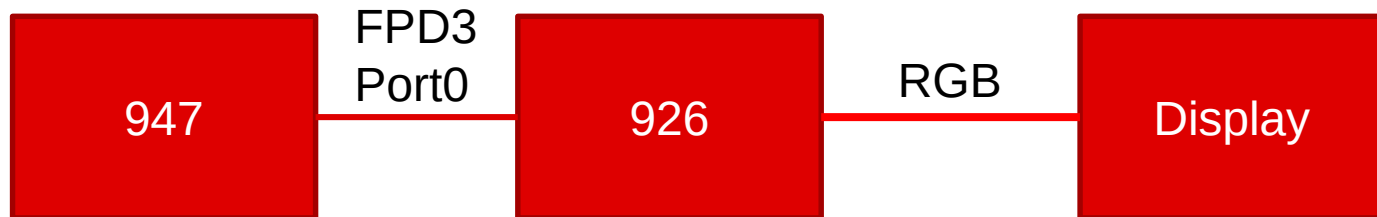


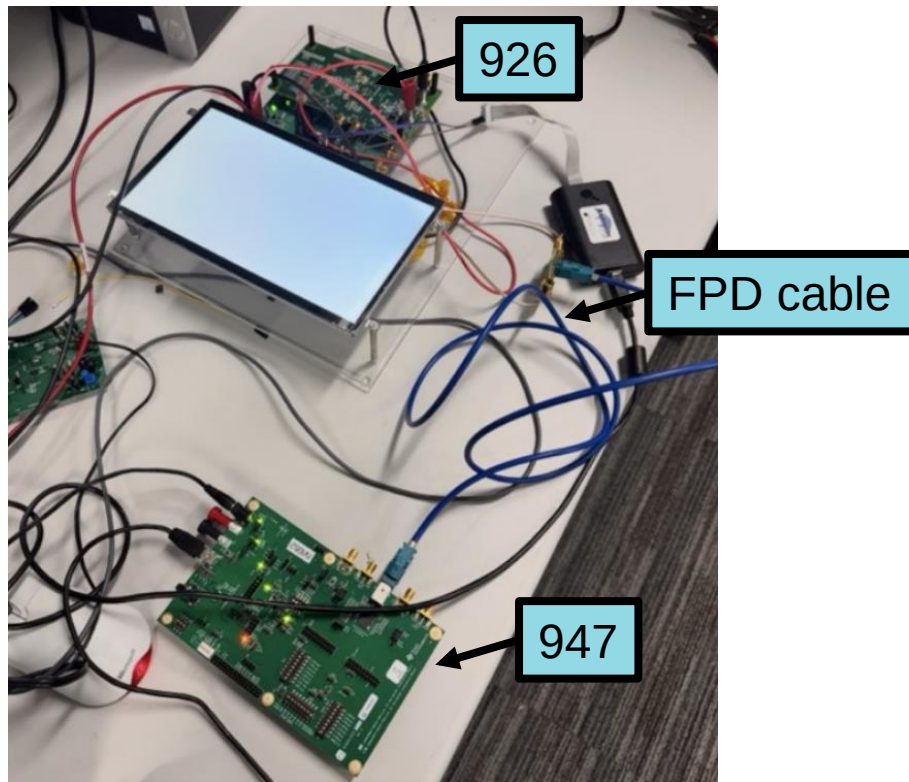
947-926 Setup

Bench Setup



- Internal Patgen of 926 works with no issue for white and green patterns
- Internal Patgen of 947 works with no issue for white and green patterns
- Default registers settings are used for 947 – 926 no programming is done
- Only ALP Patgen tab is used to enable internal Patgen – See next slide

Bench HW Setup using TI EVMs



ALP Running Internal Patgen from 947

The screenshot displays the Texas Instruments Analog LaunchPAD software interface. The main window is titled "(USB2ANY D6DF6A511B000C00/1) - DS90UB947". The left sidebar shows the "Tasks" menu with "Devices" and "Tools" sections. The "Tools" section includes "System Scripting", "Plug-in Management", "LPT Configuration", "USB2ANY/Aardvark Setup", "Demo Mode Setup", "Device Profiles", and "EEPROM Setup". The "Preferences" section has "Enable Demo Mode" checked. The "Help" section is also visible.

The main window has several tabs: "Information", "System Topology", "Pattern Generator", "Registers", "Scripting", "Remote Registers", and "Patgen Registers". The "Pattern Generator" tab is active, showing the "Pattern Generator Control V2" section. In this section, the "Enable Generator" checkbox is checked and highlighted with a green box. Other options include "Invert Video", "Color Bars", "Enable Scrolling", and "18-bit Color". The "Checkerboard/VCOM Control" section has "Scale by 16", "Reverse VCOM", and "Use Custom Color" options. The "Fixed Pattern" is set to "White" and the "Custom Color #" is "000000".

The "Auto-Scrolling Control" section shows "Number of Patterns" set to 14 and "Frames per Pattern" set to 60. A grid of 16 pattern selection buttons is displayed, with "Pattern 1" set to "White" and "Pattern 9" set to "H Black/Blue".

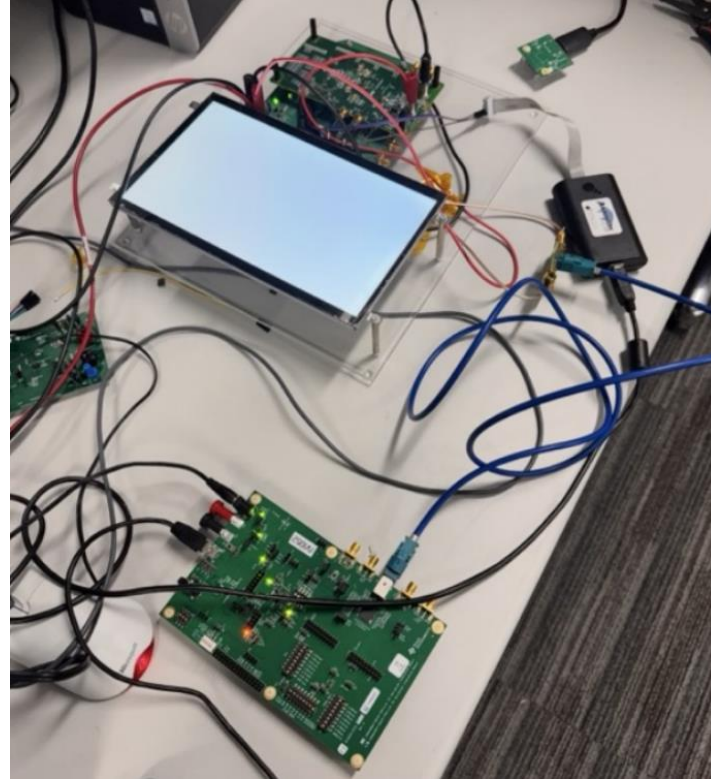
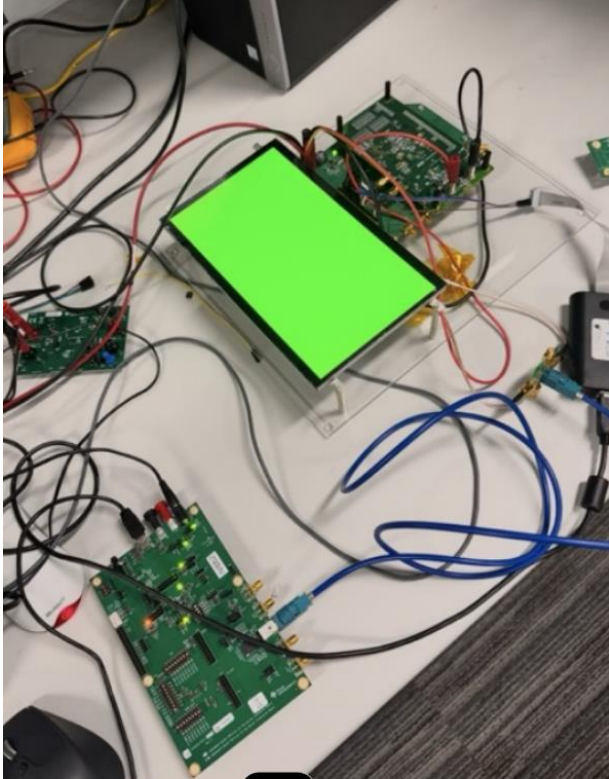
The "Video Control" section on the right shows "Timing Source" set to "Internal". The "Internal Timing" section has "Spec" set to "XGA (1024x768) 60Hz" and is highlighted with a green box. Below this, "M" is set to 1 and "N" is set to 3, with a "Pixel Clock" of 66.7 MHz. The "Hsync" and "Vsync" are both set to "Neg". A table shows the following parameters:

Parameter	Horizontal	Vertical
Total Area	1344	806
Active Area	1024	768
Sync Width	136	6

Below the table are "Apply" and "Default" buttons. The "Status" section shows "Approximate Frames/Second: 61.5" and "Programmed Dimensions: 1024x768".

The bottom status bar indicates "ALP Framework - Hardware Connected" and "v1.57.0010". The Texas Instruments logo is in the bottom right corner.

Green and White Patgen patterns with 947 patgen



Programming ALP to customer timing

The screenshot displays the Texas Instruments Analog LaunchPAD software interface. The left sidebar shows the 'Tasks' pane with 'Devices' and 'Tools' sections. The 'Devices' section lists 'USB2ANY D6DF6A511B000C00' and 'DS90UB947'. The 'Tools' section includes 'System Scripting', 'Plug-in Management', 'LPT Configuration', 'USB2ANY/Aardvark Setup', 'Demo Mode Setup', 'Device Profiles', and 'EEPROM Setup'. The 'Preferences' section has 'Enable Demo Mode' checked. The 'Help' section is also visible.

The main window is titled '(USB2ANY D6DF6A511B000C00/1) - DS90UB947'. It contains several tabs: 'Information', 'System Topology', 'Pattern Generator', 'Registers', 'Scripting', 'Remote Registers', and 'Patgen Registers'. The 'Pattern Generator' tab is active, showing the 'Pattern Generator Control V2' section. This section includes checkboxes for 'Enable Generator' (checked), 'Invert Video', 'Color Bars', 'Enable Scrolling', and '18-bit Color'. There is also a 'Checkerboard/VCOM Control' section with checkboxes for 'Scale by 16', 'Reverse VCOM', and 'Use Custom Color'. The 'Fixed Pattern' is set to 'White' and the 'Custom Color #' is '000000'. The 'Auto-Scrolling Control' section shows 'Number of Patterns' as 14 and 'Frames per Pattern' as 60. Below this, there are 16 pattern selection dropdowns, each with a color or pattern name.

The 'Video Control' section on the right shows 'Timing Source' set to 'Internal'. The 'Internal Timing' section includes 'Spec' set to 'Customized', 'M' set to 1, 'N' set to 6, and 'Pixel Clock' set to 33.3 MHz. The 'Hsync' and 'Vsync' are both set to 'Neg'. A table shows the 'Parameter' values for 'Horizontal' and 'Vertical' dimensions:

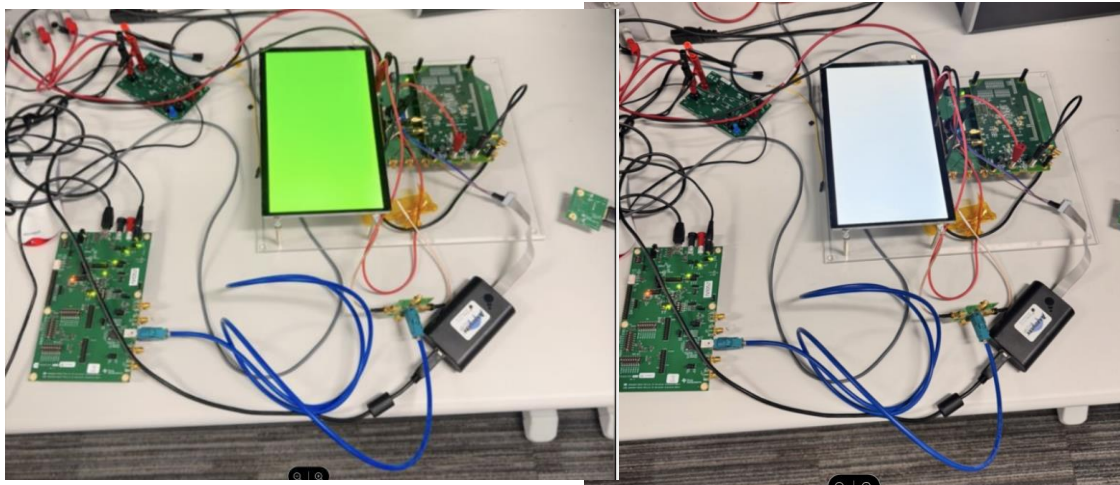
Parameter	Horizontal	Vertical
Total Area	975	525
Active Area	864	480
Sync Width	6	1

Buttons for 'Apply' and 'Default' are present. The 'Status' section at the bottom right shows 'Approximate Frames/Second: 30.8' and 'Programmed Dimensions: 1024x768'.

The bottom status bar indicates 'ALP Framework - Hardware Connected', 'v1.57.0010', and the Texas Instruments logo.

Green and White Patgen from 947 works fine

Parameter	Value	Description
THW	975 pixels	Total Horizontal Width (864 + 70 + 6 + 35)
TVW	~525 lines	Total Vertical Width (480 + 9 + 1 + VBP*)
AHW	864 pixels	Active Horizontal Width
AVW	480 lines	Active Vertical Width
HBP	35 pixels	Horizontal Back Porch
VBP	~35 lines	Vertical Back Porch (estimated from timing)
HSW	6 pixels	Horizontal Sync Width
VSW	1 line	Vertical Sync Width
HFP	70 pixels	Horizontal Front Porch
VFP	9 lines	Vertical Front Porch
PCLK	31.5 MHz	Pixel Clock



Mode Select Settings for both EVMs:

1. 947 MODE_SEL1 = 1
2. 947 MODE_SEL0 = 1
3. 926 MODE_SEL = 1

Comments:

- Customer issue can't be reproduced
- Please provide schematic for review
- Please provide script for review

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