CMS Calorimeter Trigger Cost

	CMS Cost Estimate - Version	**8**			**4-Oct-96**				
No.	Item	Unit Type	# Units	Unit Cost US$	Unit Cost CHF	Item Cost CHF	# Items	Total Cost CHF	Cost Book V7
6.1.1	**CALORIMETER TRIGGER**							7861.540	5686
6.1.1.1	**TriggerPrimitiveCard**					1.000	1008	1008.000	0
6.1.1.1.1	TPG		2		0.300	0.600		604.800	
6.1.1.1.2	Sync TX		2		0.200	0.400		403.200	
6.1.1.2	**Sync TX (HCAL)**		1		0.200	0.200	2097	419.400	0
6.1.1.3	**Opt TX and fibre**		1		0.300	0.300	4113	1233.900	1008
6.1.1.4	**Trigger Crate**					13.143	19	249.717	322
6.1.1.4.1	Crate		1	0.600	0.780	0.780		14.820	
6.1.1.4.2	Backplane		1	5.910	7.683	7.683		145.977	
6.1.1.4.3	Power Supply		1	3.600	4.680	4.680		88.920	
6.1.1.5	**CrateMonitorCard**				1.600	1.300	19	24.700	30
6.1.1.5.1	Parts		1	0.400	0.520	0.520		9.880	
6.1.1.5.2	Board		1	0.300	0.390	0.390		7.410	
6.1.1.5.3	Assembly		1	0.300	0.390	0.390		7.410	
6.1.1.6	**ClockControlCard**					3.848	19	73.112	92
6.1.1.6.1	Parts		1	1.960	2.548	2.548		48.412	
6.1.1.6.2	Board		1	0.600	0.780	0.780		14.820	
6.1.1.6.3	Assembly		1	0.400	0.520	0.520		9.880	

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6.1.1.7	**ReceiverCard**					15.784	152	2399.153	1956
6.1.1.7.1	Opt Rx		27		0.200	5.400		820.800	
6.1.1.7.2	Sync Rx		8		0.350	2.800		425.600	
6.1.1.7.3	Adder		3		0.230	0.690		104.880	
6.1.1.7.4	Boundary Scan		1		0.000	0.000		0.000	
6.1.1.7.5	Parts		1	3.853	5.009	5.009		761.353	
6.1.1.7.6	Board		1	0.800	1.040	1.040		158.080	
6.1.1.7.7	Assembly		1	0.650	0.845	0.845		128.440	
6.1.1.8	**ElectronIsolationCard**					4.282	152	650.864	795
6.1.1.8.1	Electron ID		2		0.230	0.460		69.920	
6.1.1.8.2	Boundary Scan		1		0.000	0.000		0.000	
6.1.1.8.3	Parts		1	2.240	2.912	2.912		442.624	
6.1.1.8.4	Board		1	0.400	0.520	0.520		79.040	
6.1.1.8.5	Assembly		1	0.300	0.390	0.390		59.280	
6.1.1.9	**JetSummaryCard**					5.251	19	99.761	138
6.1.1.9.1	Adder		2		0.230	0.460		8.740	
6.1.1.9.2	Sorter		2		0.080	0.160		3.040	
6.1.1.9.3	Boundary Scan		1		0.000	0.000		0.000	
6.1.1.9.4	Parts		1	2.462	3.201	3.201		60.811	
6.1.1.9.5	Board		1	0.600	0.780	0.780		14.820	
6.1.1.9.6	Assembly		1	0.500	0.650	0.650		12.350	

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6.1.1.10	**Cal. Global**					202.091	1	202.091	300
6.1.1.10.1	Trigger crate		1		13.143	13.143		13.143	
6.1.1.10.2	ClockControlCard		1		3.848	3.848		3.848	
6.1.1.10.3	Receiver/Sort Card		12		6.100	73.200		73.200	
6.1.1.10.4	Receiver/Adder Card		3		11.700	35.100		35.100	
6.1.1.10.5	Final Sort Card		4		11.700	46.800		46.800	
6.1.1.10.6	Final Adder Card		1		15.000	15.000		15.000	
6.1.1.10.7	Luminosity measurement		1		15.000	15.000		15.000	
6.1.1.11	**Cables**					19.490	1	19.490	10
6.1.1.11.1	Regional Trigger Cables		1	7.300	9.490	9.490		9.490	
6.1.1.11.2	Global Trigger Cables		1		10.000	10.000		10.000	
6.1.1.12	**Prototypes and Spares**					566.352	1	566.352	400
6.1.1.12.1	Trigger Primitives P&S		1		150.000	150.000		150.000	
6.1.1.12.2	Reg. Trigger P&S		1	301.040	391.352	391.352		391.352	
6.1.1.12.3	Cal. Global P&S		1		25.000	25.000		25.000	
6.1.1.13	**Monitoring & Test**					178.000	1	178.000	80
6.1.1.13.1	Trigger primitives		1		50.000	50.000		50.000	
6.1.1.13.2	Regional Trigger		1		78.000	78.000		78.000	
6.1.1.13.3	Global trigger		1		25.000	25.000		25.000	
6.1.1.13.4	Readout and Control		1		25.000	25.000		25.000	

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6.1.1.14	**ASICs Development**					506.000	1	506.000	470
6.1.1.14.1	TPG ASIC		1		100.000	100.000		100.000	
6.1.1.14.2	Sync TX ASIC		1		100.000	100.000		100.000	
6.1.1.14.3	Sync RX ASIC		1		100.000	100.000		100.000	
6.1.1.14.4	Adder ASIC		1		65.000	65.000		65.000	
6.1.1.14.5	Electron ID ASIC		1		65.000	65.000		65.000	
6.1.1.14.6	Sorter ASIC		1		76.000	76.000		76.000	
6.1.1.14.7	Boundary Scan ASIC		1		0.000	0.000		0.000	
6.1.1.15	**Readout and Control**					231.000	1	231.000	85
6.1.1.15.1	ROC (Mon&DAQ Proc)		20		7.000	140.000		140.000	
6.1.1.15.2	FrontEndDriver		4		4.000	16.000		16.000	
6.1.1.15.3	ROC Back-End		1		25.000	25.000		25.000	
6.1.1.15.4	Software		1		50.000	50.000		50.000	