

MAGNALYTIX[®]

MGX SIR Testing the IPC B-52 Test Board

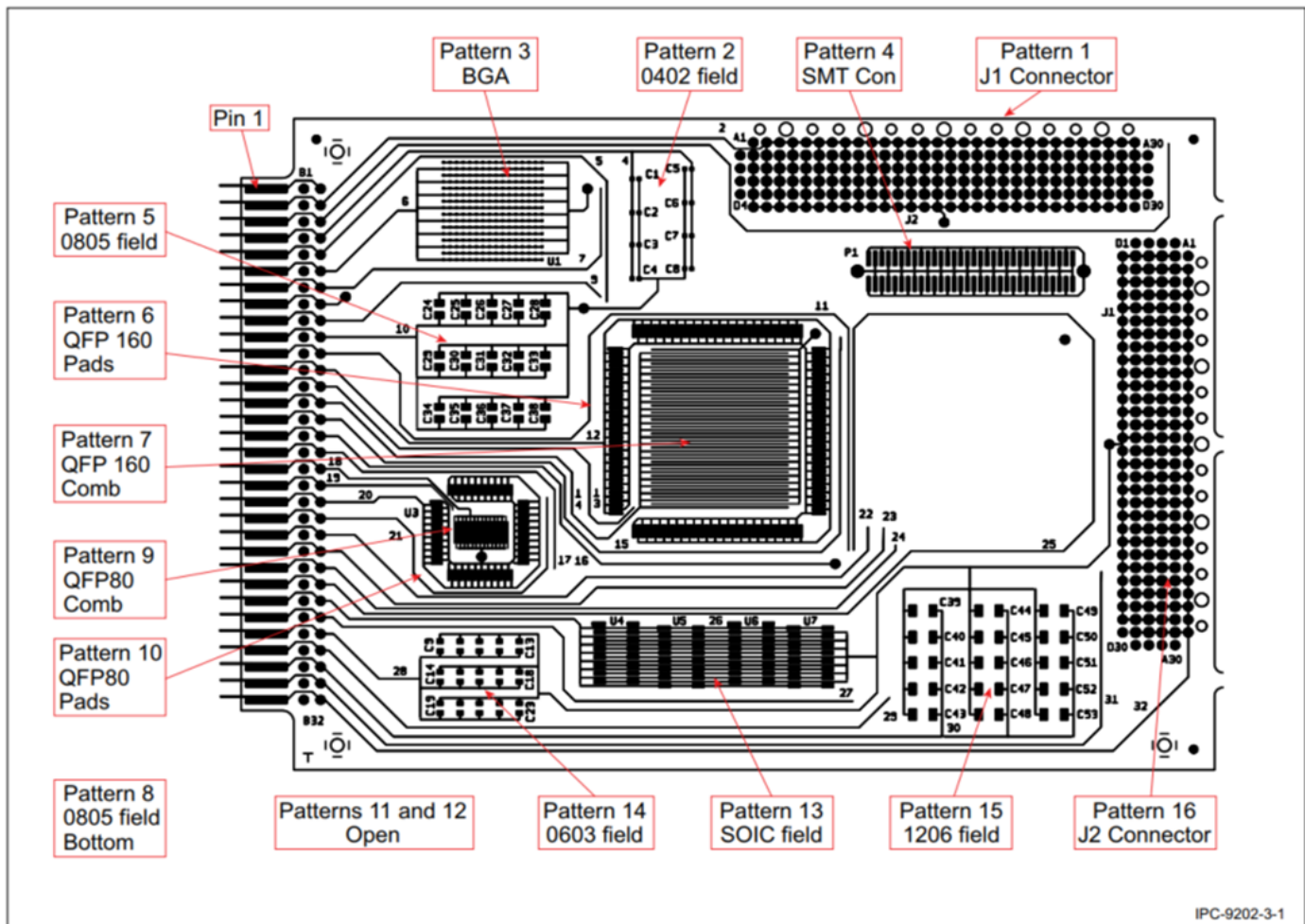
IPC B-52 SIR and IC Testing Services

Magnalytix SIR Test Instrumentation and Testing Services center on the MGX 4-channel test boards.

MGX test systems can now provide SIR and IC Testing Services on the IPC B-52 Test Board.

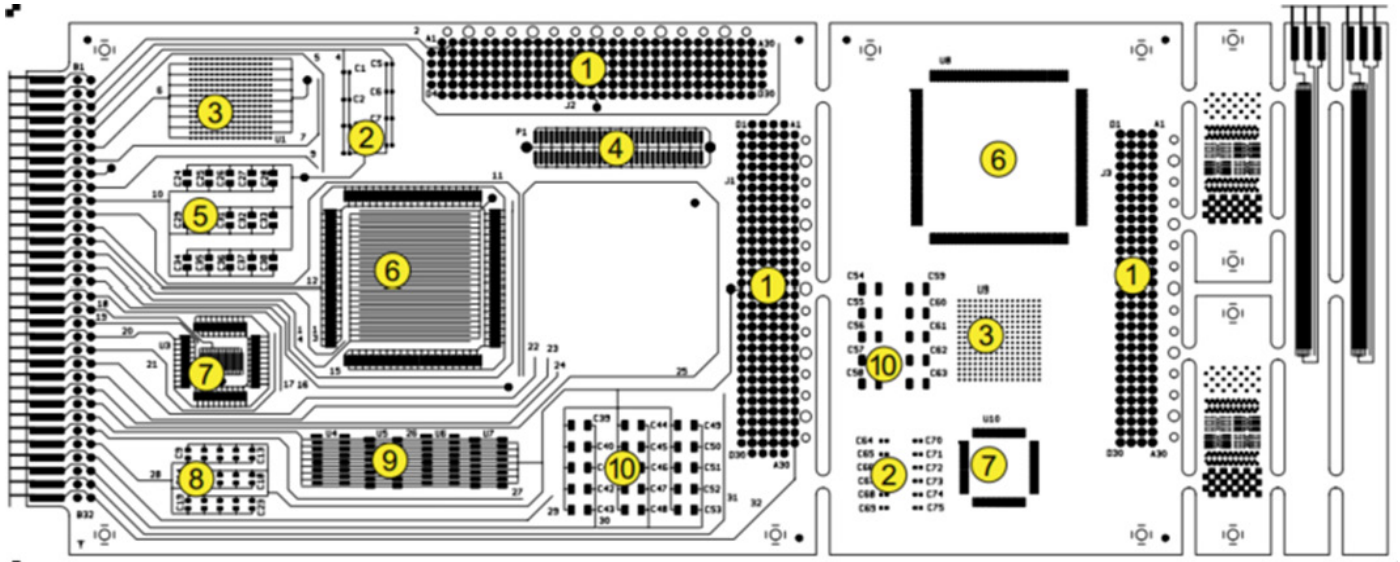
The IPC-B-52 test vehicle is an industry test board that can characterize materials and optimize the assembly process. MGX advanced testing services can now perform SIR and IC testing services.

The B-52 test board includes test patterns adjacent to and beneath components. The IPC B-52 test board contains 14 test patterns, an ion chromatography coupon, and two SIR mini-coupons.



Test Methodology

IPC-9202A documents the proper methodology for accurate SIR testing.



1. Visual Examination - Before testing, visually inspect the test boards to ensure they represent manufactured hardware.
2. Ionic Analysis Tests - IC Ion Chromatography analysis tests are performed per IPC TM-650, Method 2.3.28.
3. SIR Testing - Vehicles prepared for SIR testing should be connected by either edge card connector fixtures or hard wiring consistent with IPC TM-650, Method 2.6.3.7, for a minimum of 168 hours.
4. Post-SIR Visual Examination - A subset of components sheared and imaged. Compare the residue and leakage currents to the SIR output over the testing period.
5. Acceptance Criteria - SIR patterns shall show a minimum resistance of 100 megohms (>108ohms) beginning 24 hours after chamber stabilization.
6. Ionic Analysis - Site-specific analysis on components that fail or exhibit leakage currents.
7. Reporting - 3rd party report that includes
 - a. Test Objective
 - b. Test Board
 - c. Materials and Process Parameters
 - d. SIR Test Parameters, including hardware validation and environmental conditions.
 - e. SIR data for each component with visual images
 - f. Detailed analysis of the data findings
 - g. Inferences from the Data Findings
 - h. Conclusions and Recommendations