



B421 4-Cell Ni-MH PPB Specification
GP version

1 Scope:

This is a Ni-MH battery charger and power bank with 2 channels.

If no other specified on the test condition, all of the data specified are at room temperature - 23°C, voltage and current are tested at the point of the input and the batteries contact plates

2 Rated input voltage/current: DC 5.0V/1.0A min.

3 Rated charging current (average current at DC 5.0V 1.0A min., @ Battery voltage as 2*1.4V)

AA size: 400mA+/-10%

AAA size: 320mA+/-10%

4 Charge time: (input DC 5.0V 1.0A min.)

2000mAh AA battery, About 360 min.

800mAh AAA battery, About 180 min.

5 Trickle charge current (input DC 5.0V)

AA/AAA size: about 50mA.

6 Application: can charge 2/4 pcs Ni-MH AA/AAA batteries

7 Indication (2pcs green color LED):

| Condition | LED Indication |
|--|--------------------------------------|
| | Green |
| No battery inserted | OFF |
| Power on | Four LEDs ON for 0.5s & then all OFF |
| Charging in progress | LED flashes at 0.5 Hz |
| Charging is finished and into trickle charge | ON |
| Bad/ Primary battery inserted | Flashes at 3.3 Hz |



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8 Battery leakage current: 100uA max.

9 Termination mode

9.1 Safety timer: 8hr. +/-10%

9.2 -dv

10 Protection

Reverse polarity protection

Primary battery protection

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11 ENVIRONMENTAL COMPLIANCE

11.1 Operating temperature range : 0-35 degC

11.2 Storage temperature range : -25-60 degC

11.3 ROHS/REACH compliance

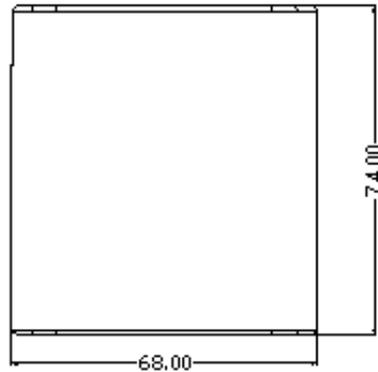
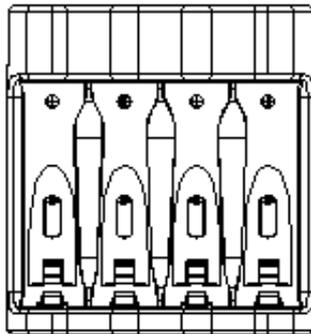
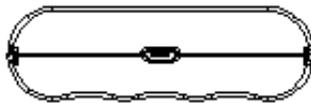
12 SAFETY & EMC COMPLIANCE

12.1 Electrostatic Discharge : IEC61000-4-2

12.2 Radiation Emission & Immunity : EN55022/55024

12.3 FCC: 4 CFR Part 2 and Part 15 Class B

13 Outline dimension



Unit: mm;
Tolerance: ± 0.4 ;

Outline



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14 MECHANICAL CHARACTERISTICS

- 14.1 Drop resistance : No visibly damaged at 1m & 6 times, on concrete floor. No defects that would impair normal operations.
- 14.2 Assembly test with charging station: Durability for insertion and withdrawal : 1000 cycles, cycle rate of 360 cycles per hour. No visibly damaged, No defects that would impair normal operations.
- 14.3 Protection from reverse insertion of battery : No positive terminal electrical contact
- 14.4 Pull force with inserted GP 2600mAH NiMH battery <15N
- 14.5 Compressed strength with inserted GP 1300mAH NiMH battery : No dropping of when the unit having battery facing the floor without Battery Cover.
- 14.6 USB Connectors
 - 14.6.1 Durability for insertion and withdrawal : 1000 cycles, cycle rate of 500 cycles per hour if using auto tester, 200 cycles per hour if manual
 - 14.6.2 No visibly damaged, No defects that would impair normal operations
 - 14.6.3 Meet the insertion & withdrawal force requirement after 1000 cycles at a maximum rate of 12.5mm/min. (refer to USB requirements)
 - 14.6.3.1 MicroB insertion force < 35N
 - 14.6.3.2 MicroB withdrawal force > 8N
 - 14.6.4 Good visible alignment
- 14.7 Cosmetic & Graphics : Detail requirement defined by ID Design Team
 - 14.7.1 No visible scratch & dirt & flashes & chromatic aberration on surface.
 - 14.7.2 Assembly gap of all mating parts : no movable gap
 - 14.7.3 Graphic & printing robustness & endurance : refer GP - PQ