Starterkit-N2930 Bay Trail Pico

Quick Start Guide

Doc Number: DX86_QSG02

Issue 3

Introduction

Starterkit-N2930 Bay Trail Pico 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 LTSB / Linux

Create the Vision, Display the Future

Document History

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

Contents

1   Introduction

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

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 Starterkits-N2930 Bay Trail Pico 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
NC-885N WITH N2930 BAY TRAIL 4 CORE Pico-ITX SBC	ELC-00039
Accessory Package for DX86 range	DX86-ACC
Storage: DX86 16GB mSATA 3ME MLC	ELC-00012
Storage: DX86 8GB mSATA 3ME MLC	ELC-00018

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:
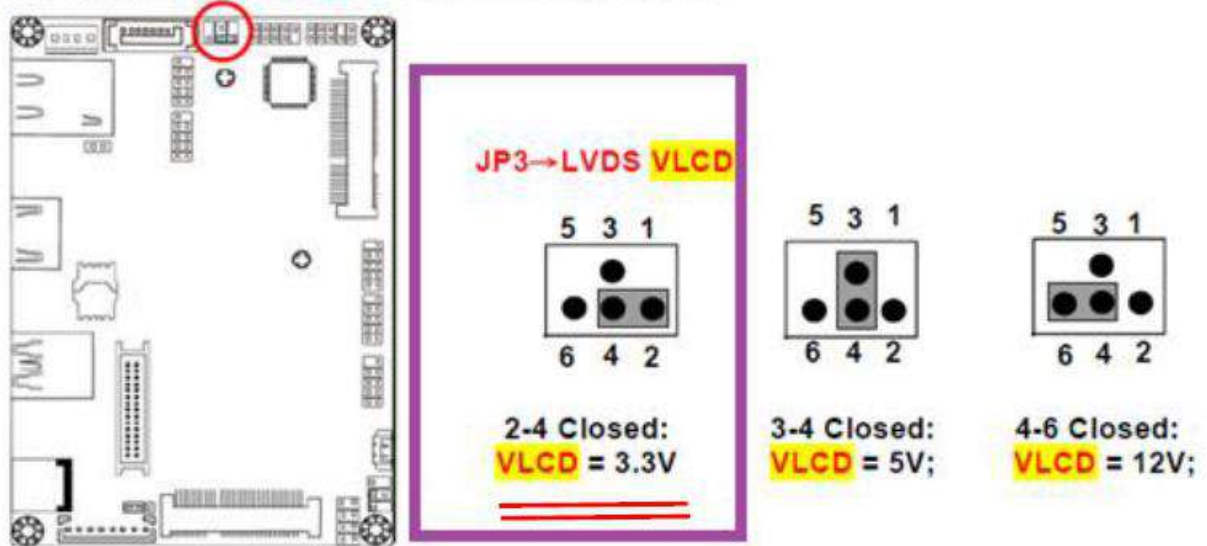
Rear IO panel
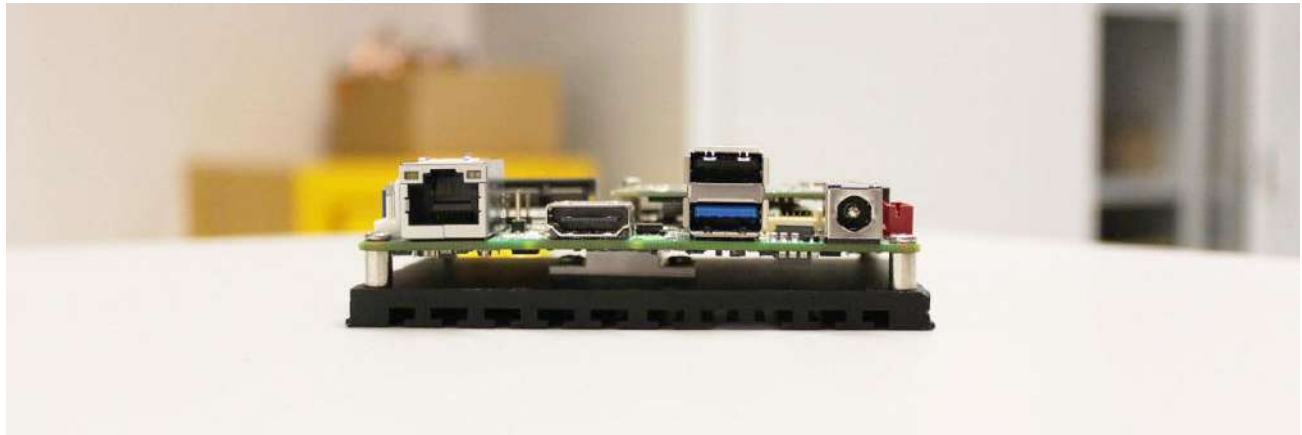
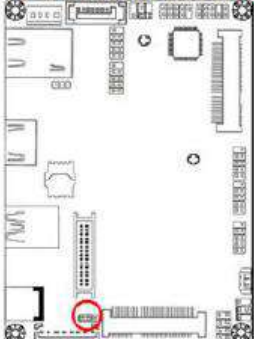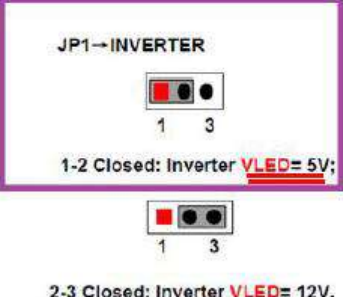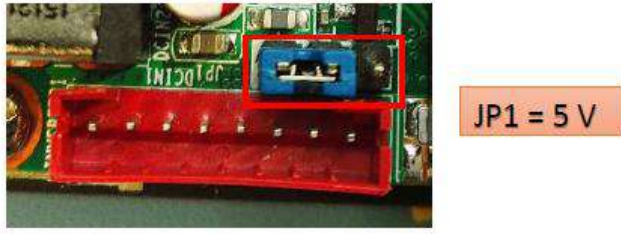Front Side Diagram
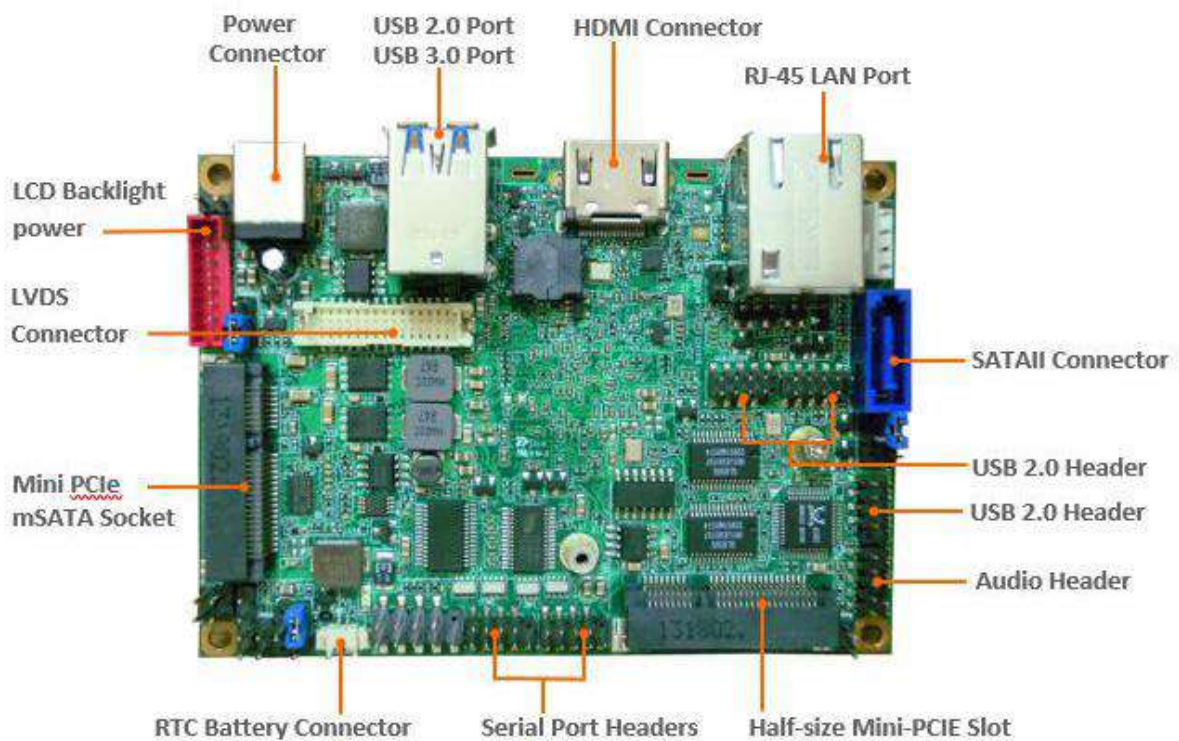
4   Assembly and Basic Set-Up

4.1 Preliminary Boards Checks

Before power on the unit, please ensure JP3 is configured correctly on mother board.

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:

7.0" and 10.1" Kits Applicable to following display's part numbers: **SCF0700XXXGGU05, SCX1001XXXGGU33**	**Set the jumper as placed in the picture**, to supply the display backlight with the required 5V. *NOTE: supplying the 7" or 10.1" screens with other jumper settings will damage them irreversibly!*

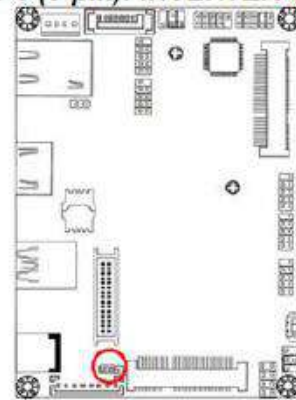|	
12.1" Kit Applicable to following part numbers: **LCX1201XXXGGU05**	**Set the jumper as placed in the picture**, to supply the display backlight with the required 12V. *NOTE: supplying the 12.1" screens with other jumper settings may unexpectedly damage them.*
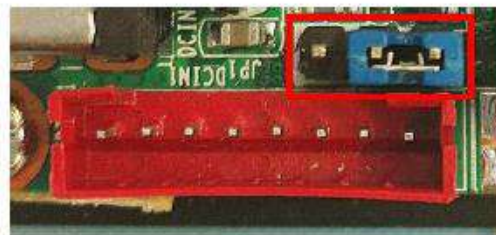
Next, please configure mother board into Automatic-Power-On mode.

J1 AT Mode (Automatic Power On)

Please close Pin 2 and Pin 4 of connector J1.
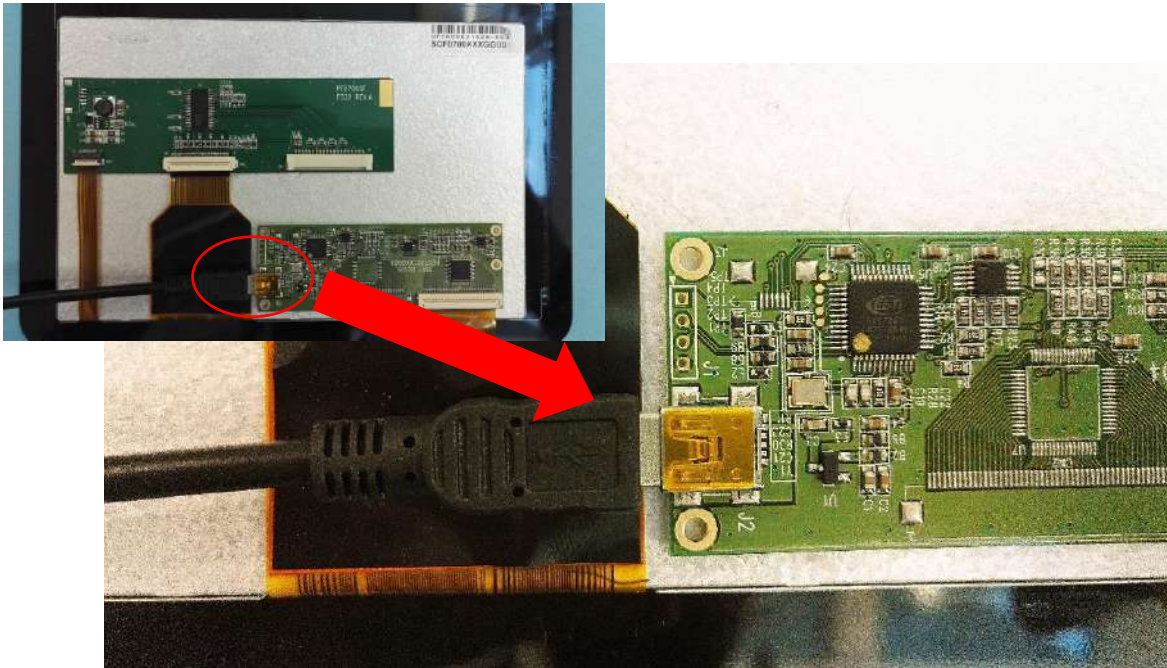
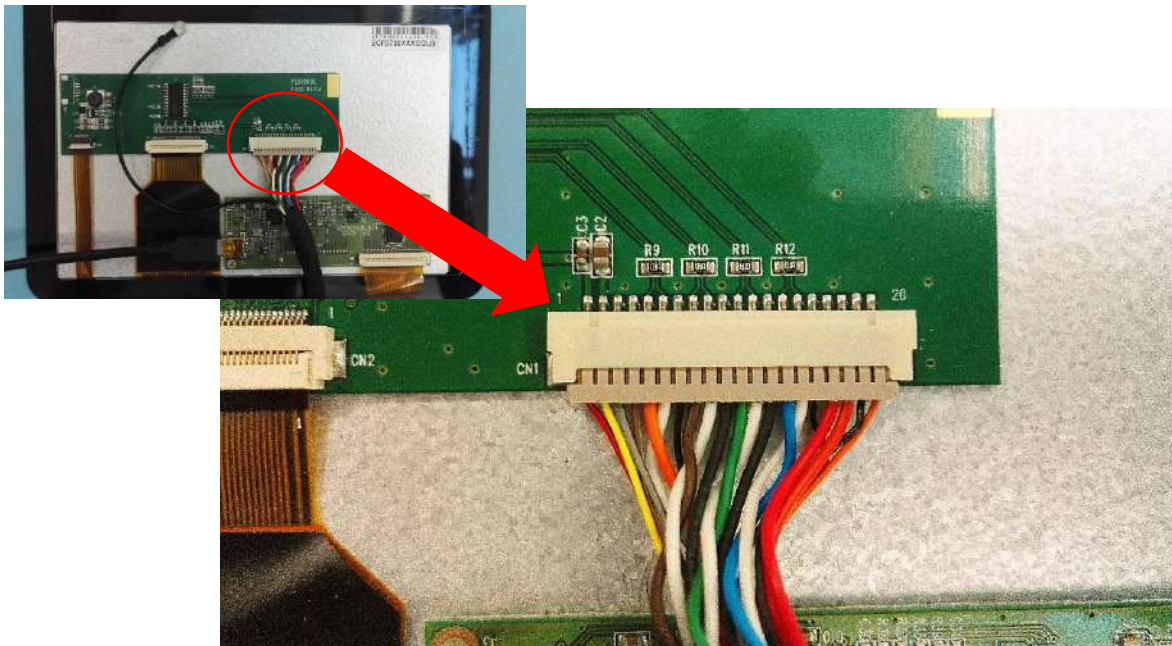### Pin 2-4 of J1 (8-pin): AT Mode Function Select
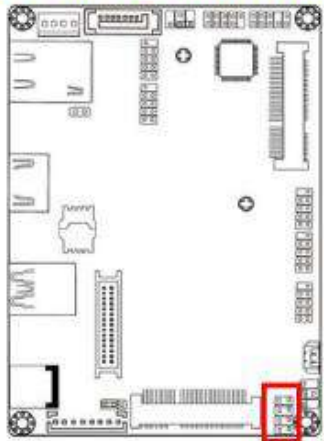
Pin 2-4 of J1→ AT Mode Select

2-4 Closed:
AT Mode Selected.

8 7

2
Pin 1

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:*

Insert LVDS Cable like below:

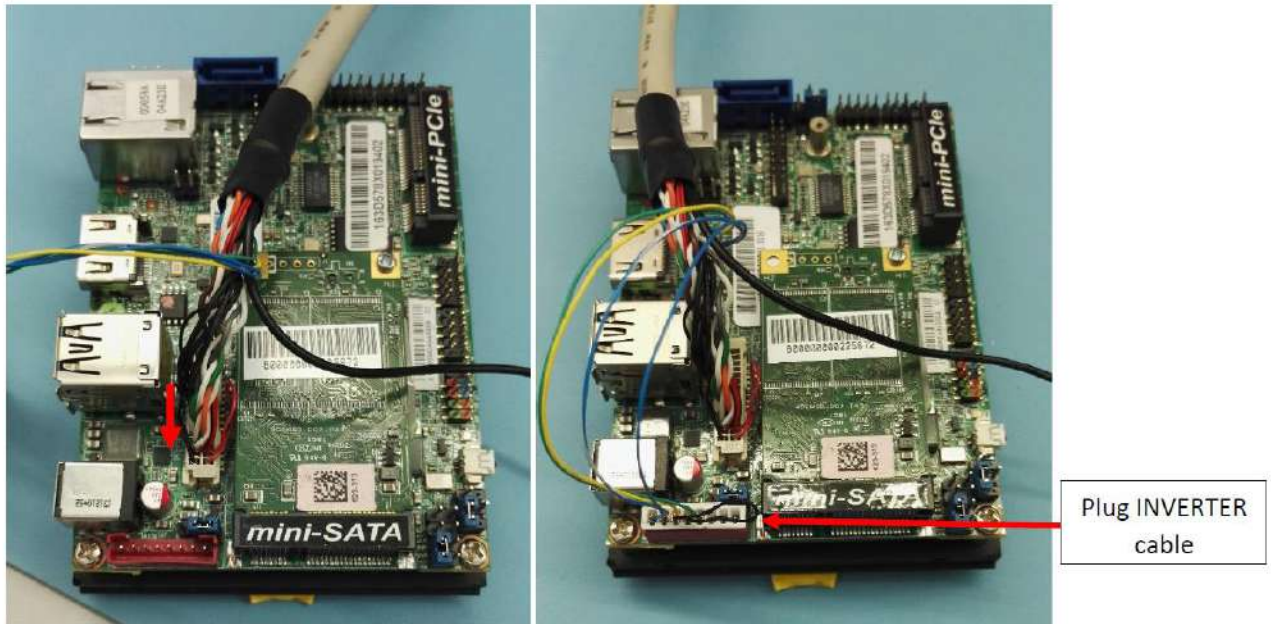

Plug INVERTER cable
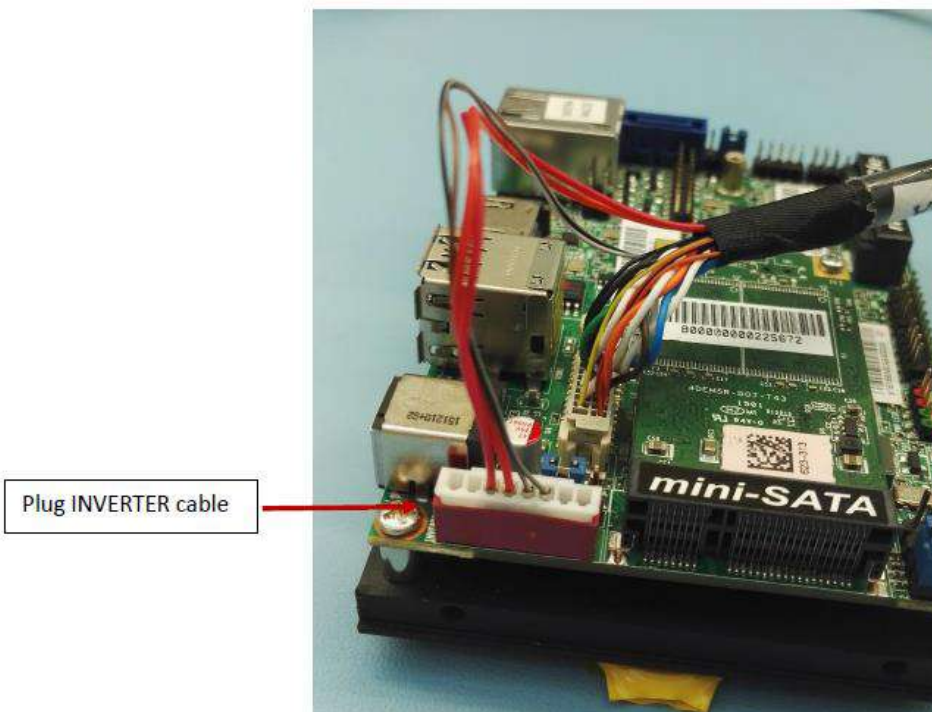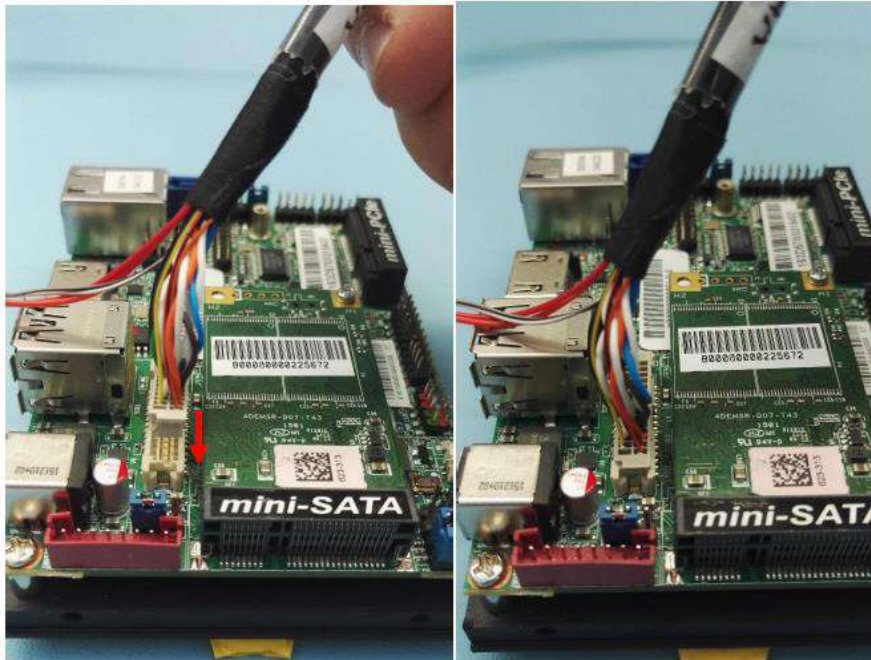
Insert USB Cable like below:

4.3 Boards Connections - 12.1" Reference

A. Connect the touch Panel USB connector denoted in Blue Colour

B. **Connect the LVDS cable to the panel**

Plug INVERTER cable

5 Install Software Image

5.1 Windows Images

If you have ordered the Starterkits-N2930 Bay Trail Pico with Windows Embedded 7 or 10 Enterprise LTSB 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

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

Follow the instructions 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, then this system will power on automatically.

7   Support Resource

To visit our Starterkit-N2930 Bay Trail Pico 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