X2815 VTOL Drone Brushless DC Motor

Our Product Introduction

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: X2815 900KV 1050KV
- Price: Negotiable
- Delivery Time: 6-8
- Payment Terms: T/T
- Supply Ability: 100

Product Specification

- Motor Model: X2815 EEE V1.0
- Motor Size: D:35 X40.1mm
- Propeller Mounting Holes: D:15 M3x4
- Shaft Diameter: IN: 4 Mm
- Bearing: EZO 694ZZ
- Cable Length: 150°C150 Mm (extended Enameled Wires)
- Rotor Balance: ≤3 Mg
- Motor Balance: ≤10 Mg
- Motor Mounting Holes: D:25 M3x4
- Disruptive Test: 500 V
- Highlight: **Drone Brushless DC Motor**, **X2815 Brushless DC Motor**

More Images

Our Product Introduction

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Product Description

X2815 VTOL Drone Brushless DC Motor

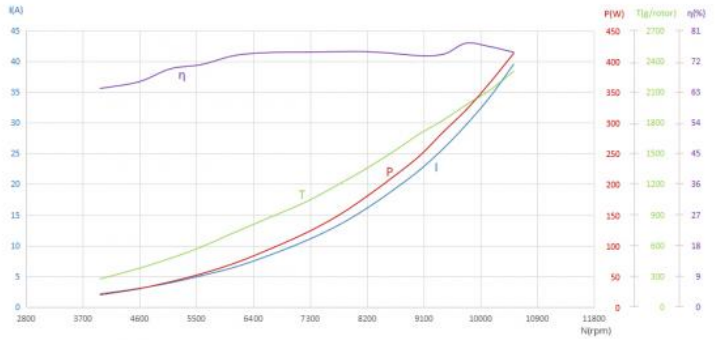
X2815 series motors are the classic UAV motors for small to medium industrial use, efficient and for endurance flights. These sizes of motors have been on the market for 10 years, MAD Components has optimised them to be very lightweight. ENTHUSIASTS EXTREME EDITION for extreme weight reduction while maintaining the highest possible performance.

Vertical take-off and Landing: The X2815 engine is ideally suited to the unique needs of VTOL UAVs, providing the thrust required for vertical lift and the efficiency required for sustained horizontal flight.
FPV (First Person View) Drones: In an FPV setup, the reliability and power of the motor is critical to maintaining stable flight, especially in competition or remote exploration.
Versatility: The motor's design enables it to be used in a variety of drone configurations, including quadcopter, six-copter, and hybrid VTOL designs.

MAD X2815 EEE 900KV **APC** 11x5.5 **AMPX** 40A PRO (2~6S) **4S** MAX 81℃

Analytical Graph of Motor Operation

I – Current, P – Input Power, η – Electrical Efficiency, T – Thrust, N – Rotational Speed
The data above was measured with an input voltage of 16 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.

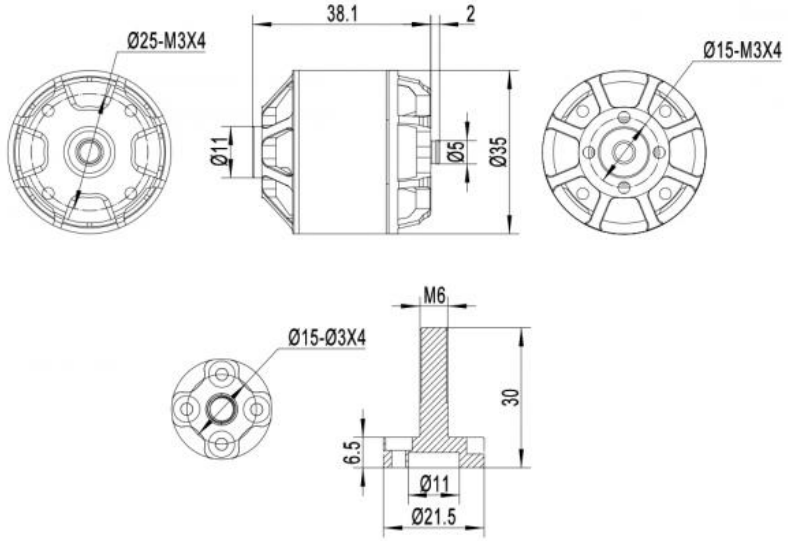


Motor Data

Motor Model	MAD X2815 EEE V1.0	Number of pole pairs	7
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	150°C
Motor Size	D:35 × 40.1mm	Magnet Degree	150°C
Degree of Protection	Rain protection	Cable Length	150 mm (extended Enameled wires)
Centrifugal Heat Dissipation	Independent	Rotor Balance	≤3 mg
Propeller Mounting Holes	D:15 M3×4	Motor Balance	≤10 mg
Shaft Diameter	IN: 4 mm	Motor Mounting Holes	D:25 M3×4
Bearing	EZO 694ZZ	Disruptive test	500 V
Additional Accessories	Propeller Adapter *1, Prop Plate *1, Nut *1, 3.5mm Bullet Connector*3, Heat Shrinkable Tube*3, M3*8mm *4 Motor Screws, M3*8mm *4 Propeller Screws, Sticker*2		

Specifications

RPM/V	900KV	Nominal Voltage	4-6S lipo battery
No Load Current	1.95A / 15V	Internal resistance	35.6mΩ
Motor Weight	113 g	Product Boxed Weight	300g (110 x 110 x 55 mm)
Maximum Current	39.5 A	Maximum Power	580W
Maximum thrust	2.3 kg	Maximum Torque	0.38 Nm
Recommended ESC	MAD AMPX PRO 40A (2~6S)	Recommended Propellers	ACP 11x5.5, APC 12x6, ACP 13x6.5
UAV take-off weight	4S-11"/ 3.5kg--Quadcopter 5.2kg--Hexacopter 7kg--Octocopter	Single rotor take-off weight	0.45kg ~ 0.80kg



MAD X2815 EEE 900KV **APC** 10x5 **AMPX** 40A PRO (2-6S) **4S** MAX 54℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	15.6	1.74	27.1	14.5	0.034	4103	196	56.46	7.6
35	15.59	2.37	37.0	21.2	0.043	4710	261	60.31	7.4
40	15.57	3.08	48.0	29.3	0.053	5272	342	63.56	7.4
45	15.56	3.93	61.2	39.7	0.065	5842	426	67.73	7.3
50	15.5	5.1	79.1	53.8	0.079	6456	527	70.76	6.9
55	15.5	6.36	98.6	69.0	0.093	7061	605	72.6	6.4
60	15.43	8.05	124.2	90.2	0.113	7627	733	74.91	6.1
65	15.39	9.87	151.9	113.7	0.133	8175	889	77.01	6.0
70	15.33	11.94	183.1	137.7	0.151	8695	1033	77	5.8
75	15.28	14.07	214.9	160.9	0.167	9174	1144	76.41	5.4
80	15.22	16.49	251.0	190.8	0.189	9658	1240	77.2	5.0
85	15.15	19.27	292.0	221.7	0.209	10137	1374	76.7	4.8
90	15.09	22.33	336.9	257.2	0.232	10601	1496	76.87	4.5
95	15	25.76	386.5	293.6	0.254	11040	1633	77.64	4.3
100	14.89	30.11	448.3	342.0	0.282	11581	1777	81.18	4.2

MAD X2815 EEE 900KV **APC** 11x5.5 **AMPX** 40A PRO (2~6S)

4S MAX 81℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	15.58	2.12	33.1	20.0	0.048	3975	274	64.02	8.8
35	15.56	3.01	46.8	29.7	0.062	4581	376	65.96	8.4
40	15.53	3.97	61.7	41.2	0.077	5098	477	69.82	8.1
45	15.51	5.1	79.0	54.0	0.093	5576	586	71.03	7.7
50	15.48	6.52	100.9	71.8	0.112	6117	732	73.71	7.5
55	15.44	8.52	131.5	95.0	0.136	6680	880	74.56	6.9
60	15.39	10.84	166.8	121.1	0.160	7246	1030	74.7	6.4
65	15.34	13.31	204.2	149.0	0.184	7748	1196	74.81	6.0
70	15.28	15.99	244.3	179.2	0.209	8187	1351	74.81	5.6
75	15.18	19.09	289.8	212.4	0.235	8625	1520	74.29	5.3
80	15.1	22.2	335.2	245.0	0.259	9025	1687	73.66	5.1
85	15.02	25.8	387.5	285.1	0.289	9413	1826	74.06	4.7
90	14.92	29.75	443.9	321.7	0.314	9781	1977	77.3	4.8
95	14.83	33.97	503.8	363.0	0.342	10133	2111	76.35	4.4
100	14.69	39.51	580.4	412.9	0.375	10527	2302	74.64	4.2

MAD X2815 EEE 900KV **APC** 12x6 **AMPX** 40A PRO (2~6S)

4S MAX 61℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	11.92	1.76	21.0	12.6	0.040	2972	212	66.29	11.2
35	11.91	2.45	29.2	18.1	0.051	3394	281	68.41	10.6
40	11.89	3.45	41.0	27.3	0.067	3879	377	72.56	10.0
45	11.87	4.49	53.3	37.4	0.083	4299	465	76.18	9.5
50	11.85	5.59	66.3	47.7	0.098	4651	558	78.2	9.1
55	11.83	6.94	82.1	59.7	0.114	5005	664	78.62	8.7
60	11.79	8.78	103.5	75.5	0.133	5402	793	78.66	8.3
65	11.76	10.78	126.7	92.3	0.152	5803	901	78.04	7.6
70	11.72	13.21	154.7	112.8	0.174	6179	1033	77.97	7.1
75	11.66	15.84	184.8	135.1	0.198	6523	1159	77.64	6.7
80	11.62	18.52	215.2	157.6	0.220	6829	1297	77.46	6.4
85	11.56	21.3	246.3	175.1	0.234	7130	1404	74.85	6.0
90	11.5	24.59	282.8	199.9	0.258	7406	1607	73.94	5.9
95	11.43	27.99	319.9	225.3	0.280	7682	1743	73.21	5.7
100	11.34	32.76	371.4	261.0	0.311	8013	2015	72.51	5.6

MAD X2815 EEE 900KV **APC** 13x6.5 **AMPX** 40A PRO (2~6S)

4S MAX 69℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	11.92	2.06	24.5	15.7	0.052	2909	245	71.06	11.1
35	11.9	2.85	33.9	22.6	0.065	3297	327	72.67	10.6
40	11.88	3.98	47.3	32.5	0.083	3753	441	75.08	10.2
45	11.85	5.31	63.0	44.0	0.101	4157	560	75.79	9.7
50	11.83	6.65	78.6	55.5	0.118	4488	676	76.42	9.3
55	11.79	8.36	98.6	70.9	0.140	4842	801	77.51	8.8
60	11.76	10.34	121.6	87.1	0.160	5214	919	76.84	8.1
65	11.71	12.83	150.3	108.7	0.187	5564	1075	77.27	7.7
70	11.66	15.47	180.4	129.0	0.208	5917	1238	75.98	7.3
75	11.61	18.48	214.5	153.0	0.234	6234	1379	75.34	6.8
80	11.55	21.51	248.6	175.9	0.258	6510	1520	74.41	6.4
85	11.5	24.61	282.9	195.3	0.275	6775	1638	72.23	6.1
90	11.43	28.13	321.6	219.4	0.298	7032	1767	70.92	5.7
95	11.37	31.86	362.3	245.0	0.322	7260	1897	69.97	5.4
100	11.26	36.97	416.2	277.5	0.351	7557	2061	68.25	5.1

The above data are the theoretical values when the input voltage is 16V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 37A is non-working zone,13-37A is short-term (about 10-30s), working zone, and below 13A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

X2815

ENERGY EFFICIENT 1050KV

ENTHUSIASTS EXTREME EDITION

450~800 gf
RECOMMENDED HOVER THRUST

2.6 kgf
MAXIMUM THRUST
MAXIMUM THRUST MAY DEPEND ON BATTERY LEVEL,PROPELLER TYPE, AIR PRESSURE AND OTHER CONDITIONS

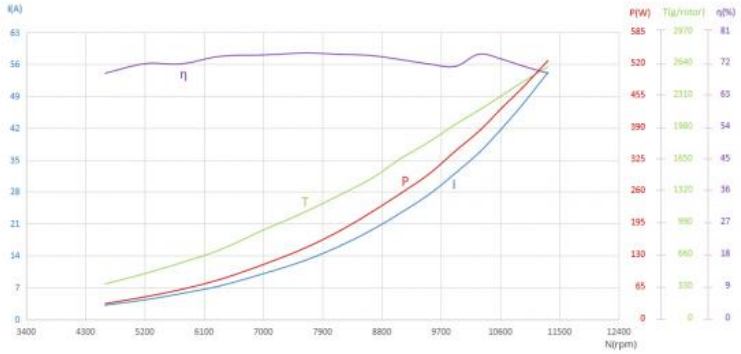
OPTIMIZED WEIGHT 113 g

EFFICIENCY >73%

MAD X2815 EEE 1050KV **APC** 11x5.5 **XROTOR Pro** 60A (4-6S) **4S** MAX 98℃

Analytical Graph of Motor Operation

I – Current, P – Input Power, η – Electrical Efficiency, T – Thrust, N – Rotational Speed
The data above was measured with an input voltage of 16 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.



Specifications

RPM/V	1050KV	Nominal Voltage	3-4S lipo battery
No Load Current	1.43A / 10V	Internal resistance	27mΩ
Motor Weight	113 g	Product Boxed Weight	280g (110 x 110 x 55 mm)
Maximum Current	54.2 A	Maximum Power	795.6W
Maximum thrust	2.6 kg	Maximum Torque	0.45 Nm
Recommended ESC	AMPX PRO 40A(2~6S) XROTOR Pro 60A(4-6S)	Recommended Propellers	ACP 11x5.5, APC 12x6, ACP 13x6.5
UAV take-off weight	4S-11"/ 3.5kg--Quadcopter 5.2kg--Hexacopter 7kg--Octocopter	Single rotor take-off weight	0.45kg ~ 0.80kg

MAD X2815 EEE 1050KV **FLUXER** PRO 11x3.7 MATT **AMPX** 40A PRO (2~6S) **4S** MAX 50℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	12.01	1.48	17.1	9.1	0.024	3556	167	54.2	9.9
35	12	2.11	24.9	14.3	0.033	4108	230	59.8	9.6
40	11.98	2.83	33.2	20.8	0.043	4640	298	67.1	9.6
45	11.98	3.63	42.9	27.7	0.052	5128	367	69	9.1
50	11.96	4.57	54.1	36.3	0.062	5604	444	72.4	8.8
55	11.93	5.89	69.8	49.2	0.076	6156	540	76.3	8.4
60	11.9	7.13	84.5	60.5	0.088	6568	627	77.7	8.0
65	11.88	8.74	103.5	74.6	0.101	7045	732	78	7.7
70	11.82	10.42	122.7	89.9	0.115	7495	832	78.7	7.3
75	11.81	12.25	144.2	106.6	0.129	7920	936	79.4	7.0
80	11.78	14.23	166.9	123.5	0.141	8363	1035	79.1	6.6
85	11.74	16.59	194.1	142.7	0.155	8784	1144	78.5	6.3
90	11.7	18.9	220.7	161.4	0.168	9159	1246	77.7	6.0
95	11.66	21.31	248.0	184.3	0.185	9518	1357	78.8	5.8
100	11.58	25.2	291.2	218.5	0.209	10005	1506	79	5.4

MAD X2815 EEE 1050KV **APC** 10x5 **AMPX** 40A PRO (2~6S) **4S** MAX 71℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	15.57	2.4	37.3	22.3	0.045	4742	242	62.92	6.8
35	15.56	3.25	50.6	32.0	0.057	5394	339	66.32	7.0
40	15.55	4.42	68.7	44.7	0.071	6057	439	67.82	6.7
45	15.52	5.82	90.3	62.4	0.088	6762	560	71.76	6.4
50	15.48	7.47	115.7	82.1	0.106	7411	687	73.36	6.1
55	15.42	9.68	149.2	108.0	0.128	8069	843	74.61	5.8
60	15.32	12.05	184.6	134.9	0.148	8692	1042	74.79	5.8
65	15.28	14.64	223.7	165.0	0.170	9251	1177	75.26	5.4
70	15.18	17.53	266.1	197.6	0.193	9776	1286	75.29	4.9
75	15.1	20.54	310.1	230.4	0.214	10289	1419	74.85	4.6
80	15.01	24	360.3	270.5	0.240	10782	1568	75.92	4.4
85	14.92	27.48	410.1	303.6	0.258	11241	1706	78.93	4.4
90	14.8	32.04	474.3	351.3	0.286	11722	1889	78.37	4.2
95	14.68	36.59	537.0	398.5	0.313	12150	2039	77.85	4.0
100	14.51	42.76	620.5	454.5	0.342	12675	2217	75.93	3.7

MAD X2815 EEE 1050KV **APC** 11x5.5 **XROTOR Pro** 60A (4-6S) **4S** MAX 98℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	15.58	3.06	47.7	31.6	0.066	4599	363	69.46	8.0
35	15.55	4.25	66.1	45.6	0.084	5209	473	72.17	7.5
40	15.53	5.61	87.2	60.5	0.100	5754	584	72.11	7.0
45	15.5	7.31	113.3	81.0	0.122	6342	718	74.22	6.6
50	15.46	9.84	152.1	109.7	0.150	6968	912	74.59	6.2
55	15.41	12.79	197.1	143.9	0.180	7613	1104	75.13	5.8
60	15.35	16.12	247.5	180.8	0.211	8170	1289	74.82	5.3
65	15.29	19.68	300.8	219.5	0.242	8658	1463	74.41	5.0
70	15.22	23.46	357.0	257.7	0.270	9100	1668	73.26	4.7
75	15.13	27.41	414.9	296.2	0.297	9517	1835	72.07	4.5
80	15.06	31.91	480.7	341.4	0.329	9904	2011	71.34	4.2
85	14.95	36.73	549.1	384.9	0.357	10286	2170	74.87	4.2
90	14.86	41.92	623.0	430.9	0.387	10623	2317	73.42	4.0
95	14.78	47.13	696.7	472.1	0.412	10935	2455	71.53	3.7
100	14.67	54.22	795.6	527.2	0.445	11323	2612	69.46	3.4

MAD X2815 EEE 1050KV **APC** 12x6 **AMPX** 40A PRO (2~6S) **4S** MAX 66℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	11.61	2.37	27.6	17.3	0.050	3331	265	66.89	10.2
35	11.61	3.45	40.1	27.1	0.067	3843	366	72.44	9.8
40	11.59	4.73	54.8	38.2	0.085	4312	476	73.76	9.2
45	11.56	6.11	70.7	50.0	0.101	4727	575	74.71	8.6
50	11.53	7.77	89.6	64.4	0.120	5118	690	75.67	8.1
55	11.48	9.85	113.0	81.7	0.141	5533	820	75.72	7.6
60	11.43	12.3	140.7	102.1	0.164	5963	955	75.64	7.1
65	11.37	15.29	173.9	126.8	0.190	6379	1085	75.59	6.5
70	11.31	18.54	209.6	152.2	0.215	6749	1222	74.81	6.0
75	11.24	21.88	245.9	175.4	0.236	7082	1363	73	5.7
80	11.15	25.32	282.2	198.7	0.257	7376	1544	71.42	5.6
85	11.01	29.21	321.7	227.8	0.284	7662	1732	75.27	5.7
90	11.06	33.13	366.4	255.8	0.308	7940	1893	70.25	5.2
95	10.92	37.44	408.9	283.0	0.330	8190	2034	75.65	5.4
100	10.85	43.49	472.0	321.4	0.361	8496	2092	73.91	4.8

MAD X2815 EEE 1050KV **APC** 13x6.5 **XROTOR Pro** 60A (4-6S) **4S** MAX 78℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	11.62	2.76	32.0	21.6	0.064	3229	314	72.06	10.5
35	11.6	3.97	46.0	32.3	0.084	3681	424	74.96	9.8
40	11.57	5.52	63.9	45.3	0.104	4179	550	75.12	9.1
45	11.54	7.2	83.0	59.8	0.125	4576	674	75.76	8.5
50	11.46	9.2	105.5	76.0	0.147	4947	810	75.5	8.0
55	11.38	11.53	131.3	94.9	0.170	5325	952	75.05	7.5
60	11.32	14.39	162.9	116.8	0.195	5711	1099	73.93	7.0
65	11.34	17.61	199.7	141.4	0.222	6082	1239	73.09	6.4
70	11.27	21.2	239.0	167.2	0.249	6423	1397	71.82	6.0
75	11.15	24.97	278.4	193.2	0.275	6720	1555	70.4	5.7
80	10.97	29.04	318.7	218.8	0.299	6981	1706	73.58	5.7
85	10.87	32.98	358.4	244.3	0.322	7245	1822	74.13	5.5
90	10.71	37.28	399.3	269.6	0.344	7477	1966	72.32	5.3
95	10.6	41.88	444.1	294.5	0.366	7673	2086	70.35	5.0
100	10.41	48.27	502.5	328.2	0.395	7934	2253	67.99	4.7

The above data are the theoretical values when the input voltage is 16V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 48A is non-working zone,18-48A is short-term (about 10-30s), working zone, and below 18A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

Our Services

1. We provide 1 Year Warranty. Buy with confidence.
2. If you are not satisfied when you receive your item, please return it within 14 days for a replacement or money back. Please contact me before you return it.
3. If item is defective in 3 months, We will send you a replacement without extra charger, or offer refund after we receive the defective item.
4. If item is defective after 3 months, you can still send it back to us. We will send you a new one after receiving the defective item. But you have to pay the extra shipping fee.

FAQ

Q1: Do you support OEM/ODM?
A1: Yes. We can print your logo on the product.
Q2: About samples.
A2: Under normal circumstances, samples will be ready within 7 days, and 10-20 days for OEM/ODM orders. Sample fee and shipping will be charged.
Q3: What is the delivery time?
A3: For regular orders, we can ship within 15 days, for OEM/ODM, we can ship within 25-45 days (depending on the quantity). In the event of delays, we will notify you in advance of the status and resolution.
Q4: What is the minimum order quantity?
A4: There is no MOQ for wholesale (1 piece accepted), including OEM/ODM.
Q5: What are your payment terms?
A5: L/C.TT100%.
Q6: Can you reduce the shipping cost?
A6: When calculating the shipping cost for you, we always choose the cheapest and safest express. Although we have partnerships with shipping companies, we can't keep costs down because it's not us who get paid. If you think it's expensive for you. You can always make your own choice.
Q7: Return policy.
A7: If you want to replace the received item, you must contact us within 7 days after receiving the item. Returned items should be in their original condition and you should pay for additional shipping.

Guangzhou Gesai Intelligent Electronic Technology Co., Ltd.

Kellyyangjing2021@outlook.com uav-vtoldrone.com

Fuli Yingtong Building, the Pearl River New Town, Tianhe District, Guangzhou, Guangdong, China