## ◆ Product Features

1.Thick film resistor adopts screen-printing and firing process, mature and stable.

2. Metallization uses sputtering process with strong binding force, high reliability and stability.

3. Use DPC process to thicken the copper line，which can withstand higher power.

## ◆ Product Application

Analog circuits used in consumer electronics and industrial electronics.

## ◆ Process Introduction

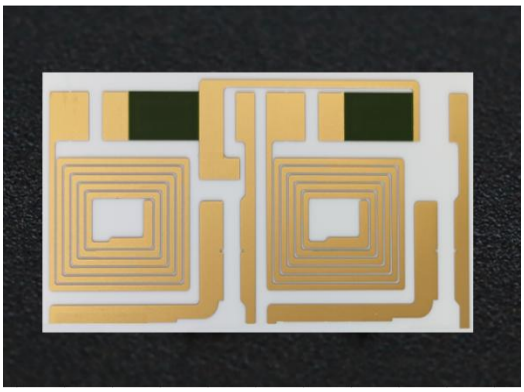
1.Thick film resistor is fabricated onto ceramic substrate by screen-printing and firing process.

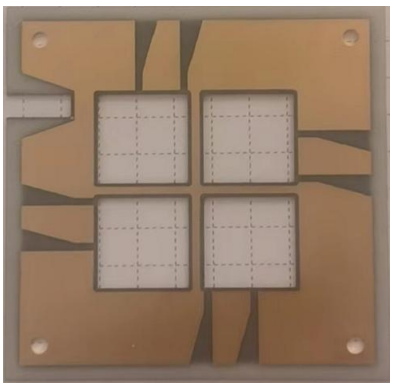
2. Use magnetron sputtering Ti +Cu process to make metalization onto the substrate.

3. Use DPC(Direct Plating Copper) process to thicken the metal copper layer and improve the current-carrying capability.

4. Make graphic processing and surface finish such as copper surface ENIG through the same process as PCB.

5. Finally, a ceramic hybrid circuit which integrates resistor, inductor, and conductor line is formed.





## ◆ Processing Capability

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|---|---|
| Substrate Material | Aluminum Oxide, Aluminum Nitride, Silicon Nitride etc. |
| Resistor Tolerance | ±20% |
| Resistor TCR | 200±50ppm/℃ @ 25℃ ~ 125℃ |
| Ceramic Substrate Thickness | 0.254-4.0mm |
| Maximum Size | 130*180mm |
| Maximum Number of Layers | 2 |
| Copper Foil Thickness | 5-300um |
| Minimum Line Width/Spacing | 0.1mm/0.1mm |
| Minimum Hole Diameter | 0.1mm |
| Overall Dimension Tolerance | ±0.05mm |
| Surface Finish | Immersion Silver, ENIG,OSP etc. |