

Printed Circuit Board Solutions

Corporate Manufacturing Capabilities

ATTRIBUTES	Standard	Advanced	Development (NPI Only)
Panel Sizes	12 x 18, 18 x 24, 21 x 24	20 x 26	21 x 27
Layer Counts	2 - 28	30 - 42	44 +
Flex Layer Counts	2 - 6	8 - 10	12 +
Rigid Flex Layer Counts	4 - 14	16 - 24	26 +
Cavity Sizes	1.0" x 1.0"	.750" x .750"	< .500" x .500"
LAMINATES - MATERIALS	Standard	Advanced	Development (NPI Only)
Pb Free RoHs - 170+ Tg FR4	Yes	Yes	Yes
Med Loss - FR408HR, MEG 4, -13EP	Yes	Yes	Yes
Low Loss - MEG 6, I-Speed, IteraMT40	Yes	Yes	Yes
Ultra Low Loss - Tachyon100G, EM890K, MEG 7	Yes	Yes	Yes
Polyimide	Yes	Yes	Yes
Rogers Laminates	Yes	Yes	Yes
Flex - Dupont AP	Yes	Yes	Yes
Flex - Dupont LF	Yes	Yes	Yes
Flex - Dupont FR	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes
IMAGED TRACE / SPACE / PAD	Standard	Advanced	Development (NPI Only)
Internal Line Width	.003"	.002"	.0015"
Internal Spacing	.003"	.002"	.0015"
External Line Width	.003"	.002"	.0015"
External Spacing	.003"	.002"	.0015"
Minimum pad	.015"	.008"	.006"
Impedance Tolerance	10%	5%	<5%
SMT Pitch	.010"	.008"	.006"
VIA - PTH TOLERANCES	Standard	Advanced	Development (NPI Only)
Smallest Drilled Via	.0079"	.005"	.004"
Aspect Ratio	10:1	16:1	20:1
Minimum Cu Clearance to Hole	.008"	.006"	.0045"
PTH Tolerance [+/-]	.003"	.002"	.0015"
NPTH Tolerance	.001"	.001"	.001"
Back Drill Depth Tolerance	.005"	.003"	.002"
HDI CAPABILITIES	Standard	Advanced	Development (NPI Only)
Sequential Lamination	3x Lam Cycles	7x Lam Cycles	8x Lam Cycles
Laser Micro Vias	.004"	.003"	.0025"
Blind Aspect Ratio	.75:1	1:1	1.2:1
Blind/Buried Vias	.005"	.004"	.003"
Via in Pad	Epoxy or Copper Filled	-	-
Laser Routing Board Thickness	<.040"	.040"-.062"	.062" +
SOLDER MASK-NOMENCLATURE	Standard	Advanced	Development (NPI Only)
LPI Soldermask	Green, Blue, Red, Clear	Black, White, Purple	All Colors
Minimum Clearance	.002"	.001"	.0005"
Minimum Web	.004"	.003"	.002"
Legend Color	White	Black, Yellow, Orange	All Colors
TEST & MEASUREMENT	Standard	Advanced	Development (NPI Only)
Flying Probe Test	Yes	Yes	Yes
Fixture Test	Yes	Yes	Yes
TDR	Yes	Yes	Yes
Ionics	Yes	Yes	Yes
CMI XRF	Yes	Yes	Yes
D Coupon	Yes	Yes	Yes
IST	Yes	Yes	Yes
HI-POT	Yes	Yes	Yes