Advantech AE Technical Share Document

Date	2020/5/29	Release Note	■ Internal □ External
Category	■ FAQ □ SOP	Related OS	None
Abstract	Different Behavior of 7th pin(RTS) of COM when COM ports are disabled		
Keyword	Cannot Boot up, GPU Card, Heatsink, Fan, MOSFET.		
Related Product	MIC series		

Some customers are confused MIC series have different behaviors of 7th pin(RTS pin) of COM ports on Windows OS when COM ports are disabled.

Normally, RTS pin should be pulled low when COM ports are enabled. However, it hasn't defined the status of RTS pin when COM ports are disabled.

This FAQ is for user to realize how our COM ports work at diabled status and provide a workaround solution.

■ **Problem Description:**

Most of MIC series have more than six COM ports, but not all of which have the same behavior of RTS pin when COM ports are disabled.

Windows disable the COM ports not connect to any device automatically, but Linux or DOS system don't. Therefore, this issue usually occurs on Windows system.

For example, MIC-7700 has 6 COM ports. When COM ports are disabled, RTS pin of COM1~3 are pulled high, but COM4~6 are pulled low.
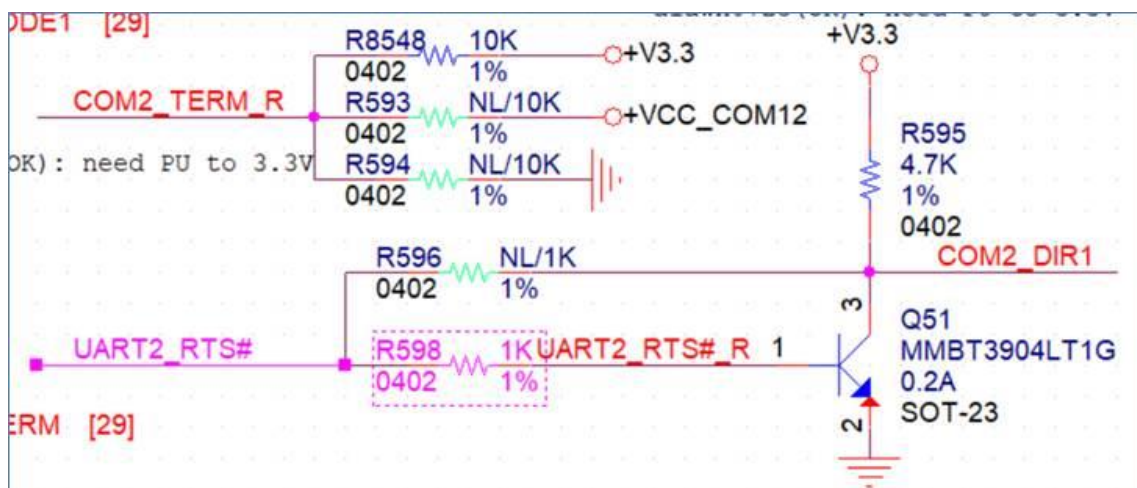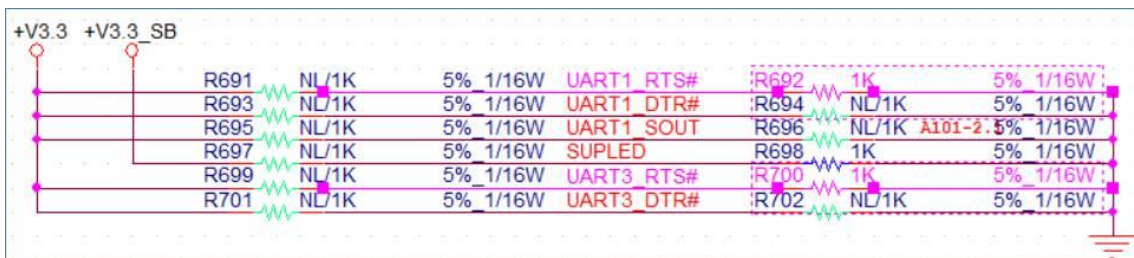
■ **Problem Analysis:**

In the case of MIC-7700, RTS pin of COM1~3 are strappin pins and connect to multiprotocol transceiver (XR34350). These strapping pins are pulled low, but transceiver will invert to high voltage.

However, COM4~6 is designed without strapping. The RTS pin will be floating when COM ports are disabled.

■ <u>Brief Solution</u>

If customers are confused by this issue, please contact with regional AE to customize BIOS to keep all COM ports enabled.

All COM ports will show the same behavior at enabled status.

```
//--------------------------------------------------------------------
// Revision History
//--------------------------------------------------------------------
 BIOS Name     : 7700H00HC60XL01.BIN ; 7700H00HC60XL01.ROM
 BIOS Checksum : E6DE ; EC22
 BIOS String   : (7700H00HC60XL01) EVALUATION ROM FOR L2.00 - NOT FOR SALE
 Release Date  : 2020/3/26

 Owner         : cliff.yeh
 Requester     : AE/Dennis89.Huang [eFlow:表單號:26567 申請日期:03/25/2020]
 Customer      : 北京诚亚

 Release Description:
     XL01_1  Keep all COM ports enabled.

 Release BIOS Information:
   7700H00HC60XL01.BIN --- MIC-7700H System BIOS and ME Version ME_11.6_Consumer_11.6.10.1196 for UEFI X64.
   7700H00HC60XL01.ROM --- MIC-7700H System BIOS Only.

   VBIOS_Legacy  : \OEMEM\Addons\VBIOS\1049\Lagacy_skl_1049_MIC-7700_20170208.dat
   GOP Driver    : \OEMEM\Addons\GOP\1056\GOP_1056_7700_20170208.bin
   RAID Option ROM: \OEMEM\Addons\RAID\Legacy\RaidOrom.bin(15.2.0.2754)
```

■ **Contact Window and File Link:**

If you have any questions, please contact Dennis89.Huang #1241

You can download this file on Global AE SharePoint - FAQ

Written by Dennis89.Huang