

OAI Group Monthly Call

06122019

Agenda

- JDA Group updates
- Upcoming UBB spec lock down event
- OAM Spec v1.0 release by end of June
- UBB Status Update
- Next Steps

JDA Group Update

- Group members
- Welcome Inspur/HyveDesignSolution/ZT systems as the 3 volunteer System providers for OAI reference systems Design
- JDA weekly meeting on going

Upcoming UBB Spec Lockdown Event

- 6/26-6/27 In Beijing
- JDA agreement needed to join

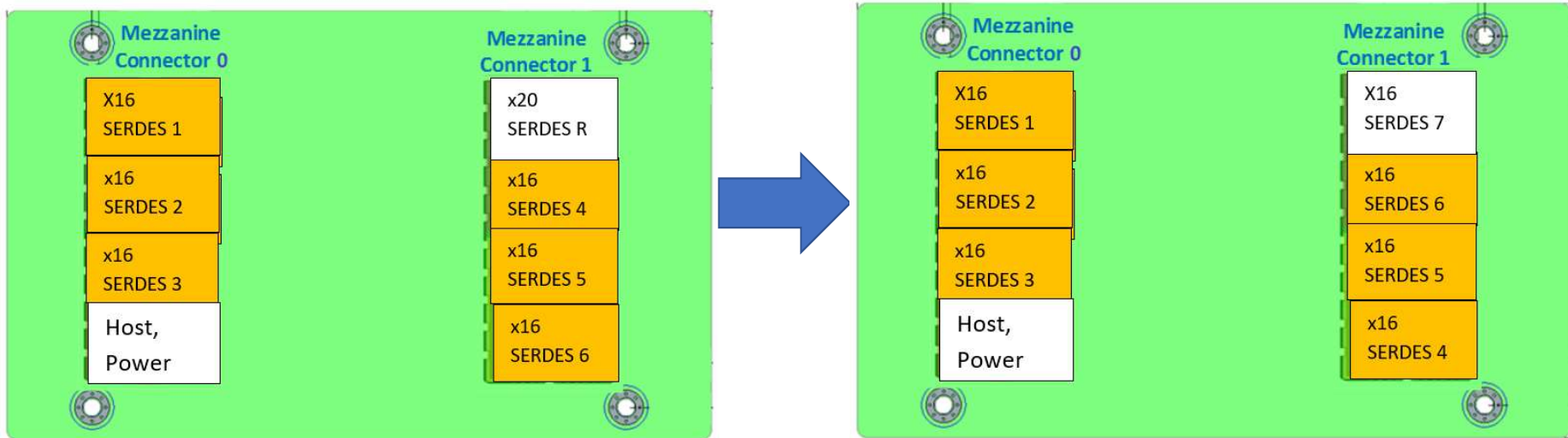
OAM Spec v1.0 Changes

Add PWRRDT#[1:0] on Conn1

PWRRDT#[1:0]	Input	<p>Power Reduction GPIO to instruct Oam to go certain stage to reduce power</p> <p>11 - default state L0, normal power</p> <p>10 - L1, 1st level power reduction.</p> <p>01 - L2, 2nd level power reduction.</p> <p>00 - L3, max power reduction.</p> <p>Details defined by specific OAM product specification.</p>	3.3V	Required
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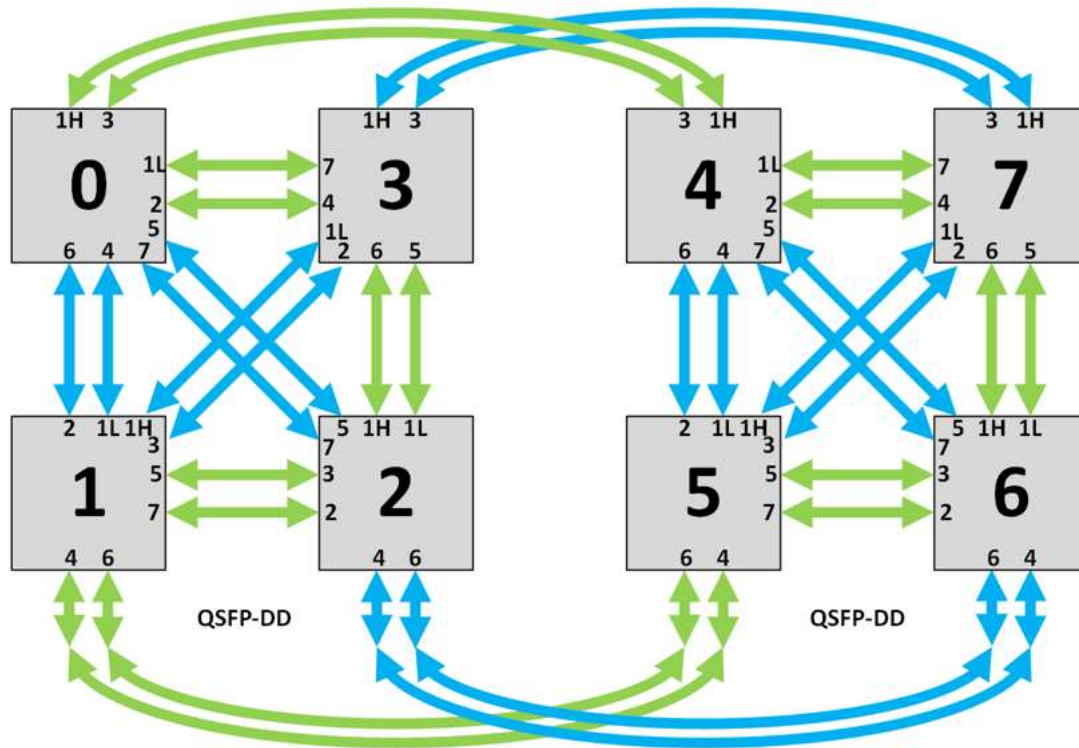
	CONNECTOR #1											
	A	B	C	D	E	F	G	H	J	K	L	
18	GND	SL_TX0P	GND	SL_TX0P	GND	TEST13	GND	SL_RX0N	GND	SL_RX0P	GND	
19	SL_TX0N	GND	SL_TX0N	GND	SL_TX0N	GND	SL_RX0N	GND	SL_RX0N	GND	SL_RX0N	
20	SL_TX0P	GND	SL_TX0P	GND	SL_TX0P	GND	SL_RX0P	GND	SL_RX0P	GND	SL_RX0P	
21	GND	SL_TX1N	GND	SL_TX1N	GND	TEST14	GND	SL_RX1N	GND	SL_RX1N	GND	
22	GND	SL_TX1P	GND	SL_TX1P	GND	RFU	GND	SL_RX1P	GND	SL_RX1P	GND	
23	SL_TX1N	GND	SL_TX1N	GND	SL_TX1N	GND	SL_RX1N	GND	SL_RX1N	GND	SL_RX1N	
24	SL_TX1P	GND	SL_TX1P	GND	SL_TX1P	GND	SL_RX1P	GND	SL_RX1P	GND	SL_RX1P	
25	GND	SL_TX4N	GND	SL_TX4N	GND	PWRPOT#0	GND	SL_RX4N	GND	SL_RX4N	GND	
26	GND	SL_TX4P	GND	SL_TX4P	GND	PWRPOT#1	GND	SL_RX4P	GND	SL_RX4P	GND	
27	SL_TX3N	GND	SL_TX3N	GND	SL_TX3N	GND	SL_RX3N	GND	SL_RX3N	GND	SL_RX3N	
28	SL_TX3P	GND	SL_TX3P	GND	SL_TX3P	GND	SL_RX3P	GND	SL_RX3P	GND	SL_RX3P	
29	GND	SL_TX6N	GND	SL_TX6N	GND	RFU	GND	SL_RX6N	GND	SL_RX6N	GND	
30	GND	SL_TX6P	GND	SL_TX6P	GND	RFU	GND	SL_RX6P	GND	SL_RX6P	GND	
31	SL_TX5N	GND	SL_TX5N	GND	RFU	GND	RFU	GND	SL_RX5N	GND	SL_RX5N	
32	SL_TX5P	GND	SL_TX5P	GND	RFU	GND	RFU	GND	SL_RX5P	GND	SL_RX5P	
33	GND	SL_TX0N	GND	SL_TX0N	GND	RFU	GND	SL_RX0N	GND	SL_RX0N	GND	
34	GND	SL_TX0P	GND	SL_TX0P	GND	RFU	GND	SL_RX0P	GND	SL_RX0P	GND	
35	SL_TX2N	GND	SL_TX2N	GND	SL_TX2N	GND	SL_RX2N	GND	SL_RX2N	GND	SL_RX2N	
36	SL_TX2P	GND	SL_TX2P	GND	SL_TX2P	GND	SL_RX2P	GND	SL_RX2P	GND	SL_RX2P	
37	GND	SL_TX3N	GND	SL_TX3N	GND	RFU	GND	SL_RX3N	GND	SL_RX3N	GND	
38	GND	SL_TX3P	GND	SL_TX3P	GND	RFU	GND	SL_RX3P	GND	SL_RX3P	GND	
39	SL_TX4N	GND	SL_TX4N	GND	RFU	GND	SL_RX4N	GND	SL_RX4N	GND	SL_RX4N	
40	SL_TX4P	GND	SL_TX4P	GND	RFU	GND	SL_RX4P	GND	SL_RX4P	GND	SL_RX4P	
41	GND	SL_TX5N	GND	SL_TX5N	GND	RFU	GND	SL_RX5N	GND	SL_RX5N	GND	
42	GND	SL_TX5P	GND	SL_TX5P	GND	RFU	GND	SL_RX5P	GND	SL_RX5P	GND	
43	SL_TX6N	GND	SL_TX6N	GND	SL_TX6N	GND	SL_RX6N	GND	SL_RX6N	GND	SL_RX6N	
44	SL_TX6P	GND	SL_TX6P	GND	SL_TX6P	GND	SL_RX6P	GND	SL_RX6P	GND	SL_RX6P	

Change SerDes Numbering



Change SerDesR X20 to SerDes7 X16

Add 8-link HCM Topology to spec

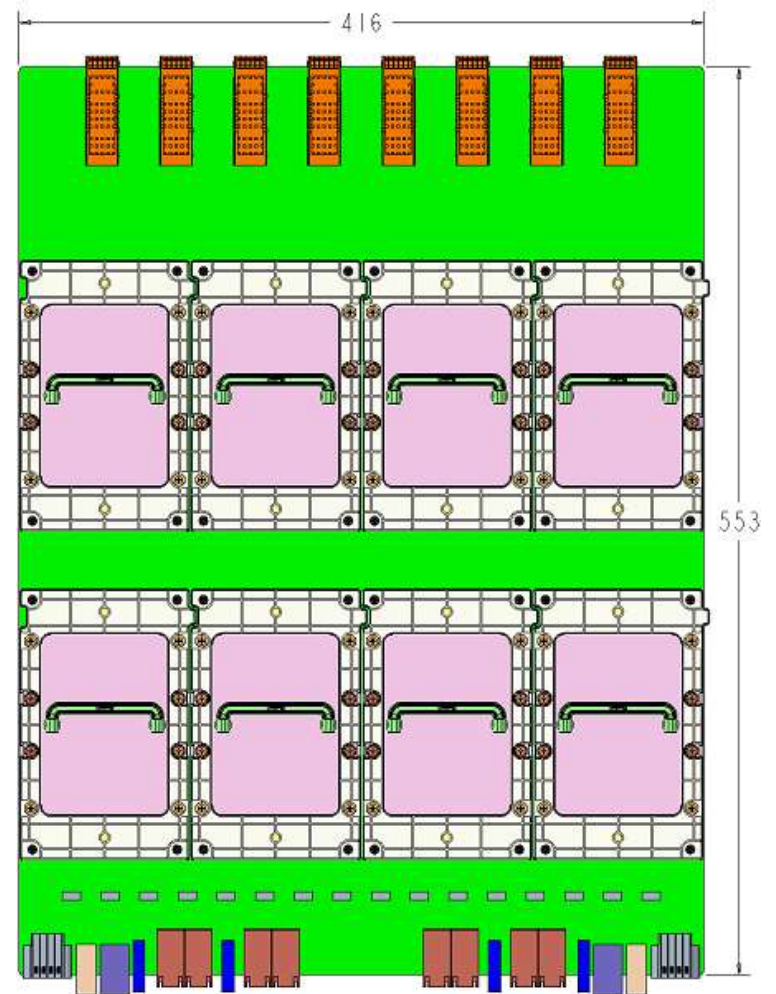


Other Changes

- Restrict OAM Vref range to 1.5V-3.3V
- Add baseboard design recommendation information to pin list

UBB Status Update

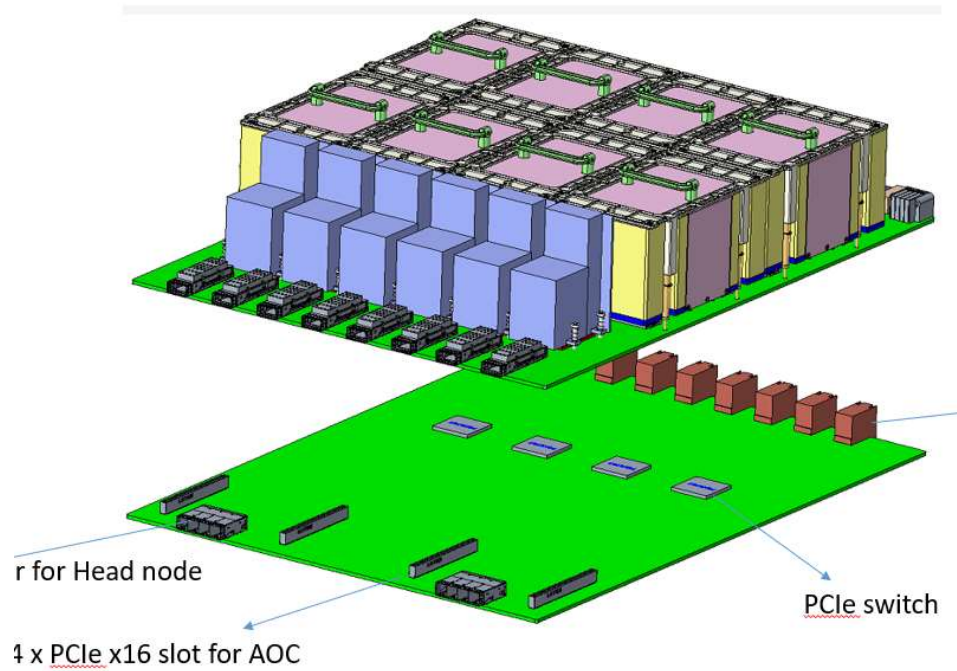
- UBB Dimension 416x553mm
- UBB Interconnect link: X8
- PCB material: ultra low loss
- 18L-22L
- 12V support up to 300w
- 54V support up to 450-500w



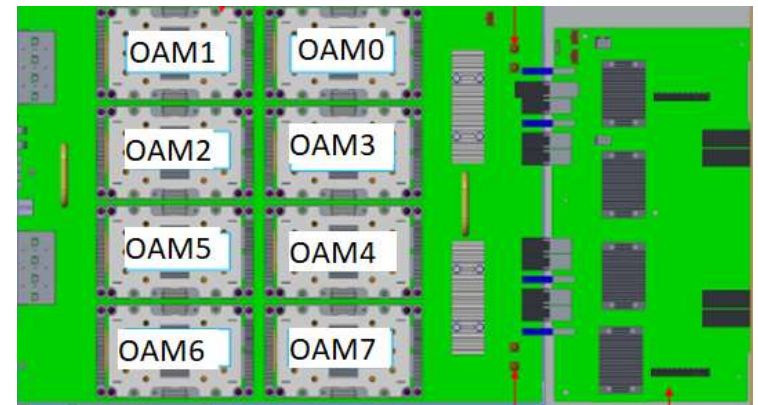
Topologies

- FC
- HCM

Reference Systems Design Concept



Stack like system



Coplanar like system

Still Under Discussion

- 54V based to support ~500w OAM TDP, how much we could support for 12V
- Connectors for host interface/sideband/management
- Pin list
- How many ports for scale out(QSFP-DD)

OAM Reference Systems Design Variety

- Different topologies: FC/HCM
- 19"/21" Rack
- Coplanar system vs. Stack System or Others
- Air Cool vs. Liquid Cool
- 12V vs. 54V
- Others

Next Steps

- Come out UBB/Reference system Schedule
- OAM test vehicle enablement for system validation
- Lockdown UBB design spec