MCR MOTOR CO.,LTD.

Best wave of 30kHz PWM driving mode with 48 subsections

1.PWM value: 5V

2.PWM max. value: 100%

3.Basic frequency: 30kHz

This drive wave has been tested through using MCU PWM port, and got good performance.

Item	Theory degree	Port 1 PWM(%)	Port 2 I/O口	Port 4 PWM(%)	Port 3 I/O口	Item	Theory degree	Port 1 PWM(%)	Port 2 I/O口	Port 4 PWM(%)	Port 3 I/O口
1	0/360	69	0	69	0	25	180	31	1	31	1
2	7.5	73		56		26	187.5	27		44	
3	15	77		43		27	195	23		57	
4	22.5	78		36		28	202.5	22		64	
5	30	80	0	29	0	29	210	20	1	71	1
6	37.5	78		22		30	217.5	22		78	
7	45	77		16		31	225	23		84	
8	52.5	73		7		32	232.5	27		93	
9	60	69	0	100	1	33	240	31	1	0	0
10	67.5	56		93		34	247.5	44		7	
11	75	43		84		35	255	57		16	
12	82.5	36		78		36	262.5	64		22	
13	90	29	0	71	1	37	270	71	1	29	0
14	97.5	22		64		38	277.5	78		36	
15	105	16		57		39	285	84		43	
16	112.5	7		44		40	292.5	93		56	
17	120	100	1	31	1	41	300	0	0	69	0
18	127.5	93		27		42	307.5	7		73	
19	135	84		23		43	315	16		77	
20	142.5	78		22		44	322.5	22		78	
21	150	71	1	20	1	45	330	29	0	80	0
22	157.5	64		22		46	337.5	36		78	
23	165	57		23		47	345	43		77	
24	172.5	44		27		48	352.5	56		73	

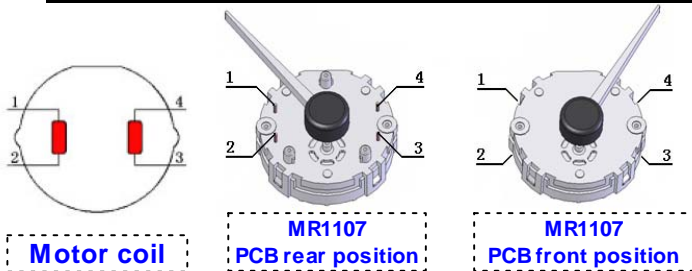| Remarks	Input sequence:1->48, the rotor of motor operates in clockwise. Contrarily, input sequence:48->1, the rotor of motor operates in anticlockwise

Motor coil

MR1107 PCB rear position

MR1107 PCB front position

PWM口：1,4

I/O口：2,3

Chart 1: Connection sketch map of motor
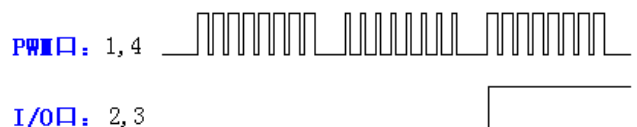
Chart 2: MCU control output wave