

Co-location details

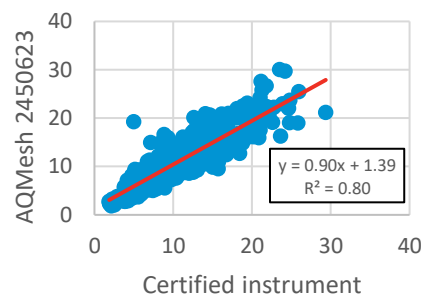
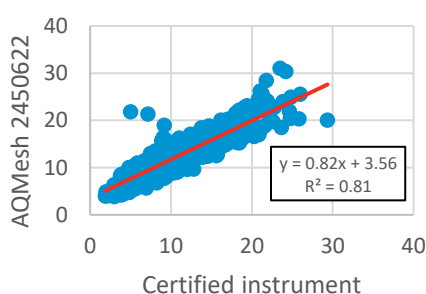
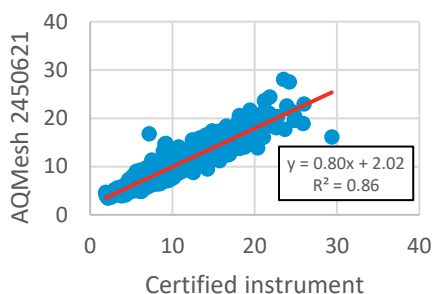
Sensor information

Sensor	PM10
Sensor type	Optical particle counter
AQMesh processing algorithm	V3.0h
Sampling time interval	1hr
Pod serial numbers	2450621, 2450622, 2450623
Number of paired sensor / certified instrument values	700

Testing site information

Location	Manchester, UK
Duration (Hrs.)	720
Date range	17 Jun 2021 – 17 Jul 2021
Certified instrument uptime	97.58%
Range of certified instrument concentrations over duration of test	27.48 $\mu\text{g}/\text{m}^3$

Scatter plot: AQMesh comparison to certified instrument



Performance metrics

Co-location result	Linearity	Bias		Accuracy	Data completeness
	R2	Slope	Intercept	RMSE	Sensor uptime
Pod 2450621	0.86	0.80	2.02	1.82	97.58%
Pod 2450622	0.81	0.82	3.56	2.70	
Pod 2450623	0.80	0.90	1.39	2.22	
AQMesh target	>0.60	0.7-1.3	< +/- 10 $\mu\text{g}/\text{m}^3$	<10	>90%
US EPA target*	TBC	TBC	TBC	TBC	TBC

* <https://www.epa.gov/air-sensor-toolbox/air-sensor-performance-targets-and-testing-protocols>

Time series plot: 1-hour average PM10

