DETECTION LIMIT: 1000s	1	Problem info			Search time (s)					Decisions				Total propagation						etry propagat	ion		Un	nit propagation	propagation			Unit/Symmetry Propagation			
RUN TIME LIMIT: 5000s		Detection	Total	Inverting	Minisat +	·SP(SAT) +	-SP(SAT) -	+SP(SAT) +	Shatter	Minisat	+SP(SAT)	+SP(SAT)	+SP(SAT)	+Shatter		SP(SAT)	SP(SAT)	SP(SAT)		+SP(SAT) -			Minisat	+SP(SAT)	+SP(SAT)	+SP(SAT)	+Shatter	+SP(SAT) +	SP(SAT) -	-SP(SAT)	
Problem	Status	time (s)	symmetries					optimized	2.22		no storing		optimized					•	Shatter	no storing		ptimized	2272	no storing	storing	optimized		no storing		optimized	
fpga10_8_sat.cnf	SAT	0	22 23	0	0.00	0.00 0.00	0.00	0.00 0.00	0.00	405	338 443	352	320 316	503 607	3056	2638	2781 2562	2413 2670	3337 2872		175	258 229	3056 3364		2606	2155 2441	3337 2872	6.03%	6.72% 6.22%	11.97% 9.38%	
fpga10_9_sat.cnf fpga12_11_sat.cnf	SAT SAT	0.01 0.02	23 29	0	0.00	0.00	0.00 0.00	0.00	0.00	408 467	325	348 363	524	474	3364 3659	3619 2714	3001	4441	3097	178 154	150 137	333	3659	2560	2412 2864	4108	3097	5.17% 6.02%	4.78%	9.36% 8.11%	
fpga12 8 sat.cnf	SAT	0.01	24	0	0.00	0.00	0.00	0.00	0.00	296	485	324	472	602	2264	3651	2100	3656	2838	140	138	296	2264		1962	3360	2838	3.99%	7.03%	8.81%	
fpga12_9_sat.cnf	SAT	0.01	25	0	0.00	0.00	0.00	0.00	0.00	451	343	378	492	713	3573	2500	2388	4159	6612	114	133	302	3573		2255	3857	6612	4.78%	5.90%	7.83%	
fpga13_10_sat.cnf	SAT	0.02	28	0	0.00	0.00	0.00	0.00	0.00	278	877	477	396	591	2223	7736	3452	3703	2822		163	212	2223		3289	3491	2822	3.89%	4.96%	6.07%	
fpga13_12_sat.cnf	SAT	0.03	32	0	0.00	0.00	0.00	0.00	0.00	316	310	334	365	1112	2840	2610	2794	4039	5243		68	231	2840		2726	3808	5243	3.20%	2.49%	6.07%	
fpga13_9_sat.cnf	SAT	0.01	26	0	0.00	0.00	0.00	0.00	0.00	330	350	17002	696	601	2569	2295	7201	7705 84467	6654		167	360	2569 67227297	2205 1345760	7034	7345	6654	4.08%	2.37%	4.90%	
fpga10_11_uns_rcr.cnf fpga10_12_uns_rcr.cnf	UNSAT UNSAT	0.02 0.04	38 41	0	71.49 209.84	0.96 0.23	0.09 0.07	0.06 0.05	0.14 0.15	5985130 12881772	130205 31108	17093 12154	6888 5530	15152 14446	67227297 150276769	1400668 347458	184199 141348	77183	406313 478956	54908 14755	3786 3493	3488 2613	150276769	332703	180413 137855	80979 74570	406313 478956	4.08% 4.43%	2.10% 2.53%	4.31% 3.50%	
fpga10_13_uns_rcr.cnf	UNSAT	0.03	42	0	955.19	0.52	0.19	0.04	0.19	42096627	63445	25671	4938	16921	519910130	772863	353896	72246	668044	27945	5444	2520	519910130		348452	69726	668044	3.75%	1.56%	3.61%	
fpga10_15_uns_rcr.cnf	UNSAT	0.05	46	0	1841.00	0.56	0.18	0.11	0.16	60680481	57573	19039	9183	13249	861526582	798040	269767	139644	509944	26455	6023	4292	861526582	771585	263744	135352	509944	3.43%	2.28%	3.17%	
fpga10_20_uns_rcr.cnf	UNSAT	0.12	57	0	1271.76	1.00	0.26	0.06	0.28	29871337	70974	21404	4498	16306	578921696	1264323	438893	94108	842632	41066	7857	4154	578921696	1223257	431036	89954	842632	3.36%	1.82%	4.62%	
fpga11_13_uns_rcr.cnf	UNSAT	0.05	44	0	5084.18	3.92	0.22	0.26	0.83	156763955	328285	25790	19236	56623	1862835438	3883120	295693	268453	2074116	138326	8023	10816	1862835438	3744794	287670	257637	2074116	3.69%	2.79%	4.20%	
fpga11_14_uns_rcr.cnf fpga11_15_uns_rcr.cnf	UNSAT UNSAT	0.06 0.07	46 40	0	5084.25 5084.17	4.56 5.84	0.53 0.26	0.12 0.12	0.69 0.52	144366087 128133647	358962 449749	51389 29983	10843 9836	48327 32194	1845034445 1751289839	4521051 6320357	664593 424998	151860 151441	1705635 1364837	124565 203743	11115 7986	4894 4955	1845034445 1751289839	4396486 6116614	653478 417012	146966 146486	1705635 1364837	2.83% 3.33%	1.70% 1.92%	3.33% 3.38%	
fpga11_13_uns_rcr.cnf	UNSAT	0.15	4 9	0	5083.85	7.76	0.20	0.12	1.11	84414668	404998	45832	9746	54054	1606609908	7528697	853502	190844	2930058	302291	14903	7197	1606609908	7226406	838599	183647	2930058	4.18%	1.78%	3.92%	
chnl10_11.cnf	UNSAT	0.01	39	0	167.23	0.00	0.00	0.00	0.00	12437023	46	46	46	1473	139066233	239	239	239	3620	53	53	53	139066233	186	186	186	3620	28.49%	28.49%	28.49%	
chnl10_12.cnf	UNSAT	0.03	41	0	84.98	0.00	0.00	0.00	0.00	6050506	46	46	46	1682	75992394	258	258	258	3952	53	53	53	75992394	205	205	205	3952	25.85%	25.85%	25.85%	
chnl10_13.cnf	UNSAT	0.03	43	0	94.77	0.00	0.00	0.00	0.00	6006811	46	46	46	1766	82625001	277	277	277	3998		53	53	82625001	224	224	224	3998	23.66%	23.66%	23.66%	
chnl11_12.cnf	UNSAT	0.03	43	0	3353.05	0.00	0.00	0.00	0.00	127407652	56	56	56 50	2017	1441292940	285	285	285	7678		64	64	1441292940		221	221	7678	28.96%	28.96%	28.96%	
chnl11_13.cnf chnl11 20.cnf	UNSAT UNSAT	0.04 0.13	45 59	0	3868.64 3405.10	0.00 0.00	0.00 0.00	0.00 0.00	0.00	126818865 58302347	56 56	56 56	56 56	2264 3954	1578025794 1173568158	306 453	306 453	306 453	8206 8932		64 64	64 64	1578025794 1173568158	242 389	242 389	242 389	8206 8932	26.45% 16.45%	26.45% 16.45%	26.45% 16.45%	
hole006.cnf	UNSAT	0.10	11	0	0.00	0.00	0.00	0.00	0.00	2357	16	16	16	48	26559	94	87	87	211		15	15	26559	75	72	72	211	25.33%	20.83%	20.83%	
hole007.cnf	UNSAT	0	13	0	0.01	0.00	0.00	0.00	0.00	13097	22	22	22	96	156631	124	116	116	323		21	21	156631	98	95	95	323		22.11%	22.11%	
hole008.cnf	UNSAT	0	15	0	0.16	0.00	0.00	0.00	0.00	51046	29	29	29	124	515114	158	149	149	476	_	28	28	515114		121	121	476		23.14%	23.14%	
hole009.cnf	UNSAT	0	17	0	1.66	0.00	0.00	0.00	0.00	363799	37	37	37	200	4040794	196	186	186	646	_	36	36	4040794	153	150	150	646	28.10%	24.00%	24.00%	
hole010.cnf	UNSAT UNSAT	0	19 21	0	108.97 2020.84	0.00 0.00	0.00 0.00	0.00 0.00	0.00	12507767 129811853	46 56	46 56	46 56	265 260	140645683 1500316754	238	227 272	227 272	899 1300		45 55	45	140645683 1500316754	185 220	182	182 217	899 1300	28.65% 29.09%	24.73% 25.35%	24.73% 25.35%	
hole011.cnf hole012.cnf	UNSAT	0	23	0	5083.98	0.00	0.00	0.00		228153077	56 67	67	67	533	2612507621	284 334	321	321	1699		66	55 66	2612507621	258	217 255	255	1699	29.09%	25.88%	25.88%	
hole013.cnf	UNSAT	0.01	25	0	5084.39	0.00	0.00	0.00		193788408	79	79	79	672	2233424008	388	374	374	2209		78	78	2233424008	299	296	296	2209	29.77%	26.35%	26.35%	
hole014.cnf	UNSAT	0.01	27	0	5084.38	0.00	0.00	0.00	0.00	162316850	92	92	92	852	1881292385	446	431	431	3680		91	91	1881292385	343	340	340	3680	30.03%	26.76%	26.76%	
hole015.cnf	UNSAT	0.02	29	0	5084.40	0.00	0.00	0.00	0.00	133285484	106	106	106	1094	1493369253	508	492	492	4988	118	105	105	1493369253	390	387	387	4988	30.26%	27.13%	27.13%	
hole016.cnf	UNSAT	0.02	31	0		0.00	0.00	0.00	0.00		121	121	121	1463		574	557	557	6584	134	120	120		440	437	437	6584		27.46%	27.46%	
hole017.cnf hole018.cnf	UNSAT UNSAT	0.03 0.05	33 35	0		0.00 0.00	0.00 0.00	0.00 0.00	0.00		137 154	137 154	137 154	1841 2123		644 718	626 699	626 699	8282 9374	151 169	136 153	136 153		493 549	490 546	490 546	8282 9374	30.63% 30.78%	27.76% 28.02%	27.76% 28.02%	
hole019.cnf	UNSAT	0.03	37	0		0.00	0.00	0.00	0.00		172	172	172	2789		796	776	776	12398	188	171	171		608	605	605	12398	30.70%	28.26%	28.26%	
hole020.cnf	UNSAT	0.1	39	0	5084.07	0.00	0.00	0.00	0.00	133285489	191	191	191	3380	621030693	878	857	857	18331	208	190	190	621030693	670	667	667	18331	31.04%	28.49%	28.49%	
hole030.cnf	UNSAT	0.7	59	0	5069.30	0.00	0.00	0.00	0.00	71278473	436	436	436	12140	679591159	1918	1887	1887	81276		435	435	679591159	1455	1452	1452	81276	31.82%	29.96%	29.96%	
hole040.cnf	UNSAT	2.89	79	0	5066.32	0.00	0.00	0.00	0.00	84702265	781	781	781	21688	810782492	3358	3317	3317	127811		780	780			2537	2537	127811		30.74%	30.74%	
hole050.cnf	UNSAT	8.75	99 110	0	5068.02 5069.43	0.01	0.01	0.02	0.05	72535295 66659103	1226 1771	1226 1771	1226 1771	76966 125966	709025776 541436500	5198	5147	5147	564296		1225	1225	709025776	3925	3922	3922	564296		31.23%	31.23% 31.57%	
hole060.cnf hole070.cnf	UNSAT UNSAT	21.12 48.29	119 139	0	5009.43	0.02 0.03	0.02 0.03	0.04 0.08	0.05 0.11	65391735	2416	2416	2416	165867	510241929	7438 10078	7377 10007	7377 10007	721367 1494337	1828 2483	1770 2415	1770 2415	541436500 510241929		5607 7592	5607 7592	721367 1494337	32.58% 32.69%	31.81%	31.81%	
hole080.cnf	UNSAT	93.84	159	0	0001.21	0.06	0.06	0.11	0.27	00001700	3161	3161	3161	602887	0102 11020	13118	13037	13037	3229838	3238	3160	3160	0102 11020	9880	9877	9877	3229838		31.99%	31.99%	
hole090.cnf	UNSAT	157.78	179	0		0.11	0.10	0.22	0.48		4006	4006	4006	699692		16558	16467	16467	5500889	4093	4005	4005		12465	12462	12462	5500889		32.14%	32.14%	
hole100.cnf	UNSAT	267.55	199	0		0.16	0.17	0.35	0.87		4951	4951	4951	2180380		20398	20297	20297	10209875		4950	4950		15350	15347	15347	10209875		32.25%	32.25%	
hole010_shuffled.cnf	UNSAT	0	19	0	114.32	0.14	0.27	0.07	0.12	12675295	31101	33740	10949	17342		306740	411875	135380	583292		7054	5464		293039	404821	129916	583292	4.68%	1.74%	4.21%	
hole011_shuffled.cnf hole012 shuffled.cnf	UNSAT UNSAT	0 0	21 23	0	3320.28 5083.70	2.30 42.81	0.53 4.11	0.25 0.29		193488347 214097012	331957 3879229	55047 313497	18662 30992	142711 729083	2237873772 2467996687	3497433 43746690	587255 3725964	357590 427055	5346166 29411280		10266 71637	13521	2237873772 2467996687	3385286 42231563	576989 3654327	346095 413534	5346166 29411280	3.31% 3.59%	1.78% 1.96%	3.32% 3.27%	
hole013_shuffled.cnf	UNSAT	0.01	25 25	0	3003.70	461.27	30.99		105.15	214037012	16876891	1532124	67184	4531023	2407990007	194049099	17615135		207007682		319489	27412	2407990007	188015054	17295646		207007682	3.21%	1.85%	3.34%	
hole014_shuffled.cnf	UNSAT	0.01	27	0		1504.09	311.18	13.31			37783542	9836194		67375809		433859733	117694475		3065586388		1801725	325542		421860164	115892750		3065586388	2.84%	1.55%	3.47%	
hole015_shuffled.cnf	UNSAT	0.02	29	0		5081.63	715.67	201.47	5083.62		88064365	17048418	7299563	81872026		1031030387	204519243	99026025	4042988971	27735695	2876337	2647387		1003294692	201642906	96378638 4	1042988971	2.76%	1.43%	2.75%	
hole016_shuffled.cnf	UNSAT	0.02	31	0		5082.87	5083.18	122.67	5080.74		813902982	80323722		67799040		813902982	986123085		3631512027	18684403		1290700		795218579	974540171	48761664	3631512027	2.35%	1.19%	2.65%	
hole017_shuffled.cnf	UNSAT	0.03	33	0			5082.88	2863.15				64681571					774139080	754881930			8884512 1				765254568				1.16%	2.13%	
hole018_shuffled.cnf Urq3_5.cnf	UNSAT	0.05	35 29	0 29	139.71	0.00	0.00	994.44	0.11	73481538	6572	6124	18031344	91985	301105603	20182	18479	243237829 104	453961	1456	1251	4940042 27	301105603	18726	17228	238297787 77	453961	7.78%	7.26%	2.07% 35.06%	
Urq4_5.cnf	UNSAT	0.02	43	43	5083.87	0.00	0.00	0.00		1822387870	27809	1200	43		7582631639	97577	5182		115646665		219	42	7582631639		4963		115646665	3.98%	4.41%	40.38%	
Urq5_5.cnf	UNSAT	0.18	72	72	5082.97	10.43	6.82			1489366742	4455744	2963855		1428323031	6225473284	16693768	11279563		8379761695		262531	71	6225473284				3379761695	3.90%	2.38%	42.01%	
Urq6_5.cnf	UNSAT	0.56	109	109	5084.17	5084.20	5084.05				1169145580		139	1433528167		5189670145		499	8248792875	81559258	42002388	107		5108110887		392 8	3248792875	1.60%	0.83%	27.30%	
Urq7_5.cnf	UNSAT	1.29	143	143	5083.79		5084.07				985304928	980643821		1320732153		5122380448				57167105		141					7900192561	1.13%	0.63%	37.50%	
Urq8_5.cnf	UNSAT	3.27	200	200	5083.65	5083.78	5083.81	0.00	5083.95	940373150	831956539	806284083	205	1101091001	5472721018	4685849142	4413733408	694	6942316203	38386193	18993292	198	5472721018	4647462949	4394740116	496 6	6942316203	0.83%	0.43%	39.92%	