



Poker Cards Analysis - July 2020

The Directors

GVC Plc

This is to confirm that iTech Labs has examined the game logs for Poker games for the period **July 01, 2020** to **July 31, 2020** as recorded by the respective game servers and analyzed the Poker cards for statistical randomness. The results of the analysis are given below.

For details on the gaming sites serviced by the GVC Plc game servers and used in this audit refer to the [List](#).

1. Poker hand types statistics

These calculations were done for Royal Flush, Straight Flush, Four of a Kind, Full House, Flush, Straight, 3 of a Kind, 2 pairs, 1 Pair, High Card.

The Poker hand types analysis involved creating subsets of data and conducting Chi-square tests on each subset.

The null hypothesis for the chi-square test is that the observed frequencies of each type of hand matches the theoretical values for a deck that has been shuffled using a perfect random number generator. The p-values observed in these multiple tests are expected to follow a uniform distribution for the range 0.0 to 1.0.

The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Poker hand types statistics tests.

1.1 Poker hand types statistics for 52 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	9	9.19	0.42033
2	9	7.32	0.60361
3	9	7.33	0.60296
4	9	10.33	0.32412
5	9	11.09	0.26964
6	9	4.13	0.90255
7	9	6.17	0.72251
8	9	5.94	0.74587
9	9	6.21	0.71901
10	9	14.20	0.11524
11	9	15.73	0.07276
12	9	8.97	0.44020
13	9	13.74	0.13175
14	9	6.47	0.69232
15	9	21.05	0.01243
16	9	10.16	0.33761
17	9	3.18	0.95655
18	9	3.22	0.95514
19	9	11.94	0.21661
20	9	11.21	0.26127
21	9	5.55	0.78366
22	9	5.75	0.76501
23	9	11.31	0.25518
24	9	5.34	0.80361
25	9	11.45	0.24585

26	9	6.50	0.68882
27	9	12.39	0.19203
28	9	5.24	0.81313
29	9	6.66	0.67227
30	9	12.86	0.16898
31	9	5.24	0.81334
32	9	22.13	0.00849
33	9	11.84	0.22252
34	9	8.98	0.43925
35	9	23.75	0.00472
36	9	4.99	0.83505
37	9	17.77	0.03793
38	9	9.14	0.42422
39	9	5.33	0.80422
40	9	4.93	0.84036
41	9	8.20	0.51416
42	9	5.33	0.80461
43	9	2.04	0.99081
44	9	12.21	0.20176
45	9	7.09	0.62796
46	9	11.15	0.26573
47	9	7.16	0.62033
48	9	7.48	0.58763
49	9	7.51	0.58384
50	9	14.60	0.10254
51	9	5.21	0.81570
52	9	14.53	0.10459
53	9	4.12	0.90315
54	9	10.85	0.28622
55	9	5.51	0.78809
56	9	12.26	0.19879
57	9	6.69	0.66930
58	9	12.50	0.18641
59	9	5.09	0.82623
60	9	8.40	0.49455
61	9	8.32	0.50259
62	9	18.10	0.03406
63	9	4.53	0.87332
64	9	9.43	0.39833
65	9	7.07	0.62988
66	9	6.16	0.72414
67	9	10.69	0.29763
68	9	5.72	0.76752
69	9	7.16	0.62013
70	9	11.12	0.26788
71	9	10.79	0.29028
72	9	6.76	0.66231
73	9	6.21	0.71844
74	9	3.55	0.93820
75	9	6.95	0.64224
76	9	4.40	0.88308
77	9	8.38	0.49653
78	9	6.06	0.73415
79	9	2.93	0.96693
80	9	9.86	0.36163

81	9	20.11	0.01725
82	9	10.48	0.31335
83	9	8.02	0.53221
84	9	12.94	0.16514
85	9	8.50	0.48489
86	9	14.85	0.09511
87	9	10.01	0.34952
88	9	6.85	0.65307
89	9	4.17	0.90005
90	9	24.59	0.00346
91	9	8.73	0.46278
92	9	12.93	0.16570
93	9	7.08	0.62889
94	9	14.42	0.10814
95	9	10.35	0.32323
96	9	10.11	0.34150
97	9	7.04	0.63250
98	9	12.39	0.19224
99	9	8.33	0.50150
100	9	10.69	0.29787
Combined P-value for all tests (Using KS method)			0.96208

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

1.2 Poker hand types statistics for 36 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	9	4.44	0.88032
2	9	1.62	0.99614
3	9	8.35	0.49940
4	9	5.10	0.82567
5	9	10.63	0.30182
6	9	15.32	0.08260
7	9	4.03	0.90915
8	9	6.14	0.72588
9	9	23.23	0.00571
10	9	9.48	0.39425
11	9	21.15	0.01199
12	9	3.81	0.92363
13	9	4.72	0.85761
14	9	11.13	0.26685
15	9	4.76	0.85483
16	9	8.89	0.44756
17	9	9.54	0.38906
18	9	11.63	0.23500
Combined P-value for all tests (Using KS method)			0.33789

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

2. Poker rank statistics

The Poker rank analysis aims to establish that the rank of the cards in each position was equally distributed in one of the 13 possible ranks (2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K, A) for a 52 card deck and 9 ranks (6, 7, 8, 9, 10, J, Q, K, A) for a 36 card deck.

The Poker rank analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Ranks statistics tests.

2.1 Poker rank statistics for 52 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	84	80.57	0.58578
2	7	84	81.56	0.55519
3	7	84	71.51	0.83237
4	7	84	68.08	0.89676
5	7	84	78.13	0.65993
6	7	84	69.08	0.88009
7	7	84	117.07	0.00998
8	7	84	81.38	0.56070
9	7	84	99.43	0.11995
10	7	84	72.67	0.80645
11	7	84	98.13	0.13895
12	7	84	76.13	0.71753
13	7	84	82.75	0.51824
14	7	84	88.55	0.34611
15	7	84	86.30	0.41020
16	7	84	76.41	0.70965
17	7	84	93.83	0.21714
18	7	84	91.89	0.26056
19	7	84	122.38	0.00401
20	7	84	64.25	0.94637
21	7	84	61.38	0.96992
22	7	84	78.36	0.65291
23	7	84	69.30	0.87608
24	7	84	67.33	0.90826
25	7	84	97.51	0.14878
26	7	84	103.70	0.07141
27	7	84	92.56	0.24512
28	7	84	80.34	0.59273
29	7	84	83.14	0.50588
30	7	84	81.03	0.57159
31	7	84	95.89	0.17673
32	7	84	70.27	0.85786
33	7	84	102.12	0.08710
34	7	84	58.32	0.98523
35	7	84	92.09	0.25585
36	7	84	81.05	0.57077
37	7	84	103.21	0.07599
38	7	84	73.87	0.77735
39	7	84	72.60	0.80811
40	7	84	70.46	0.85411
41	7	84	84.19	0.47378
42	7	84	96.42	0.16709
43	7	84	85.44	0.43575

44	7	84	69.53	0.87184
45	7	84	85.90	0.42195
46	7	84	67.91	0.89949
47	7	84	82.79	0.51689
48	7	84	84.18	0.47400
49	7	84	92.87	0.23808
50	7	84	63.92	0.94958
51	7	84	87.12	0.38624
52	7	84	101.11	0.09851
53	7	84	74.85	0.75213
54	7	84	100.73	0.10309
55	7	84	87.49	0.37552
56	7	84	67.13	0.91126
57	7	84	85.61	0.43074
58	7	84	74.36	0.76482
59	7	84	89.92	0.30933
60	7	84	95.49	0.18406
61	7	84	100.60	0.10469
62	7	84	94.44	0.20451
63	7	84	90.92	0.28395
64	7	84	90.64	0.29104
65	7	84	77.08	0.69051
66	7	84	66.86	0.91507
67	7	84	79.34	0.62350
68	7	84	89.19	0.32874
69	7	84	63.03	0.95763
70	7	84	80.51	0.58772
71	7	84	93.03	0.23456
72	7	84	81.24	0.56488
73	7	84	78.82	0.63923
74	7	84	76.86	0.69686
75	7	84	71.07	0.84186
76	7	84	103.41	0.07405
77	7	84	78.46	0.65011
78	7	84	91.96	0.25889
79	7	84	76.81	0.69834
80	7	84	82.36	0.53032
81	7	84	87.04	0.38850
82	7	84	101.83	0.09025
83	7	84	121.21	0.00493
84	7	84	69.35	0.87526
85	7	84	88.65	0.34324
86	7	84	89.22	0.32784
87	7	84	70.27	0.85789
88	7	84	86.14	0.41494
89	7	84	77.87	0.66742
90	7	84	78.61	0.64559
91	7	84	81.04	0.57133
92	7	84	54.44	0.99489
93	7	84	66.13	0.92488
94	7	84	84.06	0.47776
95	7	84	80.92	0.57494
96	7	84	71.34	0.83612
97	7	84	89.20	0.32845
98	7	84	87.56	0.37357

99	7	84	70.53	0.85282
100	7	84	90.78	0.28757
Combined P-value for all tests (Using KS method)				0.81956

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

2.2 Poker rank statistics for 36 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	56	58.52	0.38317
2	7	56	46.80	0.80462
3	7	56	92.01	0.00173
4	7	56	56.31	0.46317
5	7	56	45.86	0.83124
6	7	56	46.62	0.80987
7	7	56	53.20	0.58143
8	7	56	52.44	0.61034
9	7	56	55.66	0.48770
10	7	56	49.39	0.72147
11	7	56	56.28	0.46452
12	7	56	42.79	0.90281
13	7	56	60.91	0.30372
14	7	56	61.35	0.29027
15	7	56	53.11	0.58504
16	7	56	46.08	0.82506
17	7	56	48.26	0.75932
18	7	56	66.57	0.15770
19	7	56	54.86	0.51813
20	7	56	51.23	0.65562
21	7	56	71.59	0.07833
22	7	56	70.86	0.08723
23	7	56	45.13	0.85042
24	7	56	53.36	0.57525
25	7	56	52.18	0.62020
26	7	56	58.45	0.38537
27	7	56	65.12	0.18914
28	7	56	45.37	0.84429
29	7	56	65.54	0.17964
30	7	56	61.98	0.27133
31	7	56	66.94	0.15025
32	7	56	43.88	0.88012
33	7	56	56.15	0.46940
34	7	56	56.74	0.44744
35	7	56	61.74	0.27836
36	7	56	67.79	0.13428
37	7	56	52.52	0.60728
38	7	56	64.82	0.19620
39	7	56	43.01	0.89855
40	7	56	44.28	0.87111
41	7	56	40.49	0.94096
42	7	56	50.03	0.69928
43	7	56	57.66	0.41372
44	7	56	63.28	0.23503
45	7	56	48.13	0.76354

46	7	56	43.85	0.88082
47	7	56	47.15	0.79430
48	7	56	61.12	0.29716
49	7	56	51.56	0.64328
50	7	56	52.23	0.61833
51	7	56	62.53	0.25556
52	7	56	62.75	0.24939
53	7	56	58.07	0.39889
54	7	56	34.49	0.98949
55	7	56	57.79	0.40886
56	7	56	49.24	0.72657
57	7	56	55.38	0.49826
58	7	56	45.84	0.83185
59	7	56	71.59	0.07828
60	7	56	46.82	0.80409
61	7	56	57.51	0.41892
62	7	56	49.36	0.72256
63	7	56	52.19	0.62003
64	7	56	65.65	0.17714
65	7	56	57.83	0.40740
66	7	56	38.99	0.95928
67	7	56	65.28	0.18542
68	7	56	51.64	0.64060
69	7	56	52.75	0.59857
70	7	56	66.10	0.16734
71	7	56	51.50	0.64565
72	7	56	50.76	0.67306
73	7	56	83.48	0.01007
74	7	56	41.15	0.93139
75	7	56	72.34	0.06986
76	7	56	54.57	0.52908
77	7	56	54.89	0.51685
78	7	56	59.22	0.35906
79	7	56	50.55	0.68037
80	7	56	62.70	0.25081
81	7	56	52.41	0.61149
82	7	56	57.59	0.41621
83	7	56	62.79	0.24831
84	7	56	82.72	0.01164
85	7	56	64.09	0.21405
86	7	56	56.78	0.44570
87	7	56	44.44	0.86722
88	7	56	49.83	0.70630
89	7	56	66.74	0.15416
90	7	56	52.16	0.62087
91	7	56	56.47	0.45732
92	7	56	72.88	0.06424
93	7	56	43.63	0.88556
94	7	56	54.14	0.54574
95	7	56	60.31	0.32291
96	7	56	50.35	0.68788
97	7	56	51.21	0.65658
98	7	56	56.76	0.44650
99	7	56	42.72	0.90431
100	7	56	66.21	0.16500

Combined P-value for all tests (Using KS method)	0.80743
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Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

3. Poker suits statistics

The Poker suits analysis aims to verify that that the cards dealt exhibit an equal probability of all 4 suits (Clubs, Diamonds, Hearts and Spades) in all positions.

The Poker suits analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Suits statistics tests.

3.1 Poker suits statistics for 52 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	21	13.75	0.88030
2	7	21	14.61	0.84219
3	7	21	13.82	0.87732
4	7	21	15.16	0.81485
5	7	21	13.83	0.87661
6	7	21	20.20	0.50850
7	7	21	23.42	0.32213
8	7	21	17.52	0.67884
9	7	21	9.15	0.98796
10	7	21	46.33	0.00116
11	7	21	19.63	0.54488
12	7	21	9.58	0.98389
13	7	21	18.75	0.60147
14	7	21	11.98	0.94004
15	7	21	28.44	0.12807
16	7	21	15.66	0.78834
17	7	21	25.77	0.21537
18	7	21	33.00	0.04621
19	7	21	21.80	0.41127
20	7	21	9.86	0.98063
21	7	21	14.95	0.82551
22	7	21	19.68	0.54155
23	7	21	23.54	0.31581
24	7	21	12.89	0.91245
25	7	21	20.80	0.47152
26	7	21	21.90	0.40525
27	7	21	22.66	0.36252
28	7	21	21.11	0.45251
29	7	21	32.47	0.05249
30	7	21	29.55	0.10131
31	7	21	19.16	0.57466
32	7	21	20.68	0.47891
33	7	21	17.28	0.69426
34	7	21	22.76	0.35709
35	7	21	25.53	0.22481
36	7	21	17.12	0.70371
37	7	21	14.78	0.83377
38	7	21	16.71	0.72838
39	7	21	20.87	0.46693

40	7	21	26.13	0.20149
41	7	21	12.14	0.93571
42	7	21	20.32	0.50122
43	7	21	33.30	0.04295
44	7	21	20.26	0.50510
45	7	21	27.56	0.15317
46	7	21	24.58	0.26592
47	7	21	12.06	0.93785
48	7	21	22.86	0.35167
49	7	21	26.65	0.18289
50	7	21	15.48	0.79833
51	7	21	18.37	0.62530
52	7	21	34.39	0.03294
53	7	21	17.43	0.68490
54	7	21	14.80	0.83278
55	7	21	21.56	0.42524
56	7	21	27.82	0.14537
57	7	21	23.75	0.30551
58	7	21	11.82	0.94446
59	7	21	13.98	0.87054
60	7	21	9.73	0.98226
61	7	21	17.81	0.66120
62	7	21	29.70	0.09827
63	7	21	12.52	0.92440
64	7	21	15.41	0.80158
65	7	21	28.90	0.11643
66	7	21	22.98	0.34481
67	7	21	19.40	0.55966
68	7	21	15.24	0.81048
69	7	21	20.29	0.50305
70	7	21	10.12	0.97731
71	7	21	25.99	0.20681
72	7	21	35.28	0.02632
73	7	21	20.62	0.48249
74	7	21	24.49	0.26993
75	7	21	21.29	0.44135
76	7	21	24.73	0.25910
77	7	21	16.22	0.75690
78	7	21	26.72	0.18041
79	7	21	30.93	0.07485
80	7	21	14.34	0.85445
81	7	21	13.91	0.87323
82	7	21	26.84	0.17612
83	7	21	27.76	0.14723
84	7	21	20.04	0.51888
85	7	21	16.35	0.74960
86	7	21	12.48	0.92572
87	7	21	21.05	0.45583
88	7	21	19.58	0.54797
89	7	21	27.79	0.14617
90	7	21	18.54	0.61463
91	7	21	13.44	0.89259
92	7	21	17.35	0.68976
93	7	21	12.62	0.92130
94	7	21	29.96	0.09271

95	7	21	10.35	0.97407
96	7	21	23.80	0.30264
97	7	21	17.65	0.67128
98	7	21	30.91	0.07509
99	7	21	18.02	0.64761
100	7	21	20.84	0.46891
Combined P-value for all tests (Using KS method)				0.39966

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

3.2 Poker suits statistics for 36 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	21	17.20	0.69879
2	7	21	16.57	0.73670
3	7	21	21.24	0.44461
4	7	21	24.71	0.25994
5	7	21	11.67	0.94800
6	7	21	12.41	0.92776
7	7	21	22.15	0.39080
8	7	21	19.50	0.55335
9	7	21	23.19	0.33383
10	7	21	22.94	0.34708
11	7	21	17.88	0.65671
12	7	21	16.59	0.73540
13	7	21	19.28	0.56718
14	7	21	25.88	0.21091
15	7	21	21.23	0.44522
16	7	21	24.67	0.26192
17	7	21	18.61	0.61040
18	7	21	27.48	0.15552
19	7	21	9.73	0.98221
20	7	21	22.86	0.35170
21	7	21	31.98	0.05888
22	7	21	23.63	0.31133
23	7	21	13.34	0.89617
24	7	21	16.65	0.73185
25	7	21	29.50	0.10251
26	7	21	27.40	0.15800
27	7	21	15.41	0.80173
28	7	21	12.37	0.92915
29	7	21	24.93	0.25003
30	7	21	20.53	0.48770
31	7	21	16.27	0.75452
32	7	21	23.22	0.33236
33	7	21	15.61	0.79093
34	7	21	25.14	0.24107
35	7	21	27.25	0.16267
36	7	21	12.76	0.91666
37	7	21	17.48	0.68163
38	7	21	18.23	0.63415
39	7	21	19.83	0.53231
40	7	21	20.79	0.47195
41	7	21	19.18	0.57334

42	7	21	19.40	0.55950
43	7	21	21.56	0.42511
44	7	21	10.10	0.97756
45	7	21	18.62	0.60963
46	7	21	25.68	0.21883
47	7	21	30.05	0.09095
48	7	21	22.19	0.38875
49	7	21	11.10	0.96088
50	7	21	27.07	0.16868
51	7	21	14.25	0.85844
52	7	21	22.03	0.39767
53	7	21	22.43	0.37488
54	7	21	23.79	0.30344
55	7	21	13.44	0.89236
56	7	21	18.49	0.61769
57	7	21	26.71	0.18066
58	7	21	18.71	0.60348
59	7	21	23.52	0.31679
60	7	21	21.25	0.44365
61	7	21	18.90	0.59143
62	7	21	20.72	0.47628
63	7	21	15.21	0.81227
64	7	21	11.63	0.94902
65	7	21	19.60	0.54671
66	7	21	19.54	0.55029
67	7	21	20.36	0.49882
68	7	21	13.90	0.87369
69	7	21	21.06	0.45553
70	7	21	32.16	0.05636
71	7	21	13.21	0.90116
72	7	21	16.78	0.72459
73	7	21	24.91	0.25100
74	7	21	25.72	0.21739
75	7	21	28.85	0.11758
76	7	21	17.84	0.65941
77	7	21	30.70	0.07876
78	7	21	17.45	0.68372
79	7	21	17.01	0.71052
80	7	21	24.16	0.28514
81	7	21	20.04	0.51873
82	7	21	19.00	0.58493
83	7	21	11.38	0.95492
84	7	21	15.52	0.79573
85	7	21	13.84	0.87624
86	7	21	12.76	0.91696
87	7	21	17.04	0.70848
88	7	21	26.52	0.18725
89	7	21	15.21	0.81221
90	7	21	20.89	0.46590
91	7	21	27.72	0.14827
92	7	21	15.76	0.78289
93	7	21	20.19	0.50933
94	7	21	22.08	0.39519
95	7	21	18.29	0.63041
96	7	21	12.94	0.91068

97	7	21	15.40	0.80244
98	7	21	20.48	0.49087
99	7	21	16.73	0.72746
100	7	21	36.52	0.01909
Combined P-value for all tests (Using KS method)				0.46920

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

4. Summary of the analysis

4.1 Summary of the analysis of 52 cards deck:

The analysis of 52 cards completes by combining the result of the KS Test performed in the 3 types of analysis (Hand Types, Ranks and Suits) for 52 card decks using the Holm's method and producing a single Combined P -value.

The combined p-value produced using the Holm's method is used as indication for statistical randomness.

Combination of p-values using Holm's Method		
Test	P-Value	P-Adjusted
Ranks Test	0.81956	1.00000
Suits Test	0.39966	1.00000
Hand Types Test	0.96208	1.00000
Combined P-Value using Holm's Method		1.00000

Notes:

- 1) The combined p-value of all statistical tests using Holm's Method conducted for 52 card decks is greater than the minimum value of 0.05 which indicates that the randomness of the observed data falls within 95% confidence limits.

The final outcome of the analysis of 52 cards deck indicates that the RNG is working correctly.

4.2 Summary of the analysis of 36 cards deck:

The analysis of 36 cards completes by combining the result of the KS Test performed in the 3 types of analysis (Hand Types, Ranks and Suits) for 36 card decks using the Holm's method and producing a single Combined P -value. Where there are insufficient data the individual Chi-Square tests results are used in the Holm's method for producing a combined p-value.

The combined p-value produced from the using the Holm's method is used as indication for statistical randomness.

Combination of p-values using Holm's Method		
Test	P-Value	P-Adjusted
Ranks Test	0.80743	1.00000
Suits Test	0.46920	1.00000
Hands Type Test	0.33789	1.00000
Combined P-Value using Holm's Method		1.00000

Notes:

- 1) The combined p-value of all statistical tests using Holm's Method conducted for 36 card decks is greater than the minimum value of 0.05 which indicates that the randomness of the observed data falls within 95% confidence limits.

The final outcome of the analysis of 36 cards deck indicates that the RNG is working correctly.

5. Conclusion

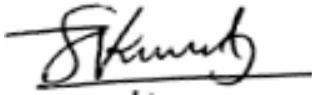
Analysis of actual data from game logs for 'Hand Types', 'Ranks' and 'Suits' for **52-card decks** and **36-card decks** indicated statistical randomness.

iTech Labs has done limited sanity checks to verify the integrity of the game logs. iTech Labs also maintains a copy of the game logs for verification purposes. There were a large enough number of game records to give the calculations sufficient statistical power.

We conclude that the Random Number Generator (RNG) is working correctly.

Please click here to see the [Original](#) report.

Signed:



Kiren Sreekumar
Principal Consultant
iTech Labs Australia
Date: 18 September, 2020

Signed:



Geoff Nicoll
Principal Consultant
iTech Labs Australia
Date: 18 September, 2020

Disclaimer.

While it is not possible to test all possible scenarios in a laboratory environment, iTech Labs has conducted a level of testing appropriate for a component test of this type.

