4.6_V2.1 TURN OFF DPA A (realtime version)

Last Revised: July 2, 2015
Filename: dpaa_off

BRIEF FUNCTIONAL DESCRIPTION:

This is an "atomic" procedure which simply turns off the DPA side A. 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 only side A was on before the procedure, the Enable and On will read Enabled and On even after the off command had been executed. If side B was on before, during and after this procedure, the Enable and On will change state to Disabled and Off at the end of this procedure. Therefore, the only sure way to tell is to check the input current and the DPA 5V.

The sequence of actions will be:

1. turn off and disable DPA power supply side A

ASSUMED INSTRUMENT STATE:

Assumes that the PSMC has power from the spacecraft.
The FEPs for side A (# 0,1,2) should be off.

SPECIAL INITIAL CONDITIONS:

OPERATIONAL CONSTRAINTS/CAUTIONS:

REFERENCES:

CHANGE HISTORY:

V1.2

- changed filenames from "turnoff_dpaa" to "dpaa_off"
- added text to explain the confusion with the logical verifiers

V1.3

- changed primary verifier to be the DPA +5 V supply
- changed TLM FMT to 1,2,4or6
- changed expected value of DPA A Input Voltage to 28.0–34.0 V

V2.0

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

V2.1

- Update expected 1DP28AVO range

Table 1: **TURN OFF DPA A (realtime version)(Page 1)**

Step #	Title (Revision 4.6_V2.1)	Time (mins)	Command Description	Command Mnemonic	Cmd EGSE	Seq Key	Telemetry Description	Telemetry Mnemonic
1	**Turn off DPA A**							
1.1	Turn off DPA PS A	2	DPA PS A Off	1DPPSAOF			DPA A ON/OFF DPA Input V DPA Input I DPA +5V	1DPPSA 1DP28AVO 1DPICACU 1DPP0AVO
1.2	Disable DPA PS A	1	DPA PS A Dis	1DPPSADS			DPA A ENB/DIS	1DPPSAX
	Total Time	3						

Table 1: **TURN OFF DPA A (realtime version)(Page 1)**

Step #	Expected Value	Units	Telemetry EGSE	Other Verifier	Crit	Description	Notes	RT Con	Tlm Fmt	Min Alt	SIM Pos
1											
1.1	OFF 25.0–34.0 0 0	 V A V			2 2 2 1	Ignore if DPA unpowered Expect 0 W for side A, power consumption should be more stable than I or V.			1,2,4,6		
1.2	DIS					Ignore if DPA unpowered			1,2,4,6		

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