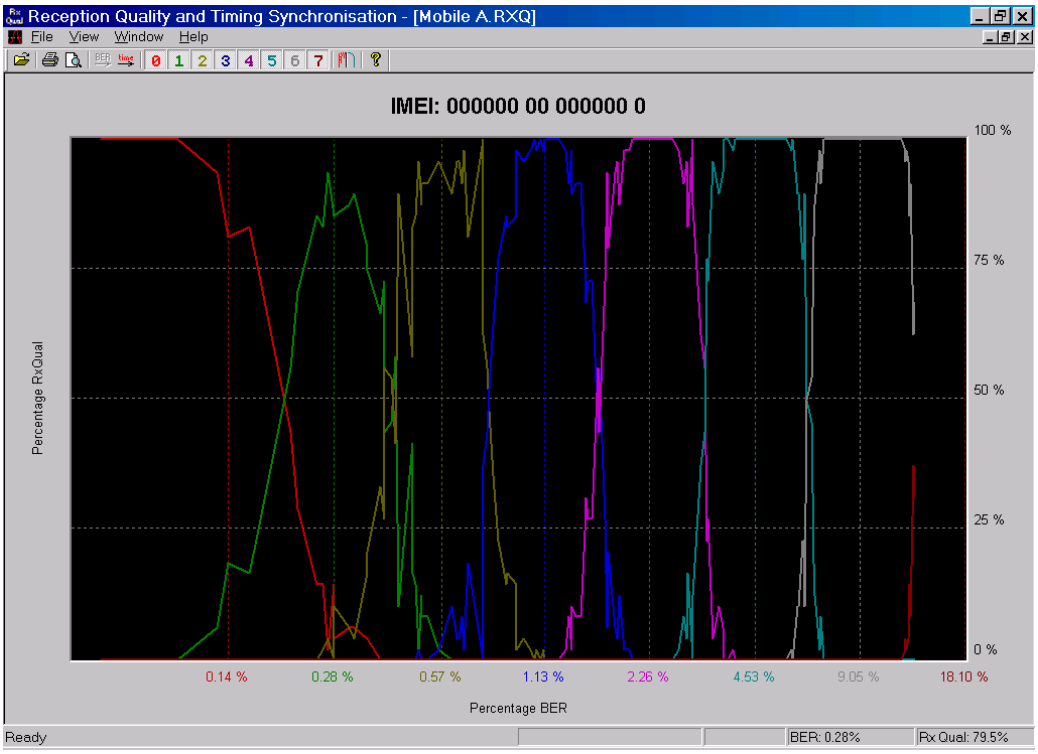


Fig. 2: RxQual vs BER in response to level change

## Features

- Test Programs run on either Rohde & Schwarz CRTx02 or CRTU-G platforms
- Testing for all bands as supported on the hardware test platform
- No user interaction required once call establishment
- Extraction and display of Mobile IMEI
- Analysis Tool runs on a standard Windows PC
- Simple user interface.
- Capture and analysis of full RxQual vs BER
- Uplink timing synchronisation included during measurement for analysis