

## MOLDING POWER INDUCTOR.

### Features:

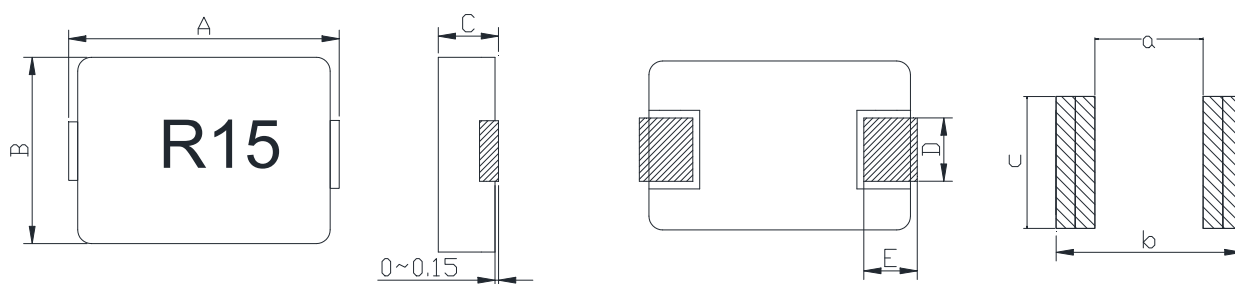
- Low profile and low DCR.
- Shielded construction.
- handles high transient current spikes without saturati
- frequency up to 3MHz
- Ultra Low buzz noise, due to composite construction
- 100% lead (Pb) free meet RoHS standard

### Applications

- PDA/Notebook/Desktop, and server applications.
- low profile,high current power supplies.
- Battery powered devices.
- DC/DC converters.



### Product Dimensions [unit: inch/ mm]:



### Product Dimensions

| A     | B     | C    | D     | E     | a    | b     | c    |
|-------|-------|------|-------|-------|------|-------|------|
| 12.80 | 7.80  | 4.20 | 3.50  | 2.50  | 6.00 | 14.50 | 5.00 |
| ±0.40 | ±0.40 | MAX  | ±0.50 | ±0.50 | TYP  | TYP   | TYP  |

**PART NUMBERING SYSTEM:**

| <u>SMIS</u> | <u>130804</u> | <u>XXXX</u> | <u>XXXX</u> |
|-------------|---------------|-------------|-------------|
| 1           | 2             | 3           | 4           |

1.SERIES NAME

2.DIMENSIONS

3.INDUCTANCE

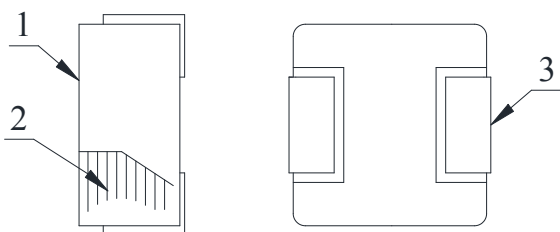
4.TOLERANCE CODE: J:±5% K:±10% L:±15% M:±20% P:±25% N:±30%

**Test instruments :**

L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.

DCR tested by Milli-ohm meter.

**MATERIAL LIST:**



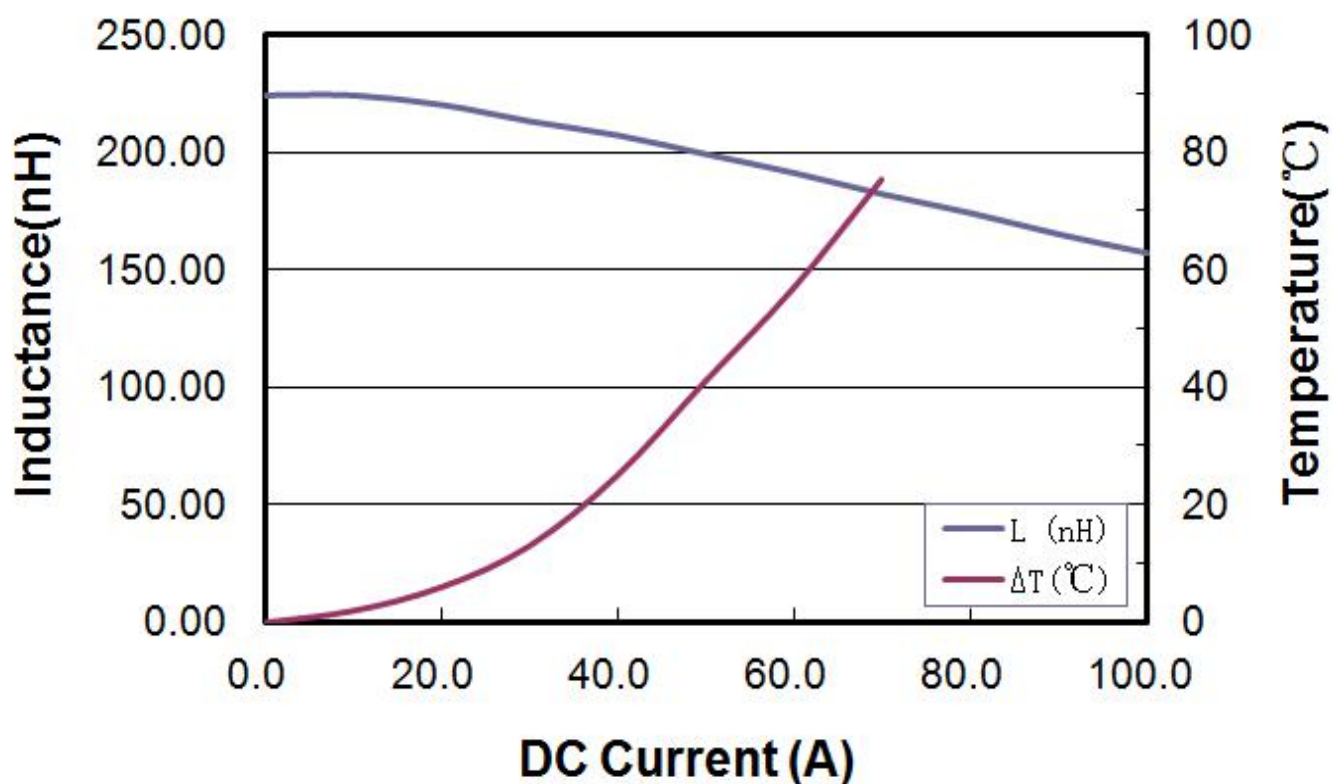
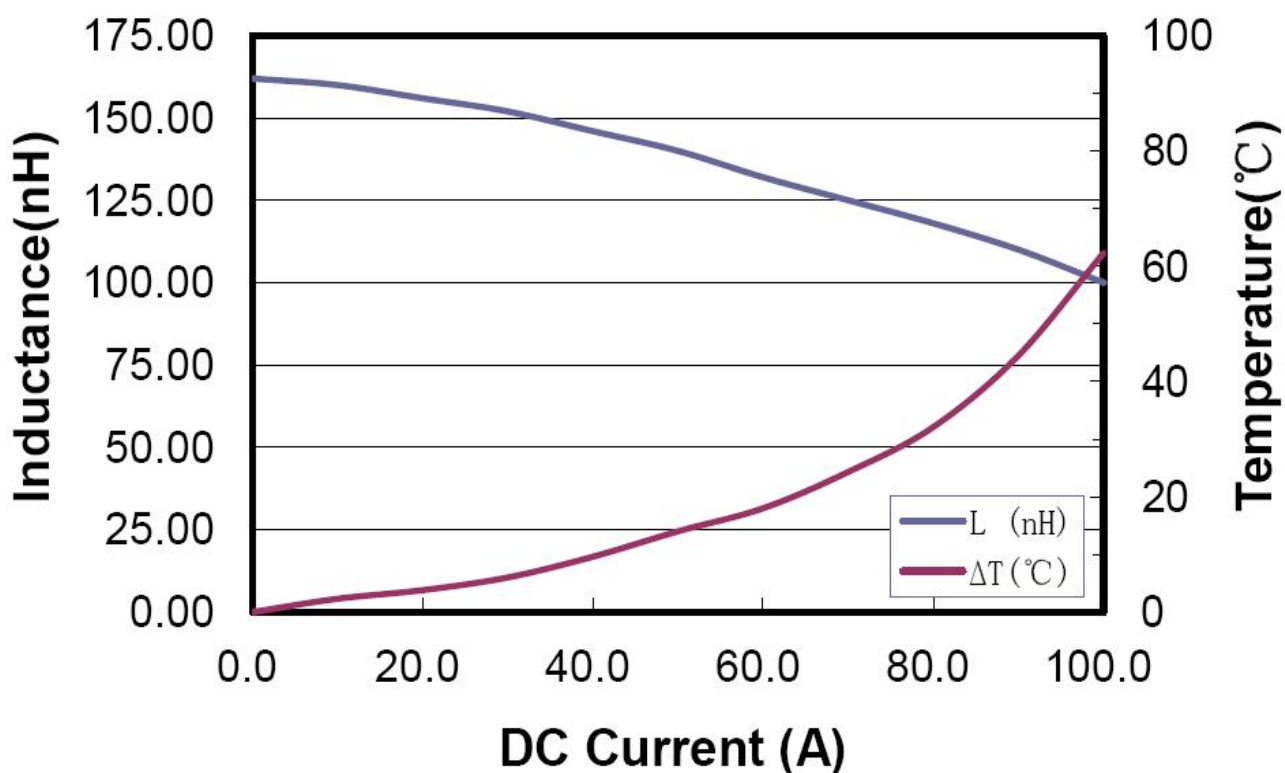
| No                            | Part | Material        |
|-------------------------------|------|-----------------|
| 1                             | CORE | Carbonyl powder |
| 2                             | WIRE | Copper wire     |
| 3                             | BASE | copper          |
| Surface spray paint treatment |      |                 |

**Electrical characteristics for MP1B130840 series:**

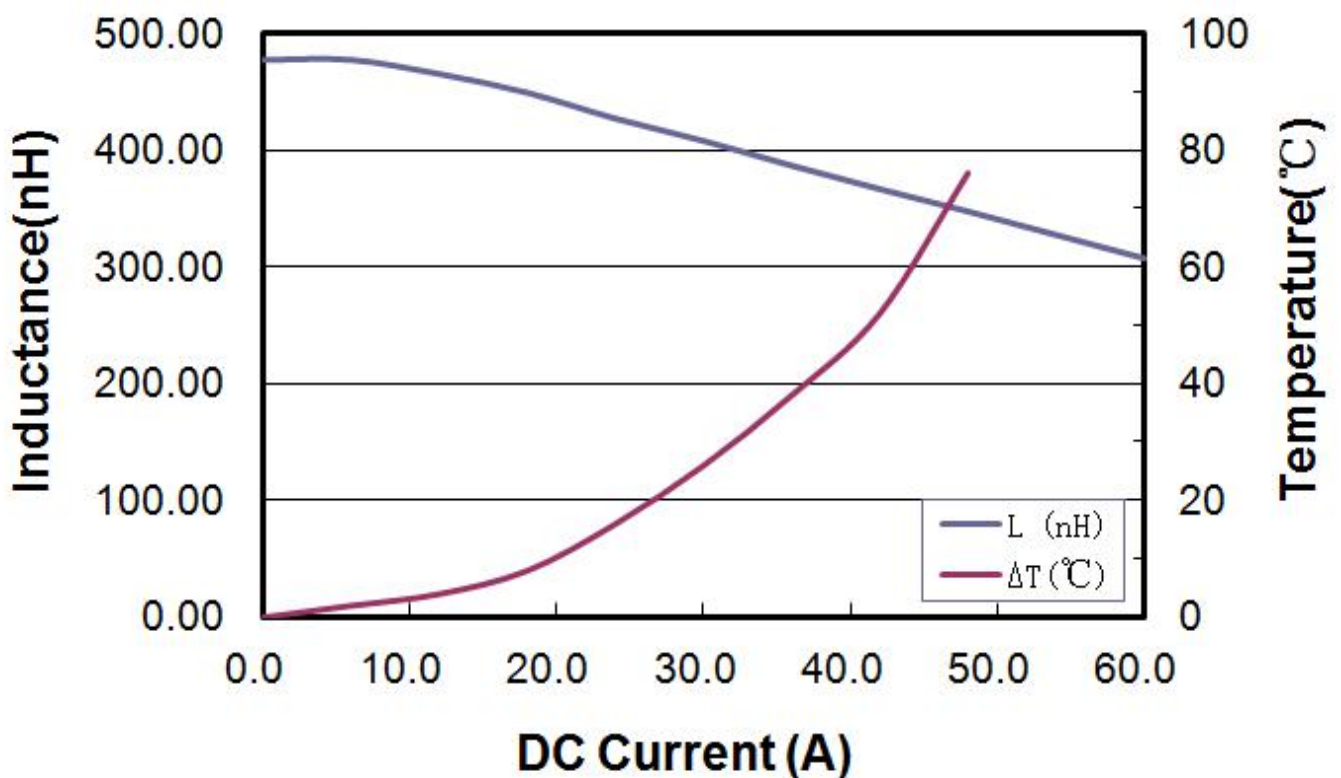
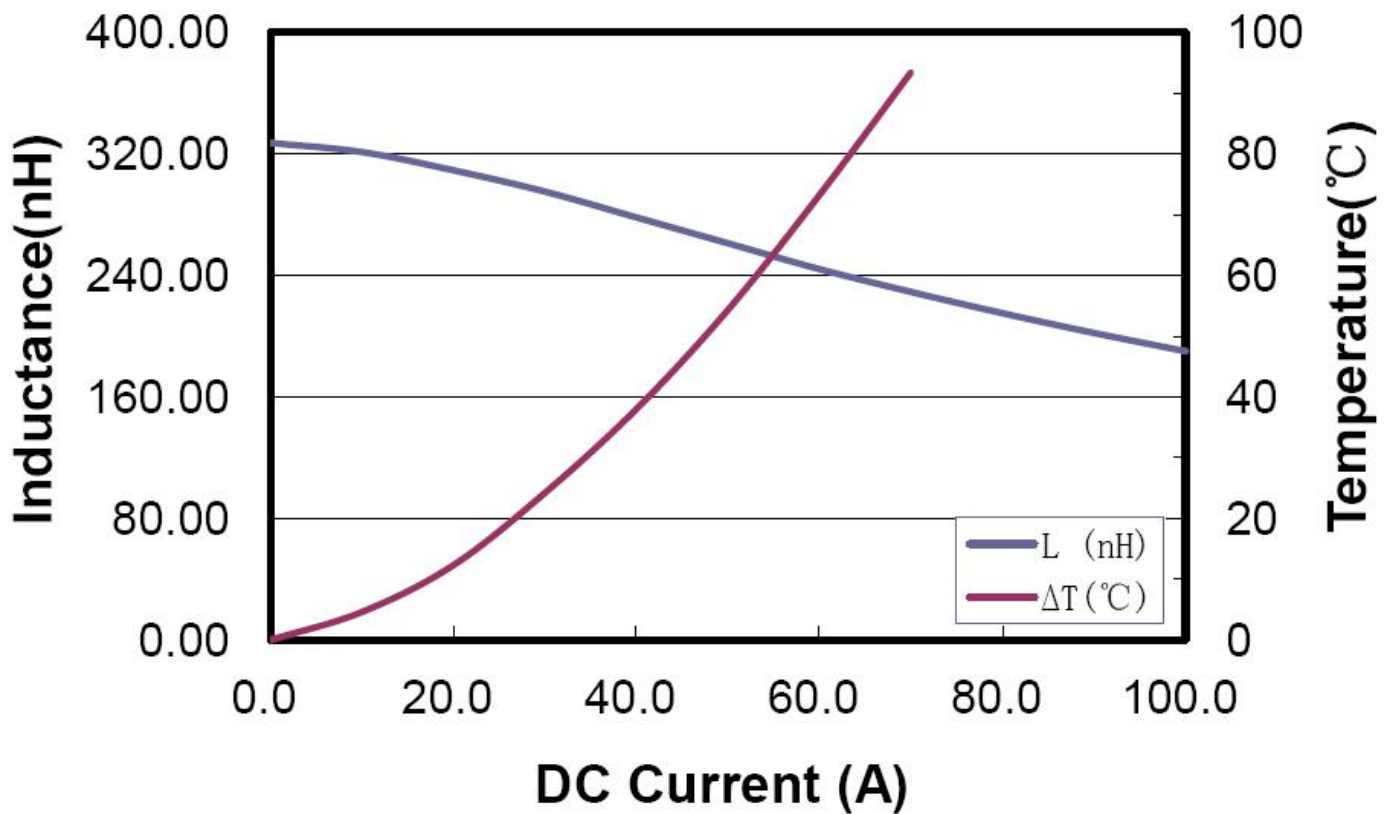
| P/N             | 100KHz 1.0V | D.C.R (mΩ) |      | Saturation Current     | Heat Rating Current    |
|-----------------|-------------|------------|------|------------------------|------------------------|
|                 | L0(μH) ±20% | Typical    | Max  | I sat (Amp)<br>Typical | I rms (Amp)<br>Typical |
| SMIS130804-R15M | 0.15        | 0.41       | 0.55 | 85.00                  | 45.00                  |
| SMIS130804-R22M | 0.22        | 0.45       | 0.60 | 80.00                  | 45.00                  |
| SMIS130804-R33M | 0.33        | 1.12       | 1.30 | 70.00                  | 35.00                  |
| SMIS130804-R47M | 0.47        | 1.12       | 1.30 | 60.00                  | 35.00                  |

- All test data is referenced to 25°C ambient
- DC current (Irms) that will cause an approximate  $\Delta T$  of 40°C
- DC current (Isat) that will cause Lo to drop approximately 30%
- Operating temperature Range: -55°C to +125°C
- Absolute maximum voltage 30VDC
- Operating temperature range— 55°C ~ 125°C (Including self - temperature rise)

Typical performance curves:

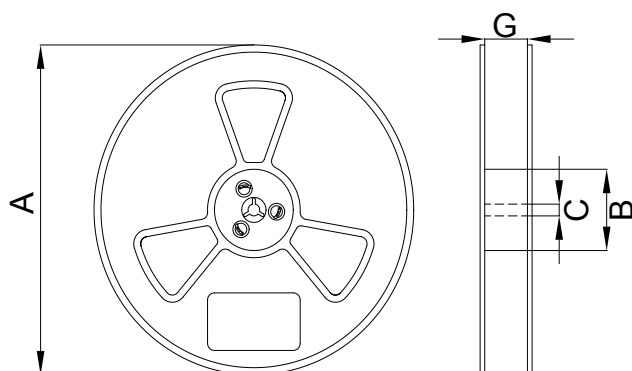
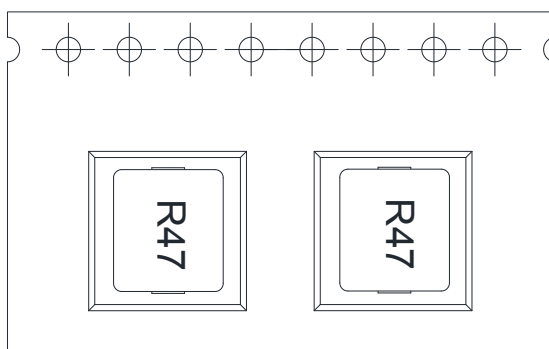
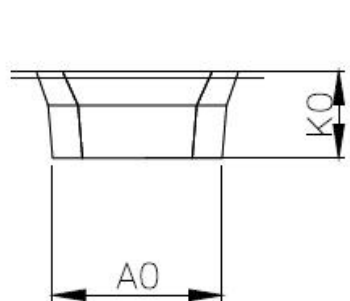
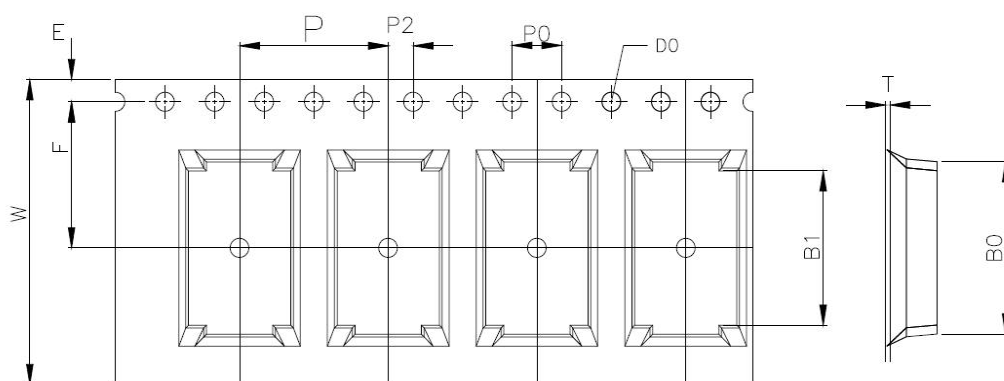


Typical performance curves:



### DIMENSIONS FOR CARRIER TAPES (unit:mm)

| ITEM | W             | A0           | B0           | K0           | P             | F             | E            | D0           | D1           | P0           | P2           | T            |
|------|---------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| DIM  | 24.00<br>±0.3 | 8.30<br>±0.3 | 13.6<br>±0.3 | 4.20<br>±0.3 | 12.00<br>±0.1 | 11.50<br>±0.1 | 1.75<br>±0.1 | 1.50<br>±0.1 | 1.50<br>±0.1 | 4.00<br>±0.1 | 2.00<br>±0.1 | 0.35<br>±0.1 |

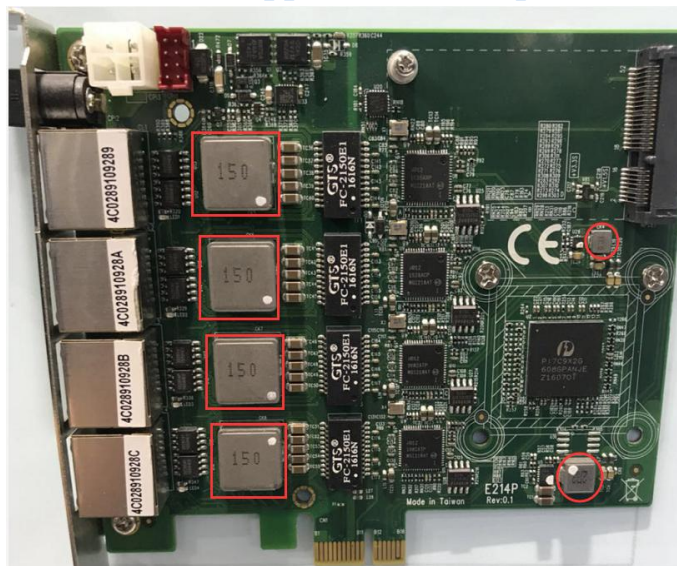


| REEL SPEC | 13"   |
|-----------|-------|
| A±1.0     | 330.0 |
| B±1.0     | 100.0 |
| C±0.50    | 13.2  |
| G±0.20    | 24.5  |

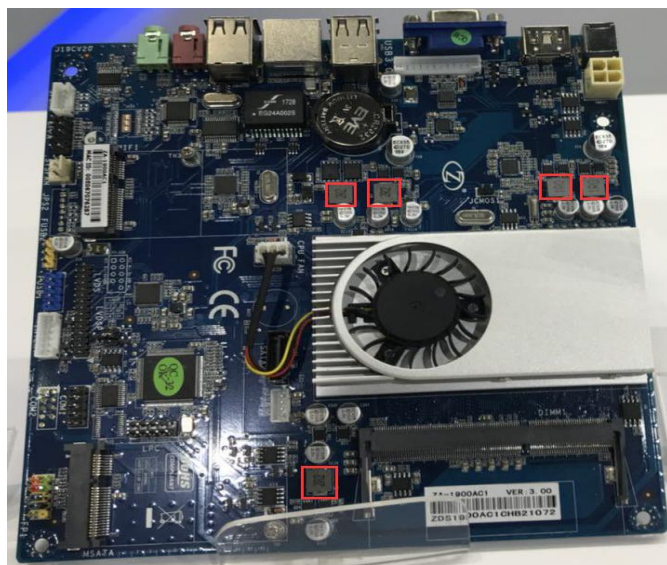
### PACKING(mm)

| 载带宽度<br>(W) | 间距<br>(P) | 卷 (PCS)<br>13inch | 2卷/内箱<br>(PCS) | 3内箱/外箱<br>(PCS) | 产品单重      |
|-------------|-----------|-------------------|----------------|-----------------|-----------|
| 24          | 12        | 1000              | 2000           | 6000            | 2.40g/pcs |

### Product application examples



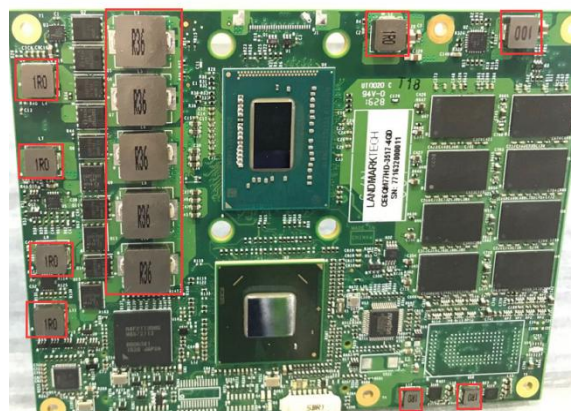
网络扩展卡



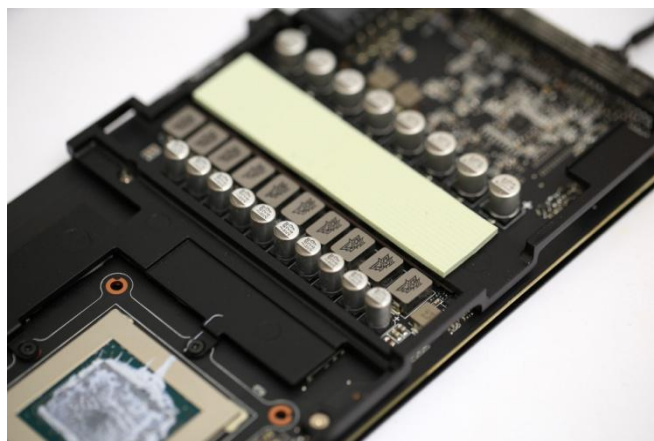
电脑主板（一）



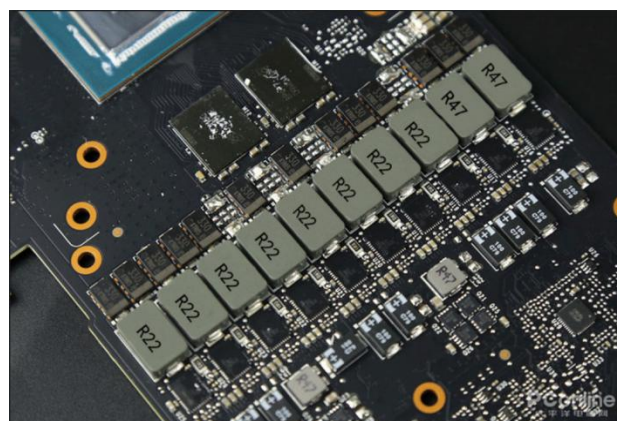
电源卡-电池充电



工业主板（二）



显示卡（一）



显示卡（二）