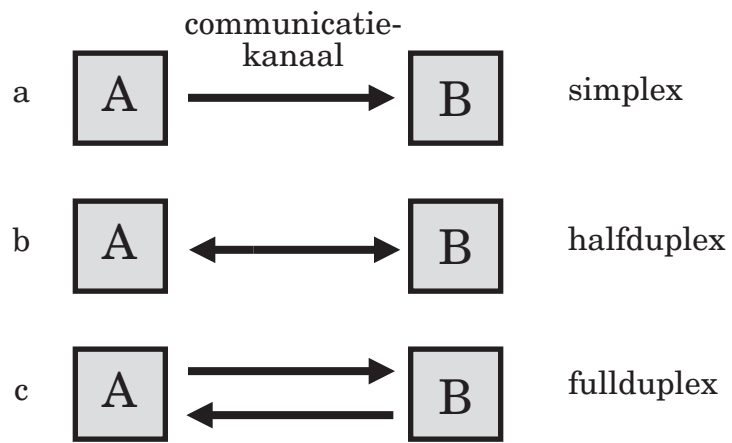
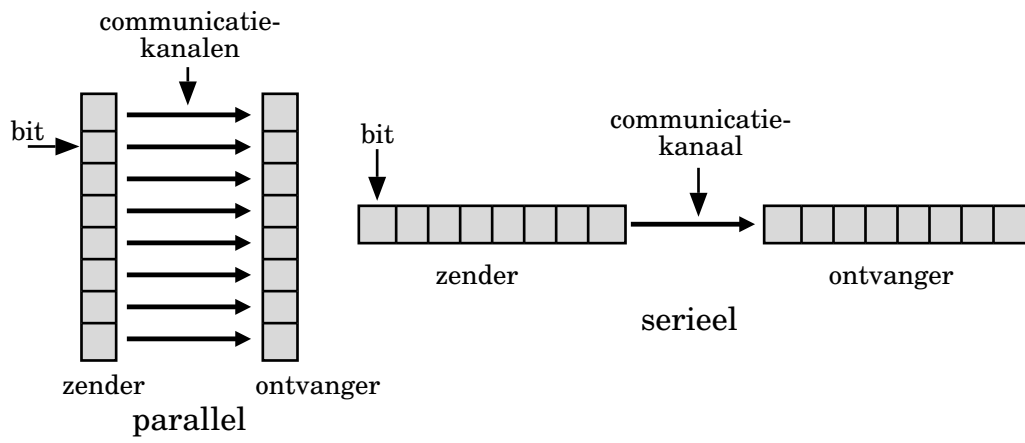


# Hoofdstuk 10

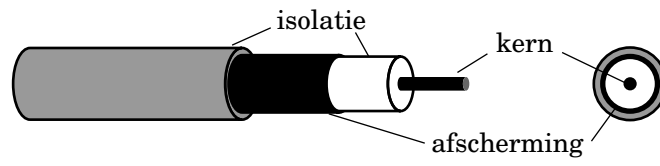
## Datacommunicatie



Figuur 10.1: Vormen van datacommunicatie.



Figuur 10.2: Parallel versus serieel.



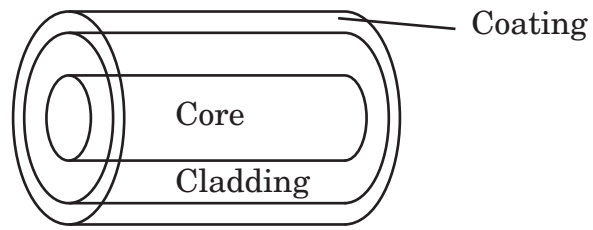
Figuur 10.3: Coaxkabel.

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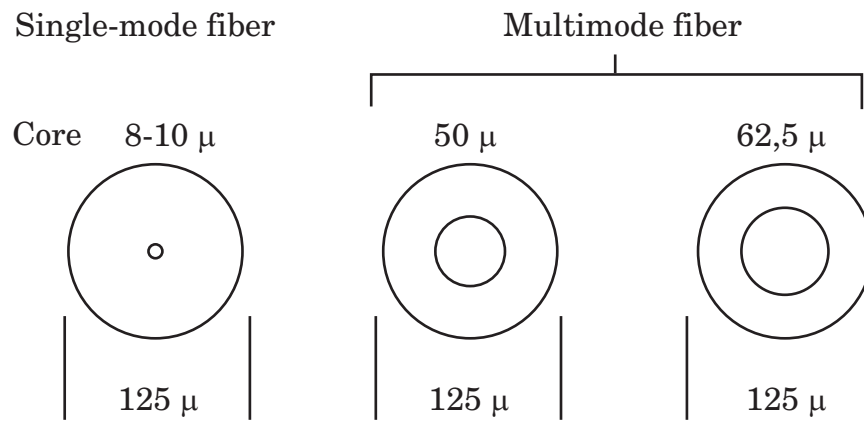
Figuur 10.4: Tweeadering UTP.

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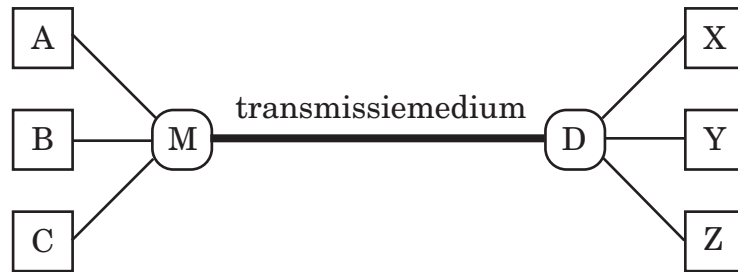
Figuur 10.5: Opbouw van een glasvezel.

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Figuur 10.6: Afmetingen van single- en multimode fiber.

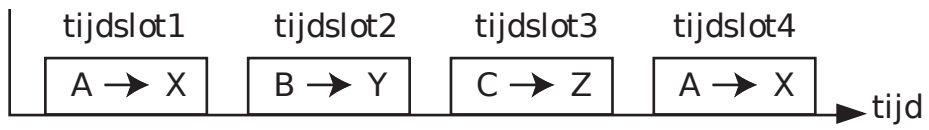
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Figuur 10.7: Multiplexing.

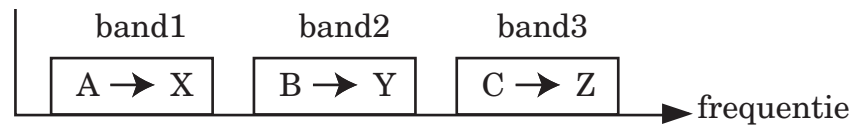
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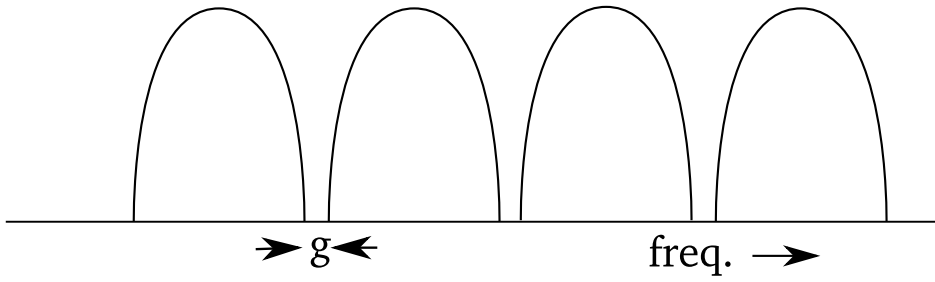
Figuur 10.8: Time division multiplexing.

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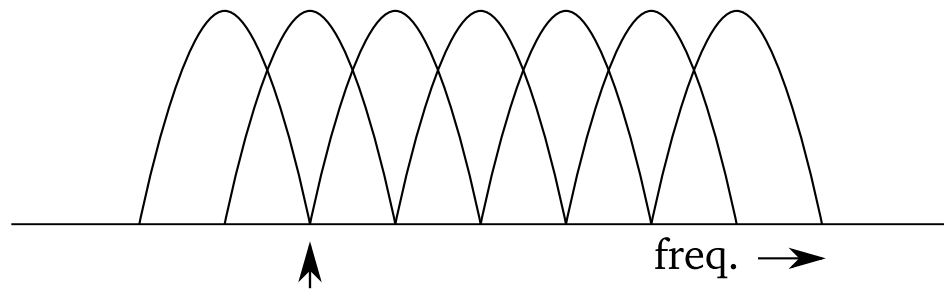
Figuur 10.9: Frequency division multiplexing.

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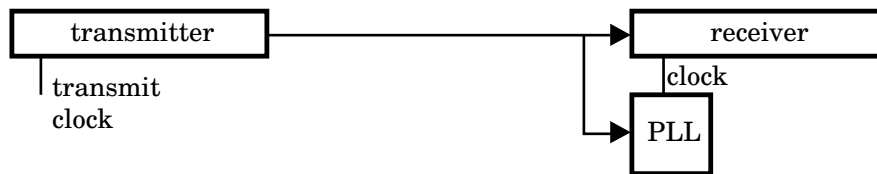
Figuur 10.10: Guards by FDM.

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Figuur 10.11: OFDM.

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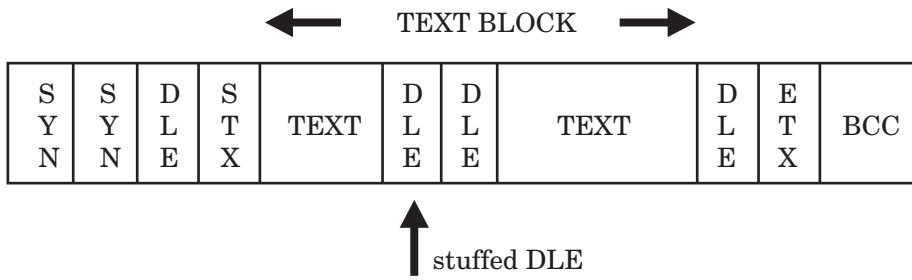
Figuur 10.12: Synchrone datacommunicatie.

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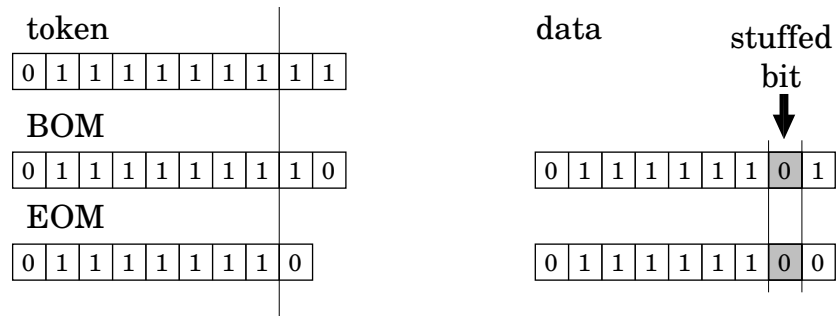
Figuur 10.13: BI-SYNC-protocol.

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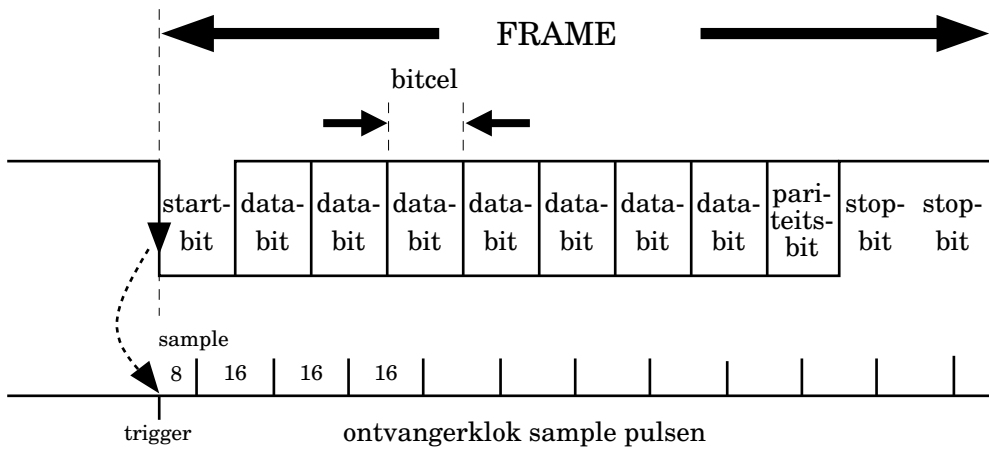
Figuur 10.14: BI-SYNC-transparent text format.

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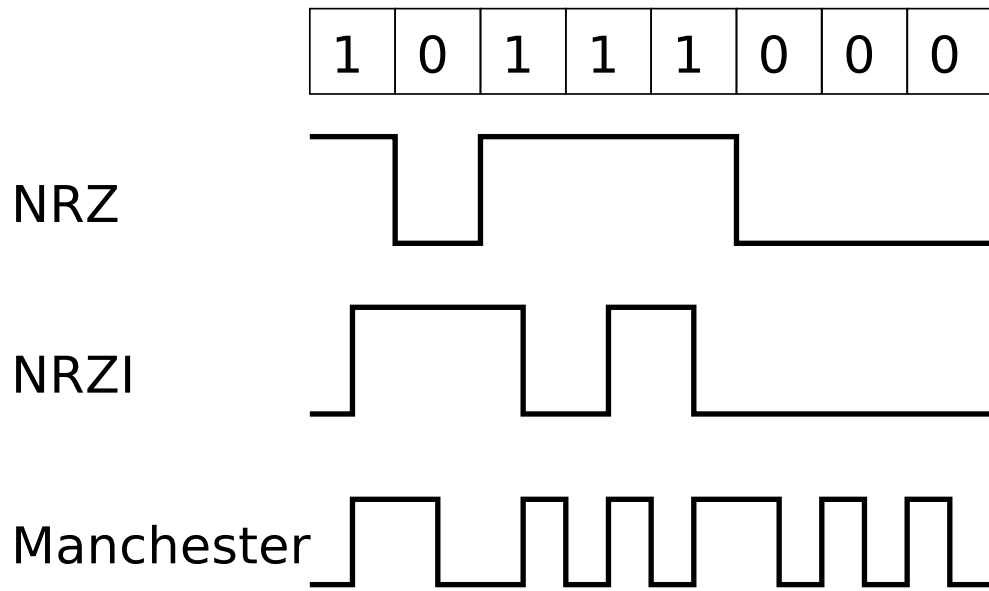
Figuur 10.15: Bitstuffing bij token-passing.



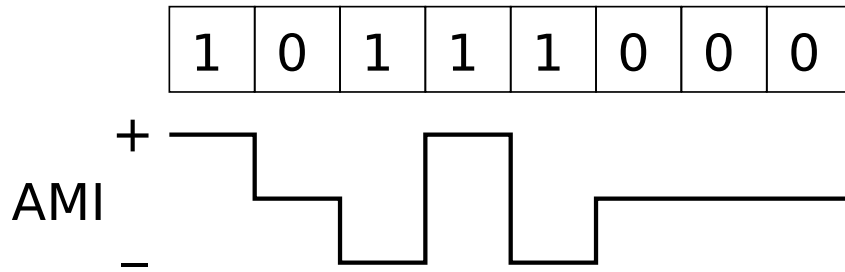


Figuur 10.16: Asynchrone datacommunicatie.

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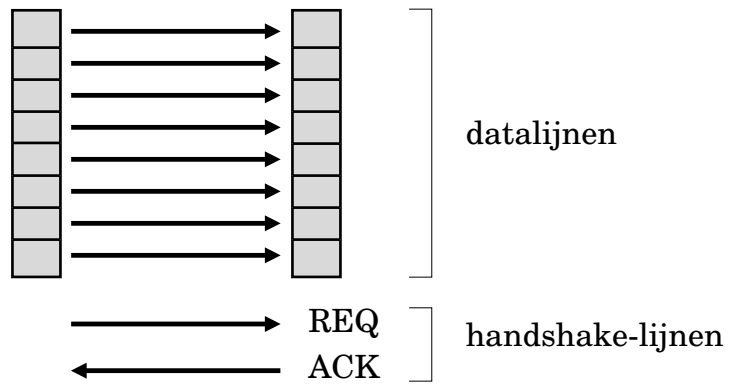


Figuur 10.17: Lijn coderingen.



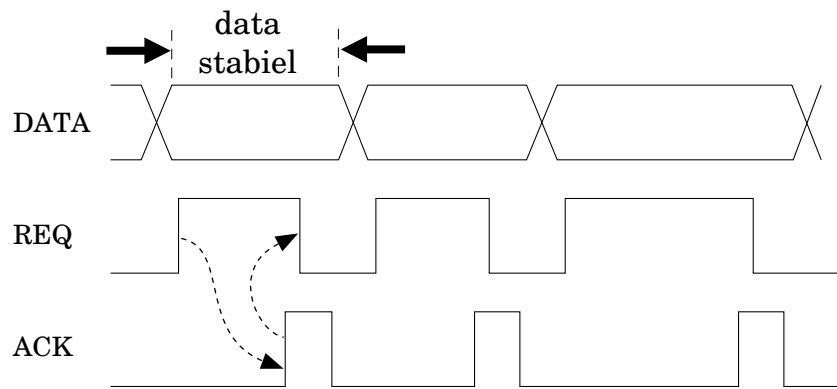
Figuur 10.18: Alternate mark inversion.

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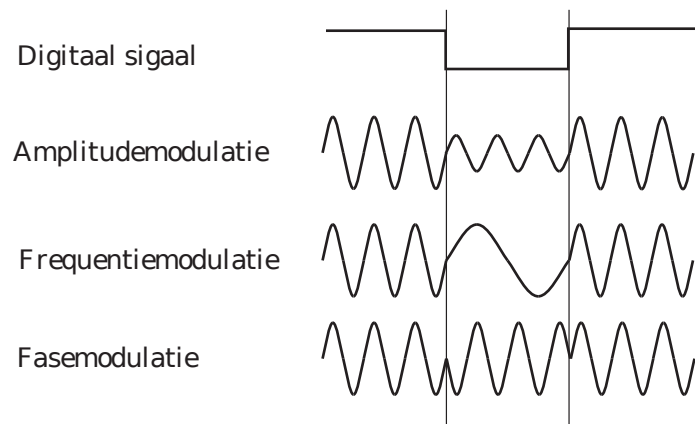
Figuur 10.19: Parallel datatransport met handshake.

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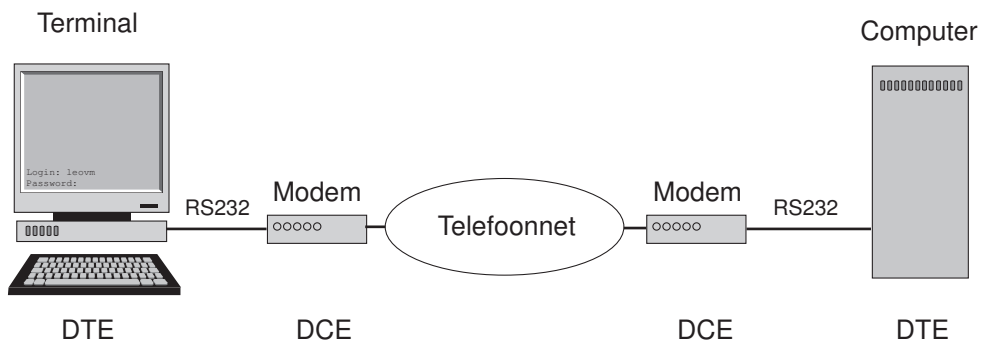
Figuur 10.20: Tijdsdiagram handshake-mechanisme.

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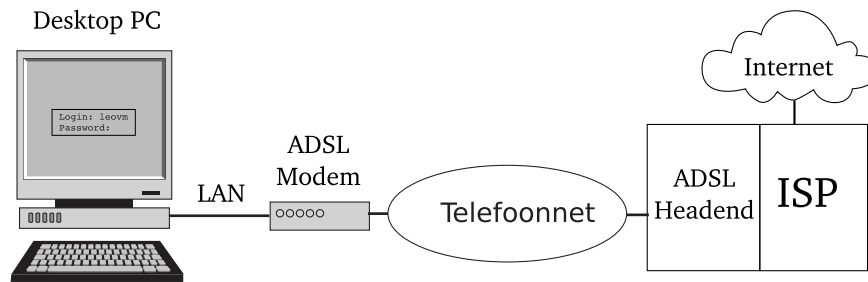
Figuur 10.21: Drie vormen van modulatie.

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Figuur 10.22: Datacommunicatie met een modem.

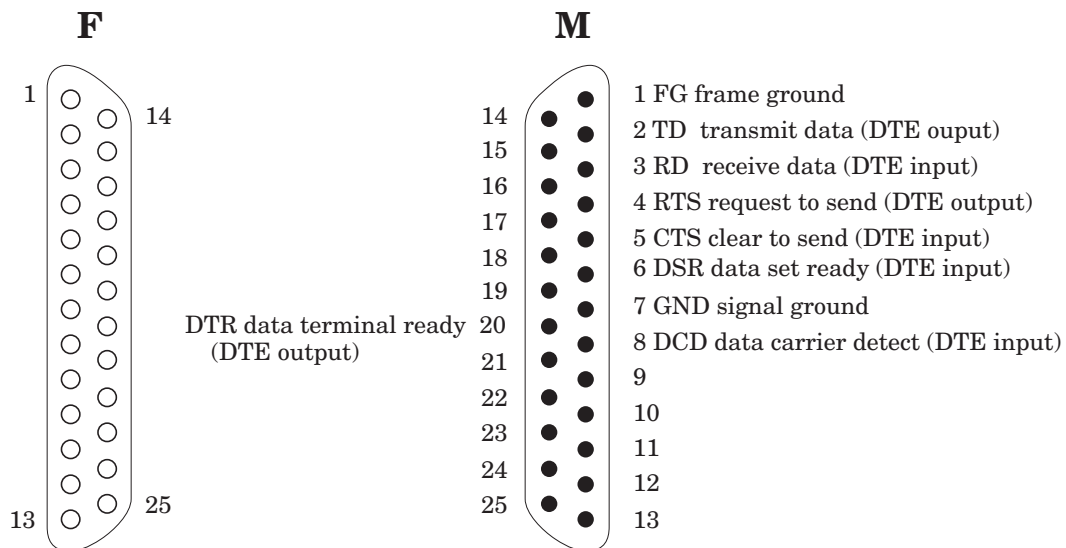
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Figuur 10.23: ADSL datacommunicatie met een modem.

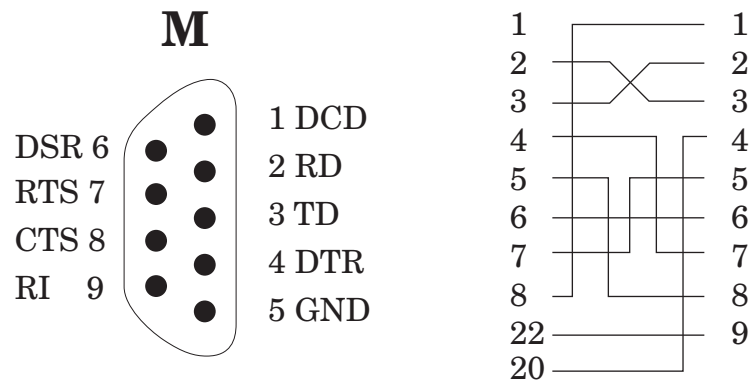
Computersystemen en embedded systemen (LvM)



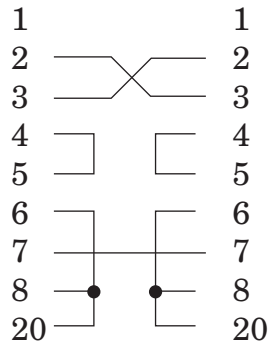


Figuur 10.24: Female en male 25-polige RS-232 plug.

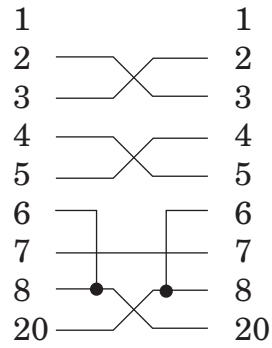
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Figuur 10.25: 9-polige RS-232-plug.



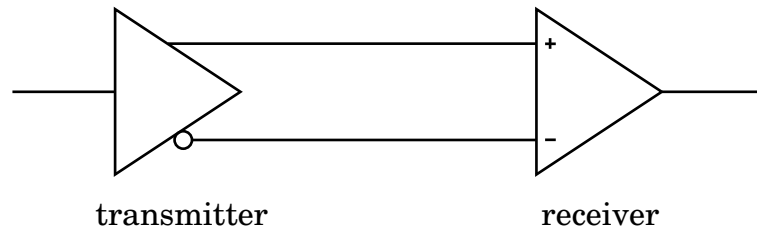
3-draads DTE-DTE



DTE-DTE met control

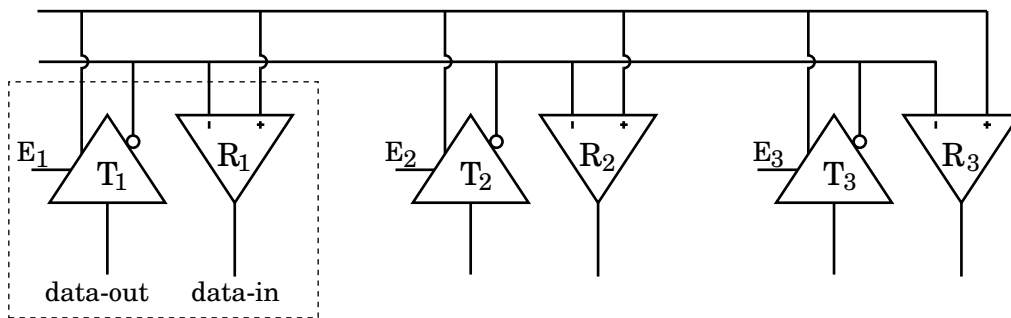
Figuur 10.26: Nullmodem zonder en met control.

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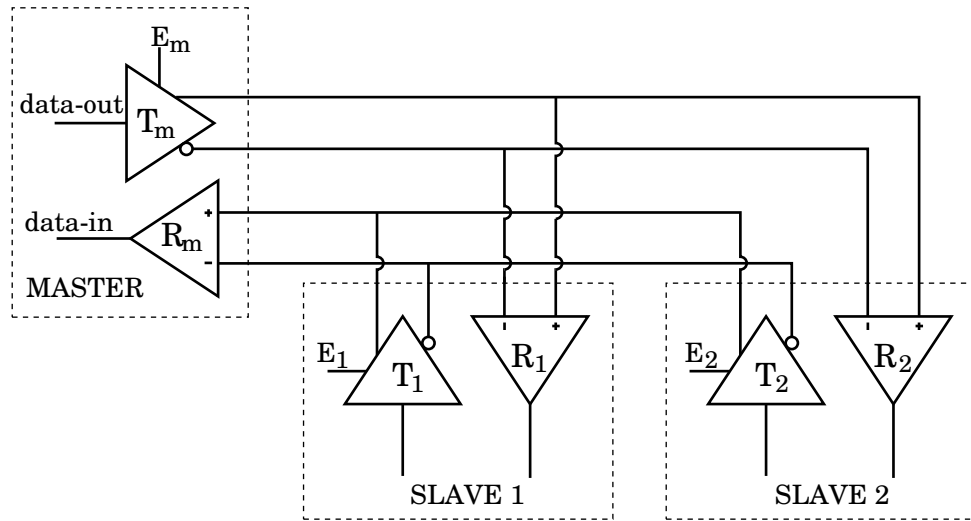
Figuur 10.27: Differentiele verbinding voor RS-422.

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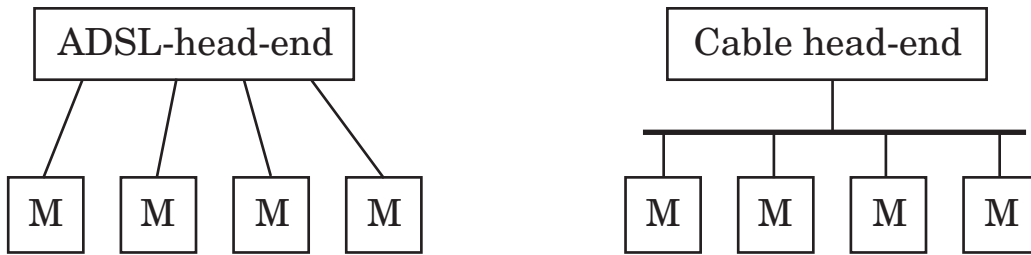
Figuur 10.28: RS-485-koppeling van drie systemen.

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Figuur 10.29: Master-slave-verbinding met RS-485.

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Figuur 10.30: Point to point en medium sharing.

Computersystemen en embedded systemen (LvM)

1 STROBE	1 STROBE
2 D0	2 D0
3 D1	3 D1
4 D2	4 D2
5 D3	5 D3
6 D4	6 D4
7 D5	7 D5
8 D6	8 D6
9 D7	9 D7
10 ACK	10 ACK
11 BUSY	11 BUSY
12 PAPER END	12 PAPER END
13 SELECT	13 SELECT
14 AUTOFEED	14 AUTOFEED
15 ERROR	15 NC
16 INITIALIZE PRINTER	16 0V
17 SELECT INPUT	17 0V
18 t/m 25 GND	18 +5V
	19 t/m 29 GND
	30 INPUT PRIME RET
	31 INPUT PRIME
	32 FAULT
	33 0V
	34 NC
	35 +5V
	36 SELECT INPUT

Figuur 10.31: Aansluitingen van een 25-polige en 36-polige centronics plug.