

TPG Firmware v1.1.0

Updates on testing

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- List of features desired in the TPG firmware v1.1.0 (March 15th)
 - **Re-organization of test benches**
 - Code style consistency
 - Remove duplicated code/projects
 - Clarification of role of each component
 - Review of missing/undesirable features etc.
- **Re-organization of test benches**
 - A shell script(s) to run most of the tests, perhaps even put them in CI
 - Having tests for all the units and clearly written tests for them
 - A standard procedure of testing before every release.

Status of testing



- The details of testing done for the v1.0.0 : [DTP-Firmware Testing - v1.0.0 Release](#)
- Current status:

Units	i/p	o/p	Simulation (dtp- simulation)	Test-bench	Script
Data- Reception	wib	64b	✓	✓	✓
DPR	64b	dpr	✓(?)	✗	✗
Unpacker	dpr	AXI4S	✓	✓	✗
TPG block	AXI4S	AXI4S	✓	✓	✓
Arbitrator	AXI4S	AXI4S	✓	✗	✗
CR interface	AXI4S	Hits (33b)	✓	✗	✗

Status of testing



- Current status:

Units	i/p	o/p	Simulation (dtp- simulation)	Test-bench	Script
Data- Reception	wib	64b			
Data-Router Test-Bench	dpr		✓	✓	✓
Unpacker	dpr	AXI4S			
TPG block	AXI4S	AXI4S	✓	✓	✗
Arbitrator	AXI4S	AXI4S	✓	✗	✗
CR interface	AXI4S	Hits (33b)	✓	✗	✗

Status of testing



- What we can do till 15th March:

Units	i/p	o/p	Simulation (dtp- simulation)	Test-bench	Script
Data- Reception	wib	64b	✓	✓	✓
DPR	64b	dpr	✓	✓	✓
Unpacker	dpr	AXI4S	✓	✓	✓
TPG block	AXI4S	AXI4S	✓	✓	✓
Arbitrator	AXI4S	AXI4S	✓	✗	✗
CR interface	AXI4S	Hits (33b)	✓	✗	✗

Status of testing



- What we can do till 15th March:

Units	i/p	o/p	Simulation (dtp- simulation)	Test-bench	Script
TPG block:					
PedSub	AXI4S	AXI4S	✓	-	-
FIR Filter	AXI4S	AXI4S	✓	✓	✓
Hit-Finder	AXI4S	AXI4S	✓	✓	✓

Discussion Needed



- List of features desired in the TPG firmware v1.1.0 (March 15th)
 - Re-organization of test benches
 - Code style consistency
 - Remove duplicated code/projects
 - Clarification of role of each component → (More clear documentation?)
 - Review of missing/undesirable features etc. → (Review by an expert?)
- Re-organization of test benches
 - A shell script(s) to run most of the tests, perhaps even put them in CI
 - Having tests for all the units and clearly written tests for them
 - A standard procedure of testing before every release.



Back-up