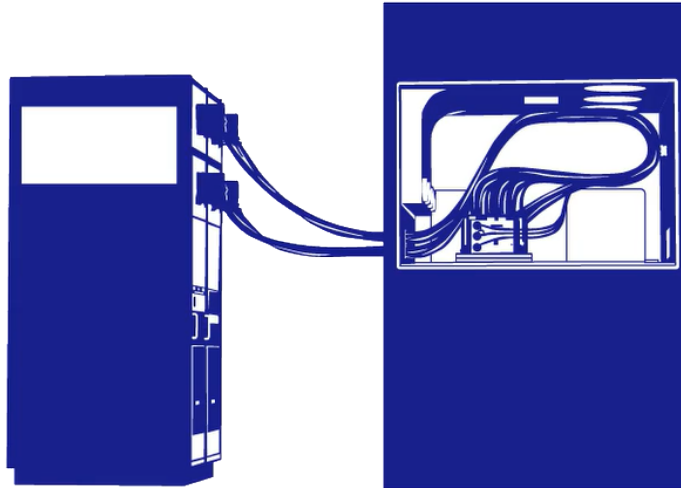


Intermittent Fault Detection & Isolation System 2.0™ (IFDIS 2.0™)

Weapon Replaceable Assembly (WRA) 7

Intermittent Fault Report

18 April 2019



Prepared and Submitted by:

**Universal Synaptics
4066 S 1900 W Ste B
Roy, Utah 84067
801.731.8508**

COMMERCIAL-IN-CONFIDENCE

Universal Synaptics Corporation (USC) owns the copyright in this document. It cannot be used for any purpose other than that for which it is supplied nor reproduced or copied, in whole or in part. It is Commercial-in-Confidence and is not to be communicated to any person without written consent from USC.

Weapon Replaceable Assembly (WRA) 7

Introduction:

Universal Synaptics requested and received an EA-18G WRA 7 “gold unit” asset from [REDACTED] to build an Interface Test Adapter (ITA) to electrically connect to the Intermittent Fault Detection & Isolation System 2.0 (IFDIS 2.0) and automatically generate the Test Program Set (TPS) through AutoMap™. The WRA 7 asset arrived with a Serviceable Tag marked Condition Code A (“gold unit”) – Ready for Install (RFI) – see Photo A and B.



Photo A - WRA 7 with Service Tag Condition Code A


<small>WARNING: Unauthorized persons removing, defacing, or destroying this label may be subject to a fine of not more than \$1,000 or imprisonment for not more than one year or both. (18 USC 1361)</small>	<small>FSN, PART NO AND ITEM DESCRIPTION</small> 5841-01-624-0932 117K060G03 WRA7 wired chassis		SERVICEABLE TAG-MATERIAL <small>NEXT INSPECTION DUE/OVER AGE DATE</small> NA		<small>CONDITION CODE</small> A
	<small>SERIAL NUMBER/LOT NUMBER</small> 1094	<small>UNIT OF ISSUE</small> EA	<small>INSPECTION ACTIVITY</small> [REDACTED]		
	<small>CONTRACT OR PURCHASE ORDER NO</small> NA	<small>QUANTITY</small> 01	<small>INSPECTOR'S NAME OR STAMP AND DATE</small> 1/5/17 		
	<small>REMARKS</small> RFILOP				
	<small>Previous section</small>				

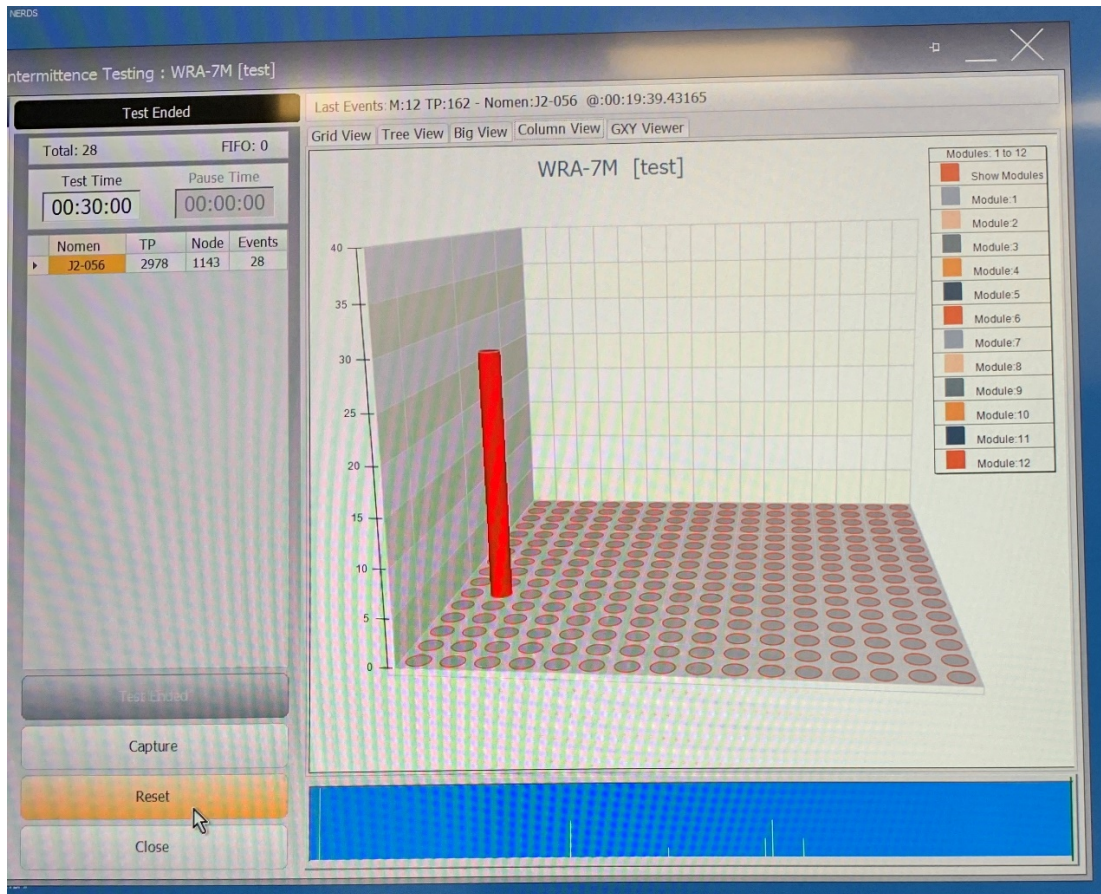
Photo B - Service Tag Condition Code A

Test Procedures:

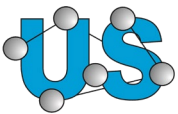
Universal Synaptics' technical team began validating form and fit of WRA 7 ITA using IFDIS 2.0 on 17 April 2019. At the conclusion of form and fit validation, AutoMap™ was performed and the TPS was automatically generated. TPS validation consisted of Continuity Test, Shorts Test, and Intermittence Test.

Results:

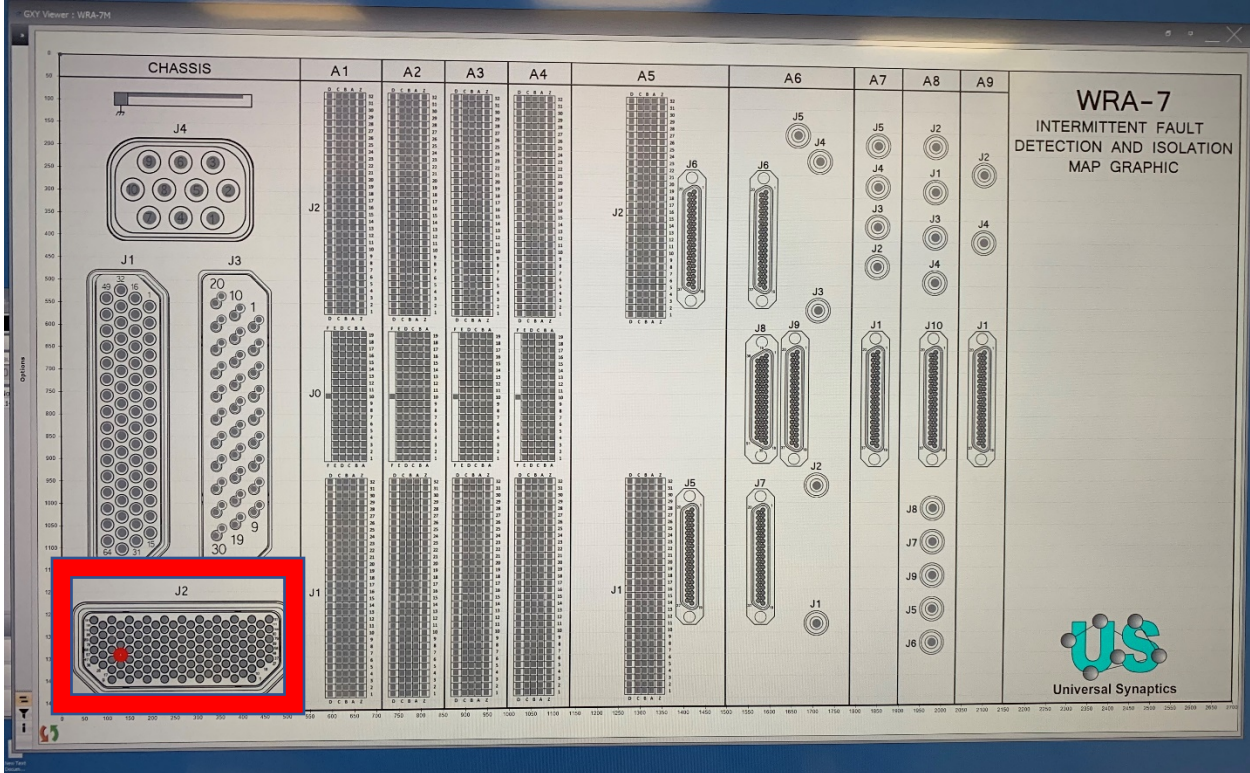
1. Continuity testing was conducted, and no open circuits were found in the WRA.
2. Shorts testing was conducted, and no shorted circuits were found in the WRA.
3. Intermittence testing was conducted with light tapping and minor manual manipulation. One circuit experienced 28 intermittent events.
 - a. Location of Detected and Isolated Intermittent Fault: J2-056, Test Point (TP) 2978, connected to Node 1143 - see Graphic 1 *Column View* and Graphic 2 Graphical XY Coordinate (GXY) View.



Graphic 1 - Fault Isolation Graphic – WRA 7 *Column View*



Universal Synaptics



Graphic 2 - Fault Isolation Graphic – WRA 7 GXY View

Summary:

With only minor manual manipulation, this RFI Condition Code A asset, had an intermittent fault, detected and isolated by IFDIS 2.0. Universal Synaptics recommends full IFDIS 2.0 testing under simulated operational environment conditions, using a temperature and vibration, as additional intermittent faults may be present in this asset.

Summary Video: [WRA 7 Intermittent Clip](#)

Additional Information:

Website: www.usynaptics.com, www.nofaultfound.com

Video: [Intermittent Fault Detector](#)

Email: contact@usynaptics.com

Phone: 801.731.8508