

**Table 2. Optical resolution, magnification, scan field size, zoom factor and digital resolution**

Resolution of Obj				Image Field properties and zoom factor									
NA of Obj	Wave length (nm)	Res at 1AU (nm)	Required pix size at 2x sampling (nm)	Scan Field size (µm)	512 x 512		1024 x 1024		2048 x 2048		4096 x 4096		
					Pixel size Obtained (nm)	Zoom needed for Max Res	Pixel size Obtained (nm)	Zoom needed for Max Res	Pixel size Obtained (nm)	Zoom needed for Max Res	Pixel size Obtained (nm)	Zoom needed for Max Res	
10 x	0,3			1500	2930		1465		732		366		
		458	779			389		7,53		3,76		1,88	no need
		476	809			405		7,24		3,62		1,81	no need
		488	830			415		7,06		3,53		1,76	no need
		514	874			437		6,71		3,35		1,68	no need
		568	966			483		6,07		3,03		1,52	no need
	633	1076	538	5,45	2,72	1,36	no need						
20 x	0,5			750	1465		732		366		183		
		458	467			234		6,27		3,13		1,57	no need
		476	486			243		6,03		3,02		1,51	no need
		488	498			249		5,89		2,94		1,47	no need
		514	524			262		5,59		2,79		1,40	no need
		568	579			290		5,06		2,53		1,26	no need
	633	646	323	4,54	2,27	1,13	no need						
40 x	1,25			375	732		366		183		92		
		458	187			93		7,83		3,92		1,96	no need
		476	194			97		7,54		3,77		1,88	no need
		488	199			100		7,35		3,68		1,84	no need
		514	210			105		6,98		3,49		1,75	no need
		568	232			116		6,32		3,16		1,58	no need
	633	258	129	5,67	2,83	1,42	no need						
63 x	1,32			238	465		232		116		58		
		458	177			88		5,26		2,62		1,31	no need
		476	184			92		5,06		2,52		1,26	no need
		488	189			94		4,93		2,46		1,23	no need
		514	199			99		4,68		2,34		1,17	no need
		568	219			110		4,24		2,11		1,06	no need
	633	245	122	3,80	1,90	no need	no need						
100 x	1,4			150	293		146		73		37		
		458	167			83		3,51		1,75		no need	no need
		476	173			87		3,38		1,68		no need	no need
		488	178			89		3,30		1,64		no need	no need
		514	187			94		3,13		1,56		no need	no need
		568	207			103		2,83		1,41		no need	no need
	633	231	115	2,54	1,27	no need	no need						

**Note: Resolution is calculate from Abbe formula:  $Res=0.51\lambda/NA$**

**2x sampling frequency is used here, as it is an acceptable "under sampling" for confocal imaging,**