

*INTERESTED IN SECURE FACSIMILE?*

If your organization is interested in our Secure Facsimile Test Capability, please contact JITC's representative:

*Mr Bradley A Clark*

*DSN 879-5085*

*(520) 538-5085*

*e-mail: [clarkb@fhu.disa.mil](mailto:clarkb@fhu.disa.mil)*

*Web Site:*

<http://jitc.fhu.disa.mil/it/faxreg.htm>

*or*

<http://198.154.64.17/it/faxreg.htm>



## **SECURE FACSIMILE TEST CAPABILITY**



**Joint Interoperability Test Command**  
201 Brainard Road, Building 57305  
Fort Huachuca, AZ 85613-7051

**1-800-LET-JITC**  
<http://jitc.fhu.disa.mil>

*Increasing Combat Effectiveness  
Through Interoperability*

## **Joint Interoperability Test Command**

## OVERVIEW

The Joint Interoperability Test Command (JITC) is the Defense Information System's Agency's (DISA) test organization responsible for the interoperability and standards conformance certification testing of all National Security Systems (NSS) and Information Technology (IT) systems. Following the publication of the Department of Defense Instruction (DODI) 4630.8, dated 18 November 1992, the JITC was charged by DISA to develop the capability to conduct conformance and interoperability certification testing of these systems. One of the testbeds assembled at the JITC for this purpose was the Secure Digital Facsimile Conformance and Interoperability Testbed.

Conformance certification testing of secure digital facsimiles consists of determining whether the unit under test meets the transmission, signaling, timing, protocol, and performance requirements stipulated in MIL-STD-188-161. We also test to assess the requirements of NATO STANAG 5000. To accomplish conformance testing, the JITC developed a method to capture the serial data bit stream output of a secure facsimile and then developed an automated test tool which analyzes the data for conformance to each of the six different protocols or modes of transmission



that a secure facsimile can use. The JITC works very closely with each of the secure facsimile vendors to ensure that the product they field conforms to the above standards. When a problem is identified, the secure facsimile vendor is provided a detailed analysis of what and where the problem is occurring. The vendor's software development team can then implement a corrective fix to the problem and provide JITC with a new software load or new controlling firmware to test again. In the other conformance areas (transmission, signaling, timing, and performance requirements), detailed data is also provided to the vendor identifying any problem that might have occurred. Also as part of the conformance test, we ensure that each of the secure facsimiles can operate in a bit error/noisy environment more severe than one should ever encounter on a US or NATO tactical transmission system.



Conformance certification testing as described above provides a high level of confidence that the tested secure facsimile equipment is capable of interoperating successfully with another certified secure facsimile.

To ensure that a secure facsimile can interoperate with each other, the JITC conducts interoperability certification testing.

As part of the agreement to conduct interoperability testing of a secure facsimile, each of the vendors provide at least one of the certified secure facsimiles for continual use within in the JITC Secure Facsimile Testbed. All secure facsimiles are tested in conjunction with some type of line encryption device, such as a STU-III or KG-84, and a transmission system. The line encryption device provides the secure facsimile timing in terms of a controlling clock signal, encryption or communications security, and an interface into the transmission media, whether it is a radio system, a dedicated landline, or a complex switching system. JITC has every type of line encryption device presently fielded in this testbed or readily available from a common pool of communications encryption equipment maintained at the JITC. We also have the capability to interface the unit under test with any tactical, strategic, or commercial communication transmission system desired. In response to hotline calls received at JITC from units deployed in the field, JITC simulates the reported interoperability problem and recommends a solution to the customer. As new user requirements evolve and technology advances, JITC's Secure Digital Facsimile Testbed will keep pace in order to provide the maximum support possible to our warfighter and industry customers.

If you have a need for a secure facsimile, please ensure that the unit you choose to match your operational requirements is certified by JITC. To accomplish this, simply go to the JITC Secure Digital Facsimile Register of Tested Products maintained at <http://jitic.fhu.disa.mil/it/faxreg.htm> or <http://198.154.64.17/it/faxreg.htm> . For additional information pertaining to secure facsimile conformance and interoperability certification testing, please contact JITC's representative.