



## Cable Specifications and Information

This appendix provides the connector and pinout information you need for making or purchasing cables used with Cisco VG450 Voice Gateway. To order cables from Cisco, see the *Obtaining Technical Assistance* section. This appendix contains the following sections:

- [Console and Auxiliary Port Cables and Pinouts](#), on page 1
- [Gigabit Ethernet Port Pinouts \(RJ-45\)](#), on page 4
- [Analog Voice Multiport Pinouts \(RJ-21X/CA21A\)](#), on page 5

### Console and Auxiliary Port Cables and Pinouts

Your Cisco VG450 Voice Gateway comes with the cable and adapters you need to connect a PC, an ASCII terminal, or a modem to your Cisco VG450 Voice Gateway. The cable kit includes:

- RJ-45-to-RJ-45 rollover cable
- RJ-45-to-DB-9 adapter cable for console connection
- RJ-45-to-DB-25 adapter cable for modem connection

The following illustrations and tables provide cable pinout information:

- Console port to a PC—See *Table A - 1* and *Table A - 4*.
- Console port to an ASCII terminal—See *Table A - 2* and *Table A - 4*.
- Auxiliary port to a modem—See *Table A - 3* and *Table A - 4*.

The console port is configured as data communications equipment (DCE); the auxiliary port is configured as data terminal equipment (DTE). Both are asynchronous serial ports and use RJ-45 connectors.

### Console Port to PC

Figure A-1 shows the RJ-45-to-RJ-45 rollover cable assembly and the RJ-45-to-DB-9 female DTE adapter (labeled TERMINAL); Table A-1 lists the pinouts.

Figure 1: Figure A-1 Console Port to PC - Cable and Adapter

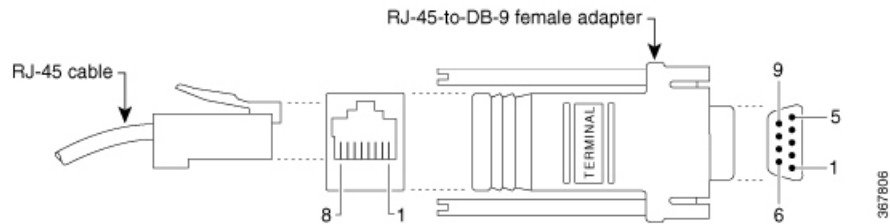


Table 1: Console Port to PC—Cable Pinouts (RJ-45 to DB-9)

Console Port (DCE, RJ-45)	RJ-45-to-RJ-45 Rollover Cable	RJ-45-to-DB-9 Adapter "TERMINAL"	PC Port (DTE, DB-9)		
Signal	RJ-45 Pin	RJ-45 Pin	RJ-45 Pin	DB-9 Pin	Signal
RTS	1 <sup>1</sup>	8	8	8	CTS
DTR	2	7	7	6	DSR
TxD	3	6	6	2	RxD
GND	4	5	5	5	GND
GND	5	4	4	5	GND
RxD	6	3	3	3	TxD
DSR	7	2	2	4	DTR
CTS	81	1	1	7	RTS

<sup>1</sup> Pin 1 is connected to pin 8 inside the Cisco VG450 Voice Gateway.

## Console Port to ASCII Terminal

Figure A-2 shows the RJ-45-to-RJ-45 rollover cable assembly and the RJ-45-to-DB-25 female DTE adapter (labeled TERMINAL); Table A-2 lists the pinouts.

Figure 2: Console Port to ASCII Terminal—Cable and Adapter

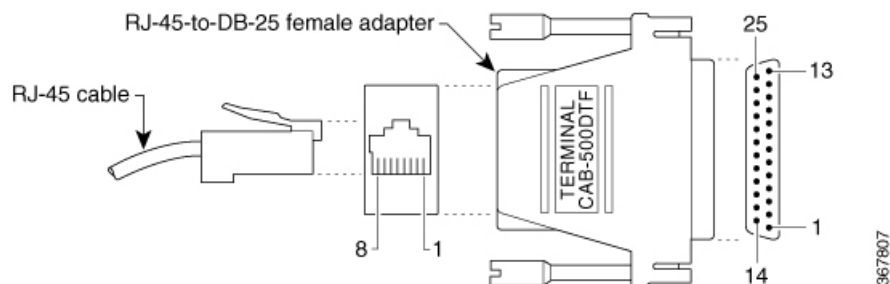


Table 2: Console Port to ASCII Terminal—Cable Pinouts (RJ-45 to DB-25)

Console Port (DCE, RJ-45)	RJ-45-to-RJ-45 Rollover Cable	RJ-45-to-DB-25 Adapter "TERMINAL"	Terminal Port (DTE, DB-25)	DB-25 Pin	Signal
Signal	RJ-45 Pin	RJ-45 Pin	RJ-45 Pin	DB-25 Pin	Signal
RTS	1 <sup>2</sup>	8	8	5	CTS
DTR	2	7	7	6	DSR
TxD	3	6	6	3	RxD
GND	4	5	5	7	GND
GND	5	4	4	7	GND
RxD	6	3	3	2	TxD
DSR	7	2	2	20	DTR
CTS	8	1	1	4	RTS

<sup>2</sup> Pin 1 is connected to pin 8 inside the Cisco VG450 Voice Gateway.

## Auxiliary Port to Modem

Figure A-3 shows the RJ-45-to-RJ-45 rollover cable assembly and the RJ-45-to-DB-25 male DCE adapter (labeled MODEM); Table A-3 lists the pinouts.

Figure 3: Auxiliary Port to Modem—Cable and Adapter

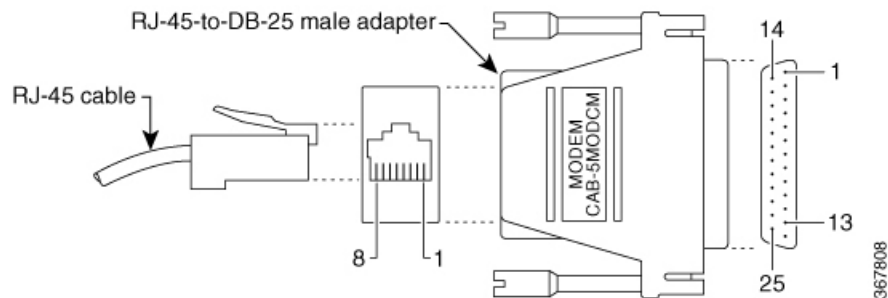


Table 3: Auxiliary Port to Modem—Cable Pinouts (RJ-45 to DB-25)

Auxiliary Port (DTE, RJ-45)	RJ-45-to-RJ-45 Rollover Cable	RJ-45-to-DB-25 Adapter "MODEM"	Modem Port (DCE, DB-25)	DB-25 Pin	Signal
Signal	RJ-45 Pin	RJ-45 Pin	RJ-45 Pin	DB-25 Pin	Signal

Auxiliary Port (DTE, RJ-45)	RJ-45-to-RJ-45 Rollover Cable	RJ-45-to-DB-25 Adapter "MODEM"	Modem Port (DCE, DB-25)		
RTS	1	8	8	4	RTS
DTR	2	7	7	20	DTR
TxD	3	6	6	2	TxD
GND	4	5	5	7	GND
GND	5	4	4	7	GND
RxD	6	3	3	3	RxD
DSR	7	2	2	8	DCD
CTS	8	1	1	5	CTS

## Alternative Connections to Terminal and Modem

Your Cisco VG450 Voice Gateway ships with an RJ-45-to-RJ-45 rollover cable and two adapters for connection to a PC, a terminal, or a modem. If you want to use an RJ-45 straight-through cable or other adapters, see *Table A-4* for usable cable and adapter combinations.

**Table 4: Alternative Terminal and Modem Connections**

Cisco VG450 Port Connection	RJ-45 Cable Type	Adapter
Console port to PC	Straight-through	DCE, DB-9 female
Auxiliary port to modem	Rollover <sup>3</sup>	DCE <sup>4</sup> , DB-25, male
	Straight-through	DTE2, DB-25, male

<sup>3</sup> An octal cable or RJ-45 breakout cable is equivalent to a rollover cable.

<sup>4</sup> Modify the DB-25 adapter by removing the wire in pin 6 and placing it in the pin 8 position.

## Gigabit Ethernet Port Pinouts (RJ-45)

*Figure A-4* shows the RJ-45 connector wiring for the Gigabit Ethernet cable; *Table A-5* lists the pinouts.



**Note** Pinout shown is for category 3, 4, or 5 10/100BASE-T connection to an Gigabit Ethernet switch.

Figure 4: RJ-45 Connector Wiring

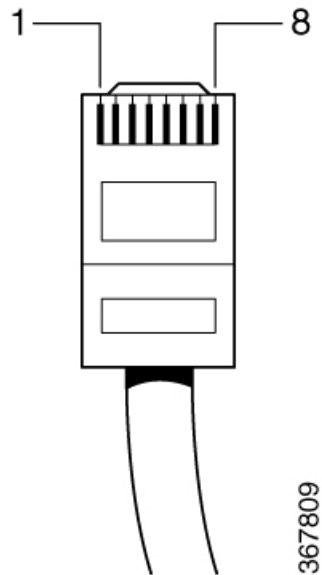


Table 5: Gigabit Ethernet Port Pinouts (RJ-45)

Pin <sup>5</sup>	Signal
1	TX+
2	TX-
3	RX+
4	–
5	–
6	RX-
7	–
8	–

<sup>5</sup> Any pin not referenced is not connected.

## Analog Voice Multiport Pinouts (RJ-21X/CA21A)

Figure A-5 shows the RJ-21 connector wiring for the cable used for the multiport analog voice interface.

Figure 5: RJ-21 Connector Wiring

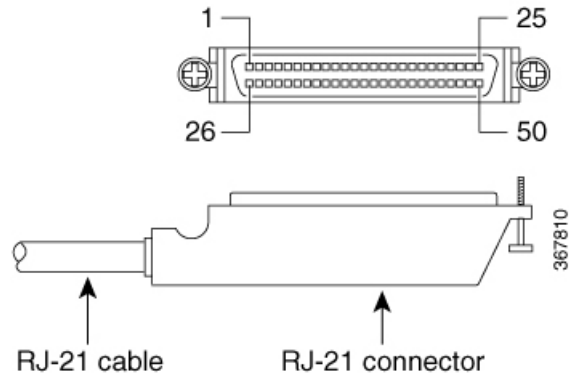


Table A-6 lists the pinouts for the RJ-21 connector.

Table 6: RJ-21 Connector Pinouts

Port Number	Connector Pin Number	Signal	Port Number	Connector Pin Number	Signal
1	126	RingTip	13	1338	RingTip
2	227	RingTip	14	1439	RingTip
3	328	RingTip	15	1540	RingTip
4	429	RingTip	16	1641	RingTip
5	530	RingTip	17	1742	RingTip
6	631	RingTip	18	1843	RingTip
7	732	RingTip	19	1944	RingTip
8	833	RingTip	20	2045	RingTip
9	934	RingTip	21	2146	RingTip
10	1035	RingTip	22	2247	RingTip
11	1136	RingTip	23	2348	RingTip
12	1237	RingTip	24	2449	RingTip
—	—	—	—	25, 50, 51, 52	GND