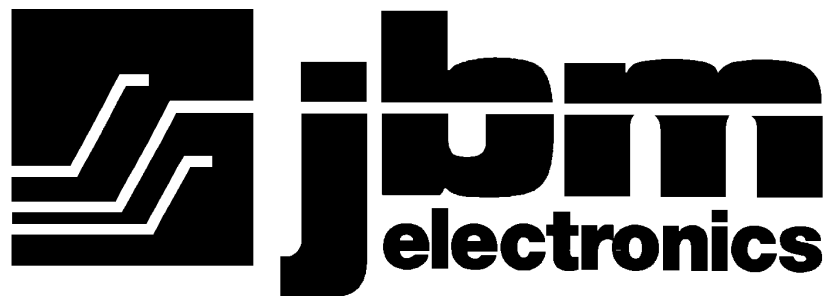


# Cables

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## Gateway Frame Relay Units



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## **NOTICE:**

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## Cables for Gateway Frame Relay Units

This section contains the JBM Electronics part numbers for the various adapter cables used by the Gateway units. These cables can be ordered from JBM or fabricated from the cable wiring diagrams available in this manual.

Serial, LAN and Modem	Cable Order Name
RS-232C DCE (serial ports)	Straight-wired
RS-232C DTE (serial ports)	Straight-wired
V.35 DCE (serial ports)	Gateway-V.35
V.35 DTE (serial ports)	Gateway-V.35-DTE
Ethernet (10BaseT or 100 BaseT)	10/100BaseT
Ethernet – Crossover (10BaseT or 100 BaseT)	10/100BaseT DTE
Console Ports	Async

Note: *These cards use a female connector and expect a male cable.*

*V.35 signals are transmitted through the DB-25 connector. An optional cable (for example: Gateway-V.35) provides the Winchester connector (34 pin).*

WAN Port	Cable Order Name
RS-232C DCE (G700 Series)	G1000-FR/DCE
RS-232C DTE (G700 Series)	Straight-wired
V.35 DCE (G700 Series)	G1000-FR/DCE & Gateway-V.35
V.35 DTE (G700 Series)	G1000-FR/DTE & Gateway-V.35
56/64/72 KB DSUs (G800 Series)	N/A
T1 DSUs (G900 Series)	N/A
EIA 530 DCE (G700 Series)	N/A
EIA 530 DTE (G700 Series)	N/A
X.21 (G700 Series)	N/A

The Gateway Frame Relay units consist of the G700, G800 and G900. The only difference between these units is that the G700 uses an external DSU, the G800 has an internal 56 KB DSU and the G900 has an internal T1 DSU.

## Straight-Wire

This table lists the RS-232C pins used in the Straight-wired cable. The pins should be connected from one connector to the other without transpositions or other wiring changes.

Pin	Description
1	Frame Ground
2	Transmit Data
3	Receive Data
4	Request to Send
5	Clear to Send
6	Data Set Ready
7	Signal Ground
8	Data Carrier Detect
15	Transmit Clock
17	Receive Clock
20	Data Terminal Ready

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **C/12Smm10'**

## RS-232C DTE

This table lists the required RS-232C wiring required to provide a DTE interface for a Gateway serial port. The pins should be connected from one connector to the other using the transpositions indicated.

These Gateways support V.35 signals through the DB-25 connector. If a V.35 connector is required, use **the Gateway-V.35 Cable** (page 5).

Gateway Pinout - Male	Modem Pinout - Female
1	1
2	3
3	2
4	8
5	20
7	7
8	4
9	9
10	10
12	12
13	13
18	6
19	19
20	5
21	21
22	15
23	17
24	24
25	25

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **G50 Adapter**

## V.35 DCE

This table lists the pinouts of the V.35 cable used by the serial ports on the Gateways that support V.35. This cable has a DB-25 connector at the JBM unit and a V.35 connector at the other device. The pins should be connected from one connector to the other using the transpositions indicated.

DB-25	34-Pin	Color
4	C	orange
5	D	orange's black
6	E	brown
7	B	brown's black
9	S	yellow
10	P	yellow's black
12	R	blue
13	T	blue's black
25	V	green
24	X	green's black
8	F	red
20	H	red's black
21	AA (a)	white
19	Y	white's black

**Note:** *This wire list is optimized for Belden 9507 with the leading edge of writing toward 25-pin end. Connect drain wire to pin A and the body of 34-pin connector and to pin 1 and the body of the 25-pin connector.*

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **Gateway-V.35**

## V.35 – DTE

This table lists the pinouts of the V.35 cable used by the serial ports on Gateways that support V.35. This cable provides a DTE interface for the V.35 connection. The cable has a DB-25 connector at the G1000 port and a V.35 connector at the other device. The pins should be connected from one connector to the other using the transpositions indicated.

DB-25	34-Pin	Color
8	C	orange
20	D	orange's black
18	E	brown
7	B	brown's black
9	S	yellow
10	P	yellow's black
12	R	blue
13	T	blue's black
25	V	green
24	X	green's black
4	F	red
5	H	red's black
21	AA (a)	white
19	Y	white's black

**Note:** *This wire list is optimized for Belden 9507 with the leading edge of writing toward 25-pin end. Connect drain wire to pin A and the body of 34-pin connector and to pin 1 and the body of the 25-pin connector.*

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **Gateway-V.35-DTE**

## Straight-wire 10/100BaseT

This table lists the required pins used in the Straight-wired 10BaseT or 10/100BaseT cable. The pins should be connected from one RJ-45 connector to the other without transpositions or other wiring changes.

Pin	Description
1	TD+
2	TD-
3	RD+
6	RD-

**Note:** *The cable used for pins 1 and 2 and pins 3 and 6 must be from the same twisted pairs.*

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **None**

## Cross-wire 10/100BaseT

This table lists the required pins used in the Cross-wired 10/100BaseT cable. The pins should be connected from one RJ-45 connector to the other with the following transpositions. This cable is required when connecting the Gateway's DTE connector to another terminal (for example a PC). If the Gateway will be connected to a Hub, then the straight-wired cable (page 8) should be used.

Connector One	Connector Two
1	3
2	6
3	1
6	2

**Note:** *The cable used for pins 1 and 2 and pins 3 and 6 must be from the same twisted pairs.*

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **None**

## Console (LMI) Port

This table lists the required RS-232C pins used in the cable for connection to the Console Port (9-pin port) for Gateways with an async console port. This port emulates a PC's standard COMM 1. The pins should be connected from one connector to the other without transpositions or other wiring changes.

Pin	Description
1	Data Carrier Detect
2	Receive Data
3	Transmit Data
4	Data Terminal Ready
5	Signal Ground
6	Data Set Ready
7	Ready to Send
8	Clear to Send
9	Ring Indicator

### Units Supported

- G700 Series
- G800 Series
- G900 Series

JBM Electronics Part Number: **None**

## RS-232C/V.35 DCE – WAN Cards

This table lists the required RS-232C pins and signal transposition required to provide a DCE interface for the Gateway's WAN port. This cable also aligns with the V.35 pins to connect to the Gateway-V.35 cable.

Gateway Pinout - Male	Terminal Pinout - Female
1	1
2	3
4 tied to 5	
	4 tied to 5
7	7
8	20
9	13
10	12
11	9
12	10
16 and 23	19 and 25
18 and 25	21 and 24
20	6 and 8
24 and 17	15 and 17

### Units Supported

- G700 Series

JBM Electronics Part Number: **G1000-FR/DCE**.

## RS-232C/V.35 DTE – WAN CARDS

This table lists the required RS-232C pins and signal transposition required to provide a DTE interface for the Gateway's WAN port. This adapter is only used in conjunction with the Gateway-V.35 cable to provide a DTE interface for a V.35 connection.

Gateway Pinout - Male	Modem Pinout - Female
1	1
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
19	19
20	20
21	21
23	25
25	24

### Units Supported

- G700 Series

JBM Electronics Part Number: **G1000-FR/DTE**

## 56/64/72 KB DSU

This table lists the required pins used in the DSU cable used to connect the G800 Series to the network. The pins should be connected from one RJ-45 connector to the other without transpositions or other wiring changes.

Pin	Description
1	RTIP
2	RRING
7	TRING
8	TTIP

**Note:** *The cable used for pins 1 and 2 and pins 7 and 8 must be from the same twisted pairs.*

### Units Supported

- G800 Series

JBM Electronics Part Number: **None**

## T1 DSU

This table lists the required pins used in the DSU cable used to connect the G900 Series to the network. The pins should be connected from one RJ-45 connector to the other without transpositions or other wiring changes.

Pin	Description
1	RTIP
2	RRING
4	TRING
5	TTIP

**Note:** *The cable used for pins 1 and 2 and pins 4 and 5 must be from the same twisted pairs.*

### Units Supported

- G900 Series

JBM Electronics Part Number: **None**

## EIA 530 DCE – WAN Port

This table lists the required pins and signal transposition for an EIA 530 cable. This adapter connects between the Gateway's DB-25 connector and the other device's DB-25 connector and provides a DCE interface.

Gateway Pinout	EIA 530 Pinout - Male
1	1
3	2
16	14
2	3
14	16
4 tied to 5	
	4 tied to 5
	19 tied to 13
7	7
8 tied to 20	
	6 and 8 tied to 20
	22 and 10 tied to 23
15	15 tied to 17
12	12 tied to 9

### Units Supported

- G700 Series

JBM Electronics Part Number: **None**

## EIA 530 DTE – WAN Port

This table lists the required pins and signal transposition for an EIA 530 cable used with the Gateway's WAN port. This adapter connects between the Gateway's DB-25 connector and the other device's DB-25 connector and provides a DTE interface.

Gateway Pinout	EIA 530 Pinout - Male
1	1
4 tied to 5	
20 tied to 8	
10	2
9	14
7	7
12	3
11	16
19	15
21	12
23	17
25	9
13	20 tied to 4
14	23 tied to 19

### Units Supported

- G700 Series

JBM Electronics Part Number: **None**

## X.21 – WAN Port

This table lists the required pins and signal transposition for a X.21 cable. The pins should be connected from one connector to the other using the transpositions indicated. This adapter connects between the Gateway's DB-25 connector and the DSU's DB-15 connector.

Gateway Pinout - Male	DSU/CSU Pinout - Male
4 tied to 5	
8 tied to 20	
13	3
14	10
10	2
9	9
12	4
11	11
19 tied to 23	6
21 tied to 25	13

### Units Supported

- G700 Series

JBM Electronics Part Number: **None**