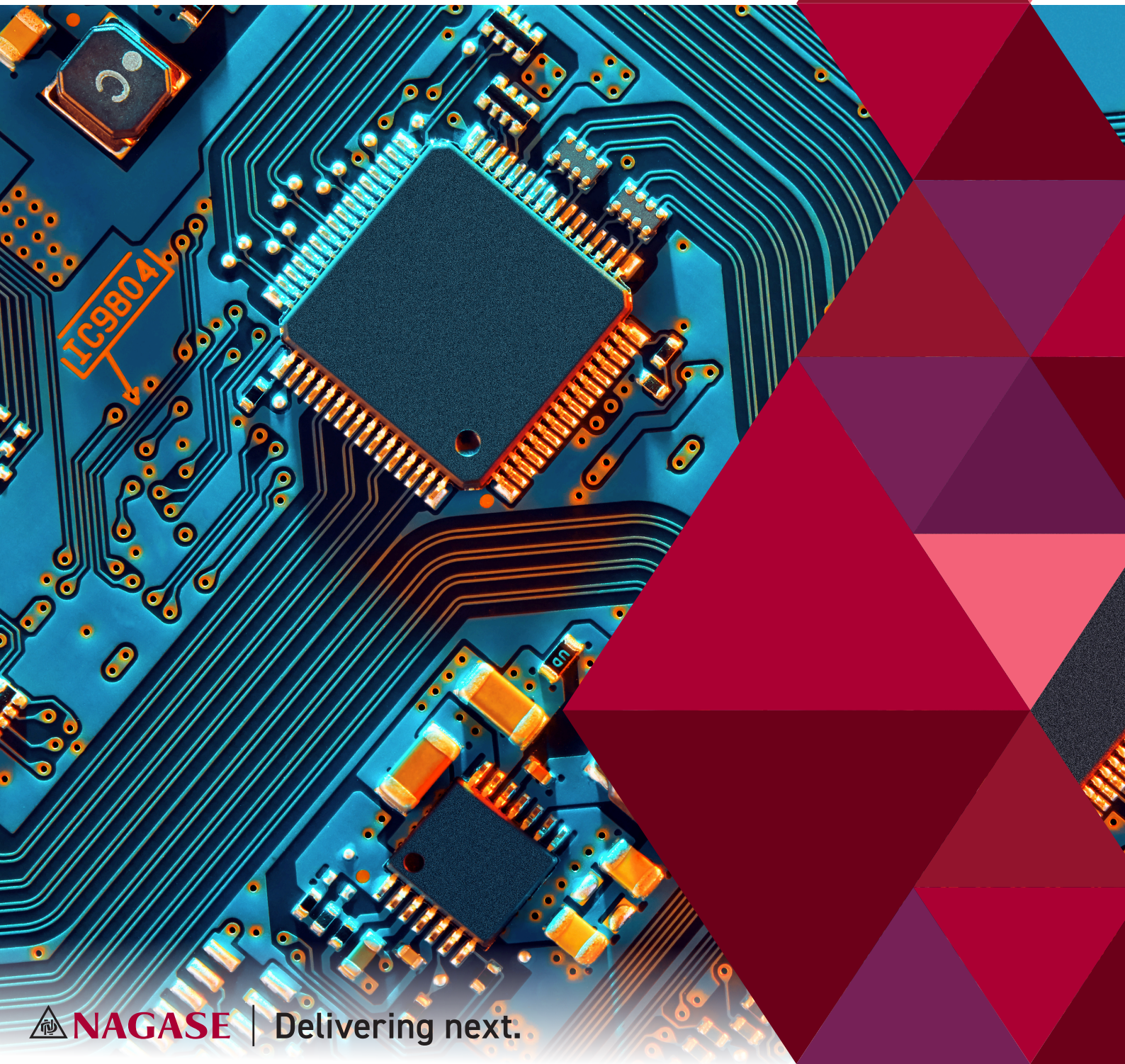




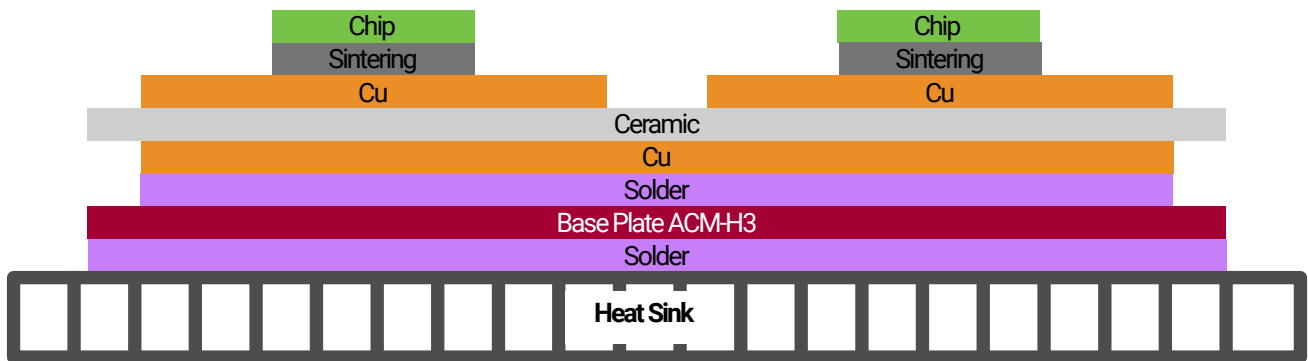
Materials for Power Devices and Electronic Components

Base Plate



ACM Series Base Plate

- » New composite material of aluminum & graphite and other material
- » High Young's modulus: 123 Gpa
- » Low Thermal expansion coefficient (ppm/K): Half ppm against Cu
- » Can customize technical data based on customer request



Product Name	Our Material w/high thermal conductivity and low thermal expansion							General Material					
	ACM-io	ACM-a	NEW ACM-H1	NEW ACM-H2	NEW ACM-H3	NEW ACM-H4	NEW ACM-H5	Cu	Al	Graphite (CIP)	Cu-Mo	Cu-W	Alsic
Characteristic	Isotropic	An-isotropic	An-isotropic	An-isotropic	An-isotropic	An-isotropic	An-isotropic	C1020	A1050	Isotropic	15 Cu 85 Mo	6 Cu 94 W	SiC 60 %
Density (g/cm ³)	2.10	2.10	2.34	2.56	2.77	2.37	2.39	8.90	3	1.80	10.0	6.40	2.95
Young's modulus (GPa) XY/Z	16.0	1.5/3.6	27.0/34.0	36.0/42.0	123.0/111.0	39/46	89/89	117	71	10.8	280	350	220
Specific Stiffness (GPa-g/cm ³)	8	1	13	15	42	18	37	-	-	-	-	-	-
Bending Strength (MPa)	93	34	68	67	151	62	126	-	-	27	-	-	425
Thermal Expansion Coefficient (ppm/K) XY/Z	7.0~8.0	6.8/7.4	4.7/17.1	5.8/17.1	7.6/8.8	7.6/15.8	6.2/6.8	17.0	20	4.5	7.0	5.9	8.0
Thermal Conductivity (W/m*K) XY/Z	164	188/361	470/106	466/159	256/217	193/132	170/160	390	220	128	170	141	175
Thermal Diffusivity (mm ² /S) XY/Z	-	244/127	203/45	189/64	93/80	81/56	72/67	112	90	-	-	-	-
Specific Heat (J/g*K) XY/Z	-	0.70	1.09	0.99	0.96	1.11	0.95	0.39	1	0.70	0.28	0.15	0.70
Machinability	◎	◎	◎	○	△	◎	◎	◎	◎	◎	○	○	△
Standard Size (mm)	150x200x250	150x200x250	□400x60t	□400x60t	□400x60t	□400x60t	□400x60t	-	-	-	-	-	-

