Classification	☑ tDS ☑ tGW ☐ PETL/tET/tPET ☐ DS/PDS/PPDS ☐ tM-752N ☐ I/O Card ☐ VXC Card ☐ VxComm ☐ Other				
Author	Mike Chou	**Date**	2020-02-13	**NO.**	FAQ051

Q: How do I pick the Tiny module in a 2 master and single slave architecture?

A: A common architecture can be divided to six forms based on the communication protocol and the communication interface.

a. Communication protocol - Modbus or other protocol (one query/one response).
b. Communication interface (Master) - Serial (RS-232/422/485) or Ethernet (TCP/UDP).
c. Communication interface (Slave) - Serial (RS-232/422/485) or Ethernet (TCP/UDP).

Modbus Protocol		Master	
		Serial	Ethernet (TCP / UDP)
Slave	Serial	Architecture 1 **tSH-73x**	Architecture 2 **tGW-700**
	Ethernet (TCP / UDP)	Architecture 3 **tGW-700**	Modbus TCP / UDP

Other Protocol		Master	
		Serial	Ethernet (TCP)
Slave	Serial	Architecture 4 **tSH-73x**	Architecture 5 **tDS-700**
	Ethernet (TCP)	Architecture 6 **tDS-700**	Ethernet

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Architecture 1 Modbus protocol + Master (Serial) + Slave (Serial)

Tiny module / Mode

tSH-73x series / Modbus Sharer

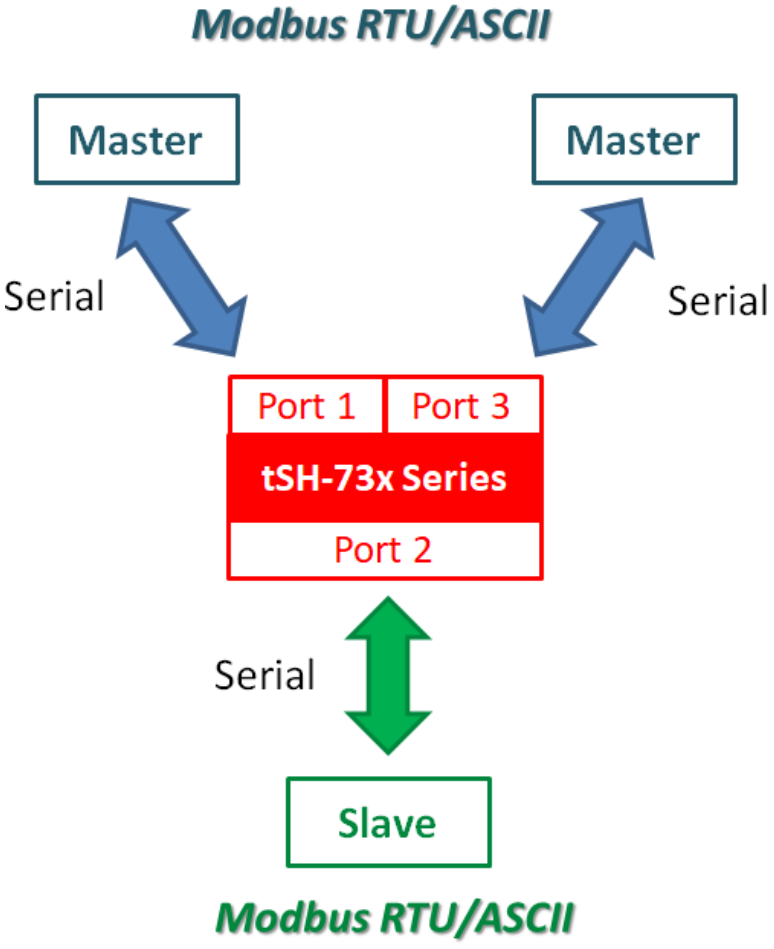
Main function

Converts the transfer format for the Serial

Reduces the loading on the Slave device

Prevents data confusion on the Serial port

Architecture diagram





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Architecture 2 Modbus protocol + Master (Ethernet) + Slave (Serial)

Tiny module / Mode

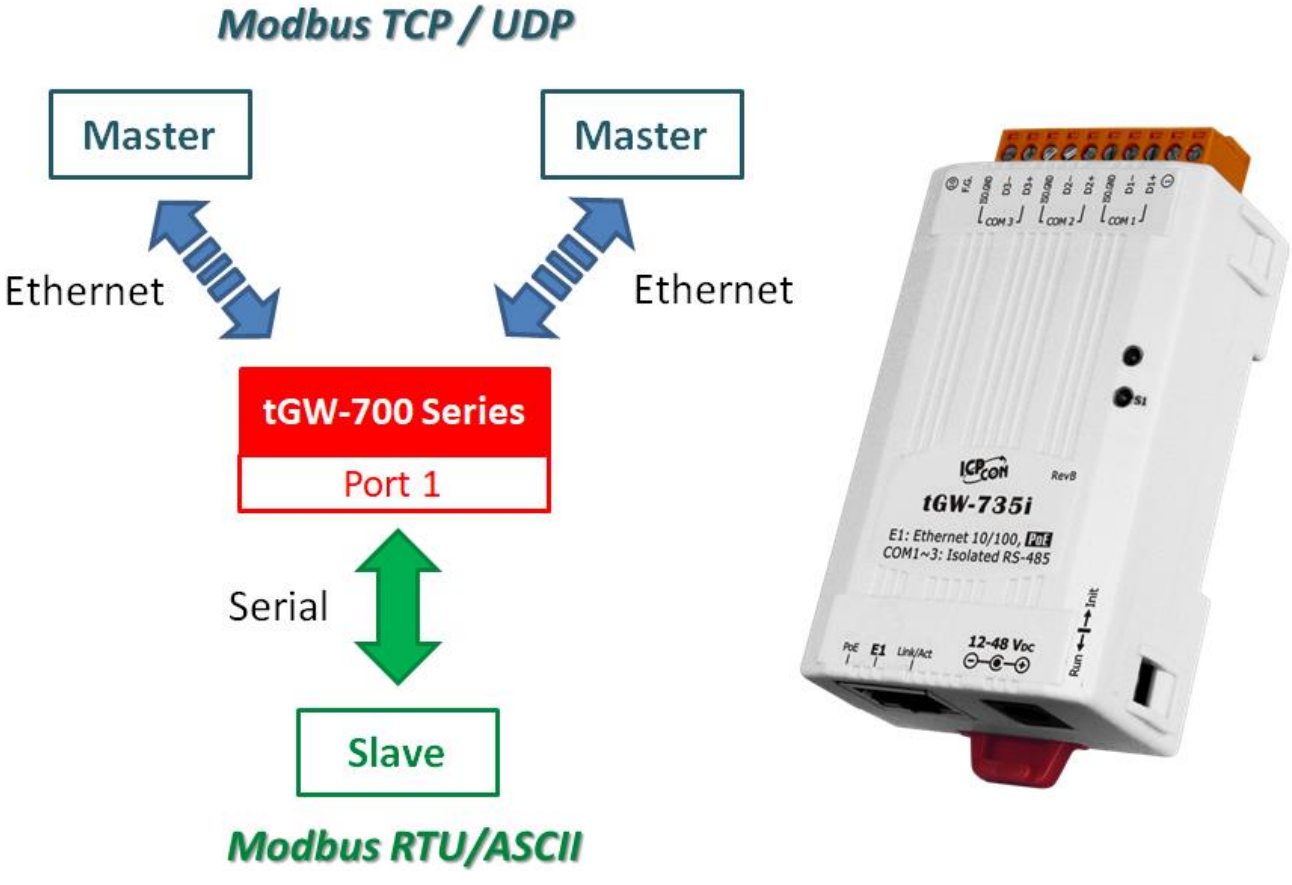
tGW-700 series / Server Mode

Main function

Provides a Modbus TCP/UDP to RTU/ASCII Gateway

Reduces the loading on the Slave device

Architecture diagram



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Architecture 3 Modbus protocol + Master (Serial) + Slave (Ethernet)

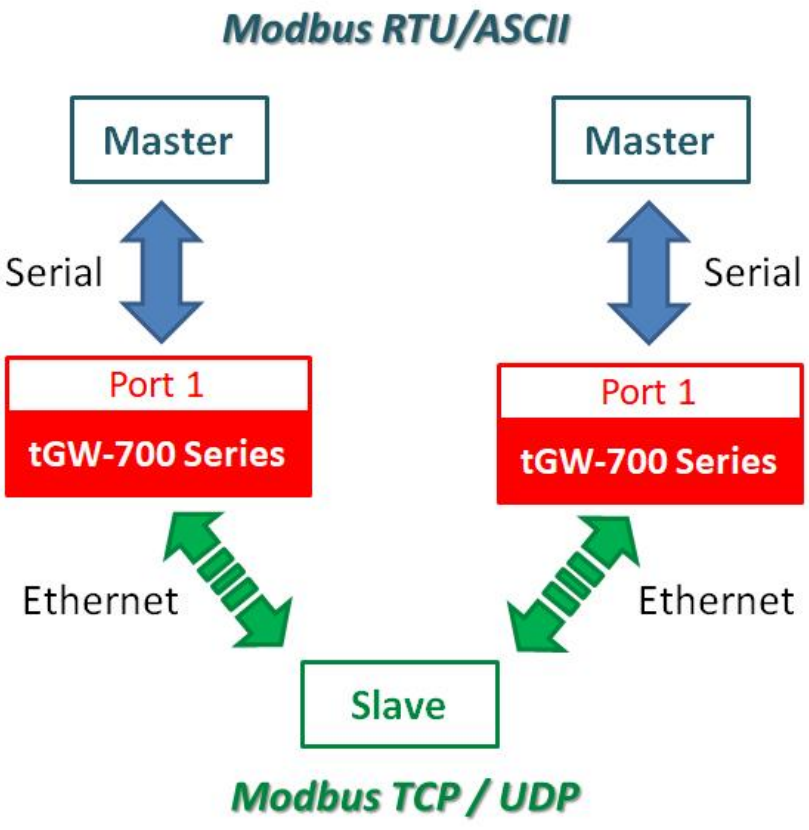
Tiny module / Mode

tGW-700 series / Client Mode

Main function

The Modbus RTU / ASCII to TCP/UDP Gateway

Architecture diagram





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Architecture 4 Other protocol + Master (Serial) + Slave (Serial)

Note: If another protocol is used, it should adhere to the one query one response rule.

Tiny module / Mode

tSH-73x series / Serial Sharer

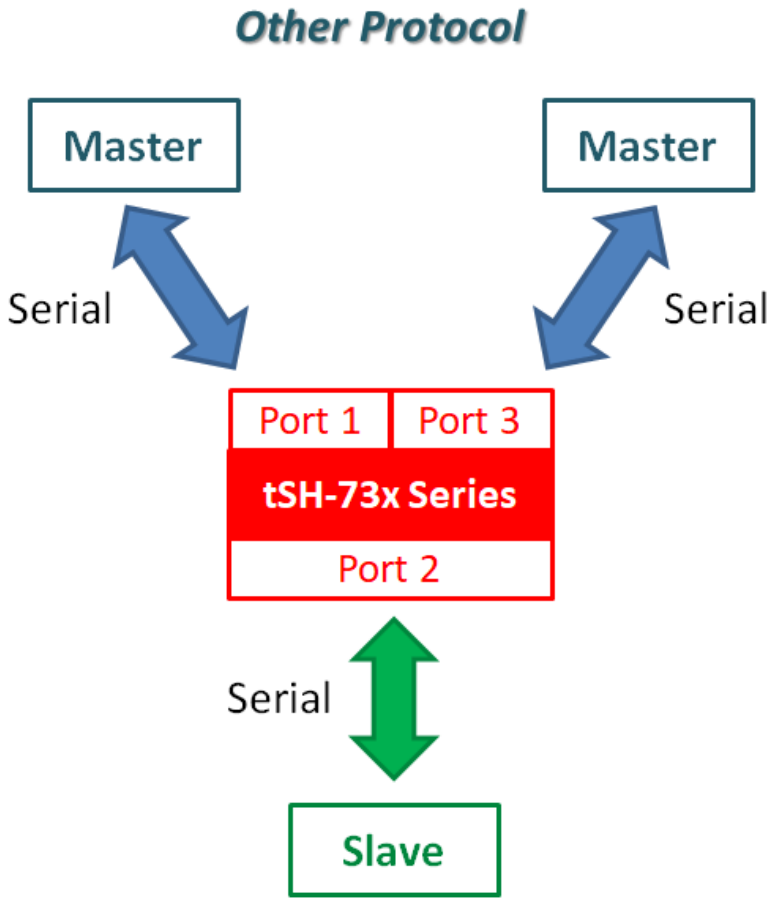
Main function

Converts the transfer format from the Serial device

Reduces the loading on the Slave device

Prevents data confusion on the Serial port

Architecture diagram





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Architecture 5 Other protocol + Master (Ethernet) + Slave (Serial)

Note: If another protocol is used, it should adhere to the one query one response rule.

The tDS-700 series only supports TCP communication.

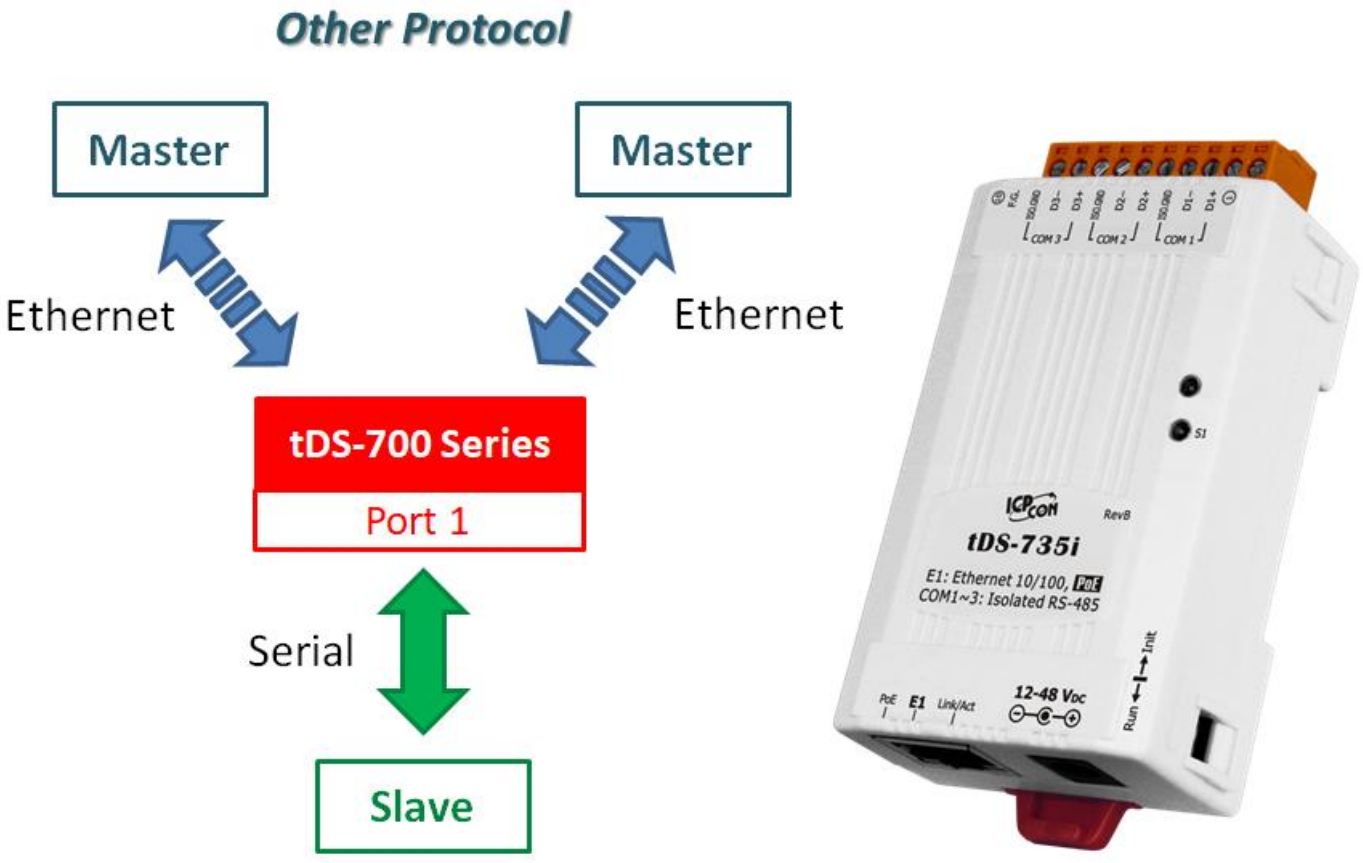
Tiny module / Mode

tDS-700 series / Server Mode

Main function

Provides an Ethernet to Serial Gateway

Architecture diagram



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Architecture 6 Other protocol + Master (Serial) + Slave (Ethernet)

Note: The tDS-700 series only supports TCP communication.

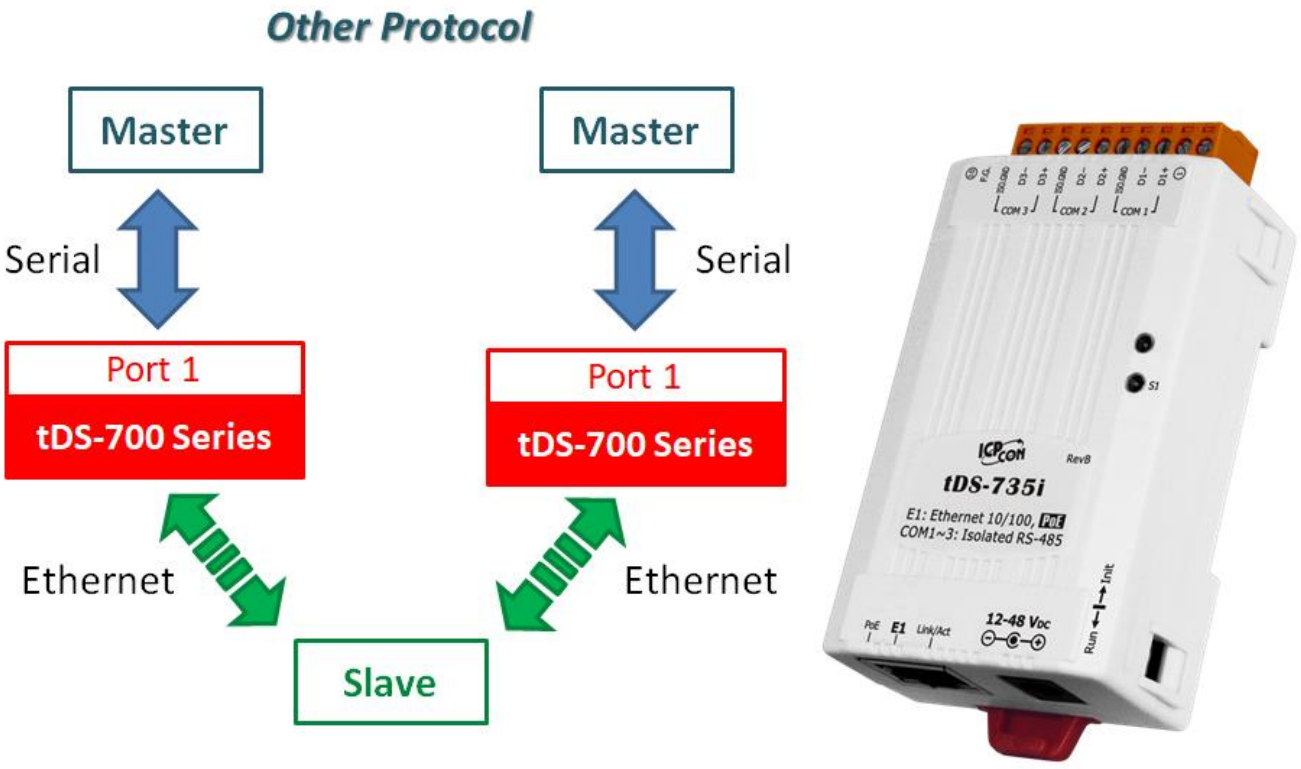
Tiny module / Mode

tDS-700 series / Client Mode

Main function

Provides a Serial to Ethernet Gateway

Architecture diagram



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