

# MAGNALYTIX<sup>®</sup>

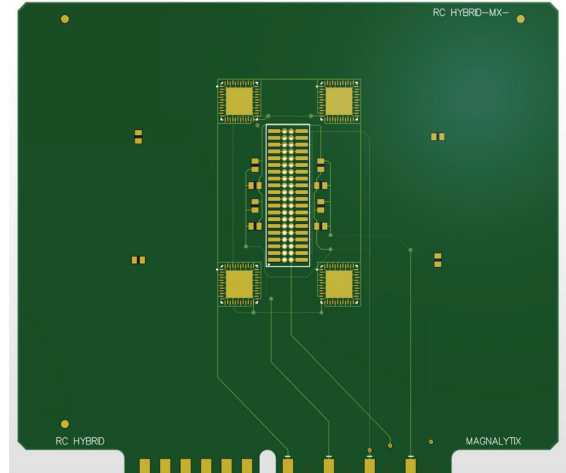
## MGX QFP 48-11 4-Up Panel SIR Test Board



### Practical Uses

The MGX QFP 48-11 SIR test board is designed to test the activity of flux and process residues on SMT top side, SMT bottom side, and Selective Soldering. Flux and process residues are chemical residues left on the surface and underneath component terminations. Reliability depends on the reactivity of post-reflow residues. The activity of flux residue under component bodies and around terminations is of great concern. Secondary soldering processes such as wave, selective, rework, and touch up are also areas of concerns, which can be susceptible to leakage currents.

The QFN-48 bottom terminated components have notoriously low standoff gaps. The surface mount / thru-hole connector in combination with the 0805 passives provide a good representation of today's highly dense electronic circuits.



### Primary Uses

- Materials Characterization
  - Solder Paste Characterization
  - Selective Soldering Flux
  - Electrochemical stability of the flux residue in harsh environments

### Secondary Uses

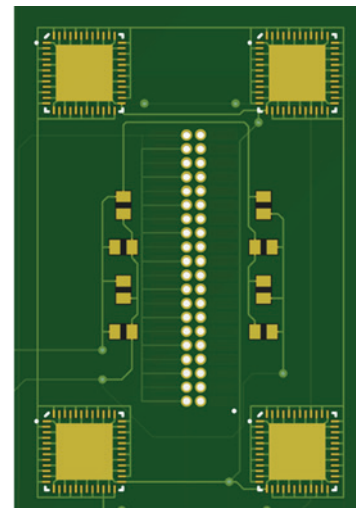
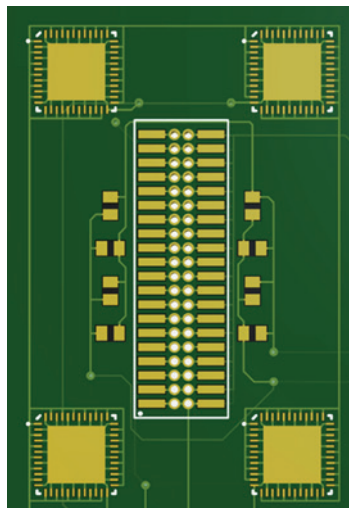
- Cleaning process
  - Cleaning agents
  - Cleaning tools
  - Partially cleaned flux residues

### Components

- Bottom Terminated
- SMT/Thru-Hole

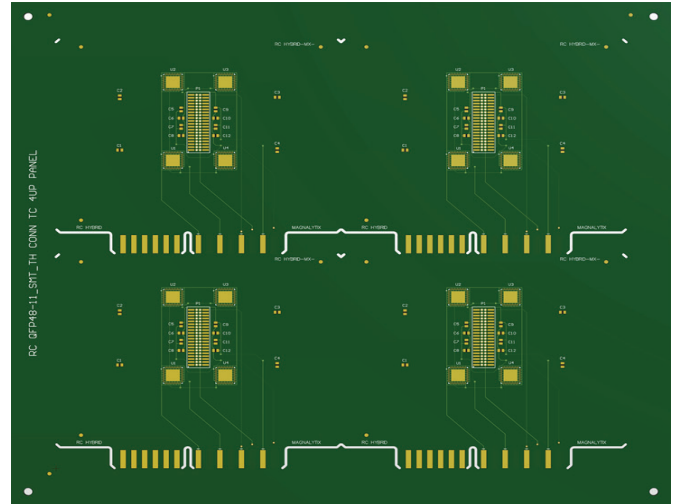
### Process

- SMT
- Selective Soldering
- Rework



## SIR Test Board Specifications

- Overall Panel Dimensions:  
X = 9.570 in. / Y = 8.696 in
- Route Tool Path: 40 mil outer board cutout
- V-Cut 30 deg (+/- 5% both sides (6 places each side)



## Component Descriptions

- Channel 1 contains QTY = 4 of QFN48-11 (TOP)
- Channel 2 contains QTY = 4 of QFN 48-11 (BOT)
- Channel 3 contains QTY = 1 of SMT/TH Custom Connector
- Channel 4 contains QTY = 16 of 10pF 0805 Caps
- TOP SIDE contains QTY = 4 of C3/IC Caps (10pF 0805)
- BOT SIDE contains QTY = 4 of C3/IC Caps (10pF 0805)

## Test Card Channels

<b>Quadrant 1</b>	EDGE PIN 1 (-) = TOP ODD QFN PADS	EDGE PIN 2 (+) TOP EVEN QFN PADS +GND LUGS
<b>Quadrant 2</b>	EDGE PIN 3 (-) = BOT ODD OFN PADS	EDGE PIN 4 (+) = BOT EVEN QFN PADS
<b>Quadrant 3</b>	EDGE PIN 5 (-) EVEN ROW CONN PADS	EDGE PIN 6 (+) = ODD ROW CONN PADS
<b>Quadrant 4</b>	EDGE PIN 7 (-) = ODD CAP PADS	EDGE PIN 8 (+) = EVEN CAP PADS

## MGX QFP 48-11 4-Up Panel Test Set

Each Magnalytix Test Set includes the substrates and components to build complete assemblies needed for 1 standard testing cycle and provide the objective evidence needed to meet IPC J-STD-001G-Am1. This includes:

4 Each – QFP 48-11 IR Test Boards | 36 Each – QFN 48-11 Components | 96 Each – 0805 Caps  
4 Each – SMT/TH Connectors