

# Schematic and PCB Design Courses – Online

<http://www.fedevel.com/academy/>

The screenshot displays a PCB design software interface for configuring a 6-layer ML (Multi-Layer) stackup. The background features a dark blue PCB pattern.

**Prepreg Panel:**

- Material: DE 104 ML
- Resin: 2116 [ AT 01 ]
- theoretical thickness: 118,492  $\mu\text{m}$
- theoretical thickness: 0,005 inch
- Scaled Flow: 109,22  $\mu\text{m}$
- Scaled Flow: 4,30 mil
- resin excess flow: 12,246  $\mu\text{m}$

**Core Panel:**

- Material: DE 104 ML
- Thickness: 360  $\mu\text{m}$  [ 2 x 7628M ]

**Copper Panel:**

- Thickness: 18  $\mu\text{m}$
- % of copper in layout: 90

**Stackup Diagram (from top to bottom):**

- 172,5  $\mu\text{m}$ : 18  $\mu\text{m}$  90% (Copper)
- 196  $\mu\text{m}$ : 106 [ AT 01 ] (Prepreg)
- 196  $\mu\text{m}$ : 2116 [ AT 01 ] (Prepreg)
- 196  $\mu\text{m}$ : 18  $\mu\text{m}$  90% (Copper)
- 196  $\mu\text{m}$ : 200  $\mu\text{m}$  [ 1 x 7628M ] (Core)
- 697  $\mu\text{m}$ : 18  $\mu\text{m}$  90% (Copper)
- 697  $\mu\text{m}$ : 106 [ AT 01 ] (Prepreg)
- 697  $\mu\text{m}$ : 2116 [ AT 01 ] (Prepreg)
- 697  $\mu\text{m}$ : 360  $\mu\text{m}$  [ 2 x 7628M ] (Core)
- 196  $\mu\text{m}$ : 18  $\mu\text{m}$  90% (Copper)
- 196  $\mu\text{m}$ : 200  $\mu\text{m}$  [ 1 x 7628M ] (Core)
- 172,5  $\mu\text{m}$ : 2116 [ AT 01 ] (Prepreg)
- 172,5  $\mu\text{m}$ : 106 [ AT 01 ] (Prepreg)
- 172,5  $\mu\text{m}$ : 18  $\mu\text{m}$  90% (Copper)

**isola 6-layer ML Specification Panel:**

- prepreg thickness: 0,690 mm
- resin cont.: 62,6 %
- copper thickness: 0,108 mm
- core thickness: 0,744 mm
- Number of Cu-layer: 6
- actual thickness**: 1,542 mm
- nominal thickness**: 1,500 mm
- autoclave:
  - ▶ hydraulic or ADARA press
- level of resin filling:
  - dielectric constant (1 MHz)
  - ▶ isolation distance

Navigation icons at the bottom right include a printer, a floppy disk, a question mark, and a right arrow.

## Schematic and PCB Design Courses – Online

<http://www.fedever.com/academy/>

TYPE;	Impedance;	Layer (Reference);	Width (um);	Gap (um);
DIFF;	90ohm;	L1(L2), L6(L5);	250	200
DIFF;	90ohm;	L3(L2,L4)	200	250
DIFF;	100ohm;	L1(L2), L6(L5);	250	400
DIFF;	100ohm;	L3(L2,L4)	200	500
SE;	55ohm;	L1(L2), L6(L5);	250	
SE;	55ohm;	L3(L2,L4)	200	