

7. For mobile and portable coverage testing the Contractor shall divide the Service Area into a tile pattern to produce the number of uniformly sized test locations (or tiles) required by SEPTA. With the approval of SEPTA, the Contractor may adjust the tile size slightly to correspond to street to street distances, if applicable.
8. The Test Vehicle shall pass through each test tile with the vehicle crossing into the tile at an arbitrary point, with an arbitrary speed and direction. Test vehicle speeds during testing shall not exceed 60 mph, nor be slower than 5 mph.
9. In accordance with TSB-88, a series of sequential measurements (sub-samples) shall be taken in each test tile using the latest ITU-T test pattern. This test location measurement, shall be made over enough time to capture at least one BER measurement, corresponding to one ultra-frame of approximately 3 seconds or  $40\lambda$ , whichever is greater, containing several sub-samples, constitutes the test sample for this location. The test sample will establish the local median BER within the test tile. ~~The distance over which the sub-samples are measured shall be 40 wavelengths. The median of multiple BER sub-samples is used rather than a single measurement.~~ The BER sample shall be collected while in motion to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave. The number of sub-samples shall be based on a 95% confidence interval.
10. Mobile coverage acceptance testing shall be performed in the talk-out direction to a test receiver in a vehicle. Portable coverage testing shall be performed with the appropriate attenuator value installed in the test receiver's antenna line, to establish an equivalent signal level performance for each equipment configuration. In-bound portable coverage testing shall be performed out-bound, if reviewed by SEPTA with the correct attenuation of the test receiver for BER tests. In the out-bound case, the attenuation shall be the difference between the mobile test receiver's antenna system and the additional loss used in the Contractor's coverage prediction to account for portable antenna performance. This provides an objective method of verifying that the Radio System will provide the faded performance threshold (BER) for the specified CPC requirement for each of the defined equipment configurations.
11. After measurements have been recorded for all accessible tiles in each service area; the coverage area reliability percentage shall be determined by dividing the number of tiles that pass by the total number of tiles tested.
12. Inaccessible tiles shall not be included in the coverage calculations.
13. The coverage area reliability calculation result shall not be rounded up or down but remain as calculated to two decimal places.
14. No failed tiles shall be re-tested either subjectively or by BER measurement, to try and obtain a "pass".
15. The Contractor shall provide the raw coverage test data, mobile and portable coverage maps (inbound & out-bound), and Service Area reliability calculations exhibiting the measured coverage results to SEPTA as part of the documentation requirement of this Specification.