Service : Electrical Failure Analysis

Purpose

Test and measurements at single devices that had been found defective either in a system test or as field return.
The electrical failure analysis is the first step of eventually required further investigations.

Bluetest Expertise

If the test program had been developed at Bluetest the prerequisites for an electrical failure analysis are perfect. The know-how about device and test program makes the interpretation of the results easy. Activating the characterisation options will give more and better result.

Activities
Participants

Product Support, Test, Test engineer
Product responsible

Inputs, Requirements

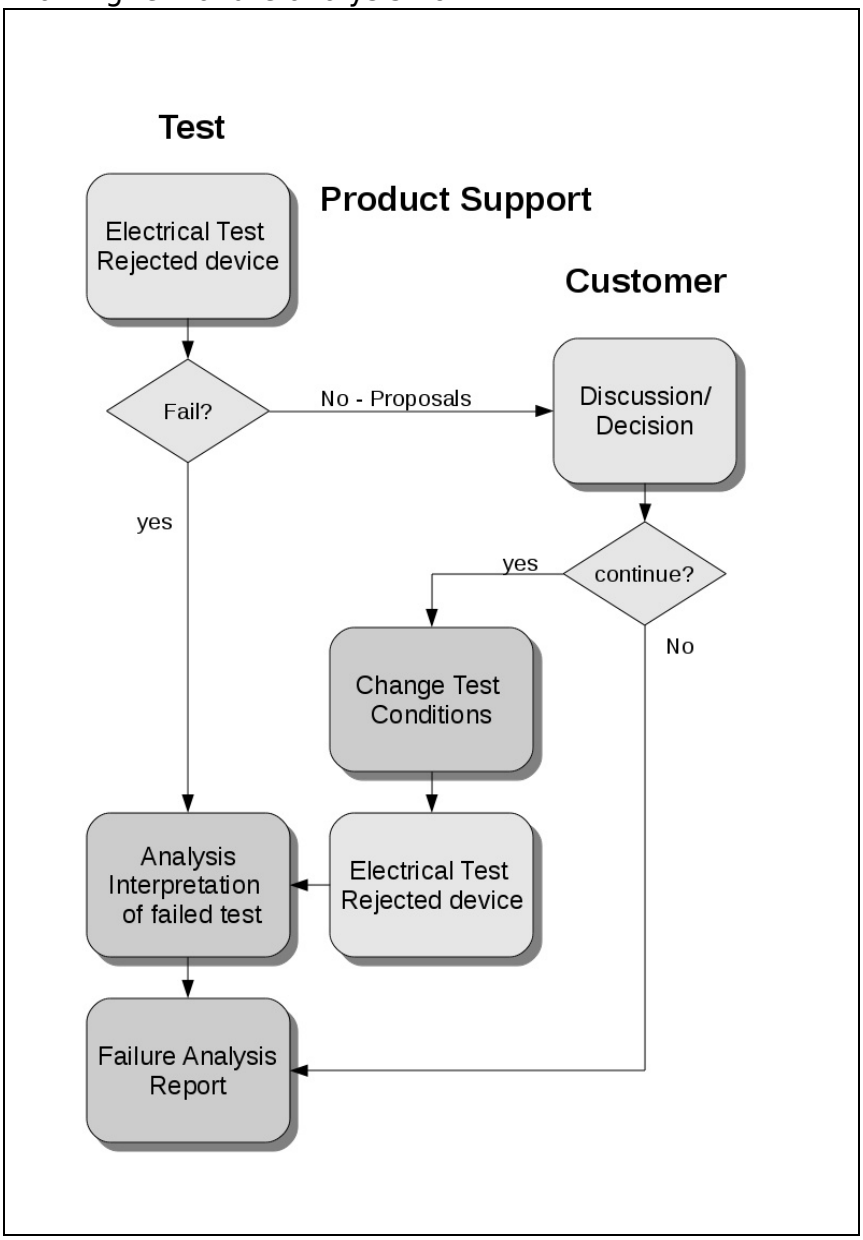
Suspect part, description of failure mode

Performance

The defective device is tested with the standard series test setup for this device type. A known good reference sample should be measured before starting test of any suspect devices.
In some cases the returned device needs some cleaning and conditioning before test. Especially desoldered parts show strong contact issues.

The results of failing tests are interpreted and documented by the test engineer.
If the first issue does not show a fail, the test conditions could be modified in order to simulate the conditions given in the device failure mode description.

Drawing: el. failure analysis flow

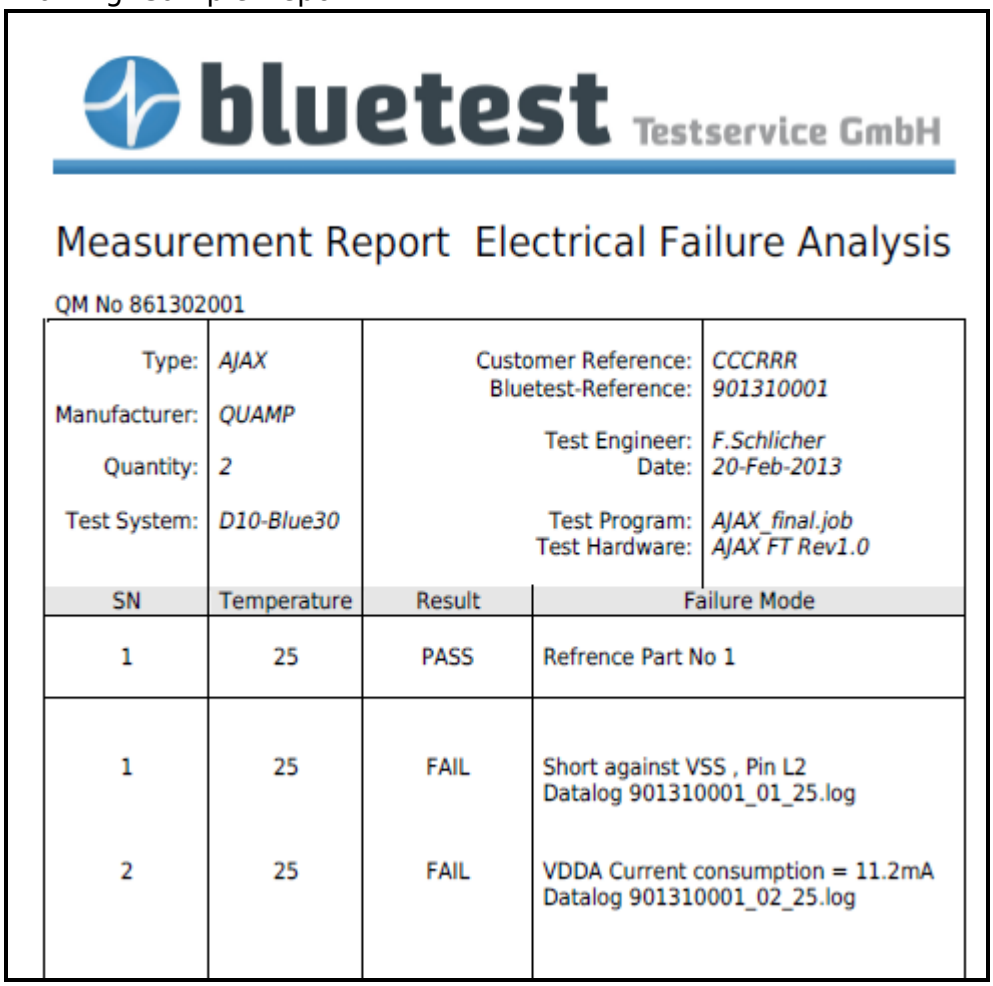


Output, result

The test engineer creates a failure analysis report which you will receive together with the test results .

A possible result might be the conclusion the the series test program has to be permanently modified or additional tests have to be developed and included.

Drawing: Sample Report



bluetest Testservice GmbH

Measurement Report Electrical Failure Analysis

QM No 861302001

Type:	*AJAX*	Customer Reference:	*CCCRRR*
		Bluetest-Reference:	*901310001*
Manufacturer:	*QUAMP*		
		Test Engineer:	*F.Schlicher*
Quantity:	*2*	Date:	*20-Feb-2013*
Test System:	*D10-Blue30*	Test Program:	*AJAX_final.job*
		Test Hardware:	*AJAX FT Rev1.0*

SN	Temperature	Result	Failure Mode
1	25	PASS	Refrence Part No 1
1	25	FAIL	Short against VSS , Pin L2 Datalog 901310001_01_25.log
2	25	FAIL	VDDA Current consumption = 11.2mA Datalog 901310001_02_25.log

Bluetest, 19.2.2013