

Feature	2017	
	Standard	Advanced
<b>Materials</b>	<p><b>RIGID:</b> FR2, CEM-1, CEM-3, FR4 (standard – halogen free – high performance) including: ShengYi, Iteq, Elite Materials Corp., NanYa, Kingboard, Grace, GoWorld, TUC, Meteorwave</p> <p><b>FLEX:</b> PI, PET Including: Taiflex, Dupont FR &amp; AP, Panasonic, ShengYi, Doosan. Hanwha, SF305</p> <p><b>IMS:</b> IMS Al based Including: Bergquist MP, HT &amp; CML ITEQ T-Lam, Laird TLAM SS Taiflex, Dupont FR &amp; AP, Panasonic, ShengYi, Doosan.</p> <p>Please contact us for full details regarding material availability</p>	<p><b>RIGID:</b> Mid – Loss material TUC TU862HF, EMC EM370D, ITEQ IT170GRA, Panasonic Megtron-2</p> <p>Low – Loss material N4000-13(series), FR408HR, Megtron-4, S7038, S7439, TU872SLK (series), EM-828, EM888, N4800-20(series), I-Speed</p> <p>Ultra Low – Loss material Megtron-6, IT150DA, FX-2, FL-700, I-Tera, N6800-22(series), RO4350B, RO3000(series) ,RF-35, RF-35A2, TLX (series), AD250, FL-700LD</p> <p>Super Low – Loss material and High Thermal Reliability Laminate TU993,M6N,M7N,</p> <p><b>FLEX:</b> PI, LCP Including: Dupont</p> <p><b>IMS:</b> IMS Al &amp; Cu based Including: Bergquist HPL, Ventec VT, Polytronics TCB, Doosan DST, Denka, Arlon, Chin-Shi</p> <p>Please contact us for full details regarding material availability</p>
<b>Minimum dielectric thickness</b>	0.05mm for PCB 0.025mm for FPC	0.025mm for PCB 0.012mm for FPC
<b>Layer count</b>	1 – 38L / 40L QTA	64L (pilot runs)
<b>HDI / Buried – blind via</b>	Y	Y
<b>Copper filled BVH (Y/N)</b>	Y	Y
<b>Copper filled PTH (Y/N)</b>	Y	Y – copper paste
<b>Copper paste filled PTH (Y/N)</b>	Y	Y
<b>Capped via (Y/N)</b>	Y	Y
<b>LDI (Y/N)</b>	Y	Y
<b>Maximum board size (mm)</b>	1050 x 610	1400 x 610
<b>Minimum board thickness (mm) 2L</b>	0.15 for PCB 0.05 for 1L FPC 0.12 for 2L FPC	0.15 for PCB 0.05 for 1L FPC 0.12 for 2L FPC
<b>Minimum board thickness (mm) ≥4L</b>	0.25 for PCB 0.20 for FPC	0.25 for PCB 0.16 for FCP
<b>Maximum board thickness (mm)</b>	8.6	10.0

<b>Minimum track / gap IL (mil)-copper weight dependant</b>	0.075mm	0.05mm
<b>Minimum track / gap OL (mil)-copper weight dependant</b>	0.075mm	0.05mm
<b>Surface finish</b>	ENIG / GF / OSP / I Ag / HASL (lead) / HASL (Leadfree) / Plating Au/Ni/ Immersion Sn / GF+OSP / GF+HASL / OSP+ENIG / IAG+GF/Isn+GF	ENIG / GF / OSP / I Ag / HASL (lead) / HASL (Leadfree) / Plating Au/Ni/ Immersion Sn / GF+OSP / GF+HASL / OSP+ENIG / ENEPIG / SPF/ IAG+GF / Isn+GF
<b>Layer to layer registration</b>	0.05mm	25µm
<b>Minimum hole (mech) (mm/mil)</b>	0.15mm	0.1mm
<b>Minimum hole (laser) (mm/mil)</b>	0.075	0,05
<b>Aspect ratio PTH</b>	15:1	20:1
<b>Aspect ration BVH</b>	0.8:1	1.3:1 (factory + design dependent)
<b>Finish hole tolerance (PTH)</b>	± 0.076mm	± 0.05mm
<b>Finish hole tolerance (NPTH)</b>	±0.0375	±0.025
<b>Maximum Cu weight OL</b>	12oz	12oz
<b>Maximum Cu weight IL</b>	12oz	12oz
<b>Controlled impedance (+/- X%)</b>	Others ± 10%	± 5%
<b>Rigid-flex (Y/N)</b>	Y	Y including semi flex
<b>Flexible (Y/N)</b>	Y	Y
<b>IMS (Y/N)</b>	Y (Al)	Y (both Al and Cu)
<b>Embedded components (Y/N)</b>	Y	Y
<b>Soldermask via plugging IPC4761 Type VI (Y/N)</b>	Y	Y
<b>Epoxy via plugging IPC4761 Type VI (Y/N)</b>	Y	Y
<b>Epoxy via plugging IPC4761 Type VII (Y/N)</b>	Y	Y

*\*It is important to note that even with 'standard' technology this does not mean we can achieve ALL of the aspects – When using combinations of these parameters; you should always consult our sales.*