

Keysight ECal Modules



October 6, 2014
Copyright 2014
Keysight Technologies Inc
www.Keysight.com

Contacting Keysight Sales and Service Offices

Assistance with test and measurements needs and information on finding a local Keysight office is available on the internet at, <http://www.Keysight.com/find/assist>. If you do not have access to the internet, please contact your field engineer.

Note: In any correspondence or telephone conversation, refer to the product by its model number and full serial number. With this information, the Keysight representative can determine whether your unit is still within its warranty period.

Product Declassification and Security

Product Name: Electronic Calibration Module

Model Numbers:

RF Two-Port: 85091C, 85092C, 85093C, 85096C, 85098C, 85099C

RF Four-Port: N4431A, N4431B

Microwave Two-Port: N4690A, N4690B, N4691A, N4691B, N4692A, N4693A, N4694A, N4696A, N4696B

Microwave Four-Port: N4432A, N4433A,

Note: The individual modules may not have the model number listed, but will instead have a part number based upon it; such as 85092-60007, N4691-60004, N4433-60003, etc.

Introduction

This document describes instrument security features and the steps to declassify an instrument through memory sanitization or removal. For additional information please go to

<http://wireless.Keysight.com/aerospace/index.aspx> or <http://www.Keysight.com/find/ad> and click on the security instrument tab.

Contents

Contacting Keysight Sales and Service Offices	2
Product Declassification and Security.....	2
Introduction	2
Terms and Definitions	3
Instrument Memory and Volatility Information	4
Memory Clearing, Sanitization and/or Removal Procedures	4

Terms and Definitions

Definitions:

Clearing – Clearing is the process of eradicating the data on media before reusing the media so that the data can no longer be retrieved using the standard interfaces on the instrument. Clearing is typically used when the instrument is to remain in an environment with an acceptable level of protection.

Sanitization – Sanitization is the process of removing or eradicating stored data so that the data cannot be recovered using any known technology. Instrument sanitization is typically required when an instrument is moved from a secure to a non-secure environment such as when it is returned to the factory for calibration. (The instrument is declassified) Keysight memory sanitization procedures are designed for customers who need to meet the requirements specified by the US Defense Security Service (DSS). These requirements are outlined in the “Clearing and Sanitization Matrix” issued by the Cognizant Security Agency (CSA) and referenced in National Industrial Security Program Operating Manual (NISPOM) DoD 5220.22M ISL 01L-1 section 8301.

Security erase – Security erase is a term that is used to refer to either the clearing or sanitization features of Keysight instruments.

Instrument declassification – A term that refers to procedures that must be undertaken before an instrument can be removed from a secure environment such as is the case when the instrument is returned for calibration. Declassification procedures will include memory sanitization and or memory removal. Keysight declassification procedures are designed to meet the requirements specified by the DSS NISPOM security document (DoD 5220.22M chapter 8)

Instrument Memory and Volatility Information

This section contains information on the types of memory available in your instrument. It explains the size of memory, how it is used, its location, volatility, and the sanitization procedure.

Summary of instrument memory

Memory Type and Size	Is Memory user accessible as a mass storage device?	Writable During Normal Operation?	Data Retained When Powered Off?	Purpose/Contents	Data Input Method	Location in Instrument and Remarks	Sanitization Procedure
Flash memory 8MB or 1MB(older ECal module)	No	Yes	Yes	factory data, user characterizations data.	Factory or calibration lab settings, User-saved characterizations data	USB board	ECal security wipe program.

Memory Clearing, Sanitization and/or Removal Procedures

This section explains how to clear, sanitize, and remove memory from you instrument for all memory that can be written to during normal operation

For Memory Clearing and Sanitization:

To clear or sanitize the Ecal memory, two Ecal Data Wipe Utility has been developed which will destroy all user data per US DoD 5220.22M. To download the latest version , click on the URL below.

<http://na.tm.keysight.com/pna/apps/applications.htm>

Select **ECal Module Security Wipe Stand-Alone for PC** and run this program on any windows PC or ENA with firmware revision 9.2 or later. If the Ecal is used with an PNA, then select the 'ECal Module Security Wipe for the PNA' which require the PNA to have firmware revision A.03.50 or later. Follow the instructions on the ECalWipeReadMe document that is contained within the utility

For Memory removal:

This memory can NOT be removed without damaging the Ecal.