GENERAL PARAMETERS

Manufacturing Materials	Capability
Material Brand	KB,TUC,EMC,MGC,ITEQ,SYTECH,Rogers,Arlon,Nanya,Isola,Nelco,Taconic,Panasonic,Ventec,Dupond,Taiflex,etc.
FR4	Tg135: KB6160, S1141, TU662
	Tg150: KB6165, S1000H, IT158
	Tg170: KB6167, S1000-2M, IT180A, TU768
Halogen Free FR4	Tg150: S1150G
	Tg170: S1170G, TU862HF
High CTI(CTI≥600)	KB-6160C, S1600L, S1151G(Halogen Free)
Ceramic Filling High Frequency Material	Rogers 4003C/4350B, Arlon25N, S7136H, WL-CT350
PTFE High Frequency Material	Rogers Series, Arlon Series, Taconic Series, F4BM Series, Teflon,etc.
High Speed Material	TU-872SLK/SLK-SP, TU883/933, Panasonic Megtron4/Megtron6/Megtron7, Isola FR408HR
Rigid PI Material	Arlon 85N, VT901
Metal Base Board	Bergquist Al base, Chinese Brand Al base, Copper base
BT Materials For Chip-LED	CCL-HL820WDI, SY-WLM1
BT Materials for IC Plastic Package	CCL-HL832NS, CCL-HL832NSR, CCL-HL832NSF, GHPL-830SR, CCL-HL972LFG, SI10US
Material Mixed Laminate	4 layers - 48 layers (FR4 + High Frequency/Speed Material, FR4 + Metal Base, FR4 + FPC)
Special PP	NFPP: Arlon 49N, VT47
	Ceramic Filling PP: Rogers 4450F
	PTFE PP: Arlon 6700, Taconic FR-27
	BT PP:GHPL-830NS, GHPL-830NSR, GHPL-830SR, GHPL-970LFG
Note	Other special materials can be processed and produced by means of customer supply or purchasing.

Item	Standard	Advanced	Innovative
IC Space(Green Color)	4	4	3
IC Space(Other Color)	5	5	4 (blue oil)
Liquid Photoimageable(LPI)Solder Mask Registration	3mil	2mil	1.5mil
Thickness T＞1.0 mm	±10%	±8%	±5%
Tolerance T≤1.0 mm	±0.1	±0.1	±0.05
Board Thickness (mm)	0.5-5.0	0.25-6.5	0.1-10
Hole Aspect Ratio	10:1	12:1	20:1
Via Size For Plug Solder Mask	0.25-0.5	0.20-0.5	0.15-0.6
Via Size For Plug Resin And Capped Copper	0.25-0.5	0.20-0.5	0.075-0.6
Panel Size (mm)	457×609	457×609	609×1200
Bow And Twist	≤0.75%	≤0.75%	≤0.5%

INNER GRAPHICS

Item	Basic copper thickness	Line Width/Space
	1/3 OZ	2/2
	0.5 OZ	2.5/2.5
	1.0 OZ	3/3
	2.0 OZ	5/5

Item			
Minimum Inner Line Width Distance	3.0 OZ	7/7	
	4.0 OZ	9/9	
	5.0 OZ	10/16	
	6.0 OZ	10/10.5	
	10 OZ	18/20	
	12 OZ	22/24	
Hole to Line Spacing	4 layers	≥3mil(1 core)	
	6 layers	≥5mil(2 core)	
	8 layers	≥7mil(3 core)	
	10 layers and above	≥7mil	
Line Width/Space Accuracy	Non-impedance plate ±20%; Impedance plate ±10%		
Alignment Accuracy	±25um（CCD）		
OUTER GRAPHICS			
Item	Basic copper thickness	Line Width/Space	
Minimum Outer Line (mil)	1/3 OZ	2.5/2.5	
	0.5 OZ	2.8/2.8	
	1.0 OZ	3/3	
	2.0 OZ	5/5.5	
	3.0 OZ	6/7.5	
	4.0 OZ	14/12	
	5.0 OZ	18/17	
	6.0 OZ	13/11	
	10 OZ	16/26	
	12 OZ	24/32	
The Minimum Line Width Of The Outer Etched Word	Base Copper H OZ; 8mil		
	Base Copper 1 OZ; 10mil		
	Base Copper 2 OZ; 12mil		
Line Width/Space Accuracy	Non-impedance plate ±20%; Impedance plate ±10%		
Alignment Accuracy	≤24um（LDI）		
HOLE PROCESSING			
Item		Mass Production	Prototyping
Through Hole	Hole Diameter (max)	6.5mm, thickness <6.4mm	Greater than 6.5mm (hole expansion
	Hole Diameter (min)	0.15mm, thickness<1.0mm	0.15mm, thickness<1.6mm
	Hole Tolerance	NPTH±0.05mm, PTH hole±0.075mm, crimping hole±0.05mm	
	Hole Tolerance	±0.05mm	
	Thickness Ratio	8:1	20:1
	Minimum Hole Spacing	The same grid > 8mil Non-same grid ≥ 12mil	The same grid ≥ 6mil Non-same grid ≥ 10mil

PEKA PCB

Deep Hole Control	Minimum Depth Control Hole Diameter	0.155mm	
	Depth Control Accuracy	0.1mm	0.05mm
	Hole Depth Thickness Diameter Ratio	≤0.6:1	≤0.8:1
	Control Depth Groove Depth Tolerance	±0.15mm	±0.1mm
Stepped Hole	Step Hole Diameter Tolerance	0.1mm	0.05mm
	Step Hole Depth Tolerance	0.2mm	0.1mm
Laser Hole	Laser Hole Copper	≥10um	
	Hole Diameter Range	0.1mm-0.15mm	0.076mm-0.15mm
	Laser Blind Hole Thickness To Diameter Ratio	≤0.6:1	≤0.8:1
	Outer Line Width And Line Spacing	3.5/4mil	3.5/3.5mil
	Inner Line Width And Line Spacing	3.0/3.5mil	3.0/3.3mil
	Laser Blind Hole Medium Thickness	2.5-4mil	2.5-5mil
Back Drilling	Depth Tolerance	±0.1mm	
	Position Tolerance	±0.1mm	
	Hole To Outer Line Distance	≥0.15mm	≥0.125mm
	Hole To Inner Line Distance	≥0.175mm	≥0.15mm
Countersunk Hole	Countersunk Drill Diameter	The 45° countersunk bit has a diameter of 4.5mm	
		60°, 82°, 90° countersunk bit diameter is 6.35mm	
		100° countersunk bit diameter is 6.5mm	
	Outer Aperture Accuracy	±0.2mm	
	PTH Countersunk Ring Width	8mil	
	PTH Countersunk Hole Distance Line	12mil	
Conical Hole	Opening Tolerance	±0.2mm	
	Aperture Angle	45°、60°、90°	
Slot	Minimum Slot	0.5mm	

OUTLINE

Item		Mass Production	Prototyping
V-CUT	Angle	20°、30°、45°、60°	
	Jumping Knife Distance	≥8 mm	
	Board Thickness	0.4 mm-3.0mm	
	Thickness Accuracy	±0.1 mm	±0.05 mm
	Minimum Gong Cutter Diameter	0.6 mm	

PEKA PCB

Gong Board	Control Deep Gong Plate Thickness	≥0.4 mm	
	Depth Tolerance Of Deep Gong Plate	±0.15 mm	±0.1 mm
	Tolerance Of Deep Gong Plate Size	±0.13 mm	
Hypotenuse	The Outer Layer Of The Top Of The Gold Finger Is Copper	Bevel depth +0.2 mm	
	The Inner Layer Of The Top Of The Gold Finger Is Copper	Bevel depth +0.4 mm	
	Angle (tolerance ±5°)	20°, 30°, 45°, hypotenuse angle is usually 30°	

SURFACE TREATMENT

Item		Standard	Advanced	Innovative
ENIG	Nickel Thickness (um)	2.0-5.0	3.0-5.0	3.8-7.62
	Gold Thickness(uinch)	1.0-2.0	2.0-3.0	3.0-5.0
Hard Gold (Au Thickness)	Normal Golden Finger (um)	0.15	0.8	3.0
	Selective Hard Gold (um)	0.15	0.8	2.0
ENEPIG	Nickel Thickness (um)	2.0-5.0		
	Palladium Thickness(uinch)	4.0-20.0		
	Gold Thickness(uinch)	1.0-5.0		
Plating Gold	Nickel Thickness (um)	2.0-7.62		
	Gold Thickness(uinch)	1.0-5.0		
Immersion Tin	Tin Thickness (um)	0.8-1.2		
Immersion Silver	Sliver Thickness (um)	0.15-0.4		
OSP (um)		0.2-0.6		
Tin Lead HASL (um)		2.0-40.0		
Lead Free HASL (um)		2.0-40.0		
Note: Tin Lead /LF HASL panel size should less than ≤500×600 mm, thickness≥0.6 mm; Hard Gold panel size≤400×500 mm, the other surface treatment panel size less than 500×900 mm				

SPECIAL PROCESS

Item	Standard	Advanced	Innovative
Back Drilling	YES	YES	YES
Heavy Copper PCB with Blind/Burried Via	YES	YES	YES
N + N Structure	YES	YES	YES
POFV(VIPPO)	YES	YES	YES
Long-Short Gold Finger	YES	YES	YES
Buried Capacitance/Resistance	YES	YES	YES
Plated Half Holes/Edge Plating	YES	YES	YES

PEKA PCB

Soft Bondable Gold	YES	YES	YES
Embedded Daughter Board	YES	YES	YES
Embedded Magnetic Cores	YES	YES	YES
PTH/NPTH Step Slots	YES	YES	YES
Step Gold Finger	YES	YES	YES
Graph In Bottom Of Step	YES	YES	YES
Post Bonding	YES	YES	YES
Sweat Soldering	YES	YES	YES
Embedded Coin/Ceramic	YES	YES	YES
High Depth Laser Hole	YES	YES	YES
Double Side Press Fit Hole	YES	YES	YES
Hybrid Material Lamination(Local Hybrid)	YES	YES	YES

DELIVERY ABILITY

1-2L Lead-time	Sample Expedited 8 hours, Normal 2-3 days, Mass production 5-7days
4-8L Lead-time	Sample Expedited 24 hours , Normal 5-7days, Mass production 7-10 days
10-18L Lead-time	Sample Expedited 48-72 hours, Normal 10-15 days,Special circumstances based on the actual PCB design
More than 20L Lead-time	Normal 10-15 days ,Special circumstances based on the actual PCB design
Acceptable File Format	ALL Gerber Files、POWERPCB、PROTEL、PADS2000、CAD、AUTOCAD、ORCAD、P-CAD、CAM-350、CAM2000 etc.

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