4.4_V2.1 TURN ON DPA B (realtime version)

Last Revised: March 25, 2016
Filename: dpab_on

BRIEF FUNCTIONAL DESCRIPTION:
This is an "atomic" procedure which simply powers up the DPA side B. It should be safe to execute under any condition except a spacecraft power or thermal emergency. The telemetry verifiers for the "Enable" and "On" can be confusing depending on if either side of the DPA was on before the procedure started. If both sides of the DPA were off, the Enable and On will read Enabled and On even though both sides of the DPA are off. Once the the On command has been executed the Enable and On will still read Enabled and On. The only sure way to tell is to check the input current and the DPA 5V. If side A of the DPA happened to be on, then the Enable and On would correctly read disabled and off before this procedure is run. This procedure does not assume anything about the state of DPA A or which BEP is currently selected. Therefore, it does not verify that BEP B boots.

The sequence of actions will be:

1. enable and turn on DPA power supply side B

ASSUMED INSTRUMENT STATE:
Assumes that the PSMC has power from the spacecraft.

SPECIAL INITIAL CONDITIONS:

OPERATIONAL CONSTRAINTS/CAUTIONS:

REFERENCES:

CHANGE HISTORY:

V1.2

- changed filenames from "turnon_dpab" to "dpab_on"
- added text to explain the confusion with the logical verifiers the DPAs

V1.3

- changed primary verifier to be the DPA +5 V supply
- change TLM FMT to 1,2,4or6

V2.0

- ACIS Team signed-off version, identical to previous version 1.3

V2.1

- Update expected 1DP28BVO range
- Changed formatting of "Tlm Fmt" in table

- Changed time column from units of seconds to minutes in table
- Changed text in table column “Description”

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Table 1: **TURN ON DPA B (realtime version)(Page 1)**

Step #	**Title (Revision 4.4_V2.1)**	**Time (mins)**	**Command Description**	**Command Mnemonic**	**Telemetry Description**	**Telemetry Mnemonic**	**Expected Value**
1	**Turn on DPA B**						
1.1	Enable DPA PS B	1	DPA PS B En	1DPPSBEN			
1.2	Turn on DPA PS B	1	DPA PS B On	1DPPSBON	DPA B on DPA B Enb DPA +5V DPA Input V DPA Input I	1DPPSB 1DPPSBX 1DPP0BVO 1DP28BVO 1DPICBCU	ON ENB 4.9–5.5 25.0–34.0 0.26–0.32
	Total Time:	2					

Table 1: **TURN ON DPA B (realtime version)(Page 1)**

Step #	**Units**	**Telemetry EGSE**	**Other Verifier**	**Crit**	**Description**	**Notes**	**RT Con**	**Tlm Fmt**	**Min Alt**	**SIM Pos**
1										
1.1					Ignore if DPA unpowered			1,2,4,6		
1.2				2				1,2,4,6		
				2						
	V			1						
	V			2	Expect 9 W for side B, power consumption					
	A			2	should be more stable than I or V.					