Low-Volume Measurement in Corning 4571BC 1536-Well Microplates Using the Scarlett™ 01 Volume Analysis System

Summary

The Scarlett 01 Volume Analysis System successfully measured liquid volumes in Corning 4571BC 1536-well microplates at a nominal volume of 2 µL. All 1536 wells were successfully measured in a single scan, demonstrating the ability of Scarlett to perform low-volume measurements in high-density microplate formats.

Key Results

- Scarlett measured liquid volumes in **Corning 4571BC 1536-well microplates**.
- Successfully measured **nominal 2 µL DI water volumes** across the plate.
- **All 1536 wells** were successfully measured in a single scan.
- Full 1536-well plate scan completed in **2 min 7 s.**
- Mean measured volume across the plate was **2.06 µL.**

Performance Overview

Table 1. Test Summary

Parameter	Value
Plate Manufacturer / Model	Corning 4571BC
Plate Type	1536-well, square-well, flat-bottom, COC
Nominal Volume	2 µL
Liquid Evaluated	DI H_2O
Wells Measured	1536
Scan Time	2 min 7 s

Measurement Results

A Corning 4571BC 1536-well microplate containing nominal 2 µL DI water volumes was measured using the Scarlett 01 Volume Analysis System. Scarlett successfully measured liquid volumes in all 1536 wells in a single scan completed in 2 minutes 7 seconds. The mean measured volume across the plate was 2.06 µL.

Table 2. Full-Plate Measurement Summary

Parameter	Value
Wells Measured	1536
Nominal Volume	2.00 µL
Mean Measured Volume	2.06 µL
Standard Deviation	0.20 µL
Scan Time	2 min 7 s

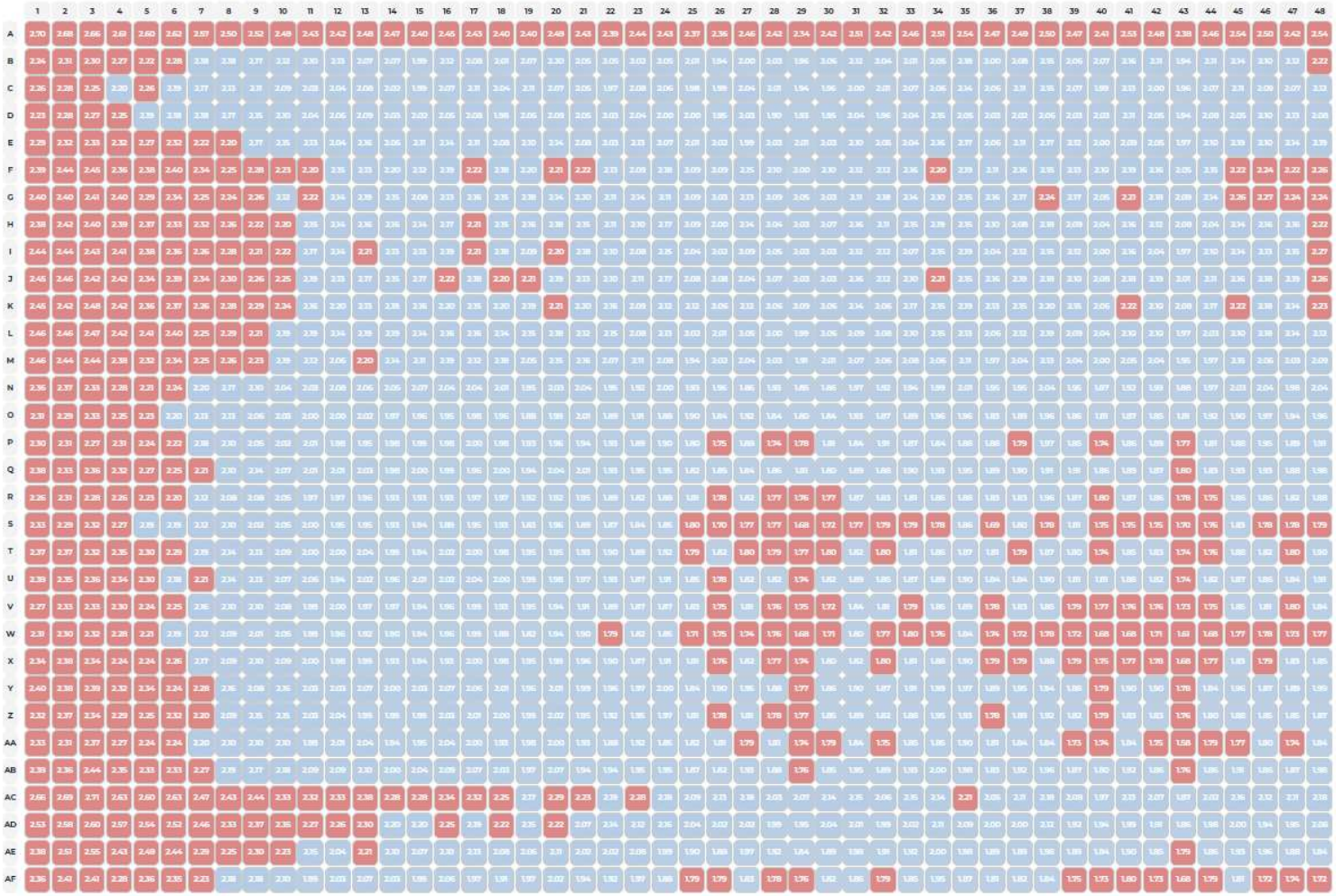

Figure 1. Full-plate volume map of a Corning 4571BC 1536-well microplate containing nominal 2 µL DI water volumes. Wells with measured volumes outside ±10% of the nominal volume (1.8–2.2 µL) are highlighted in red.

Conclusion

The Scarlett 01 successfully measured liquid volumes across all 1536 wells of a Corning 4571BC microplate containing nominal 2 µL DI water volumes. These results demonstrate Scarlett's ability to perform low-volume measurements in high-density 1536-well microplates, with full-plate measurement completed in 2 minutes and 7 seconds.

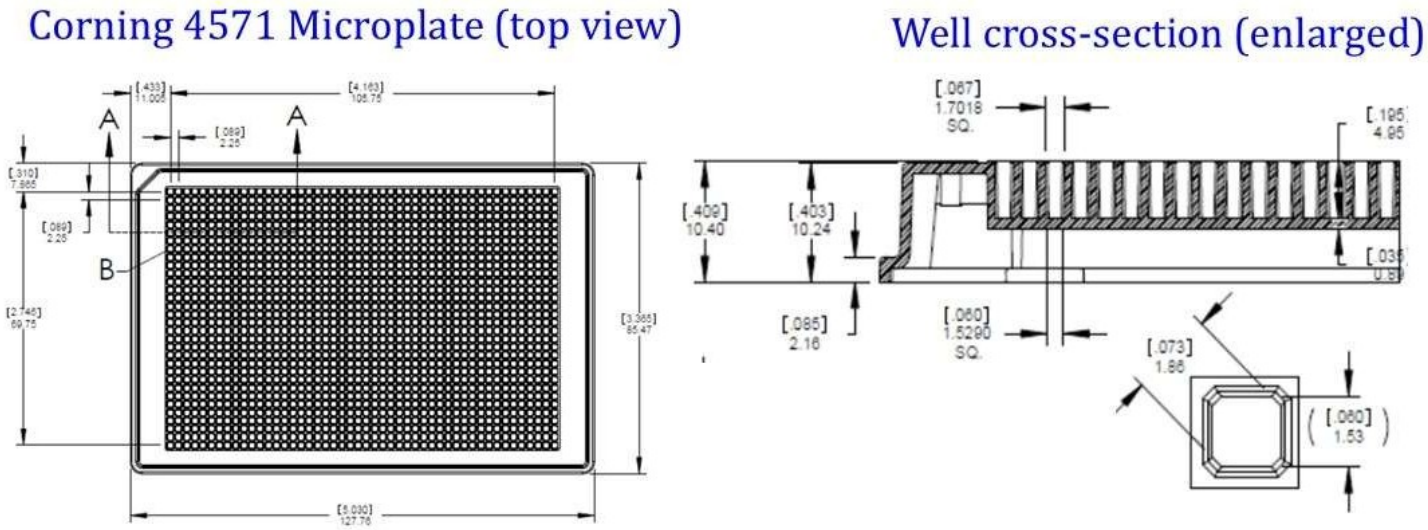

Figure 2. Plate and well geometry for the Corning 4571BC 1536-well microplate.

Ready to see Scarlett in your workflow? Contact Aventix at hello@aventix.io to discuss your application, microplate format, and liquid handling requirements.