



FEATURES	RXS2448	RXS1632	CPS-1848	CPS-1432	CPS/SPS-1616	CPS-8	/10Q	/16	Tsi572	/574	/578	Tsi577
Performance and Configurability												
Serial RapidIO® specifications	3.2	3.2	2.1	2.1	2.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Aggregate peak throughput (Gbps)	600	400	240	160	80	20	100	40	30	40	80	40
Maximum Port Throughput	50	50	20	20	20	10	10	10	10	10	10	10
Full mesh non-blocking fabric	√	√	√	√	√	√		√	√	√	√	√
Maximum of number of x4 ports	12	8	12	8	4	2	10	4	2	4	8	4
Maximum of number of x2 ports	24	16	18	14	8							
Maximum of number of x1 port	24	16	18	14	16	8	16	16	8	8	16	16
Cut-through latency (ns)	100	100	100	100	100	190	190	190	110	110	110	110
Store and forward mode	√	√	√	√	√	√	√	√	√	√	√	√
Configurable by speed	Each Port	Each Port	Each Quad	Each Quad	CPS/SPS - Each Lane	Each Lane Pair	Each Quad	Each Lane Pair	Each MAC		Each Quad	
SerDes and Power												
Power per 10 Gbps link (typical, mW)	<250	<250	<300	<385	CPS/SPS <440	<500		<500	<500		<500	
Per port power down	√	√	√	√	√	√	√	√	√	√	√	√
Programmable transmit drive strength and pre-emphasis	√	√	√	√	√	√	√	√	√	√	√	√
Programmable receive equalization	√	√	√	√	√				√	√	√	√
On-die scope capability	√	√							√	√	√	√
Multicast and Routing												
Per port multicast architecture	√	√	√	√	√	√	√	√				
Per port multicast masks/groups	256	256	40	40	40	10	40	10	8	8	8	8
8- and 16-bit addressing	√	√	√	√	√	√	√	√	√	√	√	√
32-bit addressing	√	√										
Programmable watermarks on ingress buffers	√	√	√	√	√	√	√	√	√	√	√	√
RapidIO Standard and Non-Standard Features												
Packet filter & capture	√	√	√	√	√	√	√	√				
Traffic management through user selectable scheduling algorithms	√	√	√	√	√				√	√	√	√
Receiver controlled flow control	√	√	√	√	√	√	√	√	√	√	√	√
Transmitter controlled flow control			√	√	√							
Performance counters/monitors	√	√	√	√	√	√	√	√	√	√	√	√
Error Management features exceeding S-RIO specification	√	√	√	√	√				√	√	√	√
Error log (history) and broad error detection coverage	√	√	√	√	√	√	√	√				
Link-layer AES-128 encryption					SPS on 4 1x Ports							
BOM Reduction and Clocking Options												
Clocking options (MHz)	156.25 or 100		156	156	156	156		156	156 or 125			
Lane swap for board design simplification	√	√							√	√	√	√
Debug packet generator	√	√	√	√	√				√	√	√	√
Debug error insertion	√	√										
Package (mm)	33 X 33	29 X 29	29 X 29	25 x 25	21 X 21	19 X 19	27 X 27	19 X 19	21 X 21	21 X 21	27 X 27	21 X 21