Capabilities

PARAMETERS	STANDARD	ADVANCED	R&D	COMMENTS
IL line and space 0.5 oz. copper	4/4	3/3	2/2	
OL line and space 0.375 oz. copper	4/4	3/3	2/2.5	
OL line and space 0.5 oz. base copper	5/5	4/4	3/3	
Smallest drilled thru via - .062" brd. thickness	.008"	.005"	.004"	
Smallest drilled thru via - .093" brd. thickness	.010"	.006"	.004"	
Smallest drilled thru via - .115" brd. thickness	.012	.010"	.005"	
Smallest drilled thru via - .250" brd. thickness	.020"	.014"	.012"	
.001" annular ring – Class 2	.010"	.008"	See Eng.	
.002" annular ring – Class 3	.012"	.010"	See Eng.	
Antipad over drill size	.016"	.010"	.007"	
Microvia laser drill size	.006"	.004"	.003"	
Pad over microvia drill size	.006"	.005"	.004"	
Stacked/Staggered Micro Vias	Yes	Yes	Yes	
Maximum layers of Micro Via per side	ALAV	ALAV	ALAV	Any Layer Any Via
Maximum aspect ratio – w/ .010" drilled hole	12:1	18:1	28:1	
Maximum aspect ratio - microvias	0.8:1	0.8:1	See Eng.	Not recommended to go higher than1:1
Press fit hole tolerance	+/- .002"	+/- .002"	+/- .002"	
SMD soldermask web width - mils	.004"	.003"	See Eng.	
SMD soldermask clearance – mils (over pad)	.005"	.003"	.0015	
Soldermask registration tolerance	.003"	.0015"	See Eng.	
Impedance control – single ended +/- %	+/- 10%	+/- 5%	See Eng.	
Impedance control – edge coupled diff. +/- %	+/- 10%	+/- 7%	See Eng.	

Impedance control – broad side differential +/- %	+/ 10%	+/- 7%	See Eng.	
Board thickness – Min./Max.	.020" / .240"	.016" / .300"	.010" / .300"	
Maximum layer count	32	48	50+	Layer count is only limited by total thickness
Average layer count	16			
Maximum panel size	18"X 24" & 21"x24"	20"X 26"	N/A.	
Maximum bow and twist - %(balanced construction)	<0.75%	<0.75%	<0.5%	
Minimum copper to edge clearance	.015"	.012"	.010"	
Min. positional tol. – feature to feature	+/- .005"	+/- .003"	+/- .002"	
Layer to layer registration tolerance	+/- .005"	+/- .003	+/- .0015"	
Minimum core thickness	.002"	.001"	.001"	

PARAMETERS	**STANDARD**	**ADVANCED**	**R&D**	**COMMENTS**
Surface finishes offered				
Immersion Silver	In House			
ENIG (Electroless NI / Immersion Au)	In House			
ENEPIG (Electroless Nickel / Electroless Palladium / Immersion Gold	Outside			Superior Processing
OSP – Entek Plus HT	In House			
HASL (Tin / Lead) & Tin Lead Reflow	Outside			
Full body & Selective Electrolytic Ni / Au	In House			
Gold edge connector	In House			
Other Capabilities				
Sequential lamination	3 Sublams	5 Sublams	See Eng.	
Ormet Conductive Pastes	Yes			Ormet 701
Copper Filled Vias	Yes			

Epoxy filled vias	Yes			MEI recommends Non Conductive
Embedded Capacitance & Resistance	Yes	Yes	Yes	ZBC200, HK 04, Ticer & Ohmega-Ply
Mixed dielectric construction	Yes	Yes	Yes	
Cavity & Heat Sink Designs	Yes	Yes	See Eng	
Back-Drilling Tolerances +/-	.010	.005	.003	
Pigmented Soldermask (Red, Blue, Black, Purple, Clear)	Yes			
Photo Imageable Legend	Yes			
Jump Scoring	Yes			
Edge Milling	Yes			
Counter Bores / Slot Milling	Yes			
Edge Plating	Yes			
Valor ODB++	Yes			
Industry Certifications				
UL 94V-0	Yes			
ISO 9001:2008	Yes			
IPC-6012C Class 2, 3, 3/A, -6016, -6018	Yes			
IPC-9151 / PCQR² Benchmark Data	CAT CODE F27, G16, H34, I20, I45, J20, K37, L11			
ITAR Registered	Yes			Cert # M20467
JCP Registered	Yes			Cert # 47424
AS9100	Yes			Cert # 10000386 ASH09
RoHS Compliant	Yes			