4.9_V2.0 TURN OFF DPA A & B AND DEA A (realtime version)

Last Revised: June 28,1999
Filename: dpaab_deaa_off

BRIEF FUNCTIONAL DESCRIPTION:
This is an "atomic" procedure which simply powers down the DPA sides A and B and DEA side A. It should be safe to execute under any condition. ACIS should not be conducting a science run and the video boards and FEPs should be off when this procedure is executed.

The sequence of actions will be:

1. enable and turn off DEA power supply side A
2. enable and turn off DPA power supply side B
3. enable and turn off DPA power supply side A

ASSUMED INSTRUMENT STATE:
Assumes that the PSMC has power from the spacecraft.
Assumes that the video boards and FEPs are off already.
Assumes that the DPA A & B and DEA A are on.

SPECIAL INITIAL CONDITIONS:

OPERATIONAL CONSTRAINTS/CAUTIONS:

REFERENCES:

CHANGE HISTORY:

V1.2

- changed filenames from "turnoff_dpaab_deaa" to "dpaab_deaa_off"
- modified the initial conditions to state that the video boards and FEPs are asssumed to be off already.

V1.3

- changed HW TLM verifier in step 1.2 to "1DEN1AVO" from "DEN1AVO"
- changed expected values for DEA and DPA input voltages to 28.0-34.0 V
- fixed typo in title of step 3
- changed criticality of DEA +24 V and DPA +5 V to 1
- changed TLM FMT to 1,2,4or6
- changed expected values of the HW TLM verifiers in step 2.2 and 3.1

V2.0

- ACIS Team signed-off version
- changed HW TLM verifier in step 1.2 to "1DEN1BVO"

Table 1: **TURN OFF DPA A & B AND DEA A (realtime version)**

Step #	Title (Revision 4.9_V2.0)	Time Req (m)	Command Description	Command Mnemonic	Telemetry Description	Telemetry Mnemonic	Expected Value	Units
1.0	Turn off DEA A							
1.1	DEA Power A Off	1	DEA PS Off A	1DEPSAOF		1DEPSA	OFF	
1.2	Disable DEA PS A	1	DEA PS A Dis	1DEPSADS	DEA A Dis	1DEPSAX	DIS	
					DEA +24 V A	1DEP2AVO	0	V
					DEA Input V A	1DE28AVO	28.0–34.0	V
					DEA Input I A	1DEICACU	<0.2	A
					DEA +6 V A	1DEP0AVO	0.0 ± 0.2	V
					DEA -6 V A	1DEN0AVO	0.0 ± 0.2	V
					DEA +15 V A	1DEP1AVO	0.0 ± 0.2	V
					DEA -15 V A	1DEN1AVO	0.0 ± 0.2	V
					DEA +28 V A	1DEP3AVO	0.0 ± 0.2	V
2.0	Turn off DPA B							
2.1	Turn off DPA PS B	2	DPA PS B Off	1DPPSBOF	DPA B on	1DPPSB	OFF	
					DPA Input V	1DP28BVO	28.0–34.0	V
					DPA Input I	1DPICBCU	<0.2	A
					DPA +5V	1DPP0BVO	0.0 ± 0.2	V
2.2	Disable DPA PS B	1	DPA PS B Dis	1DPPSBDS	DPA PS B ENB/DIS	1DPPSBX	DIS	
3.0	Turn off DPA A							
3.1	Turn off DPA PS A	2	DPA PS A Off	1DPPSAOF				
					DPA Input V	1DP28AVO	28.0–34.0	V
					DPA Input I	1DPICACU	0.0	A
					DPA +5V	1DPP0AVO	0.0	V
3.2	Disable DPA PS A	1	DPA PS A Dis	1DPPSADS				
	Total Time	8						

Table 2: (CONT) **TURN OFF DPA A & B AND DEA A (realtime version)**

Step #	Telemetry EGSE	Other Verifier	Crit	Description	Notes	RT Con	Tlm Fmt	Min Alt	SIM Pos
1.0									
1.1				Powers off DEA and board 11			1,2,4or6		
1.2							1,2,4or6		
			1						
			2	Expect DEA side A power at 0.0 Watts,					
			2	current is noisy so an average is necessary.					
			2						
			2						
			2						
			2						
			2						
2.0									
2.1	Verifier available if DPA A on		2				1,2,4or6		
			2	Expect 0 W for side B, power					
			2	consumption should be more					
			1	stable than I or V.					
2.2			2	Verifier available if DPA A on			1,2,4or6		
3.0									
3.1			1				1,2,4or6		
			2	Expect 0 W for side A, power					
			2	consumption should be more					
			1	stable than I or V.					
3.2				No verifier after power is off			1,2,4or6		