
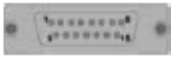


X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25- Digi Side		DB 25	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the RxDA & RxDB pins, CLKA & CLKB pins and INDA & INDB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	1	1	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

Port Pin-Outs

RS-232


			DB 25	RJ45
				
Description	RS232 signal	Direction ¹	Pin #	Pin #
Transmit Data	TxD	in	2	6
Receive Data	RxD	out	3	3
Ready To Send	RTS	in	4	1
Clear To Send	CTS	out	5	8
Data Set Ready	DSR	out	6	4
Ground	GND	n/a	7	5
Data Carrier Detect	DCD	out	8	7
Transmitter Clock	TxC	out	15	n/a
Receiver Clock	RxC	out	17	n/a
Data Terminal Ready	DTR	in	20	2
Ring Indicate	RI	out	22	n/a
External Transmitter Clock	ETC	in	24	n/a

1. With respect to Digi units

X.21 (RS-422)

Note:



In order for the IR2140 to operate in X.21 mode, an X.21 daughter card must be fitted, with the jumpers set correctly. See "Configuring X.21 on Older Models" on page 522.

			DB 25
			
Description	X.21 signal	Direction ¹	Pin #
Receive Data (A)	RxDA	out	2
Receive Data (B)	RxDB	out	3
Transmit Data (A)	TxDA	in	4
Transmit Data (B)	TxDB	in	5
Indication (B)	INDB	out	6
Ground	GND	n/a	7
Control (B)	CTLB	in	8
Clock (B)	CLKB	in or out ²	15
Clock (A)	CLKA	in or out ²	17
Indication (A)	INDA	out	20
Control (A)	CTLA	in	22

2. Direction depends on whether the Digi unit is clock sink or clock source.

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the RxDA & RxDB pins, CLKA & CLKB pins and INDA & INDB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.



Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

IR2420

Port Pin-Outs

RS-232


			DB 25	RJ45
				
Description	RS232 signal	Direction ¹	Pin #	Pin #
Transmit Data	TxD	in	2	6
Receive Data	RxD	out	3	3
Ready To Send	RTS	in	4	1
Clear To Send	CTS	out	5	8
Data Set Ready	DSR	out	6	4
Ground	GND	n/a	7	5
Data Carrier Detect	DCD	out	8	7
Transmitter Clock	TxC	out	15	n/a
Receiver Clock	RxC	out	17	n/a
Data Terminal Ready	DTR	in	20	2
Ring Indicate	RI	out	22	n/a
External Transmitter Clock	ETC	in	24	n/a

1. With respect to Digi units

X.21 (RS-422)

Note:

In order for the IR2420 to operate in X.21 mode, an X.21 daughter card must be fitted, with the jumpers set correctly. See "Configuring X.21 on Older Models" on page 522.



			DB 25
			
Description	X.21 signal	Direction ¹	Pin #
Receive Data (A)	RxDA	out	2
Receive Data (B)	RxDB	out	3
Transmit Data (A)	TxDA	in	4
Transmit Data (B)	TxDB	in	5
Indication (B)	INDB	out	6
Ground	GND	n/a	7
Control (B)	CTLB	in	8
Clock (B)	CLKB	in or out ²	15
Clock (A)	CLKA	in or out ²	17
Indication (A)	INDA	out	20
Control (A)	CTLA	in	22

1. With respect to Digi units

2. Direction depends on whether the Digi unit is clock sink or clock source.

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25- Digi Side		DB 25	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25- Digi Side		DB 25	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	5	INDA
CTLA	22	3	CTLA


N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the RxDA & RxDB pins, CLKA & CLKB pins and INDA & INDB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKB	15	13	CLKB
CLKA	17	6	CLKA
INDA	20	3	CTLA
CTLA	22	5	INDA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.



Port Pin-Outs

RS-232

			DB 25	DB 9
				
Description	RS232 signal	Direction ¹	Pin #	Pin #
Transmit Data	TxD	in	2	3
Receive Data	RxD	out	3	2
Ready To Send	RTS	in	4	7
Clear To Send	CTS	out	5	8
Data Set Ready	DSR	out	6	6
Ground	GND	n/a	7	5
Data Carrier Detect	DCD	out	8	1
Transmitter Clock	TxC	out	15	n/a
Receiver Clock	RxC	out	17	n/a
Data Terminal Ready	DTR	in	20	4
Ring Indicate	RI	out	22	9
External Transmitter Clock	ETC	in	24	n/a

1. With respect to Digi units



X.21 (RS-422)

			DB 25	DB 9
				
Description	X.21 signal	Direction ¹	Pin #	Pin #
Transmit Data (A)	TxDA	in	2	1
Receive Data (A)	RxDA	out	3	2
Control (A)	CTLA	in	4	3
Indication (A)	INDA	out	5	4
Ground	GND	n/a	7	5
Clock (B)	CLKB	in or out ²	9	n/a
Indication (B)	INDB	out	13	9
Transmit Data (B)	TxDB	in	14	6
Receive Data (B)	RxDB	out	16	7
Clock (A)	CLKA	in or out ²	17	n/a
Control (B)	CTLB	in	19	8

- 1. With respect to Digi units
- 2. Direction depends on whether the Digi unit is clock sink or clock source.

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CLKA	17	6	CLKA
CTLB	19	10	CTLB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CLKA	17	6	CLKA
CTLB	19	10	CTLB


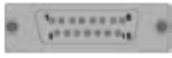
N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the RxDA & RxDB pins, CLKA & CLKB pins and INDA & INDB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CLKA	17	6	CLKA
CTLB	19	12	INDB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25- Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CLKA	17	6	CLKA
CTLB	19	12	INDB


N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.


Port Pin-Outs

RS-232

				DB 25
				
Description	RS232 signal	Direction ¹	Pin #	
Transmit Data	TxD	in	2	
Receive Data	RxD	out	3	
Ready To Send	RTS	in	4	
Clear To Send	CTS	out	5	
Data Set Ready	DSR	out	6	
Ground	GND	n/a	7	
Data Carrier Detect	DCD	out	8	
Transmitter Clock	TxC	out	15	
Receiver Clock	RxC	out	17	
Data Terminal Ready	DTR	in	20	
Ring Indicate	RI	out	22	
External Transmitter Clock	ETC	in	24	

1. With respect to Digi units



X.21 (RS-422)

				DB 25
				
Description	X.21 signal	Direction ¹	Pin #	
Transmit Data (A)	TxDA	in	2	
Receive Data (A)	RxDA	out	3	
Control (A)	CTLA	in	4	
Indication (A)	INDA	out	5	
Ground	GND	n/a	7	
Clock In (A)	CLKIA	out	9	
Clock Out (B)	CLKOB	in	11	
Indication (B)	INDB	out	13	
Transmit Data (B)	TxDB	in	14	
Receive Data (B)	RxDB	out	16	
Clock In (B)	CLKIB	out	17	
Control (B)	CTLB	in	19	
Clock Out (A)	CLKOA	in	24	

1. With respect to Digi units

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKA	9	6	CLKA
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CLKB	17	13	CLKB
CTLB	19	10	CTLB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CTLB	19	10	CTLB
CLKA	24	6	CLKA


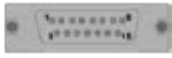
N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKA	9	6	CLKA
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CLKB	17	13	CLKB
CTLB	19	12	INDB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CTLB	19	12	INDB
CLKA	24	6	CLKA



N.B. Frame Ground is optional

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

Port Pin-Outs

RS-232


			DB 25	RJ45
				
Description	RS232 signal	Direction ¹	Pin #	Pin #
Transmit Data	TxD	in	2	6
Receive Data	RxD	out	3	3
Ready To Send	RTS	in	4	1
Clear To Send	CTS	out	5	8
Data Set Ready	DSR	out	6	4
Ground	GND	n/a	7	5
Data Carrier Detect	DCD	out	8	7
Transmitter Clock	TxC	out	15	n/a
Receiver Clock	RxC	out	17	n/a
Data Terminal Ready	DTR	in	20	2
Ring Indicate	RI	out	22	n/a
External Transmitter Clock	ETC	in	24	n/a

1. With respect to Digi units

X.21 (RS-422)

Note:

In order for the MW3410, MW3520 or VC5100 to operate in X.21 mode, an X.21 daughter card must be fitted.



			DB 25
			
Description	X.21 signal	Direction ¹	Pin #
Receive Data (A)	RxDA	out	2
Receive Data (B)	RxDB	out	3
Transmit Data (A)	TxDA	in	4
Transmit Data (B)	TxDB	in	5
Indication (B)	INDB	out	6
Ground	GND	n/a	7
Control (B)	CTLB	in	8
Clock (A)	CLKA	in or out ²	15
Clock (B)	CLKB	in or out ²	17
Indication (A)	INDA	out	20
Control (A)	CTLA	in	22

1. With respect to Digi units

2. Direction depends on whether Digi unit is clock sink or clock source.

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKA	15	6	CLKA
CLKB	17	13	CLKB
INDA	20	5	INDA
CTLA	22	3	CTLA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	4	RxDA
RxDB	3	11	RxDB
TxDA	4	2	TxDA
TxDB	5	9	TxDB
INDB	6	12	INDB
GND	7	8	GND
CTLB	8	10	CTLB
CLKA	15	13	CLKA
CLKB	17	6	CLKB
INDA	20	5	INDA
CTLA	22	3	CTLA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKA	15	13	CLKA
CLKB	17	6	CLKB
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
RxDA	2	2	TxDA
RxDB	3	9	TxDB
TxDA	4	4	RxDA
TxDB	5	11	RxDB
INDB	6	10	CTLB
GND	7	8	GND
CTLB	8	12	INDB
CLKA	15	13	CLKA
CLKB	17	6	CLKB
INDA	20	3	CTLA
CTLA	22	5	INDA

N.B. Frame Ground is optional.


Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

ER4420, ER4420d, ER4420i, ER4420p, HR4420, HR4420d, HR4420i, HR4420p & IR4420


Port Pin-Outs

RS-232

				DB 25
				
Description	RS232 signal	Direction ¹	Pin #	
Transmit Data	TxD	in	2	
Receive Data	RxD	out	3	
Ready To Send	RTS	in	4	
Clear To Send	CTS	out	5	
Data Set Ready	DSR	out	6	
Ground	GND	n/a	7	
Data Carrier Detect	DCD	out	8	
Transmitter Clock	TxC	out	15	
Receiver Clock	RxC	out	17	
Data Terminal Ready	DTR	in	20	
Ring Indicate	RI	out	22	
External Transmitter Clock	ETC	in	24	

1. With respect to Digi units



X.21 (RS-422)

				DB 25
				
Description	X.21 signal	Direction ¹	Pin #	
Transmit Data (A)	TxDA	in	2	
Receive Data (A)	RxDA	out	3	
Control (A)	CTLA	in	4	
Indication (A)	INDA	out	5	
Ground	GND	n/a	7	
Clock In (B)	CLKIB	out	9	
Clock Out (B)	CLKOB	in	11	
Indication (B)	INDB	out	13	
Transmit Data (B)	TxDB	in	14	
Receive Data (B)	RxDB	out	16	
Clock In (A)	CLKIA	out	17	
Control (B)	CTLB	in	19	
Clock Out (A)	CLKOA	in	24	

1. With respect to Digi units

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock


This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CLKA	17	6	CLKA
CTLB	19	10	CTLB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CTLB	19	10	CTLB
CLKA	24	6	CLKA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CLKA	17	6	CLKA
CTLB	19	12	INDB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CTLB	19	12	INDB
CLKA	24	6	CLKA

N.B. Frame Ground is optional.


Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

MR4110, ER4110, HR4110, GR4110 & TR4110


Port Pin-Outs

RS-232

				DB 25
				
Description	RS232 signal	Direction ¹	Pin #	
Transmit Data	TxD	in	2	
Receive Data	RxD	out	3	
Ready To Send	RTS	in	4	
Clear To Send	CTS	out	5	
Data Set Ready	DSR	out	6	
Ground	GND	n/a	7	
Data Carrier Detect	DCD	out	8	
Transmitter Clock	TxC	out	15	
Receiver Clock	RxC	out	17	
Data Terminal Ready	DTR	in	20	
Ring Indicate	RI	out	22	
External Transmitter Clock	ETC	in	24	

1. With respect to Digi units



X.21 (RS-422)

				DB 25
				
Description	X.21 signal	Direction ¹	Pin #	
Transmit Data (A)	TxDA	in	2	
Receive Data (A)	RxDA	out	3	
Control (A)	CTLA	in	4	
Indication (A)	INDA	out	5	
Ground	GND	n/a	7	
Clock In (B)	CLKIB	out	9	
Clock Out (B)	CLKOB	in	11	
Indication (B)	INDB	out	13	
Transmit Data (B)	TxDB	in	14	
Receive Data (B)	RxDB	out	16	
Clock In (A)	CLKIA	out	17	
Control (B)	CTLB	in	19	
Clock Out (A)	CLKOA	in	24	

1. With respect to Digi units

X.21 25-Pin to 15-Pin Straight Through Cable – Internal Clock



This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *source* or configured as "internal clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CLKA	17	6	CLKA
CTLB	19	10	CTLB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Straight Through Cable – External Clock

This is normally the cable to use to connect an X.21 terminal (e.g. an ATM) to the Digi. Use this cable when the Digi is the clock *sink* or configured as "external clock".

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	2	TxDA
RxDA	3	4	RxDA
CTLA	4	3	CTLA
INDA	5	5	INDA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	12	INDB
TxDB	14	9	TxDB
RxDB	16	11	RxDB
CTLB	19	10	CTLB
CLKA	24	6	CLKA



N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

X.21 25-Pin to 15-Pin Crossover Cable – Internal Clock



This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *source* or configured as “internal clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	9	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CLKA	17	6	CLKA
CTLB	19	12	INDB

N.B. Frame Ground is optional.

X.21 25-Pin to 15-Pin Crossover Cable – External Clock

This is normally the cable to use to connect the Digi to an X.21 leased line. Use this cable when the Digi is the clock *sink* or configured as “external clock”.

DB 25 - Digi Side		DB 15	
			
Signal	Pin # (DCE)	Pin # (DTE)	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxDA	2	4	RxDA
RxDA	3	2	TxDA
CTLA	4	5	INDA
INDA	5	3	CTLA
GND	7	8	GND
CLKB	11	13	CLKB
INDB	13	10	CTLB
TxDB	14	11	RxDB
RxDB	16	9	TxDB
CTLB	19	12	INDB
CLKA	24	6	CLKA

N.B. Frame Ground is optional.

Note:

When operating an X.21 (RS-422) link Synchronously it is necessary to fit termination resistors to each signal pair at the receiving end. The Digi already has in-built terminating resistors, but terminating resistors will need to be fitted between the TxDA & TxDB pins, CLKA & CLKB pins and CTLA & CTLB pins at the DTE.

RS-232 (V.24) Serial Cable Wiring



The tables below detail the wiring required for the various types of serial cable that you may need.

Note:

Some products are able to operate both Synchronously and Asynchronously. When these products are operating Asynchronously, it is strongly recommended that the Clock pins (TxC, RxC and ETC) are left disconnected.

25-Pin to 25-Pin Straight Through Cable



This is normally the cable to use to connect a V.24 synchronous terminal to a Digi router.

DB 25 - Digi Side		DB 25	
			
Signal	Pin #	Pin #	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxD	2	2	TxD
RxD	3	3	RxD
RTS	4	4	RTS
CTS	5	5	CTS
DSR	6	6	DSR
GND	7	7	GND
DCD	8	8	DCD
RxC	17	17	RxC
DTR	20	20	DTR
ETC	24	24	ETC

N.B. Frame Ground is optional.



25-Pin to 9-Pin Straight Through Cable

This is normally the cable to use to connect a V.24 asynchronous terminal (such as a PC) to a Digi router.

DB 25 - Digi Side		DB 9	
			
Signal	Pin #	Pin #	Signal
TxD	2	3	TxD
RxD	3	2	RxD
RTS	4	7	RTS
CTS	5	8	CTS
DSR	6	6	DSR
GND	7	5	GND
DCD	8	1	DCD
DTR	20	4	DTR
RING	22	9	RING



RJ45 to 25-Pin Straight Through Cable

This is normally the cable to use to connect a V.24 synchronous terminal to a Digi router.

RJ45 - Digi Side		DB 25	
			
Signal	Pin #	Pin#	Signal
RTS	1	4	RTS
DTR	2	20	DTR
RxD	3	3	RxD
GND	5	7	GND
TxD	6	2	TxD
DCD	7	8	DCD
CTS	8	5	CTS



RJ45 to 9-Pin Straight Through Cable

This is normally the cable to use to connect a V.24 asynchronous terminal (such as a PC) to a Digi router.

RJ45 - Digi Side		DB 9	
			
Signal	Pin #	Pin#	Signal
RTS	1	7	RTS
DTR	2	4	DTR
RxD	3	2	RxD
GND	5	5	GND
TxD	6	3	TxD
DCD	7	1	DCD
CTS	8	8	CTS

25-Pin to 25-Pin Crossover Cable



This is normally the cable to use to connect the router to a V.24 leased line.

DB 25 - Digi Side		DB 25	
			
Signal	Pin #	Pin #	Signal
Frame Ground (Case)	Shield	Shield	Frame Ground (Case)
TxD	2	3	RxD
RxD	3	2	TxD
RTS	4	5	CTS
CTS	5	4	RTS
GND	7	7	GND
DCD	8	20	DTR
RxC	17	24	ETC
DTR	20	8	DCD
ETC	24	17	RxC

N.B. Frame Ground is optional.



25-Pin to 9-Pin Crossover Cable

This cable would normally be used to connect the router to an external asynchronous modem.

DB 25 - Digi Side		DB 9	
			
Signal	Pin #	Pin #	Signal
TxD	2	2	RxD
RxD	3	3	TxD
RTS	4	8	CTS
CTS	5	7	RTS
GND	7	5	GND
DCD	8	4	DTR
DTR	20	1	DCD



RJ45 to 25-Pin Crossover Cable

This is normally the cable to use to connect the router to a V.24 leased line.

RJ45 - Digi Side		DB 25	
			
Signal	Pin #	Pin#	Signal
RTS	1	5	CTS
DTR	2	8	DCD
RxD	3	2	TxD
GND	5	7	GND
TxD	6	3	RxD
DCD	7	20	DTR
CTS	8	4	RTS

RJ45 to 9-Pin Crossover Cable

This cable would normally be used to connect the router to an external asynchronous modem.

RJ45 - Digi Side		DB 9	
			
Signal	Pin #	Pin#	Signal
RTS	1	8	CTS
DTR	2	1	DCD
RxD	3	3	TxD
GND	5	5	GND
TxD	6	2	RxD
DCD	7	4	DTR
CTS	8	7	RTS

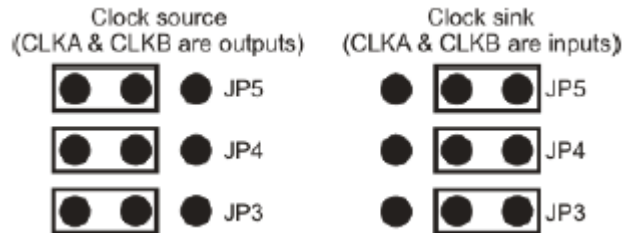
Configuring X.21 on Older Models

Some older Sarian legacy units require an X.21 daughter card to be fitted to enable X.21 operation. There are two versions of the X.21 daughter card. One version is compatible with GR2130, IR2140 and IR2420 routers, and one version is compatible with MW3520, MW3410 and VC5100 routers.

The X.21 daughter card compatible with GR2130, IR2140 and IR2420 routers has three internal jumpers that determine the clock mode. By default, these are set so that the unit acts as a clock sink. For correct X.21 operation the jumper settings must match the setting of the Clock source parameter configured on the Configuration - Network > Interfaces > Serial > Serial Port 0 > Sync Port 0 pages. To change this you will need to open the unit by removing the four rubber feet and fixing screws. Having done this, carefully remove the case lid and locate the X.21 adapter card (illustrated below):



The correct settings for clock source or clock sink operation for the X.21 daughter card compatible with GR2130, IR2140 and IR2420 routers are shown below:



Having set the links correctly, reassemble the case ensuring that the lid is correctly oriented.

EMAIL TEMPLATES

One of the principal features provided by the event log function is the ability to configure the unit to automatically generate and send an email alert message each time an event of up to a specified priority occurs. The format of the message is determined by the email template specified in the **Use email template file** parameter (normally EVENT.EML) in the [Configuration - Alarms > Event Settings > Email Notifications](#) web page.

If the standard EVENT.EML template supplied with the unit is not suitable, you may create your own template. An email template is simply a text file that defines the appearance and content of the email messages generated by the event logger.

Template Structure

An email template consists of a header section followed by a body section. One or more blank lines separate the two sections.

The Header Section

The header section MUST contain the following three fields:

TO:

This field is used to specify at least one recipient's email address. Multiple addresses may be included and must be separated by a space, comma or semicolon character. For example:

To: 123@456.com, 456@123.com; abc.def.com

FROM:

This field is normally used to supply the email address of the sending unit but alternatively you may enter a simple string. This may depend on the SMTP server as to what is accepted. For example:

FROM: WR44

Or

FROM: wr44@mycompany.com

SUBJECT:

This field should contain a string describing the subject of the email message. For example:

Subject: Automated message from router

Other Fields

In addition to the mandatory fields described above, the header section of an email may also contain one or more optional fields. Many such fields are defined in the relevant RFCs but there are some fields that the unit handles a little differently as described below. The unit will insert other fields as necessary if it is required to send attachments with the email

Reply To:

If the unit discovers that this field is not present in the email template, the unit will insert this field into the header. The string used for this field is that configured by the `smtp 0 reply_to` CLI command (or the use "Reply To" address parameter in the [Configuration - Alarms > SMTP Account](#) web page). This allows for different reply addresses, and allows a simple way of using the same (easily configurable) reply address for all emails.

Date:

If this field is present in the header, the unit will insert the current date and time into the header. The date and time are values local to the unit and do not contain any time zone information.

Body Section

The body section may include any text. This text is parsed for any function calls that may be present. Function calls must be enclosed between "<%>" and "%>". These sequences are substituted by text resulting from the function call. The following functions may be used:

Function	Description
TimeSntp();	Inserts the unit's date and time.
serial_number();	Inserts the unit's serial number
Smtpip();	Inserts the IP address of the unit as seen by the SMTP server during transmission
email_event()	Inserts a formatted description of the event that caused the email transmission.
Smtpid()	Inserts the unit ID for this device as configured by the "Router Identity" field in the Configuration - System > Device Identity web page, or the cmd 0 unitid CLI command.
pppip("instance");	Inserts the IP address for a specific PPP instance, where instance is the PPP instance number.

The following are examples of email templates.

```
1)
TO: 123@abc.co.nz
FROM: MyRouter
SUBJECT: Remote Configuration
```

← This blank line is required

```
Time: <%timeSntp();%>
Serial Number: <%serial_number();%>
Req: CFG_RQ
IP Address: <%smtpip();%>
PPP 1 IP address: <%pppip("1");%>
```

```
2)
TO: fred@anyco.com, jane@anyco.co.uk
FROM: MyRouter
SUBJECT: automatic email
MIME-Version: 1.0
```

← This blank line is required

```
Unit: <%smtpid();%>
Event: <%email_event();%>
This event had sufficient priority to cause the transmission of this
email. Please check the attached logs and review.
```

CLI commands can also be executed and the output from up to 10 CLI commands will be added to the body of the email. The command to be executed needs to be entered in place of xxxxx below. To include the output from multiple commands, use the run_cmd() function multiple times.

```
<%run_cmd("xxxxx");%>
```

e.g.

```
<%run_cmd("ati5");%>  
<%run_cmd("bufs");%>  
<%run_cmd("msgs");%>
```

An example template adding CLI commands would be:

```
TO: fred@anyco.com, jane@anyco.co.uk  
FROM: MyRouter  
SUBJECT: automatic email  
MIME-Version: 1.0
```

```
Unit: <%smtpid();%>
```

```
Event: <%email_event();%>
```

This event had sufficient priority to cause the transmission of this email. Please check the attached logs and review.

```
<%run_cmd("ati5");%>  
<%run_cmd("bufs");%>  
<%run_cmd("msgs");%>
```

It is also possible to specify an extra parameter which indicates the required priority of the event before the command is executed. This allows events to be sent off without attachments, but if the event has an equal or higher priority than the value of this parameter, the attachments will be included. This ensures that the attachments are not included unnecessarily with non-critical events and using up all the data allowance on a wireless connection.

```
<%run_cmd("chkst", "5");%>
```

An example template adding CLI commands with priority values would be:

```
TO: fred@anyco.com, jane@anyco.co.uk  
FROM: MyRouter  
SUBJECT: automatic email  
MIME-Version: 1.0
```

```
Unit: <%smtpid();%>
```

```
Event: <%email_event();%>
```

This event had sufficient priority to cause the transmission of this email. Please check the attached logs and review.

```
<%run_cmd("chkst", "5");%>
```

In the example above, the command `chkst` will only be executed when an event with a priority equal to or higher than 5 is detected.

Certifications

FCC Part 68 Declarations (for Transport DR models only)

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the underside of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEO##TXXXX. If requested, this number must be provided to the telephone company.

Universal Service Order Codes

RJ11C

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Telephone Company Compliance

If the Transport DR, causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service. If trouble is experienced with the Transport DR, for repair or warranty information, please contact Digi International at 877-912-3444. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is noted in the part of the product identifier that has the format US:AAAEO##TXXXX. The digits represented by the ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For early products, the REN is shown separately on the label.

Home Security Advisory

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this Transport DR does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

OEM Advisory

For OEM use, the mounting of the Transport DR in the final assembly must be made so that the Transport DR is isolated from exposure to any hazardous voltages within the assembly. Adequate separation and restraint of cables and cords must be provided. The circuitry from the Transport DR to the telephone line must be provided in wiring that carries no other circuitry (such as PC or PR leads) unless specifically allowed by the rules. PC board traces carrying tip and ring leads shall have sufficient spacing to avoid surge breakdown.

Electrical Safety Advisory

Digi International suggests that customers use a surge arrestor. Telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources. This has been identified as a major nationwide problem.

GLOSSARY

0 - 9

3DES Triple Data Encryption Standard

A

ACCM Asynchronous Communication Channel Multiplexer

ACFC Address Control Field Compression

ADSL Asymmetric Digital Subscriber Line

AES Advanced Encryption Standard

AFE Analogue Front End

AH Authentication Header

AIS Alarm Indication Signal

AODI Always On Dynamic ISDN

APACS Association of Payment Clearing Services, the UK payments association

APN Access Point Name

ATM Asynchronous Transfer Mode or Automatic Teller Machine

ARFCN Absolute Radio Frequency Channel Number

B

BACP Bandwidth Allocation and Control Protocol

BAP Bandwidth Allocation Protocol

BCC Base station Colour Code

BCCH Broadcast Control Channel

BGP Border Gateway Protocol

C

CA Certificate Authority

CHAP Challenge Handshake Authentication Protocol

CLI Calling Line Identification or Command Line Interface

CRC Cyclic Redundancy Code

CTS Clear To Send

CUD Call User Data

CUG Call User Group

D

DCE Data Communication Equipment

DER Distinguished Encoding Rules

DES Data Encryption Standard

DHCP	Dynamic Host Configuration Protocol
DLSw	Data-Link Switching
DNS	Domain Name Server
DPD	Dead Peer Detection
DSCP	Differentiated Services Code Point
DSL	Digital Subscriber Line
DTE	Data Terminal Equipment
DUN	Dial-Up Networking
E	
EDGE	Enhanced Data GSM Environment
ESP	Encapsulating Security Payload protocol
F	
FCS	Frame Check Sequence
FEC	Forward Error Correction
FIFO	First In First Out
FQDN	Fully Qualified Domain Name
FTP	File Transfer Protocol
G	
GPRS	General Packet Radio System
GPS	Global Positioning System
GRE	Generic Routing Encapsulation
GSM	Global System for Mobile Communications
H	
HDLC	High-Level Data Link Control
HEC	Header Error Control
HMAC	Hash Message Authentication Code
HSDPA	High Speed Downlink Packet Access
HSUPA	High Speed Uplink Packet Access
I	
ICMP	Internet Control Message Protocol
IETF	Internet Engineering Task Force
IGMP	Internet Group Management Protocol
IGP	Interior Gateway Protocol
IKE	Internet Key Exchange
IMEI	International Mobile Equipment Identification

IMSI	International Mobile Subscriber Identity
IP	Internet Protocol
IPCP	Internet Protocol Control Protocol
IPSec	Internet Protocol Security
ISAKMP	Internet Security Association and Key Management Protocol
ISDN	Integrated Services Digital Network

L

L2TP	Layer 2 Tunnelling Protocol
LAC	Location Area Code
LAI	Location Area Identity
LAN	Local Area Network
LAPB	Link Access Procedure Balanced
LAPD	Link Access Protocol D-channel
LCN	Logical Channel Number
LCP	Link Control Protocol
LRC	Longitudinal Redundancy Check
LSA	Link State Advertisement

M

MAC	Media Access Control
MCC	Mobile Country Code
MD5	Message-Digest algorithm 5
MIB	Management Information Base
MIME	Multipurpose Internet Mail Extensions
MLPPP	Multi-Link Point-to-Point Protocol
MNC	Mobile Network Code
MPPE	Microsoft Point to Point Encryption
MRU	Maximum Receive Unit
MSN	Multiple Subscriber Number
MSS	Maximum Segment Size
MTU	Maximum Transmit Unit

N

NAPT	Network Address and Port Translation
NAS	Network Access Server
NAT	Network Address Translation
NCC	Network Colour Code

NOM	Network Operation Mode
NUA	Network User Address
NUI	Network User Identifier
O	
OAM	Operation, Administration and Maintenance
OOS	Out Of Service
OPNS	Online PUK Negotiation Service
OSPF	Open Shortest Path First
P	
PANS	Polling Answering Service
PAD	Packet Assembler/Disassembler
PAP	Password Authentication Protocol
PAT	Priority Access Threshold
PBCCCH	Packet Broadcast Control Channel
PEM	Privacy Enhanced MIME
PFC	Protocol Field Compression
PFS	Perfect Forwarding Security
PID	Protocol Identifier
PIN	Personal Identity Number
PLMN	Public Land Mobile Network
PPP	Point-to-Point Protocol
PPPoA	Point-to-Point Protocol over ATM
PPPoE	Point-to-Point Protocol over Ethernet
PSDN	Packet Switched Data Network
PSI	Packet System Information
PSTN	Public Switched Telephone Network
PUK	Power Up Key
PVC	Permanent Virtual Circuit
Q	
QOS	Quality of Service

R

RAC	Routing Area Code
RACH	Random Access Channel
RADIUS	Remote Authentication Dial-In User Service
RAT	Radio Access Technology
RDI	Remote Defect Indication
RIP	Routing Information Protocol
RSSI	Received Signal Strength Indication
RTS	Request To Send

S

SA	Security Association
SABM	Set Asynchronous Balanced Mode
SABME	Set Asynchronous Balanced Mode Extended
SCEP	Simple Certificate Enrolment Protocol
SDLC	Synchronous Data Link Control
SHA-1	Secure Hash Algorithm 1
SMS	Short Message Service
SMTP	Simple Mail Transfer Protocol
SNA	Systems Network Architecture
SNAIP	Systems Network Architecture over Internet Protocol
SNMP	Simple Network Management Protocol
SNTP	Simple Network Time Protocol
SPF	Shortest Path First
SPI	Security Parameters Index
SSH	Secure Shell
SSL	Secure Socket Layer
SVC	Switched Virtual Circuit

T

TANS	TPAD Answering
TCH	Traffic Channel
TCP	Transmission Control Protocol
TEI	Terminal Endpoint Identifier
TOS	Type of Service
TPAD	Transaction Packet Assembler/Disassembler

U

UBR	Unspecified Bit Rate
UDP	User Datagram Protocol
UMTS	Universal Mobile Telecommunications System
USB	Universal Serial Bus

V

VLAN	Virtual Local Area Network
VPN	Virtual Private Network
VRRP	Virtual Router Redundancy Protocol

W

WAN	Wide Area Network
WCDMA	Wide-band Code-Division Multiple Access
WRED	Weighted Random Early Dropping
W-WAN	Wireless Wide Area Network

X

XOT	X.25 Over TCP
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