



ELTOS CAPABILITY ROADMAP

	<u>Requirement</u>	<u>Standard</u>	<u>Advanced</u>	<u>Prototypes</u>	
Materials	FR-4 standard and mid Tg +	yes	yes	yes	
	FR-4 high TG +	yes	yes	yes	
	Polyimide	no	yes	yes	
	Kapton	yes	yes	yes	
	Teflon ++	no	yes	yes	
	Thermount Polyimide	no	no	yes	
	High Speed Materials	no	yes	yes	
	Other materials	no	no	yes	
	Layer count	16	32	36	
	HDI	1+N+1	3+N+3	4+N+4	
Build-Up and Dimensions	Rigid	yes	yes	yes	
	Flex	yes	yes	yes	
	Flex-Rigid	no	no *	yes	
	Min. drilled hole (mechanical)	0,15mm	0,10mm	0,075mm	
	Min. drilled hole (laser)	n/a	n/a	0,050mm	
	Aspect ratio through hole	1:8	1:10	1:12	
	Aspect ratio blind μ -via	1 \leq 0,8	1 \geq 1	1 \geq 1	
	Mechanical Depth Control	+/- 25 micron	+/- 10 micron	+/- 10 micron	
	Min. Dielectric Thickness	0,06mm	0,05mm	0,05mm	
	Max. Panel Size (multilayer)	490mmx610mm	500mmx660mm	530mmx760mm	
	Max. Panel Size (doublesided)	500mmx620mm	580mmx780mm	500mmx1600mm	
	Min. outer layer line/space	0,125mm/0,10mm	0,10mm/0,075mm	0,075mm/0,075mm	
	Min. inner layer line/space	0,10mm/0,10mm	0,075mm/0,075mm	0,050mm/0,050mm	
	Max. Copper Thickness	3 Oz.	6 Oz.	10 Oz.	
	Max. Processable thickness	3,20mm	5,50mm	6,00mm	
	ENIG	yes	yes	yes	
	ENEPIG	no	yes	yes	
	OSP	yes	yes	yes	
	Finishes	HASL (Sn/Pb)	yes	yes	yes
		HASL (Lead Free)	yes	yes	yes
Immersion Tin		yes	yes	yes	
Immersion Silver		yes	yes	yes	
Electrolytic Gold		yes	yes	yes	
Solder mask/legends +++		photo imageable	photo imageable / ink jet **	photo imageable / ink jet **	
Peelable Mask/ via hole plug		yes/ yes	yes/ yes	yes/ yes	
Controlled Impedance		+/-10%	+/-10%	+/-5%	
μ -via in Pad		no	yes	yes	
UL		94V-0 MOT 110°C	94V-0 MOT 130°C	94V-0 MOT 130°C	
IPC	class 2	class 3	class 3		

Please note: in order to offer a synoptic overview some products and finishes aren't mentioned. Among them aluminium boards, silkprint graphite/carbon, Indium/tin finish, hard gold fingers connectors, dry film solder mask (conformask), etc.

Important remark:

Every PCB project is an unique combination of characteristics and some technical choice may put constraints over the maximum obtainable performance for correlated aspects. Most common cases are aspect ratio (min. diameters vs. overall thickness), track width vs. copper thickness, diameter true position vs. board dimensions, and this list could be as long as the number of requirements! The aim of this document is therefore strictly general and refers to Eltos process capability, considering each process at his best.

+ For an updated supplier list contact us. Major FR-4 suppliers are Isola, Iteq, Shengyi, Panasonic, Neltec

++ Rogers, Taconic, Arlon

+++Standard colours are gloss/matte green, black, white, yellow, red. Special color are available on request.

** Ink jet legend printing is available in white color only.

Future developments:

* Looking forward to increase the flex-rigid capacity. Mid volume production already executed during 2010.