

UN 38.3 Test Report

Lithium cell or battery test summary in accordance with
sub-section 38.3 of Manual of Tests and Criteria.

Test Report Number	UN-C41N2504-CAWJ
Customer Name	ASUS
Product Name	LI-ION BATTERY PACK
Model Name	C41N2504
Test specification	ST/SG/AC.10/11/Rev.8
UN38.3 Test Item	T.1, T.2, T.3, T.4, T.5, T.6, T.7, T.8 (Note that T.6 and T.8 are for Cell)
Test sample No	1~38
Test Date	2025/8/18 ~ 2025/9/17
Date of Test Report	2025/9/18
Product Manufacturer & Test Laboratory	Dynapack Electronic Technology (Suzhou) Co., Ltd
Manufacturer & Test Laboratory information	Address: No. 8 Hua-Gang Road, WuJiang Economical and Technological Development Zone, Suzhou city, JiangSu. PRC. Tel: 0086-051263408688 E-mail: Cathy.Xu@dynapack.com.cn ZIP: 215200 Website: http://www.dynapack.com.tw

Description of Battery	
Model Name	C41N2504
Battery Type	Small LI-ION BATTERY PACK
Pack Configuration	4 Series / 1 Parallel
Nominal Voltage	15.6 V
Capacity/Energy	Typical : 4808mAh 75Wh Rated : 4668mAh 73Wh
Mass	0.254 kg
Pack Dimension(mm)	247*76*5.86
Cell Brand	CosMX
Cell model	CA5538B2Q

Performed Tests		Results
UN38.3 T1	Altitude simulation	☒ PASS ☐ FAIL
UN38.3 T2	Thermal test	☒ PASS ☐ FAIL
UN38.3 T3	Vibration	☒ PASS ☐ FAIL
UN38.3 T4	Shock	☒ PASS ☐ FAIL
UN38.3 T5	External short circuit	☒ PASS ☐ FAIL
UN38.3 T6	Crush	☒ PASS ☐ FAIL
UN38.3 T7	Overcharge	☒ PASS ☐ FAIL
UN38.3 T8	Forced discharge	☒ PASS ☐ FAIL
Reference to assembled battery testing requirements:		
☒ Not Applicable ☐ UN38.3.3(f) ☐ UN38.3.3(g)		

Prepared By :

Checked By :

Approved By :



Engineer
Cathy.Xu



Senior Engineer
Sky.Jiang

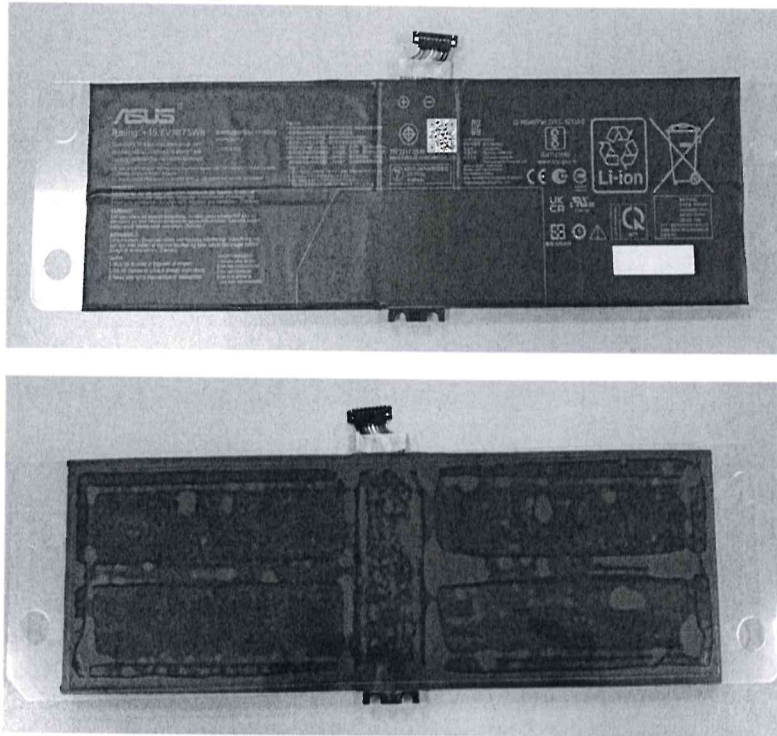

Associate Vice President
Michael.Cheng

1. Test Equipment

Inst. No.	Description	Series No	Function/Range
WJ6014	Learning Machine	D14106-2	20 V / 10 A
WJ6015	Chamber	6609K	-40~150°C
WJ9004	Learning Machine	D20131-7	20V / 15A
WJ9005	Chamber	MEA1504-010	0~100°C, 10%~98%RH
WJ6103	Electronic Scales	0929016	0.2~600g, Accuracy 0.01g
WJ6108	3560 AC mΩMeter	051139050	0~5/50 V / 30mΩ-3kΩ
WJ6105	Vacuum Machine	GS55-221	-76~0cmHg
WJ6189	Thermal shock2	9811K	200°C ~ -80°C
WJ6073	Vibration Machine	D1202031	5~2000Hz Level/5~1500Hz Vertical; Max. acceleration: 100gVertical;
WJ2401	Shock	D2312665	MAX 1600G
WJ6115	Chamber	6514K	0-150°C / 20%RH~98%RH
WJ6104	34970 data recorder	MY44039623	-100~+400°C
WJ4035	Digital Caliper	05565311	0~200mm
WJ2501	Crush	LG4620	0~20KN
WJ8037	34970 data recorder	MY44039446	-100~+400°C
WJ6106	POWER SUPPLY	006103176669002004	0~30V; 0~18A
WJ6107	POWER SUPPLY	006103176670001002	0~30V; 0~18A
WJ7006	34970 data recorder	MY44042480	-100~+400°C
WJ7008	POWER SUPPLY	006103156267001009	0~30V; 0~18A
WJ7009	POWER SUPPLY	006103156273001007	0~30V; 0~18A
WJ6197	DC E-LOAD	002022506570001023	3~120 V / 0~60 A
WJ8001	Digital T-H-Meter	2045240566	0 to+50°C/10 to 95%HR
WJ8002	Digital T-H-Meter	2045240692	0 to+50°C/10 to 95%HR

2. Detail records as below :

2.1 Photograph



Rating: +15.6V $\equiv$ 75Wh

Questions? Please visit www.asus.com

Rechargeable Li-Polymer Battery Pack

Capacity: 4808mAh(Typical) / 4668mAh(Rated)

MODEL(型號/型号): C41N2504

4ICP6/38/113

二次鋰電池組

鋰離子電池組

額定容量: 4668mAh

充電限制電壓: 18V $\equiv$

標稱電壓: 15.6V $\equiv$

額定能量: 73Wh

2.2 Test Data:

2.2.1 T.1 Altitude

Sample No.	Sample	OCV(V)	OCV(V)	Voltage Residual (%)	Mass(g)	Mass(g)	Mass Loss (%)	Result
	Status	Before	After		Before	After		
1	1CYC , Fully charge	17.804	17.792	99.93%	253.26	253.27	0.00%	PASS
2	1CYC , Fully charge	17.827	17.813	99.92%	251.35	251.36	0.00%	PASS
3	1CYC , Fully charge	17.807	17.793	99.92%	251.53	251.54	0.00%	PASS
4	1CYC , Fully charge	17.822	17.806	99.91%	251.15	251.20	0.00%	PASS
5	25CYC , Fully charge	17.827	17.815	99.93%	251.40	251.38	0.01%	PASS
6	25CYC , Fully charge	17.829	17.815	99.92%	253.70	253.66	0.02%	PASS
7	25CYC , Fully charge	17.805	17.793	99.93%	251.21	251.22	0.00%	PASS
8	25CYC , Fully charge	17.831	17.817	99.92%	254.00	254.05	0.00%	PASS
Temperature, °C		23.7			Humidity, %RH		49.5	

Criteria:

*Batteries meet requirement regard mass loss was less than (0.5% , $M < 1g$; 0.2%, $1g \leq M \leq 75g$; 0.1%, $M > 75g$) and voltage after testing is not less than 90% of its voltage immediately prior to this procedure.

*No leakage, No venting, No disassembly, No rupture and no fire.

2.2.2 T.2 Thermal shock

Sample No.	Sample	OCV(V)	OCV(V)	Voltage Residual (%)	Mass(g)	Mass(g)	Mass Loss (%)	Result
	Status	Before	After		Before	After		
1	1CYC , Fully charge	17.792	17.429	97.96%	253.27	253.23	0.02%	PASS
2	1CYC , Fully charge	17.813	17.464	98.04%	251.36	251.40	0.00%	PASS
3	1CYC , Fully charge	17.793	17.428	97.95%	251.54	251.55	0.00%	PASS
4	1CYC , Fully charge	17.806	17.450	98.00%	251.20	251.21	0.00%	PASS
5	25CYC , Fully charge	17.815	17.453	97.97%	251.38	251.40	0.00%	PASS
6	25CYC , Fully charge	17.815	17.457	97.99%	253.66	253.62	0.02%	PASS
7	25CYC , Fully charge	17.793	17.442	98.03%	251.22	251.19	0.01%	PASS
8	25CYC , Fully charge	17.817	17.452	97.95%	254.05	254.06	0.00%	PASS
Temperature, °C		23.5			Humidity, %RH		50.3	

Criteria:

*Batteries meet requirement regard mass loss was less than (0.5% , $M < 1g$; 0.2%, $1g \leq M \leq 75g$; 0.1%, $M > 75g$) and voltage after testing is not less than 90% of its voltage immediately prior to this procedure.

*No leakage, No venting, No disassembly, No rupture and no fire.

2.2.3 T.3 Vibration

Sample No.	Sample	OCV(V)	OCV(V)	Voltage Residual (%)	Mass(g)	Mass(g)	Mass Loss (%)	Result
	Status	Before	After		Before	After		
1	1CYC , Fully charge	17.429	17.389	99.77%	253.23	253.28	0.00%	PASS
2	1CYC , Fully charge	17.464	17.420	99.75%	251.40	251.37	0.01%	PASS
3	1CYC , Fully charge	17.428	17.384	99.75%	251.55	251.59	0.00%	PASS
4	1CYC , Fully charge	17.450	17.420	99.83%	251.21	251.17	0.02%	PASS
5	25CYC , Fully charge	17.453	17.425	99.84%	251.40	251.43	0.00%	PASS
6	25CYC , Fully charge	17.457	17.426	99.82%	253.62	253.63	0.00%	PASS
7	25CYC , Fully charge	17.442	17.407	99.80%	251.19	251.19	0.00%	PASS
8	25CYC , Fully charge	17.452	17.412	99.77%	254.06	254.09	0.00%	PASS
Temperature, °C		23.8			Humidity, %RH		50.0	

Criteria:

*Batteries meet requirement regard mass loss was less than (0.5% , $M < 1g$; 0.2%, $1g \leq M \leq 75g$; 0.1%, $M > 75g$) and voltage after testing is not less than 90% of its voltage immediately prior to this procedure.

*No leakage, No venting, No disassembly, No rupture and no fire.

2.2.4 T.4 shock

Sample No.	Sample	OCV(V)	OCV(V)	Voltage Residual (%)	Mass(g)	Mass(g)	Mass Loss (%)	Result
	Status	Before	After		Before	After		
1	1CYC , Fully charge	17.389	17.354	99.80%	253.28	253.24	0.02%	PASS
2	1CYC , Fully charge	17.420	17.382	99.78%	251.37	251.35	0.01%	PASS
3	1CYC , Fully charge	17.384	17.351	99.81%	251.59	251.57	0.01%	PASS
4	1CYC , Fully charge	17.420	17.380	99.77%	251.17	251.16	0.00%	PASS
5	25CYC , Fully charge	17.425	17.388	99.79%	251.43	251.38	0.02%	PASS
6	25CYC , Fully charge	17.426	17.389	99.79%	253.63	253.63	0.00%	PASS
7	25CYC , Fully charge	17.407	17.369	99.78%	251.19	251.24	0.00%	PASS
8	25CYC , Fully charge	17.412	17.377	99.80%	254.09	254.09	0.00%	PASS
Temperature, °C		23.4			Humidity, %RH		49.3	

Criteria:

*Batteries meet requirement regard mass loss was less than (0.5% , $M < 1g$; 0.2%, $1g \leq M \leq 75g$; 0.1%, $M > 75g$) and voltage after testing is not less than 90% of its voltage immediately prior to this procedure.

*No leakage, No venting, No disassembly, No rupture and no fire.

2.2.5 T.5 External Short circuit

Sample NO.	Sample Status	Max Battery Temperature(°C)	Result
1	1CYC , Fully charge	57.31	PASS
2	1CYC , Fully charge	57.51	PASS
3	1CYC , Fully charge	56.91	PASS
4	1CYC , Fully charge	57.05	PASS
5	25CYC , Fully charge	56.88	PASS
6	25CYC , Fully charge	57.11	PASS
7	25CYC , Fully charge	56.91	PASS
8	25CYC , Fully charge	56.71	PASS
Temperature, °C		23.2	Humidity, %RH
			49.6

Criteria:

- *All Batteries can meet requirement subjected external temperature does not exceed170 °C.
- *All Batteries no disassembly, no rupture and no fire during the test and within six hours of this test.

2.2.6 T.6 Crush

Sample NO.	Sample Status	Max Cell Temperature (°C)	Result
9	1CYC,50% Capacity	23.67	PASS
10	1CYC,50% Capacity	23.60	PASS
11	1CYC,50% Capacity	23.60	PASS
12	1CYC,50% Capacity	23.55	PASS
13	1CYC,50% Capacity	23.62	PASS
14	25CYC,50% Capacity	23.55	PASS
15	25CYC,50% Capacity	23.60	PASS
16	25CYC,50% Capacity	23.67	PASS
17	25CYC,50% Capacity	23.55	PASS
18	25CYC,50% Capacity	23.68	PASS
Temperature, °C		23.7	Humidity, %RH
			50.4

Criteria:

- *All cells can meet requirement subjected external temperature does not exceed 170°C.
- *All cells no disassembly and no fire during the test and within six hours of this test.

2.2.7 T.7 Over Charge

Sample NO.	Sample Status	Result
1	1CYC, Fully charge	PASS
2	1CYC, Fully charge	PASS
3	1CYC, Fully charge	PASS
4	1CYC, Fully charge	PASS
5	25CYC, Fully charge	PASS
6	25CYC, Fully charge	PASS
7	25CYC, Fully charge	PASS
8	25CYC, Fully charge	PASS
Temperature, °C		23.2
Humidity, %RH		49.3

Criteria:

*All batteries can meet no disassembly and no fire during the test and within seven days after the test.

2.2.8 T.8 Forced Discharge

Sample NO.	Sample Status	Result	Sample NO.	Sample Status	Result
19	1CYC, Fully discharge	PASS	29	25CYC, Fully discharge	PASS
20	1CYC, Fully discharge	PASS	30	25CYC, Fully discharge	PASS
21	1CYC, Fully discharge	PASS	31	25CYC, Fully discharge	PASS
22	1CYC, Fully discharge	PASS	32	25CYC, Fully discharge	PASS
23	1CYC, Fully discharge	PASS	33	25CYC, Fully discharge	PASS
24	1CYC, Fully discharge	PASS	34	25CYC, Fully discharge	PASS
25	1CYC, Fully discharge	PASS	35	25CYC, Fully discharge	PASS
26	1CYC, Fully discharge	PASS	36	25CYC, Fully discharge	PASS
27	1CYC, Fully discharge	PASS	37	25CYC, Fully discharge	PASS
28	1CYC, Fully discharge	PASS	38	25CYC, Fully discharge	PASS
Temperature, °C		23.5	Humidity, %RH		48.8

Criteria:

*All cells no disassembly and no fire during the test and within seven days after the test.

--- End of Test report ---