Test Report

ICR-1745-CN-A

(Reliability Prediction)

Report No : 25R368A0

Report Issue Date : December 15, 2025

Mark. Tai	*Meei Chou*
Approval	**Test Engineer**

Advantech QA Laboratory
台北市內湖區陽光街365巷33號1樓
1F., No.33, Ln. 365, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)
TEL: 886-2-2792-7818 FAX: 886-2-2794-7305
www.advantech.com.tw

ADVANTECH

Report NO.25R368A0

Reliability Prediction

I. Date: **2025/12/15**

II. Model Name: **ICR-1745-CN-A**

III. Revision: **N/A**

IV. Description: **5G NR v1i router with 5GE & IO, CHINA**

V. Equipment: **Windchill Risk and Reliability Calculation Method: Telcordia Issue 4 ; Method I Case 3.**

VI. Prediction Result : GB, GC – Ground Benign, Controlled

.Environment : GB
.Temperature : 30°C
.Quality : Level II
.Stress : 50%
.Failure Rate: 1,550.847075 FITs.
.MTBF : 644,809 hours.

Reliability Prediction

VII. Index: A. Failure Rate & Assembly MTBF
B. Part Failure List

windchill
risk and reliability

Reliability Prediction Summary

File Name: ICR-1745-CN-A.rfp
Assembly: System
Ref Des:
Description:

Failure Rate: 1550.847075
MTBF (hrs): 644,809
Temperature: 30
Environment: GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1652002024	Connection		0.049045	1	0.065268
1652008574-01	Connection		0.177788	1	0.259480
1211007191-01	Inductor		0.199768	1	0.277125
1652000984	Connection		0.049045	1	0.065268
1652008392-01	Connection		0.245225	1	0.326339
1653003101	Connection		0.073567	3	0.262384
1654014673-01	Connection		0.177788	1	0.259480
1654015859-01	Connection		0.177788	1	0.259480
1655006379-01	Connection		0.177788	4	0.872115
1000000153	Resistor		0.066589	1	0.088615
1000000165	Resistor		0.066589	1	0.088615
1000000177	Resistor		0.066589	9	0.663306
1000000432	Resistor		0.066589	1	0.088615
1000000719	Resistor		0.066589	1	0.088615
1000003470	Resistor		0.066589	1	0.088615
1000004532	Resistor		0.117311	1	0.230442
1000004956	Resistor		0.117311	1	0.230442
1000005379	Resistor		0.117311	1	0.230442
1000005697	Resistor		0.117311	1	0.230442
1000006038	Resistor		0.117311	1	0.230442
1000006377	Resistor		0.066589	7	0.522570
1000007666	Resistor		0.117311	1	0.230442
1000008020	Resistor		0.117311	1	0.230442
1000008861	Resistor		0.117311	1	0.230442
1000009084	Resistor		0.066589	1	0.088615
1000009424	Resistor		0.117311	1	0.230442
1000009498	Resistor		0.117311	5	0.838650
1000010247	Resistor		0.117311	1	0.230442
1000011412	Resistor		0.066589	1	0.088615
1000011520	Resistor		0.066589	1	0.088615
1000011785	Resistor		0.117311	1	0.230442
1000011906	Resistor		0.066589	1	0.088615
1000012844	Resistor		0.117311	1	0.230442
1000014044	Resistor		0.117311	1	0.230442
1000016079	Resistor		0.282201	32	10.559458
1059700001	Resistor		0.066589	10	0.733358
105A50330A	Resistor		0.066589	12	0.872975
105A510004	Resistor		0.066589	10	0.733358
105A510014	Resistor		0.066589	11	0.803240
105A510023	Resistor		0.066589	1	0.088615
105A510033	Resistor		0.066589	7	0.522570
105A510034	Resistor		0.066589	2	0.164100
105A516023	Resistor		0.066589	1	0.088615
105A520014	Resistor		0.066589	2	0.164100
105A52003A	Resistor		0.066589	2	0.164100
105A52052A	Resistor		0.066589	1	0.088615

Print Date: 2025/12/15
Print Time: 下午 03:14

windchill
risk and reliability

Reliability Prediction Summary

File Name: ICR-1745-CN-A.rfp
Assembly: System
Ref Des:
Description:

Failure Rate: 1550.847075
MTBF (hrs): 644,809
Temperature: 30
Environment: GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
105A522004	Resistor		0.066589	1	0.088615
105A52491A	Resistor		0.066589	1	0.088615
105A575064	Resistor		0.066589	20	1.427195
105A700004	Resistor		0.117311	37	5.012681
105A700203	Resistor		0.066589	2	0.164100
105A70513A	Resistor		0.066589	1	0.088615
105A710014	Resistor		0.066589	1	0.088615
105A710034	Resistor		0.066589	1	0.088615
105A715004	Resistor		0.066589	3	0.237496
105A747014	Resistor		0.066589	18	1.289121
1100000331	Capacitor		0.094067	4	0.400379
1100000332	Capacitor		0.094067	66	6.306370
1100002118	Capacitor		0.094067	3	0.303082
1100003175	Capacitor		0.094067	3	0.303082
1100004046	Capacitor		0.094067	3	0.303082
1100004125	Capacitor		0.094067	3	0.303082
1100005967	Capacitor		0.094067	3	0.303082
1100006146	Capacitor		0.094067	1	0.106122
1100006362	Capacitor		0.094067	3	0.303082
1100006537	Capacitor		0.094067	20	1.935256
1100006782	Capacitor		0.094067	1	0.106122
1100007214	Capacitor		0.094067	1	0.106122
1100007318	Capacitor		0.094067	37	3.553814
1100008150-01	Capacitor		0.790747	1	1.043865
1100009002	Capacitor		0.094067	1	0.106122
1100009083	Capacitor		0.094067	3	0.303082
1100009289-01	Capacitor		0.790747	2	1.936871
1100009837	Capacitor		0.094067	1	0.106122
1100009922	Capacitor		0.094067	4	0.400379
1100010041	Capacitor		0.094067	1	0.106122
1100010085	Capacitor		0.094067	3	0.303082
1100010087	Capacitor		0.094067	1	0.106122
1100010105	Capacitor		0.094067	2	0.205183
1100010106	Capacitor		0.094067	21	2.030654
1100010107	Capacitor		0.094067	2	0.205183
1100010109	Capacitor		0.094067	5	0.497292
1100010135	Capacitor		0.094067	6	0.593932
1100010278	Capacitor		0.094067	2	0.205183
1100010464	Capacitor		0.094067	20	1.935256
1100010510	Capacitor		0.094067	3	0.303082
1100011091	Capacitor		0.094067	8	0.786635
1100011093	Capacitor		0.094067	1	0.106122
1100011719	Capacitor		0.094067	6	0.593932
1124410091	Capacitor		0.094067	3	0.303082
1124410190	Capacitor		0.094067	20	1.935256
1124420090	Capacitor		0.094067	2	0.205183

Print Date: 2025/12/15
Print Time: 下午 03:14

windchill
risk and reliability

Reliability Prediction Summary

File Name: ICR-1745-CN-A.rfp
Assembly: System
Ref Des:
Description:

Failure Rate: 1550.847075
MTBF (hrs): 644,809
Temperature: 30
Environment: GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1124422091	Capacitor		0.094067	1	0.106122
1124433091	Capacitor		0.094067	8	0.786635
1124510291	Capacitor		0.094067	3	0.303082
1124533191	Capacitor		0.094067	2	0.205183
1211004399	Inductor		0.199768	1	0.277125
1211005880-01	Inductor		0.083237	1	0.161117
1211006134-01	Inductor		0.199768	1	0.277125
1211006898-01	Inductor		0.199768	3	0.731727
1212000069	Inductor		0.091560	6	0.601620
1212004151-01	Inductor		0.083237	1	0.161117
1231004106-01	Miscellaneous		1.900492	2	5.533653
1231004152-01	Miscellaneous		1.900492	1	3.132758
1252001788	Inductor		8.157183	5	57.865434
1300000191	Semiconductor		9.932778	3	38.887420
1300003972	Semiconductor		0.749129	10	9.714961
1300004504-01	Semiconductor		0.749129	1	1.460830
1300005693-01	Semiconductor		1.948353	2	5.052000
1300006374-01	Semiconductor		1.948353	1	2.771587
1300006691-01	Semiconductor		0.749129	4	4.417130
1300007359-01	Semiconductor		1.948353	4	9.415803
1304006057-01	Optical Device		0.106187	2	0.357321
1304006097-01	Optical Device		0.106187	3	0.495651
1310000011-01	Semiconductor		1.352386	1	2.397329
1310005734-01	Semiconductor		1.352386	1	2.397329
1310005817-01	Semiconductor		1.352386	1	2.397329
1310006283-01	Semiconductor		1.352386	1	2.397329
1310006408-01	Semiconductor		1.352386	5	9.069196
1310006826-01	Semiconductor		1.352386	1	2.397329
1410000052	Integrated Circuit		1.440000	1	1.440000
1410012119	Integrated Circuit		0.700000	1	0.700000
1410023537-01	(BY VENDOR)		0.400000	1	0.400000
1410024069-01	(BY VENDOR)		0.900000	1	0.900000
1410025280-01	Integrated Circuit		0.808326	1	1.369449
1410025382-01	(BY VENDOR)		0.500000	1	0.500000
1410025658-01	Integrated Circuit		1.177156	1	2.289240
1410028120-01	Integrated Circuit		2.552282	1	3.761687
1410030157-01	Integrated Circuit		2.067722	1	4.021145
1410031540-01	Integrated Circuit		5.425082	1	7.719758
1410032782-01	(BY VENDOR)		0.200000	3	0.600000
1410033194-01	Integrated Circuit		0.554899	4	3.265670
1410034600-01	Integrated Circuit		5.066438	1	7.229443
1410034975-01	(BY VENDOR MTBF)		1327.386640	1	1327.386640
1600003018-01	Switching Device		5.517557	1	9.210798
1651003842-01	Connection		0.367837	2	1.061215
1653005261	Connection		0.245225	1	0.326339
1653008935-01	Connection		0.196180	3	0.699692

Print Date: 2025/12/15
Print Time: 下午 03:14

windchill
risk and reliability

Reliability Prediction Summary

File Name: ICR-1745-CN-A.rfp
Assembly: System
Ref Des:
Description:

Failure Rate: 1550.847075
MTBF (hrs): 644,809
Temperature: 30
Environment: GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1654002618	Connection		0.177788	4	0.872115

Print Date: 2025/12/15
Print Time: 下午 03:14