

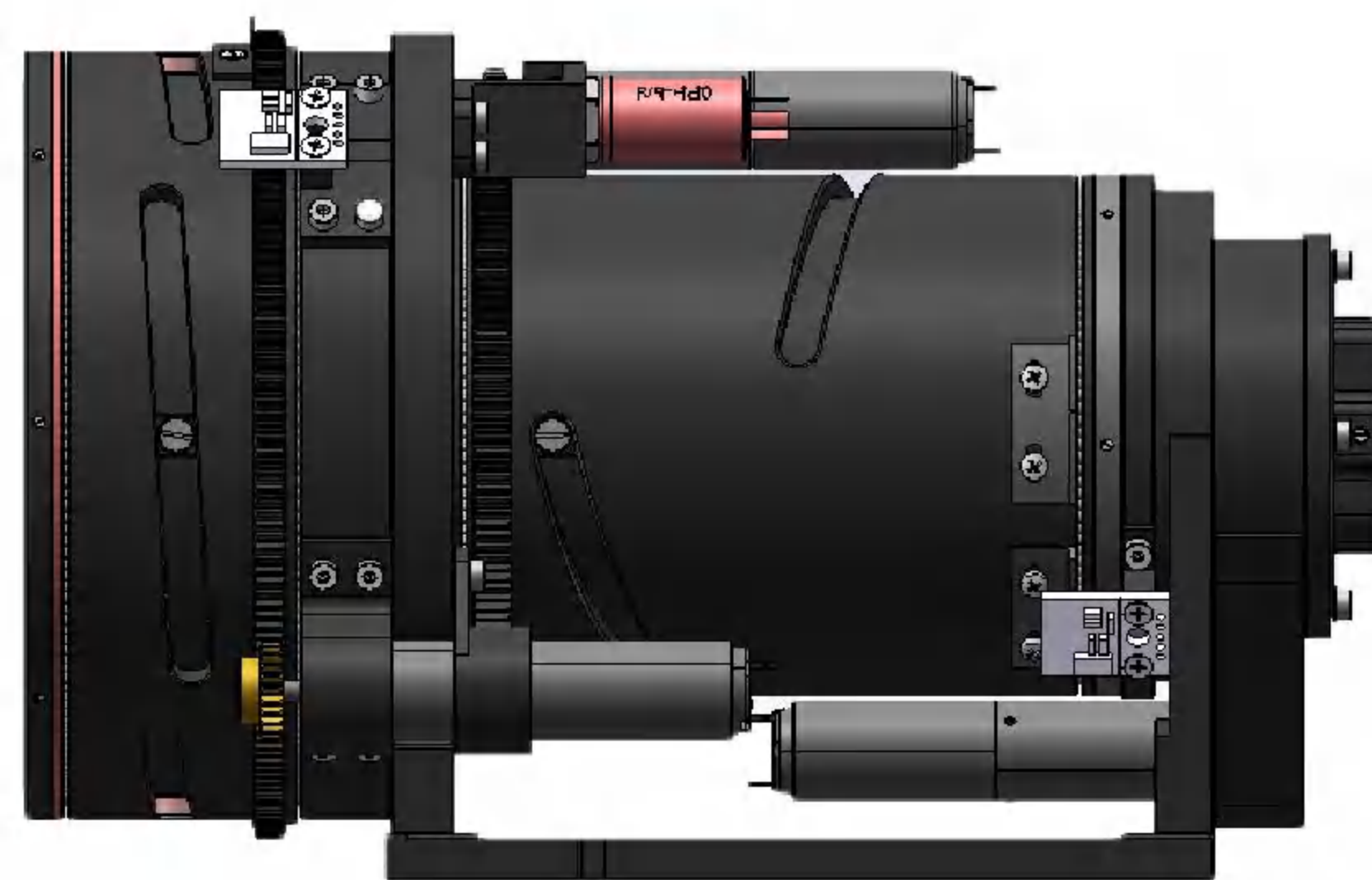
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**5.4-130mmF5**

Technical Specification	Param1	Param2
1 Adaptive Camera pixel	1920 X 1080	1920 X 1080
2 Pixel size(um)	2.7	3
3 Format	5.184 X 2.916	5.76 X 3.24
4 Camera diagonal size	5.95	6.61
5 FOV(large field)(°)	51.28 X 30.22	56.14 X 33.40 (H )X (V)
6 FOV(small field)(°)	2.28 X 1.29	2.54 X 1.43 (H )X (V)
7 FOV(diagonal)(°)	57.69 ~ 2.62	62.93 ~ 2.91
8 Focal length(mm)	5.4 ~ 130	5.4 ~ 130
9 F#	F5	F5
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	185	167
12 Optical max resolution (lp/mm )	240	240
13 TOTR ( mm)	168.8	168.8
14 Maximum Clear aperture (mm)	φ79	φ79
15 Back Focal Length (mm)	16.7	16.7 Filters included
16 Distortion	Short focus≤ 6%	Long focus≤ 1.5%
17 Nearest working distance	5m	5m
18 Focus	Front group motorized focus	Rear group motorized focus
19 Focusing time	Customization	Customization
20 Zoom	Motorized continuous zoom	Motorized continuous zoom
21 Zooming time	Customization	Customization
22 Filter switching	Electric switching	Electric switching
23 Maximum structural size (mm)	112.5x111.5x175.8	112.5x111.5x175.8
24 Weight (g)	<1850	<1850
25 Power input (V)	<12	<12
26 Operating temperature	-40°C ~ 70°C	-40°C ~ 70°C
27 Optical axis consistency	≤2 pixels	≤2 pixels



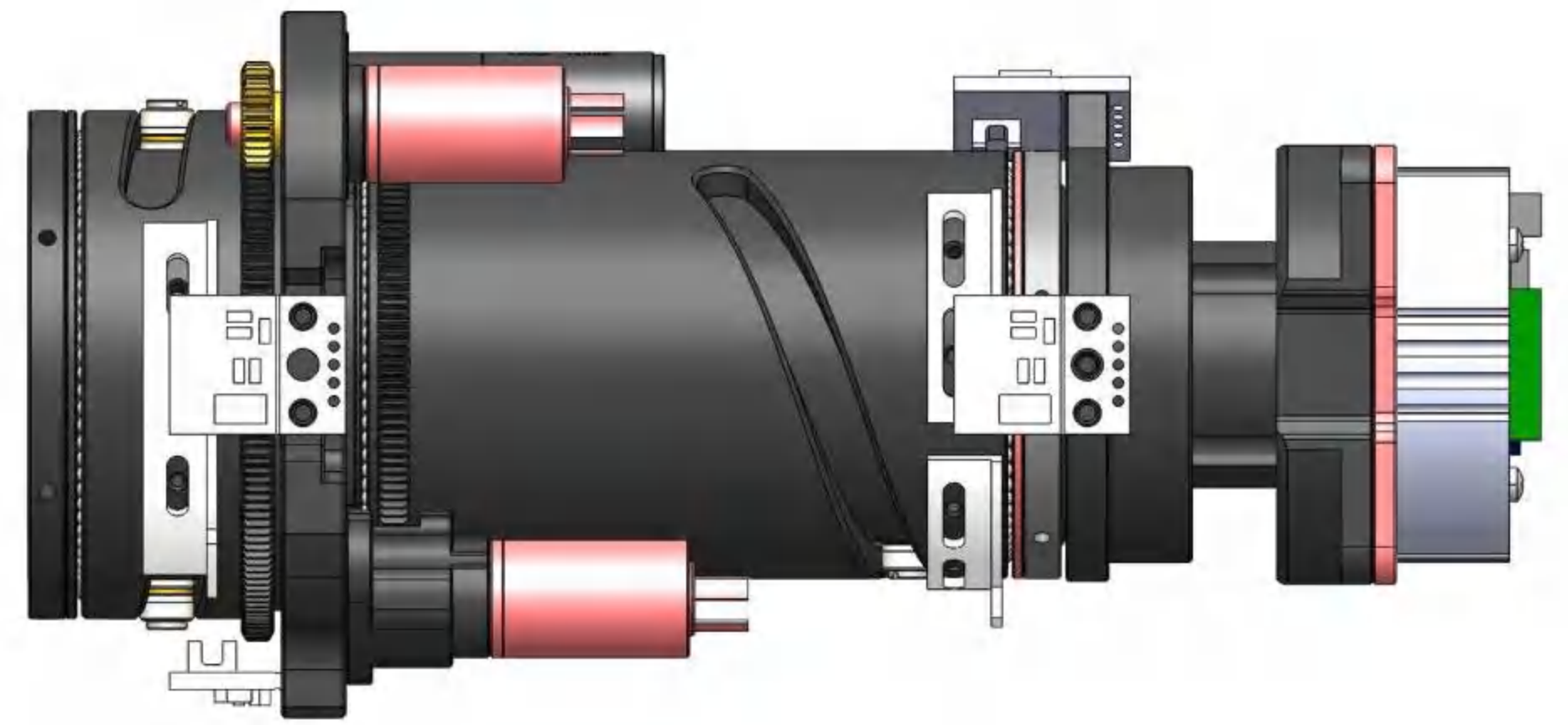
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**8-120mmF5**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	2.7	3
3 Format	5.184 X 2.916	5.76 X 3.24
4 Camera diagonal size	5.95	6.61
5 FOV(large field)(°)	35.90 X 20.66	39.60 X 22.90 (H )X (V)
6 FOV(small field)(°)	2.47 X 1.39	2.75 X 1.55 (H )X (V)
7 FOV(diagonal)(°)	40.78 ~ 2.84	44.89 ~ 3.15
8 Focal length(mm)	8 ~ 120	8 ~ 120
9 F#	F5	F5
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	185	167
12 Optical max resolution (lp/mm )	220	220
13 TOTR ( mm)	125	125
14 Maximum Clear aperture (mm)	φ30	φ30
15 Back Focal Length (mm)	22 .8	22.8 Filters included
16 Distortion	≤ 6%	≤ 1.5%
17 Nearest working distance	5m	5m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	72x66x130	72x66x130
24 Weight (g)	<500	<500
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



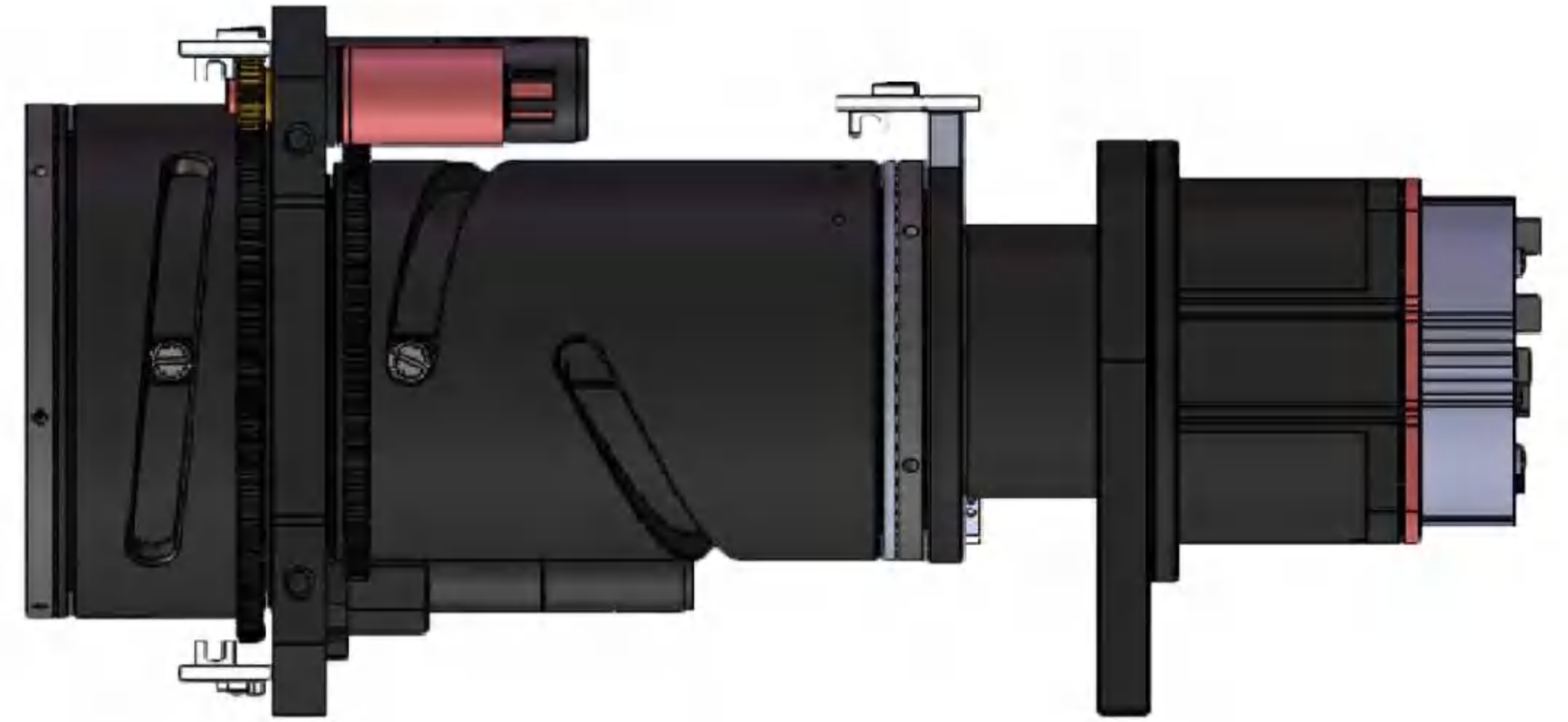
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**9-144mm F5.6**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	32.13 X 18.40	40.41 X 23.39	46.21 X 26.99
FOV(small field)(°)	2.06 X 1.16	2.64 X 1.48	3.06 X 1.72
FOV(diagonal)(°)	36.57 ~ 2.37	45.78 ~ 3.02	52.17 ~ 3.50
Focal length(mm)	9 ~ 144	9 ~ 144	9 ~ 144
F#	F3.2~F5.5	F3.2~F5.5	F3.2~F5.5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	240	240	240
TOTR ( mm)	152.5	152.5	152.5
Maximum Clear aperture (mm)	φ40.5	φ40.5	φ40.5
Back Focal Length (mm)	23.6	Filters included	
Distortion	Short focus ≤ 5%	Long focus ≤ 3%	
Nearest working distance	10m		
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	85.5x84.5x170.1		
Weight (g)	<800	<800	<800
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



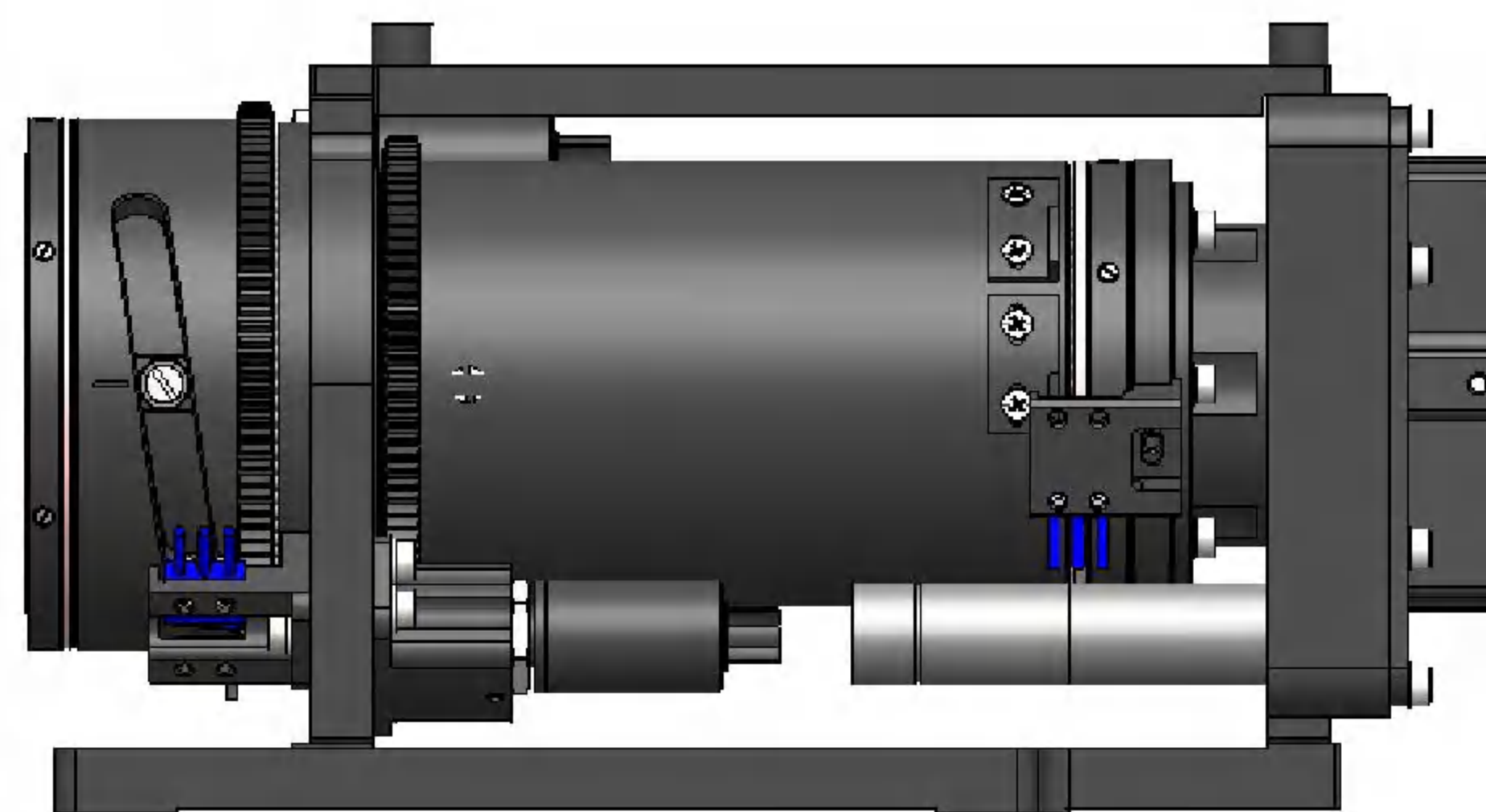
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
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- Strong optical axis consistency



**10-150mmF5**

Technical Specification	Param1	Param2
1 Adaptive Camera	1920 X 1080	1920 X 1080
2 Pixel size(um)	3	3.45
3 Format	5.76 X 3.24	6.624 X 3.726
4 Camera diagonal size	6.61	7.60
5 FOV(large field)(°)	32.13 X 18.40	36.65 X 21.11 (H )X (V)
6 FOV(small field)(°)	2.20 X 1.24	2.53 X 1.43 (H )X (V)
7 FOV(diagonal)(°)	36.57 ~ 2.52	41.61 ~ 2.90
8 Focal length(mm)	10 ~ 150	10 ~ 150
9 F#	F5	F5
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	167	145
12 Optical max resolution (lp/mm )	250	250
13 TOTR ( mm)	138.8	138.8
14 Maximum Clear aperture (mm)	φ36	φ36
15 Back Focal Length (m)	19.4	19.4 Filters included
16 Distortion	≤ 3%	≤ 3%
17 Nearest working distance	10m	10m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	66x78x142.5	
24 Weight (g)	<800	<800
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**10-230mmF5**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3	3.45
3 Format	5.76 X 3.24	6.624 X 3.726
4 Camera diagonal size	6.61	7.60
5 FOV(large field)(°)	32.13 X 18.40	36.65 X 21.11 (H )X (V)
6 FOV(small field)(°)	1.43 X 0.81	1.65 X 0.93 (H )X (V)
7 FOV(diagonal)(°)	36.57 ~ 1.65	41.61 ~ 1.89
8 Focal length(mm)	10 ~ 230	10 ~ 230
9 F#	F3.5-F5	F3.5-F5
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	167	145
12 Optical max resolution (lp/mm )	240	240
13 TOTR ( mm)	193.2	193.2
14 Maximum Clear aperture (mm)	φ46	φ46
15 Back Focal Length (mm)	18.7	18.7 Filters included
16 Distortion	Short focus ≤ 3.5%	Long focus ≤ 1.5%
17 Nearest working distance	20m	20m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	75x84x205	75x84x205
24 Weight (g)	<1500	<1500
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



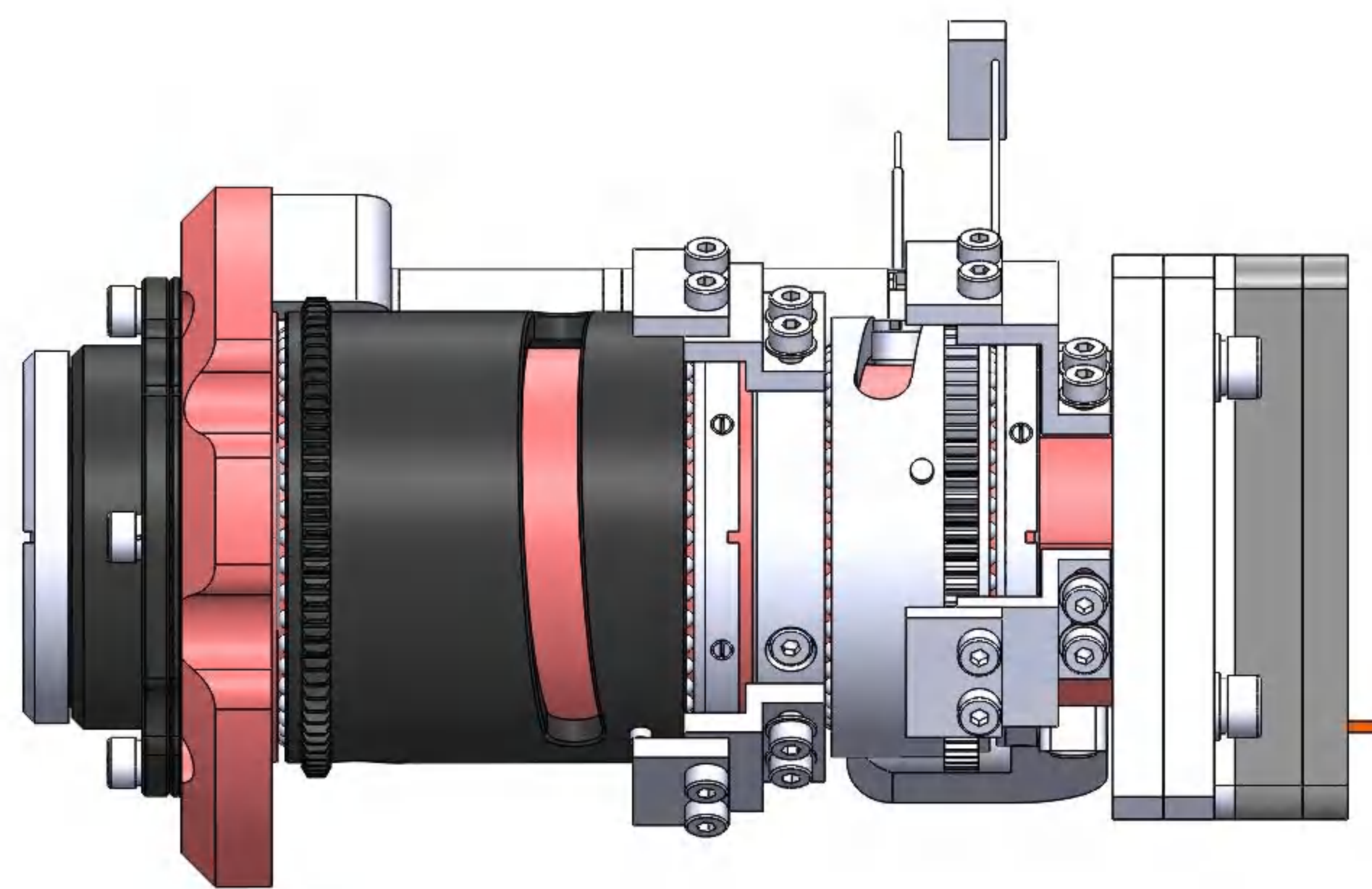
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**12-78mmF5**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	24.38 X 13.85	30.86 X 17.65	35.49 X 20.41
FOV(small field)(°)	3.81 X 2.14	4.86 X 2.74	5.64 X 3.17
FOV(diagonal)(°)	27.84 ~ 4.37	35.14 ~ 5.58	40.32 ~ 6.47
Focal length(mm)	12 ~ 78	12 ~ 78	12 ~ 78
F#	F5	F5	F5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	250	250	250
TOTR ( mm)	110	110	110
Maximum Clear aperture (mm)	φ26	φ26	φ26
Back Focal Length (mm)		32.5	Filters included
Distortion	≤ 3%	≤ 4%	≤5%
Nearest working distance	5m	5m	5m
Focus	Rear group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	117.3x71.2x62		
Weight (g)	<400	<400	<400
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



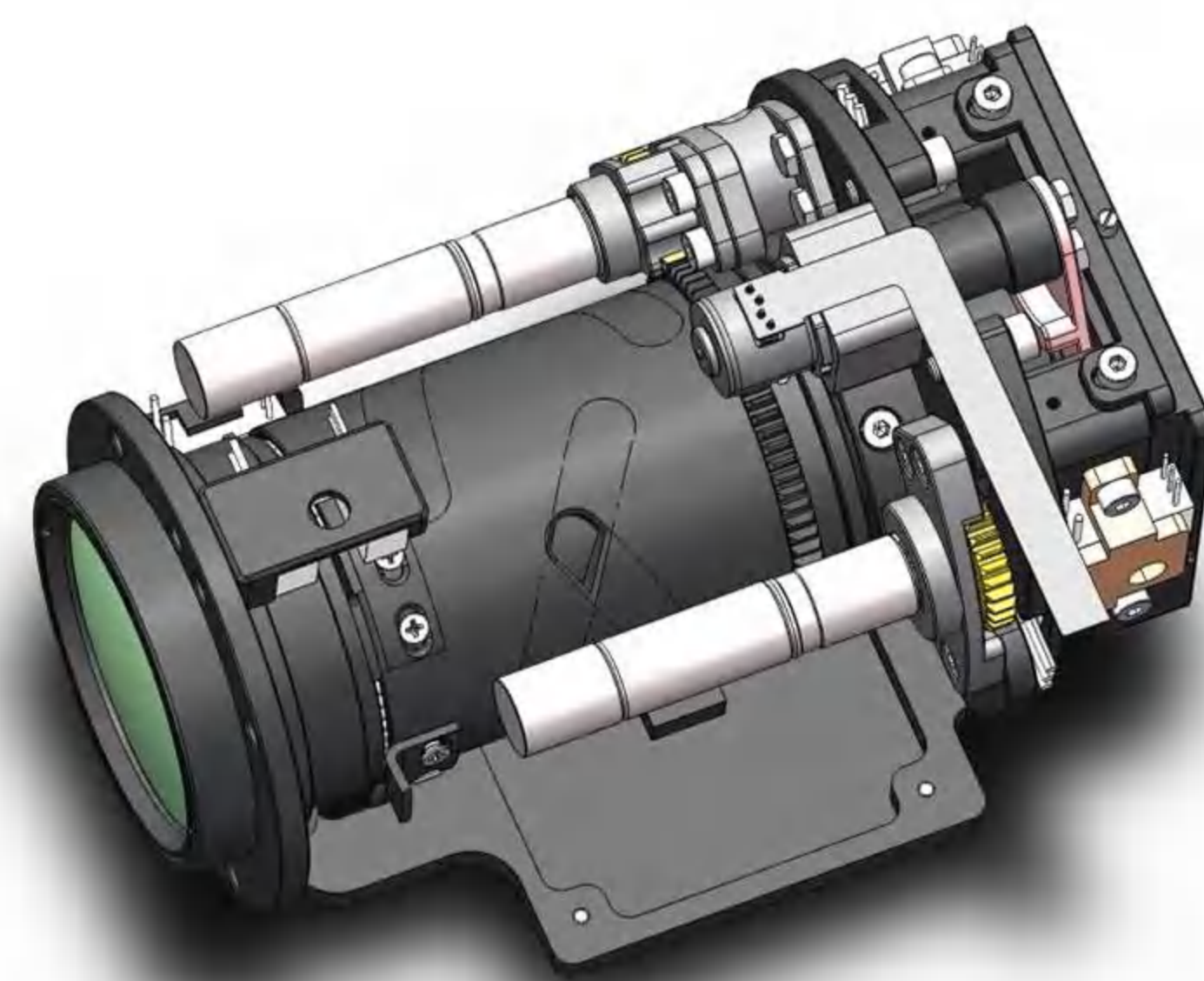
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
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## Product Superiority

- No optical and mechanical drift
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**12-120mm**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	24.38 X 13.85	30.86 X 17.65	35.49 X 20.41
FOV(small field)(°)	2.47 X 1.39	3.16 X 1.78	3.67 X 2.06
FOV(diagonal)(°)	27.84 ~ 2.84	35.14 ~ 3.63	40.32 ~ 4.21
Focal length(mm)	12 ~ 120	12 ~ 120	12 ~ 120
F#	F3.5~F5.5	F3.5~F5.5	F3.5~F5.5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	250	250	250
TOTR ( mm)	100	100	100
Maximum Clear aperture (mm)	φ33	φ33	φ33
Back Focal Length (mm)	12.2	12.2	12.2
Distortion	≤ 2%	≤ 2%	≤2%
Nearest working distance	5m	5m	5m
Focus	Rear group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	65x55.3x103.7		
Weight (g)	<500	<500	<500
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



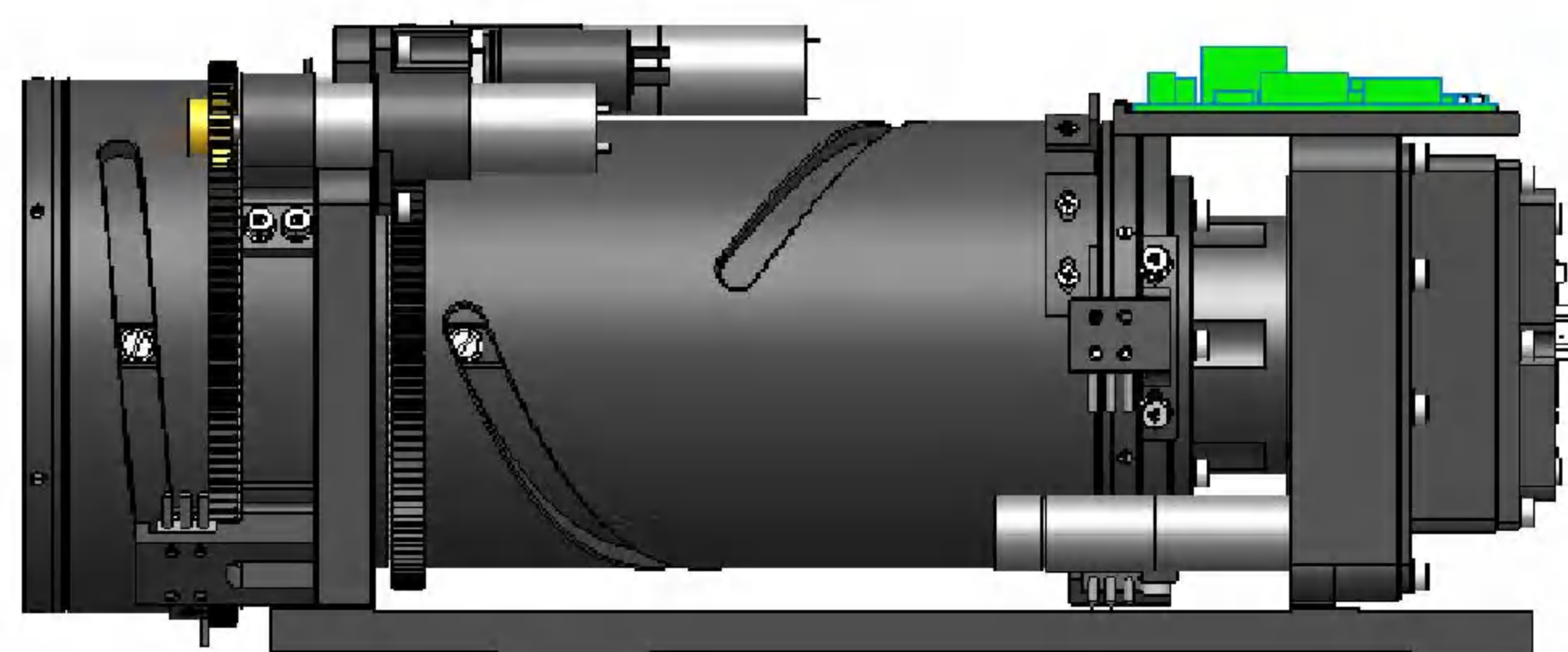
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
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**12-400mmF8**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3.45	4
3 Format	6.624 X 3.726	7.68 X 4.32
4 Camera diagonal size	7.60	8.81
5 FOV(large field)(°)	30.86 X 17.65	35.49 X 20.41 (H )X (V)
6 FOV(small field)(°)	0.95 X 0.53	1.10 X 0.62 (H )X (V)
7 FOV(diagonal)(°)	35.14 ~ 1.09	40.32 ~ 1.26
8 Focal length(mm)	12 ~ 400	12 ~ 400
9 F#	F6-F8	F6-F8
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	145	125
12 Optical max resolution (lp/mm )	180	180
13 TOTR ( mm)	202	202
14 Maximum Clear aperture (mm)	φ50	φ50
15 Back Focal Length (mm)	38.4	38.4 Filters included
16 Distortion	≤ 2%	≤ 2%
17 Nearest working distance	20m	20m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	77x84.5x207	77x84.5x207
24 Weight (g)	<1500	<1500
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤3 pixels	



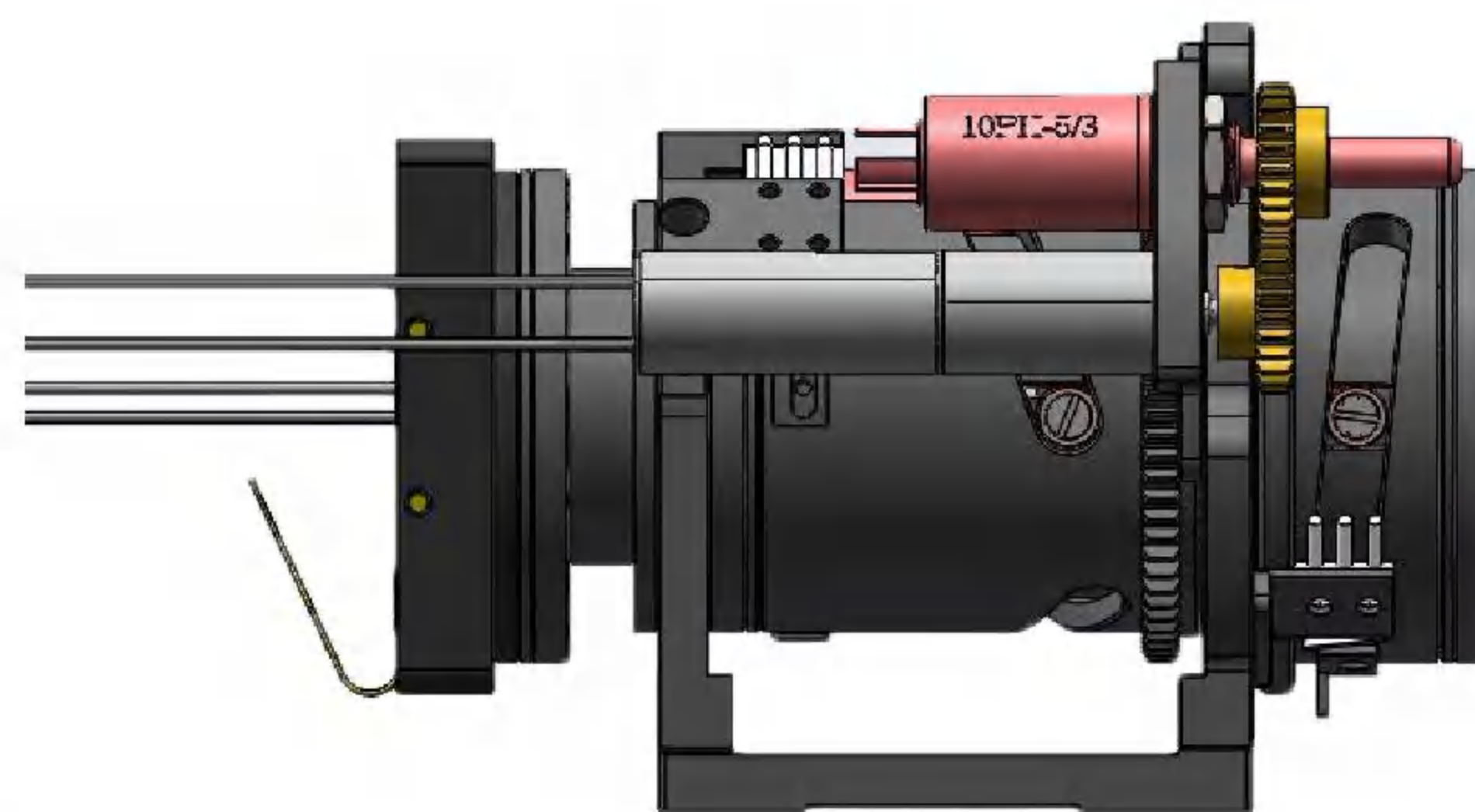
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
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- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
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**15-75mmF5**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	19.61 X 11.10	24.90 X 14.16	28.72 X 16.39
FOV(small field)(°)	3.96 X 2.23	5.06 X 2.85	5.86 X 3.30
FOV(diagonal)(°)	22.43 ~ 4.54	28.43 ~ 5.80	32.74 ~ 6.72
Focal length(mm)	15 ~ 75	15 ~ 75	15 ~ 75
F#	F4~F5	F4~F5	F4~F5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	220	220	220
TOTR ( mm)	80	80	80
Maximum Clear aperture (mm)	φ21	φ21	φ21
Back Focal Length (mm)	13.1	Filters included	
Distortion	≤ 2%	≤ 3%	≤ 4%
Nearest working distance	5m	5m	5m
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	66×64×88		
Weight (g)	<300	<300	<300
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



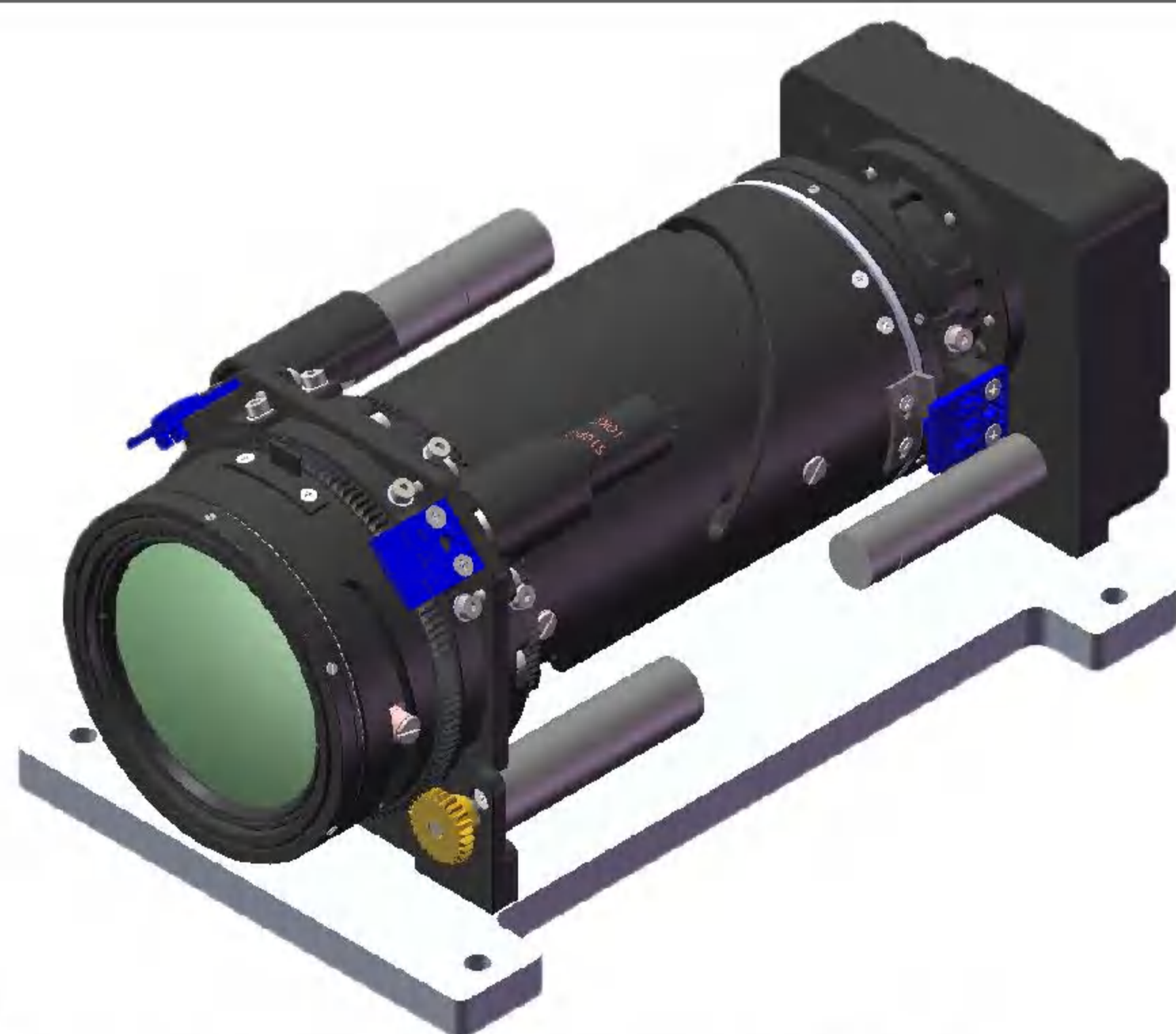
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
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**15-300mmF6.5**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	19.61 X 11.10	24.90 X 14.16	28.72 X 16.39
FOV(small field)(°)	0.99 X 0.56	1.27 X 0.71	1.47 X 0.83
FOV(diagonal)(°)	22.43 ~ 1.14	28.43 ~ 1.45	32.74 ~ 1.68
Focal length(mm)	15 ~ 300	15 ~ 300	15 ~ 300
F#	F3.8~F6.5	F3.8~F6.5	F3.8~F6.5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	200	200	180
TOTR ( mm)	195	195	195
Maximum Clear aperture (mm)	φ46	φ46	φ46
Back Focal Length (mm)		21.3	Filters included
Distortion	≤ 1.5%	≤ 2%	≤2%
Nearest working distance	20m	20m	20m
Focus		Front group motorized focus	
Focusing time		Customization	
Zoom		Motorized continuous zoom	
Zooming time		Customization	
Filter switching		Electric switching	
Maximum structural size (mm)		102x84x210	
Weight (g)	<1700	<1700	<1700
Power input (V)		<12	
Operating temperature		-40°C ~ 70°C	
Optical axis consistency		≤2 pixels	



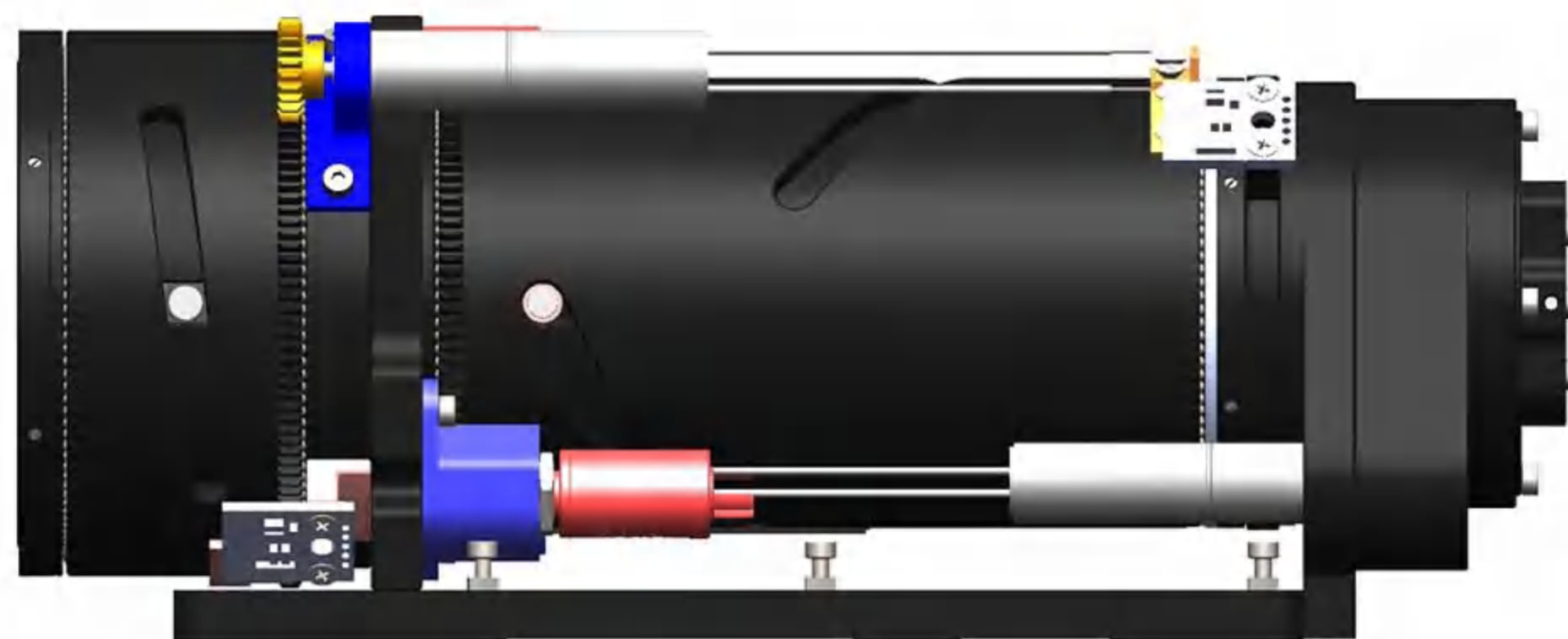
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
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- Strong optical axis consistency



## 15-300mm F8

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	19.61 X 11.10	24.90 X 14.16	30.09 X 17.20
FOV(small field)(°)	0.99 X 0.56	1.27 X 0.71	1.47 X 0.83
FOV(diagonal)(°)	22.43 ~ 1.14	28.43 ~ 1.45	32.74 ~ 1.68
Focal length(mm)	15 ~ 300	15 ~ 300	15 ~ 300
F#	F5.6~F8	F5.6~F8	F5.6~F8
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	200	200	200
TOTR ( mm)	175.5	175.5	175.5
Maximum Clear aperture (mm)	φ40	φ40	φ40
Back Focal Length (mm)	17.8	17.8	17.8
Distortion	≤ 1.5%	≤ 2%	≤ 3%
Nearest working distance	10m	10m	10m
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	80×74×185		
Weight (g)	<1200	<1200	<1200
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤3 pixels		



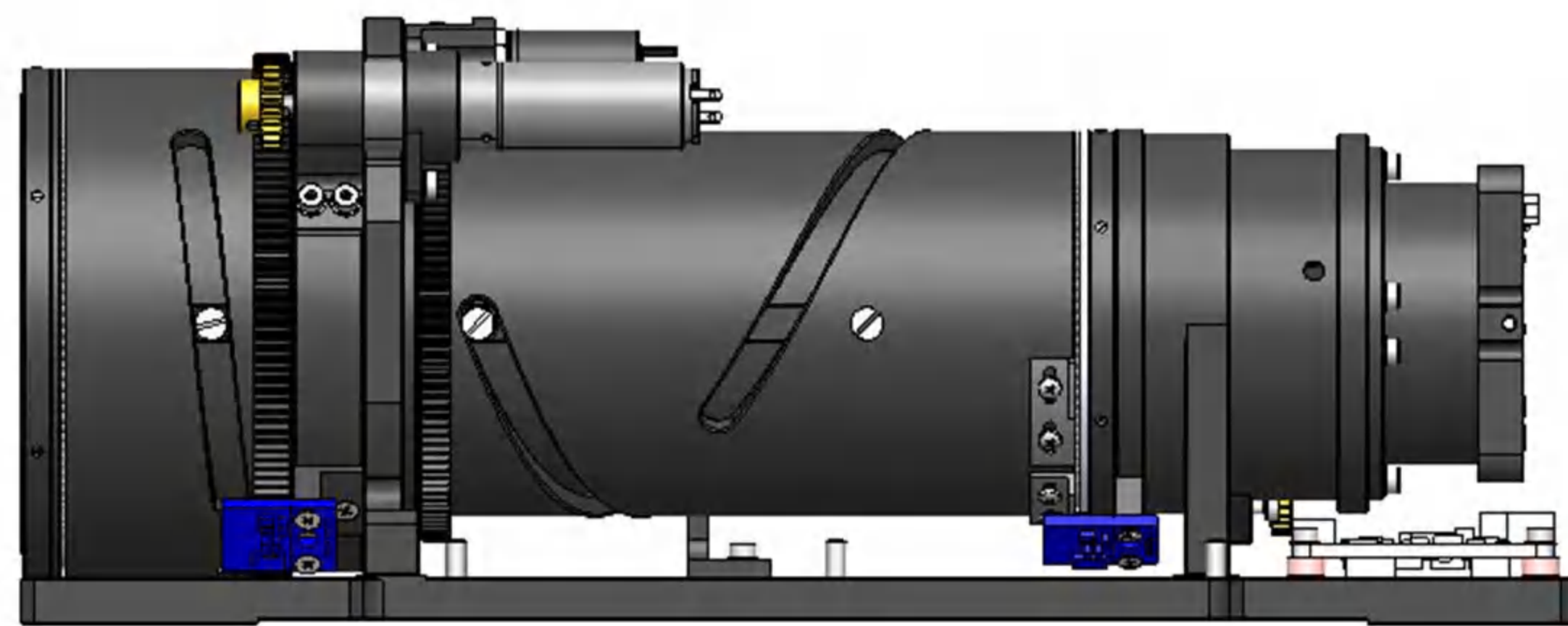
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCW
- Large zoom guide lens

## Product Superiority

- No optical and mechanical dri
- Long endurance, stable and reliable
- Strong optical axis consistency



**15-400mmF8**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3.45	4
3 Format	6.624 X 3.726	7.68 X 4.32
4 Camera diagonal size	7.60	8.81
5 FOV(large field)(°)	24.90 X 14.16	28.72 X 16.39 (H )X (V)
6 FOV(small field)(°)	0.95 X 0.53	1.10 X 0.62 (H )X (V)
7 FOV(diagonal)(°)	28.43 ~ 1.09	32.74 ~ 1.26
8 Focal length(mm)	15 ~ 400	15 ~ 400
9 F#	F8	F8
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	145	125
12 Optical max resolution (lp/mm )	200	200
13 TOTR ( mm)	210	210
14 Maximum Clear aperture (mm)	φ52	φ52
15 Back Focal Length (mm)	42	42 Filters included
16 Distortion	≤ 1.5%	≤ 1.5%
17 Nearest working distance	20m	20m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	95×88×217.2	
24 Weight (g)	<1800	<1800
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤3 pixels	



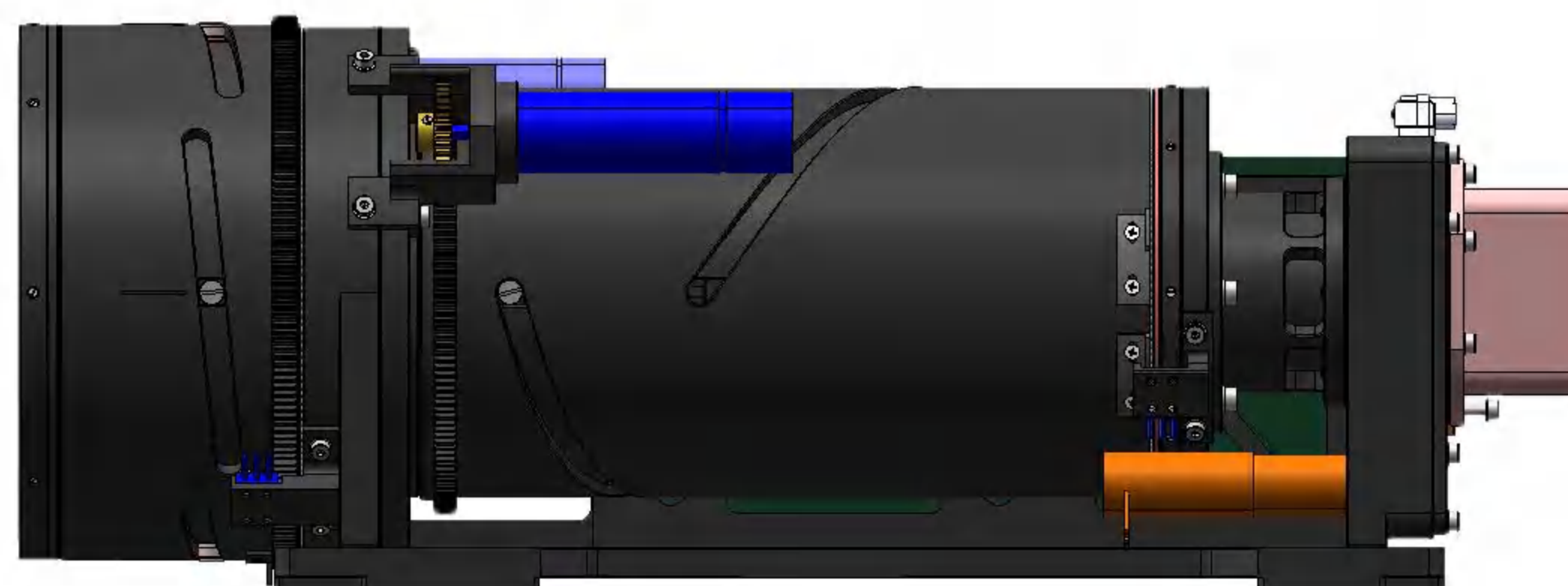
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**15-480mmF6**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3	3.45
3 Format	5.76 X 3.24	6.624 X 3.726.
4 Camera diagonal size	6.61	7.60
5 FOV(large field)(°)	21.74 X 12.33	24.90 X 14.16 (H )X (V)
6 FOV(small field)(°)	0.69 X 0.39	0.79 X 0.44 (H )X (V)
7 FOV(diagonal)(°)	24.95 ~ 0.79	28.43 ~ 0.91
8 Focal length(mm)	15 ~ 480	15 ~ 480
9 F#	F3.4-F6	F3.4-F6
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	167	145
12 Optical max resolution (lp/mm )	200	200
13 TOTR ( mm)	210	210
14 Maximum Clear aperture (mm)	φ85	φ85
15 Back Focal Length (mm)	26	26 Filters included
16 Distortion	≤ 1.5%	≤ 1.5%
17 Nearest working distance	50m	50m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	95x88x217.2	
24 Weight (g)	<3600	<3600
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



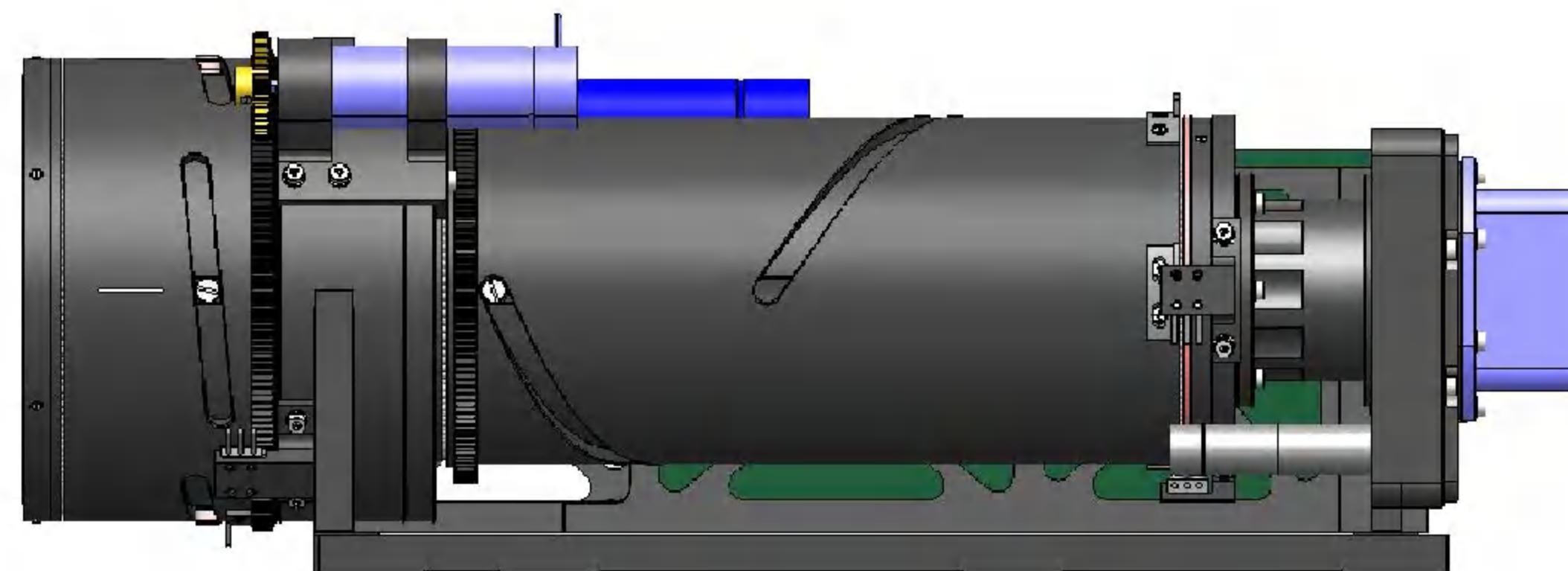
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**16.5-500mmF7**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3.45	4
3 Format	6.624 X 3.726	7.68 X 4.32
4 Camera diagonal size	7.60	8.81
5 FOV(large field)(°)	22.70 X 12.88	26.20 X 14.92 (H )X (V)
6 FOV(small field)(°)	0.76 X 0.43	0.88 X 0.50 (H )X (V)
7 FOV(diagonal)(°)	25.94 ~ 0.87	29.90 ~ 1.01
8 Focal length(mm)	16.5 ~ 500	16.5 ~ 500
9 F#	F3.4-F6	F3.4-F6
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	145	125
12 Optical max resolution (lp/mm )	180	180
13 TOTR ( mm)	290	290
14 Maximum Clear aperture (mm)	φ71.5	φ71.5
15 Back Focal Length (mm)	25	25 Filters included
16 Distortion	≤ 1%	≤ 1%
17 Nearest working distance	50m	50m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	130.4x106x308.5	
24 Weight (g)	<3000	<3000
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤3 pixels	



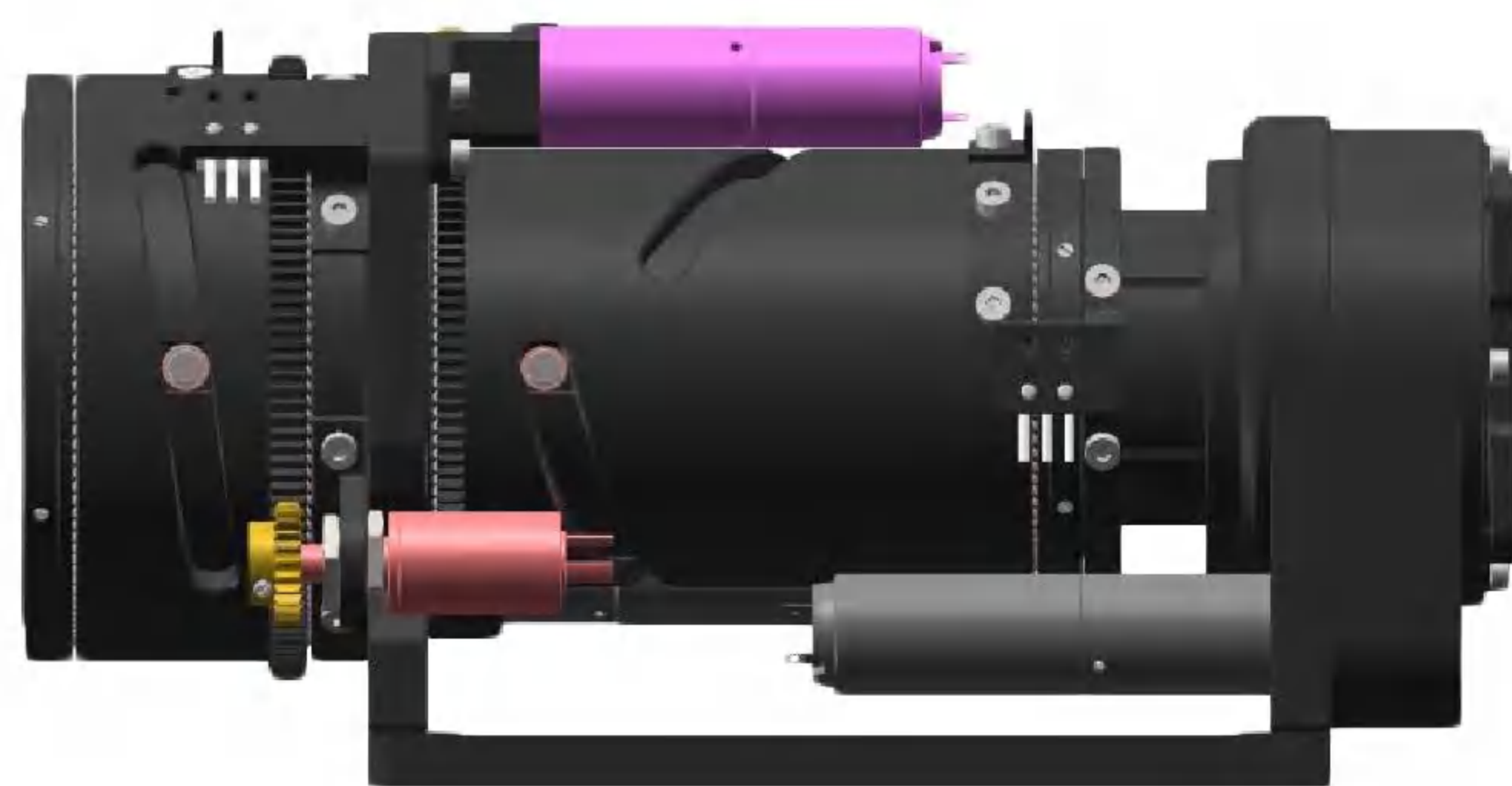
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**16-144mm**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	2.7	3.45
3 Format	5.184 X 2.916	6.624 X 3.726
4 Camera diagonal size	5.95	7.60
5 FOV(large field)(°)	18.40 X 10.41	23.39 X 13.28 (H )X (V)
6 FOV(small field)(°)	2.06 X 1.16	2.64 X 1.48 (H )X (V)
7 FOV(diagonal)(°)	21.06 ~ 2.37	26.72 ~ 3.02
8 Focal length(mm)	16 ~ 144	
9 F#	F3.2 ~ F4	
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	185	145
12 Optical max resolution (lp/mm )	250	250
13 TOTR ( mm)	158	158
14 Maximum Clear aperture (mm)	φ43	φ43
15 Back Focal Length (mm)	22	22 Filters included
16 Distortion	≤ 1.5%	≤ 1.5%
17 Nearest working distance	15m	15m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	84.5x78x162	
24 Weight (g)	<700	<700
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



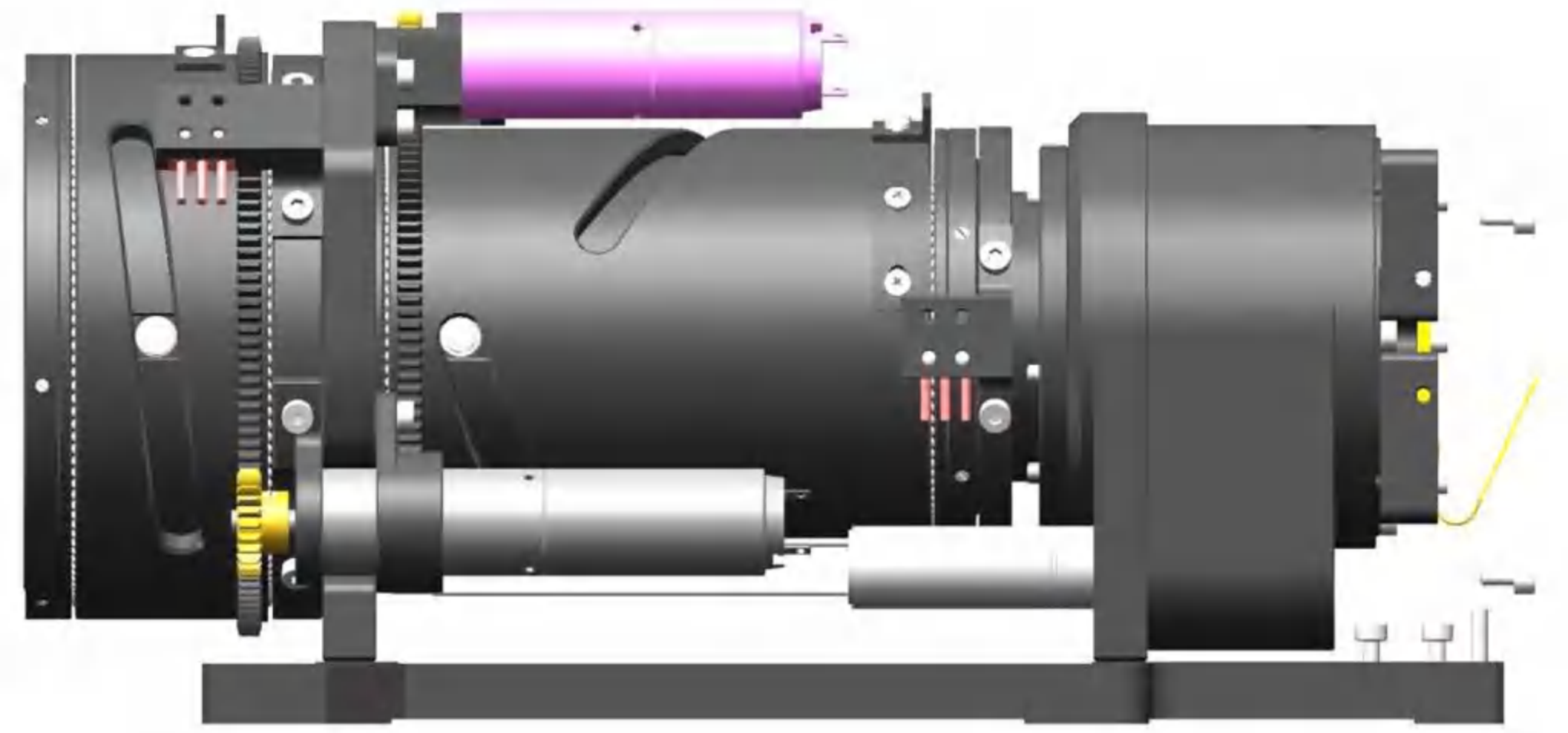
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**17-200mmF5**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	17.34 X 9.80	22.05 X 12.51	25.46 X 14.48
FOV(small field)(°)	1.49 X 0.84	1.90 X 1.07	2.20 X 1.24
FOV(diagonal)(°)	19.85 ~ 1.70	25.20 ~ 2.18	29.06 ~ 2.52
Focal length(mm)	17 ~ 200	17 ~ 200	17 ~ 200
F#	F3.8~F5	F3.8~F5	F3.8~F4
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	220	220	220
TOTR ( mm)	163.4	163.4	163.4
Maximum Clear aperture (mm)	φ48	φ48	φ48
Back Focal Length (mm)	23.85	Filters included	
Distortion	≤ 1.5%	≤ 2%	≤3%
Nearest working distance	5m	5m	5m
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	85.5×84.5×170.1		
Weight (g)	< 800	< 800	< 800
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



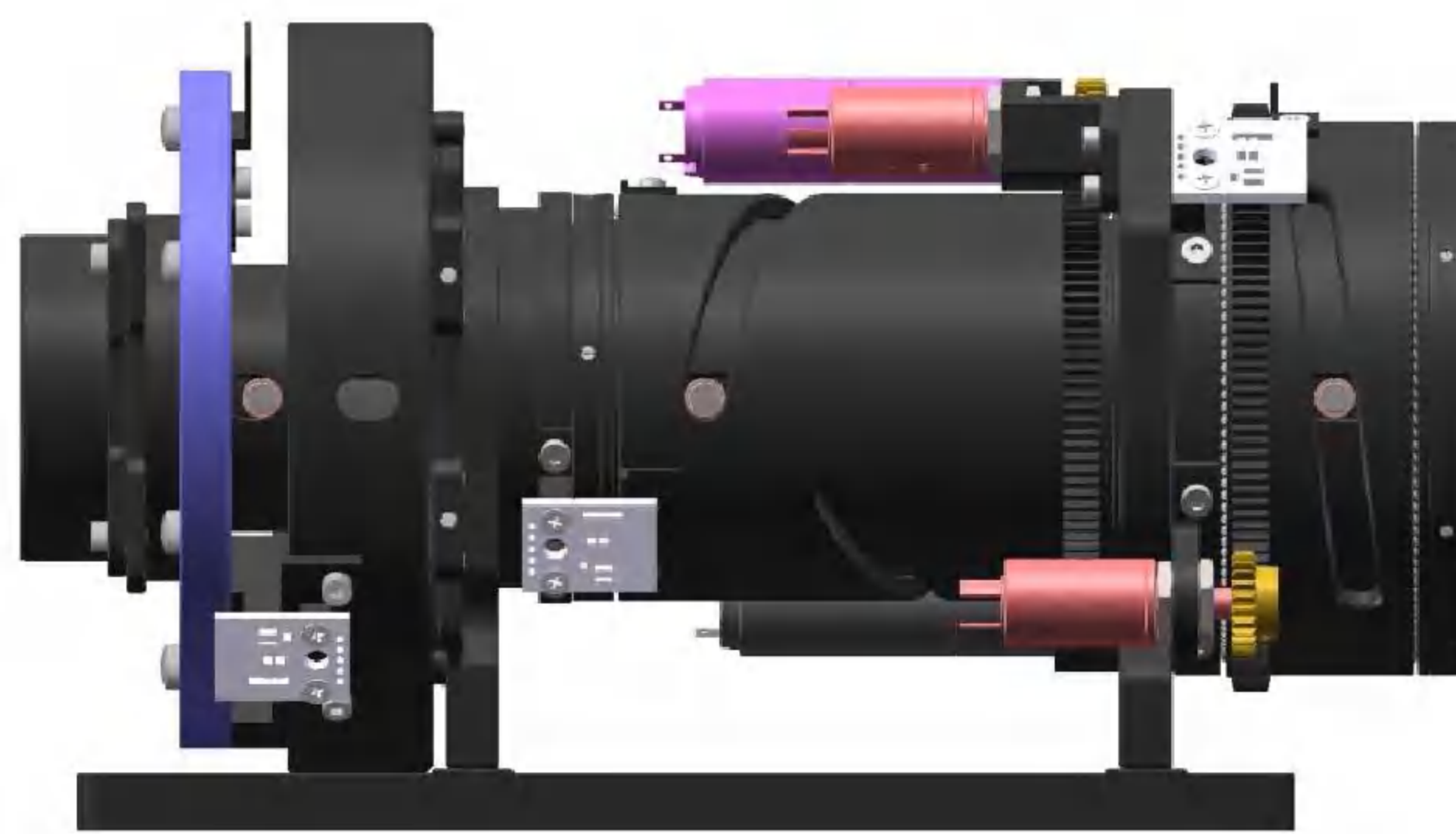
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**20-200mm F5**

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	14.77 X 8.34	18.81 X 10.64	21.74 X 12.33
FOV(small field)(°)	1.49 X 0.84	1.90 X 1.07	2.20 X 1.24
FOV(diagonal)(°)	16.92 ~ 1.70	21.52 ~ 2.18	24.85 ~ 2.52
Focal length(mm)	20 ~ 200	20 ~ 200	20 ~ 200
F#	F3.8~F5	F3.8~F5	F3.8~F5
Operating band	400-700nm 750-950nm	400-700nm 750-950nm	400-700nm 750-950nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	220	220	220
TOTR ( mm)	163.4	163.4	163.4
Maximum Clear aperture (mm)	φ48	φ48	φ48
Back Focal Length (mm)	23.85	Filters included	
Distortion	≤ 1.5%	≤ 1.5%	≤1.5%
Nearest working distance	5m	5m	5m
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	85.5x84.5x170.1		
Weight (g)	<800	<800	<800
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



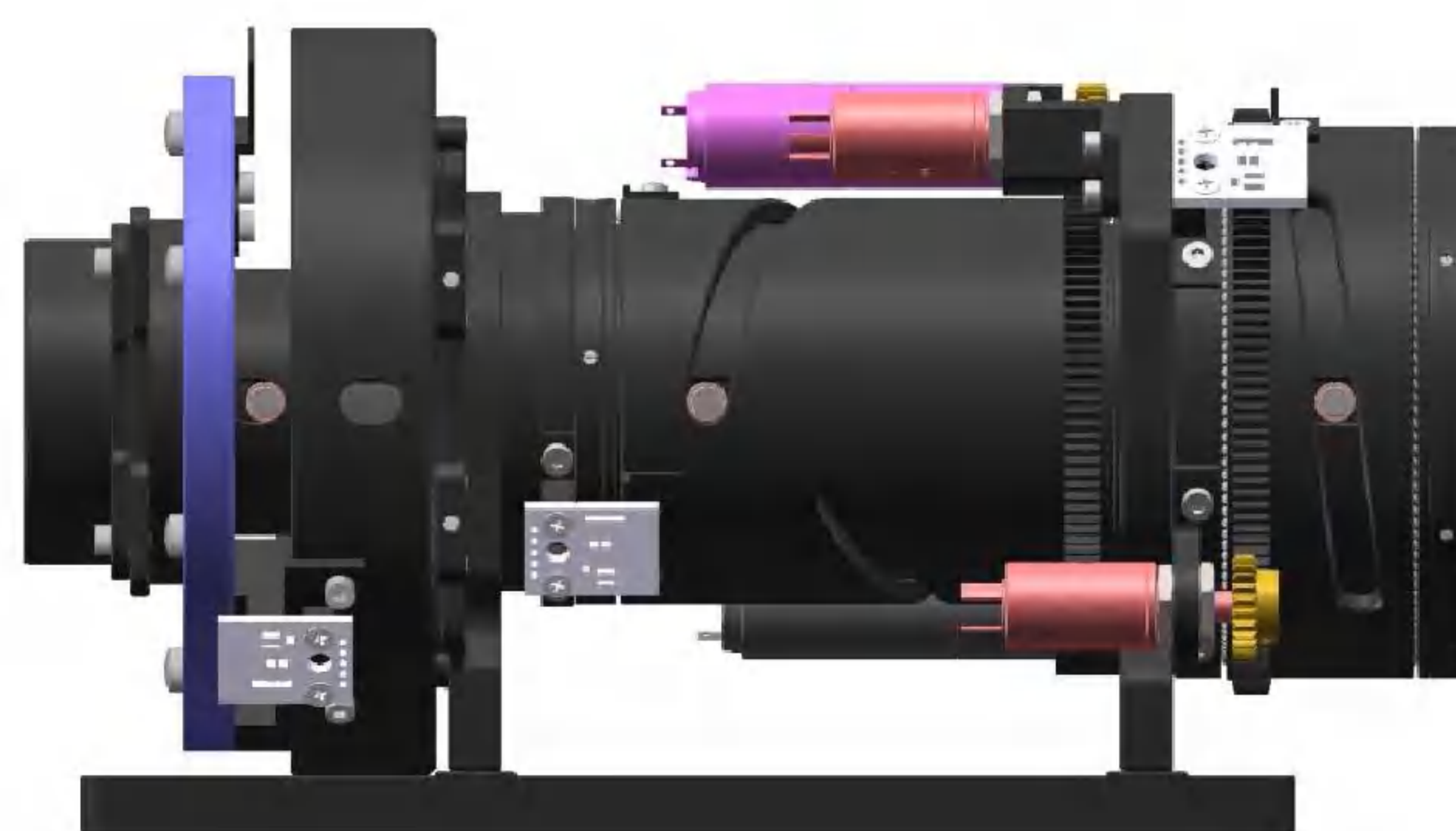
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



## 20-200mm F5 Racemic form

Technical Specification	Param1	Param2	Param3
Adaptive Camera pixels	1920 X 1080	1920 X 1080	1920 X 1080
Pixel size(um)	2.7	3.45	4
Format	5.184 X 2.916	6.624 X 3.726	7.68 X 4.32
Camera diagonal size	5.95	7.60	8.81
FOV(large field)(°)	14.77 X 8.34	18.81 X 10.64	21.74 X 12.33
FOV(small field)(°)	1.49 X 0.84	1.90 X 1.07	2.20 X 1.24
FOV(diagonal)(°)	16.92 ~ 1.70	21.52 ~ 2.18	24.85 ~ 2.52
Focal length(mm)	20 ~ 200	20 ~ 200	20 ~ 200
F#	F3.8~F5	F3.8~F5	F3.8~F5
Operating band	400-700nm	400-700nm	400-700nm
Resolution ratio (lp/mm)	185	145	125
Optical max resolution (lp/mm )	220	220	220
TOTR ( mm)	163.4	163.4	163.4
Maximum Clear aperture (mm)	φ48	φ48	φ48
Back Focal Length (mm)	23.85	Filters included	
Distortion	≤ 1.5%	≤ 1.5%	≤1.5%
Nearest working distance	5m	5m	5m
Focus	Front group motorized focus		
Focusing time	Customization		
Zoom	Motorized continuous zoom		
Zooming time	Customization		
Filter switching	Electric switching		
Maximum structural size (mm)	85.5x84.5x170.1		
Weight (g)	<800	<800	<800
Power input (V)	<12		
Operating temperature	-40°C ~ 70°C		
Optical axis consistency	≤2 pixels		



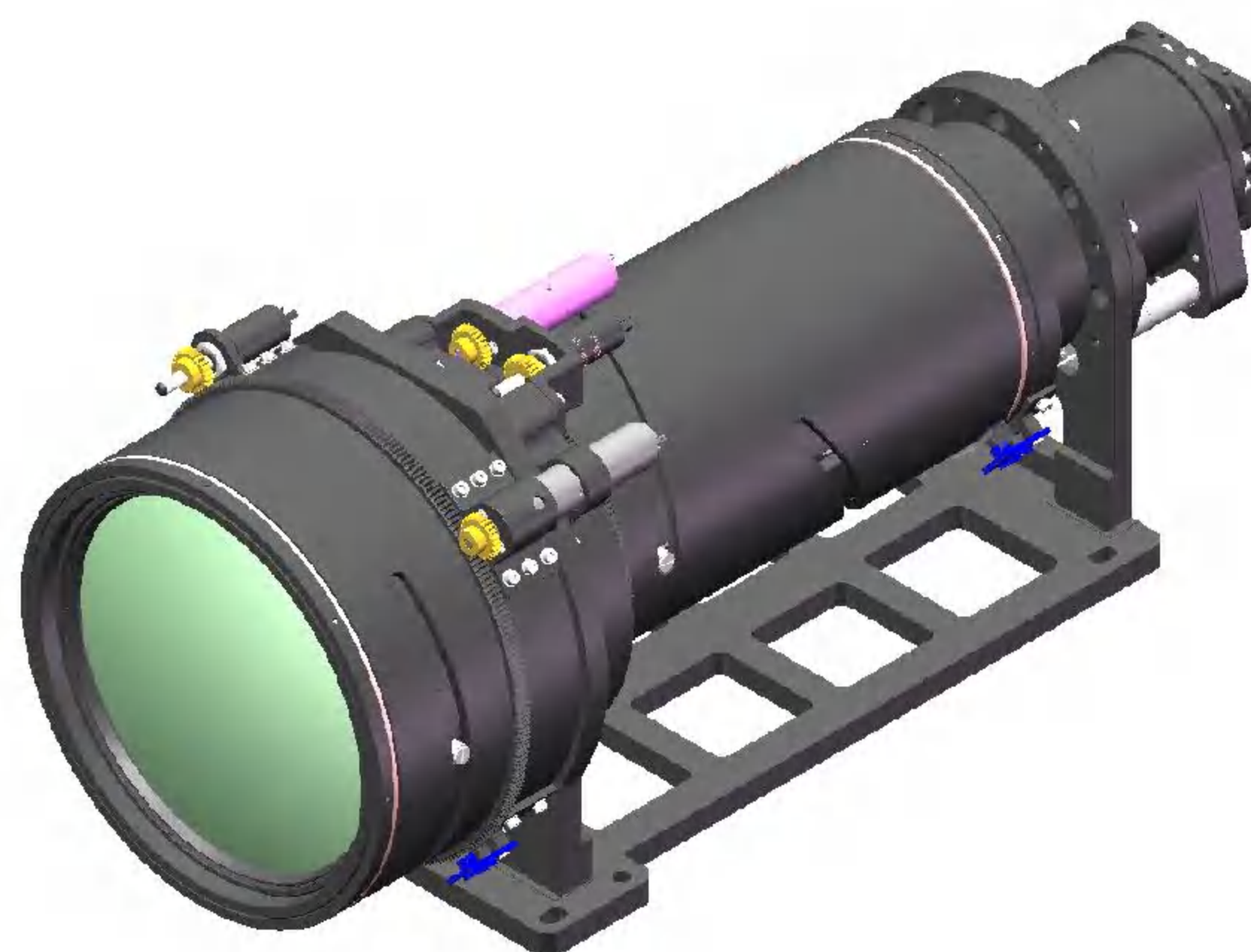
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**20-750mm F7**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	4	4.2
3 Format	7.68 X 4.32	8.064 X 4.536
4 Camera diagonal size	8.81	9.25
5 FOV(large field)(°)	21.74 X 12.33	22.80 X 12.94 (H )X (V)
6 FOV(small field)(°)	0.59 X 0.33	0.62 X 0.35 (H )X (V)
7 FOV(diagonal)(°)	24.85 ~ 0.67	26.05 ~ 0.71
8 Focal length(mm)	20 ~ 750	20 ~ 750
9 F#	F3.6~F7	F3.6~F7
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	125	119
12 Optical max resolution (lp/mm )	150	150
13 TOTR ( mm)	363	363
14 Maximum Clear aperture (mm)	φ107.3	φ107.3
15 Back Focal Length (mm)	27.3	27.3 Filters included
16 Distortion	≤ 3%	≤ 3%
17 Nearest working distance	100m	100m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	85.5x84.5x170.1	
24 Weight (g)	<800	<800
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤3 pixels	



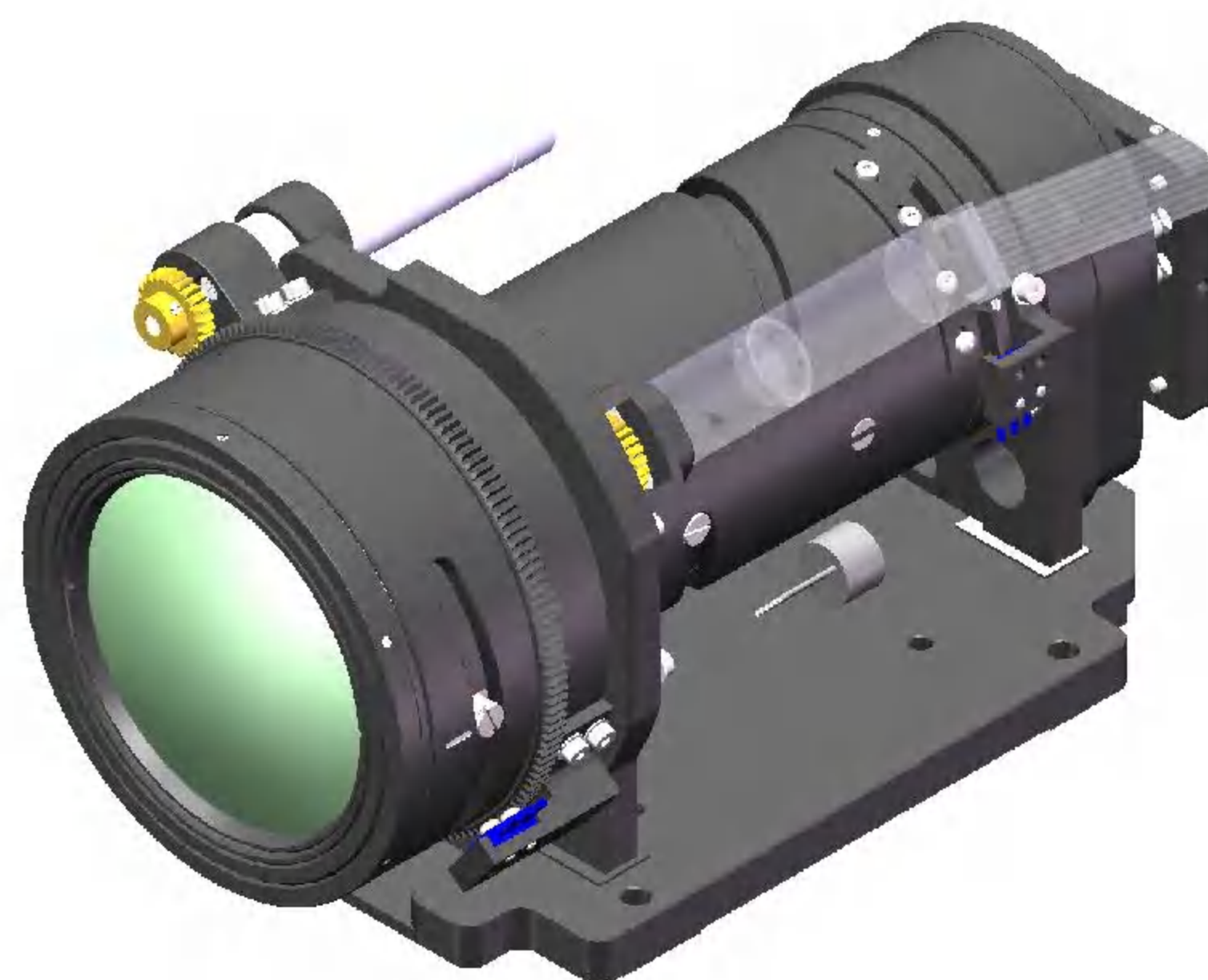
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**22-225mmF4**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	2.7	3.45
3 Format	5.184 X 2.916	6.624 X 3.726.
4 Camera diagonal size	5.95	7.60
5 FOV(large field)(°)	13.44 X 7.58	17.12 X 9.68 (H )X (V)
6 FOV(small field)(°)	1.32 X 0.74	1.69 X 0.95 (H )X (V)
7 FOV(diagonal)(°)	15.40 ~ 1.51	19.60 ~ 1.94
8 Focal length(mm)	22 ~ 225	22 ~ 225
9 F#	F3.2-F4	F3.2-F4
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	185	145
12 Optical max resolution (lp/mm )	220	220
13 TOTR ( mm)	164.8	164.8
14 Maximum Clear aperture (mm)	φ56	φ56
15 Back Focal Length (mm)	16.6	16.6 Filters included
16 Distortion	≤ 2%	≤ 2%
17 Nearest working distance	20m	20m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	98x88x168.5	
24 Weight (g)	<1500	<1500
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



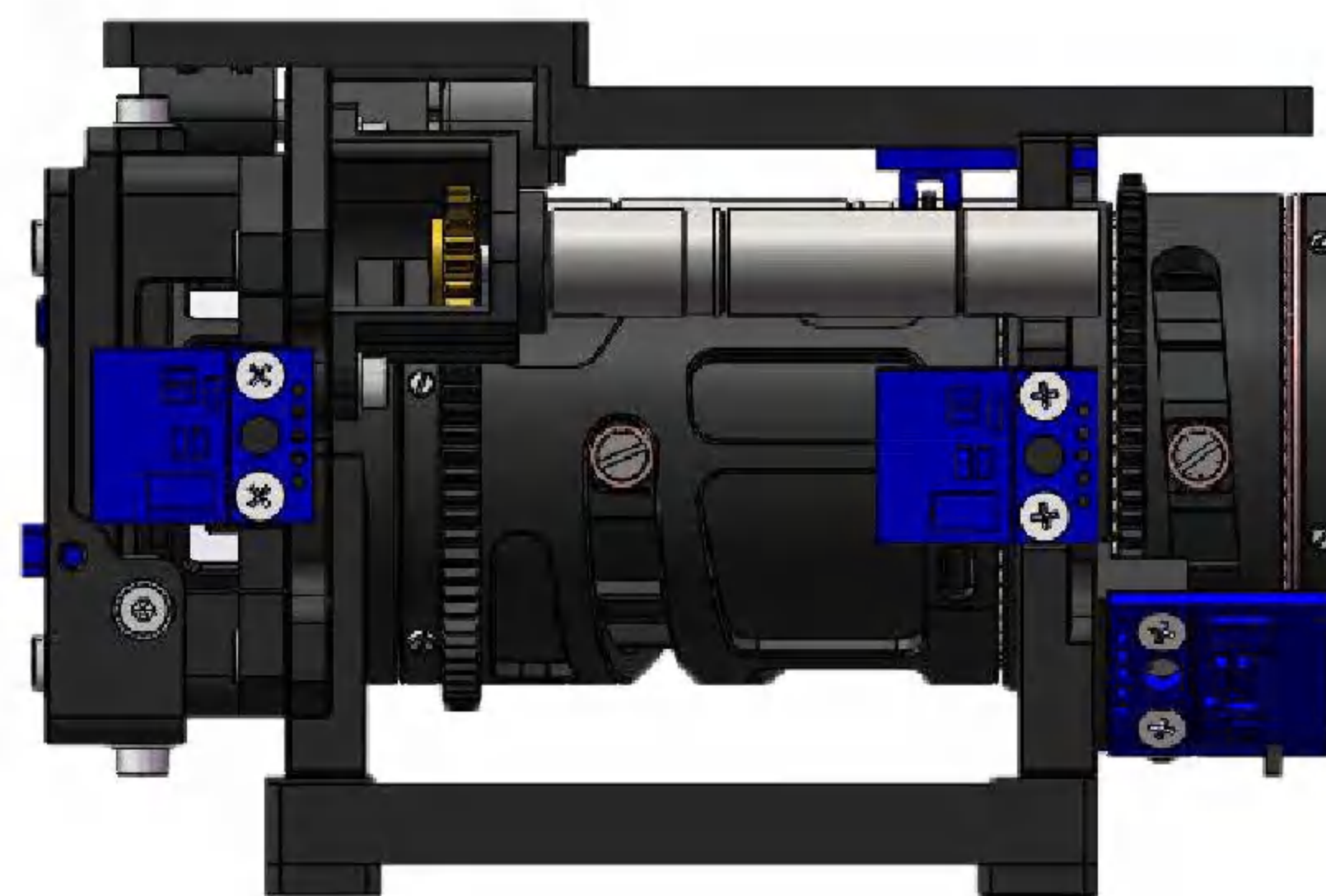
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**24-120mmF5**

## Technical Specification

### Param1

1 Adaptive Camera pixels	1920 X 1080	
2 Pixel size(um)	2.7	
3 Format	5.184 X 2.916	
4 Camera diagonal size	5.95	
5 FOV(large field)(°)	12.33 X 6.95	(H )X (V)
6 FOV(small field)(°)	2.47 X 1.39	(H )X (V)
7 FOV(diagonal)(°)	14.13 ~ 2.84	Short ~ Long focus
8 Focal length(mm)	24 ~ 120	
9 F#	F5	
10 Operating band	400-700nm 750-950nm	
11 Resolution ratio (lp/mm)	185	
12 Optical max resolution (lp/	250	
13 TOTR ( mm)	92	
14 Maximum Clear aperture (mm)	φ24	
16 Distortion	≤ 2%	
17 Nearest working distance	5m	
18 Focus	Rear group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	55x65.5x97	
24 Weight (g)	<330	
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**25-500mmF8**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3.45	4
3 Format	6.624 X 3.726	7.68 X 4.32
4 Camera diagonal size	7.60	8.81
5 FOV(large field)(°)	15.09 X 8.52	17.46 X 9.88 (H )X (V)
6 FOV(small field)(°)	0.76 X 0.43	0.88 X 0.50 (H )X (V)
7 FOV(diagonal)(°)	17.29 ~ 0.87	19.99 ~ 1.06
8 Focal length(mm)	25 ~ 500	25 ~ 500
9 F#	F5.5~F8	F5.5~F8
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	145	125
12 Optical max resolution (lp/mm )	200	200
13 TOTR ( mm)	360	360
14 Maximum Clear aperture (mm)	φ66	φ66
15 Back Focal Length (mm)	59.7	59.7 Filters included
16 Distortion	≤ 2%	≤ 2%
17 Nearest working distance	100m	100m
18 Focus	Front group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	Customization	
24 Weight (g)	Customization	
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤3 pixels	



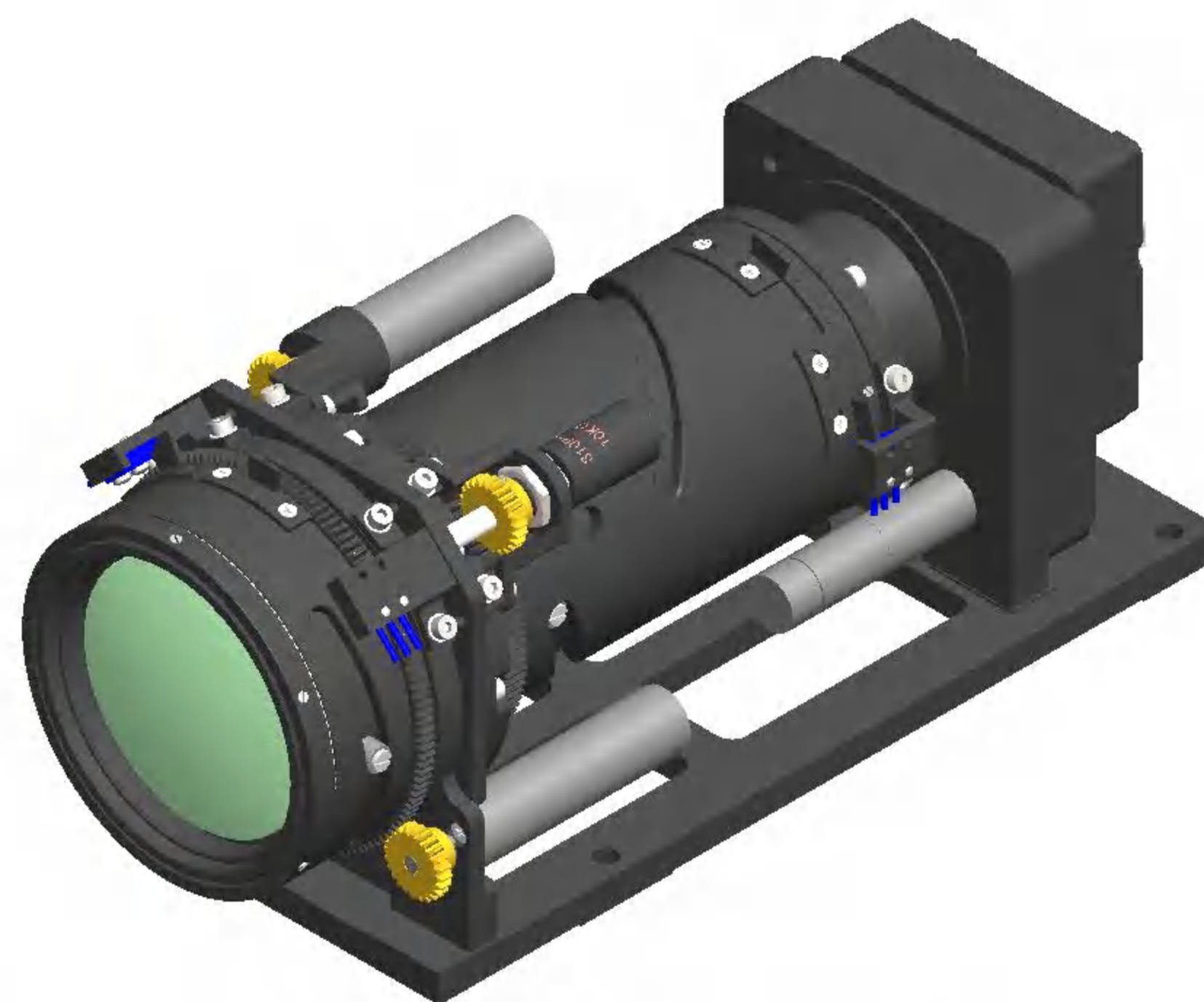
# Visible-light Motorized Continuous Zoom lens

## Application Area

- View and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**32-320mm F6**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3	3.45
3 Format	5.76 X 3.24	6.624 X 3.726
4 Camera diagonal size	6.61	7.60
5 FOV(large field)(°)	10.29 X 5.80	11.82 X 6.66 (H )X (V)
6 FOV(small field)(°)	1.03 X 0.58	1.19 X 0.67 (H )X (V)
7 FOV(diagonal)(°)	11.79 ~ 1.18	13.54 ~ 1.36
8 Focal length(mm)	32 ~ 320	32 ~ 320
9 F#	F5.6~F7	F5.6~F7
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	167	145
12 Optical max resolution (lp/mm )	210	210
13 TOTR ( mm)	185	185
14 Maximum Clear aperture (mm)	φ47.5	φ47.5
15 Back Focal Length (mm)	30.9	30.9 Filters included
16 Distortion	≤ 2%	≤ 2%
17 Nearest working distance	20m	20m
18 Focus	Rear group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	65x55.3x103.7	
24 Weight (g)	<330	<330
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**40-150mm**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	2.7	3.45
3 Format	5.184 X 2.916	6.624 X 3.726
4 Camera diagonal size	5.95	7.60
5 FOV(large field)(°)	7.42 X 4.18	9.47 X 5.33 (H )X (V)
6 FOV(small field)(°)	1.98 X 1.11	2.53 X 1.42 (H )X (V)
7 FOV(diagonal)(°)	8.50 ~ 2.27	10.85 ~ 2.90
8 Focal length(mm)	40 ~ 150	40 ~ 150
9 F#	F4.5~F5.2	F4.5~F5.2
10 Operating band	400-700nm 750-950nm	400-700nm 750-950nm
11 Resolution ratio (lp/mm)	185	145
12 Optical max resolution (lp/mm )	260	260
13 TOTR ( mm)	105	105
14 Maximum Clear aperture (mm)	φ32	φ32
15 Back Focal Length (mm)	18.7	18.7 Filters included
16 Distortion	≤ 2%	≤ 2%
17 Nearest working distance	5m	5m
18 Focus	Rear group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	60x56x109.5	
24 Weight (g)	<300	<300
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	



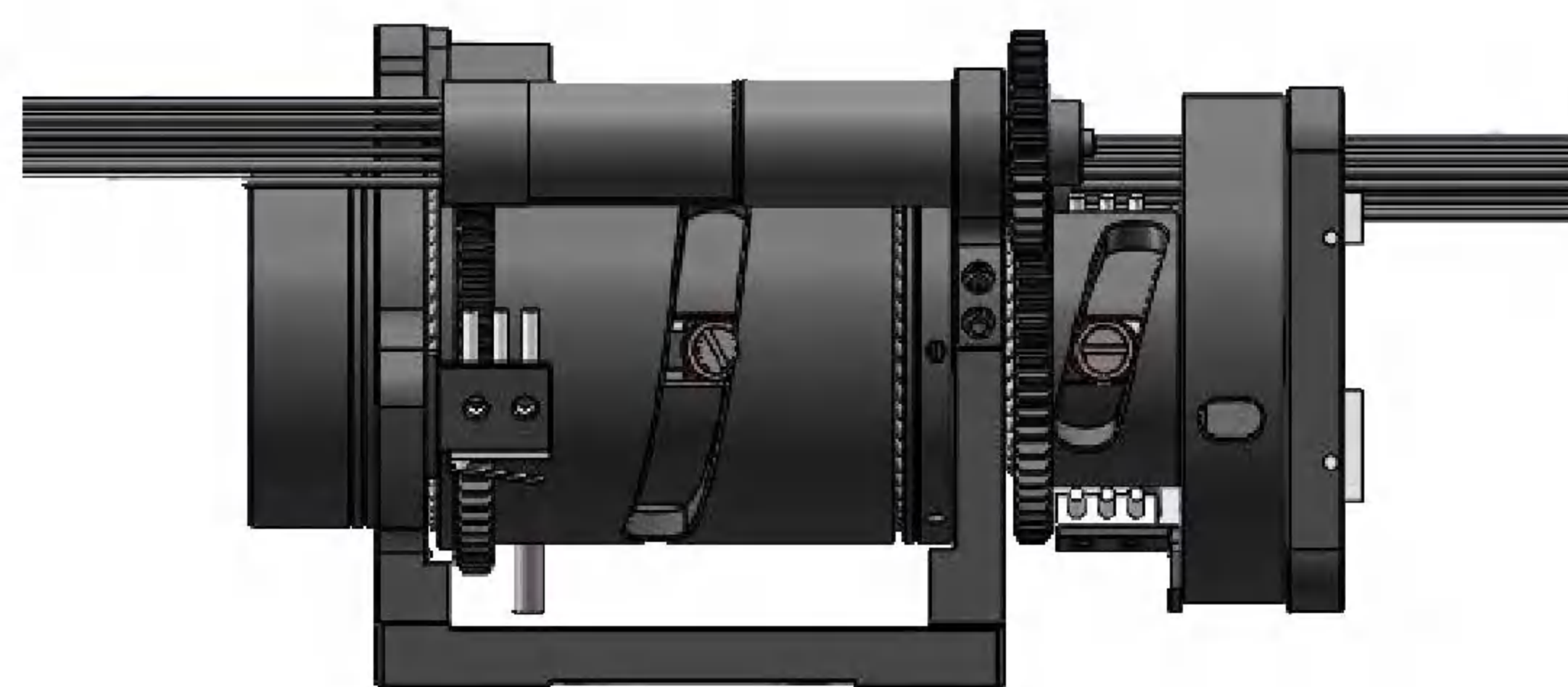
# Visible-light Motorized Continuous Zoom lens

## Application Area

- Handheld, view and aim, turret
- UAV electro-optical pod, RCWS
- Large zoom guide lens

## Product Superiority

- No optical and mechanical drift
- Long endurance, stable and reliable
- Strong optical axis consistency



**41-164mm F7**

Technical Specification	Param1	Param2
1 Adaptive Camera pixels	1920 X 1080	1920 X 1080
2 Pixel size(um)	3	3.45
3 Format	5.76 X 3.24	6.624 X 3.726
4 Camera diagonal size	6.61	7.60
5 FOV(large field)(°)	8.04 X 4.53	9.24 X 5.20 (H )X (V)
6 FOV(small field)(°)	2.01 X 1.13	2.31 X 1.30 (H )X (V)
7 FOV(diagonal)(°)	9.22 ~ 2.31	10.59 ~ 2.65
8 Focal length(mm)	41 ~ 164	41 ~ 164
9 F#	F6.5~F7	F6.5~F7
10 Operating band	400-700nm	400-700nm
11 Resolution ratio (lp/mm)	167	145
12 Optical max resolution (lp/mm )	200	200
13 TOTR ( mm)	85	85
14 Maximum Clear aperture (mm)	φ25	φ25
15 Back Focal Length (mm)	13.8	13.8 Filters included
16 Distortion	≤ 2.5%	≤ 2.5%
17 Nearest working distance	20m	20m
18 Focus	Rear group motorized focus	
19 Focusing time	Customization	
20 Zoom	Motorized continuous zoom	
21 Zooming time	Customization	
22 Filter switching	Electric switching	
23 Maximum structural size (mm)	59x53x88	
24 Weight (g)	<300	<300
25 Power input (V)	<12	
26 Operating temperature	-40°C ~ 70°C	
27 Optical axis consistency	≤2 pixels	