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# Penguin Edge™ CABLE/RJ45/DSUB

Installation Guide

P/N: 6806800C23D

November 2022

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# About this Manual

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## Overview of Contents

This manual is intended for users qualified in electronics or electrical engineering. Users must have a working understanding of AdvancedTCA and telecommunications.

[About this Manual on page 5](#) lists all conventions and abbreviations used in this manual and outlines the revision history.

[Safety Notes on page 9](#) describes the safety information applicable to the CABLE/RJ45/DSUB.

[Sicherheitshinweise on page 11](#) provides a German translation of the safety notes.

[Introduction on page 15](#) provides an introduction to this guide and briefly lists the main features of the CABLE/RJ45/DSUB.

[Connection on page 17](#) describes how to connect the CABLE/RJ45/DSUB.

[Related Documentation on page 21](#) provides links to further documentation related to the CABLE/RJ45/DSUB.



## Abbreviations






This document uses the following abbreviations:

Abbreviation	Definition
AdvancedTCA	Advanced Telecommunications Computing Architecture
ARTM	AdvancedTCA Rear Transition Module
ATCA	Advanced Telecommunications Computing Architecture
CMC	Common Mezzanine Card
EMC	Electromagnetic Compatibility
EN	European Norm
RTM	Rear Transition Module
UL	Underwriters Laboratory Inc.

# Conventions

The following table describes the conventions used throughout this manual..

Notation	Description
0x00000000	Typical notation for hexadecimal numbers (digits are 0 through F), for example used for addresses and offsets
0b0000	Same for binary numbers (digits are 0 and 1)
<b>bold</b>	Used to emphasize a word
Screen	Used for on-screen output and code related elements or commands. Sample of Programming used in a table (9pt)
<b>Courier + Bold</b>	Used to characterize user input and to separate it from system output
<i>Reference</i>	Used for references and for table and figure descriptions
File > Exit	Notation for selecting a submenu
<text>	Notation for variables and keys
[text]	Notation for software buttons to click on the screen and parameter description
...	Repeated item for example node 1, node 2, ..., node 12
.	Omission of information from example/command that is not necessary at the time
..	Ranges, for example: 0..4 means one of the integers 0,1,2,3, and 4 (used in registers)
	Logical OR
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury
	Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury

Notation	Description
	Indicates a property damage message
	Indicates a hot surface that could result in moderate or serious injury
	Indicates an electrical situation that could result in moderate injury or death
<p>Use ESD protection</p> 	Indicates that when working in an ESD environment care should be taken to use proper ESD practices
	No danger encountered, pay attention to important information

## Summary of Changes

Order No.	Rev.	Date	Description
224257	AA	August 2004	First revision
224257	AB	November 2004	First final version
226144	AA	May 2005	Changed logo and copyright from Force Computers to Motorola
227845	AA	October 2005	Added note on RoHS compliance
227845	AB	July 2006	Updated names of referenced boards
6806800C23A		November 2006	Update for Centellis 3 release

## About this Manual

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<b>Order No.</b>	<b>Rev.</b>	<b>Date</b>	<b>Description</b>
6806800C23B		March 2008	Update document to Emerson style (logo, copyright, etc.)
6806800C23C		November 2014	Rebrand to Artesyn template.
6806800C23D		November 2022	Rebrand to Penguin Solutions and updated RoHS directive information in section 1.1.



# Safety Notes

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This section provides safety precautions to follow when installing, operating, and maintaining the product.

We intend to provide all necessary information to install and handle the product in this manual. However, as the product is complex and its usage manifold, we do not guarantee that the given information is complete. If you need additional information, ask your Penguin Solutions representative.

The product has been designed to meet the standard industrial safety requirements. It must not be used except in its specific area of office telecommunication industry and industrial control.

Only personnel trained by Penguin Solutions or persons qualified in electronics or electrical engineering are authorized to install, remove or maintain the product. The information given in this manual is meant to complete the knowledge of a specialist and must not be taken as replacement for qualified personnel.

## Operation

### **Loss of Safety Approval**

If you use the CABLE/RJ45/DSUB in applications other than maintenance and if you use it with devices not providing a protection according to EN 60950, you lose the safety approval of the blade.

Therefore, only use the CABLE/RJ45/DSUB for maintenance and with devices providing a protection according to EN 60950.

### **Damage of Blade/Connected Device**

If you attach other interfaces than serial interfaces to the RJ-45 connector of the accessory kit, you may damage the blade or the connected device.

Therefore, only attach serial interfaces to the RJ-45 connector of the accessory kit.

# Safety Notes

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# Sicherheitshinweise

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Dieser Abschnitt enthält Sicherheitshinweise, die bei Installation, Betrieb und Wartung des Produkts zu beachten sind.

Wir sind darauf bedacht, alle notwendigen Informationen, die für die Installation und den Betrieb erforderlich sind, in diesem Handbuch bereit zu stellen. Da es sich jedoch um ein komplexes Produkt mit vielfältigen Einsatzmöglichkeiten handelt, können wir die Vollständigkeit der im Handbuch enthaltenen Informationen nicht garantieren. Falls Sie weitere Informationen benötigen sollten, wenden Sie sich bitte an die für Sie zuständige Geschäftsstelle von Penguin Solutions.

Das Produkt erfüllt die für die Industrie geforderten Sicherheitsvorschriften und darf ausschließlich für Anwendungen in der Telekommunikationsindustrie und im Zusammenhang mit Industriesteuerungen verwendet werden.

Installation, Wartung und Betrieb dürfen nur von durch Penguin Solutions ausgebildetem oder im Bereich Elektronik oder Elektrotechnik qualifiziertem Personal durchgeführt werden. Die in diesem Handbuch enthaltenen Informationen dienen ausschließlich dazu, das Wissen von Fachpersonal zu ergänzen, können es aber in keinem Fall ersetzen.

## Betrieb

### **Verlust der Sicherheitszulassung**

Wenn Sie das CABLE/RJ45/DSUB zu anderen Zwecken als der Wartung verwenden und Geräte ohne Sicherung nach EN 60950 anschließen, verlieren Sie die Sicherheitszulassung des Blades.

Benutzen Sie das CABLE/RJ45/DSUB deshalb nur für Wartungszwecke und schließen Sie nur Geräte an, die gemäß EN 60950 gesichert sind.

### **Beschädigung des Blades und der angeschlossenen Geräte**

Wenn Sie andere als serielle Schnittstellen an das Accessory Kit anschließen, beschädigen Sie das Blade oder das angeschlossene Gerät.

Schließen Sie deshalb nur serielle Schnittstellen an den RJ-45 Stecker des Accessory Kits an.



# Introduction

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## 1.1 Overview

The CABLE/RJ45/DSUB is an accessory kit containing a shielded cable with a length of 2m cable and a RJ-45/DSUB adapter plug. The cable provides 0-modem functionality which enables you to directly connect a laptop to Penguin Solutions AdvancedTCA blades, which have an RJ-45 connector as their serial interface.



**The product has been designed to meet the directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) Directive 2011/65/EU (formerly 2002/95/EG).**

The currently available accessory kit variant is called CABLE/RJ-45/DSUB/6E, where 6E stands for the degree of RoHS compliance.



# Connection

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## 2.1 Requirements

You can use this accessory kit for every Penguin Solutions Advancement blade which uses an RJ-45 type connector as serial interface. Since the ATCA-7107 blades provide no serial interface access at their face plate, you need one of the following accessories to access the serial interface:

- RTM-ATCA-7107
- ATCA-CMC-MODULE

## 2.2 Connecting the Serial Interface

### **NOTICE**

#### **Loss of safety approval**

If you use the **CABLE/RJ45/DSUB** in applications other than maintenance and if you use it with devices not providing a protection according to EN 60950, you lose the safety approval of the blade.

Therefore, only use the **CABLE/RJ45/DSUB** for maintenance and with devices providing a protection according to EN 60950.

### **Procedure**

1. Plug one cable end into the RJ-45 plug of the adapter
2. Plug other cable end into serial interface of blade  
If you use an ATCA-7107, serial interfaces are available on the RTM-ATCA-7107 or ATCA-CMC-MODULE.

### **NOTICE**

#### **Damage of blade/connected device**

If you attach other interfaces than serial interfaces to the **RJ-45** connector of the accessory kit, you may damage the blade or the connected device.

Therefore, only attach serial interfaces to the **RJ-45** connector of the accessory kit.

3. Plug DSUB connector of adapter into serial socket of laptop

### 2.3 Disconnecting the Serial Interface

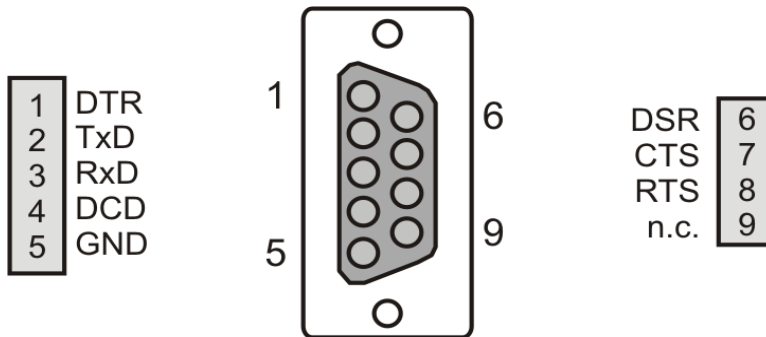
#### Procedure

1. Disconnect cable from serial interface
2. Disconnect adapter plug from laptop

### 2.4 Connectors

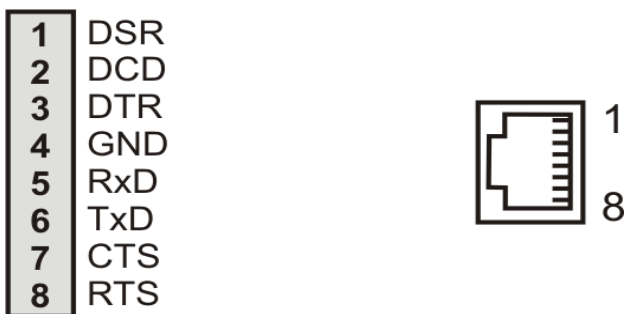
The pin-out of the DSUB connector is shown below.

Figure 2-1 DSUB Connector Pin out



The pin-out of the RJ-45 connector is shown below.

Figure 2-2 RJ-45 Connector Pin out





# Related Documentation

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## A.1 Penguin Solutions Documentation

Technical documentation can be found by using the Documentation Search at <https://www.penguinsolutions.com/edge/support/> or you can obtain electronic copies of Penguin Solutions documentation by contacting your local sales representative.

*Table A-1 Penguin Solutions Documentation*

Document Title	Document Number
ATCA-7107 Reference Guide	6806800A48
RTM-ATCA-7017 Installation Guide	6806800A17
ATCA-CMC-Module Installation Guide	6803800A49
ATCA-7221 Reference Guide	6806800A50

# Related Documentation

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