

Starterkit-N2930 Bay Trail

Quick Start Guide

Doc Number: DX86_QSG01

Issue 3



Introduction

Starterkit-N2930 Bay Trail is an all-in-one evaluation kit allowing you to begin the development of your product with ease.

The platform comprises a choice of high-performance PCAP multi-touch TFT displays, pre-integrated with an Intel Bay Trail 64-bit quad core N2930 CPU module.

The evaluation kit contains all the necessary accessories you need meaning you can get off to a flying start.

Key Features

Intel Quad Core Bay Trail CPU

7.0", 10.1" or 12.1" Display choice

Projected Capacitive Touchscreen Displays

Integrated 7th Intel Graphics

Multiple I/O, Communications

Win Emb 7/ Win 10 Ent LTSC / Linux

Document History

Date	Revision	ECN	Description	Authored	Approved
24/03/2017	A	N/A	Document created	Kou Zhe	Product Manager
31/3/2017	B	N/A	SW Installation Section added	C. Madella	Product Manager
31/3/2017	1	N/A	External Release	C. Madella	Product Manager
28/04/17	2	N/A	Product name changed Cover Page updated Layout updated Display features added Mechanical Information added Support links changed	G. Losito	Product Manager
04/07/2018	3	N/A	OS Information updated	G. Losito	Product Manager

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1 Introduction

1.1 Purpose

This document is an introduction to the use of our Starterkit-N2930 Bay Trail.

1.2 Scope

This document is intended for all users that receive the platform for the first time.

1.3 Technical Assistance

For more technical details, please visit the Starterkit-N2930 Bay Trail Product Wiki Page:

<https://andersdx.atlassian.net/wiki/display/PROD86/Starterkit-N2930+Baytrail+Home>

or access our Customer Support portal for any issues and queries:

<https://andersdx.atlassian.net/servicedesk/customer/dxsup>

1.4 Reference

None

2 Package Description

The Starterkit-N2930 Bay Trail is an all in one embedded solution with multi-touch display. The platform comprises high-performance PCAP multi-touch TFT displays pre-integrated with an INTEL Bay Trail 64-bit quad core N2930 CPU module and it supports 3 display variants:

Size	Features					
	Resolution	Touch	Orientation	Viewing Angle (T/B/L/R)	Contrast Ratio	Brightness
7"	800 x 480 (WVGA)	PCAP	Landscape	80/80/80/80	400:1	400 cd/m2
10.1"	1280 x 800 (WXVGA)	PCAP	Landscape	85/85/85/85	800:1	290 cd/m2
12.1"	1024 x 768 (XGA)	PCAP	Landscape	80/80/70/70	700:1	500 cd/m2

The evaluation kit contains all the necessary accessories and offers an easy start base for the development of your product.

Note: Please, ensure you observe ESD precautions when handling this product.

2.1 Package Content

Common content:

Package content	Part Number
DX86 NC889 Motherboard	ELC-00019
Accessory Package for DX86 range	DX86-ACC
Storage: DX86 16GB mSATA 3ME MLC	ELC-00012
Storage: DX86 8GB mSATA 3ME MLC	ELC-00018
Memory: 4GB DDR3L 1600MHz 204P 512Mx8 Samsung	ELC-00017
Memory: 2GB DDR3L 1600MHz 204P 256Mx8 Samsung	ELC-00011

Optional content:

Package content	Part Number
WIFI Module (Azure) AW-NB159H(OB) 802.11 WiFi B/G/N BT	ELC-00237

7" display specific content:

Package content	Part Number
7" WVGA PCAP TFT Display	SCF0700XXXGGU05
Interface Kit for 7.0" WVGA (SCF0700XXXGGU05) Display	IK86-001A

10.1" display specific content:

Package content	Part Number
10.1" WXGA IPS PCAP TFT Display	SCX1001XXXGGU33
Interface Kit for 10.1" WXGA (SCX1001XXXGGU33) Display	IK86-002A

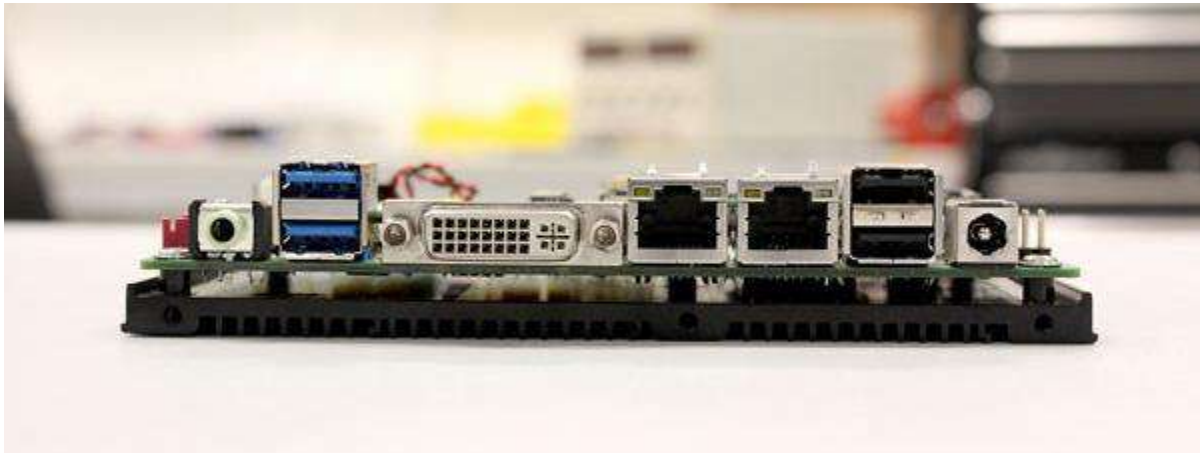
12.1" display specific content:

Package content	Part Number
12.1" XGA PCAP TFT Display	LCX1201XXXGGU05
Interface Kit for 12.1" XGA (LCX1201XXXGGU05) Display	IK86-003A

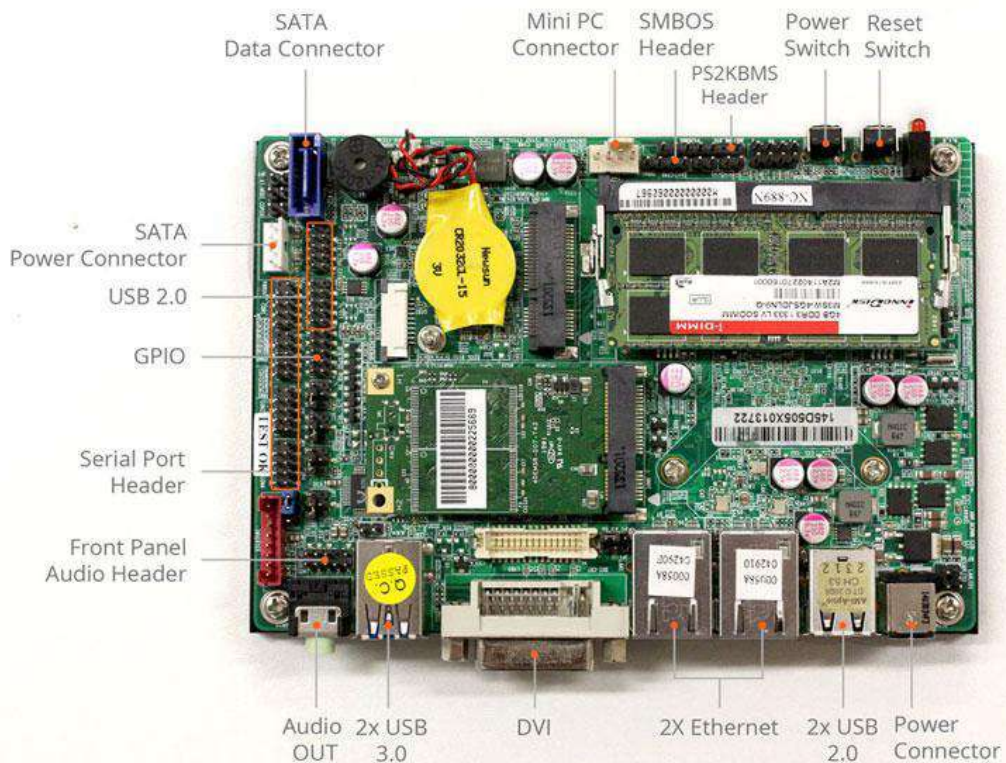
***Note:** Please, make sure to have both the Part Number and the Serial Number handy when you contact Anders DX for provisioning and issue support.*

3 Mechanical Information

3.1 Carrier Board: Rear IO panel



Front Side Diagram



4 Assembly and Basic Set-Up

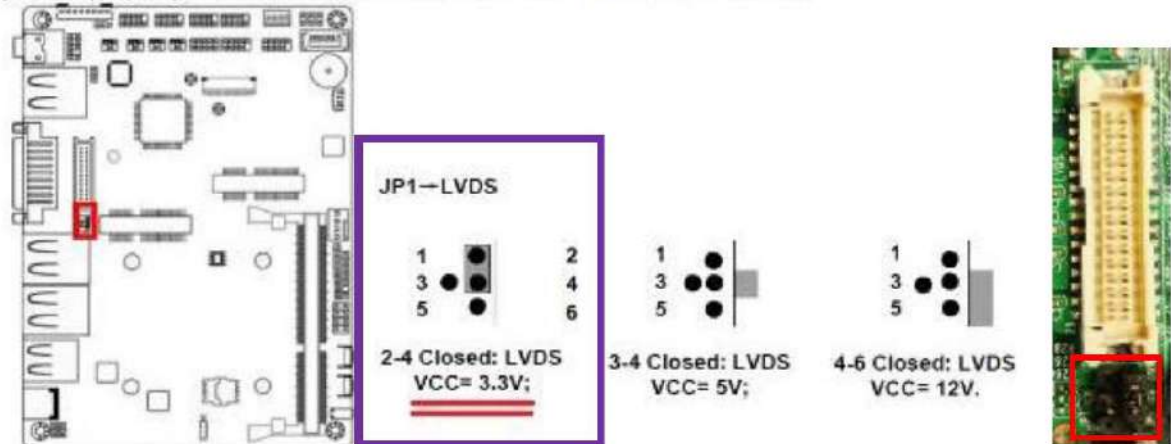
4.1 Preliminary Boards Checks

Before powering on the unit, please ensure JP1 is configured correctly on mother board.

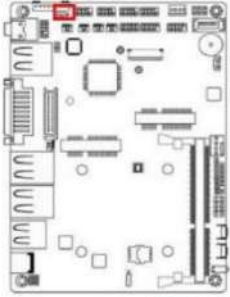
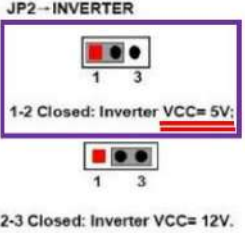

JP1 LVDS PVCC

Please make sure you have the right voltages on the **JP1 LVDS PVCC**. Choose the right **jumper position**. It must be **3.3V**.

(1) JP1 (4-pin): LVDS PVCC 3.3V/5V/12V Function Select



Depending on the Display variant you have received, before connecting the boards and powering it up, make sure the motherboard contains the jumper settings described in the table below:

<p>7.0" and 10.1" Kits</p> <p>Applicable to following display's part numbers:</p> <p>SCF0700XXXGGU05, SCX1001XXXGGU33</p>	<p>Set the jumper as placed in the picture, to supply the display backlight with the required 5V.</p> <p><u>JP2 Inverter VCC</u></p> <p>Please make sure you have the right voltages on the JP2 inverter. Choose the right jumper position. It must be 5V for the 7.0".</p> <p>(2) JP2 (3-pin): INVERTER VCC 5V/12V Select</p>    <p><i><u>NOTE: supplying the 7" or 10.1" screens with other jumper settings will damage them irreversibly!</u></i></p>
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12.1" Kits

Applicable to following part numbers:

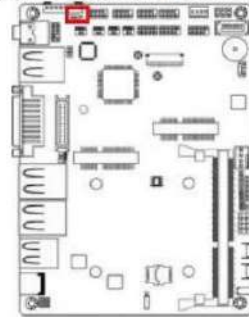
LCX1201XXXGGU05

Set the jumper as placed in the picture, to supply the display backlight with the required 12V.

JP2 Inverter VCC

Please make sure you have the right voltages on the JP2 inverter. Choose the right **jumper position**. It must be **12V for the 12.1"**.

(2) JP2 (3-pin): INVERTER VCC 5V/12V Select



JP2 -- INVERTER



1-2 Closed: Inverter VCC= 5V;



2-3 Closed: Inverter VCC= 12V

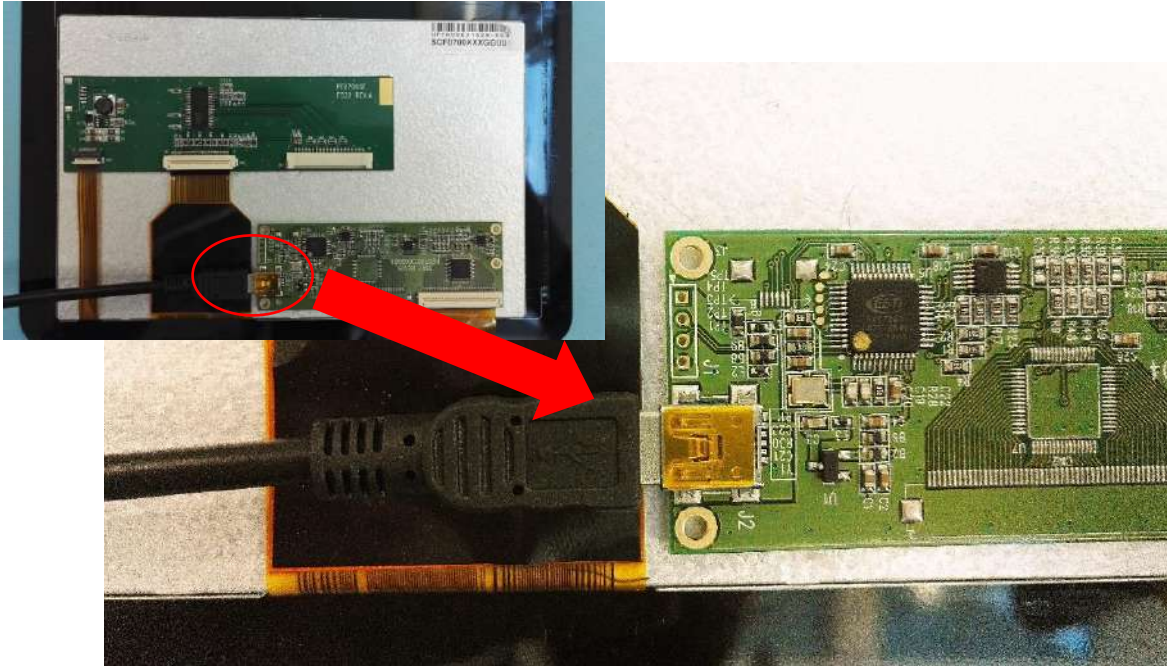


JP2 = 12 V

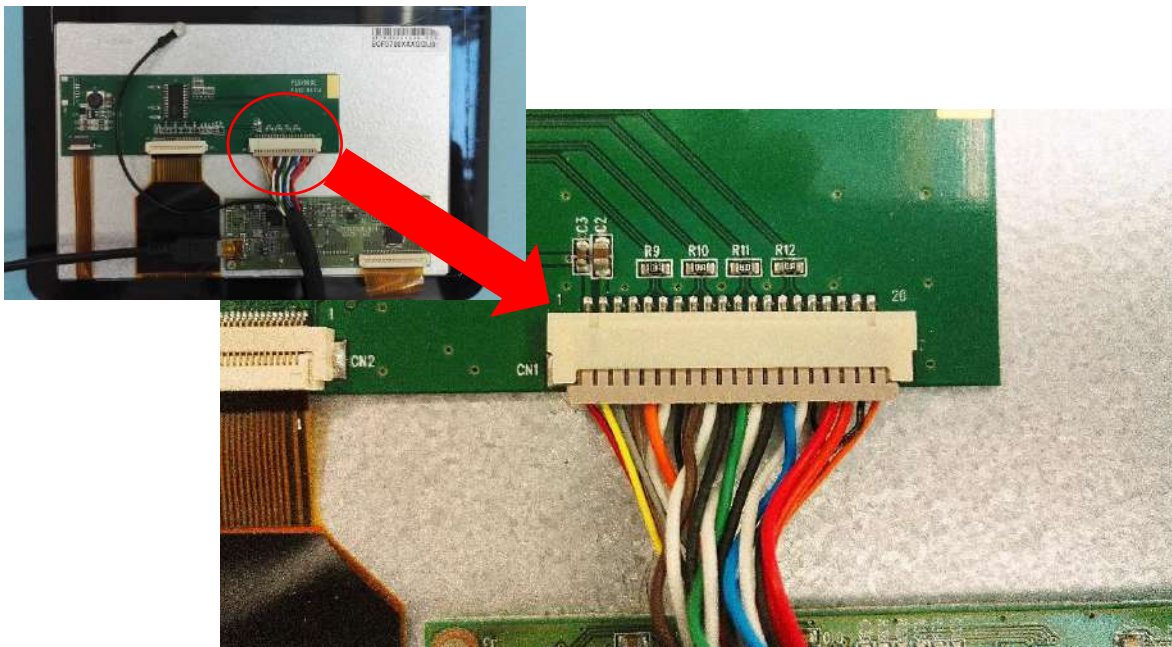
NOTE: supplying the 12.1" screens with other jumper settings may unexpectedly damage them.

4.2 Boards Connections- 7" and 10.1" Reference

A. Connect the touch Panel USB connector:

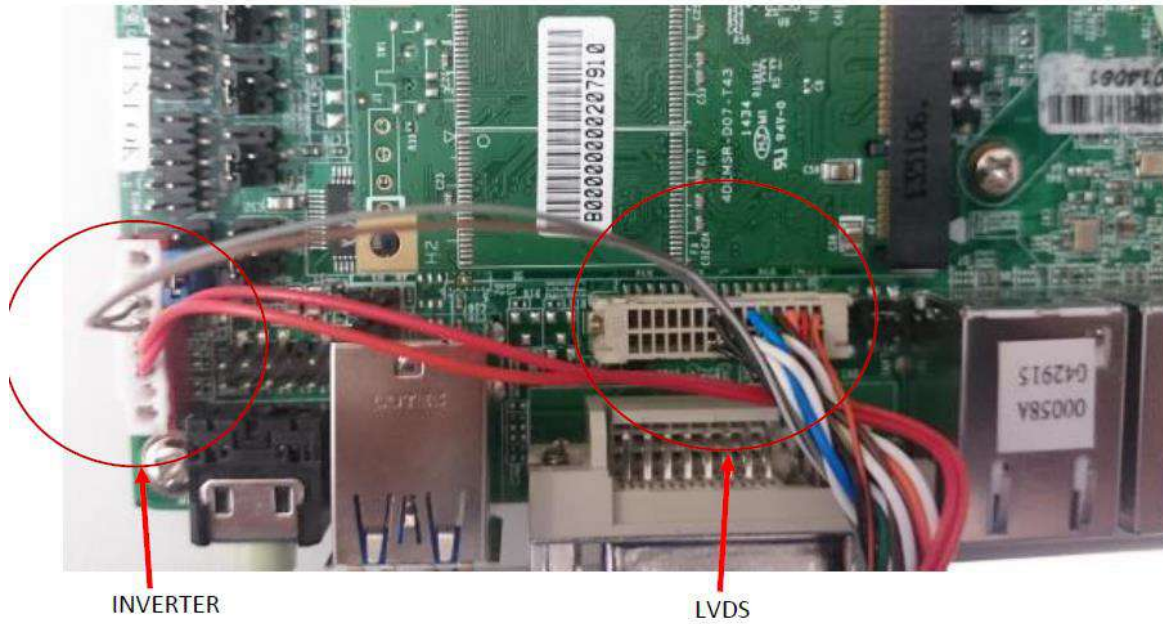


B. Connect the lvds cable to the panel:

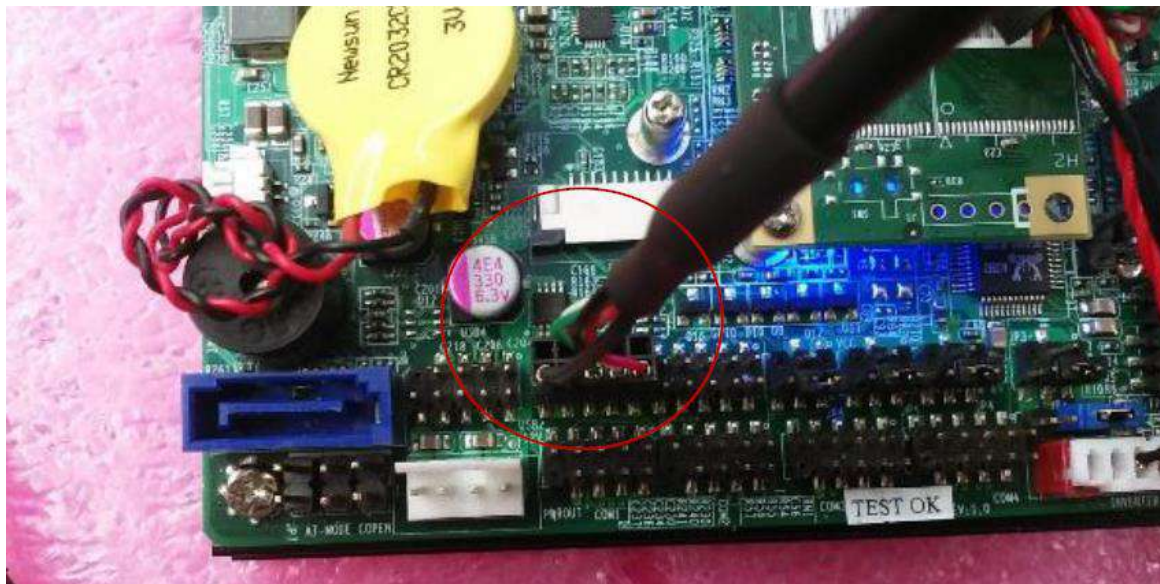


C. *Connect the motherboard as follow:*

Insert LVDS Cable like below:

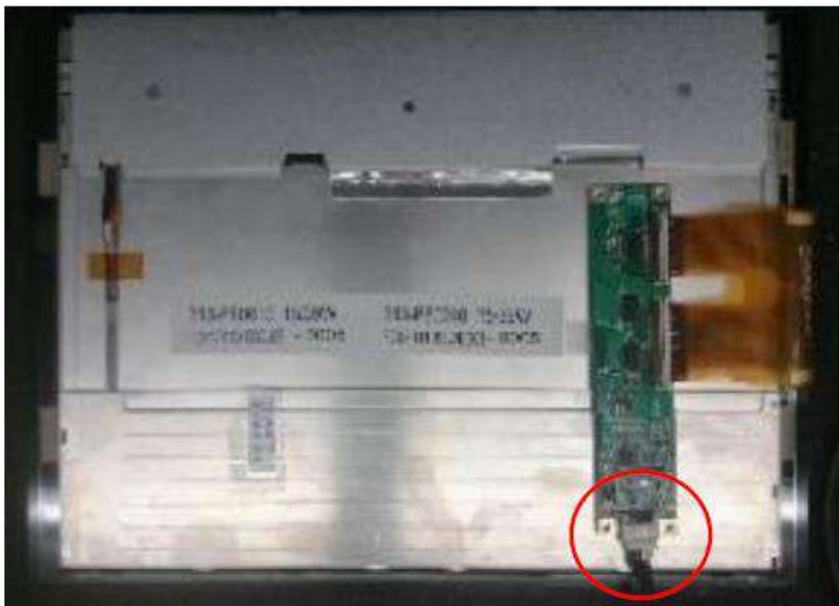


Insert USB Cable like below:

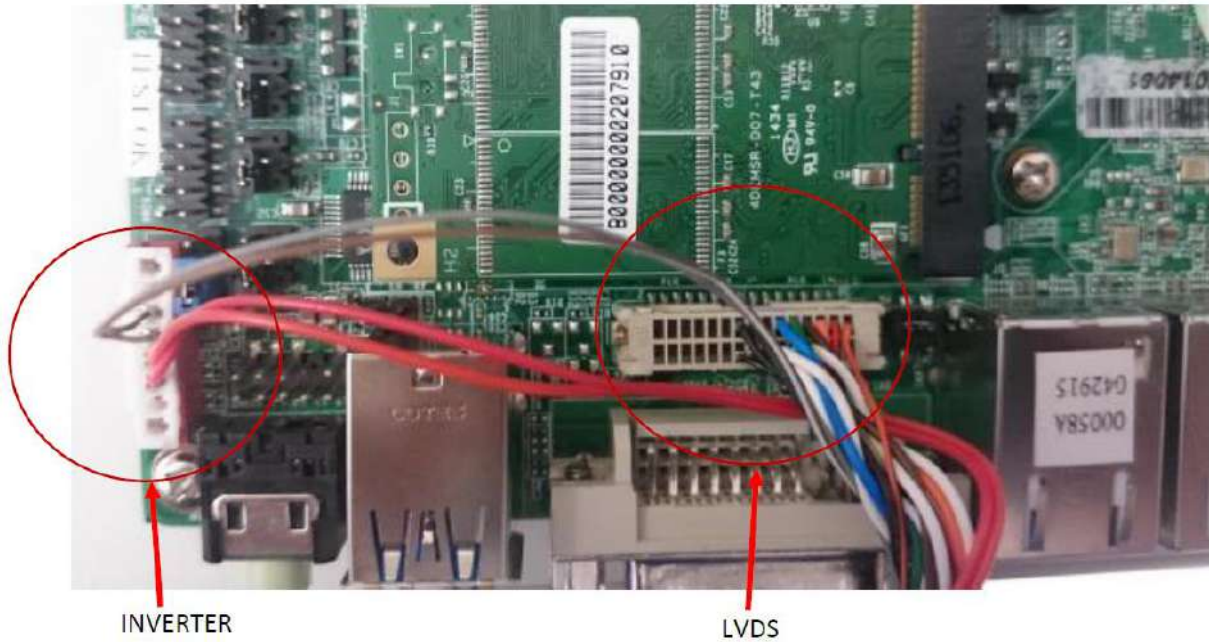


4.3 Boards Connections- 12.1" Reference

A. Connect the touch Panel USB connector



B. Connect the lvds cable to the panel



5 Installing Software Image

5.1 Windows Images

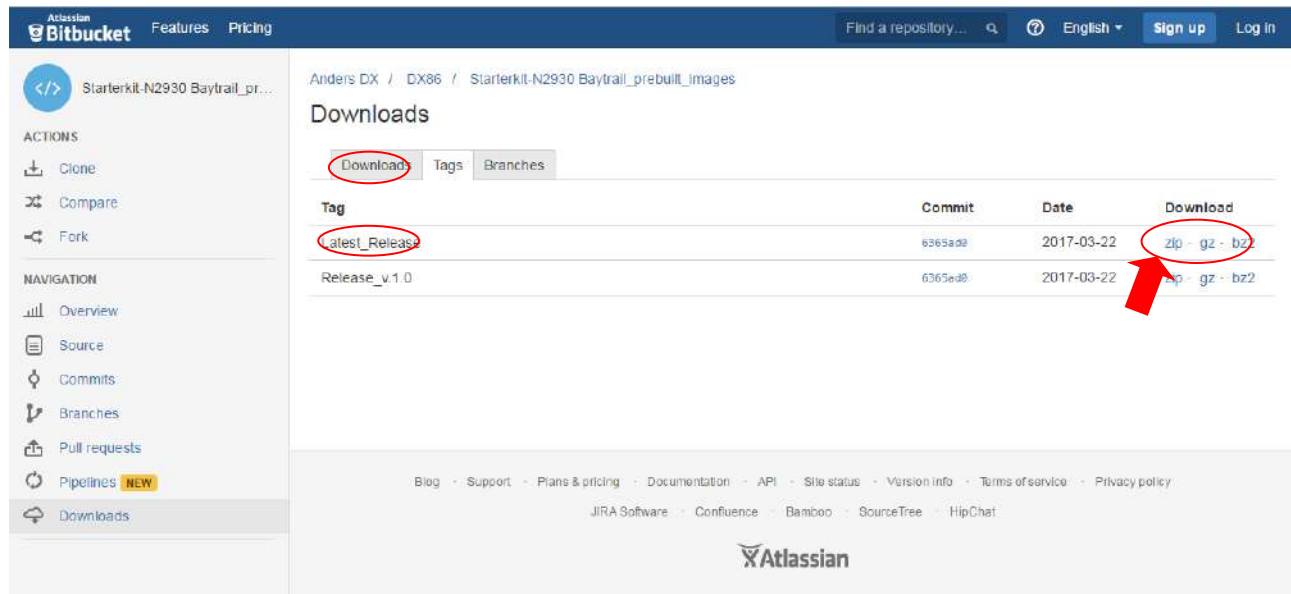
If you have ordered Starterkits-N2930 Bay Trail with Windows Embedded 7 or 10 Enterprise LTSC then you will have received the unit with the SW image pre-loaded. No SW installation procedure is required and you can skip to section 6.

5.2 Linux Images

Starterkits-N2930 Bay Trail Pre-built Images for all variants can be found at the link below:

https://bitbucket.org/andersdx/starterkit-n2930-baytrail_prebuilt_images/downloads/?tab=tags

It's always advisable to download the latest release which will have the correspondent label "Latest_Release". You can choose among .zip, .gz or .bz2 file format.



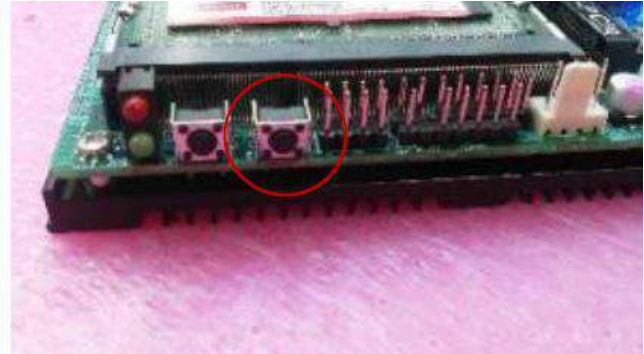
Tag	Commit	Date	Download
Latest_Release	6365a98	2017-03-22	zip - gz - bz2
Release_v.1.0	6365a98	2017-03-22	zip - gz - bz2

Follow instruction for installing the SW on the unit via USB stick on our Wiki page:

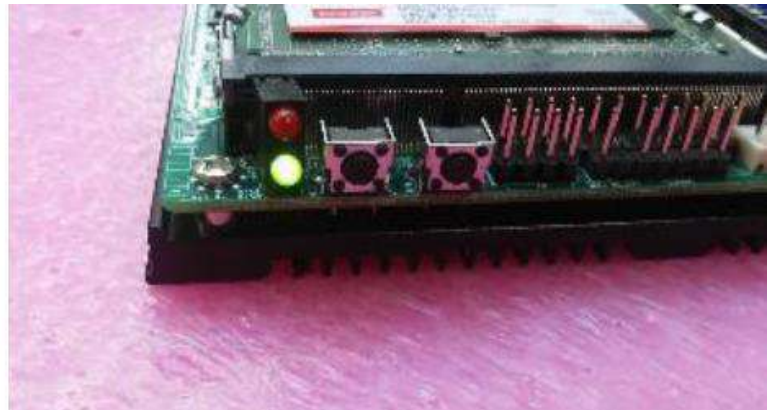
<https://andersdx.atlassian.net/wiki/display/PROD86/Installation+SW+guide>

6 Boot Up and Device Control

Please insert the power supply provided:



Please press the switch below to power on the unit. Then the Green LED is on for Power-ON-Indication.



7 Support Resource

To visit our Starterkits-N2930 Bay Trail Wiki support page - please click:

<https://andersdx.atlassian.net/wiki/display/PROD86/Starterkit-N2930+Baytrail+Home>

Also, direct support is available by Support Portal (Service Desk). Please access:

<https://andersdx.atlassian.net/servicedesk/customer/portal/1>