

0x00	STATUS	RO	Status Register
0	master_enable		1: Controller is enabled
1..3	-		
4..7	state		b0000 - idle
			b0001 - reading channel controller data
			b0010 - reading source data end pointer
			b0011 - reading destination data end pointer
			b0100 - reading source data
			b0101 - writing destination data
			b0110 - waiting for DMA request to clear
			b0111 - writing channel controller data
			b1000 - stalled
			b1001 - done
			b1010 = peripheral scatter-gather transition
			b1011-b1111 = undefined
8..15	-		
16..20	chnls_minus1		Number of available DMA channels minus one
			b00000 = controller configured to use 1 DMA channel
			b00001 = controller configured to use 2 DMA channels
			...
21..27			
28..31	test_status		0x0 = controller does not include the integration test logic
			0x1 = controller includes the integration test logic
			0x2-0xF = undefined.
	0x00000000		ResetValue
	0xF01F0F01		MaskValue
0x04	CFG	WO	Config Register
0	master_enable		1: Enable controller
1..4			
5..7	Chnl_Prot_Ctrl		b[7] = 1: Enable Cachable AHB transfer
			b[6] = 1: Enable Bufferable AHB transfer

			b[5] = 1: Enable Privileged AHB transfer
	0x00000000		ResetValue
	0x000000E1		MaskValue
0x08	CTRL_BASE_PTR	RW	Address of channels table
0..9	-		
10..31	ctrl_base_ptr		
0x0C	ALT_CTRL_BASE_PTR	RO	Address of channels alter table
0..9	-		
10..31	alt_ctrl_base_ptr		
	0x00000000		ResetValue
	0xFFFFFC00		MaskValue
0x10	WAITONREQ_STATUS	RO	Channel wait on request status
0..31	ch_bit_select		1: waitonreq is Active (High) - Wait Request from block
			<i>When HIGH, it prevents dma_active[] from deasserting until</i>
			<i>dma_req[] and dma_sreq[] are LOW.</i>
0x14	CHNL_SW_REQUEST	WO	Channel Software Request
0..31	ch_bit_select		1: Activate request for transfer
0x18	CHNL_USEBURST_SET	RW	Disable single transfer requests
0x1C	CHNL_USEBURST_CLR	WO	
0..31	ch_bit_select		1: Disable Sreq requests
0x20	CHNL_REQ_MASK_SET	RW	Disable channel processing
0x24	CHNL_REQ_MASK_CLR	WO	
0..31	ch_bit_select		1: Ignore requests Req and SReq
0x28	CHNL_ENABLE_SET	RW	Start channel
0x2C	CHNL_ENABLE_CLR	WO	
0..31	ch_bit_select		1: Start DMA cycle

0x30	CHNL_PRI_ALT_SET	RW	Select structure
0x34	CHNL_PRI_ALT_CLR	WO	
0..31	ch_bit_select		0: use Rimary structure 1: use Alter structure
0x38	CHNL_PRIORITY_SET	RW	Rise Priority
0x3C	CHNL_PRIORITY_CLR	WO	
0..31	ch_bit_select		0: default 1: High priority
0x4C	ERR_CLR	RW	AHB-Lite bus error clear
0..31	ch_bit_select		0: no Errors 1: Error
	0x00000000		ResetValue
	0xFFFFFFFF		MaskValue

	BE1	BE3	BE9x	BQ1901	BE4	BK214	BE234
Base Addr	0x4002_8000	0x4002_8000	0x4002_8000	0x4002_8000	0x4002_8000	-	0x4002_8000
Size	80 Bytes						