PokitMeter
POK-TRK
Manual

Document Number: D0004265

Revision: 1.00

Author: M. Fineschi

Date: *17 Jul 2018*

Document Control

Document Title	PokitMeter – User Manual
Document Number	POK-TRK
Revision	1.00
Date	17 Jul 2018
Author	M. Fineschi
Reviewer	P. Moutzouris
Approver	P. Moutzouris
Status	Release

Document History

Revision	Description of Changes	Date	Revised	Approved
1.00	Initial Release.	14-Dec-17	M.F.	-

Contents

1   Introduction

1.1   General

This document defines the usage of the picoMeter developed by Ingenuity Electronics Design Pty Ltd (Ingenuity) on behalf of Ingenuity Electronics Design.

The POK-TRK Test Jig is a bed of nails type functional test jig for electrical testing, programming and functional verification of the PCA. The PCA Test Jig is a semi-automated fixture controlled by software running on a Windows based PC.

The Test Jig collects data in log file from each test and stores it against the Unique serial number assigned of the device being tested. This data is preserved for calibration audit purposes.

1.2   Definitions

1.2.1   Acronyms

The following abbreviations are used in this document:

DUT	Device Under Test
NA	Not Applicable
PCA	Printed Circuit Assembly
PCB	Printed Circuit Board
TBA	To Be Advised
TBC	To Be Confirmed
USB	Universal Serial Bus

1.2.2   Terms

The following terms are used in this document:

Shall, Must	Indicates a mandatory requirement.
Should	Indicates a recommendation.
Will	Indicates a non-mandatory provision with a declaration of intent.
May	Indicates a permission.
Can	Indicates a possibility or a capability
Note	Used to designate additional information intended to provide guidance, understanding and/or clarification

1.3   Reference Documents

The following documents are referenced in this report.

Ref.	Title	Doc No.	Author	Rev	Date
1					
2					
3					

2   Test Jig Hardware

The system to PCA level testing for the Urbanise Gateway PCA includes the following components.

PCA Test Jig Fixture The PCA test jig is designed to test the POK-TRK and program the microprocessor and store calibration values on Pokit.	Image of Test Jig Box goes here
Asus PC Dedicated laptop configured to run the Test Jig and associated accessories and the Test Application installed and configured. Will be provided by Ingenuity Design	

|	
DC Power Supplies (Not Supplied by Ingenuity) 2 x outputs D.C. power supplies. Supply power to the DUT and the Jig internal electronics. Shall have the ability to output 15V/1A from each channel. **NOTE: The Power Supply is not provided with the Test Jig.**	
Digital Multi meter Digital multi meter used to measure resistors and voltages of the DUT.	
Cabling USB Type-A to USB Type-B cable for connecting the Test Jig to the Laptop	
Cabling Customized RS232 cable for connecting the Multi Meter to the USB to RS232 smart cable USB Type-A Male to USB Type-A Female cable to extend the length of USB to RS232 smart cable USB Type-A to RS232 smart cable	

3   Initial Setup

3.1   Connection

Connect the Test Jig components as shown on Document **D0001620 picoMeter TestJig Wiring Diagram** provided by Ingenuity Design. Below is a reference of the external wiring diagram. All the internal and external wiring diagrams were provided by Ingenuity Electronics Design
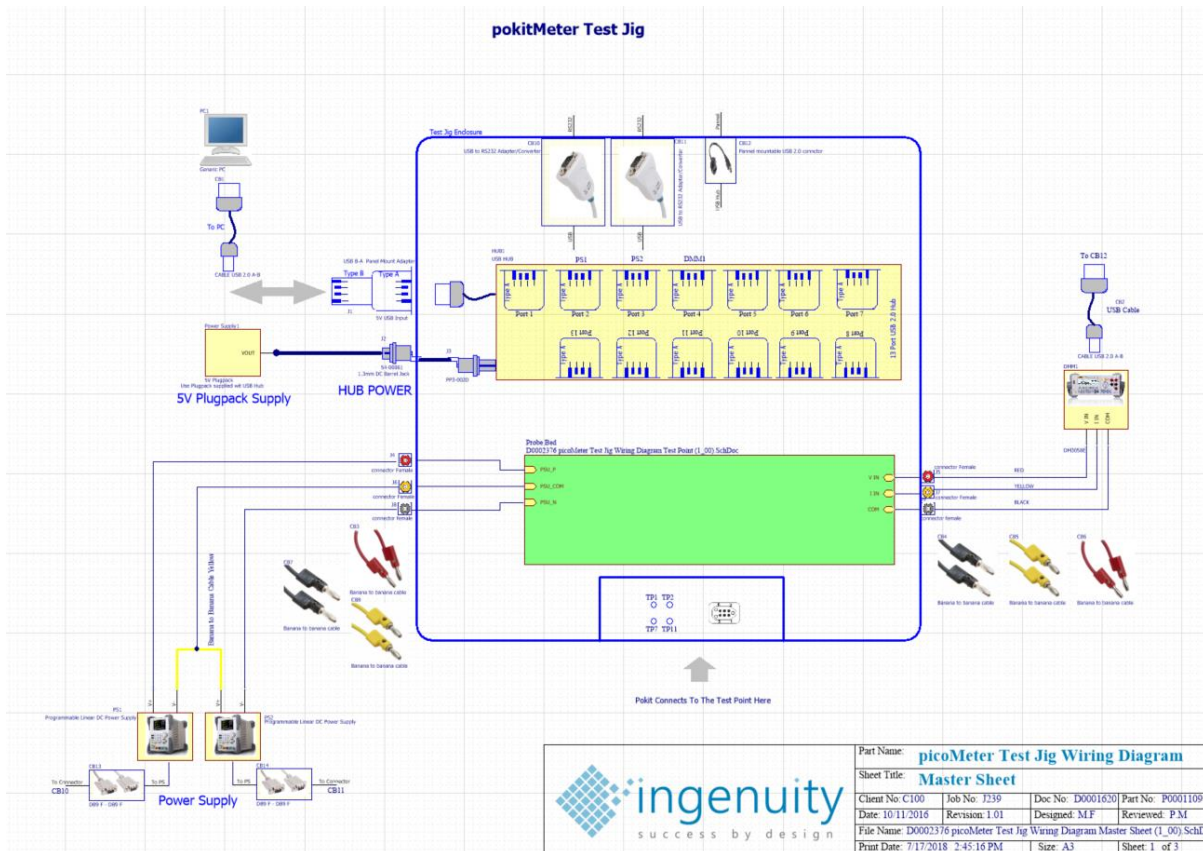
4 Running Tests

The section describes the process of running a test with the Test Jig. Each test will produce a test report with all calibration parameters. It is important to save this results for our reference.

Step 1: Start the PC Application on the Laptop using the shortcut on the Desktop	
Step 2: Click on the Change Button to select the folder where all the test results will be saved. Select the desired output folder and click OK. It is recommended to create a new folder with the test date (each day) and save all results there. **NOTE: This step needs to be done only once before staring all test. It does not need to be repeated wth each pcba.**	

Step 3: Take 1 pokitmeter PCBA and place it on the test jig. Close the the test Jig and make sure the PCBA makes contact with the probe pins.	Image of PCB in Test Jig Box goes here
Step 4: Press START to start testing the PCBA.	
Step 5: The test will run and each test will be marked with a green light is pass or RED light if Failed. WAIT UNTIL ALL TEST ARE FINISHED	

Step 6: After test finalized the result will be shown on the top right dialog box. Possible test results are: PASS FAIL ABORT	
Step 7: If test result is passed, then PCBA is good to go. If PCBA test FAIL then we need to evaluate why it failed and rework PCBA if needed. Test report will be automatically saved into the folder selected in step 2.	
Step 8: Open the test jig lid and remove PCBA.	
Step 9: Start.again from Step 3 using a new PCBA	

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

－ － Reorient or relocate the receiving antenna.

－ － Increase the separation between the equipment and receiver.

－ － Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

－ － Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.