BBC Com	oloto Doguli	<u> </u>		
BBS Com	plete Result	ıs		
Total				
	Total Tests	Passed	Failed	Rate
	5400	5334	66	98.78%
Test Name		Number Tested	Passed	Rate
Frequency Test		360	353	98.06%
Block Frequency	/ Test	360	354	98.33%
Runs Test		360	357	99.17%
Longest Run of	Ones	360	357	99.17%
Binary Matrix Ra	nk	360	357	99.17%
Spectral Test		360	356	98.89%
Non-overlapping	Template	360	355	98.61%
Overlapping Ten	nplate	360	357	99.17%
Universal Test		360	353	98.06%
Linear Complexi	ty	360	356	98.89%
Serial Test (both)	720	713	99.03%
Approximate En	tropy	360	355	98.61%
Cumulative Sum	s (Forward)	360	356	98.89%
Cumulative Sum	s (Reverse)	360	355	98.61%

LCG Whol	e Complete	Results		
Total				
	Total Tests	Passed	Failed	Rate
	2700	1450	1250	53.70%
Test Name		Number Tested	Passed	Rate
Frequency Test		180	0	0.00%
Block Frequency	/ Test	180	110	61.11%
Runs Test		180	0	0.00%
Longest Run of 0	Ones	180	161	89.44%
Binary Matrix Ra	ink	180	179	99.44%
Spectral Test		180	179	99.44%
Non-overlapping	Template	180	58	32.22%
Overlapping Tem	nplate	180	70	38.89%
Universal Test		180	169	93.89%
Linear Complexi	ty	180	179	99.44%
Serial Test (both)	360	293	81.39%
Approximate Ent	ropy	180	52	28.89%
Cumulative Sum	s (Forward)	180	0	0.00%
Cumulative Sum	s (Reverse)	180	0	0.00%

LCG LSB	Complete R	esults		
Total				
	Total Tests	Passed	Failed	Rate
	2700	2675	25	99.07%
Test Name		Number Tested	Passed	Rate
Frequency Test		180	178	98.89%
Block Frequency	Test	180	180	100.00%
Runs Test		180	178	98.89%
Longest Run of 0	Ones	180	178	98.89%
Binary Matrix Ra	nk	180	177	98.33%
Spectral Test		180	180	100.00%
Non-overlapping	Template	180	176	97.78%
Overlapping Ten	plate	180	180	100.00%
Universal Test		180	177	98.33%
Linear Complexi	ty	180	178	98.89%
Serial Test (both)	360	356	98.89%
Approximate Ent	ropy	180	179	99.44%
Cumulative Sum	s (Forward)	180	179	99.44%
Cumulative Sum	s (Reverse)	180	179	99.44%

LCG 31 Riv	t Complete	Poculte		
EGG 31 Bi	Complete	Results		
Total				
Total				
	Total Tests	Passed	Failed	Rate
	1800	1230	570	68.33%
Test Name		Number Tested	Passed	Rate
Frequency Test		120	60	50.00%
Block Frequency	Test	120	60	50.00%
Runs Test		120	58	48.33%
Longest Run of 0	Ones	120	103	85.83%
Binary Matrix Ra	nk	120	119	99.17%
Spectral Test		120	120	100.00%
Non-overlapping	Template	120	60	50.00%
Overlapping Tem	ıplate	120	60	50.00%
Universal Test		120	110	91.67%
Linear Complexi	ty	120	120	100.00%
Serial Test (both)		240	180	75.00%
Approximate Ent		120	60	50.00%
Cumulative Sum	s (Forward)	120	60	50.00%
Cumulative Sum		120	60	50.00%

LCG 64 Bi	t Complete	Results		
Total				
	Total Tests	Passed	Failed	Rate
	1800	1376	424	76.44%
Test Name		Number Tested	Passed	Rate
Frequency Test		120	60	50.00%
Block Frequency	Test	120	111	92.50%
Runs Test		120	60	50.00%
Longest Run of 0	Ones	120	117	97.50%
Binary Matrix Ra	nk	120	120	100.00%
Spectral Test		120	120	100.00%
Non-overlapping	Template	120	67	55.83%
Overlapping Tem	plate	120	73	60.83%
Universal Test		120	118	98.33%
Linear Complexi	ty	120	118	98.33%
Serial Test (both)	240	233	97.08%
Approximate Ent	ropy	120	59	49.17%
Cumulative Sum	s (Forward)	120	60	50.00%
Cumulative Sum	s (Reverse)	120	60	50.00%

1 00 400 5):4	. D		
LCG 128 E	it Complete	Results		
Total				
	Total Tests	Passed	Failed	Rate
	1800	1519	281	84.39%
Test Name		Number Tested	Passed	Rate
Frequency Test		120	58	48.33%
Block Frequency	/ Test	120	119	99.17%
Runs Test		120	60	50.00%
Longest Run of	Ones	120	119	99.17%
Binary Matrix Ra	ınk	120	117	97.50%
Spectral Test		120	119	99.17%
Non-overlapping	Template	120	107	89.17%
Overlapping Ten	nplate	120	117	97.50%
Universal Test		120	118	98.33%
Linear Complexi	ty	120	119	99.17%
Serial Test (both)	240	236	98.33%
Approximate En	tropy	120	112	93.33%
Cumulative Sum	s (Forward)	120	59	49.17%
Cumulative Sum	s (Reverse)	120	59	49.17%

rand Com	plete Resul	ts		
Total				
	Total Tests	Passed	Failed	Rate
	3600	3151	449	87.53%
Test Name		Number Tested	Passed	Rate
Frequency Test		240	175	72.92%
Block Frequency	/ Test	240	215	89.58%
Runs Test		240	177	73.75%
Longest Run of	Ones	240	232	96.67%
Binary Matrix Ra	ank	240	238	99.17%
Spectral Test		240	237	98.75%
Non-overlapping	Template	240	197	82.08%
Overlapping Ter	nplate	240	203	84.58%
Universal Test		240	235	97.92%
Linear Complex	ty	240	237	98.75%
Serial Test (both)	480	435	90.63%
Approximate En	tropy	240	194	80.83%
Cumulative Sum	s (Forward)	240	178	74.17%
Cumulative Sum	is (Reverse)	240	178	74.17%

time Comp	olete Result	ts		
Total				
	Total Tests	Passed	Failed	Rate
	3600	3153	447	87.58%
Test Name		Number Tested	Passed	Rate
Frequency Test		240	179	74.58%
Block Frequency	/ Test	240	214	89.17%
Runs Test		240	179	74.58%
Longest Run of	Ones	240	232	96.67%
Binary Matrix Ra	nk	240	237	98.75%
Spectral Test		240	239	99.58%
Non-overlapping	Template	240	195	81.25%
Overlapping Ten	nplate	240	202	84.17%
Universal Test		240	230	95.83%
Linear Complexi	ty	240	240	100.00%
Serial Test (both)	480	433	90.21%
Approximate En	tropy	240	195	81.25%
Cumulative Sum	s (Forward)	240	180	75.00%
Cumulative Sum	is (Reverse)	240	178	74.17%

urand Con	າplete Resu	ılts		
Total				
	Total Tests	Passed	Failed	Rate
	3600	3155	445	87.64%
Test Name		Number Tested	Passed	Rate
Frequency Test		240	177	73.75%
Block Frequency	Test	240	215	89.58%
Runs Test		240	179	74.58%
Longest Run of 0	Ones	240	232	96.67%
Binary Matrix Ra	nk	240	238	99.17%
Spectral Test		240	239	99.58%
Non-overlapping	Template	240	197	82.08%
Overlapping Tem	ıplate	240	203	84.58%
Universal Test		240	234	97.50%
Linear Complexit	ty	240	236	98.33%
Serial Test (both))	480	454	94.58%
Approximate Ent	ropy	240	197	82.08%
Cumulative Sum	s (Forward)	240	177	73.75%
Cumulative Sum	s (Reverse)	240	178	74.17%

LCG Whole										
I CG Whole		Multiplier	Increment	Modulus						
	Number 31	1103515245	12345	2^31 - 1		BBS	BBS	BBS	BBS	BBS
		1100010240	12040	2 01-1	i					
Total						Total	Total	Total	Total	Total
	Total Tests	Passed	Failed	Rate			Total Tests	Total Tests Passed	Total Tests Passed Failed	Total Tests Passed Failed Rate
	900	336	564		%			900 891		
Test Name		Number Tested	Passed	Rate		Test Name	Test Name	Test Name Number Tested	Test Name Number Tested Passed	Test Name Number Tested Passed Rate
Frequency Test		60	0	0.0	%	Frequency Test	Frequency Test	Frequency Test 60	Frequency Test 60 60	Frequency Test 60 60
Block Frequency	Test	60	0	0.0	%					
Runs Test		60	0	0.0	%	Runs Test	Runs Test	Runs Test 60	Runs Test 60 60	Runs Test 60 60
Longest Run of 0	Ones	60	44	73.3	%	Longest Run of	Longest Run of Ones	Longest Run of Ones 60	Longest Run of Ones 60 60	Longest Run of Ones 60 60
Binary Matrix Ra		60	60		%		Binary Matrix Rank			
Spectral Test		60	60			Spectral Test				
Non-overlapping	Template	60	0		-		Non-overlapping Template	-	·	•
Overlapping Ten		60	0		_		Overlapping Template	5 .	1, 5 .	
Universal Test	,	60	51		-	Universal Test	- 11 - 1			
Linear Complexi	hy.	60	60		-		Linear Complexity			
					_				1 1	
Serial Test (both		120	61		_		Serial Test (both)			
Approximate Ent		60	0		-		Approximate Entropy			
Cumulative Sum		60	0				Cumulative Sums (Forward)	, ,		
Cumulative Sum	s (Reverse)	60	0	0.0	%	Cumulative Sur	Cumulative Sums (Reverse)	Cumulative Sums (Reverse) 60	Cumulative Sums (Reverse) 60 60	Cumulative Sums (Reverse) 60 60
rand						rand	rand	rand	rand	rand
	Total Tests	Passed	Failed	Rate	- 1		Total Tests	Total Tests Passed	Total Tests Passed Failed	Total Tests Passed Failed Rate
	300	113	187	37.6	%		300	300 297	300 297 3	300 297 3
Test Name		Number Tested	Passed	Rate	1	Test Name	Test Name	Test Name Number Tested	Test Name Number Tested Passed	Test Name Number Tested Passed Rate
Frequency Test		20	0		%		Frequency Test			
Block Frequency	Test	20	0		-		Block Frequency Test	1 1		1 2
Runs Test	1000	20	0		-	Runs Test				
Longest Run of 0	nes	20	15				Longest Run of Ones			
-					-			ů	3	3
Binary Matrix Ra	HK	20	20		-		Binary Matrix Rank			
Spectral Test	T 1 :	20	20		-	Spectral Test	_			·
Non-overlapping		20	0				Non-overlapping Template	11 5 1	11.2.1	11 0 1
Overlapping Ten	nplate	20	0		-		Overlapping Template	11 2 7		
Universal Test		20	18			Universal Test				
Linear Complexi		20	20				Linear Complexity			
Serial Test (both)	40	20			Serial Test (bot	Serial Test (both)			
Approximate Ent	гору	20	0	0.0	%	Approximate E	Approximate Entropy	Approximate Entropy 20	Approximate Entropy 20 18	Approximate Entropy 20 18
Cumulative Sum	s (Forward)	20	0	0.0	%	Cumulative Sur	Cumulative Sums (Forward)	Cumulative Sums (Forward) 20	Cumulative Sums (Forward) 20 20	Cumulative Sums (Forward) 20 20
Cumulative Sum		20	0	0.0	%		Cumulative Sums (Reverse)			
time					1	time	time	time	time	time
	Total Tests	Passed	Failed	Rate			Total Tests	Total Tests Passed	Total Tests Passed Failed	Total Tests Passed Failed Rate
	300	108	192	36.0	%		300	300 297	300 297 3	300 297 3
		100								
		108								
Test Name			Passed	Rate		Test Name	Test Name	Test Name Number Tested	Test Name Number Tested Passed	Test Name Number Tested Passed Rate
Test Name		Number Tested		Rate	٥/	Test Name				
Frequency Test	Toot	Number Tested	0	0.0	-	Frequency Test	Frequency Test	Frequency Test 20	Frequency Test 20 20	Frequency Test 20 20
Frequency Test Block Frequency	Test	Number Tested 20 20	0	0.0	%	Frequency Test Block Frequence	Frequency Test Block Frequency Test	Frequency Test 20 Block Frequency Test 20	Frequency Test 20 20 Block Frequency Test 20 19	Frequency Test 20 20 Block Frequency Test 20 19
Frequency Test Block Frequency Runs Test		Number Tested 20 20 20	0	0.00	% %	Frequency Test Block Frequency Runs Test	Frequency Test Block Frequency Test Runs Test	Frequency Test 20 Block Frequency Test 20 Runs Test 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Ones	Number Tested 20 20 20 20 20	0 0 0 15	0.00 0.00 0.00 75.00	% % %	Frequency Test Block Frequency Runs Test Longest Run of	Frequency Test Block Frequency Test Runs Test Longest Run of Ones	Frequency Test 20 Block Frequency Test 20 Runs Test 20 Longest Run of Ones 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ra	Ones	Number Tested 20 20 20 20 20 20 20	0 0 0 15 20	0.00 0.00 0.00 0.00 0.00 0.00 0.00	% % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank	Frequency Test 20 Block Frequency Test 20 Runs Test 20 Longest Run of Ones 20 Binary Matrix Rank 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test	Ones nk	Number Tested 20 20 20 20 20 20 20 20 20 20	0 0 0 15 20	0.00 0.00 0.00 75.00 100.00	% % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test	Frequency Test 20 Block Frequency Test 20 Runs Test 20 Longest Run of Ones 20 Binary Matrix Rank 20 Spectral Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test	Ones nk	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 15 20 20	0.00 0.00 0.00 75.00 100.00 100.00	% % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank	Frequency Test 20 Block Frequency Test 20 Runs Test 20 Longest Run of Ones 20 Binary Matrix Rank 20 Spectral Test 20 Non-overlapping Template 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping	Ones ink Template	Number Tested 20 20 20 20 20 20 20 20 20 20	0 0 0 15 20 20	0.00 0.00 0.00 75.00 100.00 100.00	% % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test	Frequency Test 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20	Frequency Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem	Ones ink Template	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 15 20 20 0	0.00 0.00 0.00 75.00 100.00 100.00 0.00	% % % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template	Frequency Test 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20 Overlapping Template 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20 Overlapping Template 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ten Universal Test	Ones ink Template inplate	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 15 20 20 0 0	0.00 0.00 75.00 100.00 100.00 0.00 0.00	% % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlapping Te Universal Test	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template	Frequency Test 20	Frequency Test 20 20 20 20 20 30 30 30	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20 Overlapping Template 20 20 Universal Test 20 18
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexi	Ones Ink Template Inplate	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 15 20 20 0 0 14	0.00 0.00 75.00 100.00 100.00 0.00 70.00	% % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test	Frequency Test 20	Frequency Test 20 20 20 30 30 30 30 30	Frequency Test 20 20 20
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexi Serial Test (both	Ones Ink Template Inplate	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 15 20 20 0 0 14 20	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.50	% % % % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Comples Serial Test (bot	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity	Frequency Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Ent	Ones Ink Template Inplate Ity Orropy	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 40	0 0 0 15 20 20 0 0 14 20 19	0.00 0.00 75.00 100.00 100.00 0.00 70.00 70.00 47.50	% % % % % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complei Serial Test (bot Approximate Ei	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both)	Frequency Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ter Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum	Ones nk Template nplate ty oropy s (Forward)	Number Tested 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 15 20 0 0 14 20 19	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.51 0.00	% % % % % % %	Frequency Tesi Block Frequence Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complei Serial Test (bot Approximate Ei Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy	Frequency Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ter Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum	Ones nk Template nplate ty oropy s (Forward)	Number Tested 20 20 20 20 20 20 20 20 20 20 20 40 20 20 20 20	0 0 15 20 0 0 14 20 19	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.51 0.00	% % % % % % %	Frequency Tesi Block Frequence Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complei Serial Test (bot Approximate Ei Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward)	Frequency Test 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20 Overlapping Template 20 20 Universal Test 20 18 Linear Complexity 20 20 Serial Test (both) 40 40 Approximate Entropy 20 20 Cumulative Sums (Forward) 20 20	Frequency Test 20 20 Block Frequency Test 20 19 Runs Test 20 20 Longest Run of Ones 20 20 Binary Matrix Rank 20 20 Spectral Test 20 20 Non-overlapping Template 20 20 Overlapping Template 20 20 Universal Test 20 18 Linear Complexity 20 20 Serial Test (both) 40 40 Approximate Entropy 20 20 Cumulative Sums (Forward) 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ten Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum Cumulative Sum	Ones nk Template nplate ty oropy s (Forward)	Number Tested 20 20 20 20 20 20 20 20 20 20 20 40 20 20 20 20	0 0 15 20 0 0 14 20 19	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.51 0.00	% % % % % % % %	Frequency Tesi Block Frequence Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complei Serial Test (bot Approximate Ei Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse)	Frequency Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20 20
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ten Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum Cumulative Sum	Dnes nnk Template uplate by oropy s (Forward) s (Reverse)	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 15 20 20 0 14 20 19 0	0.00 0.00 75.00 100.00 0.00 0.00 70.00 70.00 47.50 0.00 0.00	% % % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test (bot Approximate Er Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse)	Frequency Test 20	Frequency Test 20 20 20 20 30 30 30 30	Frequency Test 20 20 20 20 20 30 30 30
Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test	Dnes nk Template uplate ty) rropy s (Forward) s (Reverse) Total Tests	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 155 200 0 0 0 144 200 199 0 0	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.50 0.00 0.00 0.00	% % % % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test (bot Approximate Er Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests	Frequency Test 20	Frequency Test 20 20 20 20 20 20 20 2	Frequency Test 20 20 20
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum Cumulative Sum	Dnes nnk Template uplate by oropy s (Forward) s (Reverse)	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 155 200 0 0 0 144 200 19 0 0	0.00 0.00 75.00 100.00 100.00 0.00 70.00 100.00 47.50 0.00 0.00 0.00	% % % % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test (bot Approximate Er Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests	Frequency Test 20	Frequency Test 20 20 20 20 20 20 20 2	Frequency Test 20 20 20
Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Ten Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum Cumulative Sum urand	Dnes nk Template uplate ty) rropy s (Forward) s (Reverse) Total Tests	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 0 15 20 20 20 0 0 14 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 100.00 100.00 100.00 75.00 100.00 70.00 100.00 47.51 0.00 0.00 Rate 38.33	% % % % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test (bot Approximate E Cumulative Sur Urrand	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests 300	Frequency Test 20	Frequency Test 20 20 20 20 20 8 20 19 Runs Test 20 20 20 20 20 20 20 2	Frequency Test 20 20 20
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Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Enf Cumulative Sum Cumulative Sum Universal Test Linear Test Linear Complexi Serial Test (both Test Name Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Coverlapping Tem Universal Test Linear Complexi	Dnes nnk Template uplate by) ropy s (Forward) s (Reverse) Total Tests 300 Test Dnes nk Template uplate	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Failed 185 Passed 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 100.00	% % % % % % % % % % % % % % % % % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Comples Serial Test (both Approximate Ei Cumulative Sur Cumulative Sur urand Test Name Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Comples	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests 300 Test Name Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity	Frequency Test 20	Frequency Test 20 20 20 20 20 20 20 2	Frequency Test 20 20 20 20 20 20 20 2
Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Enf Cumulative Sum Cumulative Sum Universal Test Linear Test Linear Complexi Serial Test (both Test Name Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Coverlapping Tem Universal Test Linear Complexi	Dnes nnk Template uplate by) ropy s (Forward) s (Reverse) Total Tests 300 Test Dnes nk Template uplate	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	Failed 185 Passed 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 100.00	% % % % % % % % % % % % % % % % % % %	Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Comples Serial Test (both Approximate Ei Cumulative Sur Cumulative Sur urand Test Name Frequency Test Block Frequenc Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Comples	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests 300 Test Name Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test	Frequency Test 20	Frequency Test 20 20 20 20 20 20 20 2	Frequency Test 20 20 20 20 20 20 20 2
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Frequency Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Enf Cumulative Sum Cumulative Sum Universal Test Block Frequency Runs Test Longest Run of of Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexi Serial Test (both	Dnes Ink Template Iplate Ity Implate Ity Ity Implate Ity Ity Implate Ity	Number Tested 20 20 20 20 20 20 20 2	Failed 185 Passed 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Rate Rate 0.00 0.00 100.00 100.00 100.00 0.00 100.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 100.00 100.00 0.00 100.00 0.00	% % % % % % % % % % % % % % % % % % %	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test (bot Approximate Ei Cumulative Sur Urand Test Name Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlappin Overlapping Te Universal Test Linear Complex Serial Test Linear Complex Serial Test (bot Approximate Ei	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests 300 Test Name Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both)	Frequency Test 20	Frequency Test 20 20 20 20 30 30 20 20	Frequency Test 20 20 20 20 20 20 20 2
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexi Serial Test (both Approximate Ent Cumulative Sum Cumulative S	Dnes Ink Template Iplate Ity Ity Incorporate Incorpora	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Failed 185 Passed 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Rate 0.00 Rate 0.00	%6%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlapping Overlapping Te Universal Test Linear Comples Serial Test (bot Approximate E: Cumulative Sur Urand Test Name Frequency Test Block Frequency Runs Test Longest Run of Binary Matrix R Spectral Test Non-overlapping Te Universal Test Linear Comples Serial Test (bot Approximate E: Cumulative Sur	Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both) Approximate Entropy Cumulative Sums (Forward) Cumulative Sums (Reverse) urand Total Tests 300 Test Name Frequency Test Block Frequency Test Runs Test Longest Run of Ones Binary Matrix Rank Spectral Test Non-overlapping Template Overlapping Template Universal Test Linear Complexity Serial Test (both)	Frequency Test 20	Frequency Test 20 20 20 30 30 30 20 30 3	Frequency Test 20 20 20 20 20 20 20 2

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LCG I SR N.		Multiplier	Increment	Modulu	ıs
	ımber 31	1103515245		2^31 - 1	
		. 100010240	12040		
Total					
	Total Tests	Passed	Failed	Rate	
	900	894	6		99.33%
Test Name		Number Tested	Passed	Rate	
Frequency Test		60	60		00.00%
Block Frequency	Test	60	60		00.00%
Runs Test		60	58	9	96.67%
Longest Run of O	Ones	60	59	9	98.33%
Binary Matrix Ran	nk	60	59	9	98.33%
Spectral Test		60	60	10	00.00%
Non-overlapping	Template	60	60		00.00%
Overlapping Temp		60	60		00.00%
Universal Test		60	59		98.33%
Linear Complexity	v	60	60		00.00%
	-	120	119		99.17%
Serial Test (both)					_
Approximate Entr		60	60		00.00%
Cumulative Sums		60	60		00.00%
Cumulative Sums	s (Reverse)	60	60	10	00.00%
rand					
	Total Tests	Passed	Failed	Rate	
	300	297	3	9	99.00%
Test Name		Number Tested	Passed	Rate	
Frequency Test		20	20	10	00.00%
Block Frequency	Test	20	20	10	00.00%
Runs Test		20	18		90.00%
Longest Run of O	Ones	20	20		00.00%
Binary Matrix Ran		20	20		00.00%
Spectral Test		20	20		00.00%
Non-overlapping	Template	20	20		00.00%
Overlapping Temp		20	20		00.00%
Universal Test		20	20		00.00%
Linear Complexity	V	20	20		00.00%
Serial Test (both)	-	40	39		97.50%
Approximate Entr		20	20		97.50%
		20	20		00.00%
Cumulative Sums Cumulative Sums		20			
Cumulative Surns	(IVEAGISE)	20	20	10	00.00%
time					
	Total Tests	Passed	Failed	Rate	
					99.33%
	300				
	300	298	2		33.3376
Toet Name	300	298	2	9	33.3370
Test Name	300	298 Number Tested	2 Passed	Rate	
Frequency Test		298 Number Tested 20	Passed 20	Rate	00.00%
Frequency Test Block Frequency		298 Number Tested 20 20	2 Passed 20 20	Rate 10	00.00%
Frequency Test Block Frequency Runs Test	Test	298 Number Tested 20 20 20	20 20 20 20	Rate 10 10 10	00.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O	Test	298 Number Tested 20 20 20 20 20	20 20 20 20 19	Rate 10 10 10 9	00.00% 00.00% 00.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran	Test	298 Number Tested 20 20 20 20 20 20 20	20 20 20 20 19	Rate 10 10 10 9 9	00.00% 00.00% 00.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran	Test	298 Number Tested 20 20 20 20 20	20 20 20 20 19	Rate 10 10 10 9 9	00.00% 00.00% 00.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of O	Test Ones nk	298 Number Tested 20 20 20 20 20 20 20	20 20 20 20 19	Rate 10 10 10 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	00.00% 00.00% 00.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test	Test Ones nk Template	298 Number Tested 20 20 20 20 20 20 20 20 20	20 20 20 20 19 19	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Temp	Test Ones nk Template	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 19 20 20	Rate 100 100 100 99 100 100 100 100 100 100	00.00% 00.00% 00.00% 95.00% 95.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Overlapping Temp Universal Test	Test Ones nk Template	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 19 19 20 20 20 20 20 20 20	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping	Test Dnes nk Template plate	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 19 20 20 20 20	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Tem Universal Test Linear Complexity	Test Dines nk Template plate	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 19 19 20 20 20 20 20 20 20	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Overlapping Temp Universal Test Linear Complexity Serial Test (both) Approximate Entra	Test Ones nk Template plate y	298 Number Tested 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 19 20 20 20 20 40	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 95.00% 95.00% 00.00% 00.00% 00.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Overlapping Temp Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums	Test Ones nk Template plate y ropy s (Forward)	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 19 19 20 20 20 20 20 20 20 20 20	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00% 00.00% 00.00% 00.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Tem Universal Test Linear Complexitly Serial Test (both)	Test Ones nk Template plate y ropy s (Forward)	298 Number Tested 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 19 20 20 20 20 40	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 95.00% 95.00% 00.00% 00.00% 00.00% 00.00% 00.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ran Spectral Test Non-overlapping Overlapping Temp Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums	Test Ones nk Template plate y ropy s (Forward)	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	20 20 20 19 19 20 20 20 20 20 20 20 20 20	Rate 100 100 100 100 100 100 100 100 100 10	00.00% 00.00% 00.00% 95.00% 95.00% 00.00% 00.00% 00.00% 00.00% 00.00%
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		Multiplier	Increment	Modulus
LCG Whole I	Number 64	15750249268501108917	1	2^64 - 1
		15750249268501108917		2 04-1
Total				
	Total Tests	Passed	Failed	Rate
	900			
Test Name		Number Tested	Passed	Rate
Frequency Test		60	0	0.00%
Block Frequency	y Test	60	51	85.00%
Runs Test		60	0	0.00%
Longest Run of C	Ones	60	58	96.67%
Binary Matrix Rar		60		
	AI IE			
Spectral Test		60		
Non-overlapping		60		
Overlapping Tem	nplate	60	13	21.67%
Universal Test		60	59	98.33%
Linear Complexity	itv	60		
	-			
Serial Test (both)		120		
Approximate Entr	tropy	60		
Cumulative Sums	ns (Forward)	60	0	0.00%
Cumulative Sums		60		
				1.20%
rand				
	Total Tests	Passed	Failed	Rate
	300	161	139	53.67%
Test Name		Number Tested	Passed	Rate
Frequency Test		20	0	0.00%
Block Frequency	/ Toet	20		
	y 103t			
Runs Test	_	20		
Longest Run of C		20		
Binary Matrix Rar	ank	20		
Spectral Test		20	20	100.00%
Non-overlapping	Template	20	3	15.00%
Overlapping Tem	nplate	20	6	30.00%
Universal Test		20		
	u.	20		
Linear Complexity	-			
Serial Test (both)		40		
Approximate Entr	tropy	20	0	0.00%
Cumulative Sums	ns (Forward)	20	0	0.00%
Cumulative Sums	ns (Reverse)	20	0	0.00%
time				
	Total Tests	Passed		
				Rato
	300		Failed	Rate
Test Name				
Frequency Test			141	
Block Frequency		159	141 Passed	53.00% Rate
Runs Test	v Test	Number Tested	Passed	53.00% Rate
	y Test	Number Tested	Passed 0	53.00% Rate 0.00% 85.00%
		Number Tested 20 20 20	Passed 0 17 0	53.00% Rate 0.00% 85.00% 0.00%
Longest Run of C	Ones	Number Testec 20 20 20 20	Passed 0 17 0 20	53.00% Rate 0.00% 85.00% 0.00% 100.00%
	Ones	Number Tested 20 20 20	Passed 0 17 0 20	53.00% Rate 0.00% 85.00% 0.00% 100.00%
Longest Run of C	Ones	Number Testec 20 20 20 20	141 Passed 0 17 0 20 20	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00%
Longest Run of C Binary Matrix Rar Spectral Test	Ones ank	Number Testec 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00% 100.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping	Ones ank g Template	Number Tested 20 20 20 20 20 20 20	Passed 0 17 0 20 20 20 20 20	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00% 100.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem	Ones ank g Template	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 17 0 20 20 20 20 3	Fate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 15.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test	Ones ank g Template nplate	Number Testec 20 21 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 0 17 0 20 20 20 20 20 20 20 20 20 20 20 20 2	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity	Ones ank g Template nplate	Number Tested 20 20 21 21 22 22 22 22 22 22 22 22 22 22 22	141 Passed 0 17 0 20 20 20 20 20 20 20 20 20 20 20 20 2	53.00% Rate 0.00% 85.00% 0.00% 100.00% 110.00% 110.00% 110.00% 110.00% 110.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity	Ones ank g Template nplate	Number Testec 20 21 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 20 20 20 20 20 20 20 2	53.00% Rate 0.00% 85.00% 0.00% 100.00% 110.00% 110.00% 110.00% 110.00% 110.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both)	Ones ank g Template enplate ity	Number Tested 20 20 21 21 22 22 22 22 22 22 22 22 22 22 22	141 Passed 0 17 0 20 20 20 20 20 20 20 33 20 20 20 37	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00% 100.00% 100.00% 10.00% 92.50%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr	Ones ank gramplate nplate ity tropy	158 Number Testec 20 20 20 20 20 20 20 20 20 20 40 40	141 Passed 0 17 0 20 20 20 20 20 20 3 20 20 37 0	53.00% Rate 0.00% 85.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums	Ones ank g Template nplate ity i) tropy ss (Forward)	Number Testec 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 20 20 37 0 0 0 0	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums	Ones ank g Template nplate ity i) tropy ss (Forward)	Number Testec 20 20 20 21 20 20 20 20 20 20 40 40 40 20	141 Passed 0 17 0 20 20 20 20 20 20 20 37 0 0 0 0	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums	Ones ank g Template nplate ity i) tropy ss (Forward)	Number Testec 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 20 20 37 0 0 0 0	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums urand	Ones ank g Template nplate lity) tropy ss (Forward) ss (Reverse)	158 Number Testec 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00% 0.00% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums urand	Ones ank g Template nplate ity i) tropy ss (Forward)	Number Testec 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 20 20 37 0 0 0 0	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums urand	Ones ank g Template nplate lity) tropy ss (Forward) ss (Reverse)	158 Number Testec 20 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 3 20 20 0 0 0 Failed	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00% 0.00% Rate
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums urand	Ones ank g Template ity i) tropy ss (Forward) is (Reverse)	158 Number Testec 20 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	141 Passed 0 17 0 20 20 20 20 20 3 20 20 0 0 0 Failed	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00% 0.00% Rate
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit, Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums	Ones ank g Template ity i) tropy ss (Forward) is (Reverse)	Number Testec 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 17 0 20 20 20 20 33 20 20 37 0 0 0 7 Failed	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00% Rate 54.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums Urrand	Ones ank g Template ity i) tropy ss (Forward) is (Reverse)	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 17 0 20 20 20 20 20 20 20 20 6 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 8 8 8	53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00% 0.00% Rate 54.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums urand	Ones ank g Template nplate itity n) tropy ss (Forward) ns (Reverse) Total Tests 300	Number Testec 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 177 0 0 200 200 200 200 200 200 200 200 2	Fate 53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00% 0.00% Rate Fate 0.00%
Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexity Serial Test (both) Approximate Entr Cumulative Sums Cumulative Sums Urrand	Ones ank g Template nplate itity n) tropy ss (Forward) ns (Reverse) Total Tests 300	Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 177 0 0 200 200 200 200 200 200 200 200 2	Fate 53.00% Rate 0.00% 85.00% 100.00% 100.00% 100.00% 100.00% 100.00% 92.50% 0.00% 0.00% Rate 54.00% Rate 0.00%
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LCG LSR 64		Multiplier	Increment	Modu	ulus
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	Total Tests	Passed	Failed	Rate	
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				_	
Test Name		Number Tested		Rate	100 000/
Frequency Test Block Frequency	, Toot	60			100.00%
	riest	60			100.00%
Runs Test	0	60			98.33%
Longest Run of (100.00%
Binary Matrix Ra	ink	60			
Spectral Test		60			100.00%
Non-overlapping		60			98.33%
Overlapping Tem	nplate	60			100.00%
Universal Test		60			98.33%
Linear Complexit	ty	60	58	3	96.67%
Serial Test (both))	120	120)	100.00%
Approximate Ent	tropy	60	59	9	98.33%
Cumulative Sum		60			100.00%
		60			100.00%
Cumulative Sum	is (Reverse)	60	60	,	100.00%
rand					
	Total Tests	Passed	Failed	Rate	
	300	298	2	2	99.33%
Test Name		Number Tested	Passed	Rate	
Frequency Test		20	20)	100.00%
Block Frequency	/ Test	20	20)	100.00%
Runs Test		20	20)	100.00%
Longest Run of 0	Ones	20			100.00%
Binary Matrix Ra		20			100.00%
-	IIIK				
Spectral Test		20			100.00%
Non-overlapping		20			100.00%
Overlapping Tem	nplate	20			100.00%
Universal Test		20			95.00%
Linear Complexit	ty	20	20)	100.00%
Serial Test (both))	40	40)	100.00%
Approximate Ent	tropy	20	19	9	95.00%
Cumulative Sum	s (Forward)	20	20)	100.00%
Cumulative Sum	s (Reverse)	20	20)	100.00%
time				_	
tillio	Total Tests	Passed	Failed	Rate	
	Total Tests				
	200				00 220/
	300	298			99.33%
	300	298	2	2	99.33%
Test Name	300	298 Number Tested	Passed	Rate	
Test Name Frequency Test	300	298	Passed	Rate	100.00%
		298 Number Tested	Passed 20	Rate	
Frequency Test		Number Tested	Passed 20	Rate	100.00%
Frequency Test Block Frequency Runs Test	/ Test	Number Tested 20 20	Passed 20 20 20	Rate	100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of 0	7 Test	298 Number Tested 20 20 20 20 20	Passed 20 20 20 15	Rate	100.00% 100.00% 100.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of O Binary Matrix Ra	7 Test	298 Number Tested 20 20 20 20 20 20 20 20	Passed 20 20 11 12 20 12	Rate	100.00% 100.00% 100.00% 95.00% 100.00%
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Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Ten Universal Test Linear Complexit Serial Test (both) Approximate Ent Cumulative Sum Cumulative Sum Urand Test Name Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem	Test Ones Ink Template Intropy Intropy Is (Forward) Is (Reverse) Total Tests 300 Test Test Ones Ink I Template	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 20 20 20 20 20 20 20 20 20 20 20 20 20	Rate	100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Ter Universal Test Linear Complexit Serial Test (both) Approximate Ent Cumulative Sum Test Name Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Ter Universal Test	Test Ones Ink ITemplate Ity	298 Number Tested 200 200 200 200 200 200 200 200 200 20	Passed 20 20 20 20 20 20 20 20 20 20 20 20 20	Rate	100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Ent Cumulative Sum Cumulative Sum Urand Test Name Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Serial Test (both) Serial Test (both)	Test Ones Ink I Template I Test I	298 Number Tested 200 200 200 200 200 200 200 200 200 20	Passed 20 20 20 20 20 20 20 20 20 20 20 20 20	Rate	100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Ent Cumulative Sum Cumulative Sum Cumulative Sum Test Name Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Non-overlapping Overlapping Tem Universal Test Universal Test Serial Test (both) Approximate Ent	Test Ones Ink Template Inplate Ity Ity Ity Total Tests Total Tests Ones Ink Template Itemplate Itemplate Itemplate Itemplate Itemplate Itemplate Itemplate Itemplate Itemplate Ity Itemplate Ity Itemplate Ity Itemplate	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 22(2) 24(2) 25(2) 26(2)	Rate	100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Ent Cumulative Sum Cumulative Sum Urand Test Name Frequency Test Block Frequency Runs Test Longest Run of 6 Binary Matrix Ra Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both) Serial Test (both) Serial Test (both)	Test Ones Ink Template Intropy Intro	298 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 20 20 20 20 20 20 20 20 20 20 20 20 20	Rate	100.00% 100.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%

LCG Whole				
CG Whole		Multiplier	Increment	Modulus
	Number 128		1	2^128 - 1
		ZEPRAS MAINTENANCE DE L'AUTON		
otal				
	Total Tests	Passed	Failed	Rate
	900	632	268	70.22%
est Name		Number Tested	Passad	Rate
requency Test		60	0	0.00%
Block Frequency	Test	60	59	98.33%
Runs Test		60	0	0.00%
ongest Run of 0	Ones	60	59	98.33%
Binary Matrix Ra	nk	60	59	98.33%
Spectral Test		60	59	98.33%
Non-overlapping		60	50	83.33%
Overlapping Tem Universal Test	nplate	60	57 59	95.00% 98.33%
inear Complexi	h.	60	59	98.33%
Serial Test (both		120	119	
Approximate Ent		60	52	86.67%
Cumulative Sum		60	0	0.00%
Cumulative Sum		60	0	0.00%
and				
	Total Tests	Passed	Failed	Rate
	300	209	91	69.67%
				_
est Name		Number Tested		Rate
requency Test	Toet	20 20	19	0.00% 95.00%
lock Frequency tuns Test	।एठ।	20		95.00%
cuns lest ongest Run of 0	Ones	20	19	95.00%
Binary Matrix Ra		20	20	100.00%
Spectral Test		20		100.00%
Non-overlapping	Template	20	17	85.00%
Overlapping Tem	plate	20	18	90.00%
Jniversal Test		20	20	100.00%
inear Complexi		20	19	95.00%
Serial Test (both		40		100.00%
Approximate Ent		20	17	85.00%
Cumulative Sum		20	0	0.00%
Cumulative Sum	o (iveveise)	20	U	0.00%
ıme				
ime	Total Tests	Passed	Failed	Rate
ime	Total Tests	Passed 210	Failed 90	Rate 70.00%
		210	90	70.00%
est Name		210 Number Tested	90 Passed	70.00% Rate
est Name requency Test	300	210 Number Tested 20	90 Passed 0	70.00% Rate
Fest Name Frequency Test Block Frequency	300	210 Number Tested 20 20	90 Passed 0 20	70.00% Rate 0.00% 100.00%
Fest Name Frequency Test Block Frequency Runs Test	300 Test	210 Number Tested 20 20 20	90 Passed 0 20 0	70.00% Rate 0.00% 100.00% 0.00%
Fest Name Frequency Test Block Frequency Runs Test Longest Run of G	Test Ones	210 Number Tested 20 20	90 Passed 0 20	70.00% Rate 0.00% 100.00%
est Name requency Test lock Frequency tuns Test ongest Run of (inary Matrix Ra	Test Ones	210 Number Tested 20 20 20 20	90 Passed 0 20 0 20	70.00% Rate 0.00% 100.00% 0.00% 100.00%
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rest Name requency Test slock Frequency Runs Test ongest Run of (inary Matrix Ra spectral Test Ion-overlapping	Test Ones Ink Template	210 Number Tested 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 20 19 20 16	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00%
est Name requency Test lock Frequency tuns Test ongest Run of 6 inary Matrix Ra opectral Test lon-overlapping overlapping Ten lniversal Test	300 Test Ones nk Template	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 19 20 16 20 20	70.00% Rate 0.00% 100.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
est Name requency Test lock Frequency tuns Test ongest Run of 0 inary Matrix Ra pectral Test lon-overlapping overlapping Tem Iniversal Test inear Complexi	Test Ones nk Template uplate	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 20 19 20 16 20 20 20	70.00% Rate 0.00% 100.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
est Name requency Test lock Frequency tuns Test ongest Run of 0 inary Matrix Ra pectral Test lon-overlapping tverlapping Terr liniversal Test inear Complexi erial Test (both	Test Ones nk Template uplate	210 Number Tested 20 20 20 20 20 20 20 20 20 20 40 40	Passed 0 20 0 20 19 20 16 20 20 39	70.00% Rate 0.00% 100.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 97.50%
Fest Name Frequency Test Block Frequency Runs Test Longest Run of 0 Sinary Matrix Ra Spectral Test Lon-overlapping Dverlapping Tem Jiniversal Test Linear Complexi Serial Test (both Approximate Ent	Test Does nk Template uplate ty oropy	210 Number Tested 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 20 19 20 16 20 20 39 16	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 80.00% 100.00% 100.00% 97.50% 80.00%
est Name requency Test clock Frequency tuns Test ongest Run of 0 inary Matrix Ra pectral Test ion-overlapping overlapping Ten iniversal Test ierial Test (both, pproximate Enf tumulative Sum	Test Ones nk Template hplate ty) ropy s (Forward)	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00%
Fest Name Frequency Test Block Frequency Runs Test Longest Run of 0 Sinary Matrix Ra Spectral Test Lon-overlapping Dverlapping Ten Jniversal Test Linear Complexi Linear Complexi Linear Lott Linear Lin	Test Ones nk Template hplate ty) ropy s (Forward)	210 Number Tested 20 20 20 20 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00%
Test Name Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Son-overlapping Diverlapping Ter Linear Complexi Serial Test (both Approximate Enf Cumulative Sum Cumulative Sum	Test Ones nk Template hplate ty) ropy s (Forward)	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00%
rest Name requency Test Block Frequency Runs Test Onegest Run of 0 Binary Matrix Ra Spectral Test One-overlapping Overlapping Ter Universal Test Inear Complexi Serial Test (both Opproximate Enf Cumulative Sum	Test Ones nk Template hplate ty) ropy s (Forward)	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00% 100.00% 0.00% 0.00%
Test Name Frequency Test Block Frequency Runs Test Longest Run of (Binary Matrix Ra Spectral Test Son-overlapping Diverlapping Ter Linear Complexi Serial Test (both Approximate Enf Cumulative Sum Cumulative Sum	Test Ones nk Template uplate ty ropy s (Forward) s (Reverse)	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 100.00% 97.50% 80.00% 0.00%
rest Name requency Test Block Frequency Runs Test Onegest Run of 0 Binary Matrix Ra Spectral Test One-overlapping Overlapping Ter Universal Test Inear Complexi Serial Test (both Opproximate Enf Cumulative Sum	Test Does Ink Template Ink Template Incomplate Incomplate	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	90 Passed 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 80.00% 100.00% 100.00% 97.50% 80.00% 0.00% 0.00%
est Name requency Test lock Frequency tuns Test ongest Run of 0 inary Matrix Ra spectral Test lon-overlapping overlapping Ter Iniversal Test inear Complexi erial Test (both pproximate Enf tumulative Sum urand	Test Does Ink Template Ink Template Incomplate Incomplate	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87	70.00% Rate 0.00% 100.00% 100.00% 100.00% 100.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00%
est Name requency Test lock Frequency uns Test onogest Run of of inary Matrix Ra pectral Test on-overlapping reverlapping Terr iniversal Test inear Complexi erial Test (both pproximate Ent umulative Sum umulative Sum rand	Test Does nk Template plate by oropy s (Forward) s (Reverse) Total Tests 300	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed 87	70.00% Rate 0.00% 100.00% 100.00% 95.00% 100.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00% Rate 0.00%
est Name requency Test lock Frequency uns Test onogest Run of of inary Matrix Ra pectral Test on-overlapping verlapping Tem niversal Test inear Complexi erial Test (both umulative Sum umulative Sum rand est Name requency Test lock Frequency	Test Does nk Template plate by oropy s (Forward) s (Reverse) Total Tests 300	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 40 20 20 20 80 20 80 80 80 80 80 80 80 80 80 80 80 80 80	Passed 0 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed 87 Passed 0 20 20	70.00% Rate 0.00% 100.00% 0.00% 100.00% 95.00% 100.00% 100.00% 0.00% 0.00% 77.50% 80.00% 0.00% Rate 71.00% Rate 0.00% 100.00%
rest Name requency Test slock Frequency tuns Test ongest Run of 0 sinary Matrix Ra spectral Test son-overlapping verlapping Ten shriversal Test (both speroximate Ent cumulative Sum sumulative Sum strand requency Test slock Frequency suns Test strand Frequency suns Test	Test Ones nk Template ty ropy s (Feverse) Total Tests 300	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed	70.00% Rate 0.00% 100.00% 100.00% 100.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00% Rate 0.00% 0.00%
rest Name requency Test Block Frequency Runs Test One State Congest Run of 0 Dinary Matrix Ra Spectral Test Converlapping Terr Universal Test Concident Test Congest Run of 0 Dinary Matrix Ra Spectral Test Congest Test Congest Cong	Test Ones nk Template plate ty Total Tests Total Tests Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 Passed 213 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 20 20 20 20 20 20 20 20 20 20 20 20 2	70.00% Rate 0.00% 100.00% 100.00% 100.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00% Rate 0.00% 100.00%
rest Name requency Test Block Frequency Runs Test ongest Run of 0 Sinary Matrix Ra Spectral Test Ion-overlapping Overlapping Ten Jiniversal Test Siniversal Test Gerial Test (both Approximate Ent Cumulative Sum Cumulative Sum Cumulative Sum Cumulative Sum Complexit C	Test Ones nk Template plate ty Total Tests Total Tests Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 20 20 20 20 20 20 20 20 20 20 20 20 2	70.00% Rate 0.00% 100.00% 100.00% 95.00% 100.00% 100.00% 97.50% 80.00% 0.00% 71.00% Rate 71.00% Rate 0.00% 100.00% 100.00% 100.00% 100.00% 100.00%
rest Name requency Test Slock Frequency Runs Test Congest Run of of Sinary Matrix Ra Spectral Test Convertapping Diversal Test Linear Complexi	Test Does nk Template plate by oropy s (Forward) s (Reverse) Total Tests 300 Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed 87 Passed 0 20 0 20 19 19	70.00% Rate 0.00% 100.00% 100.00% 95.00% 80.00% 100.00% 80.00% 0.00% 80.00% 0.00% Rate 71.00% Rate 0.00% 0.00% 0.00% 100.00% 99.50% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
est Name requency Test lock Frequency uns Test ongest Run of 0 inary Matrix Ra pectral Test on-overlapping terial Test (both pproximate Ent unulative Sum unulative Sum trand est Name requency Test lock Frequency uns Test ongest Run of 0 inary Matrix Ra pectral Test on-overlapping	Test Test Dones nk Template ty propy s (Forward) s (Reverse) Total Tests 300 Test Test Test Test Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 30 8 Passed 213 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 0 20 20 19 19 17	70.00% Rate 0.00% 100.00% 100.00% 100.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00% Rate 0.00% 100.00% 100.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00%
Test Name Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Son-overlapping Cumulative Sum Cumulative	Test Test Dones nk Template ty propy s (Forward) s (Reverse) Total Tests 300 Test Test Test Test Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 20 20 20 19 17 19	70.00% Rate 0.00% 100.00% 100.00% 95.00% 80.00% 100.00% 80.00% 0.00% 80.00% 0.00% Rate 71.00% Rate 0.00% 0.00% 0.00% 100.00% 99.50% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
Fest Name Frequency Test Block Frequency Runs Test Block Frequency Runs Test Congest Run of 0 Binary Matrix Ra Spectral Test Ion-overlapping Diverlapping Terr July Test Block Frequency Block Frequency Runs Test Congest Run of 0 Binary Matrix Ra Spectral Test Congest Run of 0 Binary Matrix Ra Spectral Test Con-overlapping Diverlapping Diverla	Test Test Does nk Template ty propy s (Forward) s (Reverse) Total Tests 300 Test Test Test Test Test	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 20 20 19 19 19 19	Rate 0.00% 100.00% 100.00% 100.00% 100.00% 80.00% 100.00% 80.00% 100.00% 80.00% 100.00% 80.00% 100.00% 100.00% 100.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 80.00% 90.00% 80.00% 80.00%
Fest Name Frequency Test Block Frequency Runs Test Oncept Run of of Binary Matrix Ra Spectral Test Oncoverlapping Diverlapping Tem Universal Test Linear Complexi Serial Test (both Cumulative Sum Cumula	Test Does nk Template plate ty Total Tests Total Tests Test Test Test Test Test Test Test Test Template Template Template Template	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 20 19 20 16 20 20 39 16 0 0 Failed 87 Passed 0 20 0 20 19 17 19 19 19	Rate 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 97.50% 80.00% 0.00% 100.00% 100.00% 100.00% 97.50% 80.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%
Fest Name Frequency Test Block Frequency Runs Test Longest Run of 0 Binary Matrix Ra Spectral Test Non-overlapping Dverlapping Tem Jniversal Test (both Approximate Ent Cumulative Sum Limited Test Linear Complexi Binary Matrix Ra Spectral Test Non-overlapping Dverlapping Tem Juniversal Test Longest Run of 0 Binary Matrix Ra Juniversal Test Longest Run of 0 Linear Complexi Linear Linear Complexi Linear Line	Test Ones nk Template ty ty ty to to total Tests 300 Test Template ty ty ty ty ty ty ty ty ty	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 20 0 20 19 20 16 20 20 20 39 16 0 0 Failed 87 Passed 0 20 20 19 17 19 19 20 40	70.00% Rate 0.00% 100.00% 100.00% 95.00% 80.00% 100.00% 97.50% 80.00% 0.00% Rate 71.00% Rate 0.00% 100.00% 95.00% 85.00% 95.00% 96.00%
Fest Name Frequency Test Block Frequency Runs Test Oncopest Run of 0 Binary Matrix Ra Spectral Test Oncoverlapping Ten Universal Test (both Cumulative Sum C	Test Ones nk Template ty ropy s (Forward) s (Reverse) Total Tests 300 Test Test Ones nk Template ty ropy s (Forward)	210 Number Tested 20 20 20 20 20 20 20 20 20 20 20 20 20	Passed 0 0 20 0 19 20 16 20 20 20 39 16 0 0 87 Passed 0 20 20 19 17 19 19 20 40 19	Rate 0.00% 100.00% 100.00% 100.00% 100.00% 80.00% 100.00% 100.00% 97.50% 80.00% 0.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 95.00% 95.00% 100.00%

LCG LSB 12					
LCG LSB 12		Multiplier	Increment	Modu	ılus
LUG LSB 12	•	Manaphor			
	.0	27607963819878198763916464700098	1	2^128 -	- 1
Total		_			
	Total Tests	Passed	Failed	Rate	00 ===:
	900	887	13		98.56%
Test Name		Number Tested		Rate	00.070/
Frequency Test	-	60	58		96.67%
Block Frequency	lest	60	60		100.00%
Runs Test		60	60		100.00%
Longest Run of C		60	60		100.00%
Binary Matrix Rar	nk	60	58		96.67%
Spectral Test		60	60		100.00%
Non-overlapping	Template	60	57		95.00%
Overlapping Tem	plate	60	60		100.00%
Universal Test		60	59		98.33%
Linear Complexit	ty	60	60		100.00%
Serial Test (both)	-	120	117		97.50%
Approximate Entr		60	60		100.00%
Cumulative Sums		60	59		98.33%
Cumulative Sums	s (Reverse)	60	59		98.33%
rand					
	Total Tests	Passed	Failed	Rate	
	300	296	4		98.67%
Test Name		Number Tested	Passed	Rate	
Frequency Test		20	18		90.00%
	Total	20	20		100.00%
Block Frequency	iest				
Runs Test		20	20		100.00%
Longest Run of C		20	20		100.00%
Binary Matrix Ran	nk	20	20		100.00%
Spectral Test		20	20		100.00%
Non-overlapping	Template	20	20		100.00%
Overlapping Tem	plate	20	20		100.00%
Universal Test		20	20		100.00%
Linear Complexit	ty	20	20		100.00%
Serial Test (both)	-	40	40		100.00%
Approximate Entr		20	20		100.00%
Cumulative Sums		20	19		95.00%
Cumulative Sums		20	19		95.00%
5 Game		20	13		
time					
	Total Tests	Passed	Failed	Rate	
	300	296	raileu 4		98.67%
	300	290	4		98.07%
Test Name		Number Tested	Passed	Rate	
Frequency Test		Number Tested	Passed 20		100.00%
	Test				100.00% 100.00%
Frequency Test	Test	20	20		
Frequency Test Block Frequency Runs Test		20 20	20 20		100.00%
Frequency Test Block Frequency Runs Test Longest Run of C	Ones	20 20 20 20	20 20 20 20		100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rar	Ones	20 20 20 20 20	20 20 20 20 20		100.00% 100.00% 100.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Ran Spectral Test	Ones nk	20 20 20 20 20 20 20	20 20 20 20 20 19		100.00% 100.00% 100.00% 95.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Ran Spectral Test Non-overlapping	Ones nk Template	20 20 20 20 20 20 20 20	20 20 20 20 19 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rai Spectral Test Non-overlapping Overlapping Tem	Ones nk Template	20 20 20 20 20 20 20 20 20	20 20 20 20 19 20 19 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test	Ones nk Template iplate	20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 20 19 20 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test	Ones nk Template iplate	20 20 20 20 20 20 20 20 20	20 20 20 20 19 20 19 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rar Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit	Ones nk Template uplate	20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 20 19 20 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Ran Spectral Test Non-overlapping Tem Universal Test Linear Complexit Serial Test (both)	Ones nk Template uplate	20 20 20 20 20 20 20 20 20 20 20	20 20 20 20 19 20 19 20 20 20		100.00% 100.00% 100.00% 95.00% 100.00% 100.00% 100.00%
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Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Ran Spectral Test Non-overlapping Overlapping Tem Universal Test Linear Complexit Serial Test (both) Approximate Entr Cumulative Sums	Ones nk Template plate ry ropy s (Forward)	20 20 20 20 20 20 20 20 20 20 20 40	20 20 20 20 19 20 19 20 20 20 38		100.00% 100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00%
Frequency Test Block Frequency Runs Test Longest Run of C Binary Matrix Rai Spectral Test Non-overlapping Overlapping Tem	Ones nk Template plate ry ropy s (Forward)	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 19 20 19 20 20 20 38 20 20		100.00% 100.00% 100.00% 95.00% 100.00% 95.00% 100.00% 100.00% 100.00% 100.00%
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