System Error Codes

Errors indicated as FB prevent operation of all axes. FB (Fatal Board) errors are reset by powerup, by VME SYSRESET, or by APD microcontroller reset (Test Command 1 register *Reset Controller* bit).

Code	*Name*	*Type*	*Description*
0	No error	-	
1	HV Init Error	FB	HV failed limit test during board initialization
2	LV Init Error	FB	LV reading failed limit test during board initialization
3	FOR Init Error	FB	Fiber Optic Receiver not detected during board initialization (no APD temp)
4	LV OK Timeout Error	FB	Slave did not detect LV_OK within allotted time
5	Slave Act FOR Timeout Error	FB	Master did not receive Slave response that FOR detected
6	HV OK Timeout Error	FB	Slave did not detect HV_OK within allotted time
7	EE Cal Read Error	FB	Master unable to read EE calibration data
8	EE Cal Xfer Error	FB	EE Cal transfer to Slave failed or timeout
9	CEC Ver Timeout Error	FB	Slave failed to tell Master that CEC enabled
10	Ovr Ver Timeout Error	FB	Master unable to verify that Override enabled on Slave
11	Illegal Opcode Error	FB	Hardware exception due to an attempt to execute an illegal opcode
12	Divide By Zero Error	-	Hardware exception due to divide by zero
128	HV Operation Error	FB	HV Failed limits after board initialization
129	LV Operation Error	FB	LV reading failed limit test after board initialization
130	EEprom Checksum Error	NF	EEprom Checksum Error during Board Initialization
131	Slave Timeout Op Error	FB	The Slave did not respond to the Master within the specified time
132	Slave Req. Not Conf. Op Error	FB	Master unable to confirm the request for Slave status
133	Master Rcvd Slave Fatal Error	FB	Master received fatal error status from Slave

Axis Error Codes

Errors indicated as FB prevent operation of all axes. FB (Fatal Board) errors are reset by powerup, by VME SYSRESET, or by APD microcontroller reset (Test Command 1 register *Reset Controller* bit).

Code	*Name*	*Type*	*Description*
0	No Error	-	
1	APD Temp Init Error	FB	FOR failed APD Temp limit check (5 to 70 °C) during axis initialization
2	Bias Range Init Error	FB	Bias failed range check during axis initialization (deviation > 10 V after 0.5 sec)
3	DC Meas Low Init Error	-	Meas DC failed low limit check (-4.5 V) during axis initialization
7	Bias Limit Init Error	FB	Bias failed limit check (175 V) during axis initialization
8	DC Meas High Init Error	FB	Meas DC failed high limit check (-1.4 V) during axis initialization
9	Bias Limit Op Error	FB	Bias failed limit check (175 V) after axis initialization
128	APD Gain Set Error	-	APD Gain Setting out of range (2048 to 5120, equivalent to gain 4 to 32)
129	Sig RMS Set Error	-	Sig RMS Setting out of range (Sig RMS Max/Min Limit registers)
130	Opt Power Set Error	-	Optical Power Setting out of range (-3930 to 3402, equivalent to 0.07 to 10 μW)
133	Sig RMS Cal Max Error	-	Sig RMS greater than Sig RMS Max Limit register value
134	Sig RMS Cal Min Error	-	Sig RMS less than Sig RMS Min Limit register value
135	APD Math Gain	-	Invalid APD Gain (2048 to 5120, equivalent to gain 4 to 32)
136	APD Math Poly	-	Invalid APD bias equation coefficients (zero)
137	APD Math Temp	-	Invalid APD temperature (10 to 70 °C)
138	APD Math T0	-	Invalid APD bias equation T0 (15 to 50 °C)
139	APD Math TC	-	Invalid APD bias equation TC (0.3 to 0.9 V/°C)
140	APD Temp Op Error	-	FOR failed APD Temp limit check (5 to 70 °C) after axis initialization
141	Bias Range Op Error	-	APD Bias failed range check after axis initialization (deviation > 10 V after 0.5 sec)
142	DC Meas Low Op Error	-	Meas DC failed low limit check (-4.5 V) after axis initialization
143	DC Meas Hi Op Error	-	Meas DC failed high limit check (-1.4 V) after axis initialization