

USER GUIDE



FCC MOBILE SPEED TEST APP

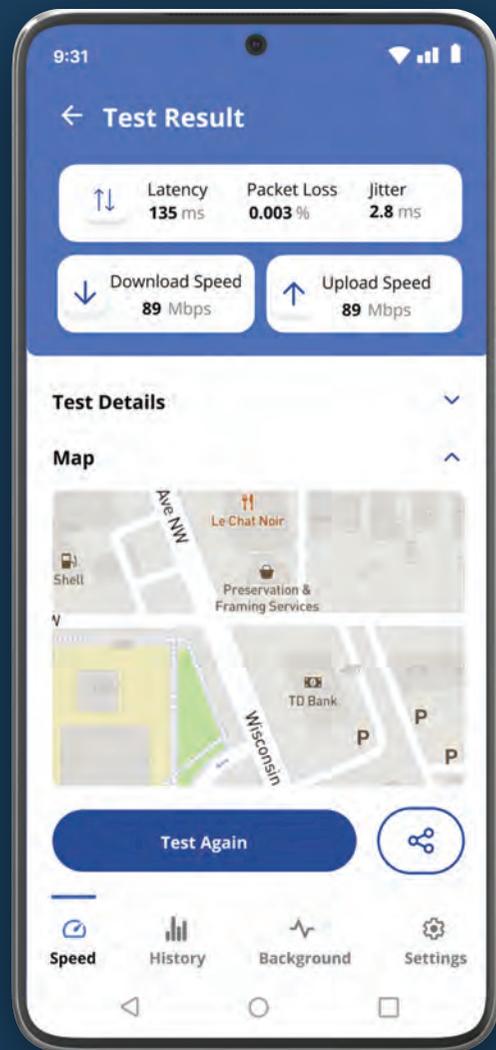
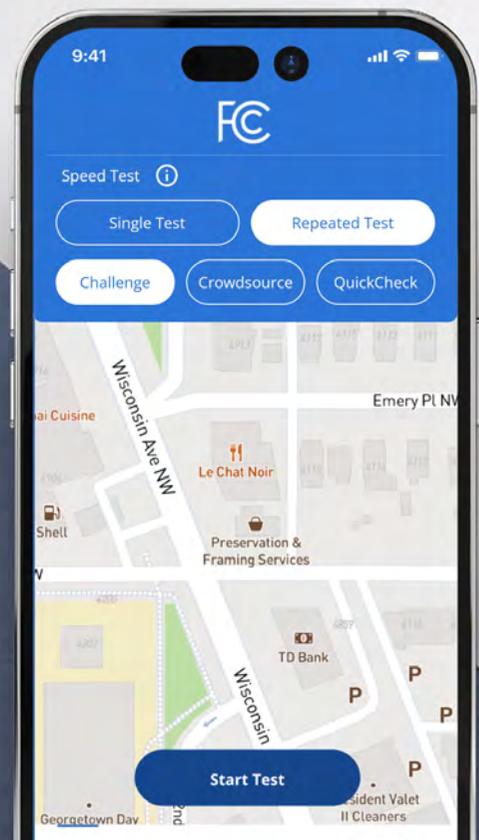
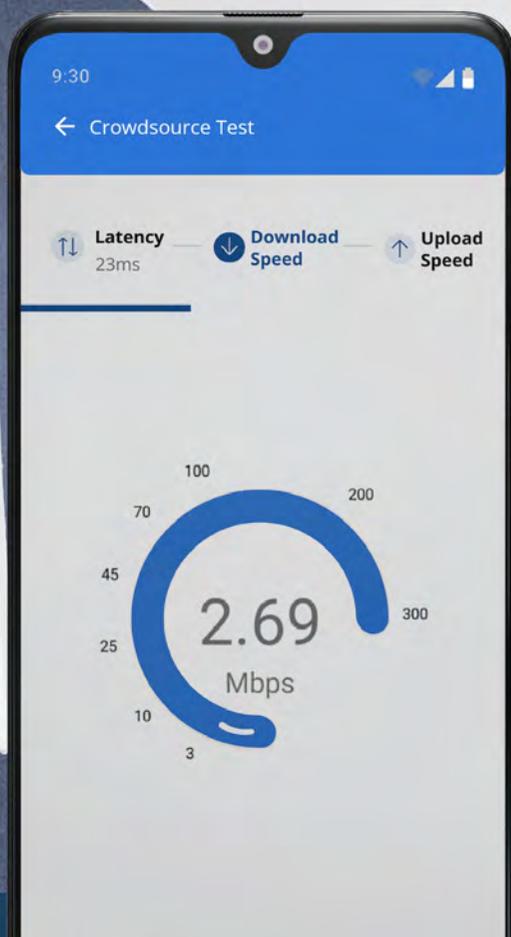
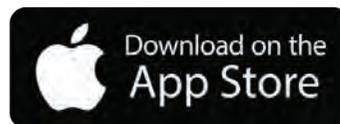


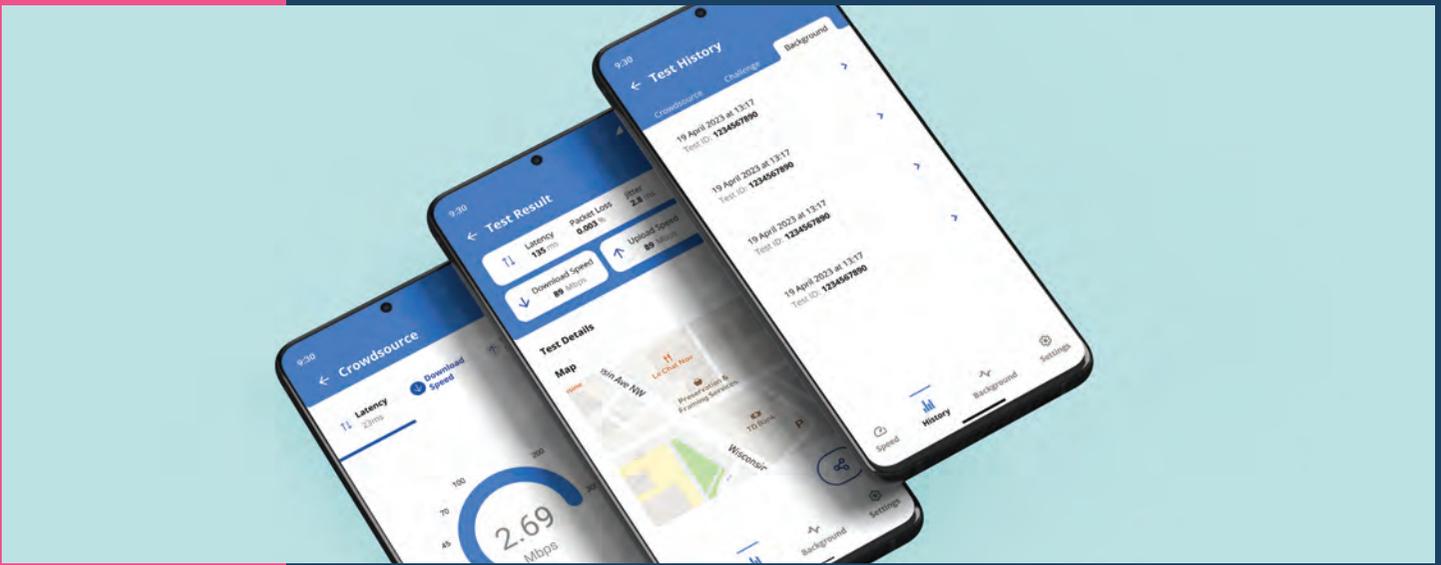
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Supported Operating Systems

The FCC Mobile Speed Test App is available to download from the Google Play Store on Android and the Apple App Store on iOS. The FCC Mobile Speed Test App requires a mobile device running Android 9.0 or above or iOS 14 or above.





Types of Speed Tests

FCC Mobile Speed Test app users can run speed tests that will help improve the accuracy of the mobile broadband coverage shown on the FCC's National Broadband Map. Challenge and Crowdsource tests conducted using the FCC Mobile Speed Test app play a crucial role in supporting the FCC's Broadband Data Collection program, and will help identify where mobile broadband is and is not available across the country.

Users can also test the performance of a mobile or WiFi connection without sharing contact information with the FCC or their wireless provider. These tests will not affect the coverage shown on the FCC's National Broadband Map.

This app offers three speed test options for testing mobile broadband availability and speeds:

1. Challenge Speed Test
2. Crowdsource Speed Test
3. QuickCheck Test

All tests assess the following metrics:

- Download Speed
- Upload Speed
- Latency
- Packet Loss
- Jitter

Every test generates a distinct Test ID.

With a **Challenge Speed Test**, you can dispute, or “challenge,” a provider’s coverage map shown on the FCC’s National Broadband Map.

Successful challenges based on multiple speed tests in an area can result in coverage being removed from the Map.

Crowdsource Speed Tests allow the FCC to verify the accuracy of the National Broadband Map and to better evaluate a provider’s claims of coverage versus where its mobile service is actually available.

QuickCheck Speed Tests let you test the speed of your wireless network connection without submitting a challenge or sharing your contact information with the FCC.

Challenge Test

If you are outdoors or in a vehicle, you can perform Challenge Tests to dispute a mobile provider's coverage maps as shown on the FCC's National Broadband Map. These test results are shared with and aggregated by the FCC, and multiple tests within a geographic area that meet certain criteria will be used to challenge a provider's mobile broadband coverage in that area.

Speed tests that generate a challenge are shared with the provider and help improve and update the FCC's National Broadband Map. Learn more at: fcc.gov/BroadbandData/consumers.

How to Run a Challenge Test

1. On the home screen, select "Single Test" or "Repeated Test," then tap "Challenge" followed by "Start Test."
2. To run a challenge test you must enter your name, email address, and the mobile phone number of the device you are using for the test. Learn more about how the FCC stores, uses and protects your personal information at fcc.gov/AppPrivacyPolicy. When running future Challenge Tests, you only need to confirm that your information has not changed.
3. Confirm that you are using mobile data, that you are a subscriber or authorized user of the challenged provider, and that your device and speed test app are functioning normally, to the best of your knowledge.
4. Specify where the test is being run—Indoor, Outdoor, or In-Vehicle Mobile (such as in an automobile or other moving vehicle).

Note: Only tests taken Outdoors or in an automobile or other moving vehicle can be a Challenge Test. If you select the Indoor option, the test will be recorded as a Crowdsourcing Test and not considered a Challenge Test.

5. You will be prompted to turn off “airplane mode,” and turn on “location services.” Confirm WiFi is turned off and cellular data is turned on to start the test.

6. Once you select the environment, the speed test will begin.

Note: Challenge Tests are only used to dispute or challenge mobile broadband coverage as shown on the National Broadband Map, and therefore must be run on the mobile network, not over WiFi. For more information on how to challenge fixed broadband availability at a wired location, such as a home, store, or office, as shown on the National Broadband Map, please visit <https://help.bdc.fcc.gov/hc/en-us/articles/10476040597787-How-to-Submit-an-Availability-Challenge>.

7. After completing a test, your results will be automatically submitted to the FCC. Failed tests will be sent to the FCC after a connection with the internet is re-established.

8. Test results will show upon test completion and will be accessible in your “History.” You can share the results with others directly from the app and can also perform another challenge test.

9. Challenge Tests are aggregated with other Challenge Tests taken in a similar geographic area. Once a group of Challenge Tests that show speeds below those reported by a provider within a defined geographic area meets certain thresholds, a challenge will be created and sent to the provider for a response. If your Challenge Test results are part of a challenge sent to a provider, you will receive an email with status updates for the challenge.

QuickCheck Test

You can perform QuickCheck tests to test the speed of your wireless network connection without submitting a challenge or sharing your contact information with the FCC.

How to Run a QuickCheck Test

- 1.** On the home screen, select “Single Test” or “Repeated Test,” then tap “QuickCheck” followed by “Start Test.”
- 2.** Specify the environment where the test is being run—Indoor, Outdoor, or In-Vehicle Mobile (such as in an automobile or other moving vehicle).
- 3.** Once you select the environment, the speed test will begin.
- 4.** Test results will show upon test completion and will be accessible in your “History.” You can share the results with others directly from the app and can choose to perform another QuickCheck test or to run a Challenge Test.

Crowdsource Test

A Crowdsource Test enables you to test the speed of a mobile connection at a given place and time. The results collected from Crowdsource Tests help the FCC assess mobile coverage across the U.S.

How to Run a Crowdsource Test

- 1.** On the home screen, select “Single Test” or “Repeated Test,” then tap “Crowdsource,” followed by “Start Test.”
- 2.** Enter your contact information to share the crowdsourcing test results with the FCC. Your contact information is required to be able to run this test. Learn more about how the FCC stores, uses and protects your personal information at [fcc.gov/AppPrivacyPolicy](https://www.fcc.gov/AppPrivacyPolicy).
- 3.** Specify the environment where the test is being run—Indoor, Outdoor, or In-Vehicle Mobile (such as in an automobile or other moving vehicle).
- 4.** Once the test environment is selected, the Crowdsourcing Test will start.
- 5.** Test results will show upon test completion and be accessible in your “History.” You can share the results with others directly from the app and can also perform another speed test.
- 6.** After completing a test, your results will be automatically submitted to the FCC, and the FCC may use them to evaluate and verify a provider’s coverage maps in your area. Failed tests will be sent to the FCC after a connection with the internet is re-established. Crowdsourcing tests will not be used to officially challenge provider coverage maps, and you may run a speed test of your WiFi connection using the “crowdsourcing” mode.

Test Metrics



Every broadband performance test run in the app measures the following metrics:

1. Download Speed

Download speed is the speed that data travels from our test server to your device. It is measured in megabits per second (Mbps), and higher is better.

2. Upload Speed

Upload speed is the speed that data travels from your phone to our test server. It is measured in megabits per second (Mbps), and higher is better.

3. Latency

Latency is the time it takes for a data packet to travel from your phone to our test server and back. It is measured in milliseconds (ms), and lower is better.

4. Jitter

Jitter is the variation in latency of a burst of small packets. It is measured in milliseconds (ms), and lower is better.

5. Packet Loss

Packet loss is the percentage of packets that were transmitted but lost in the network. It is measured as a percentage of all packets sent, and lower is better.

Privacy and Personally Identifiable Information (PII)



How Is Your Data Stored?

Data usage aligns with and is safeguarded by the FCC Privacy Policy, accessible at:

fcc.gov/AppPrivacyPolicy.

Data and Permissions Requests

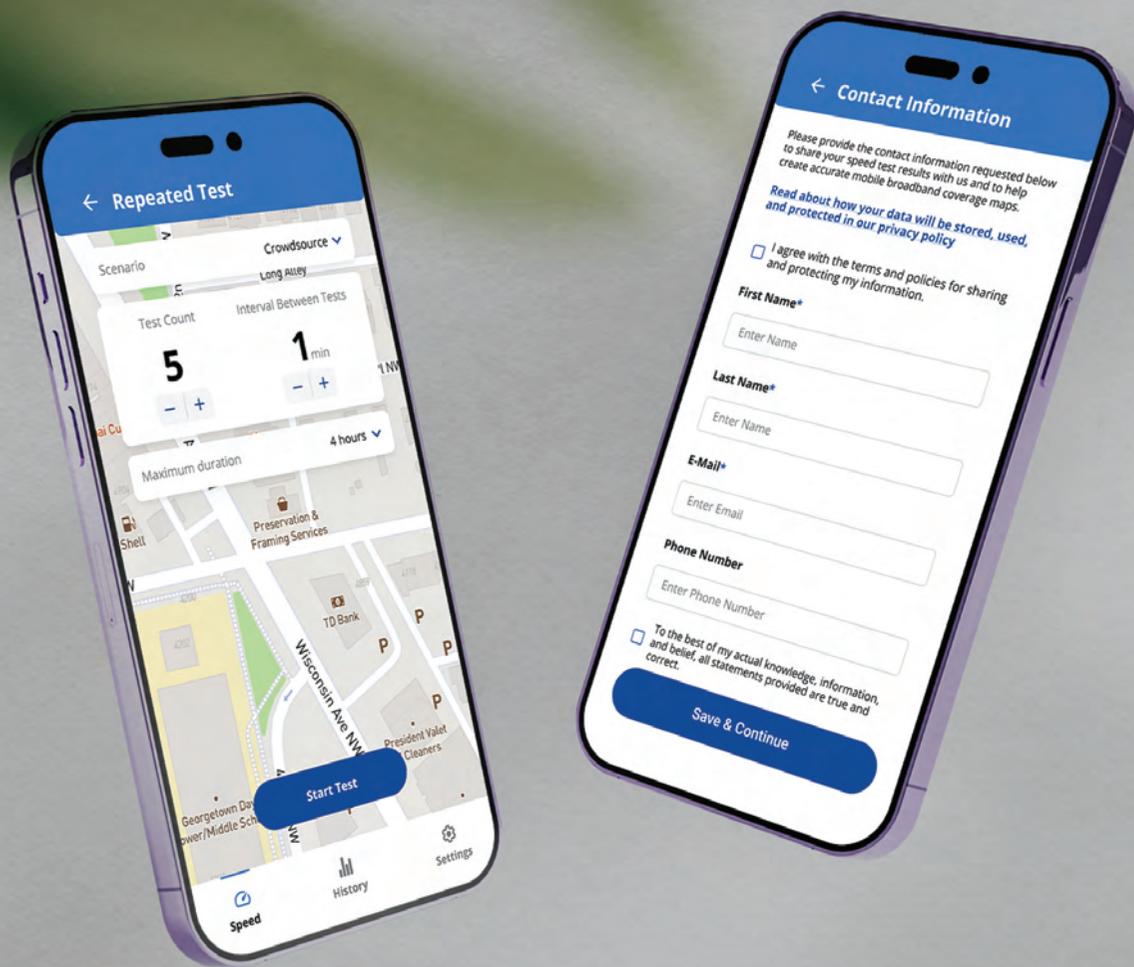
QuickCheck tests let you test the speed of your wireless network connection without submitting a challenge or sharing your contact information with the FCC. Challenge and Crowdscore tests require certain contact information (first/last name and email address). Challenge Test submissions also require a phone number. Contact information will be sent to the FCC and will be safeguarded by its Privacy Policy. Challenge Test submissions may be used to verify the accuracy of the National Broadband Map. You can edit or delete your contact information in the app settings.

Personally Identifiable Information (PII) will not be stored outside of the speed test app except when speed test results are shared with the FCC.

Location Permissions

Before conducting the initial speed test, the app will ask permission to access your location data latitude and longitude. This information is essential for accurate Crowdscore and Challenge Tests to aid the FCC in verifying the accuracy of the National Broadband Map. Android users conducting Background Tests must also grant background location-sharing permission. When using the app to conduct QuickCheck tests, it will collect, with your permission, your location information.





User Features

Background Test (Android Only)

You can configure the application to execute scheduled crowdsource tests seamlessly in the background. You have the flexibility to select the preferred frequency for these background tests: daily, weekly, or monthly. Upon enabling the background test feature, tests will autonomously run based on the chosen frequency, eliminating the need for manual initiation by the user. Test results from these background tests can be conveniently accessed within the History section of the app.

Repeated Test

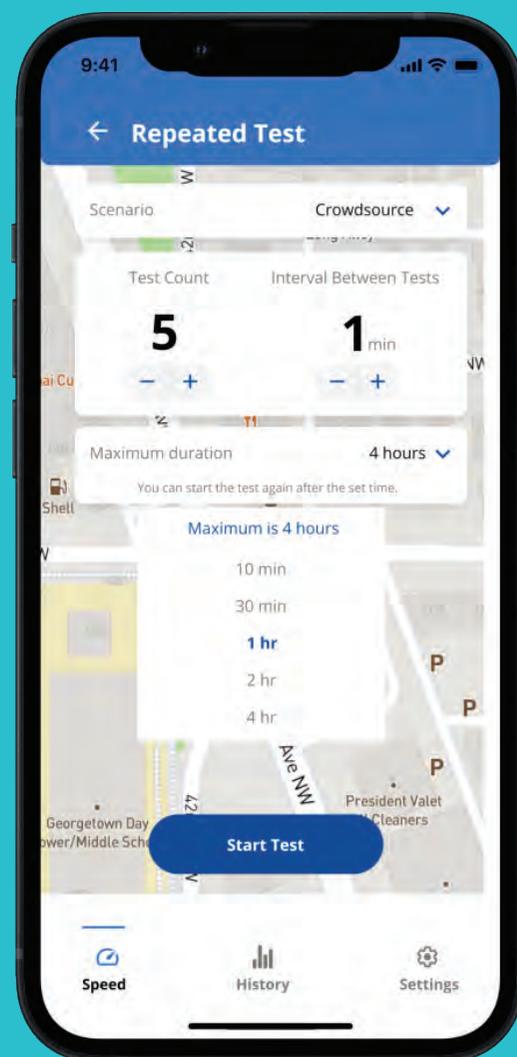
Repeated Testing allows you to set the app to perform back-to-back Challenge, Crowdscore or QuickCheck testing without having to manually initiate a new test each time. The maximum duration for a repeated test session is 4 hours. You should ensure the duration that is set does not exceed the amount of time you will be in the outdoor or in-vehicle environment you select for the repeated tests.

Test Environment

You must choose whether individual or repeated tests are run in one of the following environments: **Indoor, Outdoor or In-Vehicle**. Note that Challenge tests must be run from an Outdoor or in-vehicle location and cannot be run while indoors or while connected to a WiFi network.

Test History

You can view previous test results by tapping "History" at the bottom of the screen. Tests are categorized under "Crowdscore," "Challenge," "QuickCheck", "Repeated" or "Background" based on the mode used, with the latest test on top. Each test is distinguishable by its unique Test ID, date, and time the test was taken. Additional details include a map showing the approximate test location and the test server used. Additional details including test coordinates and tested environment are included in data exported to CSV or JSON.

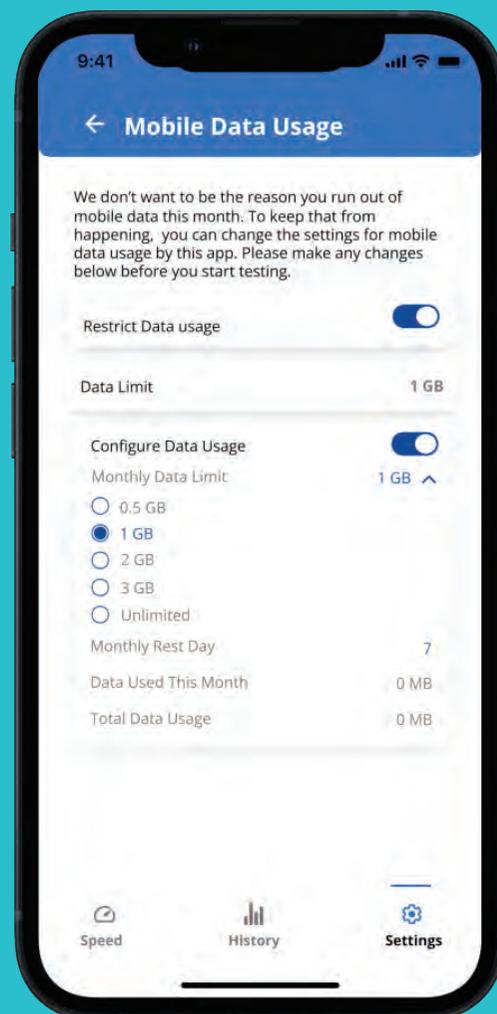


Mobile Data Usage

You can restrict data usage for tests taken on your mobile network plan. If a data cap is set, the app will provide a usage warning before initiating a test, enabling you to decide whether or not to proceed with the test. You can establish a monthly data cap, specify a reset day, and monitor current and total data usage within the app.

Data Export

You have the option to download or share your test results as a ZIP file. After extracting the downloaded zip file, you will have the information available in CSV or JSON format.



How to Ask Questions or Provide Feedback

For technical questions or feedback, please use the Contact Us form in the app.

For queries about the Broadband Data Collection program and data usage, visit <https://help.bdc.fcc.gov>.

