

New Test Solutions Improve Productivity

Simple, general-purpose test tools cannot measure all of the important parameters in a CDMA RF system. We need to have much more sophisticated tools that can demodulate the signals and address multiple parameters and domains. Full featured, laboratory instruments used for design, development and compliance testing of wireless devices are very complicated to operate, big, bulky and expensive – they are not appropriate for the rigors of daily field use.

A new breed of portable test system has been developed for the specific purpose of troubleshooting BTS performance in the field. These multi-function testers combine the key characteristics of the separate instruments described above into a single tool that can analyze the most important parameters of BTS RF signals. Unlike their general-purpose predecessors, field portable BTS test tools provide standard measurement functions that can be executed at the push of a button. Even novice users can acquire and display results on large LCD screens quickly and reliably.

These portable BTS testers are not intended for full compliance testing. They bring speed, efficiency and simplicity of operation to the process of trouble-shooting – without the cost and complexity of meeting strict accuracy requirements of conformance standards. They are battery operated, compact, lightweight and extremely rugged for use in harsh conditions.

Some of these new testers are also modular and able to test multiple standards. As multiple mobile systems (CDMA, GSM, AMPS, etc) are deployed in the same area, or even on the same BTS site, the ability of a single tester to isolate multiple sources of interference from those systems is a major benefit.

Conclusion

This release of the cdmaOne BTS Troubleshooting Application Note offers information for the RF technicians and engineers who install and maintain systems in the new world of wireless telecommunications. Updates will follow in the near future, as the technology and standards continue to evolve. This document is also available at our web site (www.tektronix.com), along with updates and related documents. Tektronix is committed to the most advanced test solutions for telecommunication networks. As mobile networks continue to evolve, we will keep you in the forefront with the latest measurement products and methods.

We welcome your comments and suggestions for improving this document and your ideas for developing other tools to help you meet the measurement challenges of new wireless systems. Contact us at the locations listed below, or through our web site.