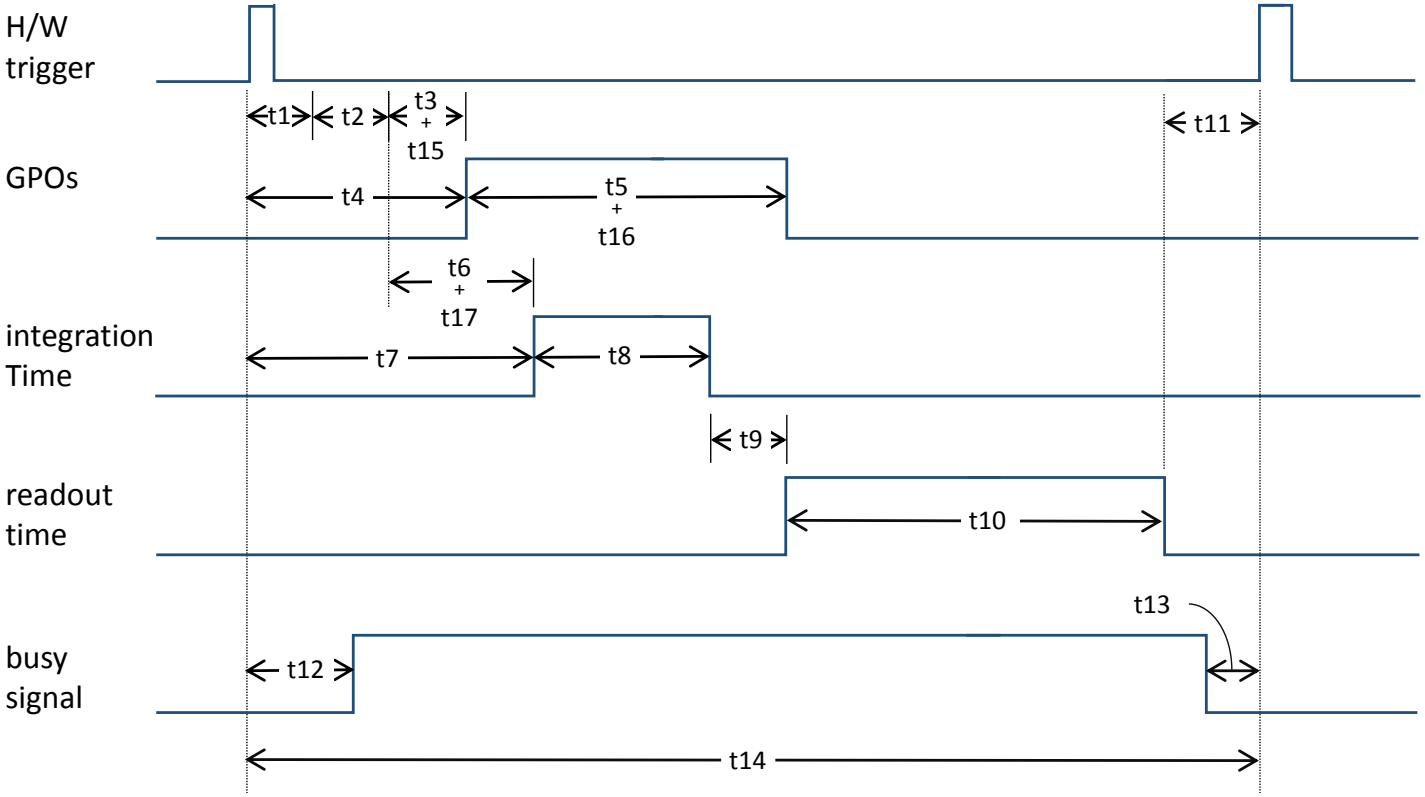
PL-D732/734 Timing Diagram



Signal	Description	Min	Typ	Max
t1	Board Level hardware propagation delay (3.3V HCMOS to trigger)		10.0 ns	
	Enclosed hardware propagation delay (5V to trigger optocoupler)		8.0 µs ON 30.0 µs OFF (Note 1)	
	Enclosed hardware propagation delay (12V to trigger optocoupler)		2.5 µs ON 50.0 µs OFF (Note 1)	
t2	Debounce time	1.0 µs	1.0 µs	1.0 µs
t3	Programmable GPO delay	0.0 µs	In 10.0 µs step	2.5 sec
t4	Start of trigger to start of GPO		9.0 µs	
t5	Programmable GPO time	10.0 µs	In 10.0 µs steps	2.5 sec
t6	Programmable integration time	0.0 µs	In 10.0 µs steps	2.5 sec
t7	Start of trigger to start of integration (t1+ t2+ t6+t17)		25.0 µs (Note 2)	
t8	Integration time		Note 3	
t9	End of integration to start of readout		20.8333 ns	
t10	Readout time		See (Readout Times)	
t11	End of read out to start of trigger	100 ns (no updates)	Depends on updates	1.0 ms (with updates)
t12	Start of trigger to start of busy		t1 – t2	
t13	End of busy to start of trigger		15.0 ns	
t14	Frame period		t7 + t8+ t9+t10 + t11	
t15 & t16	Board Level hardware propagation delay (3.3V HCMOS from GPO)		3.0 µs ON 70.0 µs OFF (Note 1)	
	Enclosed hardware propagation delay (GPO optocoupler with 1K pullup to 5V)		3.0 µs ON 70.0 µs OFF (Note 1)	
t17	Global shutter setup time		11.5 µs	

Notes:

1. "ON" refers to current flowing through the optocoupler and “OFF" refers to no current flowing through the optocoupler. Refer to interface schematics.

2. For minimum hardware trigger, the programmable trigger (t6) should be set to 0 (minimum). For a software trigger, t7 = 1.7 ms typical.

3. Referring to Figure 50 “Typical response curve” of CMV4000-datasheet-v3.6 for CMOSIS 4000 cameras or Figure 51 “Typical response curve” of CMV2000-datasheet-v3.6 for CMOSIS 2000 cameras