



TouchCore Family

Application Note #038 (AN038-V1.0)

AN

[TouchCore 2.0] Specification of LED Dimmer Effect

V1.0

October 2008

- ❑ CORERIVER Semiconductor reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time.
- ❑ CORERIVER shall give customers at least a three month advance notice of intended discontinuation of a product or a service through its homepage.
- ❑ Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete.
- ❑ The CORERIVER products listed in this document are intended for usage in general electronics applications. These CORERIVER products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury..

Contents

1. Specification of LED dimmer effect

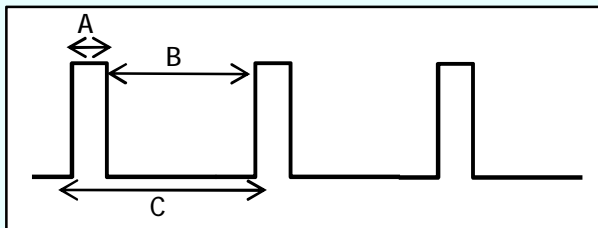
1. Specification of LED dimmer effect

1. Available use dimmer channel

- a. 44-PQFP : 16channel
- b. 40-TQFN : 16channel
- c. 32-LQFP : 14channel
- d. 32-TQFN : 14channel

2. 8 kinds of period

Period	@12MHz
Fosc/1	21.248us
Fosc/2	42.496us
Fosc/4	84.992us
Fosc/8	169.984us
Fosc/16	339.968us
Fosc/32	679.936us
Fosc/64	1.359ms
Fosc/128	2.719ms



Period : Frequency of C
 Duty : Rate of A and B (A:B)

3. 256 Level brightness (conversion to current)

unit : mA

LV	Cur.	LV	Cur.	LV	Cur.	LV	Cur.	LV	Cur.	LV	Cur.	LV	Cur.	LV	Cur.
0	0.00	32	3.76	64	7.53	96	11.29	128	15.06	160	18.82	192	22.59	224	26.35
1	0.12	33	3.88	65	7.65	97	11.41	129	15.18	161	18.94	193	22.71	225	26.47
2	0.24	34	4.00	66	7.76	98	11.53	130	15.29	162	19.06	194	22.82	226	26.59
3	0.35	35	4.12	67	7.88	99	11.65	131	15.41	163	19.18	195	22.94	227	26.71
4	0.47	36	4.24	68	8.00	100	11.76	132	15.53	164	19.29	196	23.06	228	26.82
5	0.59	37	4.35	69	8.12	101	11.88	133	15.65	165	19.41	197	23.18	229	26.94
6	0.71	38	4.47	70	8.24	102	12.00	134	15.76	166	19.53	198	23.29	230	27.06
7	0.82	39	4.59	71	8.35	103	12.12	135	15.88	167	19.65	199	23.41	231	27.18
8	0.94	40	4.71	72	8.47	104	12.24	136	16.00	168	19.76	200	23.53	232	27.29
9	1.06	41	4.82	73	8.59	105	12.35	137	16.12	169	19.88	201	23.65	233	27.41
10	1.18	42	4.94	74	8.71	106	12.47	138	16.24	170	20.00	202	23.76	234	27.53
11	1.29	43	5.06	75	8.82	107	12.59	139	16.35	171	20.12	203	23.88	235	27.65
12	1.41	44	5.18	76	8.94	108	12.71	140	16.47	172	20.24	204	24.00	236	27.76
13	1.53	45	5.29	77	9.06	109	12.82	141	16.59	173	20.35	205	24.12	237	27.88
14	1.65	46	5.41	78	9.18	110	12.94	142	16.71	174	20.47	206	24.24	238	28.00
15	1.76	47	5.53	79	9.29	111	13.06	143	16.82	175	20.59	207	24.35	239	28.12
16	1.88	48	5.65	80	9.41	112	13.18	144	16.94	176	20.71	208	24.47	240	28.24
17	2.00	49	5.76	81	9.53	113	13.29	145	17.06	177	20.82	209	24.59	241	28.35
18	2.12	50	5.88	82	9.65	114	13.41	146	17.18	178	20.94	210	24.71	242	28.47
19	2.24	51	6.00	83	9.76	115	13.53	147	17.29	179	21.06	211	24.82	243	28.59
20	2.35	52	6.12	84	9.88	116	13.65	148	17.41	180	21.18	212	24.94	244	28.71
21	2.47	53	6.24	85	10.00	117	13.76	149	17.53	181	21.29	213	25.06	245	28.82
22	2.59	54	6.35	86	10.12	118	13.88	150	17.65	182	21.41	214	25.18	246	28.94
23	2.71	55	6.47	87	10.24	119	14.00	151	17.76	183	21.53	215	25.29	247	29.06
24	2.82	56	6.59	88	10.35	120	14.12	152	17.88	184	21.65	216	25.41	248	29.18
25	2.94	57	6.71	89	10.47	121	14.24	153	18.00	185	21.76	217	25.53	249	29.29
26	3.06	58	6.82	90	10.59	122	14.35	154	18.12	186	21.88	218	25.65	250	29.41
27	3.18	59	6.94	91	10.71	123	14.47	155	18.24	187	22.00	219	25.76	251	29.53
28	3.29	60	7.06	92	10.82	124	14.59	156	18.35	188	22.12	220	25.88	252	29.65
29	3.41	61	7.18	93	10.94	125	14.71	157	18.47	189	22.24	221	26.00	253	29.76
30	3.53	62	7.29	94	11.06	126	14.82	158	18.59	190	22.35	222	26.12	254	29.88
31	3.65	63	7.41	95	11.18	127	14.94	159	18.71	191	22.47	223	26.24	255	30.00