

Metal Microfabrication Technology

DNP

SUMMARY AND ADVANTAGES

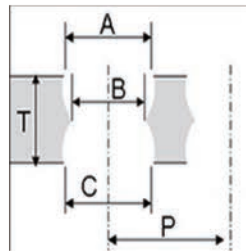
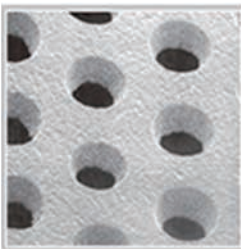
- Achieving high-performance components through the combination of metals and microfabrication

Metals	Physical strength	Electrical Conductivity	Thermal Conductivity	CTE
Copper/Alloy	○	◎	◎	High
Stainless Steel	◎	○	○	Middle
Iron-Ni Alloy	◎	○	○	Low

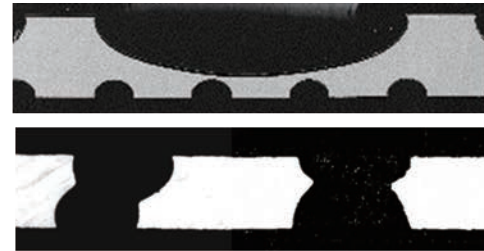
◎:Superior ○:Good △:Medium ×:Poor

FEATURES

- A variety of metal materials are available to suit your needs
- Chemical etching with minimal distortion and no metal burrs
- Combination of additional technologies*(See Applications)



T : 20μm
P : 70μm
A : 40μm
B : 20μm
C : 50μm



This is a guaranteed value for 20μm thickness stainless steel

Microfabrication into various shapes

APPLICATIONS

Vapor Chamber



Features

- High Thermal Conductivity 4000W/mK \leq
- Thinner Form Factor 0.2mm \leq

Chemical Etching

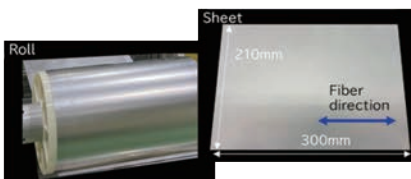


Microchannel Width \leq 100um

*Additional Tech.

- Diffusion Bonding
- Thermal Design, Flow Path Design

Metal-Resin Composite



- SUS-CFRP Composite Substrate
- Light Weight (60% less than SUS)
- High Strength (Higher than CFRP)



Opening Width \geq 40um

- Metal and Resin Bonding Technology

CONTACT

Dai Nippon Printing Co., Ltd.

Shaun Kaneda | kaneda-s@dnp-g.com | (415) 940-5697