

# B OmniAccess Pinouts and Custom Cables

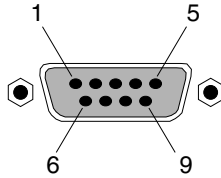
This appendix provides detailed information on pinouts and cables that are used with OmniAccess 512 WAN submodules. Information includes illustrations, descriptions, and pin diagrams.

**◆ Note ◆**

Although custom cables are available directly from Alcatel, you can build them using the information contained in this chapter.

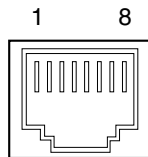
## OmniAccess Pinouts

### Console Management Port (DB-9 Connector)



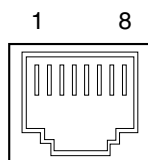
Pin Number	Standard Signal Name
1, 4, 6, 7, 8, 9	Not Used
3	TD (from connected console)
2	RD (to connected console)
5	Ground

### Ethernet Port (RJ-45 Connector)



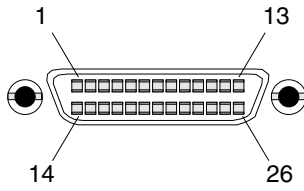
Pin Number	Standard Signal Name
1	RD +
2	RD -
4, 5, 7, 8	Not Used
3	TD +
6	TD -

### WAN T1/E1 Port (RJ-48C Connector)



Pin Number	Standard Signal Name
1	Rx_Ring
2	Rx_Tip
3, 6	Chassis GND
4	Tx_Ring
5	Tx_Tip
7, 8	Not Used

## WAN Universal Serial Port



*Refer to the table on page B-4 for USP pinout details.*

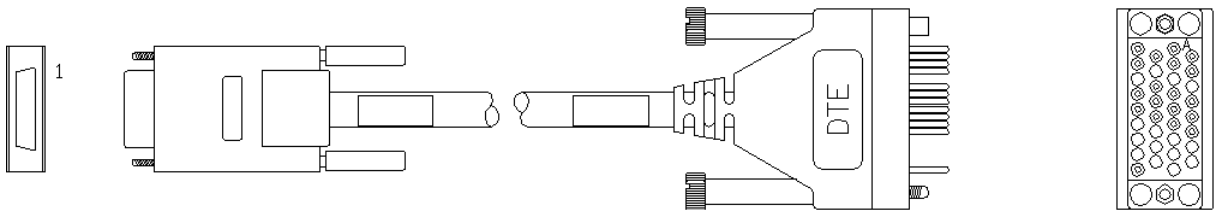
<b>WAN Universal Serial Port Specifications</b>							
<b>Generic Signal Name</b>	<b>Source</b>	<b>Alcatel SPI</b>		<b>EIA-530</b>		<b>RS-449</b>	
		<b>Mnemonic</b>	<b>Pin</b>	<b>Mnemonic</b>	<b>Pin</b>	<b>Mnemonic</b>	<b>Pin</b>
Shield	--	Shield	1	--	1	--	1
Signal Ground	--	AB	7	AB	7	SG	19
Transmitted Data	DTE	TD(A)	2	BA(A)	2	SD(A)	4
		TD(B)	14	BA(B)	14	SD(B)	22
Received Data	DCE	RD(A)	3	BB(A)	3	RD(A)	6
		RD(B)	16	BB(B)	16	RD(B)	24
Transmit Clock	DCE	TC(A)	15	DB(A)	15	ST(A)	5
		TC(B)	12	DB(B)	12	ST(B)	23
Receive Clock	DCE	TC(A)	17	DD(A)	17	RT(A)	8
		TC(B)	9	DD(B)	9	RT(B)	26
Ext. Transmit Clock	DTE	XC(A)	24	DA(A)	24	TT(A)	17
		XC(B)	11	DA(B)	11	TT(B)	35
Request To Send	DTE	RS(A)	4	CA(A)	4	RS(A)	7
		RS(B)	19	CA(B)	19	RS(B)	25
Clear To Send	DCE	CS(A)	5	CB(A)	5	CS(A)	9
		CS(B)	13	CB(B)	13	CS(B)	27
Data Set Ready	DCE	DR(A)	6	CC(A)	6	DM(A)	11
		DR(B)	22	CC(B)	22	DM(B)	29
Data Terminal Ready	DTE	TR(A)	20	CD(A)	20	TR(A)	12
		TR(B)	23	CD(B)	23	TR(B)	30
Data Carrier Detect	DCE	CD(A)	8	CF(A)	8	RR(A)	13
		CD(B)	10	CF(B)	10	RR(B)	31
Local Loopback	DTE	LL	18	LL	18	LL	10
Remote Loopback	DTE	RL	21	RL	21	RL	14
Ring Indicator	DCE	RI/TM	25	--	--	--	--
Test Mode	DCE	RI/TM	25	TM	25	TM	18
Cable Type 4	--	CTP4	18		n/c		n/c
Cable Type 3	--	CTP3	26		n/c		n/c
Cable Type 2	--	CTP2	13				
Cable Type 1	--	CTP1	22				
Cable Type 0	--	CTP0	10				

*continued on next page...*

WAN Universal Serial Port Specifications, continued							
Generic Signal Name	Source	X.21/X.26		V.35		RS232	
		Mnemonic	Pin	Mnemonic	Pin	Mnemonic	Pin
Shield	--	--	1	--	A	--	1
Signal Ground	--	G	8	102	B	AB	7
Transmitted Data	DTE	T(A)	2	103(A)	P	BA	2
		T(B)	9	103(B)	S		
Received Data	DCE	R(A)	4	104(A)	R	BB	3
		R(B)	11	104(B)	T		
Transmit Clock	DCE	--	--	114(A)	Y	DB	15
				114(B)	AA		
Receive Clock	DCE	S(A)	6	115(A)	V	DD	17
		S(B)	13	115(B)	X		
Ext. Transmit Clock	DTE	B(A)	7	113(A)	U	DA	24
		B(B)	14	113	W		
Request To Send	DTE	C(A)	3	105	C	CA	4
		C(B)	10				
Clear To Send	DCE	--	--	106	D	CB	5
Data Set Ready	DCE	--	--	107	E	CC	6
Data Terminal Ready	DTE	--	--	108	H	CD	20
Data Carrier Detect	DCE	I(A)	5	109	F	CF	8
		I(B)	12				
Local Loopback	DTE	--	--	141	L	LL	18
Remote Loopback	DTE	--	--	140	N	RL	21
Ring Indicator	DCE	--	--	125	J	CE	22
Test Mode	DCE	--	--	142	NN	TM	25
Cable Type 4	--		n/c		n/c		
Cable Type 3	--		n/c		n/c		
Cable Type 2	--						
Cable Type 1	--						
Cable Type 0	--						

# OmniAccess Custom Cables

## V.35 DTE Cable (For Alcatel Serial Port-to-DCE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell


Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

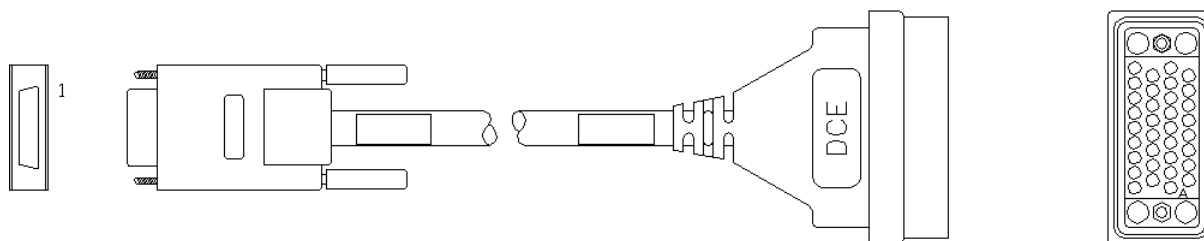
XPN 12002300			
HD50-26	EMULATE DTE	V35-M	
CTP4 18	✗		
CTP3 26			
SG 7		B	AB
SHIELD 1		A	SHIELD
TD-A 2		P	BA-A
TD-B 14		S	BA-B
RD-A 3		R	BB-A
RD-B 16		T	BB-B
TC-A 15		Y	DB-A
TC-B 12		AA	DB-B
RC-A 17		V	DD-A
RC-B 9		X	DD-B
XC-A 24		U	DA-A
XC-B 11		W	DA-B
RS-A 4		C	CA-A
RS-B 19			
CS-A 5		D	CB-A
CS-B 2 13			
DR-A 6		E	CC-A
DR-B 1 22			
CD-A 8		F	CF-A
CD-B 0 10			
TR-A 20		H	CD-A
TR-B 23			
RL 21		N	RL
TM 25		NN	TM

 Denotes twisted-pair

 150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

## V.35 DCE Cable (For Alcatel Serial Port-to-DTE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell


Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

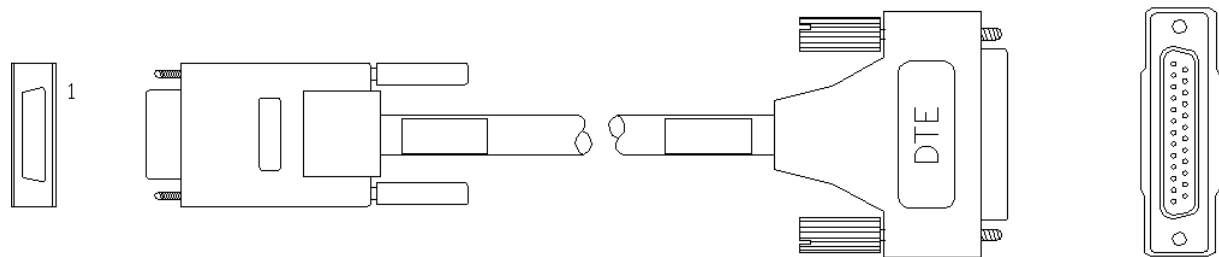
XPN 12003100			
HD50-26	EMULATE DCE	V35-F	
CTP4 18	✗		
CTP3 26			
SG 7		B AB	
SHIELD 1		A SHIELD	
TD-A 2		R BB-A	
TD-B 14		T BB-B	
RD-A 3		P BA-A	
RD-B 16		S BA-B	
TC-A 15		Y DB-A	
TC-B 12		AA DB-B	
RC-A 17		U DA-A	
RC-B 9		W DA-B	
XC-A 24		V DD-A	
XC-B 11		X DD-B	
RS-A 4		F CF-A	
RS-B 19			
CS-A 5		D CB-A	
CS-B 2 13			
DR-A 6		H CD-A	
DR-B 1 22			
CD-A 8		C CA-A	
CD-B 0 10			
TR-A 20		E CC-A	
TR-B 23			
RL 21		NN TM	
TM 25		N RL	

 Denotes twisted-pair

 150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

RS232 DTE Cable (For Alcatel Serial Port-to-DCE Device Connection)





























The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

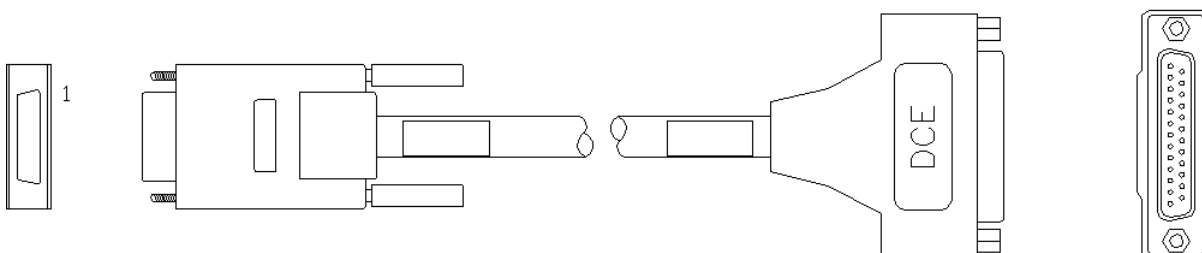
XPN 12002400				
HD50-26	EMULATED DTE		DB25-M	
CTP4 18				
CTP3 26				
SG 7		7	AB	
SHIELD 1		1	SHIELD	
TD-A 2		2	BA-A	
TD-B 14				
RD-A 3		3	BB-A	
RD-B 16				
TC-A 15		15	DB-A	
TC-B 12				
RC-A 17		17	DD-A	
RC-B 9				
XT-A 24		24	DA-A	
XC-B 11				
RS-A 4		4	CA-A	
RS-B 19				
CS-A 5		5	CB-A	
CS-B 2 13				
DR-A 6		6	CC-A	
DR-B 1 22				
CD-A 8		8	CF-A	
CD-B 0 10				
TR-A 20		20	CD-A	
TR-B 23				
RL 21		21	RL	
TM 25		25	TM	

 Denotes twisted-pair

2, 1, 0 Denotes CTP2, CTP1, CTP0, respectively



## RS232 DCE Cable (For Alcatel Serial Port-to-DTE Device Connection)



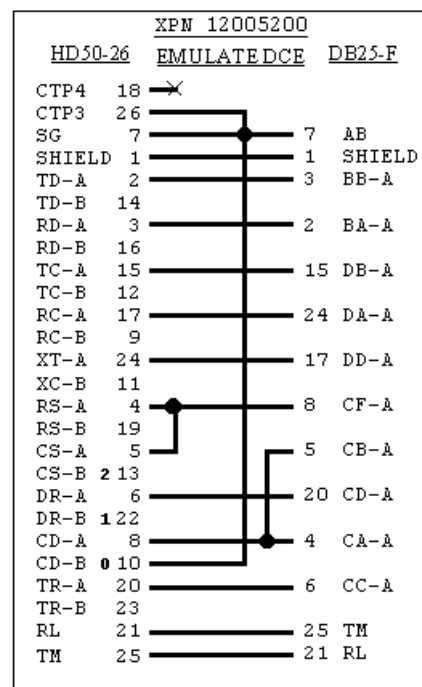
The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

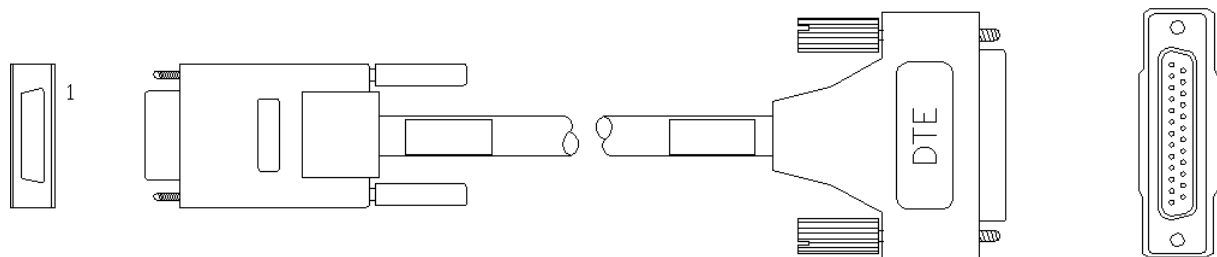
The table on the right shows the pinouts for the connectors.



 Denotes twisted-pair

2, 1, 0 Denotes CTP2, CTP1, CTP0, respectively

RS530 DTE Cable (For Alcatel Serial Port-to-DCE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell


Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.


Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

HD50-26		XPN 12002500	EMULATE DTE	DB25-M
CTP4	18			
CTP3	26			
SG	7			7 AB
SHIELD	1			1 SHIELD
TD-A	2			2 BA-A
TD-B	14			14 BA-B
RD-A	3			3 BB-A
RD-B	16			16 BB-B
TC-A	15			15 DB-A
TC-B	12			12 DB-B
RC-A	17			17 DD-A
RC-B	9			9 DD-B
XC-A	24			24 DA-A
XC-B	11			11 DA-B
RS-A	4			4 CA-A
RS-B	19			19 CA-B
CS-A	5			5 CB-A
CS-B	2 13			13 CB-B
DR-A	6			6 CC-A
DR-B	1 22			22 CC-B
CD-A	8			8 CF-A
CD-B	0 10			10 CF-B
TR-A	20			20 CD-A
TR-B	23			23 CD-B
RL	21			21 RL
TM	25			25 TM

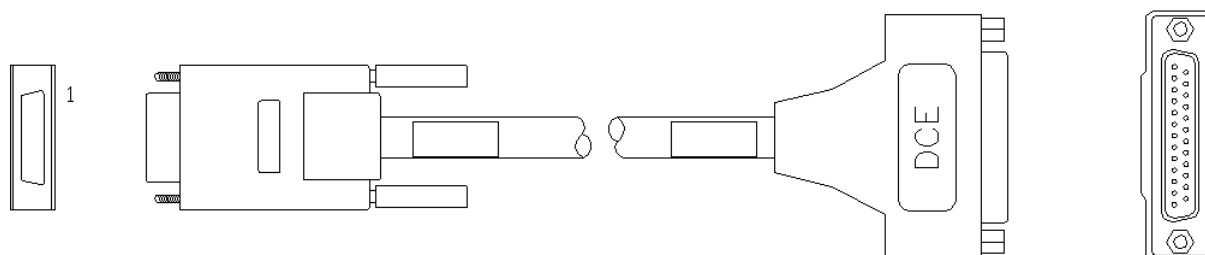
 Denotes twisted pair

 100 ohm resistor

 150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

## RS530 DCE Cable (For Alcatel Serial Port-to-DTE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.


Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

		XPN 12005300	
HD50-26		EMULATE DCE	DB25-F
CTP4	18		
CTP3	26		
SG	7		7 AB
SHIELD	1		1 SHIELD
TD-A	2		3 BB-A
TD-B	14		16 BB-B
RD-A	3		2 BA-A
RD-B	16		14 BA-B
TC-A	15		15 DB-A
TC-B	12		12 DB-B
RC-A	17		24 DA-A
RC-B	9		11 DA-B
XC-A	24		17 DD-A
XC-B	11		9 DD-B
RS-A	4		8 CF-A
RS-B	19		10 CF-B
CS-A	5		5 CB-A
CS-B	13		13 CB-B
DR-A	6		20 CD-A
DR-B	22		23 CD-B
CD-A	8		4 CA-A
CD-B	10		19 CA-B
TR-A	20		6 CC-A
TR-B	23		22 CC-B
LL	21		25 TM
TM	25		21 RL

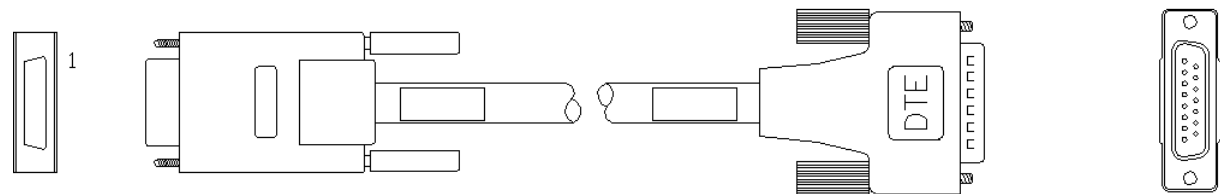
 Denotes twisted pair

 100 ohm resistor

 150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

X.21 DTE Cable (For Alcatel Serial Port-to-DCE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.

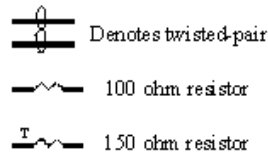
- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

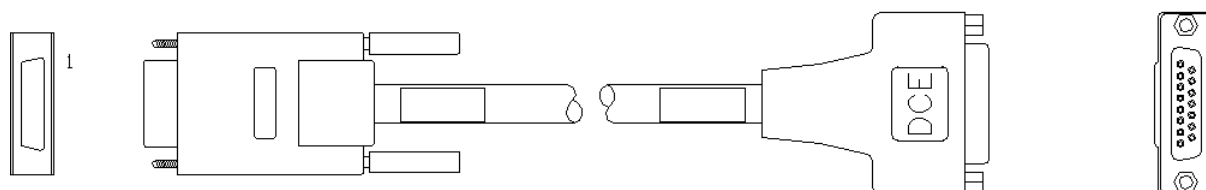
The table on the right shows the pinouts for the connectors.

HD50-26		XPN 12002600	DB15-M	
		EMULATE DTE		
CTP4	18	X	8	SIG GND
CTP3	26		1	SHIELD
SG	7		2	T-A
SHIELD	1		9	T-B
TD-A	2		4	R-A
TD-B	14		11	R-B
RD-A	3		6	S-A
RD-B	16		13	S-B
TC-A	15			
TC-B	12			
RC-A	17			
RC-B	9			
XC-A	24		7	B-A
XC-B	11		14	B-B
RS-A	4		3	C-A
RS-B	19		10	C-B
CS-A	5			
CS-B	2 13			
DR-A	6			
DR-B	1 22			
CD-A	8		5	I-A
CD-B	0 10		12	I-B
TR-A	20			
TR-B	23			
RL	21			
TM	25			



2,1,0 Denotes CTP2, CTP1, CTP0, respectively

## X.21 DCE Cable (For Alcatel Serial Port-to-DTE Device Connection)



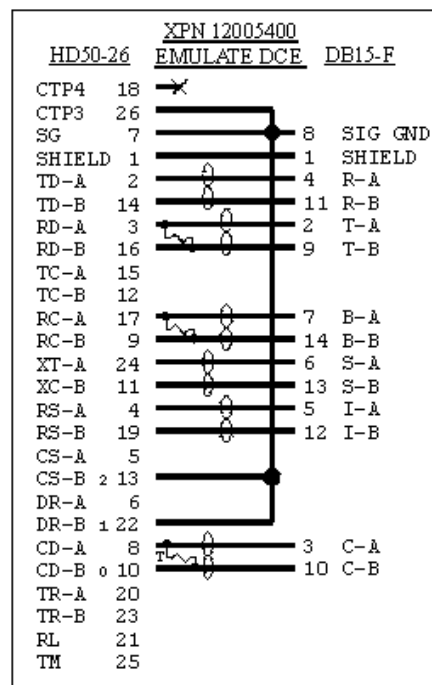
The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.

- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.



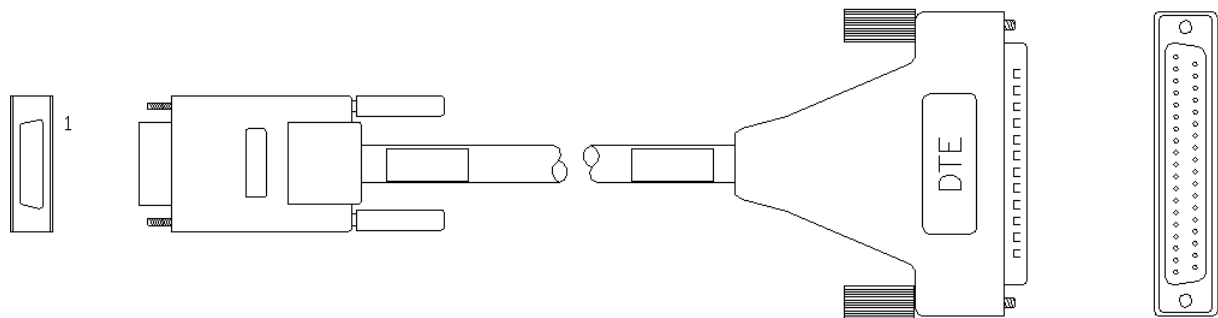
Denotes twisted-pair

100 ohm resistor

150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

RS449 DTE Cable (For Alcatel Serial Port-to-DCE Device Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.

- AMP 750833-1 26 Pin HD50 Connector-male
- AMP 750850-6 26 Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.

Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

XPN 12002700		
HD50-26	EMULATE DTE	DB37-M
CTP4 18		19 AB
CTP3 26		1 SHIELD
SG 7		4 SD-A
SHIELD 1		22 SD-B
TD-A 2		6 RD-A
TD-B 14		24 RD-B
RD-A 3		5 ST-A
RD-B 16		23 ST-B
TC-A 15		8 RT-A
TC-B 12		26 RT-B
RC-A 17		17 TT-A
RC-B 9		35 TT-B
XT-A 24		7 RS-A
XC-B 11		25 RS-B
RS-A 4		9 CS-A
RS-B 19		27 CS-B
CS-A 5		11 DM-A
CS-B 2 13		29 DM-B
DR-A 6		13 RR-A
DR-B 1 22		31 RR-B
CD-A 8		12 TR-A
CD-B 0 10		30 TR-B
TR-A 20		14 RL
TR-B 23		18 TM
RL 21		
TM 25		

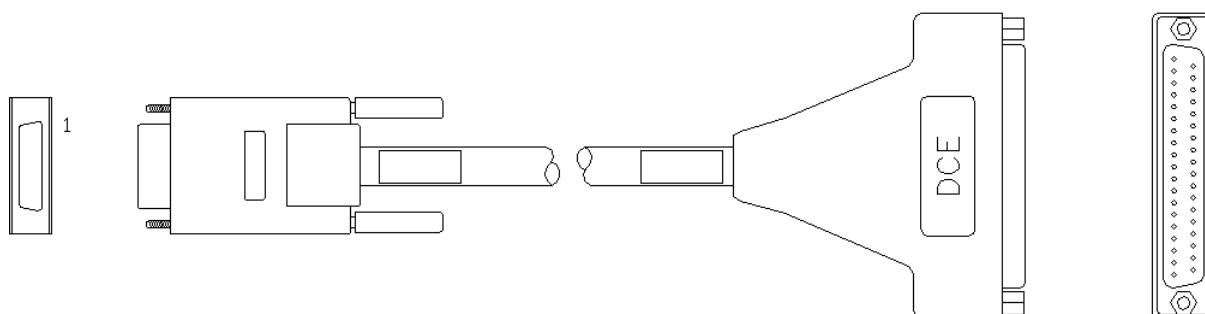
Denotes twisted pair

100 ohm resistor

150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

## RS-449 DCE Cable Assembly (For Alcatel Serial Port-to-DTE Device 75Ω Connection)



The following parts are recommended for the end of the cable connected to the Alcatel Serial Port.


- AMP 750833-1 26-Pin HD50 Connector-male
- AMP 750850-6 26-Pin HD50 Backshell

Parts for the customer end of the cable can be of any industry-standard manufacturer. Use of a shielded-type connector is recommended.


Cable should be constructed with data-comm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.

The table on the right shows the pinouts for the connectors.

XPN 12005500		
HD50-26	EMULATE DCE	DB37-F
CTP4 18		19 AB
CTP3 26		1 SHIELD
SG 7		6 RD-A
SHIELD 1		24 RD-B
TD-A 2		4 SD-A
TD-B 14		22 SD-B
RD-A 3		5 ST-A
RD-B 16		23 ST-B
TC-A 15		17 TT-A
TC-B 12		35 TT-B
RC-A 17		8 RT-A
RC-B 9		26 RT-B
XT-A 24		13 RR-A
XC-B 11		31 RR-B
RS-A 4		9 CS-A
RS-B 19		27 CS-B
CS-A 5		12 TR-A
CS-B 2 13		30 TR-B
DR-A 6		7 RS-A
DR-B 1 22		25 RS-B
CD-A 8		11 DM-A
CD-B 0 10		29 DM-B
TR-A 20		18 TM
TR-B 23		14 RL
RL 21		
TM 25		

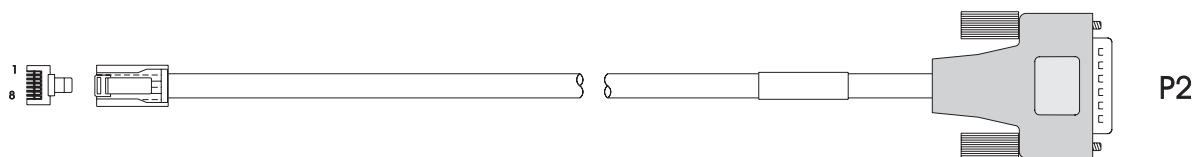
 Denotes twisted pair

 100 ohm resistor

 150 ohm resistor

2,1,0 Denotes CTP2, CTP1, CTP0, respectively

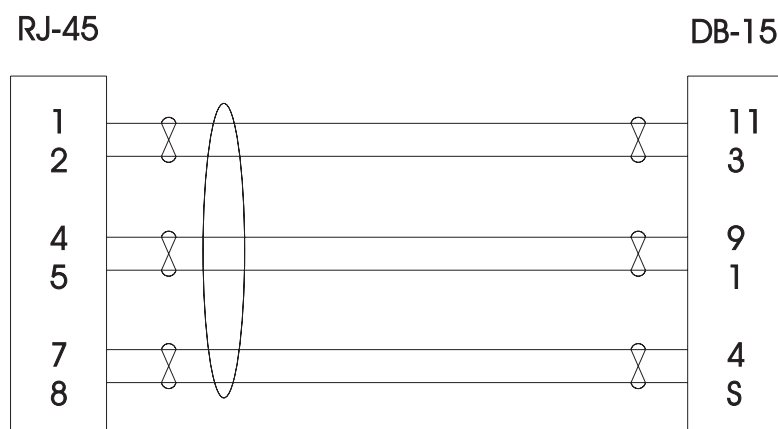
## RJ-45 to DB15F Cable Assembly (For T1/E1 Port 120Ω Connections)



The following parts are recommended for the ends of the cable:

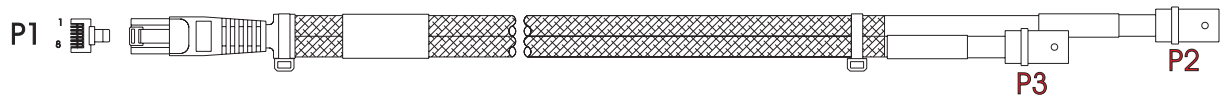
- For the switch side of the cable assembly (P1): 8-conductor RJ-45 round connector (MTP-88U or equivalent)
- Parts for the customer end of the cable (P2) can be of any industry-standard manufacturer. Use of a shielded-type DB-15 female connector is recommended.

Cable should be constructed with datacomm-quality cable that has an overall mylar foil shield and braided-shield, terminated to the appropriate pins and connector shell at each end of the cable. Twisted-pair 28GA cable is preferred, with any of the pairs used for non-paired signals.





## RJ-45 to BNC Cable Assembly (For E1 75Ω Port Connections)



The following parts are recommended for manufacturing the cable:

- For the switch side of the cable assembly (P1): 8-conductor RJ-45 round connector (MTP-88U or equivalent)
- For the cable: RG-187A coaxial cable (Belden 83267 or equivalent)
- For the customer end of the cable assembly (P2 and P3): Coaxial BNC connector, 75Ω (Amp 413760-8, or equivalent).

The figure below shows the pinouts for the cable assembly.

