NLECTC NIJ

Criminal Justice
Electronic Crime Technology
Center of Excellence

# SFP1215W Forensic Pouch

EVALUATION REPORT

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NIJ Electronic Crime Technology Center of Excellence
550 Marshall St., Suite B
Phillipsburg, NJ 08865
www.ECTCoE.org

## NIJ ECTCOE TESTING AND EVALUATION PROJECT STAFF

Robert J. O'Leary, CFCE; DFCP
Russell Yawn, CFCE
Chester Hosmer
Mark Davis, Ph.D.
Donald Stewart, CFCE; ACE
Randy Becker, CFCE
Jacob Fonseca
Michael Terminelli, ACE
Victor Fay-Wolfe, Ph.D.
Kristen McCooey, CCE; ACE
Laurie Ann O'Leary

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# Introduction

The National Institute of Justice (NIJ) Electronic Crime Technology Center of Excellence (ECTCoE) has been assigned the responsibility of conducting electronic crime and digital evidence tool, technology and training testing and evaluations in support of the NIJ Research, Development, Testing and Evaluation (RDT&E) process.

The National Institute of Justice RDT&E process helps ensure that NIJ's research portfolios are aligned to best address the technology needs of the criminal justice community. The rigorous process has five phases:

- **Phase I: Determine technology needs principally in partnership with the Law Enforcement and Corrections Technology Advisory Council (LECTAC) and the appropiate Technology Working Group (TWG).** NIJ identifies criminal justice practitioners' functional requirements for new tools and technologies. (For more information on LECTAC and the TWGs, visit http://www,justnet.org.)
- **Phase II: Develop technology program plans to address those needs.** NIJ creates a multiyear research program to address the needs identified in Phase I. One of the first steps is to determine whether products that meet those needs currently exist or whether they must be developed. If a solution is already available, Phases II and III are not necessary, and NIJ moves directly to demonstration, testing and evaluation in Phase IV. If solutions do not currently exist, they are solicited through annual, competitively awarded science and technology solicitations and TWG members help review the applications.
- **Phase III: Develop solutions**. Appropriate solicitations are developed and grantees are selected through an open, competitive, peer-reviewed process. After grants are awarded, the grantee and the NIJ program manager then work collaboratively to develop the solutions.
- **Phase IV: Demonstrate, test, evaluate and adopt potential solutions into practice.** A potential solution is tested to determine how well it addresses the intended functional requirement. NIJ then works with first-adopting agencies to facilitate the introduction of the solution into practice. After adoption, the solution's impact on practice is evaluated. During the testing and evaluation process, performance standards and guides are developed (as appropriate) to ensure safety and effectiveness; not all new solutions will require the publication of new standards or guides.
- **Phase V: Build capacity and conduct outreach to ensure that the new tool or technology benefits practitioners.** NIJ publishes guides and standards and provides technology assistance to second adopters.[1]

The High Priority Criminal Justice Technology Needs are organized into five functional areas:

- Protecting the Public.
- Ensuring Officer Safety.
- Confirming the Guilty and Protecting the Innocent.
- Improving the Efficiency of Justice.
- Enabling Informed Decision-Making.

The NIJ ECTCoE tool, technology and training evaluation and testing reports support the NIJ RDT&E process, which addresses high priority needs for criminal justice technology.

[1] *National Institute of Justice High-Priority Criminal Justice Technology Needs*, March 2009 NCJ 225375

# Overview

The demand for the ability of first responders and examiners to conduct field examinations of mobile devices is increasing. For mobile devices potentially containing digital evidence, the NIJ *Electronic Crime Scene Investigation: A Guide for First Responders,*[2] recommends:

> "First responders should also have radio frequency-shielding material such as faraday isolation bags or aluminum foil to wrap cell phones, smart phones, and other mobile communication devices after they have been seized."

There is a wide selection of faraday bags available to first responders. Typically they are made of solid material, making it difficult or impossible to see the screen of most modern day smart phones. Depending on the examination tools used by the examiner or first responder, different menus may need to be accessed in order to put the device in USB, debugging or airplane mode. Select Fabricators, Inc. (SFi) has developed a faraday bag called the Forensics Pouch that solves this issue by including a clear window.

[2] https://www.ncjrs.gov/pdffiles1/nij/219941.pdf

## Product Information

The following is from the Select Fabricators, Inc, website[3]:

- The SFP1215W Forensic Pouch patent pending gives the law enforcement community the means to secure and manipulate wireless devices.
- The USB 2.0 connection on the input/output plate allows the connection of a secured device to a forensics computer in the field or in the lab.
- SFP1215W with SFi's capacitive sensing technology works with any portable wireless device including smart phones.

## Special Features

From the product information sheet[4]:

- The SFP1215W allows for hands-on manipulation of wireless devices in an RF tight environment, making sure internal data is not compromised from moment of capture.

[3] http://www.selectfabricatorsinc.com/Security_Pouch/SFP1215W-SecurityPouch.html

[4] http://www.selectfabricatorsinc.com/Security_Pouch/Select%20Fabricators%20SFP1215%20 Security%20Pouch.pdf

- There is no need to take the captured device back to the laboratory to view the internal memory. The see-through soft material window and USB 2.0 connection allows device manipulation in the field.
- SFP1215W is manufactured in the United States of SFi's proprietary silver/copper/nickel fabric. This conductive, flexible material is the same fabric used over the past decade to make room sized to table top RF shielded enclosures.
- Better than –75 dB, 99.95 percent RF Isolation from 500MHz to 6.0GHz.[5]
- Complete kit comes with Operating Instructions and Carry Bag.
- More affordable than lab-based nonportable metal enclosures.
- Works with any portable wireless device, including smart phones with SFi's capacitive sensing technology.
- Connects to any forensic diagnostic software/computer.
- Each kit weighs less than one pound.

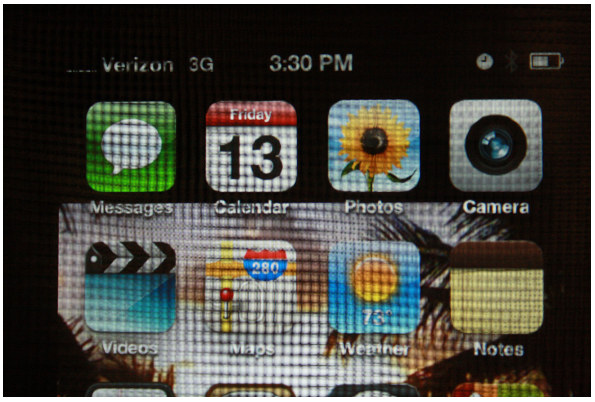
[5] The signal isolation reported and the reported frequency range was not tested as this is outside the scope of this report.

# Evaluation and Testing of Select Fabricator's SFP1215W Forensic Pouch

The SFi SFP1215W Forensic Pouch was used in a real-world setting on devices submitted for forensic examination. These devices were processed using the Forensic Pouch once it was confirmed that the Forensic Pouch prevented the devices from attaching to a cellular network. The following phones are a small subset of the devices processed while using the Forensics Pouch:

- Apple iPhone 3G (AT&T).
- Apple iPhone 4 (AT&T).
- HTC A9292 EVO 4G (Sprint).
- LG Model CU400 (AT&T).
- LG Model CU575 (AT&T).
- LG Model GU295 (AT&T).
- Motorola A455 Rival (Verizon).
- Motorola iDen Model i465 (Boost Mobile).
- Samsung Model SGH-A897 Mythic (AT&T).
- Samsung Model SGH-T105G (TracFone).
- Sanyo Model SCP2700 (Boost Mobile).
- Sanyo Model SCP6760 (Boost Mobile).
- Sony Ericsson Model W350a (AT&T).

The following pictures show both an Android and an iPhone through the Forensic Pouch's window.




## Test Results

In every instance, SFi's SFP1215W Forensic Pouch successfully blocked the device being examined from attaching to a cellular network. While using examination tools that require the device to be attached to a computer or reader of some type, the SFP1215W Forensic Pouch worked as advertised. Each device was successfully processed without the device attaching to the network.

# Conclusion

The Select Fabricator SFP1215W Forensic Pouch performed as advertised, blocking cellular connections on all of the devices processed while using the Forensics Pouch. The device's screen could be viewed through the soft material window. The internal USB connection in the pouch made it effortless to attach the device to a computer or other type of reader. The "Touch Screen Manipulation Insert" made it very easy to access the menus and submenus needed to put the device being examined into USB, debug or airplane mode. The Forensic Pouch performed exceptionally well in all respects.