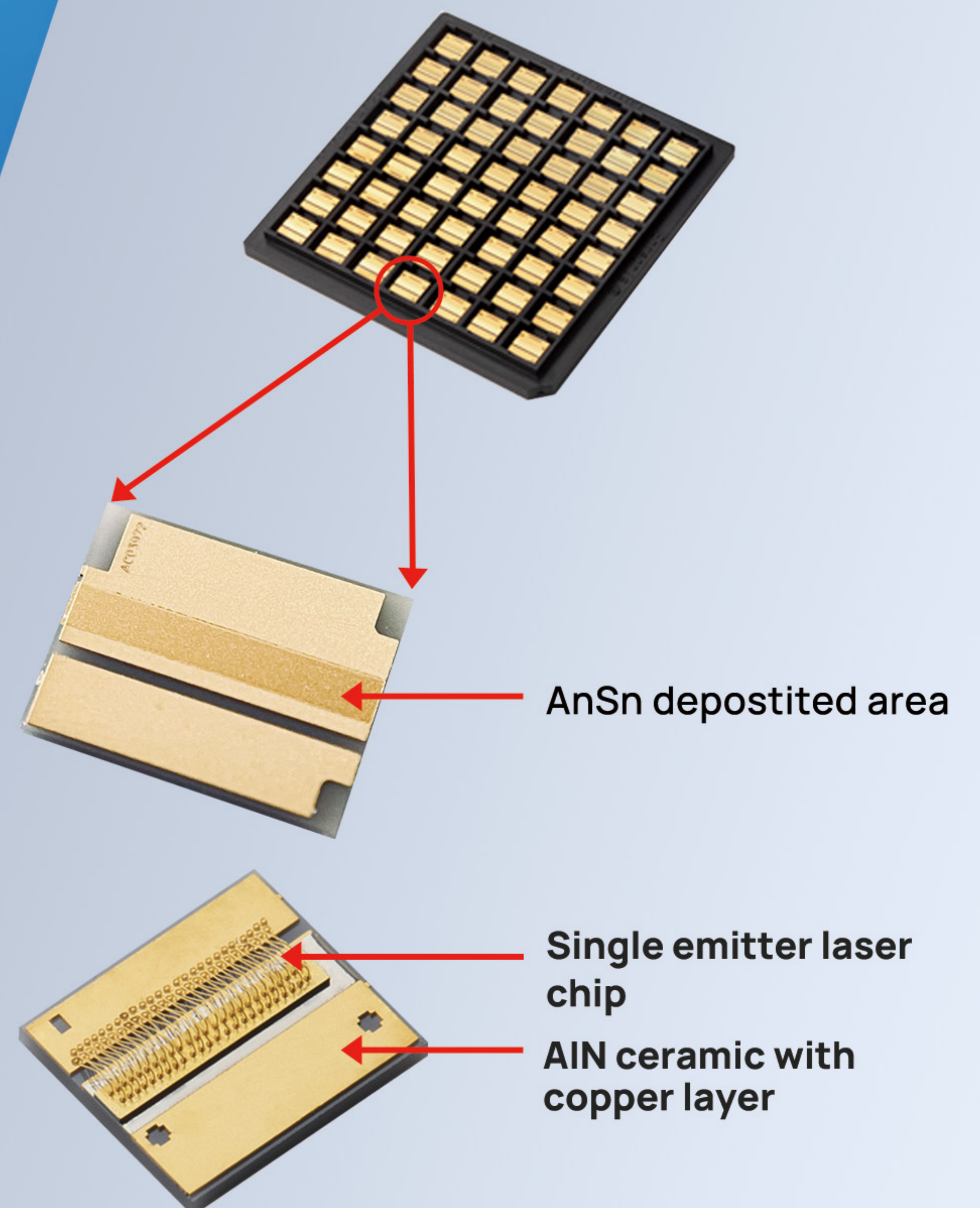
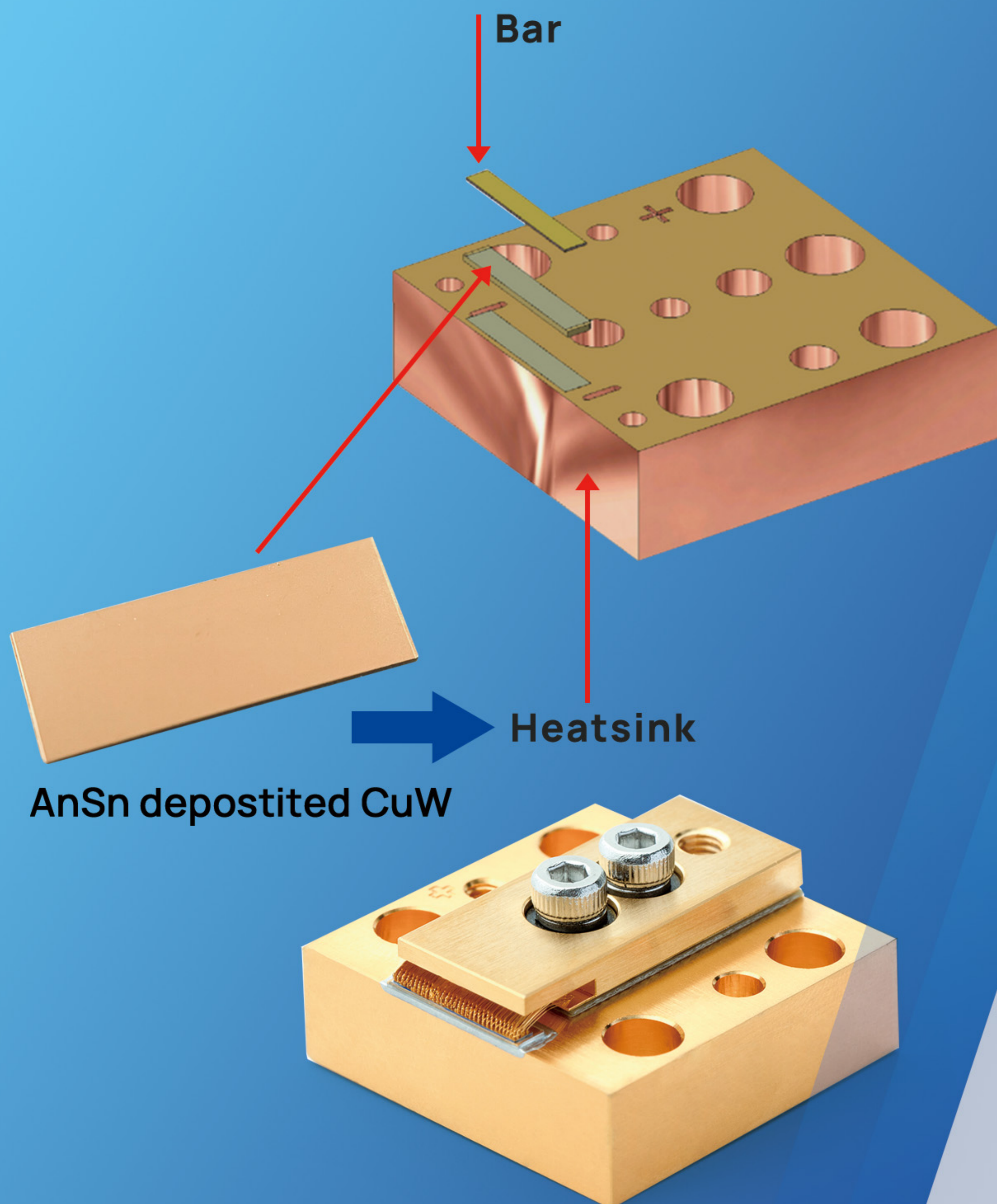


ADVANCED MATERIALS



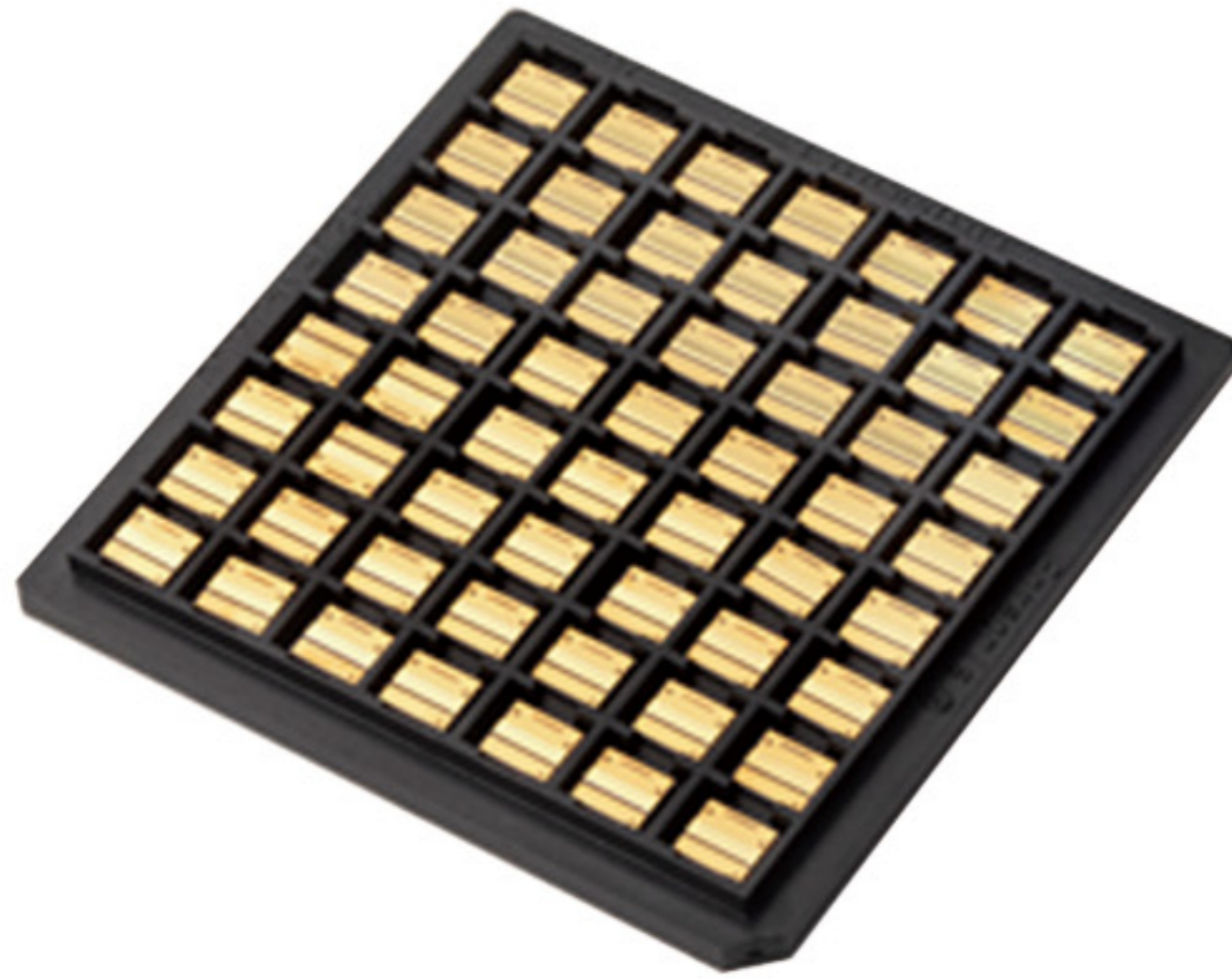
FEATURES

- Low thermal resistance
- High matching CTE
- High precision surface
- High precision wafer processing
- High thermal conductivity
- Low warpage

APPLICATIONS

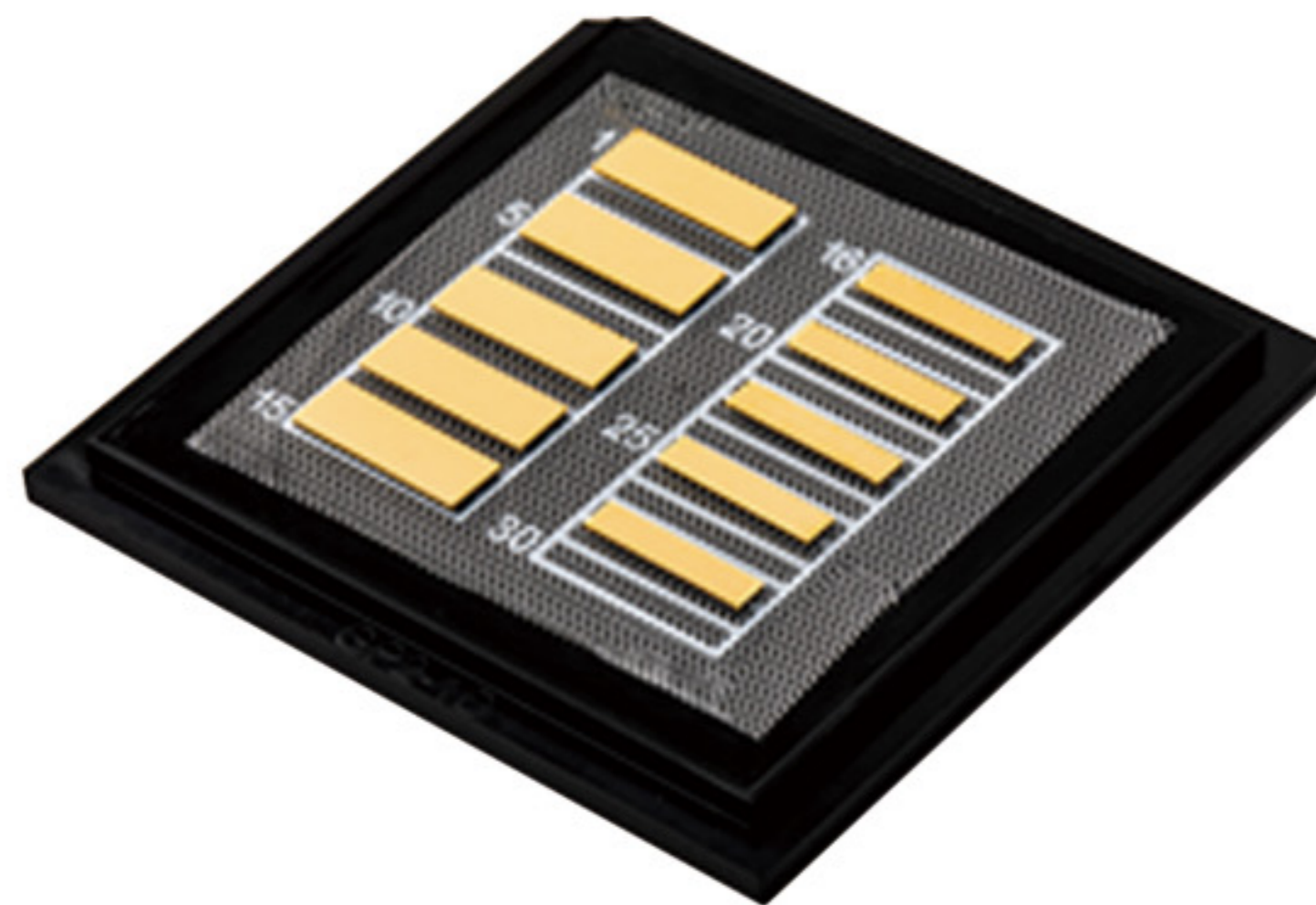
- laser diode chip bonding
- LED chip bonding
- Optical communication chip bonding
- IGBT component bonding
- Other metallization service

AuSn Pre-deposited Substrates



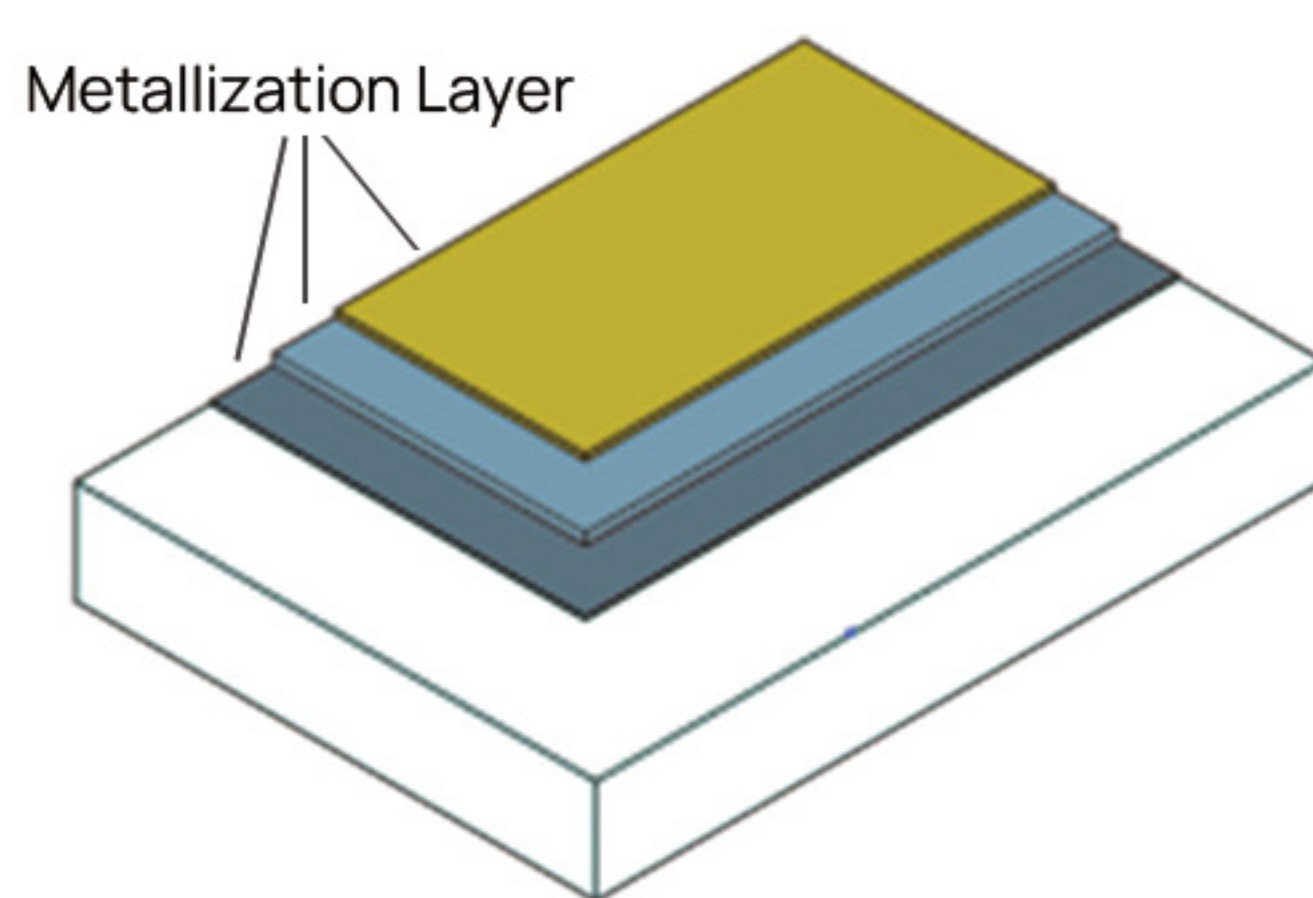
Specifications		FL-AMC-4045	FL-AMC-4048	FL-AMC-4557
Material	\	AlN		
Dimension	Length (mm)	4.50	4.80	5.75
	Width (mm)	4.00	4.05	4.50
	Thickness (mm)	0.50	0.50	0.50
	Thickness of Au (μm)	≥1.0	≥1.0	≥1.0
	Pullback (μm)	0~30	0~30	0~30
AuSn	Thickness (μm)	6.0+/-1.0	6.0+/-1.0	6.0+/-1.0
	Melting point (K)	280~320	280~320	280~320
Surface	Roughness (μm)	≤0.4	≤0.4	≤0.4
	Flatness (μm)	≤2.0	≤2.0	≤2.0
Thermal resistance	Rth (K/W)	≤2.1	≤2.1	≤2.1

AuSn Pre-deposited CuW Substrates



Specifications		AMM-10217506	AMM-10622503	AMM-11541003
Material	\	Cu (10%) W (90%)		
Dimension	Length (mm)	10.2	10.6	11.5
	Width (mm)	1.75	2.25	4.10
	Thickness (mm)	0.6	0.3	0.3
	Thickness of Au (μm)	≥0.25	≥0.25	≥0.25
AuSn	Thickness (μm)	6.0+/-1.0	6.0+/-1.0	6.0+/-1.0
	Melting point (°C)	280~320	280~320	280~320
	AuSn deposition side	double side	Single side	Single side
Surface	Roughness (μm)	≤0.4	≤0.4	≤0.4
	Warpage (μm)	≤10.0	≤10.0	≤10.0

Metallization Service



Metallization	Process	Thickness (um)	Roughness (um)	Flatness (um)
AuSn	PVD	1~7, +/-1	< 0.4	<2
Au	PVD	>0.15		
	Electroplating	>1		
Ni	Electroplating	>1		
Ti	PVD	>0.05		
Pt	PVD	>0.05		

COMPANY INTRODUCTION

Founded in 2007 and headquartered in Xi'an, China, Focuslight Technologies is a fast-growing company that develops and manufactures high-power diode laser components and materials (photon generation), laser optics (photon control), photonic application modules, assemblies, and sub-systems (photonics application solutions) with a focus on automotive, pan-semiconductor, and medical & health application solutions. In 2017, Focuslight acquired LIMO, one of the leading manufacturers of micro-optics and beam shaping solutions, and a pioneer in groundbreaking photonics production technologies. After the successful IPO at the Shanghai Stock Exchange Star Market (Ticker Symbol: 688167) in December 2021, Focuslight has unified its brand globally in January 2022. Focuslight has over 400 patents worldwide and is ISO 14001, ISO 45001, ISO 9001, and IATF 16949 certified.