

RAYON Technology may support your discontinued ISA COM port card

As COM port card manufacture we may have following question from customer. When one machine is built 20 years and is malfunction now, we need to repair or not.

To buy new similar function machine may need seven million dollars and used malfunction machine may be hundred thousand dollars left for original machine manufacturer. We can find the controller for such machine is **DOS PC** with **ISA** card. Right now it is not easy for us to find some one to support such system. Because DOS PC and ISA card may have following condition, so we need to have enough experience to support.

1. DOS system may have application software to work in dedicated hardware condition only. Now it is not easy to find original software engineer to modify or maintain in new hardware condition. So we can only run such application software in new hardware environment without any modification.
2. ISA card may use dedicated I/O map fixed in hardware controller (ex, COM1 port is in I/O address 0x3F8—3FF, and COM2 port is in 0x2F8—2FF), or dedicated I/O address assigned by hardware jumper (Generally it will be 0x100—0x3FF). Unfortunately we may have no information about such I/O address assigned in ISA card for application software to work. So we must have capability for new ISA card to have same value of I/O address assigned as original ISA card.
3. ISA may have IRQ value assigned in hardware controller (ex, COM1 port is IRQ4, COM2 port is IRQ3) or set by hardware jumper. So we must have capability for new ISA card to have same value of IRQ assigned as original ISA card.

Because PCI card may have I/O address and IRQ value assigned by BIOS, so it is not easy to use PCI card to replace ISA card.

RAYON Technology is professional in COM port solution. We will try our best to support our customer in discontinued ISA COM port card. In normal condition we may have standard ISA COM port card to meet user's environment. If our standard product could not meet user's environment, then we will modify our product to meet user's environment. If user could have information about original ISA card's I/O address and IRQ value, then we can modify our ISA card to support same value.

Right now we can support following ISA card.

1. **A2000** card: support **2 RS232** COM ports. (2 DB9 connector in back bracket)
2. **A2018** card: support 1 or **2 RS232** COM ports. (2 DB9 connector in back bracket)
3. **A2485** card: support **2 GROUND isolated RS422/RS485** COM ports. (2 DB9 connector in back bracket)
4. **A4000** card: support **4 RS232** COM ports. (2 DB9 connector in back bracket and 2 DB9 connector in another bracket)
5. **A2020** card: support **2 RS232** and **2 GROUND isolated RS422/RS485** COM ports. (2 DB9 connector in back bracket and 2 DB9 connector in another bracket)
6. **A480** card: support **8 RS232** COM ports. (work with R804 cable for DB62 to 8 DB9 connector or R801 cable for DB62 to 8 DB25 connector)

Model	RS232	Ground isolated RS422/RS485	Total port number
A2000	2	x	2
A2018	2	x	2
A2485	x	2	2
A4000	4	x	4
A2020	2	2	4
A480	8	x	8

In hardware issue you need to have above card to support your target COM port interface type firstly. In software issue you need to have target I/O address and IRQ value to set for your application software. If our original I/O address setting could not meet your target, then we can modify our card to meet your target value. So you can have our card to run your application software without problem.

The major different in A2000 card and A2018 card is I/O map issue. Each serial port may need 8 bytes I/O address for UART controller. In A2000 card we support two serial ports and need two 8 bytes I/O address map. When we just need to use one serial port in application environment initially, then we don't want the other serial port to occupy 8 bytes I/O address map (they may conflict with other controller in I/O address map). In A2018 card we can set to support in one serial port mode or normal two serial ports mode (as A2000 card). When it is in one serial port mode, then A2018 card will occupy one 8 bytes I/O address map only. And we still have two serial ports capability later (as A2000 card).