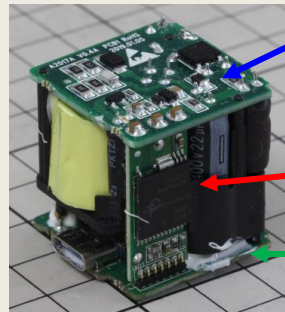


ANKER (POWER PORT ATOM PD1) AC ADAPTER CIRCUIT ANALYSIS REPORT



Product outline

L x W x H=
37.7x 34.9x 41
(unit: mm)



After remove the case

PCB1
(AC Input)

PCB3
(Controller)

PCB2
(USB PD Interface)

Product outline

- Small size AC adapter developed by Anker Innovation Limited, sold on Feb 19th, 2019.
- Adopt next-generation power semiconductor material "GaN" material for USB quick charger instead of silicon semiconductor
- Approximately 40% smaller than the genuine battery charger attached to the laptop PC, compact size of 4 cm square
- Full-speed charging is possible for almost all USB-C compatible devices
- Approximately the same size as a 5W output charger, but it can be charged at 2.5 times the speed

The report includes:

- The product consists of three PCBs (PCB1: AC input, PCB2: Controller, PCB3: USB PD interface)
- 37 pages report includes each PCB layout patterns, component list, function block and component level schematic.
- The filter capacitor and the smoothing capacitor for Rectifier are commonly used.
- The offline converter IC uses SC1933C from Power Integrations. GaN FET and low Ron MOSFET are used as power devices, and a chip that performs various primary side control is built in. The primary side and the secondary side are insulated by a transformer that uses a lead frame called FLUXLINK instead of the photocoupler.

Note: The structure analysis report of GaN power device which is equipped in this product is also available.

Note: The report price may change over time. For current price contact info@ltecusa.com.

19G-0008-1

Table of Contents

	Page
<u>Summary</u>	
Table 1. Product outline	3
<u>PCB abstract</u>	
Table 2. Summary of each PCBs	5
<u>Analysis details</u>	
1. Product outline	7
2. Product label	8
3. Product teardown	9
4. PCB overview	11
5. Xray	14
6. PCB after remove the components	17
7. Each layer layout pattern of each PCBs	20
8. Components position	23
Table 3. Component list	26
9. Component details	26
10. Connector details	28
11. Sensor	32
12. Function block diagram	33
13. Component level schematic	34
14. Component list	35

