

## Co-location details

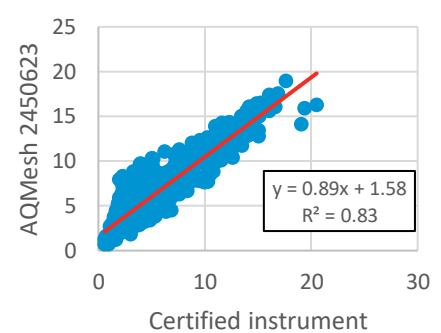
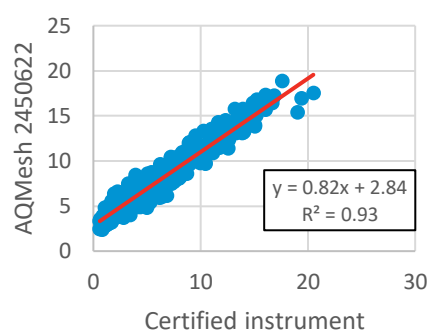
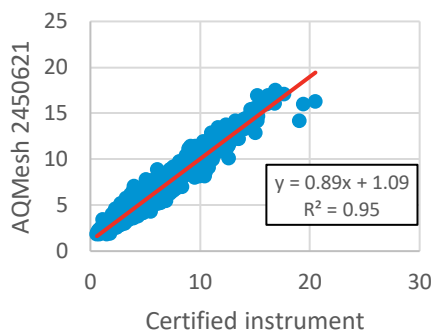
### Sensor information

<b>Sensor</b>	PM1
<b>Sensor type</b>	Optical particle counter
<b>AQMesh processing algorithm</b>	V3.0h
<b>Sampling time interval</b>	1hr
<b>Pod serial numbers</b>	2450621, 2450622, 2450623
<b>Number of paired sensor / certified instrument values</b>	700

## Testing site information

<b>Location</b>	Manchester, UK
<b>Duration (Hrs.)</b>	720
<b>Date range</b>	17 Jun 2021 – 17 Jul 2021
<b>Certified instrument uptime</b>	97.58%
<b>Range of certified instrument concentrations over duration of test</b>	19.91 $\mu\text{g}/\text{m}^3$

## 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	0.95	0.89	1.09	0.98	97.58
Pod 2450622	0.93	0.82	2.84	2.09	
Pod 2450623	0.83	0.89	1.58	1.76	
<b>AQMesh target</b>	>0.75	0.8-1.2	<+/- 10ug/m3	<+/- 10ug/m3	>90%
<b>US EPA target*</b>	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 PM1

