

HAMAMATSU

HAMAMATSU PHOTONICS K.K

		7/21/2022	
FINAL INSPECTION SHEET 検査成績書		HAMAMATSU PHOTONICS K.K. SOLID STATE DIVISION 浜松ホトニクス株式会社 固体事業部	
Name	Micro-Spectrometer	Approved by 責任者	Yosuke Matsune
Type No.	C12880MA	Inspected by	Shinya Ohta
NO.	689554	検査員	
Date Inspected: 検査日: 2022/ 4/ 13 24.0 °C ~ 2022/ 4/ 114 24.0 °C			

*1) Wavelength resolution: Test conditions / Maximum value of FWHM at 340nm,400nm,450nm,500nm,550nm,600nm,,655nm,710nm,760nm,810nm,850nm wavelength
波長分解能 : 検査条件 / 波長340nm, 400nm, 450nm, 500nm, 550nm, 600nm,, 655nm, 710nm, 760nm, 810nm, 850nmのFWHMの最大値

							689554-1	
Calibration coefficients Wavelength[nm]=A ₀ +B ₁ *pix+B ₂ *pix ² +B ₃ *pix ³ +B ₄ *pix ⁴ +B ₅ *pix ⁵ 波長変換係数							Wavelength resolution *1) 波長分解能	
Serial No.	A ₀	B ₁	B ₂	B ₃	B ₄	B ₅	Standard for Shipment 出荷基準 [nm]	Result 測定値 [nm]
22C04993	3.014077256E+02	2.698532589E+00	-9.345542288E-04	-9.674305941E-06	1.716847969E-08	-6.042889362E-12	≤15	9.6
22C04994	3.016659500E+02	2.716080586E+00	-1.265965361E-03	-7.026170620E-06	7.595820111E-09	6.687461273E-12		9.6
22C04995	2.979115795E+02	2.715512893E+00	-1.163594788E-03	-7.956188166E-06	1.138883562E-08	1.063155702E-12		8.9
22C04996	3.018955139E+02	2.706939949E+00	-1.147517400E-03	-7.592070357E-06	8.732799727E-09	5.962151492E-12		9.3
22C04997	3.009774507E+02	2.714732369E+00	-1.216375017E-03	-7.382926064E-06	8.981941169E-09	4.444387815E-12		9.1
22C04998	3.005631732E+02	2.722854172E+00	-1.345014452E-03	-6.489467992E-06	6.526811995E-09	6.566897622E-12		9.1
22C04999	3.076911272E+02	2.709513276E+00	-1.210326047E-03	-7.728597582E-06	1.104788022E-08	9.222593980E-13		9.0
22C05000	3.099624610E+02	2.721247554E+00	-1.507155015E-03	-4.942387882E-06	-2.035741104E-10	1.708818113E-11		8.8
22C05001	3.026561764E+02	2.712263262E+00	-1.144609038E-03	-8.283547004E-06	1.266801169E-08	-5.020861434E-13		8.9
22C05002	3.058254112E+02	2.719890553E+00	-1.345793520E-03	-6.455946604E-06	5.522456837E-09	9.485992001E-12		8.9
22C05003	3.005722051E+02	2.714293228E+00	-1.081116182E-03	-9.142400232E-06	1.724170381E-08	-8.535810319E-12		9.0
22C05004	3.115921902E+02	2.710438972E+00	-1.281526885E-03	-7.260821021E-06	9.690078057E-09	2.287712025E-12		8.8
22C05005	3.016638692E+02	2.702660655E+00	-9.304137493E-04	-9.962219451E-06	1.874219731E-08	-8.621744511E-12		9.1
22C05006	3.044848345E+02	2.712505642E+00	-1.193802991E-03	-7.688499570E-06	1.007733397E-08	3.205815307E-12		9.1
22C05008	3.102367439E+02	2.720162333E+00	-1.476353865E-03	-5.482330238E-06	2.317932567E-09	1.340090641E-11		9.2
22C05009	3.068742859E+02	2.709792954E+00	-1.281647643E-03	-6.715817850E-06	6.492788765E-09	7.694981592E-12		8.8
22C05010	3.099379033E+02	2.705846316E+00	-1.218320141E-03	-7.518317217E-06	1.020426205E-08	1.783075172E-12		8.8
22C05011	3.021994155E+02	2.716307458E+00	-1.289670740E-03	-6.965126417E-06	7.761523968E-09	6.144914762E-12		9.2
22C05012	3.017854883E+02	2.703762159E+00	-9.730441699E-04	-9.553889451E-06	1.725031575E-08	-6.848926774E-12		9.2
22C05013	3.167669401E+02	2.709932898E+00	-1.267732687E-03	-7.277090047E-06	8.965999036E-09	4.325878138E-12		9.0
22C05014	3.021523393E+02	2.719911570E+00	-1.291995524E-03	-6.870892664E-06	7.230140443E-09	6.687871582E-12		8.8
22C05015	3.071386648E+02	2.716755836E+00	-1.368911546E-03	-6.098730413E-06	4.645837924E-09	9.447283819E-12		8.9
22C05016	3.053553924E+02	2.702694906E+00	-1.011699873E-03	-9.372849879E-06	1.683706125E-08	-6.456753394E-12		9.3
22C05017	3.078818468E+02	2.709561238E+00	-1.117360710E-03	-8.457020964E-06	1.330575204E-08	-1.511126003E-12		9.1
22C05018	3.103104441E+02	2.719637360E+00	-1.391138211E-03	-6.177288919E-06	4.430377698E-09	1.125229149E-11		9.1
22C05019	3.056381031E+02	2.710199538E+00	-1.111260844E-03	-8.748543564E-06	1.522044283E-08	-5.123650241E-12		8.7

[illegible]

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Name	Micro-Spectrometer	Approved by 責任者	Yosuke Matsune
Type No.	C12880MA	Inspected by	Shinya Ohta
NO.	689554	検査員	
Date Inspected: 検査日 : 2022/ 4/ 13 24.0 °C ~ 2022/ 4/ 114 24.0 °C			

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波長分解能 : 検査条件 / 波長340nm, 400nm, 450nm, 500nm, 550nm, 600nm, , 655nm, 710nm, 760nm, 810nm, 850nmのFWHMの最大値

Calibration coefficients Wavelength[nm]=A ₀ +B ₁ *pix+B ₂ *pix ² +B ₃ *pix ³ +B ₄ *pix ⁴ +B ₅ *pix ⁵ 波長変換係数							689554-2	
Serial No.	A ₀	B ₁	B ₂	B ₃	B ₄	B ₅	Wavelength resolution *1) 波長分解能	
							Standard for Shipment 出荷基準 [nm]	Result 測定値 [nm]
22C05033	3.029365116E+02	2.725466534E+00	-1.306156304E-03	-7.264965511E-06	9.895472673E-09	1.975417196E-12	≤15	9.0
22C05034	3.101456327E+02	2.710864990E+00	-1.266488133E-03	-7.220245763E-06	8.911906007E-09	4.103351928E-12		8.8
22C05035	3.122027031E+02	2.721504511E+00	-1.417092099E-03	-6.023414306E-06	4.286880639E-09	1.086357982E-11		8.9
22C05036	2.972222759E+02	2.734782903E+00	-1.430991410E-03	-6.195095399E-06	6.019307177E-09	7.270861137E-12		9.0
22C05037	3.004961373E+02	2.703555282E+00	-8.749822317E-04	-1.074259393E-05	2.245362580E-08	-1.449554144E-11		9.2
22C05038	3.103130413E+02	2.717845049E+00	-1.377605947E-03	-5.983732560E-06	3.098119132E-09	1.361077946E-11		9.4
22C05039	3.087719118E+02	2.713973600E+00	-1.406502488E-03	-5.588676375E-06	1.908515658E-09	1.446326777E-11		8.8
22C05040	3.152012260E+02	2.713734193E+00	-1.387100702E-03	-5.966879506E-06	3.500760475E-09	1.224220737E-11		9.0
22C05041	3.094364232E+02	2.710591470E+00	-1.294599267E-03	-6.965564234E-06	7.956437415E-09	5.474783259E-12		9.1
22C05042	2.978763988E+02	2.722922506E+00	-1.213034589E-03	-8.092571422E-06	1.314545418E-08	-2.308548967E-12		9.0
22C05043	3.024368270E+02	2.710135971E+00	-1.022029838E-03	-9.390027865E-06	1.700285428E-08	-6.690844873E-12		9.2
22C05044	3.173387105E+02	2.706592173E+00	-1.238405218E-03	-7.769398779E-06	1.117467947E-08	1.334257131E-12		9.3
22C05045	3.159014147E+02	2.711337874E+00	-1.478485458E-03	-4.603810139E-06	-2.838816214E-09	2.189862510E-11		8.8
22C05046	3.165957298E+02	2.699741578E+00	-1.144890525E-03	-7.975411726E-06	1.107724190E-08	1.749887857E-12		8.9
22C05047	3.080533958E+02	2.712601034E+00	-1.261440366E-03	-7.188820809E-06	8.734841309E-09	4.485897450E-12		9.2
22C05048	3.046478073E+02	2.738950942E+00	-1.692577053E-03	-3.647313697E-06	-4.623192324E-09	2.319898507E-11		10.0
22C05049	3.060935452E+02	2.706643470E+00	-1.099779423E-03	-8.176495511E-06	1.089917865E-08	3.352292308E-12		9.2
22C05050	3.104789173E+02	2.727351612E+00	-1.580715063E-03	-4.499737817E-06	-1.532224431E-09	1.888102615E-11		9.3
22C05051	3.117887201E+02	2.718052098E+00	-1.338921894E-03	-6.381551203E-06	4.428898292E-09	1.209954576E-11		8.8
22C05052	3.131930176E+02	2.709716237E+00	-1.279288822E-03	-7.082055083E-06	8.021417874E-09	6.039930884E-12		9.3
22C05053	3.124326504E+02	2.720581473E+00	-1.354431995E-03	-6.997854399E-06	8.692040216E-09	4.537268021E-12		9.1
22C05054	3.116163053E+02	2.729286612E+00	-1.562694048E-03	-4.891439861E-06	3.229812975E-11	1.701973752E-11		10.1
22C05055	3.070568429E+02	2.709653283E+00	-1.168078525E-03	-7.647612999E-06	9.183486753E-09	5.151536330E-12		9.2
22C05056	3.084360104E+02	2.718932657E+00	-1.330989465E-03	-6.805376658E-06	7.477174634E-09	6.184540179E-12		9.7
22C05057	3.117597066E+02	2.702685393E+00	-1.064817747E-03	-8.807448922E-06	1.388580797E-08	-1.129676619E-12		9.9
22C05058	3.087942993E+02	2.725055494E+00	-1.437308136E-03	-6.139806009E-06	5.141628848E-09	9.796833444E-12		9.5

Down
(water)
Sensor

22C05059	3.102252065E+02	2.714405996E+00	-1.307387176E-03	-6.641923574E-06	5.561687741E-09	1.041584528E-11	9.4
22C05060	3.081047407E+02	2.704664253E+00	-1.072233952E-03	-8.564106192E-06	1.265209713E-08	7.134863042E-13	9.6
22C05061	3.126377177E+02	2.715357063E+00	-1.370449063E-03	-6.321832891E-06	5.230903111E-09	9.898164603E-12	9.7
22C05062	3.051112713E+02	2.708321571E+00	-9.444493079E-04	-1.014912876E-05	1.974116652E-08	-1.014772635E-11	9.3
22C05063	3.090626454E+02	2.718066263E+00	-1.362015016E-03	-6.285900103E-06	4.832163377E-09	1.059765838E-11	9.2
22C05064	3.155214280E+02	2.725300063E+00	-1.516921451E-03	-5.408255483E-06	2.281352335E-09	1.352381468E-11	9.1
22C05065	3.068006753E+02	2.713338631E+00	-1.172781937E-03	-8.233937542E-06	1.293616802E-08	-1.099772495E-12	9.1
22C05066	3.127253055E+02	2.703507800E+00	-1.006857274E-03	-9.619129335E-06	1.754260203E-08	-6.680756974E-12	9.1
22C05067	3.100630580E+02	2.712240765E+00	-1.209174776E-03	-7.921134164E-06	1.144771580E-08	1.307972690E-12	9.5
22C05068	3.059003217E+02	2.685595143E+00	-6.625669325E-04	-1.209691933E-05	2.620473312E-08	-1.816670084E-11	10.0
22C05069	3.092099526E+02	2.684564543E+00	-6.266923122E-04	-1.246870648E-05	2.739116883E-08	-1.943635725E-11	9.9
22C05070	3.064844902E+02	2.699012500E+00	-8.985382758E-04	-1.054990203E-05	2.168721791E-08	-1.321585864E-11	9.0
22C05071	3.087443416E+02	2.704755180E+00	-1.042641863E-03	-9.392456845E-06	1.745761747E-08	-7.377116067E-12	9.0
22C05072	3.066965093E+02	2.727286395E+00	-1.484785985E-03	-5.241507431E-06	1.134587989E-09	1.517048812E-11	9.7
22C05073	3.093159354E+02	2.715030116E+00	-1.255049472E-03	-7.423204021E-06	9.473656036E-09	3.971057605E-12	9.5
22C05074	3.148324156E+02	2.717889686E+00	-1.394390991E-03	-6.196908965E-06	4.475562253E-09	1.144278790E-11	9.7
22C05075	3.097194053E+02	2.710152841E+00	-1.183206354E-03	-8.080483073E-06	1.200304010E-08	6.766278090E-13	9.3
22C05076	3.111158200E+02	2.717766030E+00	-1.346193795E-03	-6.457731893E-06	5.029521927E-09	1.122834767E-11	9.8
22C05077	3.085466973E+02	2.724572982E+00	-1.457402137E-03	-5.639757435E-06	2.678355445E-09	1.346375550E-11	9.6
22C05078	3.089700918E+02	2.690964820E+00	-7.993072564E-04	-1.116936718E-05	2.341528953E-08	-1.516047115E-11	9.4
22C05079	3.136736548E+02	2.689231153E+00	-8.895889660E-04	-1.038271562E-05	2.030105693E-08	-1.063587458E-11	9.2
22C05080	3.079780996E+02	2.719518196E+00	-1.414491393E-03	-5.829529646E-06	3.029734458E-09	1.328494012E-11	9.9
22C05081	3.089787608E+02	2.714008779E+00	-1.353952665E-03	-6.046391963E-06	3.293460261E-09	1.323150866E-11	10.1
22C05082	3.182008788E+02	2.690978183E+00	-9.817753202E-04	-9.567147065E-06	1.691687951E-08	-5.406961435E-12	9.4

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				7/21/2022	
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				浜松ホトニクス株式会社 固体事業部	
Name	Micro-Spectrometer	Approved by 責任者	Yosuke Matsune	合格	
Type No.	C12880MA	Inspected by	Shinya Ohta	合格	
NO.	689554	検査員			
Date Inspected:					
検査日:		2022/ 4/ 13	24.0 °C	～	2022/ 4/ 114
			24.0 °C		

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[illegible]

Up (sky)
Sensor

[illegible]