

Signal	Description	Start (us)	Stop (us)	TTL (DDS Counts)		End
				Start	Duration	
TTL0	T/R switch (high to transmit)	-9	0.44	45	580	625
TTL1	PA enable (high to enable)	-8	1	101	555	656
TTL2	Rx Blank 1 (high to blank)	-3	0.5	378	250	628
TTL3						
TTL4	Tx enable (high to enable)	-1	1.06	489	170	659
TTL5	Rx blank 2 (high to blank)					
TTL6						
TTL7						
Waveform Start				1200		

Start and Stop are each relative to waveform start and stop respectively

fs clk is twice DDS sync clock

DDS sync clock (Hz) 55555555.56

Waveform start delay (sync clk cycles) 545

Waveform duration (us) 1

Suggested Waveform start/stop

1 us 0 25 1090 2889

10 us 0 70 1090 7889

### Measured Delays

	Time (us)	DDS Counts	
10 us waveform starts from DDS at	9.91	550.5556	
10 us waveform stops out of PA box at	19.9	1105.556	*** There appears to be virtually negligible
1 us waveform starts from DDS at	9.91	550.5556	
1 us waveform stops out of PA box at	10.91	606.1111	*** Have not actually measured this yet ***
Propagation time for two-way 30 m	0.163333333		*** To account for reflections off the antenna

Trigger off TTL3 with DDS count 10 start

	ns	DDS Counts	ns	DDS Counts
PRF Trigger	-1400	-67.7778		
DDS start	9640	545.5556	9530	539.44444
DDS stop	19400	1087.778	10500	593.33333
PA start	10100	571.1111	9720	550
PA stop	19400	1087.778	10800	610

Recording Window (fs clk counts)

**Start**                      **Stop**

-1110                      80  
-998                        111  
-444                        83  
  
-222                        114

**1 us**

**10 us**

45	580	45	1110
101	555	101	1050
378	250	378	790
489	170	489	670
489	170	480	670
10	100	489	685
10	100	489	795
10	100	489	795

Not used

delay through the PA/Tx, unless waveform is being truncated \*\*\*

a getting absorbed by circulator \*\*\*