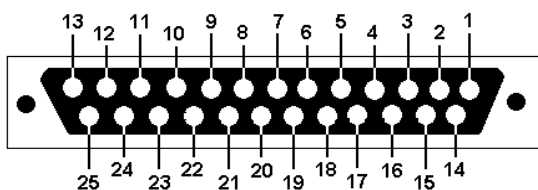# TTL TO DIGITAL INTERFACE MODULES

PT# 129014, RS-232, DB-25 Female, DCE Interface Module(connects to DTE) Rates Up To 128k

Jumper Pos 1-2   - DSR is connected with other interface's DTR (if DCE) or DSR (if DTE) input
J2   Pos 2-3   - DSR is forced on

Jumper Pos 1-2   - DCD is connected with other interface's RTS (if DCE) or DCD (if DTE) input
J3   Pos 2-3   - DCD is forced on

Jumper Pos 1-2   - RI is connected with other interface's RI (if DTE) input
J4   Pos 2-3   - RI is unconnected (default if other interface is DCE)

Pins Supported 1,2,3,4,5,6,7,8,15,17,20,22,24

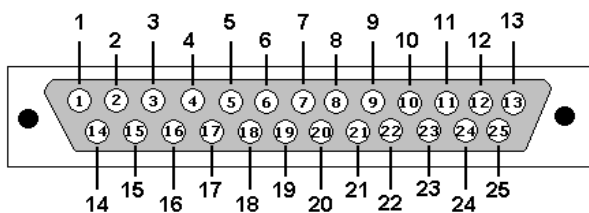DB25: View looking into female connector

Part# 129032, RS-232, DB25 Male, DTE Interface Module(connects to DCE) Rates Up To 128k

Jumper Pos 1-2   - DTR is connected with other interface's DTR (always DCE) input
J2   Pos 2-3   - DTR is forced on

Jumper Pos 1-2   - RTS is connected with other interface's RTS (always DCE) input
J3   Pos 2-3   - RTS is forced on

Pins Supported 1,2,3,4,5,6,7,8,15,17,20,22,24
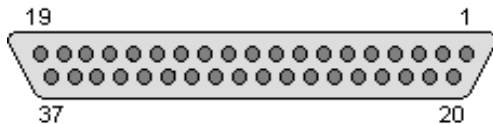
DB25: View looking into male connector

Part# 129012, RS-422/449, DB37 Female, DCE Interface Module(connects to DTE) Rates Up To 10Mbps

Jumper Pos 1-2   - DM is connected with other interface's TR (if DCE) or DM (if DTE) input
J2   Pos 2-3   - DM is forced on

Jumper Pos 1-2   - RR is connected with other interface's RS (if DCE) or RR (if DTE) input
J3   Pos 2-3   - RR is forced on

Jumper Pos 1-2   - TM is connected with other interface's TM (if DTE) input
J4   Pos 2-3   - TM is unconnected (default if other interface is DCE)

Jumper Pos 1-2   - IC is connected with other interface's IC (if DTE) input
J5   Pos 2-3   - IC is unconnected (default if other interface is DCE)

Pins Supported: 1,4,5,6,7,8,9,11,12,13,15,17,18,19,22,23, 24,25,26,27,29,30,31,35

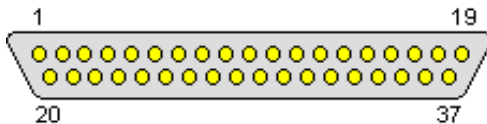DB37: View looking into female connector

Part# 129030, RS-422/449, DB-37 Male, DTE Interface Module(connects to DCE) Rates up to 10Mbps

Jumper Pos 1-2   - TR is connected with other interface's TR (always DCE) input
J2   Pos 2-3   - TR is forced on

Jumper Pos 1-2   - RS is connected with other interface's RTS (always DCE) input
J3   Pos 2-3   - RS is forced on

Pins Supported: 1,4,5,6,7,8,9,11,12,13,15,17,18,19,22,23, 24,25,26,27,29,30,31,35

DB37: View looking into male connector
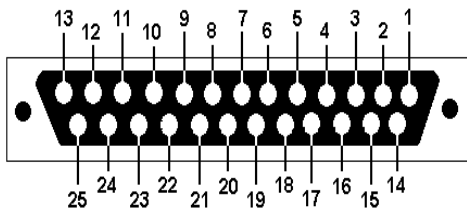
Part# 129011, RS-530, DB-25 Female, DCE Interface Module(connects to DTE) Rates Up To 10Mbps

Jumper Pos 1-2   - DSR is connected with other interface's DTR (if DCE) or DSR (if DTE) input
J2   Pos 2-3   - DSR is forced on

Jumper Pos 1-2   - DCD is connected with other interface's RTS (if DCE) or DCD (if DTE) input
J3   Pos 2-3   - DCD is forced on

Jumper Pos 1-2   - TM is connected with other interface's TM (if DTE) input
J4   Pos 2-3   - TM is unconnected (default if other interface is DCE)

Pins Supported 1,2,3,4,5,6,7,8,9,10,11,12,13,14,
15,16,17,18,19,20,22,23,24,25
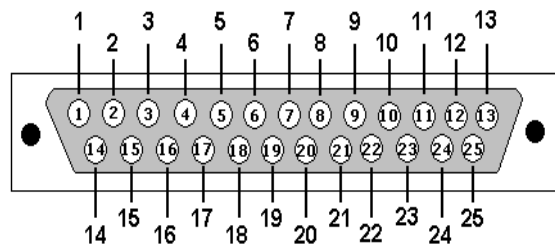
DB25: View looking into female connector

Part# 129029, RS-530, DB-25 Male, DTE Interface Module(connects to DCE) Rates up to 10Mbps

Jumper Pos 1-2   - DTR is connected with other interface's DTR (always DCE) input
J2   Pos 2-3   - DTR is forced on

Jumper Pos 1-2   - RTS is connected with other interface's RTS (always DCE) input
J3   Pos 2-3   - RTS is forced on

Pins Supported 1,2,3,4,5,6,7,8,9,10,11,12,13,14,
15,16,17,18,19,20,22,23,24,25
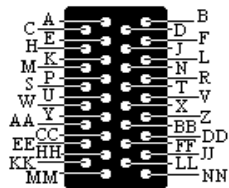
DB25: View looking into male connector

Part# 129010, V.35, MR-34 Pin Female, DCE Interface Module(connects to DTE) Rates Up To 10Mbps

Jumper Pos 1-2   - DSR is connected with other interface's DTR (if DCE) or DSR (if DTE) input
J3   Pos 2-3   - DSR is forced on

Jumper Pos 1-2   - DCD is connected with other interface's RTS (if DCE) or DCD (if DTE) input
J4   Pos 2-3   - DCD is forced on

Jumper Pos 1-2   - RI is connected with other interface's RI (if DTE) input
J5   Pos 2-3   - RI is unconnected (default if other interface is DCE)

Pins Supported A,B,C,D,E,F,H,J,P,R,S,T,U,V,W,X,Y,AA
15,16,17,18,19,20,22,23,24,25

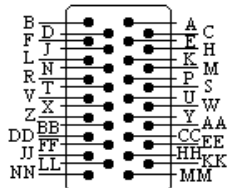M34: View looking into a V35 female connector

Part# 129028, V.35, MR-34Pin Male, DTE Interface Module(connects to DCE) Rate Up To 10Mbps

Jumper Pos 1-2   - DTR is connected with other interface's DTR (always DCE) input
J3   Pos 2-3   - DTR is forced on

Jumper Pos 1-2   - RTS is connected with other interface's RTS (always DCE) input
J4   Pos 2-3   - RTS is forced on

Pins Supported A,B,C,D,E,F,H,J,P,R,S,T,U,V,W,X,Y,AA
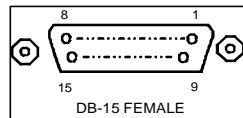
M34: View looking into a V35 male connector

Part# 129013, X.21, DB-15 Female, DCE Interface Module(connects to DTE) Rate Up To 10Mbps

No Straps

Pins Supported 1,2,3,4,5,6,8,9,10,11,12,13

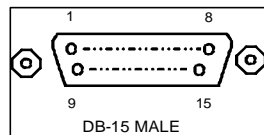DB15: View looking into female connector

```
        8              1
    ┌───────────────────┐
  ⊙ │ o ---·---·---· o │ ⊙
    │  o ---·---·--- o  │
    └───────────────────┘
       15             9
        DB-15 FEMALE
```

Part# 129031, X.21, DB-15 Male, DTE Interface Module(connects to DCE) Rates Up To 10Mbps

Jumper Pos 1-2   - CONTROL is connected with other interface's CONTROL (always DCE) input
J2   Pos 2-3   - CONTROL is forced on

Pins Supported 1,2,3,4,5,6,8,9,10,11,12,13

DB15: View looking into male connector

```
        1              8
    ┌───────────────────┐
  ⊙ │ o ---·---·---· o │ ⊙
    │  o ---·---·--- o  │
    └───────────────────┘
       9              15
        DB-15 MALE
```

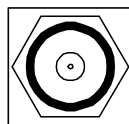**Part# 129057, TTL Interface Module W/BNC Connectors Rate Up To 10Mbps**

Jumper Pos 1-2   - Data In Signal Not Inverted (Default)
J1   Pos 2-3   - Data In Signal is Inverted

Jumper Pos 1-2   - Clock In Signal Not Inverted (Default)
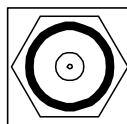**J3**   Pos 2-3   - Clock In Signal is Inverted

Jumper Pos 1-2   - Data Out Signal Not I (Default)
J5   Pos 2-3   - Data Out Signal is Inverted

Jumper Pos 1-2   - Clock Out Signal Not Inverted (Default)
J7   Pos 2-3   - Clock Out Signal is Inverted

View looking into a BNC Connector

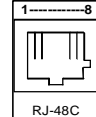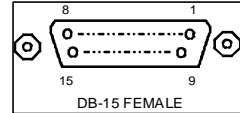E1 Receive BNC   E1 Transmit BNC

Center pin = Tip   Center pin = Tip
Outer ring = ring   Outer ring = ring

Part# 129085, T-1 Interface Module, 1.544 Mbps, DB-15 Female, or RJ-48C

Signal	DB-15	RJ48-C
Rec Tip	1	4
Gnd	2	3
Tran Tip	3	2
Gnd	4	6
Rec Ring	9	5
Tran Ring	11	1

Install J3,4,5,6 in the 1-2 postion for DB15

Install J3,4,5,6 in the 2-3 postion for RJ48

Pins Supported 1,2,3,4,9,11on DB15

Pins Supported 1,2,3,4,5,6 on RJ48

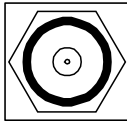| Cable Length	0'-133'	133'-266'	266' 399'	399'-533'	533' 655'
J7	1	2	1	2	1
J8	1	2	2	1	1
J9	2	1	1	1	1

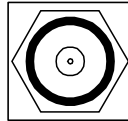1=jump pins 1-2 2=jump pins 2-3

DB-15 FEMALE

RJ-48C

Part# 175024, E-1 Interface Module, 2.048 Mbps, 75 ohm BNC

Install J4 and J6 in the 2-3 position

J5 Not Installed

View looking into a BNC Connector

Center pin = Tip   Center pin = Tip
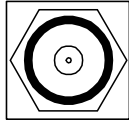
Outer ring = ring   Outer ring = ring
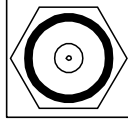
Part# 175021, E3 Interface Module, 34.368 Mbps, 75 ohm BNC

Install J3 in the 1-2 position
Install J5 in the 3-4 position
Install J6 in the 2-3 position
Install J7 in the 1-2 position
Install J8 in the 2-3 position

View looking into a BNC Connector

Center pin = Tip   Center pin = Tip
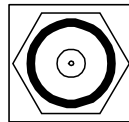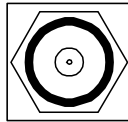Outer ring = ring   Outer ring = ring

Part# 175020, DS3 Interface Module, 44.736 Mbps, 75 ohm BNC

Install J3 in the 1-2 position
Install J5 in the 1-2 position
Install J6 in the 2-3 position
Install J7 in the 1-2 position
Install J8 in the 1-2 position

View looking into a BNC Connector
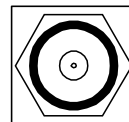
Center pin = Tip   Center pin = Tip
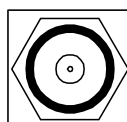Outer ring = ring   Outer ring = ring

Part# 175022, STS-1 Interface Module, 51.840 Mbps, 75 ohm BNC

Install J3 in the 1-2 position
Install J5 in the 2-3 position
Install J6 in the 1-2 position
Install J7 in the 2-3 position
Install J8 in the 2-3 position

View looking into a BNC Connector
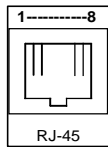
Center pin = Tip   Center pin = Tip
Outer ring = ring   Outer ring = ring

Part # 129092, RS-232 4-Port Broadcast Card
RJ 45 Female, DCE Interface(connects to DTE) Rates up to 128k

Jumper Pos 1-2   - DCD Forced ON
  P1   Pos 2-3   - DCD is connected with other interface's RTS (if DCE) or DCD (if DTE) input

Pins Supported 1,2,3,4,5,6,7,8

Pin 1 CTS Forced High
Pin 2 DSR Forced High
Pin 3 RXD
Pin 4 Ground
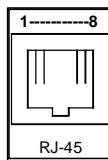Pin 5 RXC
Pin 6 Ground
Pin 7 DCD
Pin 8 Ground

```
1----------8
 ┌────────┐
 │ ▌│││  │
 │ ▌│││  │
 │   └─┘  │
 └────────┘
   RJ-45
```

RJ45 View looking into female connector

Part # 129075, V11 4-Port Broadcast Card
RJ45 Female, DCE Interface(connects to DTE) Rates up to 6.144Mbps

Jumper Pos 1-2   - DCD Forced ON
  P1   Pos 2-3   - DCD is connected with other interface's RTS (if DCE) or DCD (if DTE) input

Pins Supported 1,2,3,4,5,6,7,8

Pin 1 RXD A
Pin 2 RXD B
Pin 3 RXC A
Pin 4 RXC B
Pin 5 Ground
Pin 6 Ground
Pin 7 DCD A
Pin 8 DCD B

```
1----------8
 ┌────────┐
 │ ▌│││  │
 │ ▌│││  │
 │   └─┘  │
 └────────┘
   RJ-45
```
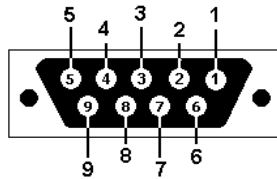
RJ45 View looking into female connector

**PT# 129070, RS485 2 or 4 Wire Mulitidrop Module, DB9 Female Connector
Rates from 1.2k to 128k**

Pins supported 2,3,6,7,8

Pin 1 N/C
Pin 2 RXD (B)
Pin 3 TXD (A)
Pin 4 N/C
Pin 5 N/C
Pin 6 Ground
Pin 7 RXD (A)
Pin 8 TXD (B)
Pin 9 N/C
(A) = + lead
(B)= - lead

DB9 View looking into female connector

Part# 175023, T-1 Interface Module, 1.544Mbps, DB15 Female

Install J5 in the 2-3 position
J4 and 6 Not Installed

Pins Supported 1,2,3,4,9,11on DB15

DB25: View looking into female connector

DB-15 FEMALE