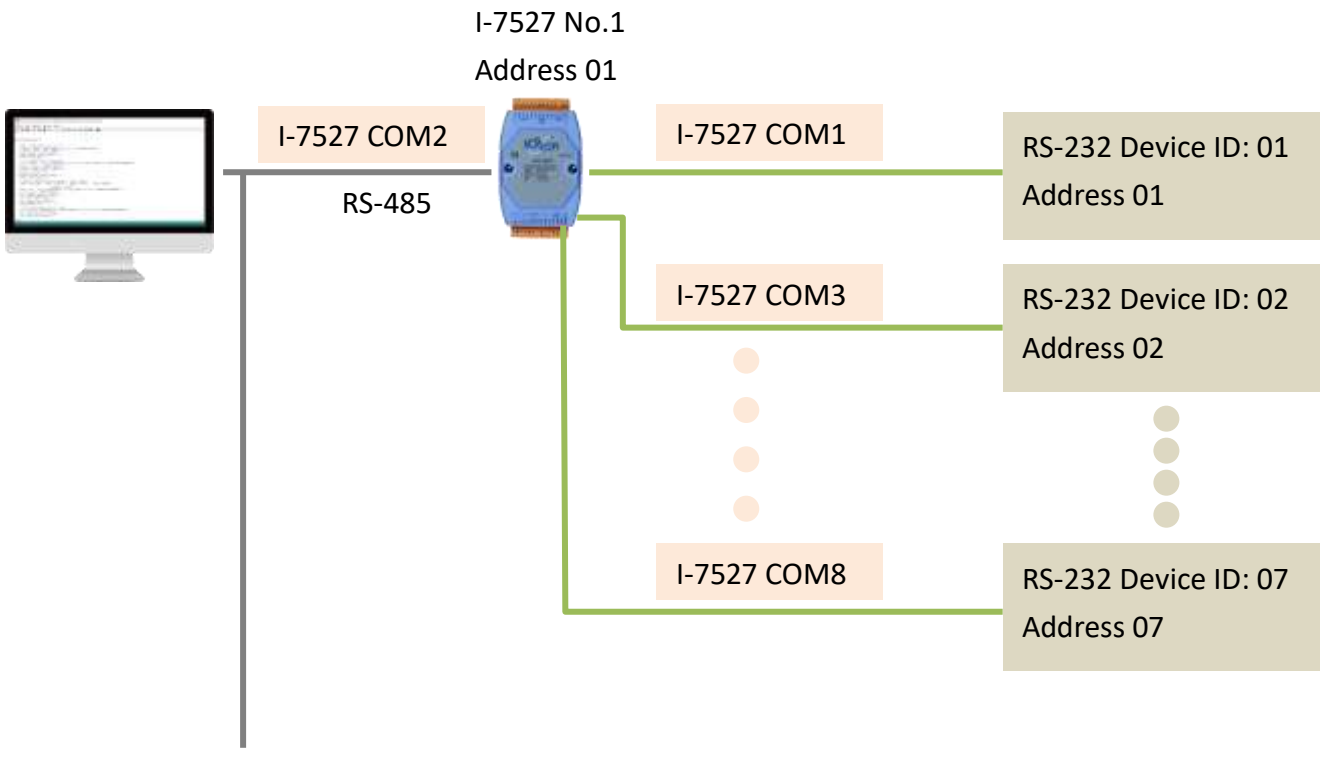
Classification	☑ I-752N				
Author	Tony Lee	Date	2025-02-18	No.	

How to convert 35 RS-232 devices to RS-485 to connect to the same Modbus network?

Q: We want to connect 35 RS-232 devices to the same RS-485 network and communicate using the Modbus protocol. What would you suggest?

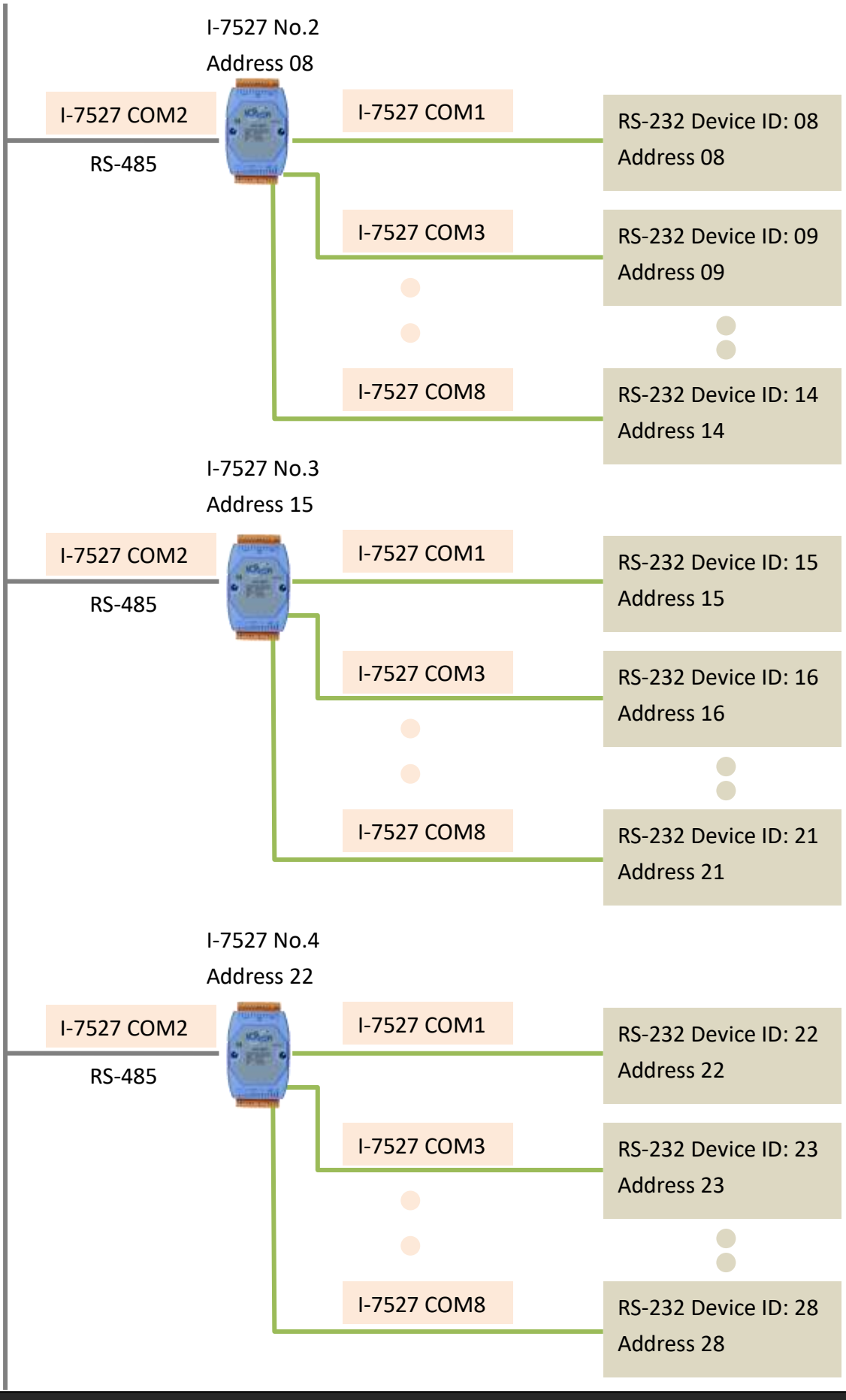
A: Most RS-232 devices do not support device addressing. These devices cannot be recognized when using a universal converter to convert and connect them to an RS-485 network. The I-752N series module is a Master-type converter, it can assign a unique address to every RS-232 device connected and connect them to an RS-485 network.

ICP DAS's I-7527/I-7527D provides 6 RS-232 and 1 RS-232/RS-485 ports, which can connect up to 7 RS-232 devices. To connect 35 RS-232 devices to the same RS-485 network, you can use 5 I-7527 modules. The application architecture diagram is as follows:



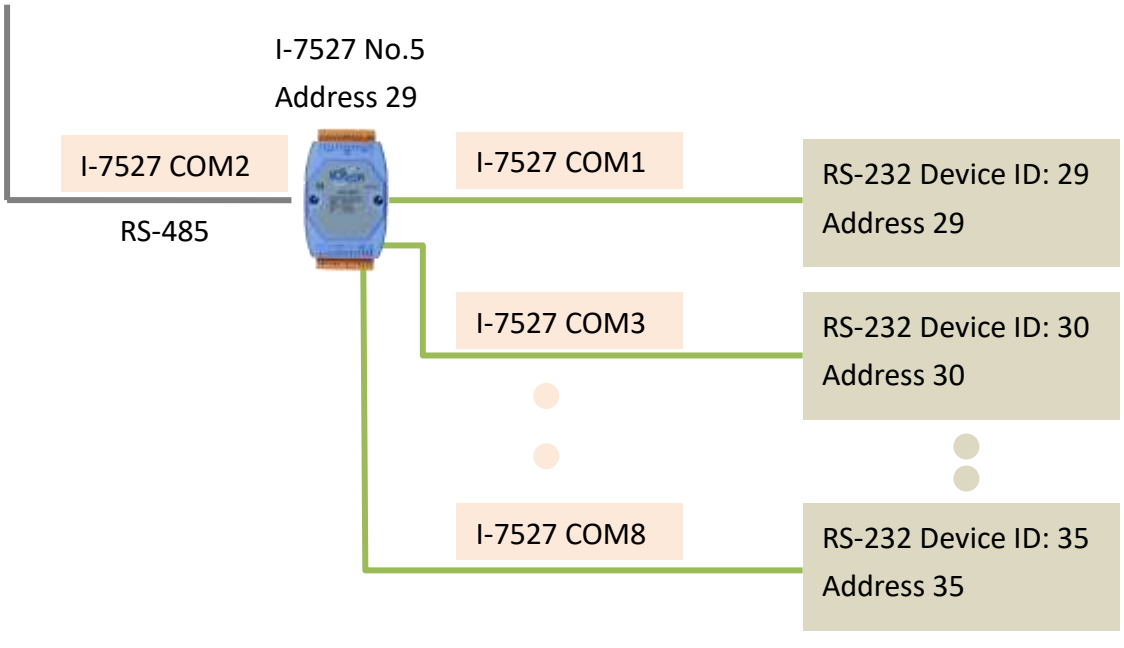
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Procedure

Step1: Refer to Chapter 3 of the I-752N User Manual, connect one module at a time, set the configuration and end character for COM2, and set the addresses of the five I-7527 modules to 1, 8, 15, 22, and 29 respectively.

Step2: Set the configuration and end character for COM1 and COM3 to COM8 for each module.

> **Note**
> The configuration settings of each COM port must be consistent with the communication settings of the connected RS-232 device.

Step3: Connect the 5 I-7527 modules to the same RS-485 network, and connect the 35 RS-232 devices to the corresponding COM ports. Turn on the I-7527 modules and the RS-232 devices.

Step4: Refer to 7.4.17. $AAC[delimiter] and 7.4.19. [delimiter]AA[bypass] of the user manual, send commands to the RS-232 device based on the address for the COM port that it is connected to.

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