### USB SERIAL GADGET

**Introduction:**

Clancor HHC 71xx device USB-GADGET has been used for four types of purpose that is serial mode,network mode,MMC mode and File storage mode. Here is described about serial gadget mode.

To check the USB Serial follow the below steps:

**Step 1:**

Login into the device using minicom terminal ttyUSB0 or ttyS0 Interface.

Load the module about g\_serial which located in your target device at

**/lib/modules/kernel/USB/g\_Serial.ko**

**Step 2:**

Connect the A to B cable(USB to USB) target device(71xx or 72xx) to host device (PC).

**Step 3:**

Load g\_Serial module using below command.

**modprode g\_serial**

If your module has been loaded properly on your target device then two device file would be created that is ttyACM0 on your host(PC) at /dev directory and ttyGS0 on your target device in /dev diectory.

Now we can communicate with the /dev/ttyACM0 to /dev/ttyGS0.

**Types of Communication**

**Step 1:**

**Data Transmission target to host:**

Using the below echo command we can transmit the data from ttyGS0 to ttyACM0. To send data target to host device follow the below command on the target terminal

**# echo “serial\_gadget” > /dev/ttyGS0**

Using **cat** command can view the data's on host /dev/ttyACM0.Now your data is “serial\_gadget “ has been received on the /dev/ttyACM0 file.

**Example:**

**cat /dev/ttyACM0**

serial\_gadget

**Step 2:**

**Data Transmission from host to target:**

Type below command on your host terminal to send data host to target device.

**echo “serial\_gadget” > /dev/ttyACM0**

Now you can receive the data “serial gadget” on the target device /dev/ttyGS0 directory.

**Example:**

**cat /dev/ttyGS0**

serial\_gadget

**Step 3:**

We can use the teminal ttyACM0 for two types of purpose. One for data communication and another one is to get login prompt on the device.

If device file ttyACM0 has detected on the host terminal you can login with the ttyACM0 using minicom to view the login prompt and debug message.

Following the below steps on the host you can login with the ttyACM0

**minicom -s**

**Select the Serial port setup and serial device as /dev/ttyACM0.**

Now you can get the ttyACM0 login prompt.