# MANUFACTURERS OF HIGH QUALITY

# PRINTED CIRCUIT BOARDS

**ESTABLISHED IN 1983** 

25,000 SQUARE FOOT FACILITY

ISO 9001:2000

# **TYPE OF BUSINESS**

SINGLE SIDED: 5% DOUBLE SIDED: 40% MULTILAYER: 55%

# **PROTO-TYPE LEAD TIMES**

SINGLE & DOUBLE SIDED: 12 HOURS – 1 WEEK FOUR LAYER BOARDS: 48 HOURS – 1 WEEK SIX LAYER & UP: 72 HOURS – 1 WEEK LEAD TIMES

PROUCTION LEAD TIMES

SINGLE SIDED: 2-3 WEEKS DOUBLE SIDED: 2-3 WEEKS MULTILAYER: 3-4 WEEKS OFF-SHORE: 4-5 WEEKS

# SPECIALIZE IN FABRICATION OF OVERSIZED BOARDS 20" X 34"

LABORATORY AND CERTIFIED CHEMIST IN HOUSE STATISTICAL PROCESS CONTROL THROUGHOUT FULLY AUTOMATED BAR CODE TRACKING SYSTEM

ALL DATA RECEIVED VIA E-MAIL

sales@circuitw.com

# **CAPABILITIES**

# ORDER ENTRY / PRE-ENGINEERING

STATE OF THE ART COMPUTERIZED ORDER ENTRY. DEPARTMENT TRACKING THROUGH OUR BAR CODE SYSTEM

FILES ACCEPTED VIA E-MAIL AT CWI@CIRCUITW.COM FOR IN HOUSE PHOTOPLOTTING. ABILITY TO PLOT DRAWINGS USING CUSTOMER HPGL FILES ON H.P. LASER JET PLOTTER ELIMINATING THE NEED FOR BLUE PRINTS.

IF REQUESTED, CHECK PLOTS ARE E-MAILED TO CUSTOMER FOR APPROVAL PRIOR TO BEING RELEASED TO THE PRODUCTION FLOOR. ONCE APPROVAL IS RECEIVED, THE JOB IS RELEASED TO PRODUCTION.

ARTWORKS CAN BE ACCEPTED IN 1:1 FORMAT, POSITIVE OR NEGATIVE. FILM ARTWORK WILL BE SENT OUT FOR CONVERSION TO GERBER DATA AT AN EXTRA CHARGE. CUSTOMER WILL RECEIVE COPIES OF GERBER DATA FOR THEIR PERMANENT FILES.

DRILL FILES ARE CHECKED AGAINST DRAWINGS AND ARTWORKS TO ENSURE HOLE COUNTS ARE CORRECT AND THAT THE TYPE OF HOLE, (PLATED THROUGH OR NOT), ARE SPECIFIED CORRECTLY AND MATCH ALL DOCUMENTS.

#### MATERIALS

MATERIALS AVAILABLE:

FR4, HI-TEMP FR4'S, 170Tg AND 180Tg, 370HR, 185HR, ROGERS 4000 SERIES SELECT TEFLON'S

THICKNESSES FROM .005" TO .180"

CU WEIGHTS:

H/H, 1/0, 1/1, 2/0, 2/2 & 3/3, PLATED UP TO 6 OZ.

## **MULTILAYERS**

MAXIMUM LAYER COUNT 16

STANDARD CORES USED

4 LAYER: .028 1/1

6 LAYER: .014 1/1

8 LAYER: .008 1/1

10 LAYER: .005 1/1

12 LAYER: .004 1/1

WE RECOMMEND ELECTRICAL TESTING OF ALL MULTI-LAYERS

#### DRILLIING

SMALLEST HOLE SIZE DRILLED: .007"

CASTELLATIONS

HOLE TO BOARD EDGE TOLERANCE: +/- .005

2<sup>ND</sup> STAGE HOLE TO 1<sup>ST</sup> STAGE HOLE TOLERANCE: +/- .005

MINIMUM SLOT WIDTH: .027

MINIMUM SLOT RADIUS: .016

MAXIMUM DRILL STACK HEIGHT: .031 (4 D/S) (3 M/L),

.062 (3 D/S) (2 M/L) .093 (2 D/S) (1 M/L), .125 (1)

MAX. DRILL STACK HEIGHT WITH HOLE SIZE UNDER .018: (1)

MAX. DRILL STACK HEIGHT WITH HOLE SIZE OVER .020: (2-3)

ROUTING BOARD EDGE TOLERANCE: +/- .005"

SCORING OR JUMP-SCORING

BEVELLED EDGE

#### IMAGE

COPPER IMAGE: MINIMUM LINE WIDTH AND SPACING:

UL APPROVED TO .004"

**PRODUCTION CAPABILITIES .005"** 

HOLE TO PAD REGISTRATION TOLERANCE: .005"

### PLATING

## **COPPER PLATING**

SPEC FOR 1 OUNCE FINISH = START WITH 1/2 OUNCE COPPER

PLATING IN HOLE: 1 OUNCE.

PLATING ON SURFACE: 1.5 OUNCES.

SPEC FOR 2 OUNCE FINISH = START WITH 1 OUNCE COPPER

PLATING IN HOLE: 1 OUNCE.

PLATING ON SURFACE: 2 OUNCES.

EDGE PLATING

#### GOLD TAB PLATING

GOLD PLATING = .0003 OR .0005

NICKEL PLATING = .00001.

#### **BOARD FINISHES AVAILABLE:**

STANDARD HASL

#### OMNIKRON WHITE TIN

ELECTROLESS NICKEL IMMERSION GOLD

#### CARBON INK

IMMERSION SILVER

LEAD-FREE HASL - SN100CL