RTS95
REVERBERATION TEST SYSTEM

PERFECT FOR YOUR LARGE FORM FACTOR DEVICE

It has never been easier to verify wireless devices over-the-air (OTA). Bluetest’s fifth generation of larger reverberation test systems, RTS95, is designed to reduce the time you spend on measurements, and is excellent for measurements of larger wireless devices. With its larger test volume, RTS95 is the right choice for testing of devices such as smart home appliances, TV screens, machine-to-machine (M2M) communication equipment, body worn antennas, or any measurements down to 400 MHz. It does not have to be complicated, unless you want it to be. We want you to focus on your results, not the test equipment.
MULTIPATH ENVIRONMENT

The RTS95 consists of a shielded reverberation chamber with reflecting walls. The device under test (DUT) is placed on a turntable. The reflective walls in combination with moving reflectors (mode stirrers), and the turntable, create a Rayleigh faded rich isotropic multipath environment (RIMP) inside the chamber. This environment is very well suited for antenna and radio performance evaluation of modern multi-antenna (MIMO) devices. Bluetest’s long experience in reverberation chamber technology development has resulted in a well proven, highly accurate and robust OTA test system.

MULTIPLE ANTENNAS – EXPANDING APPLICATIONS

Bluetest’s RTS95 is the ideal choice for evaluating performance of MIMO devices. The multipath environment is enabled by default and you do not need to add expensive additional equipment when moving from SISO to realistic evaluation of MIMO devices. We offer several multi-antenna options with up to 8 active measurement antennas and 8 passive antenna ports located in the turntable to support your specific need.

With the introduction of LTE-Advanced and carrier aggregation (CA) it is possible to use multiple LTE carriers simultaneously in one device. With 8 active measurement antennas in your RTS95 you can do 4CC CA MIMO without any complexity added to the test setup, just a few extra cables.

With the multi-antenna option and a channel emulator you can evaluate more complex radio environments with Doppler shift, different delay profiles or MIMO channel correlation. We support the most popular brands of channel emulators on the market.

Handover and de-sense testing are other examples of measurements where the eight measurement antennas come to good use.

LARGE TEST VOLUME

A usable test volume of up to 2m x 2m x 2m enables measurements on wireless devices carried by real persons such as smart watches, wireless wristbands or any other devices with body worn antennas. The test volume combined with a heavy duty 1.2m turntable makes it possible to measure the wireless performance of larger TV screens, M2M devices or smart home appliances. Other areas where a larger test volume is beneficial is when testing wireless car subsystems or car antennas.

BLUETEST FLOW SOFTWARE PLATFORM

The RTS95 comes with a measurement and analysis software platform: Bluetest Flow. This integrated test environment offers functionality for testing complex wireless solutions. It builds upon years of research and development expertise. Already well proven measurement methods and algorithms are included in the Flow platform. The Flow platform consists of Flow Manager, Flow Analyzer and Flow Touch.

FLEXIBLE SYSTEM MANAGEMENT

All measurements are executed by the built-in measurement computer. There is no need to be concerned about incompatible computers or conflicting programs that cause time consuming troubleshoot-
ing. Measurement configuration is done remotely with Bluetest Flow Manager installed on any regular office PC. It provides in-depth measurement configuration and setup while retaining direct chamber control. Flow Touch is available on the built-in touch screen or any mobile device with a web browser. It allows you to start, stop and monitor measurements from anywhere.

TOUCH SCREEN
The integrated 19” high resolution touch screen, with Flow Touch, provides easy system control as well as an interactive view into measurement progress. You can see the measurement status clearly in the progress bar. The touch screen lets you monitor the DUT while running your measurements through the chamber camera.

EASY OR ADVANCED – IT IS UP TO YOU
Flow Manager combined with Flow Touch gives you all the functionality you need for your OTA measurements whether it is advanced or basic. Get started fast with predefined setup settings according to standard bodies or carrier specifications. Intelligent parameters are implemented so that ranges and dependencies are corrected automatically. In Flow Manager, you visually setup the measurements by connecting the cables and instruments, just like you do it in reality to ensure you have the correct setup.

We have developed an adaptive user interface which is simplified for a new user, and at the same time Flow Manager user interface can be powerful for the advanced and experienced user. For example, you are able to build arbitrary measurement sequences and powerful measurement blocks. Organize your results by adding metadata to them in form of tags or additional DUT information.

BATCH MEASUREMENTS – THE TIME SAVER
For the engineer with a long list of mixed measurements it is possible to run all of them in one go. You can mix your measurements as you want. Combine measurement types, wireless standards and even instruments. Create a batch with TRP, TIS, and then TRP again with another communication tester.

ANALYSIS AND COMPARISON
The integrated result database and Bluetest Flow Analyzer enables easy and powerful search functions. You can combine results and make customized comparison plots. Import and export to files and keep all your results in one place. Your legacy files can also be imported to Flow Analyzer and the result database.

WIRELESS FORMATS
Whether you need support for WiFi, 2G, 3G or the latest 4G LTE standards, we cover the whole range of wireless communication. Flow Manager supports the most common communication testers and vector network analyzers for active and passive measurements. Our support and service solutions provide an upgrade path for both hardware and software platforms to ensure that the capabilities of your RTS95 stay ahead of tomorrow’s wireless technologies.

CALIBRATION
Calibration of the system is easily done by yourself in less than 15 minutes and is normally only performed when changing...
chamber load or chamber configuration. The same way you reuse the measurement setup you can reuse different calibration data. This minimizes disturbing down time for calibration.

**DUT INTERFACING**
We made it easy for you to supervise, control, and power up your DUT during a measurement. We support power supplies like AC and DC power and communication interfaces like Ethernet and USB for easy communication with your DUT inside the chamber. Whatever you need, we support the required interface.

**SUPPORTING ACCESSORIES**
We have a wide range of accessories to improve the work with your measurements. Check out our website for more details.

**MAINTENANCE**
We have significantly reduced the need for maintenance and support. The RTS95 will, however, indicate when it is time for preventive maintenance, the time in operation, and number of cycles. We offer maintenance packages for both hardware and software. You can contact us for support if you would have any issues, our fast response will minimize your down time.

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**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>RTS95</td>
</tr>
<tr>
<td>Frequency range</td>
<td>400 MHz – 6 GHz</td>
</tr>
<tr>
<td>Shielding</td>
<td>&gt;100 dB</td>
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<tr>
<td>Power consumption</td>
<td>Typical 160-220 W (depending on installed options)</td>
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<tr>
<td>Weight</td>
<td>1750 kg (3858 lb) (depending on installed options)</td>
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<tr>
<td>External dimensions</td>
<td>Width: 3340 mm (131.5&quot;)</td>
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<tr>
<td></td>
<td>Height: 2610 mm (102.8&quot;)</td>
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<tr>
<td></td>
<td>Depth: 4430 mm (174.4&quot;)</td>
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<tr>
<td>Accuracy passive measurements</td>
<td>0.3 dB (STD)</td>
</tr>
<tr>
<td>Accuracy TRP</td>
<td>0.3 dB (STD)</td>
</tr>
<tr>
<td>Accuracy TIS</td>
<td>0.5 dB (STD)</td>
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<tr>
<td>Repeatability</td>
<td>0.1 dB (STD)</td>
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<tr>
<td>Multiple antenna support</td>
<td>Passive: up to 8 antenna ports</td>
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<tr>
<td></td>
<td>Active: up to 8 antenna ports</td>
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**CONTACT US**

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