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Subj: Preliminary List of Block II Interface Pulse Timing

The purpose of this list is to provide IBM with a list of the pulse timing [illegible] the interface. This list will be corrected when the timing actually being instrument[illegible] is available.

Signal No.	CM Name	Time *	Remarks
XC139	PIPA interrogate	F04DFS05SB4	SB4 is a 2μsec pulse [illegible]ginning with SB0
XC140	PIPA switch	F04DFS05SB1	
XC197	PIPA data pulse	F04DFS05SB2	
XA198	Gyro set	F05A	Set and reset are [illegible] as function and functi[illegible]ear.
XA148	Gyro Reset	F05A	
XB142	Gyro select +X	SB2	Any 102.4 kcps 3 μs[illegible]ide pulse will do (for [illegible] on gyro switching see [illegible]w).
XB143	Gyro select -X	SB2	
XB144	Gyro select +Y	SB2	
XB145	Gyro select -Y	SB2	
XB146	Gyro select +Z	SB2	
XB147	Gyro select -Z	SB2	
XB192	Gyro command enable	SB2	
XA126	ISS CDU +X	3.2 kpps	Nominally at a 3.2 [illegible] rate but varies (up [illegible] several MCT) depend[illegible] on the priorities. 3 μse[illegible]ide pulse.
XA127	ISS CDU -X		
XA128	ISS CDU +Y		
XA129	ISS CDU -Y		
XA130	ISS CDU +Z		
XA131	ISS CDU -Z		
XA114	OPT CDU +X		
XA115	OPT CDU -X		
XA116	OPT CDU +Y		
XA117	OPT CDU -Y		

*Timing definitions are made with respect to those used in NASA dwg. #1006532 sht 1.

Signal No.	CM Name	Time	Remarks
XC154	3.2 kpps D	F05D SB0	
XC155	12.8 k pps	F03C SB2	
XC901	25.6 kpps	F02D SB2	

Gyro Selection

Gyro torque enable signal must be received at least 20 milliseconds prior to any torque set pulse.

Gyro select signal must be received at least 312 μsec before any torque set pulse.

Gyro reset pulse must be given at least 312 μsec before terminating the select signal.

Radar Timing

The radar timing especially the landing radar, is instrumented so as to get as many readings as possible in a given time without using two counters. All the strobes are 80 milliseconds long (actually 79,998 μsec) and the LGC can get 10 readings per second.

Dist.
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Signal No.	CM Name	Time	Remarks
XC191	CDU Clock	F01A	
XA008	Entry Velocity (+)	3.2 kpps	Varies by several µs.
XA009	Entry Velocity (-)		
XA041	RR Range Gate	F05BSB2	
XA042	RR Range Rate Gate	F05BSB2	
XA043	LR XA Vel Gate	F05BSB2	
XA044	LR YA Vel. Gate	F05BSB2	
XA045	LR ZA Vel. Gate	F05BSB2	*See note at end of Radar Timing.
XA046	LR Range Gate	F05BSB2	
XA047	RR Sync Readout	F05ASB2	
XC048	RR Gate Reset	F05BSB1	
XA051	LR Read Out Sync	F05ASB2	
XC052	LR Gate Reset	F05BSB1	
XC001	Master Clock	1024 kpps	Refer to Dwg. #10[illegible]2 sht 1.
X-017	Dnlnk Data	Same rate as Y-016	Max. delay of 1 µs from Y-016.
XA002	Alt. Meter "1"		
XA003	Alt. Meter "0"	3.2 k pps	Varies by several µs.
XA010	Alt. Rate Meter "1"		
XA012	Alt. Rate Meter "0"		
XA078	Cross Out "0"		
XA079	Cross Out "1"		
CB028	Alt. Meter Sync		Is on while sending an output on signal lines 2,3,10, 12.
CB085	Lateral Vel. Set		Is on when signal lines 2,3,10,12 are lateral velocities.
XC149	800 pps set	F07A SB1	
XC150	800 pps Reset	F07B SB1	
XC151	3.2 kpps A	F05A SB0	
XC152	3.2 kpps B	F05B SB0	
XC153	3.2 kpps C	F05C SB0	