Classification:
Troubleshooting

Question

How to troubleshoot communication problem on RS-485 network?

Answer

Applies to:

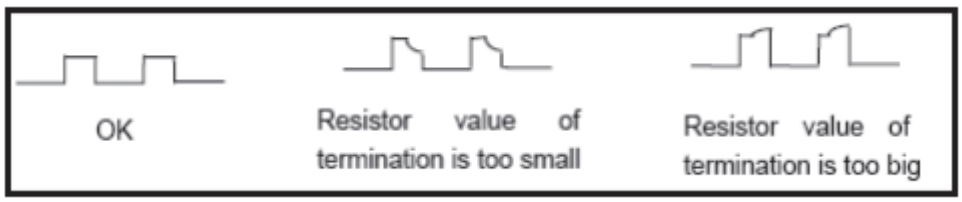
Platform	Module	Converter
PC, NB, HMI,and other master devices	I-7K,M-7K,,I-87K,87Pn and other RS-485 remote I/O modules/units	Other brand converter (Not ICP DAS converter

ICP DAS Remote I/O modules/Units list:
http://www.icpdas.com/en/product/p02.php?root=537&kind=538

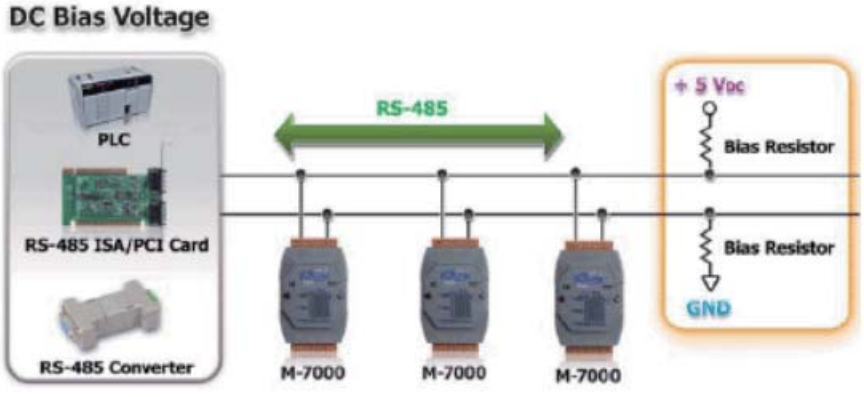
Problem phenomenon:

1. Communication failed with remote I/O modules/units.
2. Using the other brand RS-485 converter (not ICP DAS converter).
3. Users' tools or programs sometimes meet communication problem such as failed to read data or timeout error.

ICP DAS Remote I/O modules/units need pull high and pull low resistors for stable signal on the RS-485 network. If the impendence does not match with requirement, the signal on RS-485 may become unstable as below. It will cause communication problems.



Below are some suggestions to solve the problem:

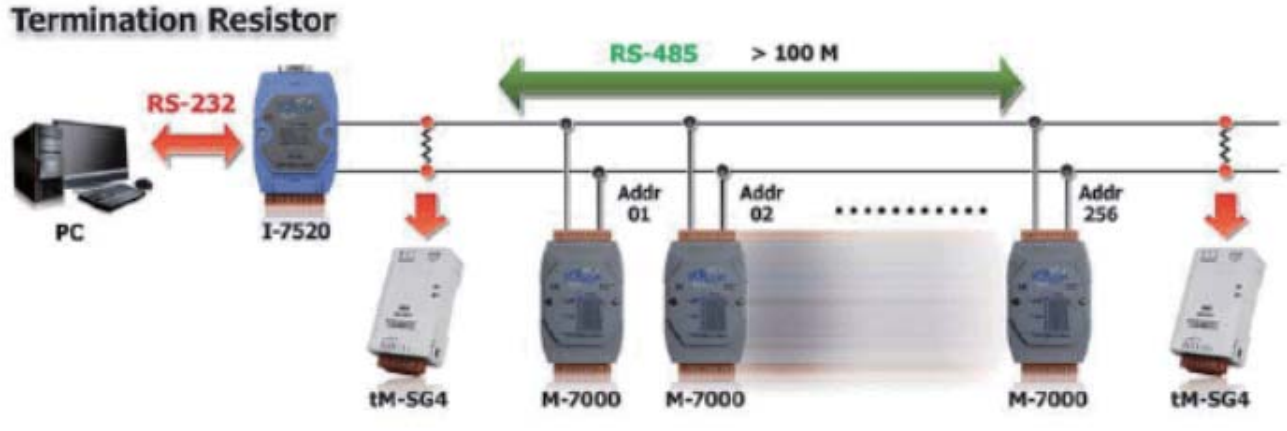


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1. Use ICP DAS converter: ICP DAS converter comes with pull high and pull low resistors. It can stable the communication signal on RS-485 network. For more detailed information, please refer to
http://www.icpdas.com/en/product/guide+Industrial__Communication+Serial__Communication+Converter

2. Add pull high and pull low resistors: Users can add pull high and pull low resistors on RS-485 network for stable communication signal

3. Add tM-SG4:
tM-SG4 comes with pull high and pull low resistors. It also can stable communication signal on RS-485 network. For more detailed information, please go to
http://www.icpdas.com/en/product/tM-SG4



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