PMC 3 Serial WAN Expansion Card

Teldat-Dm 619

Legal Notice

Warranty

This publication is subject to change.

Teldat offers no warranty whatsoever for information contained in this manual.

Teldat is not liable for any direct, indirect, collateral, consequential or any other damage connected to the delivery, supply or use of this manual.

Table of Contents

Chapter 1 About This Guide

This installation guide contains the step by step instructions that you need to follow in order to correctly install, uninstall and replace the PMC-3SS expansion card in the ATLAS router family.

1.1 Supported Devices

The information contained in this installation guide only applies to the PMC-3SS expansion card.

1.2 Warning and notes

Observe the warnings and instructions given in this manual to avoid and prevent injuries or damage during installation and maintenance. Please follow the security procedures and guidelines when working near electrical equipment. The warnings and notes are provided in each chapter as appropriate.

1.3 Who should read this manual?

This manual should be read by installers and network administrators who need to install, configure or maintain networks. This guide assumes that the installer is familiar with network electronics and technologies.

1.4 What is in this manual?

This installation guide contains the following information:

- Description of the general characteristics of the PMC-3SS expansion card.
- Description of the steps to carry out to install the PMC-3SS card in the ATLAS routers.
- Description of the PMC-3SS expansion card LEDs and the pinouts for their connectors.

1.5 How is the information organized?

This document aims to provide all the information necessary for installing the PMC-3SS expansion card in the ATLAS router family.

- PMC-3SS expansion card characteristics.
- PMC-3SS expansion card connectors.
- Requirements prior to installation.
- Installing the PMC-3SS expansion card.

1.6 Technical Support

Teldat SA offers a technical support service.

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1.7 Related documentation

ATLAS router family installation manuals.

Teldat-Dm605-I *PMC Expansion Cards ATLAS 60 Installation*.

The manufacturer reserves the right to make changes and improvements in the appropriate features in either software or hardware of this product, modifying the specifications of this manual without prior notice.

The images presented on the front and back panels of the devices are provided as information guidelines only. Some small modifications may exist in the actual device.

Chapter 2 PMC-3SS expansion card

A serial port is a physical communications interface in serial over which information is transferred, sending or receiving one bit each time through the same cable.

Depending on the type of transmission, the serial ports may be synchronous or asynchronous. In cases regarding this card, this mode is configurable for each of its ports.

Fig. 1: PMC-3SS Card

2.1 PMC-3SS expansion card: Characteristics

The main characteristics of the PMC-3SS expansion card are as follows:

PMC-3SS Card: Characteristics

Ports	3 synchronous/asynchronous serial ports 1 external port with clock (optional)
Standards	• V.24 • V.35 • X.21 *Configurable through software
Speed	Up to 2 Mbps full-duplex
Operating modes	Depending on the cable: • DTE *("Data Terminal Equipment")* • DCE *("Data Circuit-Terminating Equipment")*

2.2 PMC-3SS expansion card: Connectors

Figure 2 shows the front board of the PMC-3SS card:

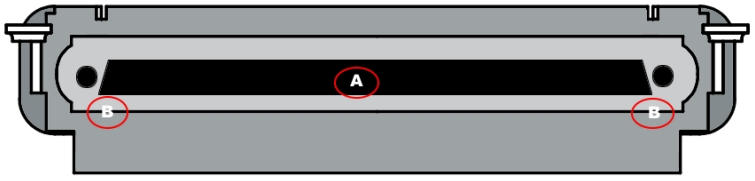

Fig. 2: Front of the PMC-3SS Card

The front panel elements are as follows:

Elements Table for the Front of the PMC-3SS Card

Item	Description
A	SCSI DB-68 Connector
B	Lateral screws to attach the cable

Chapter 3 Installing the PMC-3SS expansion card

This chapter provides information on how to install and uninstall the PMC-3SS expansion card in the ATLAS routers.

This information includes:

- Requirements prior to installation
- Installing or replacing a PMC-3SS expansion card

3.1 Requirements prior to installation

In order to configure the card, you must have access to the ATLAS router through a console or a Telnet connection. For further information, please see the section on “Connecting for configuration” found in the ATLAS router family installation manuals.

3.2 Installing or replacing the PMC-3SS expansion card

To install or replace a PMC-3SS card, please see the PMC cards installation generic manual corresponding to the ATLAS router model where the installation is being carried out.

Chapter 4 LEDs and connector Pinouts: Description

This chapter provides information on the PMC-3SS expansion card LEDs and the pinouts for its connector.

4.1 PMC-3SS expansion card: LEDs

The PMC-3SS expansion card doesn't have any LEDs of its own.

4.2 Connector Pinouts

The PMC-3SS expansion card has a SCSI DB-68 connector.

4.2.1 SCSI DB-68 Connector

The following figure shows the SCSI DB-68 connector pinouts:

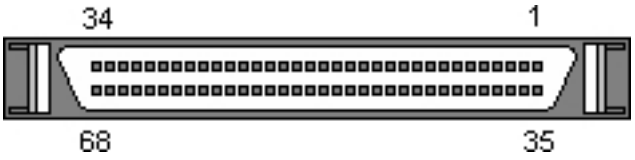

Fig. 3: SCSI DB-68 Connector Pinouts

This card is supplied with a cable with a SCSI DB-68 male connector, which connects to the card, and three DB-25 female connectors. The three DB-25 connectors are used for the three serial ports.

4.2.2 DB-25 Connectors

The following figure shows the pinouts for each of the DB-25 connectors:

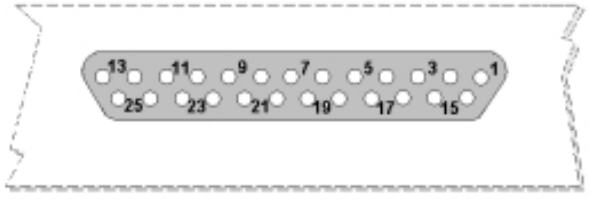

Fig. 4: DB-25 Connector Pinouts

Table 3 shows the information associated to each connector pinout:

Connector Pinouts

Signal (as DTE)	DTE Dir	DCE Dir	Female DB25
RxD_a	←	←	2
RxD_b	←	←	14
TxD_a	→	→	3
TxD_b	→	→	16
RxC_a	←	→	17
RxC_b	←	→	19
TxC_a	←	→	15
TxC_b	←	→	18
RTS_a	→	→	8

Signal (as DTE)	DTE Dir	DCE Dir	Female DB25
RTS_b	→	→	12
CD_a	←	←	4
CD_b	←	←	11
DTR_a	→	→	6
CTS_a	←	→	5
CTS_b	←	→	13
GND	GND	GND	7
GROUND			1+CHASSIS
CAB	←	←	25 [1]

4.2.3 Definition of the pigtail to use depending on the required norm

V.24 DTE Cable

MALE DB25	V.24 DTE	MALE DB25
1, Chassis	Ground	1, Chassis
2	RxDa	3
3	TxDa	2
4	CDa	8
5	CTSa	5
6	DTRa	20
7, 25	GND	7, 25
8	RTSa	4
15	TxCa	15
17	RxCa	17

Table 5. V.35 DCE Cable

MALE DB25	V.35 DCE	FEMALE Winchester
1, Chassis	Ground	A, Chassis
2	RxDa	P
3	TxDa	R
4	CDa	C
5	CTSa	D
6	DTRa	E
7	GND	B
8	RTSa	F
14	RxDb	S
15	TxCa	Y
16	TxDb	T
17	RxCa	V
18	TxCb	AA
19	RxCb	X

[1] Pinout 25 must be connected to GND so the card knows it has a “DTE” cable connected and consequently behaves as such.

V.35 DTE Cable

MALE DB25	V.35 DTE	MALE Winchester
1, Chassis	Ground	A, Chassis
2	RxDa	R
3	TxDa	P
4	CDa	F
5	CTSa	D
6	DTRa	H
7, 25	GND	B
8	RTSa	C
14	RxDb	T
15	TxCa	Y
16	TxDb	S
17	RxCa	V
18	TxCb	AA
19	RxCb	X

X.21 DCE Cable

MALE DB25	X.21 DCE	FEMALE DB15
1, Chassis	Ground	1, Chassis
2	RxDa	2
3	TxDa	4
4	INDa	3
7	GND	8
8	CONTa	5
11	INDb	10
12	CONTb	12
14	RxDb	9
17	CLKa	6
16	TxDb	11
19	CLKb	13

X.21 DTE Cable

MALE DB25	X.21 DTE	MALE DB15
1, Chassis	Ground	1, Chassis
2	RxDa	4
3	TxDa	2
5	INDa	5
7, 25	GND	8
8	CONTa	3
13	INDb	12
12	CONTb	10
14	RxDb	11
17	CLKa	6
16	TxDb	9
19	CLKb	13

Null-Modem Cable or Adaptor

MALE DB25	DCE-DTE	FEMALE DB25
1, Chassis	Ground	1, Chassis
2	RxDa	3
3	TxDa	2
4	CDa	8
5	CTSa	5
6	DTRa	20
7, 25	GND	7
8	RTSa	4
11	CDb	12
12	RTSb	11
13	CTSb	13
14	RxDb	16
15	TxCa	15
16	TxDb	14
17	RxCa	17
18	TxCb	18
19	RxCb	19

Appendix A Compliance

A.1 FCC Statement

A.1.1 Federal Communications Commission Interference

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

A.2 IC Statement

A.2.1 CAN ICES-3 (A)/NMB-3(A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.