

ODIN Q L1 registers (Base address 0x3000)

Version: 2.3 2006.07.10

Address	Bits	Register	Read/Write	Explanation	Remark	Default
000	0			unused		0
004	0	R_TRGTYPE_ENB		Enable trigger type broadcasting		0
	1	R_EXT1_L1THR_ENB		Enable external L1 throttle, connector 1		0
	2	R_EXT2_L1THR_ENB		Enable external L1 throttle, connector 2	Version V1 only	0
008	3 .. 0	RST		Test resets		0
024	31 .. 0	P_IP_ADDRESS		IP address of the ODIN (L1 trigger)		0
028	7 .. 0	P_IP_PROTOCOL_MEPREQ		IP protocol ID for MEP requests		0
	15 .. 8	P_IP_PROTOCOL_TEST		IP protocol ID for GbE loopback testing		0
	17 .. 16	P_GBE_CHANNEL		Gbit Ethernet channel for MEP requests		0
02C	0	S_AFIFO_EMPTY	RO	AFIFO empty flag		
	1	S_EXT1_L1THR	RO	External L1 throttle status, connector 1		
	2	S_EXT2_L1THR	RO	External L1 throttle status, connector 2	Version V1 only	
	3			unused		
	4			unused		
	5			unused		
	6	S_RSX_INST	RO	Got GbE frame		
	7	S_RSOP_INST	RO	Got GbE Start of Packet		
	8	S_GBE_EMPTY	RO	GbE receive buffer empty		
	9	S_GBE_FULL	RO	GbE receive buffer full		
030				unused		0
034	31 .. 0	RST_SEL_CNT		Reset selected counters	One bit per counter	0
038				unused		0
03C	31 .. 0	C_TRGCMD	RO	Number of trigger type broadcasts sent		
040	31 .. 0	C_SOP	RO	Number of GbE Start Of Packet received		
044	31 .. 0	C_EOP	RO	Number of GbE End Of Packet received		
048	31 .. 0	C_ERR	RO	Number of GbE errors received		
04C	31 .. 0	C_NWRD_W	RO	Number of GbE words received		
050	31 .. 0	C_NWRD_R	RO	Number of GbE words written to receive buffer		
054	31 .. 0	C_IP_NWRD	RO	Number of GbE words transferred to Q_FE in test mode		
0E0		TST_AFIFO_RE	RO	Reading register triggers a read of the AFIFO	Dataless, only if Q_L1 set in test mode (TST_MODE = 1)	
0E4	17 .. 0	AFIFO_DUMP	RO	AFIFO contents	AFIFO dump in test mode	
0E8	7 .. 0	GBE_OCCUP	RO	Occupancy of GBE buffer		
0EC	31 .. 0	GBE_DATA	RO	GBE data	Reading triggers a read of the GbE receive buffer, only in test mode	
0F0	15 .. 0	LVDS_IN	RO	Current state of LVDS input to Q_L1		
	23 .. 16			unused		

	24	L1_THR_EXT1	RO	Current state of second throttle line on throttle input 1	
	25	L1_THR_EXT2	RO	Current state of second throttle line on throttle input 2	
0F4	0	TST_MODE		Set O_L1 in test mode	0
0F8	31..0	TST_LBUS		Local bus test register	0
0FC	31..0	VERSION	RO	Version number of the VHDL code	Date in decimal YEAR MO DA HR