

# 86105D 20 GHz Optical 35 GHz Electrical Module

This manual provides documentation  
for the following instruments:  
86105D

Security and  
Declassification  
Procedures

## 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 signal generator 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

---

Model Number(s): 86105D

Product Name: 20 GHz Optical/35 GHz Electrical Module

Product Family Name: Infinium DCA family modules

Alternate Product Numbers:

---

This document describes instrument security features and the steps to declassify an instrument through memory sanitization or removal. For additional information please go to [www.Keysight.com/find/ad](http://www.Keysight.com/find/ad)

### Table of Contents

Terms and Definitions.....	4
Instrument Memory.....	5
Memory Clearing, Sanitization and/or Removal.....	6
User and Remote Interface Security .....	6

## 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 8-301.

**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

---

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	Writable During Normal Operation?	Data Retained When Powered Off?	Purpose/Contents	Data Input Method	Location in Instrument and Remarks	Sanitization Procedure
FPGA 30 Kbit RAM	Yes	Yes	Module ID and configuration, calibration factors 35 bytes of user comment accessible by remote programming	:COMMENTS remote programming command	Digital Board	Overwrite user comments with null string using :COMMENTS remote command

---

## 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 and for which the clearing and sanitization procedure is more than trivial such as rebooting your instrument.

### FPGA

<b>Description and purpose</b>	Stores Module ID, serial number, options and cal data. 35 bytes of memory available for user comments available by remote programming
<b>Size</b>	30720 bit RAM
<b>Memory clearing</b>	Send null string using remote programming: :COMMENTS "" Verify the user memory is empty using the remote command :COMMENTS? To read back any data in the user accessible memory
<b>Memory sanitization</b>	Send null string using remote command: :COMMENTS "" Verify the user memory is empty using the remote command :COMMENTS? To read back any data in the user accessible memory
<b>Memory removal</b>	N/A
<b>Write protecting</b>	N/A
<b>Memory validation</b>	N/A
<b>Remarks</b>	<p><b>Command</b> :COMMENTS {LModule   RModule},"&lt;comments_text&gt;"</p> <p>Sets the comments field for the module. This field is used to describe options included in the module, or for user comments about the module. A maximum of 35 characters is allowed. The &lt;comments_text&gt; argument represents the ASCII string enclosed in quotation marks. The maximum length of the string is 35characters.</p> <p><b>Example</b> :COMMENTS LModule, ""</p> <p><b>Query</b> :COMMENTS? {LModule   RModule}</p> <p>The query returns a string with the comments field associated with the module.</p> <p><b>Returned Format</b> [:COMMENTS] &lt;string&gt;</p>

## User and Remote Interface Security Measures

---

N/A

## Procedure for Declassifying a Faulty Instrument

---

None Available