

# KT standard product line-up

**10<sup>th</sup>/June, 2021**

**Busines Unit 1  
Kantatsu Co.,ltd.**

# Product Line-up



## Wide Angle Lens

Part Name	AF/FF	Sensor Size (inch)	Config.	F-No	DFoV (deg)	Max. CRA (deg)	TTL (mm)	Image Circle (mm)	EFL (mm)	Focal Length (35mm equivalent) (mm)	External dimensions	Status
A0703	AF	1/1	7P	1.95	98	44.8	8.3	16.104	6.811	18.7	M18 xP0.3	MP
A9771	AF	1/1.4	7P	1.95	85	37	7.5	12.98	6.678	23.1	φ12.8	MP
A8780	AF	1/1.9	7P	1.9	92	36	6.9	10.70	4.400	20.6	φ10.8	MP
A9681	AF	1/1.7	6P	1.9	85	34	6.5	10.58	5.511	23.1	φ10.8	Sample
B0623	AF	1/2.3	6P	1.8	78	35	5.3	8.25	4.806	25.9	M8.2 xP0.25	MP
C8621	AF	1/2.6	6P	1.74	78	36	5.3	7.50	4.268	28.3	φ7.5	MP
F6639	FF	1/3.1	6P	1.8	80	35	4.0	6.10	3.400	25.4	φ6.2	MP

# Ultra Wide Angle Lens

Part Name	AF/FF	Sensor Size (inch)	Config.	F-No	DFoV (deg)	Max. CRA (deg)	TTL (mm)	Image Circle (mm)	EFL (mm)	Focal Length (35mm equivalent) (mm)	External dimensions	Status
B9606	FF	1/2.3	6P	2.8	120	36.5	6.0	8.30	3.574	19.3	M8.5 x0.25	MP
B9681	AF	1/2.4	6P	2.2	108	36	6.1	7.70	3.280	19.1	M8.2 x0.25	MP
D8622	AF	1/2.8	6P	2.4	123	37.6	5.7	6.80	2.653	18.0	M6.8 xP0.25	MP
D7681	AF	1/2.8	6P	2.3	117	34.9	6.1	6.76	2.350	15.7	M6.8 xP0.25	MP
F8677	AF	1/3.1	6P	2.25	117	31.7	5.1	6.06	2.260	18.0	M6.8 xP0.25	MP
G8681	AF	1/3.9	6P	2.4	120	30.9	4.4	4.84	1.785	16.8	M5.5 xP0.25	MP

# Telephoto Lens

Part Name	AF/FF	Sensor Size (inch)	Config.	F-No	DFoV (deg)	Max. CRA (deg)	TTL (mm)	Image Circle (mm)	EFL (mm)	Focal Length (35mm equivalent) (mm)	External dimensions	Status
F7619	AF	1/3.1	6P	1.9	90	34.7	4.5	6.16	3.099	22.9	φ6.1	MP
F9505	AF	1/3.4	5P	2.6	45	30.0	5.4	5.52	6.100	49.8	φ6.0	MP
F9559	AF	1/3.5	5P	2.4	35	16.4	7.2	5.66	8.100	68.4	φ6.5	MP
G0402	AF	1/3.9 1/4.4	4P	3.6	14	10.4	17.35	5.28	18.35	173 194	5.5x7.7	Sample

# Front Lens

Part Name	AF/FF	Sensor Size (inch)	Config.	F-No	DFoV (deg)	Max. CRA (deg)	TTL (mm)	Top surface Diameter (mm)	Image Circle (mm)	EFL (mm)	Focal Length (35mm equivalent) (mm)	External dimensions	Status
D0517	AF	1/2.8	5P	2.0	85	34.8	4.5	Φ5.1	6.80	3.432	23.6	M6.8 xP0.25	MP
D0501	FF	1/2.9	5P	2.0	78	34.4	4.2	Φ2.8	6.45	3.695	26.0	φ6.1	Sample

# Lens Optical Parameter List



Lens Optical  
Parameter List 202106

## Target Sensor parameter (reference)

	P/N	D0501	D0517	F7619	F9505	F9559	G8681	F8677	D7681	D8622	B9606	F6639	C8621	B9681	B0623	A8780	A9771	A9681	A0703	unit
Sensor Array	H	4032	4032	4208	4224	4096	3280	3648	5184	1920	8000	4632	4656	4608	8000	9248	7696	12000	5472	pixels
	V	3016	3016	3120	3136	3072	2464	2736	3880	1080	6000	3480	3496	2592	6000	6944	5772	9000	3648	pixels
Pixel Size		1.22	1.25	1.12	1.008	1	1.12	1.25	1	2.9	0.8	1	1.12	1.404	0.8	0.8	1.3	0.7	2.4	um

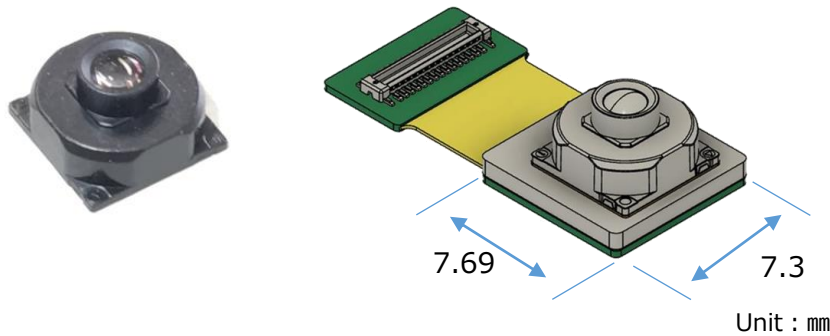
## Lens Optical parameter

	P/N	D0501	D0517	F7619	F9505	F9559	G8681	F8677	D7681	D8622	B9606	F6639	C8621	B9681	B0623	A8780	A9771	A9681	A0703	unit	
F number		2.0	2.0	1.9	2.6	2.4	2.4	2.2	2.2	2.4	2.8	1.85	1.74	2.2	1.8	1.8	1.95	1.9	1.94	---	
Focal length		3.695	3.432	3.101	6.100	8.100	1.785	2.260	2.350	2.653	3.574	3.400	4.268	3.280	4.806	4.4	6.678	5.511	6.811	mm	
Focal length(35mm equivalent)		26.0	23.6	22.9	49.8	68.4	16.8	17.2	15.7	18.0	19.3	25.4	28.3	19.1	26.0	20.6	23.1	23.1	18.7	mm	
Field of View	HFOV	65.7	71.5	75.6	37.6	28.3	92.6	92.9	97.0	107.2	96.0	67.6	61.6	96.0	66.8	79.5	72.6	73.4	86.7	deg	
	VFOV	51.3	56.5	58.8	29.1	21.5	74.1	74.0	79.3	63.1	73.8	53.4	48.3	58.9	52.7	63.5	57.7	58.5	64.6	deg	
	DFOV	78.0	83.8	90.2	45.3	35.0	120.1	115.4	117.2	123.3	120.0	79.8	73.6	109.0	79.1	92.5	85.0	86.1	97.8	deg	
Image Circle	φ	6.450	6.800	6.167	5.520	5.660	4.840	6.060	6.762	6.800	8.300	6.100	7.500	7.700	8.257	10.7	12.96	10.5	16.108	mm	
Relative Illumination @1.0F IMH		25.1	23.7	27.9	40.8	72.2	29.8	27.4	23.3	29.0	29.5	28.1	37.4	24.5	24.0	24.8	20.2	24.0	10.9	%	
Chief Ray Angle		34.0	34.9	32.9	30.0	16.4	30.9	33.1	34.9	37.3	35.9	35.2	35.5	33.2	33.0	36.2	36.1	34.6	44.8	deg	
TV distortion(SMIA)		-0.78	-0.07	-4.78	4.46	0.26	-11.51	-10.10	-7.05	-16.47	-14.12	0.10	-0.24	-10.79	-0.05	-1.25	0.12	-0.09	-0.48	%	
Optical distortion(@INF)		0.61	1.85	-4.84	5.26	0.96	-26.14	-20.35	-8.53	-35.41	-35.66	1.95	1.87	-19.12	1.49	1.48	1.87	1.76	2.00	%	
IR Filter Thickness		0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.15	mm

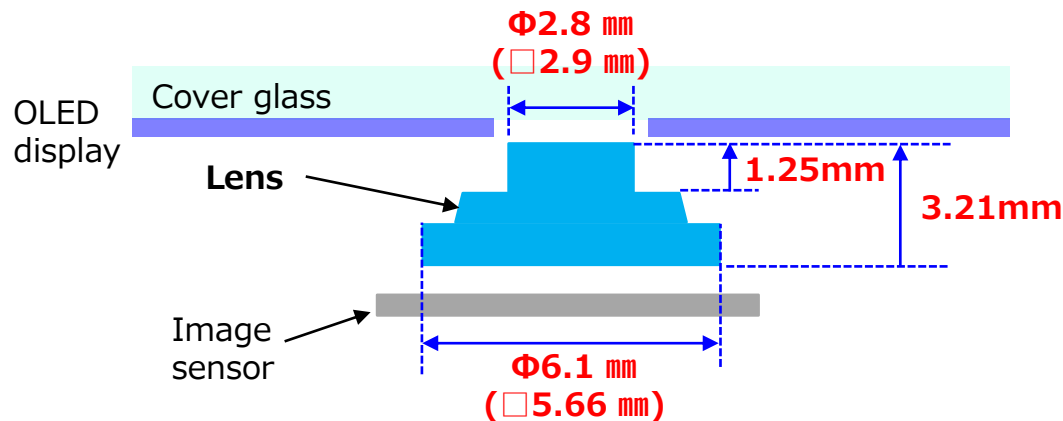
# Introduction of D0501

- The outstanding lens in market ever, keep high optical performance(f/2.0,etc.) for front camera.
- Camera module sample is available.

## ■ D0501 lens unit and camera module



## ■ High neck design perfectly fit for thinner display



## ■ Features

- f/2.0
- High neck
- Smaller foot-print

## ■ Spec table

Item	Spec	Detail
Part name	D0501	Config.=5P
Sensor	SONY IMX663 etc.	1/2.9", 12.2MPix, 4032x3024, 1.22μm pitch, Quad Bayer Structure
Optical	f/2.0	Polygonal outline Non-circular SOMA ring(light shield)
	FoV 78°	Wide angle
Dimensions	Top surface diameter	Φ2.8 mm (□2.9 mm) Small diameter lens (L1~L3) Non-circular SOMA ring(light shield)
	Top surface height	1.25 mm Small diameter, Hi Neck
	Lens height	3.21 mm
	Foot-print	Φ6.1 mm (□5.66 mm) Polygonal outline
	TTL	4.2356 mm
CM outline	Dimension	7.3x7.3x4.75h (mm) Connector 30pin (20208-030E-01, DAIICHISEIKO)

## ■ Sample : available



# High performance Front Lens

Kantatsu

$\Phi 2.8$  Fno.2.0  
Excellent  
optical performance

## D0501

Sample is Ready

- Lens unit : Now
- Camera module : Now



$\Phi 1.8 \sim 2.0$   
Ultra-small diameter  
Fit pinhole display

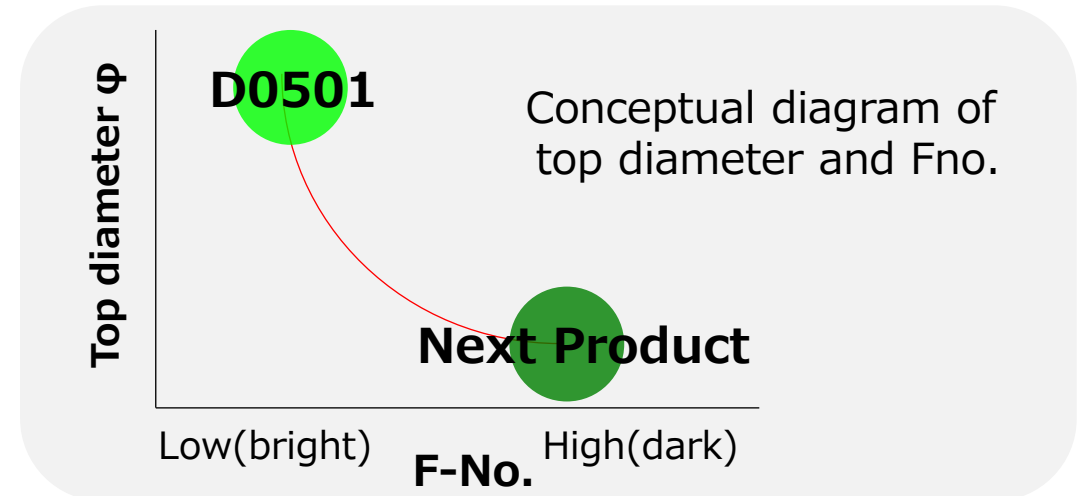
## Next Product

### Feature

- High image quality (brightness, resolution) in combination with the latest sensor.
- Increase the depth of the top surface to secure clearance with the display. (improved design freedom)

### Feature

- Ultra-small diameter of top surface diameter (realization of  $\phi 2.0$  or less)



**Thank you!**