

1.1" 20MP Focal Lens



Products Features

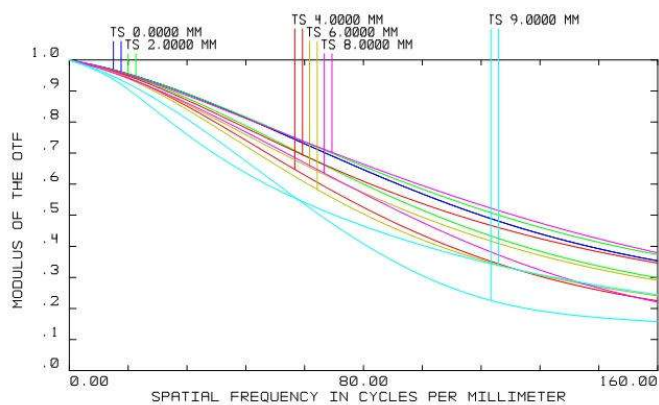
- ▶ The pixel resolution is 2.4um.
- ▶ High resolution with center 200IP/mm and side 160IP/mm.
- ▶ Low distortion, it can be less than 0.1%.
- ▶ The sensor size can match with 1" 20MP and 1.1" 12MP camera.

Parameter

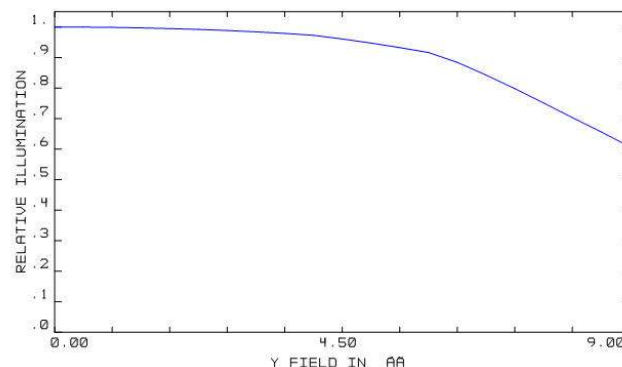
NO.	Item No.	Sensor size	Focal length (mm)	Iris (F#)	Resolution	Pixel resolution (um)	Mount	Distortion (%)	Relative illumination (%)	Filter screw size	Working distance (mm)	Dimension
1	SBS-1224-20MP	1.1"	12	2.2-16	20MP	2.4	C	<0.5	>70	M49*P0.75	100-∞	Φ44×86.55
2	SBS-1624-20MP	1.1"	16	2.4-16	20MP	2.4	C	<0.3	>65	M40.5*P0.5	100-∞	Φ43×74.00
3	SBS-2524-20MP	1.1"	25	2.4-16	20MP	2.4	C	<0.2	>70	M35.5*P0.5	100-∞	Φ38 ×71.10
4	SBS-3524-20MP	1.1"	35	2.4-16	20MP	2.4	C	<0.1	>70	M35.5*P0.5	200-∞	Φ38×53.05
5	SBS-5024-20MP	1.1"	50	2.4-16	20MP	2.4	C	<0.1	>70	M40.5*P0.5	300-∞	Φ43×70.00

Model No.	Flange back (mm)	Back focus (mm)	Effective dia (mm)		Field of view								
					1.1"			1"			2/3"		
			Front	Rear	D	H	V	D	H	V	D	H	V
SBS-1224-20MP	17.526 in air	12.90	Φ38.1	Φ17.9	71.4°	60.4°	47.2°	66.7°	55.8°	43.3°	49.0°	40.0°	30.4°
SBS-1624-20MP	17.526 in air	25.58	Φ34.2	Φ16.2	55.7°	46.1°	35.5°	51.5°	42.4°	32.5°	36.9°	30.0°	22.7°
SBS-2524-20MP	17.526 in air	34.00	Φ28.3	Φ17.3	37.3°	30.3°	23.1°	34.1°	27.7°	18.4°	23.9°	19.2°	14.5°
SBS-3524-20MP	17.526 in air	22.20	Φ21.5	Φ17.2	26.3°	21.5°	16.3°	24.4°	19.6°	14.8°	16.9°	13.6°	10.2°
SBS-5024-20MP	17.526 in air	30.00	Φ26.0	Φ18.0	19.3°	15.5°	11.6°	17.6°	14.1°	10.5°	12.1°	9.7°	7.2°

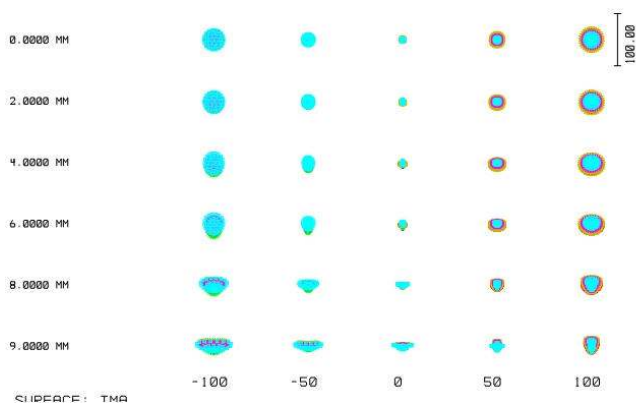
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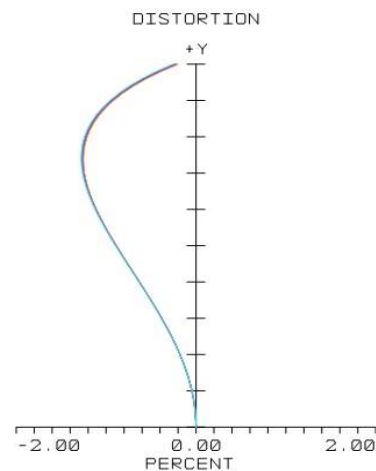
RI



Spot Diagram

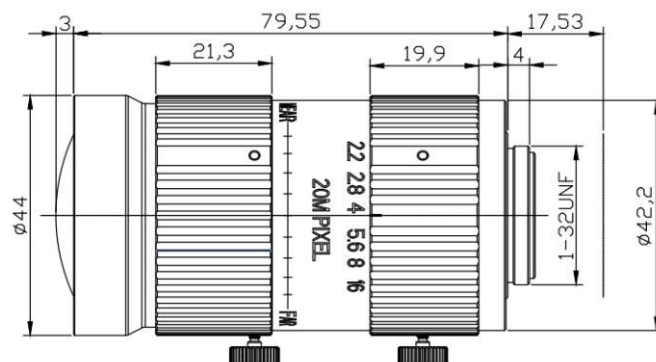


Distortion

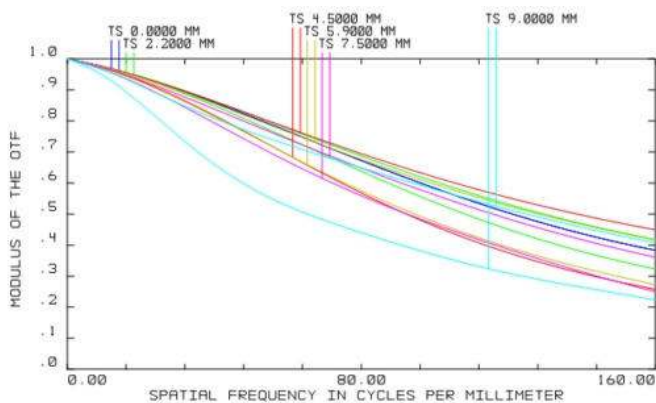


Working distance (mm)	Optical magnification (x)	2/3" Field of view	
		H(mm)	V(mm)
5000	0.003	5420.38	4065.28
2000	0.006	2199.54	1649.66
1000	0.013	1125.94	844.45
900	0.014	1018.58	763.94
800	0.015	964.90	723.68
700	0.018	803.87	620.90
600	0.020	696.52	522.39
500	0.024	589.18	441.88
400	0.029	481.80	361.40
350	0.033	428.20	321.10
300	0.038	374.55	280.70
250	0.044	320.95	239.70
200	0.053	267.40	200.56
150	0.066	214.10	160.55
100	0.087	161.34	121.04

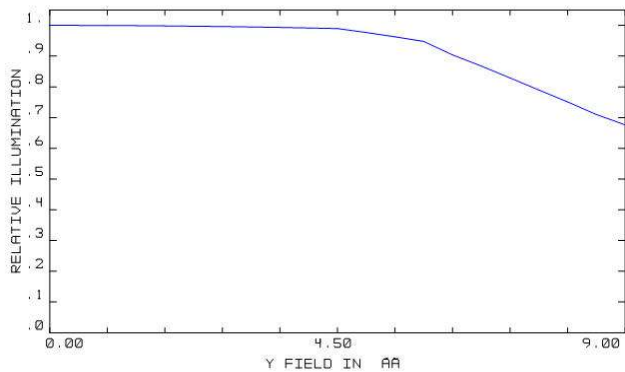
Dimensions(mm)



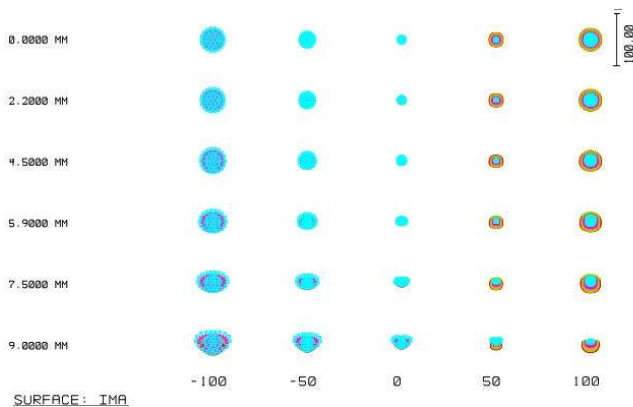
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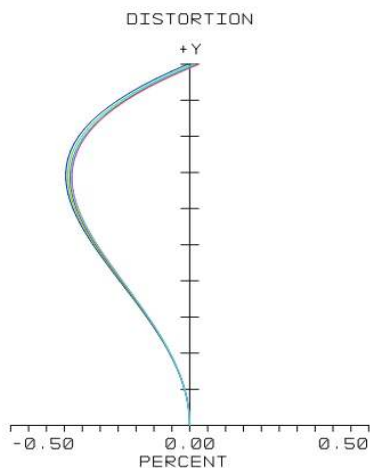
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Spot Diagram

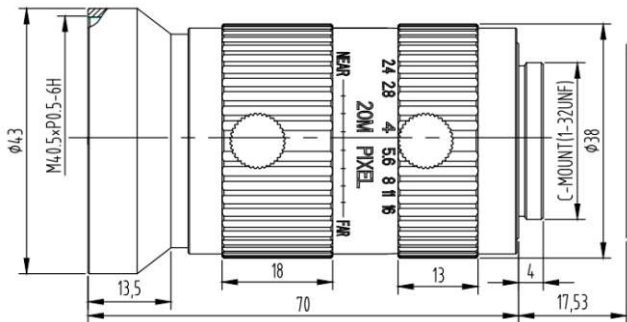


Distortion

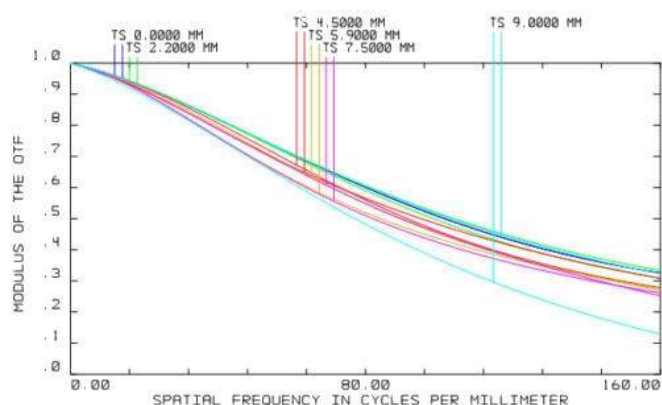


Working distance (mm)	Optical magnification (x)	2/3" Field of view	
		H(mm)	V(mm)
5000	0.003	4259.51	3194.63
2000	0.008	1718.12	1288.59
1000	0.016	870.90	653.17
900	0.018	786.16	589.62
800	0.020	701.42	526.06
700	0.023	616.67	462.50
600	0.026	531.90	398.93
500	0.031	447.12	335.34
400	0.039	362.30	271.73
350	0.044	319.88	239.91
300	0.051	277.43	208.07
250	0.060	234.95	176.21
200	0.073	192.42	144.31
150	0.094	149.80	112.35
100	0.132	107.00	80.25

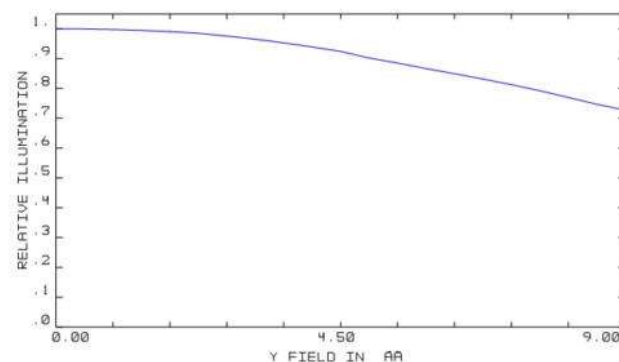
Dimensions(mm)



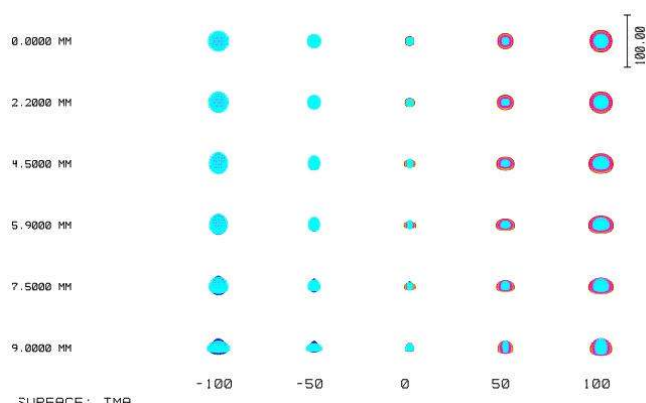
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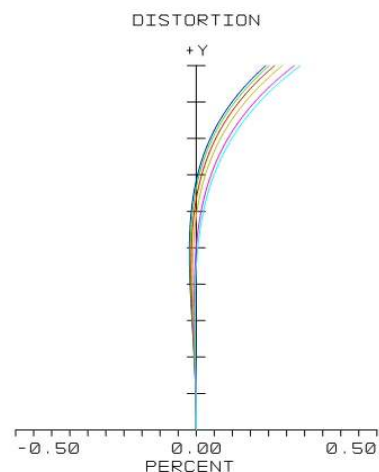
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Spot Diagram

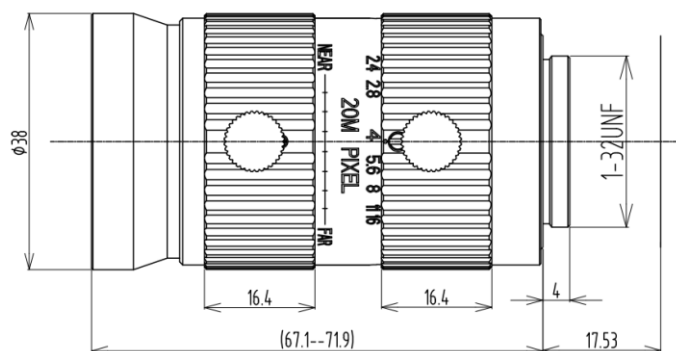


Distortion

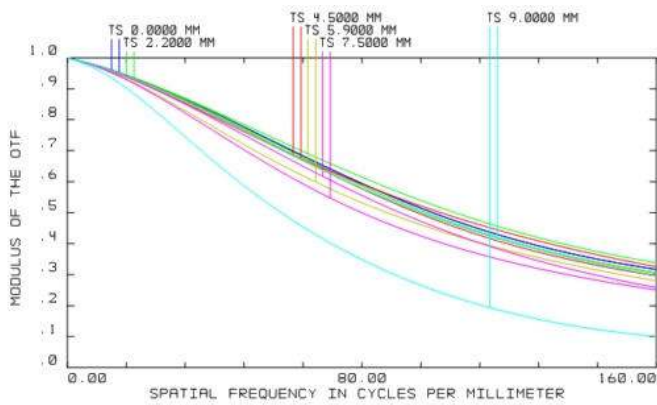


Working distance (mm)	Optical magnification (x)	2/3" Field of view	
		H(mm)	V(mm)
5000	0.005	2779.97	2084.98
2000	0.013	1118.64	838.98
1000	0.025	564.79	423.59
900	0.028	509.40	382.04
800	0.031	454.00	340.50
700	0.035	398.59	298.94
600	0.041	343.18	257.38
500	0.049	287.75	215.81
400	0.061	232.30	174.22
350	0.069	204.56	153.42
300	0.080	176.81	132.61
250	0.095	149.03	111.78
200	0.116	121.23	90.92
150	0.151	93.36	70.02
100	0.216	65.39	49.05

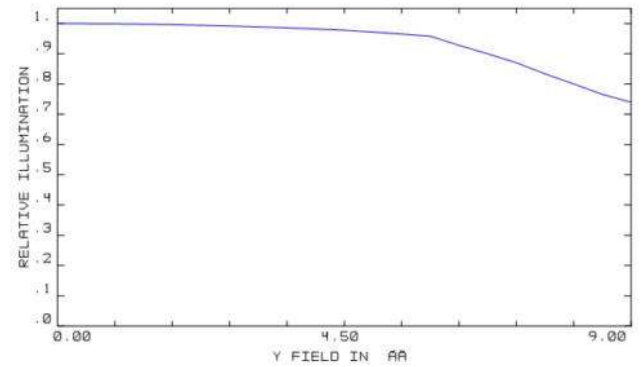
Dimensions(mm)



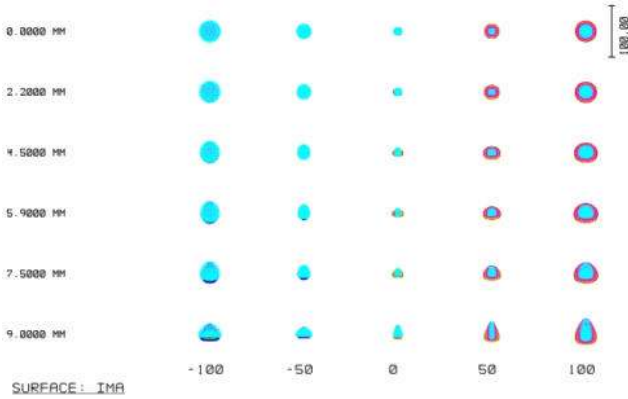
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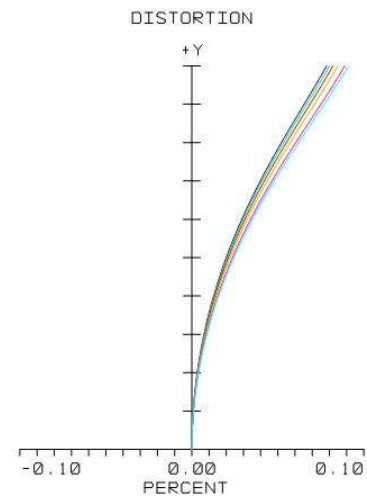
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Spot Diagram

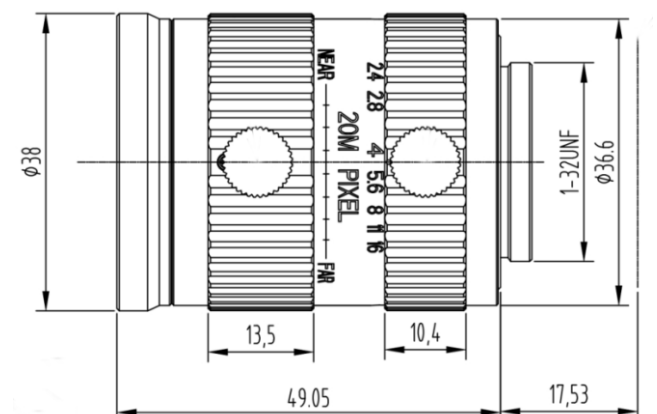


Distortion

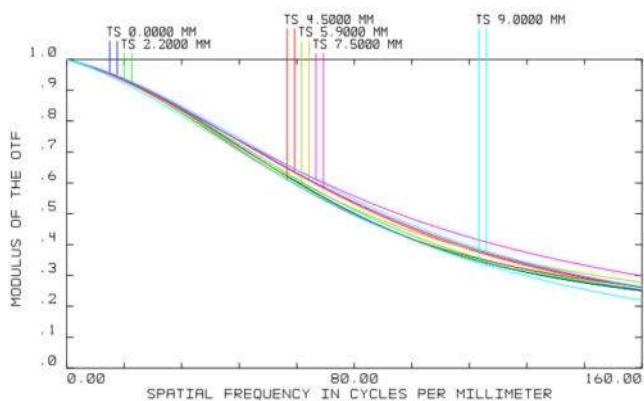


Working distance (mm)	Optical magnification (x)	2/3" Field of view	
		H(mm)	V(mm)
5000	0.007	2079.07	1559.30
2000	0.017	824.33	618.25
1000	0.035	406.24	304.68
900	0.039	364.45	273.34
800	0.044	322.68	242.01
700	0.050	280.92	210.69
600	0.059	239.20	179.40
500	0.071	197.52	148.14
400	0.090	155.93	116.95
350	0.104	135.19	101.40
300	0.123	114.53	85.90
250	0.150	93.98	70.48
200	0.191	73.64	55.23
150	0.262	53.89	40.42
100	0.376X	37.54	28.15

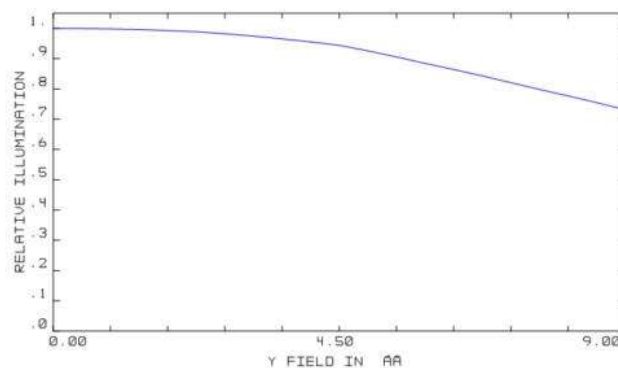
Dimensions(mm)



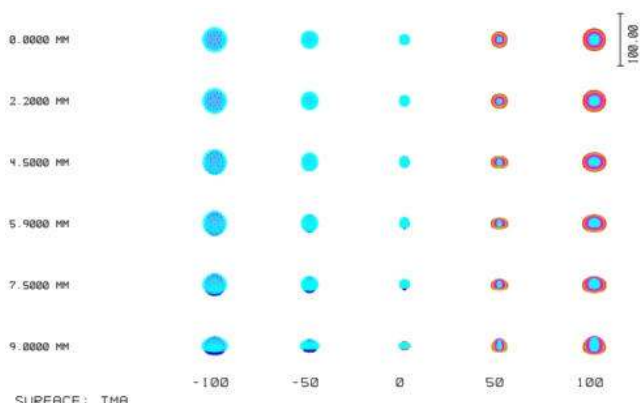
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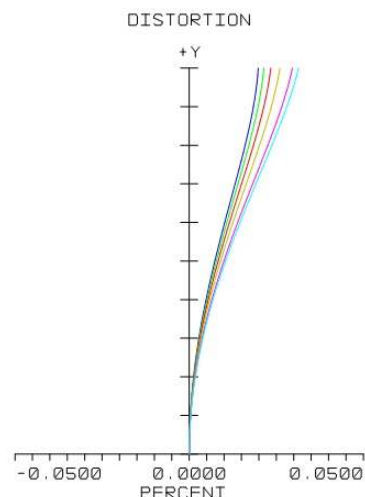
RI



Spot Diagram



Distortion



Working distance (mm)	Optical magnification (x)	2/3" Field of view	
		H(mm)	V(mm)
2000	0.023	612.99	459.69
1800	0.026	550.52	412.89
1500	0.031	456.94	342.08
1000	0.047	301.02	225.77
900	0.052	269.86	202.39
800	0.059	238.70	179.03
700	0.068	207.57	155.67
600	0.080	176.45	132.34
550	0.088	160.90	120.68
500	0.097	145.37	109.03
450	0.109	129.85	97.38
400	0.123	114.34	85.76
350	0.143	98.86	74.15
300	0.169	83.42	62.57
200	0.263	53.50	40.13

Dimensions(mm)

