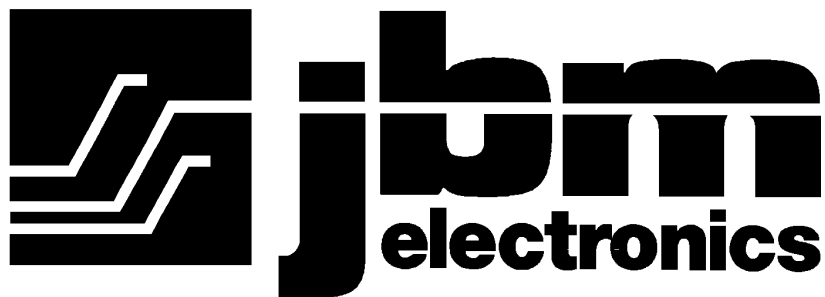


Cables

-

G500 Series



File Name: cable_g500.doc
Revision Date: March 10, 2006
Revision Level: 1.0

FCC Notice

Warning: This equipment generates, uses, and can radiate radio frequency energy; and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case, the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

The Gateways are listed by a Nationally Recognized Testing Laboratory.

All copyrights are held by their respective owners.

NOTICE:

Specifications described in this manual are
subject to change without notice.

Gateway 40 - 940 Cables
© Copyright 2004 by JBM Electronics Co.

For further information, contact:

JBM Electronics Co.
4645 LaGuardia
St. Louis, MO 63134

Phone: (314) 426-7781
Fax: (314) 426-0007

Internet: <http://www.jbmelectronics.com>

G500 Series

Port	Cable Description	Cable Order Number	Table
Serial			
DB-25F RS232C DCE sync (HPC)	25M to 25F Straight 25foot	C/25SMF-25'	Pg. 3
	25M to 25F Straight 6foot	C/25SMF-6'	Pg. 3
	25M to 25M Straight 25foot	C/25SMM-25'	Pg. 3
	25M to 25M Straight 6foot	C/25SMM-6'	Pg. 3
	25M to 25F DTE Adapter	G50 Adapter	Pg. 4
	25M to 34M <i>(if applicable)</i>	Gateway V.35	Pg. 5
	25M to 34F <i>(if applicable)</i>	Gateway V.35-F	Pg. 5
	25M to 34M DTE <i>(if applicable)</i>	Gateway V.35 DTE	Pg. 6
DE-9M LMI DTE async (Console)	9F to 9F 6foot	C/9SFF6'NULLMODM	Pg. 7
LAN			
RJ-45 Ethernet 10/100	RJ-45 Straight	N/A	Pg. 8
	RJ-45 Crossed	N/A	Pg. 9
RJ-45 Ethernet 10/BaseT (G520 only)	RJ-45 Straight	N/A	Pg. 8
	RJ-45 Crossed	N/A	Pg. 9
Modem			
RJ-11 56K async	RJ-11 Straight	N/A	Pg. 9

The cables above can be ordered from JBM or fabricated from the cable wiring diagrams available.

Note: *V.35 signals are transmitted through the DB-25 connector (Port 1), only applicable on units that support V.35.
An optional cable (for example: Gateway-V.35) provides the Winchester connector (34 pin).*

25-Pin HPC Port (DCE)

Table A lists the RS-232C pins used in a HPC Port. The pins should be connected from one connector to the other without transpositions or other wiring changes.

Table B list the V.35 pins used in a HPC Port (if applicable). The pins should be connected from one connector to the other using the transpositions indicated on pages 5&6.

TABLE A 25-PIN RS-232C DCE PORT			
PIN	INBOUND	OUTBOUND	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
Multi-Protocol Port (HPC) w/RS232			

Units Supported

- G500
- G505
- G530
- G550
- G520

JBM Electronics Part Number for RS-232C:

5M to 25F Straight 25foot = **C/25SMF-25'**
 25M to 25F Straight 6foot = **C/25SMF-6'**
 25M to 25M Straight 25foot = **C/25SMM-25'**
 25M to 25M Straight 6foot = **C/25SMM-6'**

TABLE B 25-PIN V.35 DCE PORT (if supported)			
PIN	INBOUND	OUTBOUND	DESCRIPTION
1			Frame Ground
4	*		Request to Send
5		*	Clear to Send
6		*	Data Set Ready
7			Signal Ground
8		*	Data Carrier Detect
9	*		TxDB
10	*		TxDA
12		*	RxDA
13		*	RxDB
19		*	TxCA
20	*		Data Terminal Ready
21		*	TxCB
24		*	RxCB
25		*	RxCA
Multi-Protocol Port (HPC) w/V.35			

Units Supported

- G500

JBM Electronics Part Number for V.35:
 On pages 5&6

G50 Adapter (DTE)

Table C lists the RS-232C pins used in the GW50 Adapter to convert a HPC Port to DTE. The pins should be connected from one connector to the other using the transpositions indicated.

Table D list the V.35 pins (if applicable) used in the GW50 Adapter to convert a HPC Port to DTE. The pins should be connected from one connector to the other using the transpositions indicated.

TABLE C GW50 ADAPTER DTE RS232		
25 MALE PIN	DIRECTION	25 FEMALE PIN
1	Ground	1
2	←	3
3	→	2
4	←	8
5	→	20
7	Ground	7
8	→	4
9	Not applicable	9
10	Not applicable	10
12	Not applicable	12
13	Not applicable	13
18	←	6
19	Not applicable	19
20	←	5
21	Not applicable	21
22	←	15
23	←	17
24	Not applicable	24
25	Not applicable	25
Convert to DTE Multi-Protocol Port w/RS232		

TABLE D GW50 ADAPTER DTE V.35		
25 MALE PIN	DIRECTION	25 FEMALE PIN
1	Ground	1
2	Not applicable	3
3	Not applicable	2
4	←	8
5	→	20
7	Ground	7
8	→	4
9	V.35 →	9
10	V.35 →	10
12	V.35 ←	12
13	V.35 ←	13
18	←	6
19	V.35 ←	19
20	←	5
21	V.35 ←	21
22	Not applicable	15
23	Not applicable	17
24	V.35 ←	24
25	V.35 ←	25
Convert to DTE Multi-Protocol Port w/V.35		

Units Supported

- G500
- G505
- G530
- G550
- G520

Units Supported

- G500

JBM Electronics Part Number: **G50 Adapter**

Note: *The G50 Adapter contains both tables combined. Therefore when using the G50 Adapter (bought from JBM) for RS232 the pins marked not applicable in Table C are connected as shown in Table D, and visa versa. They are split for your convenience if fabricated.*

25M to 34M/F (DCE)

This table lists the V.35 pins (*if applicable*) used for a HPC Port. 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.

25-PIN MALE TO 34PIN M/F		
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
Used for Multi-Protocol Port w/V.35		

Units Supported

- G500

JBM Electronics Part Numbers:

25M to 34M = **GATEWAY V.35**

25M to 34F = **GATEWAY V.35-F**

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.*

25M to 34M/F (DTE)

This table lists the V.35 pins (*if applicable*) used for a HPC Port to be DTE. 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.

25-PIN MALE TO 34-PIN M/F DTE		
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

Used to Convert Multi-Protocol Port (HPC) w/V.35 to DTE

Units Supported

- G500

JBM Electronics Part Numbers:

25M to 34M DTE = **GATEWAY V.35 DTE**

25M to 34F DTE = **N/A**

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.*

9F to 9F (DTE)

This table lists the RS-232 pins used in the Gateway Console Port. The pins should be connected from one connector to the other using the transpositions indicated.

CONSOLE DTE		
DE9F	Direction	DE9F
6 DSR +	←	4 DTR
1 DCD		
2 RD	←	3 TD
3 TD	→	2 RD
5	↔ Ground ↔	5
4 DTR	→	6 DSR +
		1 DCD
7 RTS	→	8 CTS
8 CTS	←	7 RTS
9 ←	Ring Indicator	9 →
Used for Console Connection		

Units Supported

- G500
- G505
- G530
- G550
- G520

JBM Electronics Part Number: **C/9SMF6'**

RJ-45 Straight

This table lists the Ethernet pins used in the Ethernet Ports. For a straight-wired connection the pins should be connected from one connector to the other without transpositions or other wiring changes.

TABLE C STRAIGHT 10/100BASET	
PIN	DESCRIPTION
1	TD+
2	TD-
3	RD+
4	-
5	-
6	RD-
7	-
8	-
Used for HUB or Switch	

Units Supported

- G500
- G505
- G530
- G550
- G520

JBM Electronics Part Number: N/A

Note: *The G520 has a second Ethernet Port (ETH 1), and is 10Base T. The wiring is the same for the 10/100 and 10Base T.*

RJ-45 Crossed

This table lists the required Crossed-Wired Ethernet wiring required to provide cable connection to the Gateway and a local PC. The pins should be connected from one connector to the other using the transpositions indicated.

CROSSED 10/00BASET	
CONNECTOR A	CONNECTOR B
1	3
2	6
3	1
-	-
-	-
6	2
-	-
-	-
Used for direct PC connection	

Units Supported

- G500
- G505
- G530
- G550
- G520

Note: *The G520 has a second Ethernet Port (ETH 1), and is 10Base T. The wiring is the same for the 10/100 and 10Base T.*

JBM Electronics Part Number: N/A

RJ-11 Straight

This table lists the required pins used in the Modem cable used to connect the Gateways to the analog network. The pins should be connected from one RJ-11 connector to the other without transpositions or other wiring changes.

RJ-11 MODEM CABLE	
PIN	DESCRIPTION
2	Unused
3	Ring
4	Tip
5	Unused
Used for async modem connection	

Units Supported

- C505

JBM Electronics Part Number: N/A