TBM VME Addresses			
Hexadecimal			
VME Address	Function	Write / Read	Bits
Offset	i dilottoli	TTTTO / TTOUG	2.1.0
0	Simple Register	W/R	150
4	Reset TBM ( 3 microseconds )	W/R	150
Č	Read TBM Serial Number	R	50
3C	Read FPGA Version ( 6084 on November 10th 2004 )	R	150
184	Reset Each of the 4 Interruptions	W	30
10-1	(IRQ Calib bit 0, Busy ON bit 1, Busy OFF bit 2, TTCrx = bit 3)	••	00
188	Read Interruptions before Mask	R	30
	(IRQ Calib bit 0, Busy ON bit 1, Busy OFF bit 2, TTCrx = bit 3)		
18C	Read Interruptions not sent	R	30
	(IRQ Calib bit 0, Busy ON bit 1, Busy OFF bit 2, TTCrx = bit 3)		
190	Enable IRQ Out and	W/R	15
	Mask Register		30
	( IRQ Calib bit 0, Busy ON bit 1, Busy OFF bit 2, TTCrx = bit 3 )		
194	Code for TBM IRQ Level and	W/R	10, 9, 8
	TBM IRQ Line		71
	( 102=IRQ1,204=IRQ2, 308=IRQ3, 410=IRQ4, 520=IRQ5, 640=IRQ6		
	)		
1C0	Interruption Vector for IRQ Calibration	W/R	70
1C4	Interruption Vector for IRQ Busy ON	W/R	70
1C8	Interruption Vector for IRQ Busy OFF	W/R	70
1CC	Interruption Vector for IRQ TTCrx	W/R	70
	<del></del>		
240	Control Register	W/R	70 ( see details )
0.4.4		_	
244	Read Status Register	R	130 ( see details )
248	Discounter L1A	W/R	150
248 24C	Discounter L1A Clear Counter L1A	W/R W	150
248 24C 250	Discounter L1A Clear Counter L1A Read Counter L1A(16 LSB)	W/R W R	150 - 150
248 24C 250 254	Discounter L1A Clear Counter L1A Read Counter L1A ( 16 LSB ) Read Counter L1A ( 16 MSB - Overflow in Status Register )	W/R W R R	150 - 150 150
248 24C 250 254 258	Discounter L1A Clear Counter L1A Read Counter L1A ( 16 LSB ) Read Counter L1A ( 16 MSB - Overflow in Status Register ) Busy Mask Register	W/R W R R W/R	150 - 150 150 150
248 24C 250 254 258 25C	Discounter L1A Clear Counter L1A Read Counter L1A ( 16 LSB ) Read Counter L1A ( 16 MSB - Overflow in Status Register ) Busy Mask Register Read Busy Signals Before Mask	W/R W R R W/R	150 - 150 150 150 150
248 24C 250 254 258 25C 260	Discounter L1A Clear Counter L1A Read Counter L1A ( 16 LSB ) Read Counter L1A ( 16 MSB - Overflow in Status Register ) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask	W/R W R R W/R R	150 - 150 150 150
248 24C 250 254 258 25C 260 264	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy	W/R W R R R W/R R R	150 - 150 150 150 150
248 24C 250 254 258 25C 260 264 268	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy)	W/R W R R W/R R	150 - 150 150 150 150
248 24C 250 254 258 25C 260 264 268 26C	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3	W/R W R R W/R R R W	150 - 150 150 150 - -
248 24C 250 254 258 25C 260 264 268	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy)	W/R W R R W/R R R W	150 - 150 150 150 150 - -
248 24C 250 254 258 25C 260 264 268 26C 270	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register ) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy ) Set Lemo3 Clear Lemo3	W/R W R R R W/R R W W	150 - 150 150 150 150 - -
248 24C 250 254 258 25C 260 264 268 26C 270 274	Discounter L1A Clear Counter L1A Read Counter L1A ( 16 LSB ) Read Counter L1A ( 16 MSB - Overflow in Status Register ) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy ) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier ( 0303 )	W/R W R R W/R R R W W	150 - 150 150 150 150 - - - 150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CTate Serial Number Reset TM-Bus between TBM and Transition Modules TM	W/R W R R R W/R R R R W W R R R W W W W	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CTAM Identifier (BOO3)	W/R W R R W/R R R W W W	150 150 150 150 150 150 150 40
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number	W/R W R R R W/R R W/R R R W W W W W W R R R R	150 - 150 150 150 150 150 150 40 70
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN Identifier (8003) Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number Read CERN TM Identifier (0304)	W/R W R R R W/R R R W/R R R W W W W W W	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN IBM Identifier (8003) Read CTATE Serial Number Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004)	W/R W R R W/R R R W/R R R R W W W W W R R R R	150 - 150 150 150 150 150 150 40 70
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read Crate Serial Number Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004) Reset TTCrx	W/R W R R W/R R R W/R R R R W W W W W R R R R	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN Identifier (8003) Read CTAM Serial Number Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004) Reset TTCrx Generate Interruptions (fugitive action)	W/R W R R W/R R R W/R R R R W W W W W R R R R	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN Identifier (8003) Read CTAMBER Identifier (8003) Read CTAMBER IDENTIFY READ SELECT TM Select TM-Bus between TBM and Transition Modules TM Select TM-Bus between TBM and Transition Modules TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004) Reset TTCrx Generate Interruptions (fugitive action) Bit 0 generates IRQ Calib	W/R W R R W/R R R W/R R R R W W W W W R R R R	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN Identifier (8003) Reset TM-Bus between TBM and Transition Modules TM Select TM for reading its serial number / Read Selected TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004) Reset TTCrx Generate Interruptions (fugitive action) Bit 0 generates IRQ Calib Bit 1 generates IRQ Busy ON	W/R W R R W/R R R W/R R R R W W W W W R R R R	150
248 24C 250 254 258 25C 260 264 268 26C 270 274 278 27C 280 284 288 28C 290	Discounter L1A Clear Counter L1A Read Counter L1A (16 LSB) Read Counter L1A (16 LSB) Read Counter L1A (16 MSB - Overflow in Status Register) Busy Mask Register Read Busy Signals Before Mask Read Busy Signals After Mask Set Busy Clear Busy (clears User Busy and Calib Busy) Set Lemo3 Clear Lemo3 Read CERN TBM Identifier (0303) Read CERN Identifier (8003) Read CERN Identifier (8003) Read CTAMBER Identifier (8003) Read CTAMBER IDENTIFY READ SELECT TM Select TM-Bus between TBM and Transition Modules TM Select TM-Bus between TBM and Transition Modules TM Read Selected TM Serial Number Read CERN TM Identifier (0304) Read FPGA Version (2311 on November 23rd 2004) Reset TTCrx Generate Interruptions (fugitive action) Bit 0 generates IRQ Calib	W/R W R R W/R R R W/R R R R W W W W W R R R R	150

## Details

Bit Number	Control Register
0	Enable IRQ Calib
1	Enable IRQ Busy ON
2	Enable IRQ Busy OFF
3	Enable IRQ TTCrx
4	Enable Busy Calib
5	Enable Counter L1A
6	-
7	Enable TM-Bus

Bit Number	Status Register
0	IRQ Calib enabled
1	IRQ Busy ON enabled
2	IRQ Busy OFF enabled
3	IRQ TTCrx enabled
4	Busy Calib enabled
5	Counter L1A enabled
6	L1A Counter Overflow
7	TM-Bus enabled
8	OR of ROD Busy Signals Before Mask
9	OR of ROD Busy Signals After Mask
10	User or Calibration Busy
11	Crate Busy (OR of 9 and 10)
12	Lemo3
13	TTCrx Ready