# will'tek

# RF Shield Audio Option



Reliable check of mobile phone's loudspeaker and microphone

Higher throughput due to automatic audio test

Easy and fast handling

Eliminates human factor during audio check

No impact on RF measurements

### 4923 RF Shield Audio Option

Not only the radio but also the audio parts can create trouble and need testing. Until now, the audio quality has been evaluated by a test operator who picks up the phone to speak into the microphone, listen to the looped-back signal and judge the quality of the overall signal path. This manual procedure is time-consuming, depends on the individual operator's judgement and cannot identify the source of a potential problem.

This dilemma can now be resolved with the 4923 RF Shield Audio Option. This straight-forward solution extends the 4920 RF Shield Box and has been optimised to work with the Willtek 4400 Mobile Phone Tester Series.

The option consists of a combination of microphone and loudspeaker installed in the RF Shield Box. This combination allows service centres to run audio measurements on a 4400 Series Mobile Phone Tester equipped with the audio and codec options.

## Fast and reliable RF and audio testing

The 4923 RF Shield Audio Option extends the ability of the RF Shield Box to generate repeatable results into the area of audio testing. Using a flexible arm, it takes a second only to easily draw the sensor to the phone's earpiece to pick up the audio signal. A loudspeaker integrated with the RF Shield Box stimulates the phone's microphone.

With 4923 RF Shield Audio Option, the audio measurements from the Willtek 4400 give you a reliable, reproducible overview of the audio quality of the phone under test.

## Objective Go/NoGo testing of audio parts

Rather than relying on a manual procedure to tell good from bad phones, service centre managers want to automate and accelerate tests; ISO 9000 requires test results to be recorded. The test system comprising the 4920 RF Shield Box with the 4923 RF Shield Audio Option and a 4400 Series Mobile Phone Tester delivers the test results for a pass/fail verdict. Separate tests of the audio transmit and receive paths deliver criteria for a more in-depth analysis in case of failures.

By adding the 4920 RF Shield Box with the 4923 Audio Option, test stations including a 4400 Series Mobile Phone Tester can be upgraded at low cost, eliminating the need for a stand-alone audio test instrument. Audio signals are generated and analysed by the 4470 Audio Option of the 4400.

## No phone-specific cables required

Another alternative for audio testing would be to pick up signals at the headset connector of the mobile phone. This method tests the codec, the converters and part of the audio filters but not the microphone and the speaker of the phone, and it involves specific cables which might have to be changed each time a new phone is connected. The RF Shield Box with its Audio Option is the most universal and comprehensive solution since it allows testing of the complete audio path in both directions individually, and does not require any phone-dependent cables.

With the 4923 RF Shield Audio Option comes a connector for a data interface so that the phone can be operated remotely by the 4400 Mobile Phone Tester. The connectors are filtered to prevent RF radiation from nearby base stations or other phones under test from penetrating into the RF Shield Box.

### **Ordering information**

4923 RF Shield Box Audio Option M 248 420 incl. audio cabling for the 4400
RF Shield Box (N) Audio Package incl. 4920 RF Shield Box (N)
4923 RF Shield Box Audio Option fits 420x, 440x
RF Shield Box (N) Audio Package incl.
Antenna Coupler M 248 419 incl. 4920 RF Shield Box (N)
4923 RF Shield Box (N)
4923 RF Shield Box Audio Option
4910 Universal Antenna Coupler

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Willtek Communications GmbH 85737 Ismaning Germany

Tel: +49 (0) 89 996 41-0 Fax: +49 (0) 89 996 41-440 info@willtek.com

Willtek Communications Inc. Indianapolis

USA Tel: +1 317

Tel: +1 317 595 2021 Tel: +1 866 willtek Fax: +1 317 595 2023 willtek.us@willtek.com

Willtek Communications Ltd. Chessington United Kingdom

Tel: +44 (0) 20 8408 5720 Fax: +44 (0) 20 8397 6286 willtek.uk@willtek.com

