

Sno	Timing parameter	From	To
1	Trc	Activate	Activate
2	Trrd_l	Activate	Activate
3	Trrd_s	Activate	Activate
4	Trp	Precharge	Activate
5	Tras	Activate	precharge
6	Trtp	Read	precharge
7	Tcwd+Tburst+Twr	Write	Precharge
8	Twr	Data end	precharge
9	Tcas / CL	Read	Data start
10	Tcwd / CWL	Write	Data start
11	Trcd	Activate	Write /read
12	TCCD_s	Read	Read
13	TCCD_l	Read	Read
14	TCCD_l_wr	Write	Write
15	TCCD_s_wr	Write	Write
16	TCCD_s_RTW	Read	Write
17	TCCD_l_RTW	Read	Write
18	TCCD_s_WTR	Write	Read
19	TCCD_l_WTR	Write	Read

Time	Condition(same bank or not)
115	same bank
12	same bank group, different bank
8	different bank group
39	
76	different bank
18	
$38+8+30 = 76$	
30	
40	
38	
39	
8	different bank group
12	same bank group,same bank
48	same bank group, different bank
8	different bank group
16	different bank group
16	same bank Group
52	different bank group
70	Same bamk group

Comment / Notes
$T_{rc} = T_{ras} + T_{rp}$
write to precharge delay = $T_{cwd} + T_{burst} + T_{wr}$
$T_{cwd} = T_{cas} - 2$
Other commands maybe valid at these times

ACT0

ACT1

RD0

RD1 ACT0 ACT1 RD0 RD1