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| Spec. No. | INR21700-40T | Version No. | Draft |
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Specification of Product

- 1. Customer : WPG CHINA INC
- 2. Product : Lithium-ion Rechargeable Cell
- 3. SDI Model : INR21700-40T

4. Approved by

| | | | |
|-----------|-----|-----|-----|
| Division | | | |
| Signature | | | |
| Date | / / | / / | / / |

5. Date of Application (YY/MM/DD) : TBD

6. Supplier : **SAMSUNG SDI Co., Ltd.**
Battery Business Division

| Issued | Checked | Approved |
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1.0. Scope

This product specification has been prepared to specify the rechargeable lithium-ion cell ('cell') to be supplied to Customer by Samsung SDI Co., Ltd.

2.0. Description and model

- 2.1 Description lithium-ion rechargeable cell
- 2.2 Model name INR21700-40T
- 2.3 Site Manufactured in Korea, China, Malaysia

3.0. Nominal specifications (*1)

| Item | Specification |
|---------------------------------|---|
| 3.1 Standard discharge capacity | Min. 4,000mAh - Charge: 0.5C(2A), 4.20V, 0.05C(200mA) cut-off @ RT - Discharge: 0.2C(800mA), 2.5V cut-off @ RT |
| 3.2 Rated discharge capacity | Min. 3,900 mAh - Charge:1.5C(6A), 4.20V, 0.025C(100mA)cut-off @RT - Discharge: 10A, 2.5V cut-off @ RT |
| 3.3 Nominal voltage | 3.6V |
| 3.4 Standard charge | CCCV, 2A, 4.20 V, 200mA cut-off |
| 3.5 Rated charge | CCCV, 6A, 4.20 V, 100mA cut-off |
| 3.6 Charging time | Standard charge : 180min / 200mA cut-off(@ RT) Rated charge: 70min / 100mA cut-off(@ RT) |
| 3.7 Max. continuous discharge | 35A |
| 3.8 Discharge cut-off voltage | 2.5V (End of discharge) |
| 3.9 Cycle life | Capacity ≥ 2,400mAh @ after 250cycles (60% of the standard capacity @ RT) - Charge : 6A, 4.20V, CCCV 100mA cut-off @ RT - Discharge: 35A , 2.5V cut-off @ RT |
| 3.10 Retention characteristics | Capacity recovery(after the storage) ≥ 3,510 mAh (90% of the rated capacity @ RT) - Charge : 6A, 4.20V, CCCV 100mA cut-off @ RT - Storage : 30 days (@ 60℃) - Discharge : 10A , 2.5V cut-off @ RT |
| 3.11 Cell weight | 70.0g max |
| 3.12 Cell dimension | Height : Max 70.30mm Diameter : Max 21.22mm |

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| 3.13 Operating temperature ^(*2) (Surface) | Charge : 0 to 50°C (recommended recharge release < 45°C) Discharge: -20 to 80°C (must re-discharge release < 60°C) |
| 3.14 Storage temperature ^(*3) (Recovery 80% after storage) | 1 year 0~25°C 3 months 0~45°C 1 month 0~60°C |

Note (*1): Protection function of the battery pack should be set within the specified charge, discharge and temperature range in the Cell Specification.

Note (*2): Discharge OTP(over temp. protection) should not be over 80°C of the cell surface temperature. Protection set should be based on the location of the cell surface with the highest temp increase part of the battery pack.

Note (*3): If the cell is kept as ex-factory status (30% of charge), the capacity recovery rate is more than 80%.

WPG CHINA INC Tentative

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4.0 Outline dimensions

See the attachment (Fig. 1)

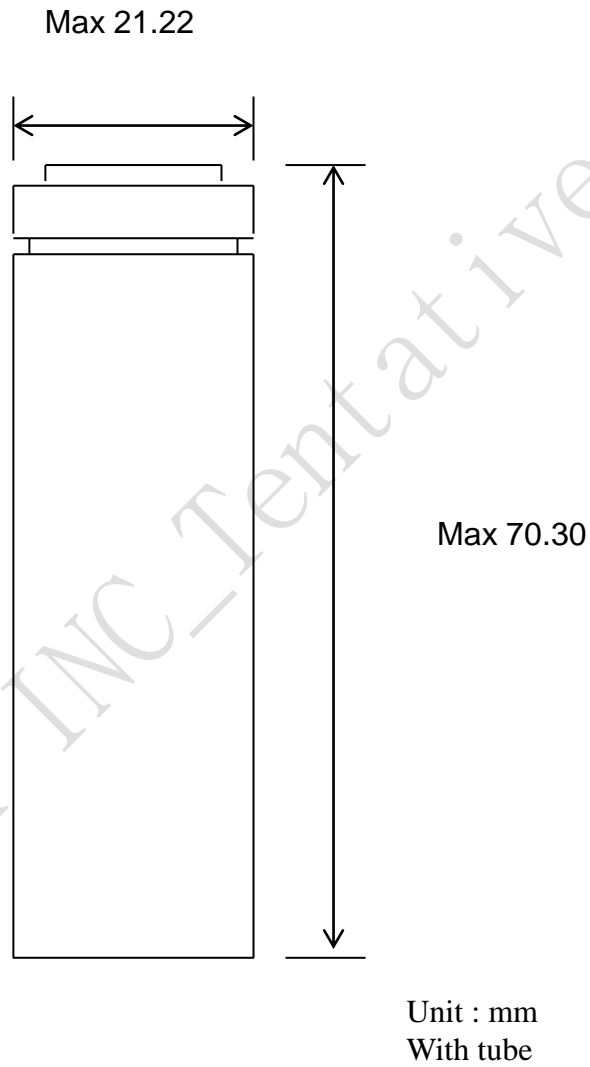


Fig.1. Outline dimensions of INR21700-40T