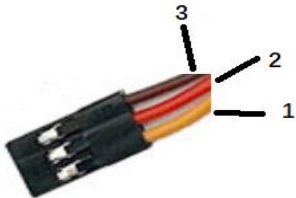


Mini Pupper Servo Specification				Date: 2021-10-26	
1. Apply Environmental Condition:					
No.	Item			Specification	
1-1	Storage Temperature Range			-30℃～80℃	
1-2	Operating Temperature Range			-20℃～60℃	
2. Standard Test Environment:					
No.	Item			Specification	
2-1	Temperature Range			25℃ ±5℃	
2-2	Humidity Range			65%±10%	
3. Secure Performance and Certificate					
No.	Item	Certificate	Remarks		
3-1	EMC	Yes			
3-2	ROHS	Yes			
4. Appearance Inspection:					
No.	Item		Specification		
4-1	OutlineDrawing		See the appendix		
4-2	Appearance		No damage and mustn’ t affect functions.		
5. Electrical Specification					
No.	Item		Specification	Specification	Remark
5-1	Operating Voltage		4. 8V	6V	
5-2	No Load Speed		0. 125sec/60° (80RPM)	0. 1sec/60° (100RPM)	
5-3	Running Current (no load)		140mA	170mA	
5-4	Stall Torque (at locked)		2. 8kg. cm	3. 5kg. cm	
			38. 95oz. in	48. 69oz. in	
5-5	Stall Current (at locked)		1000mA	1200mA	
5-6	Idle Current (at stopped)		6mA	6mA	
5-7	Input Voltage		3. 5V-7. 4V		
5-8	Rated Torgue		0. 9kg. cm	1. 15kg. cm	
5-9	Rated Current		300mA	400mA	
5-10	Kt parameter		2. 9kg. cm/A		
6 Mechanical Specification:					
No.	Item	Specification		Remarks	
6-1	Size	23. 2X12. 1X25. 25mm		See drawings	
6-2	Limit Angle	No limit			
6-3	Case material	PC plastic			
6-4	Gear material	Metal Gear			
6-5	Bearing type	No			
6-6	Angle Sansor	Type	Carbon-Film Potentiometer		
		Angle	220°		
		Life	100000Cycles Min		

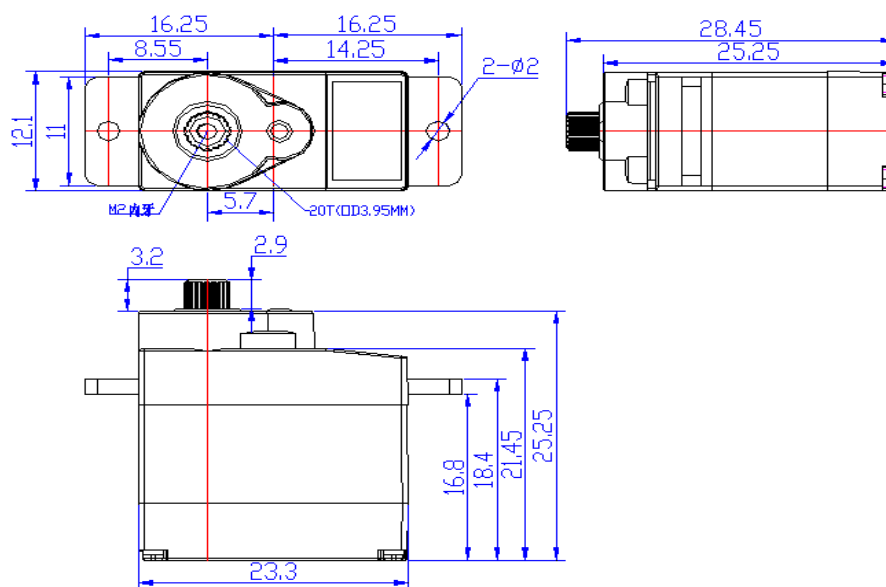
6-7	Connector and Cable	Type	JR		
		Material	PVC		
		Length	16CM		
		Pin Definition	1	Signal	
			2	Vcc	
3	GND				
6-8	The Weight	13.5± 1g			
6-9	Horn Type	20T/3.95mm			
6-10	Gear Ratio	1/416			
6-11	Back Lash	≅2.0°			
6-12	The rocker phantom	0°			
6-13	The rocker screw	M2.0X4			
6-14	Motor	Core Motor			

7 Control Specification:

No.	Item	Specification	Remarks
7-1	Command Signal	Pulse width modification	
7-2	Control System Type	Digital comparator	
7-3	Operating Travel	180° (at 500→2500 μ sec)	
7-4	Left&Right Travelling Angle deviation	≤ 5°	
7-5	Centering Deviation	≅2°	
7-6	Neutral Position	1500 μ sec	
7-7	Dead Band Width	≤4 μ sec	
7-8	Rotating Direction	Counterclockwise(1500→2000 μ sec)	
7-9	Pulse Width Range	500→2500 μ sec	
7-10	Electronic Protection	Stall 8Sec	

No.	Item	Specification	Remarks
8-1	Life test	>50000 times	
8-2	The motor noises	45 ± 5 dB	
8-3	Steering gear noises	70 ± 5 dB	
8-4	Waterproof performance	No	

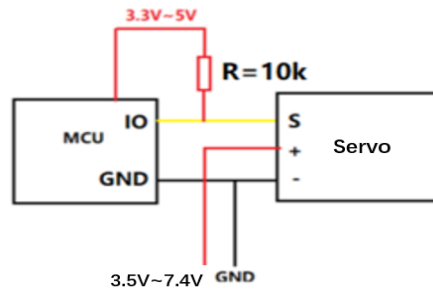
9 Outside Dimension(Unit: mm)



10 Interface Definition

Control signal parameter

Signal Period	20ms	
Pulse Width	500us-2500us	
Signal high Voltage	2V-5V	
Signal Low Voltage	0.0V-0.45V	



11 The Packaging Detail

