

**Zimo PWM (uses NMRA recommended formula)**

period = (131 + mantissa • 4) • 2 ^exp

where mantissa is the bits 4-0 of CV9 and exp is bits 7-5 of CV9

CV9	CV9	period	Freq		CV9	CV9	period	Freq		CV9	CV9	period	Freq		CV9	CV9	period	Freq
dec	hex	mS	Hz		dec	hex	mS	Hz		dec	hex	mS	Hz		dec	hex	mS	Hz
0	0	0.13	7633.6		64	40	0.52	1908.4		128	80	2.10	477.1		192	C0	8.38	119.3
1	1	0.14	7407.4		65	41	0.54	1851.9		129	81	2.16	463.0		193	C1	8.64	115.7
2	2	0.14	7194.2		66	42	0.56	1798.6		130	82	2.22	449.6		194	C2	8.90	112.4
3	3	0.14	6993.0		67	43	0.57	1748.3		131	83	2.29	437.1		195	C3	9.15	109.3
4	4	0.15	6802.7		68	44	0.59	1700.7		132	84	2.35	425.2		196	C4	9.41	106.3
5	5	0.15	6622.5		69	45	0.60	1655.6		133	85	2.42	413.9		197	C5	9.66	103.5
6	6	0.16	6451.6		70	46	0.62	1612.9		134	86	2.48	403.2		198	C6	9.92	100.8
7	7	0.16	6289.3		71	47	0.64	1572.3		135	87	2.54	393.1		199	C7	10.18	98.3
8	8	0.16	6135.0		72	48	0.65	1533.7		136	88	2.61	383.4		200	C8	10.43	95.9
9	9	0.17	5988.0		73	49	0.67	1497.0		137	89	2.67	374.3		201	C9	10.69	93.6
10	A	0.17	5848.0		74	4A	0.68	1462.0		138	8A	2.74	365.5		202	CA	10.94	91.4
11	B	0.18	5714.3		75	4B	0.70	1428.6		139	8B	2.80	357.1		203	CB	11.20	89.3
12	C	0.18	5586.6		76	4C	0.72	1396.6		140	8C	2.86	349.2		204	CC	11.46	87.3
13	D	0.18	5464.5		77	4D	0.73	1366.1		141	8D	2.93	341.5		205	CD	11.71	85.4
14	E	0.19	5347.6		78	4E	0.75	1336.9		142	8E	2.99	334.2		206	CE	11.97	83.6
15	F	0.19	5235.6		79	4F	0.76	1308.9		143	8F	3.06	327.2		207	CF	12.22	81.8
16	10	0.20	5128.2		80	50	0.78	1282.1		144	90	3.12	320.5		<b>208</b>	<b>D0</b>	<b>12.48</b>	<b>80.1</b>
17	11	0.20	5025.1		81	51	0.80	1256.3		145	91	3.18	314.1		209	D1	12.74	78.5
18	12	0.20	4926.1		82	52	0.81	1231.5		146	92	3.25	307.9		210	D2	12.99	77.0
19	13	0.21	4830.9		83	53	0.83	1207.7		147	93	3.31	301.9		211	D3	13.25	75.5
20	14	0.21	4739.3		84	54	0.84	1184.8		148	94	3.38	296.2		212	D4	13.50	74.1
21	15	0.22	4651.2		85	55	0.86	1162.8		149	95	3.44	290.7		213	D5	13.76	72.7
22	16	0.22	4566.2		86	56	0.88	1141.6		150	96	3.50	285.4		214	D6	14.02	71.3
23	17	0.22	4484.3		87	57	0.89	1121.1		151	97	3.57	280.3		215	D7	14.27	70.1
24	18	0.23	4405.3		88	58	0.91	1101.3		152	98	3.63	275.3		216	D8	14.53	68.8
25	19	0.23	4329.0		89	59	0.92	1082.3		153	99	3.70	270.6		217	D9	14.78	67.6
26	1A	0.24	4255.3		90	5A	0.94	1063.8		154	9A	3.76	266.0		218	DA	15.04	66.5
27	1B	0.24	4184.1		91	5B	0.96	1046.0		155	9B	3.82	261.5		219	DB	15.30	65.4
28	1C	0.24	4115.2		92	5C	0.97	1028.8		156	9C	3.89	257.2		220	DC	15.55	64.3
29	1D	0.25	4048.6		93	5D	0.99	1012.1		157	9D	3.95	253.0		221	DD	15.81	63.3
30	1E	0.25	3984.1		94	5E	1.00	996.0		158	9E	4.02	249.0		222	DE	16.06	62.3
31	1F	0.26	3921.6		95	5F	1.02	980.4		159	9F	4.08	245.1		223	DF	16.32	61.3
32	20	0.26	3816.8		96	60	1.05	954.2		160	A0	4.19	238.5		224	E0	16.77	59.6
33	21	0.27	3703.7		97	61	1.08	929.9		161	A1	4.32	231.5		225	E1	17.28	57.9
34	22	0.28	3597.1		98	62	1.11	899.3		162	A2	4.45	224.8		226	E2	17.79	56.2
35	23	0.29	3496.5		99	63	1.14	874.1		163	A3	4.58	218.5		227	E3	18.30	54.6
36	24	0.29	3401.4		100	64	1.18	850.3		164	A4	4.70	212.6		228	E4	18.82	53.1
37	25	0.30	3311.3		101	65	1.21	827.8		165	A5	4.83	207.0		229	E5	19.33	51.7
38	26	0.31	3225.8		102	66	1.24	806.5		166	A6	4.96	201.6		230	E6	19.84	50.4
39	27	0.32	3144.7		103	67	1.27	786.2		167	A7	5.09	196.5		231	E7	20.35	49.1
40	28	0.33	3067.5		104	68	1.30	766.9		168	A8	5.22	191.7		232	E8	20.86	47.9
41	29	0.33	2994.0		105	69	1.34	748.5		169	A9	5.34	187.1		233	E9	21.38	46.8
42	2A	0.34	2924.0		106	6A	1.37	731.0		170	AA	5.47	182.7		234	EA	21.89	45.7
43	2B	0.35	2857.1		107	6B	1.40	714.3		171	AB	5.60	178.6		235	EB	22.40	44.6
44	2C	0.36	2793.3		108	6C	1.43	698.3		172	AC	5.73	174.6		236	EC	22.91	43.6
45	2D	0.37	2732.2		109	6D	1.46	683.1		173	AD	5.86	170.8		237	ED	23.42	42.7
46	2E	0.37	2673.8		110	6E	1.50	668.4		174	AE	5.98	167.1		238	EE	23.94	41.8
47	2F	0.38	2617.8		111	6F	1.53	654.5		175	AF	6.11	163.6		239	EF	24.45	40.9
48	30	0.39	2564.1		112	70	1.56	641.0		176	B0	6.24	160.3		240	F0	24.96	40.1
49	31	0.40	2512.6		113	71	1.59	628.1		177	B1	6.37	157.0		241	F1	25.47	39.3
50	32	0.41	2463.1		114	72	1.62	615.8		178	B2	6.50	153.9		242	F2	25.98	38.5
51	33	0.41	2415.5		115	73	1.66	603.9		179	B3	6.62	151.0		243	F3	26.50	37.7
52	34	0.42	2369.7		116	74	1.69	592.4		180	B4	6.75	148.1		244	F4	27.01	37.0
53	35	0.43	2325.6		117	75	1.72	581.4		181	B5	6.88	145.3		245	F5	27.52	36.3
54	36	0.44	2283.1		118	76	1.75	570.8		182	B6	7.01	142.7		246	F6	28.03	35.7
55	37	0.45	2242.2		119	77	1.78	560.5		183	B7	7.14	140.1		247	F7	28.54	35.0
56	38	0.45	2202.6		120	78	1.82	550.7		184	B8	7.26	137.7		248	F8	29.06	34.4
57	39	0.46	2164.5		121	79	1.85	541.1		185	B9	7.39	135.3		249	F9	29.57	33.8
58	3A	0.47	2127.7		122	7A	1.88	531.9		186	BA	7.52	133.0		250	FA	30.08	33.2
59	3B	0.48	2092.1		123	7B	1.91	523.0		187	BB	7.65	130.8		251	FB	30.59	32.7
60	3C	0.49	2057.6		124	7C	1.94	514.4		188	BC	7.78	128.6		252	FC	31.10	32.2
61	3D	0.49	2024.3		125	7D	1.98	506.1		189	BD	7.90	126.5		253	FD	31.62	31.6
62	3E	0.50	1992.0		126	7E	2.01	498.0		190	BE	8.03	124.5		254	FE	32.13	31.1
63	3F	0.51	1960.8		127	7F	2.04	490.2		191	BF	8.16	122.5		255	FF	32.64	30.6
0	0	0.06	16,000	<b>Zimo social case (does not fit the formula)</b>														