20kW HIPIMS power source

Product Code: HIPIMS Power Supply
Weight: 0.00kg
Dimensions: 0.00cm x 0.00cm x 0.00cm

Short Description
20kW HIPIMS power source

Description
The HiPIMS high ionization rate is matched with a pulse bias power supply to synchronously adjust and control the energy and the distribution of metal ions, metal ion etching and cleaning are carried out on the substrate, high bonding force is realized on insulating substrates such as metal, ceramics, glass, optical fibers and the like, the scratch bonding force of TiN on high-speed steel is 85N, and the metallized Cu bonding force test on the ceramic substrate reaches 115N/mm2.

The HiPIMS power supply forms a high peak current instantaneously to form a high-density plasma, so that the film forming uniformity of an anisotropic workpiece is greatly improved, and a uniform and dense coating can also be formed inside shapes such as a side surface, a concave hole, a through hole and the like; and the film layer at the inner side wall of the HiPIMS technology deposition hole is dense and smooth, and the sheet resistance of the metal layer in the hole is more uniform and lower.

The ultra-high density plasma generated by HiPIMS is synchronously matched with the pulse of the pulse bias voltage, and the inner wall of the micro-deep hole is metallized (the hole diameter is 40 um, and the hole depth is 500 um) through metal ion sputtering deposition and etching; and the metallized film layer on the inner wall of the ceramic micro-hole (the depth-diameter ratio is 12) is uniform and compact, and is nearly vertically grown.

High density plasma is formed by the HiPIMS to realize the high ionization rate of the target material and the reaction gas and obtain a film layer with high density and smooth surface. The L value of TiN prepared by HiPIMS is 76.3, which is 8 points higher than that of traditional MF. The brightness L value of TiCN rose gold reaches 65, which is

close to the brightness value of multi-arc decorative plating.

Specification

Techanical parameters	
Duty cycle	less than 50% or 100%
Input Voltage & Frequency	3 phases 380V
Output current	20A
Output Power	20 kW
Work mode	DC