

DCE/DTE Switchable Interface Converters Quick Reference Guide

FUNCTIONAL DESCRIPTION

Here are interface converters allow full conversion between:

CCITT V.35 – RS449/V36, RS530, RS485.
(Dataport side)

These interface converters are very easy to implement. Simply connect the appropriate interface cables, connect the external DC power adapter, and select the required "MODE" and correct cables for translation.

No external DC power adapter is required for all "Ip" series. But the customers can use external adapter when using the converter in a poor communication environment.

Features Description

Mode indicators (PIM-V35 Serial Only)

To indicate DCE, DTE and Monitor mode.

External Power indicators

To indicate external adapter connected here.

Mode selector

Mode 1: V.35 — Dataport

DTE DCE ; Denote device port

Mode 2: V.35 — Dataport

DCE DTE ; Denote device port

Mode 3: V.35 — Dataport ; PIM-V35 series only

PIM-V35/Ip series



PIM-V35 series



Model: V.35 — RS449/Ip ; Non power

Model: V.35 — RS449 ; DC power
CCITT V35 ↔ EIA RS449

Model: V.35 — X21/Ip ; Non power

Model: V.35 — X21 ; DC power
CCITT V35 ↔ CCITT X.21

Model: V.35 — RS530/Ip ; Non power

Model: V.35 — RS530 ; DC power
CCITT V35 ↔ EIA RS530

V35-RS449 Pin Assignment

MODE 1		V35-RS449/Ip V35-RS449	
RS 449 (DCE)		V.35 (DTE)	
Ckt	37 pin		34 pin
F.G	1	↔	A
SD	4,22	↔	P.S
RD	6,24	↔	R.T
RS	7,25	↔	C
CS	9,27	↔	D
DM	11,29	↔	E
SG	19	↔	B
RR	13,31	↔	F
ST	5,23	↔	Y.AA
RT	8,26	↔	V.X
TR	12,30	↔	H
IC	15	↔	J
TT	17,35	↔	U.W

MODE 2		V35-RS449/Ip V35-RS449	
V.35 (DCE)		RS 449 (DTE)	
Ckt	37 pin		37 pin
A	↔	1	
P.S	↔	4,22	
R.T	↔	6,24	
C	↔	7,25	
D	↔	9,27	
E	↔	11,29	
B	↔	19	
F	↔	13,31	
Y.AA	↔	5,23	
V.X	↔	8,26	
H	↔	12,30	
J	↔	15	
U.W	↔	17,35	

MODE 3		V35-RS449 only	
RS 449		V.35 (MONITOR)	
Ckt			34 pin
F.G	↔		A
SD	↔		P.S
RD	↔		R.T
RS	↔		C
CS	↔		D
DM	↔		E
SG	↔		B
RR	↔		F
ST	↔		Y.AA
RT	↔		V.X
TR	↔		H
IC	↔		J
TT	↔		U.W

V35-RS530 Pin Assignment

MODE 1		V35-RS530/Ip V35-RS530	
RS 530 (DCE)		V.35 (DTE)	
Ckt	25 pin		34 pin
AA	1	↔	A
BA	2,14	↔	P.S
BB	3,16	↔	R.T
CA	4,19	↔	C
CB	5,13	↔	D
CC	6,22	↔	E
AB	7	↔	B
CF	8,10	↔	F
DB	15,12	↔	Y.AA
DD	17,9	↔	V.X
CD	20,23	↔	H
CE	25	↔	J
DA	24,11	↔	U.W

MODE 2		V35-RS530/Ip V35-RS530	
V.35 (DCE)		RS 530 (DTE)	
Ckt	25 pin		25 pin
A	↔	1	
P.S	↔	2,14	
R.T	↔	3,16	
C	↔	4,19	
D	↔	5,13	
E	↔	6,22	
B	↔	7	
F	↔	8,10	
Y.AA	↔	15,12	
V.X	↔	17,9	
H	↔	20,23	
J	↔	25	
U.W	↔	24,11	

MODE 3		V35-RS530 only	
RS 530		V.35 (MONITOR)	
Ckt			34 pin
AA	↔		A
BA	↔		P.S
BB	↔		R.T
CA	↔		C
CB	↔		D
CC	↔		E
AB	↔		B
CF	↔		F
DB	↔		Y.AA
DD	↔		V.X
CD	↔		H
CE	↔		J
DA	↔		U.W

V35-X.21 Pin Assignment

MODE 1		V35-X21/Ip V35-X21	
X.21 (DCE)		V.35 (DTE)	
Ckt	15 pin		34 pin
F.G	1	↔	A
T	2,9	↔	P.S
R	4,11	↔	R.T
C	3,10	↔	C
G	8	↔	B
I	5,12	↔	F
S	6,13	↔	Y.AA
S	6,13	↔	V.X
		↔	U.W

MODE 2		V35-X21/Ip V35-X21	
V.35 (DCE)		X.21 (DTE)	
Ckt	37 pin		37 pin
A	↔	1	
P.S	↔	2,9	
R.T	↔	4,11	
C	↔	3,10	
B	↔	8	
F	↔	5,12	
Y.AA	↔	6,13	
V.X	↔	6,13	
U.W	↔	6,13	

MODE 3		V35-X21 only	
X.21		V.35 (MONITOR)	
Ckt			34 pin
F.G	↔		A
T	↔		P.S
R	↔		R.T
C	↔		C
G	↔		B
I	↔		F
S	↔		Y.AA
S	↔		V.X
S	↔		U.W

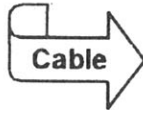
★ V35-X21 loopback only

V.35/DB25 pinout

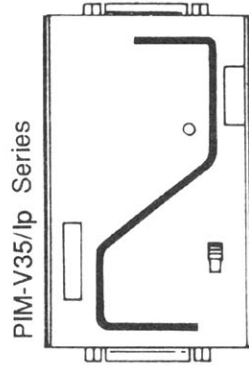
Pin #	Name	Pin #	Name
1	-	14	X
2	-	15	P
3	A	16	S
4	B	17	U
5	C	18	W
6	D	19	Y
7	E	20	AA
8	F	21	-
9	H	22	-
10	J	23	-
11	R	24	-
12	T	25	-
13	V	26	-

V.35 Interface

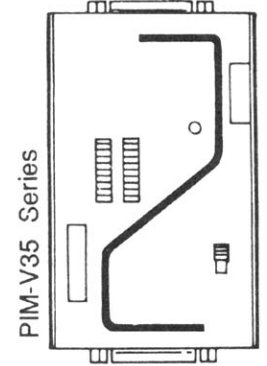
SOURCE	ABBR.	PIN NO.	PIN NO.	ABBR.	SOURCE
COMMON	SG	B	A	FG	COMMON
DCE	CTS	D	C	RTS	DTE
DCE	DCD	F	E	DSR	DCE
DCE	RI	J	H	DTR	DTE
-	-	L	K	-	-
-	-	N	M	-	-
DCE	RD(A)	R	P	TD(A)	DTE
DCE	RD(B)	T	S	TD(B)	DTE
DCE	RC(A)	V	U	XTC(A)	DTE
DCE	RC(B)	X	W	XTC(B)	DTE
-	-	Z	Y	TC(A)	DCE
-	-	BB	AA	TC(B)	DCE
-	-	DD	CC	-	-
-	-	FF	EE	-	-
-	-	JJ	HH	-	-
-	-	LL	KK	-	-
-	-	NN	MM	-	-



V.35 Side/DB25



V.35 Side/DB25



Dataport Side

RS449/DB25 pinout

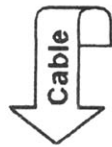
Pin #	Name	Pin #	Name
1	F.G	14	SD(B)
2	SD(A)	15	ST(A)
3	RD(A)	16	RD(B)
4	RS(A)	17	RT(A)
5	CS(A)	18	-
6	DM(A)	19	RS(B)
7	S.G	20	TR(A)
8	RR(A)	21	IC
9	RT(B)	22	DM(B)
10	RR(B)	23	TR(B)
11	TT(B)	24	TT(A)
12	ST(B)	25	-
13	CS(B)	-	-

X.21/DB25 pinout

Pin #	Name	Pin #	Name
1	FG	14	T(B)
2	T(A)	15	TC(A)
3	R(A)	16	R(B)
4	C(A)	17	RC(A)
5	-	18	-
6	-	19	C(B)
7	SG	20	-
8	I(A)	21	-
9	RC(B)	22	-
10	I(B)	23	-
11	-	24	-
12	TC(B)	25	-
13	-	-	-

RS530/DB25 pinout

Pin #	Name	Pin #	Name
1	AA	14	BA(B)
2	BA(A)	15	DB(A)
3	BB(A)	16	BB(B)
4	CA(A)	17	DD(A)
5	CB(A)	18	-
6	CC(A)	19	CA(B)
7	AB	20	CD(A)
8	CF(A)	21	-
9	DD(B)	22	CC(B)
10	CF(B)	23	CD(B)
11	DA(B)	24	DA(A)
12	DB(B)	25	CE
13	CB(B)	-	-



V.36/RS-449 Interface

SOURCE	ABBR.	PIN NO.	PIN NO.	ABBR.	SOURCE
COMMON	RC	20	1	FGND	COMMON
-	-	21	2	-	-
DTE	SD(B)	22	3	SD(A)	DTE
DCE	ST(B)	23	4	ST(A)	DCE
DCE	RD(B)	24	5	RD(A)	DCE
DTE	RS(B)	25	6	RS(A)	DTE
DCE	RT(B)	26	7	RT(A)	DCE
DCE	CS(B)	27	8	CS(A)	DCE
-	-	28	9	-	-
DCE	DM(B)	29	10	DM(A)	DCE
DTE	TR(B)	30	11	TR(A)	DTE
DCE	RR(B)	31	12	RR(A)	DCE
-	-	32	13	-	-
-	-	33	14	IC	-
-	-	34	15	-	-
DTE	TT(B)	35	16	TT(A)	DTE
-	-	36	17	-	-
COMMON	SC	37	18	SG	COMMON

X.21 Interface

SOURCE	ABBR.	PIN NO.	PIN NO.	ABBR.	SOURCE
DTE	T(B)	9	1	FGND	COMMON
DTE	C(B)	10	2	T(A)	DTE
DCE	R(B)	11	3	C(A)	DTE
DCE	I(B)	12	4	R(A)	DCE
DCE	S(B)	13	5	I(A)	DCE
-	-	14	6	S(A)	DCE
-	-	15	7	-	-
-	-	-	8	SG	COMMON

RS-530 Interface

SOURCE	ABBR.	PIN NO.	PIN NO.	ABBR.	SOURCE
DTE	BA(B)	14	1	AA	COMMON
DCE	DB(A)	15	2	BA(A)	DTE
DCE	BB(B)	16	3	BB(A)	DCE
DCE	DD(A)	17	4	CA(A)	DTE
-	-	18	5	CB(A)	DCE
DTE	CA(B)	19	6	CC(A)	DCE
DTE	CD(A)	20	7	AB	COMMON
DCE	CE	21	8	CF(A)	DCE
DCE	CC(B)	22	9	DD(B)	DCE
DCE	CD(B)	23	10	CF(B)	DCE
DTE	DA(A)	24	11	DA(B)	DTE
-	-	25	12	DB(B)	DCE
-	-	-	13	CB(B)	DCE