

Quality Control Report LSM700

Date: 2026-05-27

Laser Power

Laser	Measured Power (μW)
405	3.5
488	11.3
555	4.6
635	4.0

Resolution

Objective: 63x

Pinhole 1.0 AU

Objective 1.4

Sampling

Channel	Saturation	Nyquist (μm)	Found (μm)	Nyquist/found ratio
647	none	0.058x0.058x0.174	0.045x0.045x0.1	0.8, 0.8, 0.6
564	none	0.05x0.05x0.151		0.9, 0.9, 0.7
488	none	0.044x0.044x0.131		1.0, 1.0, 0.8
405	<0.1%	0.036x0.036x0.109		1.2, 1.2, 0.9

Resolution

Channel	Sig/Background ratio	Dimension	Measured FWHM (μm)	theory (μm)	Fit Goodness	Mes./theory ratio
647	<0.1	X	0.588	0.236	0.83	2.49
		Y	0.714	0.236	0.81	3.03
		Z	2.335	0.611	0.78	3.82
564	<0.1	X	0.816	0.205	0.87	3.97
		Y	0.834	0.205	0.9	4.06
		Z	1.592	0.533	0.86	2.99
488	<0.1	X	0.725	0.178	0.84	4.08

		Y	0.818	0.178	0.82	4.6
		Z	1.792	0.461	0.87	3.88
405	<0.1	X	0.723	0.148	0.57	4.9
		Y	0.777	0.148	0.66	5.27
		Z	2.163	0.383	0.53	5.65

Co-Registration

ISO 21073 co-registration accuracy

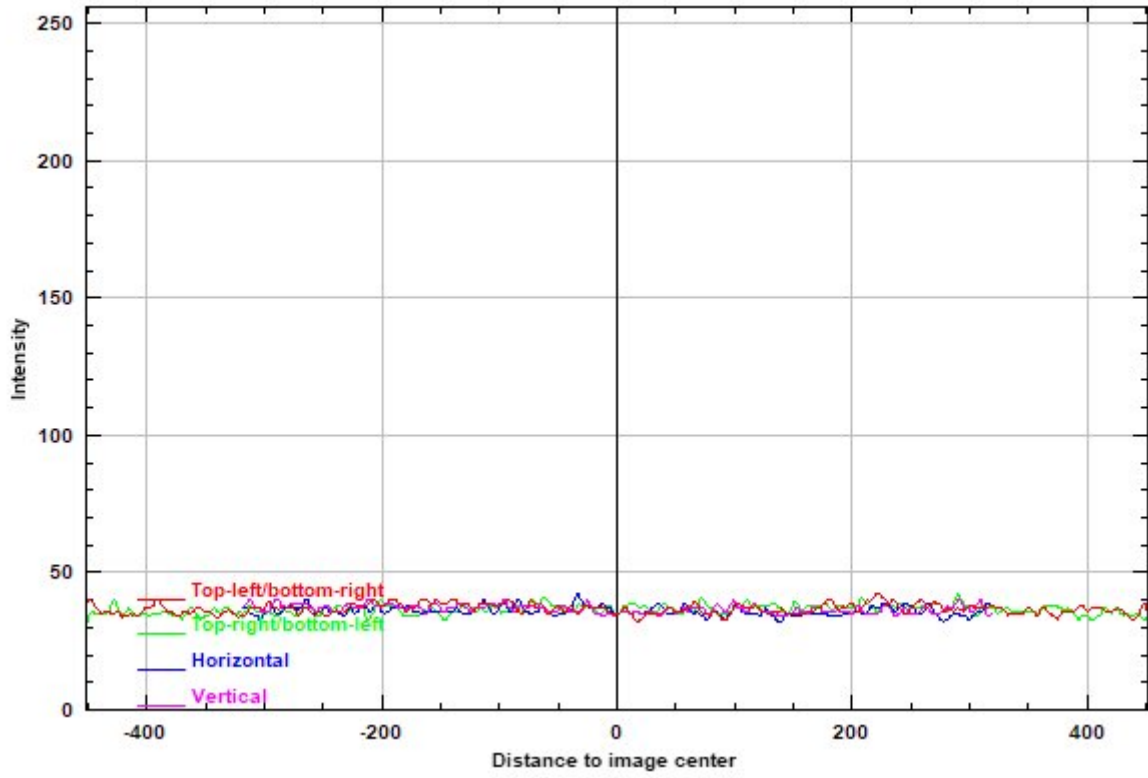
	Distance (in μm)	647	555	488	405
Channel 0	Lateral distance (in μm)		0.045	0.022	0
	Axial distance (in μm)		0.475	0.65	0.9
Channel 1	Lateral distance (in μm)	0.045		0.05	0.045
	Axial distance (in μm)	0.475		0.175	0.425
Channel 2	Lateral distance (in μm)	0.022	0.05		0.022
	Axial distance (in μm)	0.65	0.175		0.25
Channel 3	Lateral distance (in μm)	0	0.045	0.022	
	Axial distance (in μm)	0.9	0.425	0.25	

Illumination

Illumination uniformity

Filter	Uniformity (%)	Field Uniformity (%)	Centering Accuracy (%)	Image	Coef. of Variation	Mean c fit value
Alexa 350	63	94.7	78	C1-2026-05-27_Illumination	0.0456	0

Intensity profiles



Repositioning Accuracy

Average drift: 0.1214 μ m

