Genio 510 Evaluation Kit Quick Start Guide

Version: 1.0
Release date: 2023-09-25

Version History

Version	Date	Author	Description
1.0	2023-09-25	MTK	First Release

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1   Packing list

No.	Part Number or Marking	Item Name	Description	Quantity
1	IoT-Genio 510 EVK-P1V2	Genio 510 EVK Main Board		1
2	IoT-CAM-DTB-D1V2-D2	D2 Camera Board	Camera Daughter Board Using IMX214 Image Sensor	1
3	KD070FHFID015-C021A	7" LCD Panel	LCM Module	1
4	M.2 WIFI6 Module AW-XB468NF (IC: MT7921L)	WIFI Module	Installed	1
5	IPEX to IPEX cable		Installed	1
6	IPEX to IPEX cable		Installed	1
7	SMA antenna	WIFI Antenna	Installed	2
8	12V ⎓ 4.16A AC adaptor + power cord			1

Table 1-1. Packing List

2   Genio 510 EVK System Setup

Please refer below pictures for entire assembled Genio 510 EVK, the entire peripherals include:

1: LCD Module with Touch Panel * 1 set

2: D2 Camera board with IMX214 Camera module

3: Connectivity module with 2 antennas * 1 set

4: Power Adapter * 1 set

Figure 2-1. Genio 510 EVK System

3   Genio 510-EVK Board overview

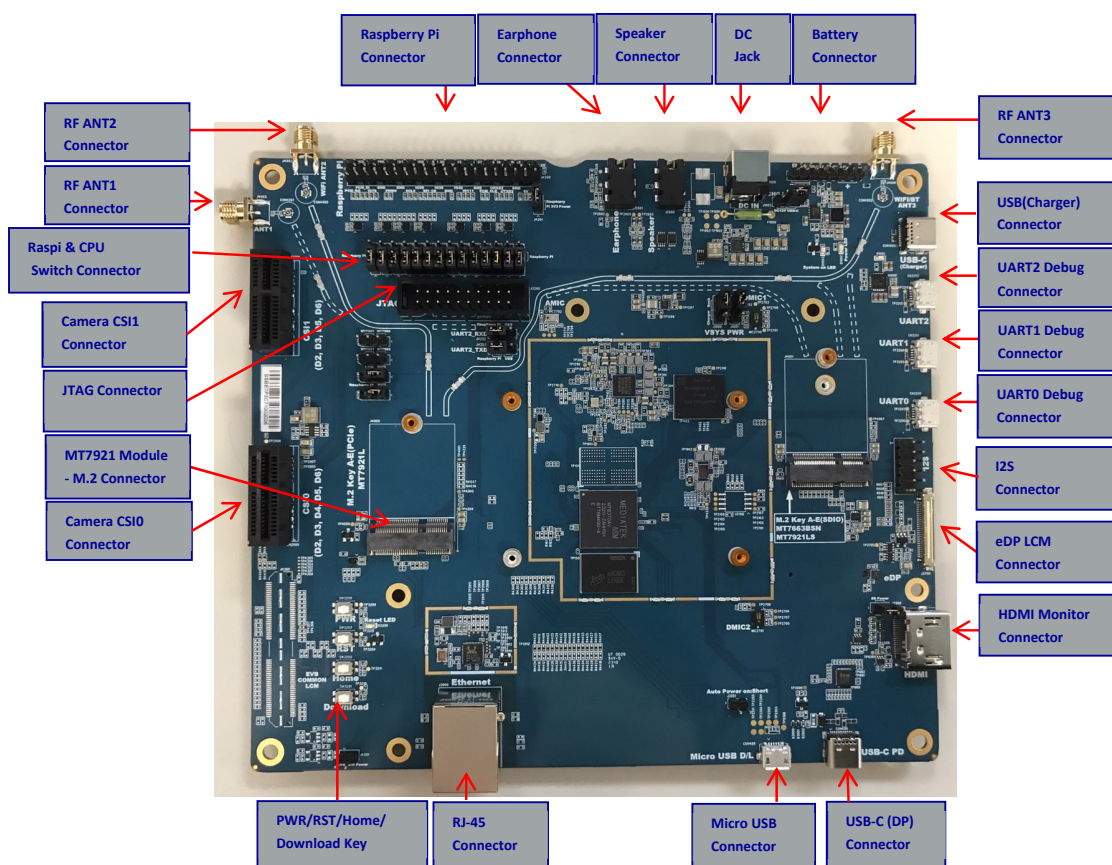Please refer below picture for IO function overview of EVK.

Figure 3-1. Genio 510 EVK Board Overview

4   LCM Holder Setup

LCM Holder set up :

Use your hand to turn the screw plastic head

Move the LCD to need a location and twist the screw plastic head tight, as in the picture below.
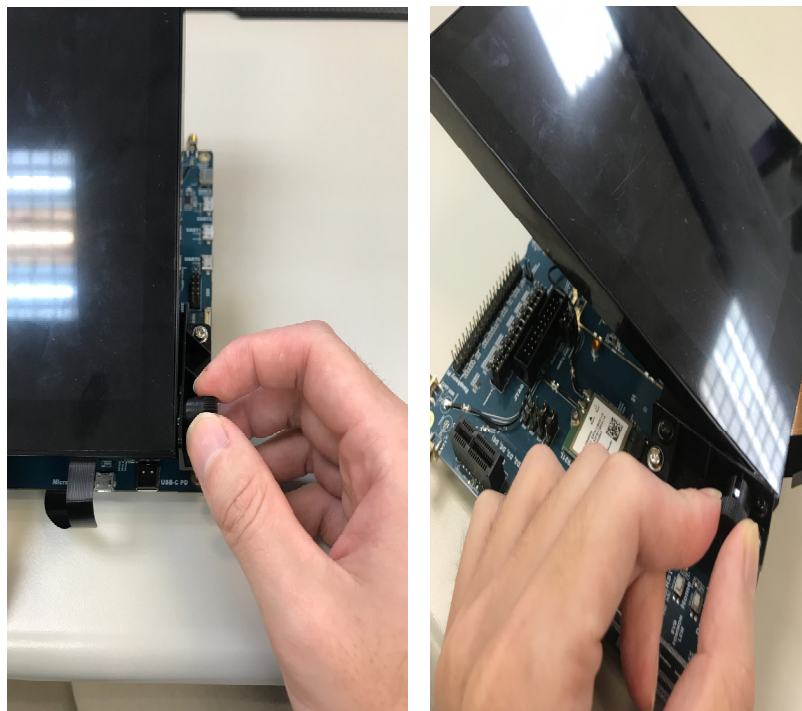

Figure 4-1. LCM Holder Setup

5 Camera DTB board installation

D2 camera install procedure:

Install D2 Camera board into Genio 510 EVK mainboard. Connecter location can be referred to in the picture below.

Figure 5-1. D2 Camera DTB board

6   How to Power Up the Genio 510 EVK

1. **You must install the Camera DTB on the Genio 510 EVK board.**
2. Connect UART0 (CN3200) to the computer via an USB cable. (If you want to see the logs.)
3. Power on the system by long pressing Power Key for 4 seconds or Plug a Jumper at J3001 and Auto power on by plug in of AC adaptor.
4. You will see the boot-up picture on LCD display and trace logs come out from UART0.
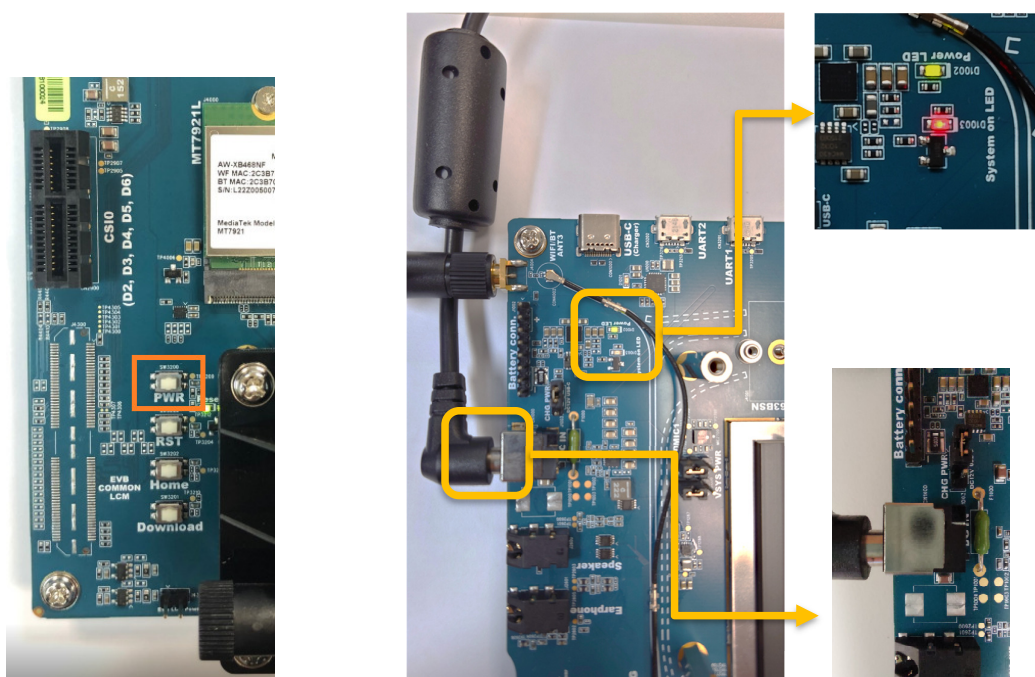

Figure 6-1. Plug AC Adapter , Press Power Key and LEDs Status

⚠ After the EVK power on, pay attention to the LED indicator is lighted on.
In normal conditions, there are total 2 LED indicators that will light
Please refer to the marks of above Figure1-2