

*Palomar Scientific Instruments*

# DPD-3W-05C 3-Wave FIR Demodulator

## **Programming Guide**

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*Palomar Scientific Instruments*  
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Document Revisions

| Date      | Version Number | Document Changes |
|-----------|----------------|------------------|
| 7/17/2013 | 1.0            | Initial          |
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# Table of Contents

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|   |                                  |   |
|---|----------------------------------|---|
| 1 | OVERVIEW .....                   | 4 |
| 2 | ACQUIRING TOOLS / FILES .....    | 4 |
| 3 | XILINX IMPACT INSTALLATION ..... | 4 |
| 4 | FLASHING .....                   | 6 |

# 1 Overview

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This guide provides a basic guide on how to re-flash the firmware on the DPD-3W-05C.

## 2 Acquiring tools / files

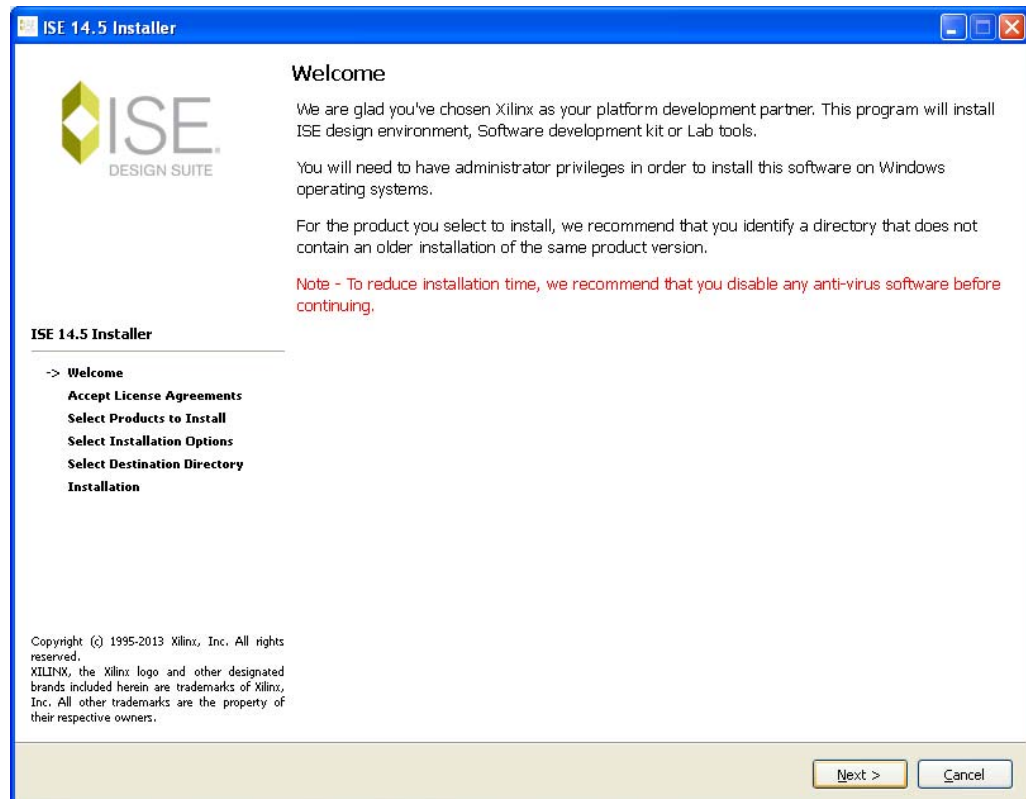
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In order to reprogram the DPD-3W-05C please visit <http://www.palomarsci.com/Downloads> and download the compressed archive (.zip) under **Programming files**. Within this archive, there are two files and a folder: **EAST\_DPD\_05C\_1r1.mcs**, **Xilinx.lic**, and the folder **Xilinx\_LabTools\_14.5**. Extract these to C: \\_EAST. Once the archive has been extracted continue with this guide.

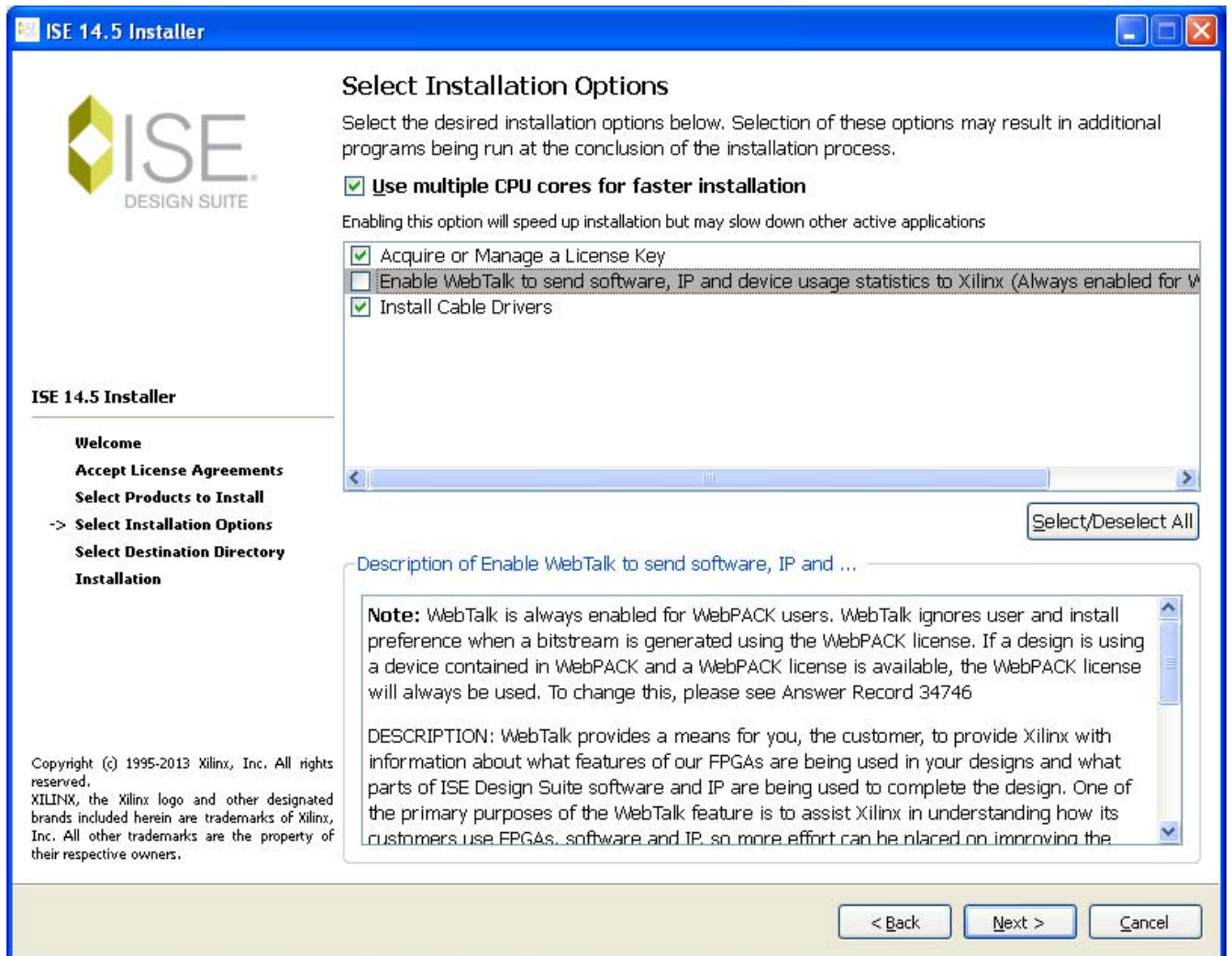
## 3 Xilinx iMPACT Installation

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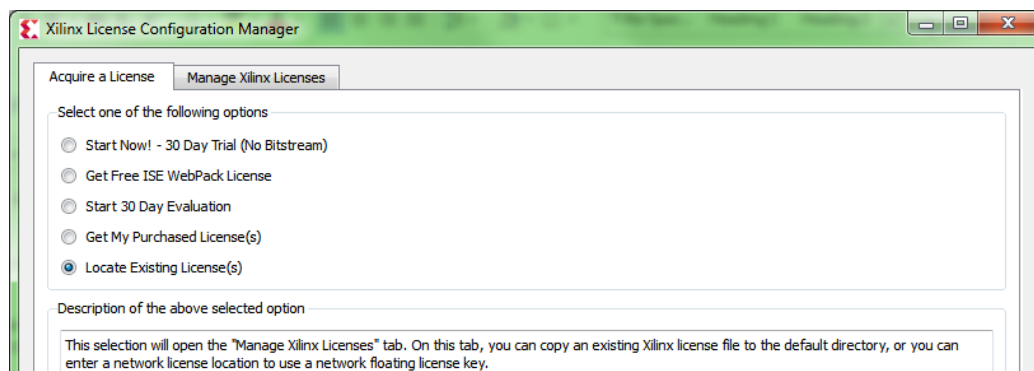
Launch xsetup.exe that is located with the C:\\_EAST\Xilinx\_LabTools\_14.5. Once launched, the following screen should appear:



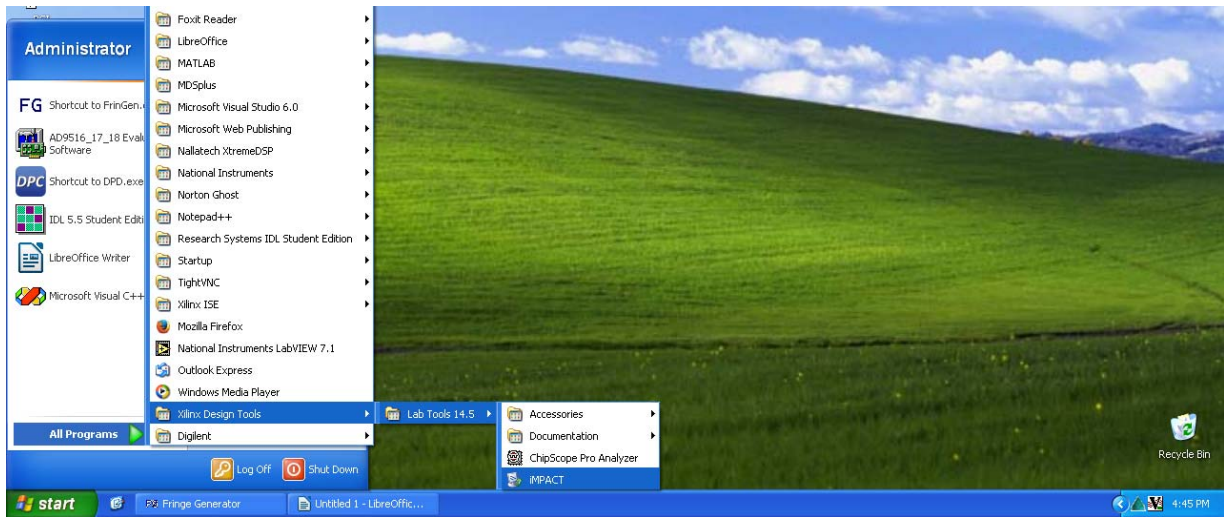
Click **Next** and agree to both License Agreements. After agreeing, an Installation Options window will appear. Set the options to the following screenshot and select **Next**:



Select **Next** in the Destination Directory dialog and wait until it finishes installing. Once Finish is selected the Xilinx License Configuration Manager dialog should appear. Select **Locate Existing License** and select **Next**.

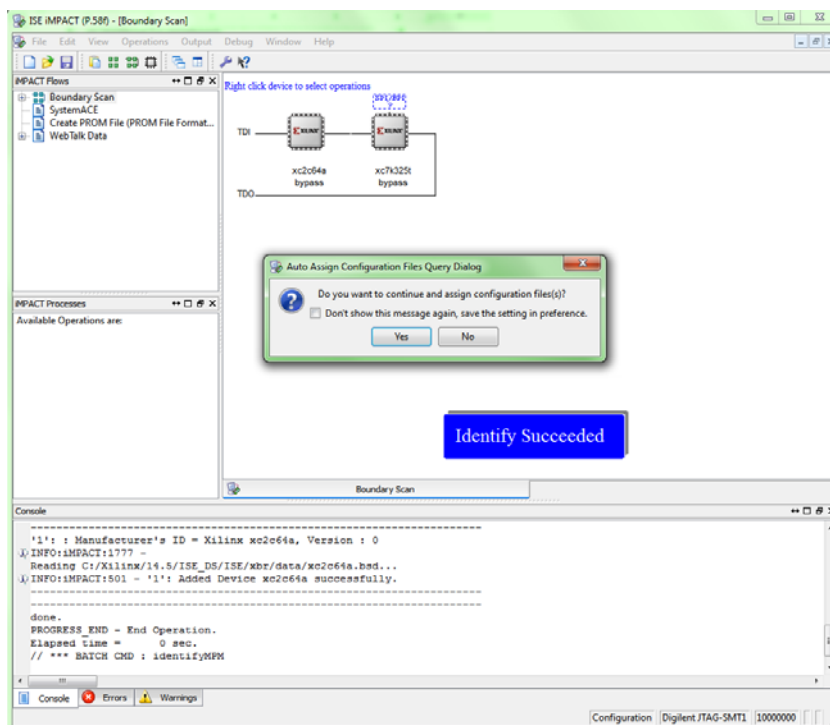


At the next screen click **Copy License**, browse to and select the provided license file (**Xilinx.lic**). iMPACT will now be accessible in the start menu.

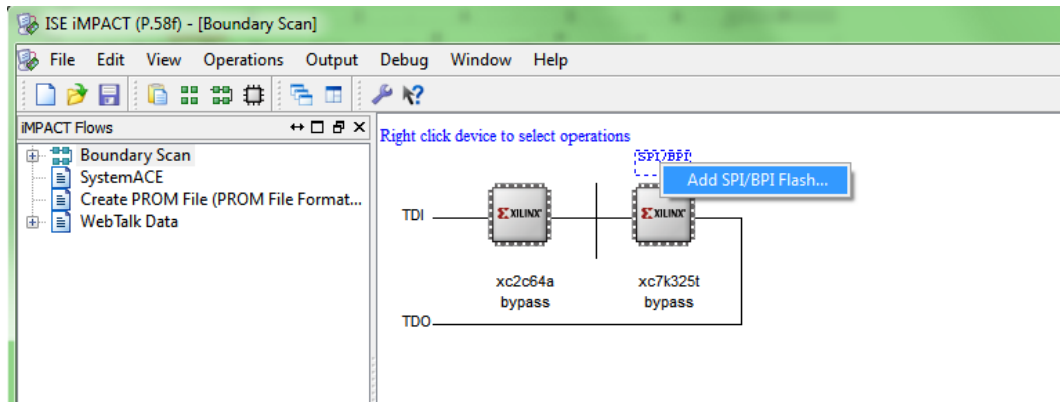


## 4 Flashing

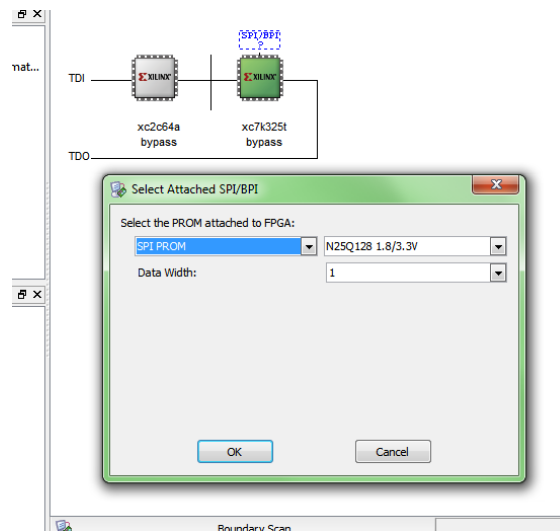
Using the provided USB to USB-micro cable (JTAG), connect the DPD-3W-05C to the host computer. Launch iMPACT, and hit **Cancel** on the **New iMPACT Project** dialog. Double click the Boundary Scan option in the top upper left corner of iMPACT. This will cause the area of the right to turn white, right click any part of this area and select **Initialize Chain**. If successful, the screen should appear as follows:



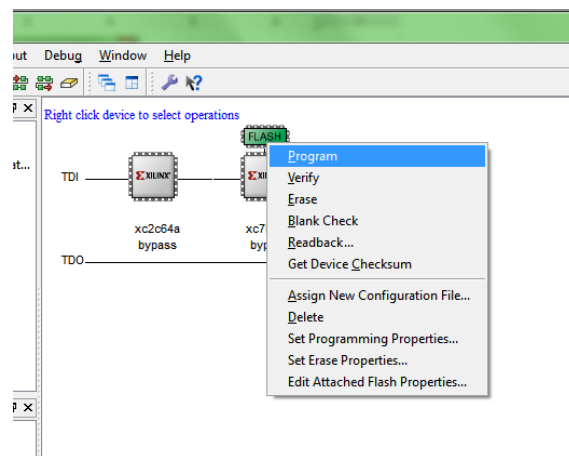
Select **No** and **Cancel** on the next dialogs that appear. Above the chip labeled as “xc7k35t” there is a blue outlined box, right click and select **Add SPI/BPI Flash**.



Navigate and select the provided .MCS file. Select **OK** at the next dialog.



Right click the flash chip and select Program.



This can take up to 15min to complete. Once completed, you have successfully re-flashed the DPD-3W-05C with new firmware.