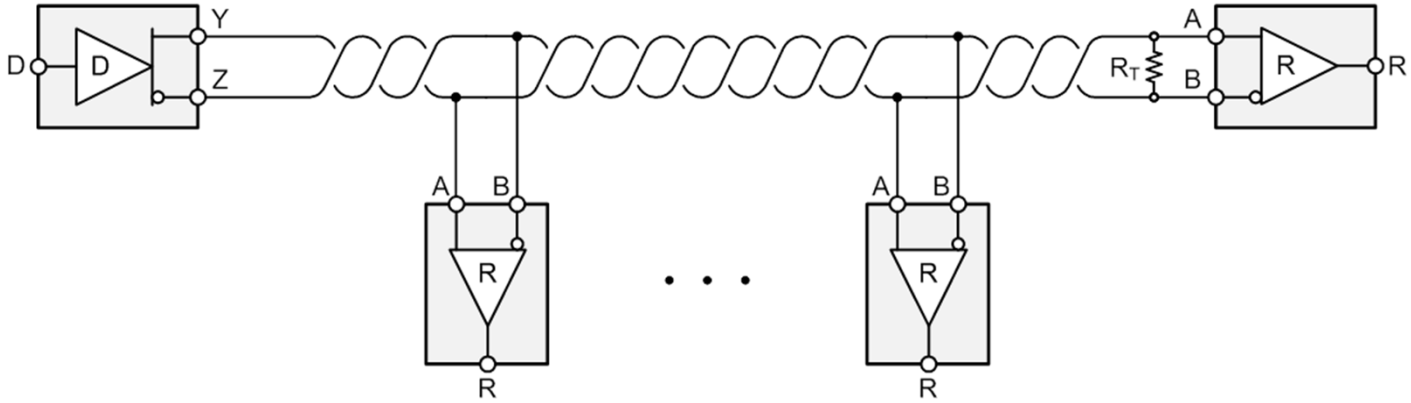
RS-422 Interface

RS-422



- Like RS-485, RS-422 is a differential signaling standard which defines the electrical characteristics of drivers and receivers used to implement a balanced transmission line.
- Unlike RS-485, RS-422 is a multi-drop standard, rather than multi-point, allowing ***only*** one driver and up to ten receivers to be connected to the bus.
- Any RS-485 compliant transceiver is compatible with an RS-422 application, though it may not be strictly *compliant* with the RS-422 standard.

Comparison of RS-485 and RS-422

	RS-422	RS-485
Bus topology	Multi-drop	Multi-point
Number of Drivers	1	Many
Number of Receivers	10	Minimum 32, up to 256
Differential Output Voltage	2V across 100Ω	1.5V across 54Ω
Driver Output Common-Mode Range	Unspecified	-7V to +12V
Driver Short Circuit Current[1]	150µA	250µA
Minimum Receiver Input Impedance	4kΩ	12kΩ
Receiver Input Common-Mode Range	-7V to +7V	-7V to +12V

[1] In RS-422, driver short circuit current is specified from each A and B output to ground. In RS-485, driver short circuit current is specified from A to B, B to A, and from each A and B output to -7V to +12V.