

# COPPER CLAD "RIGID"

KIT REPLACEMENT ITEM

PCB FAB-IN-A-BOX

DOUBLE-Sided PCB

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KIT REPLACEMENT ITEM

PCB FAB-IN-A-BOX

SINGLE-Sided PCB

**RATING: FR-4/G10**

**MATERIAL: FIBERGLASS**

**QUANTITY: 2 PANELS**

**THICKNESS: .032"**

**PANEL SIZE: 8"x10"**

**COPPER WT: 1/2oz**

Material Characteristics: Difiunctional FR-4/G-10 rigid laminates are manufactured from high reliability epoxy resin and woven glass fabric used for multi-layer copper clad one or two sided boards.

**Pulsar**  
PROFESSIONAL fx  
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Made in U.S.A. / Tech Support in U.S.A.

FR-4/G10 epoxy fiberglass prepreg with 1/2 ounce Copper foil for very fast etch times, enabling trace widths down to .005".

With the total thickness of .032", cutting/trimming is easily done using any conventional paper cutter. Made in the USA.



Check out our unique "Contact Etch" technique for no etching tank needed and fast etch times under 2 minutes.

## ALL "PulsarProFX" PRODUCTS:

### KITS:

- PCB "Fab-In-A-Box" [50-1003](#)
- PCB "Fab-In-A-Box" (MINI kit) [50-1006](#)
- Combo (PCB + DecalPro) [50-1004](#)
- DecalPRO (10min Graphics) [50-1001](#)

### LAMINATOR:

- Applicator (12" 120 vac) [50-1301C](#)

### SUPPLIES:

- PAPER: Toner Transfer Paper [50-1101](#)
- FOIL: GreenTRF (Etching) [50-1225](#)
- FOIL: WhiteTRF (Silkscreen) [50-1226](#)
- FOILS: "DecalPro" [50-1201 ~ 50-1299](#)
- CARRIER BOARD: "DecalPro" [50-1503](#)

**Underwriters Laboratories:** All materials meet UL-94VO

### General Information:

MIL-P-13949G Type Designation GFU.L. Designation – ANSI Grade FR-4  
 U.L. File Number E38534  
 Flammability Rating 94V-0  
 Maximum Operating Temperature 130°C  
 Copper Weight 1/2 oz.

### Peel Strength:

As received 10 lbs/in, min  
 After Thermal Stress (550°F, 20 sec) 10 lbs/in, min  
 After Processing Solutions 9 lbs/in, min  
 At Elevated Temperature 8 lbs/in, min

### Difunctional FR-4/G-10 Properties:

Flexural Strength Lengthwise 90 KSI, min  
 Permittivity, 1MHZ 4.7 max  
 Loss Tangent, 1MHZ .015, max  
 Water Absorption .15, max  
 ARC Resistance 120 sec, min  
 Volume Resistivity (Cond F) 1.0 x 10<sup>8</sup>, min  
 Surface Resistivity (Cond. F) 1.0 x 10<sup>7</sup>, min  
 Volume Resistivity E-24/125 5 x 10<sup>5</sup>, min  
 Surface Resistivity E-24/125 1 x 10<sup>5</sup>, min  
 Chemical Resistance 1.5%  
 Standard Tolerance +/- .0050  
 Class 3 Tolerance +/- .0035

### COPPER CLAD: 8" x 10"

- 2pk Rigid .032" Single Sided [50-1501](#)
- 2pk Rigid .032" Double Sided [50-1502](#)
- 2pk Flex .005" Single Sided [50-1504](#)
- 2pk Flex .005" Double Sided [50-1505](#)

### COPPER CLAD: 6" x 8"

- 4pk Rigid .032" Single Sided [50-1507](#)
- 4pk Rigid .032" Double Sided [50-1508](#)
- 4pk Sampler (Mixed)... [50-1506](#)  
 (.005" SS+DS and .032" SS+DS)

