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# SST-EDN-1 Remote DeviceNet Scanner

## Hardware Reference Guide

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**This document applies to the SST-EDN-1 Remote DeviceNet Scanner.**

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# Preface

## Preface Sections:

- Purpose of this Guide
- Using this Guide
- Conventions

## Purpose of this Guide

This guide contains technical and product-related information on the SST-EDN-1 Remote DeviceNet Scanner.

The SST-EDN-1 consists of a single DeviceNet network interface (or *channel*), which can act as a DeviceNet Master or slave. Its CPU executes downloadable firmware application modules, which enable application-level product behavior. For more details, refer to relevant firmware documentation.



### Note

In this manual, the SST-EDN-1 will be referred to as the *Remote Scanner*.

## Using this Guide

If you are running a 3<sup>rd</sup> party application or writing your own application using the Remote Scanner's DLL calls, the sections of interest in this guide will be "Remote Scanner Overview", "Installation" and potentially "Troubleshooting".

## Conventions

This guide uses stylistic conventions, special terms, and special notation to help enhance your understanding.

## Style

The following stylistic conventions are used throughout this guide:

<b>Bold</b>	indicates field names, button names, tab names, executable files, command names, and options or selections
<i>Italics</i>	indicates keywords (indexed) or instances of new terms and/or specialized words that need emphasis
CAPS	indicates a specific key selection, such as ENTER, TAB, CTRL, ALT, DELETE
Code Font	indicates command line entries or text that you'd type into a field
<u>Underlining</u>	indicates a hyperlink
“>” delimiter	indicates how to navigate through a hierarchy of menu selections/options
“0x”	indicates a hexadecimal value

## Terminology

The following special terms are used throughout this guide:

<i>Remote Scanner</i>	The SST-EDN-1 Remote DeviceNet Scanner
<i>Channel</i>	A DeviceNet network interface on the Remote Scanner
<i>Firmware Module</i>	The embedded software that gets loaded to the Remote Scanner's memory and runs on the Remote Scanner. This is the operating system of the Remote Scanner, enabling it to respond to commands from the host and manage network communications.
<i>Host</i>	The computer system connected to the Remote Scanner via Ethernet
<i>WORD</i>	Little Endian 16-bit value, unless otherwise stated.
<i>DWORD</i>	Little Endian 32-bit value, unless otherwise stated.



## Special Notation

The following special notations are used throughout this guide:



### **Warning**

Warning messages alert the reader to situations where personal injury may result. Warnings are accompanied by the symbol shown, and precede the topic to which they refer.



### **Caution**

Caution messages alert the reader to situations where equipment damage may result. Cautions are accompanied by the symbol shown, and precede the topic to which they refer.



### **Note**

A note provides additional information, emphasizes a point, or gives a tip for easier operation. Notes are accompanied by the symbol shown, and follow the text to which they refer.



# 1

## Remote Scanner Overview

### Chapter Sections:

- Warnings and Cautions
- Remote Scanner Features
- Byte Ordering
- Minimum PC Requirements
- Hardware Description

## 1.1 Warnings and Cautions

The Remote Scanner is an electrical component and must be treated with the following precautions:



### Warning

Only qualified electrical personnel familiar with the construction/operation of this equipment and the hazards involved should install, adjust, operate, and/or service this equipment. Read and understand this guide in its entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or, in extreme cases, loss of life.



### Warning

You must provide an external, hard-wired emergency stop circuit outside the programmable controller circuitry. This circuit must disable the system in case of improper operation. Uncontrolled machine motion may result if this procedure is not followed. Failure to observe this precaution could result in bodily injury.



### Caution

The Remote Scanner contains static-sensitive components. Careless handling may severely damage the Remote Scanner. Do not touch any of the connectors or pins on the Remote Scanner. When not in use, the Remote Scanner should be stored in an anti-static bag. Failure to observe this precaution could result in damage to or destruction of the equipment.

## 1.2 Remote Scanner Features

The Remote Scanner is an Ethernet interface for communication with DeviceNet and other CAN-based networks. The main features of each channel are:

- RJ45 Ethernet connector
- Male Nano (M8) Remote Scanner power connector
- DeviceNet-compliant Male Micro (M12) connector
- 125K, 250K and 500K for DeviceNet
- Bi-color LEDs showing Remote Scanner status
- Isolated CAN physical layer
- Compatible with CAN specification 2.0 Part A and Part B

## 1.3 Byte Ordering

The Remote Scanner uses Intel-style (little Endian) byte ordering for multi-byte entities LSB-low address and MSB-high address.

## 1.4 Minimum PC Requirements

The minimum PC requirements for the Remote Scanner are:

- 2 GHz or faster
- 1 G RAM or more
- Microsoft Windows 2000 SP4, or Microsoft XP SP2



### Note

Although the Remote Scanner may operate in systems that don't meet the minimum requirements, extended data latencies may occur. Using PC systems that don't meet the minimum requirements is not recommended.

## 1.5 Hardware Description

The Remote Scanner's main features are described in the following sections. For information on dimensions, refer to Section B.1, [Technical Specifications](#).

Figure 1: The SST-EDN-1 Remote Scanner



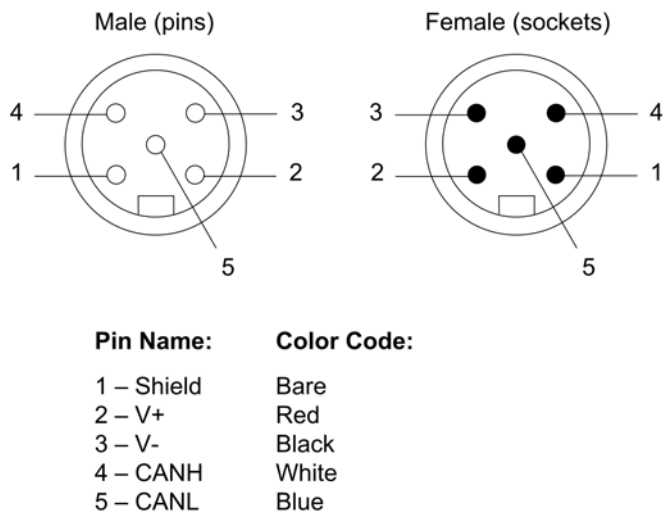
Table 1: Remote Scanner Components

Feature	Description
1	DeviceNet Power LED
2	Remote Scanner Power LED
3	COMM LED
4	HEALTH LED
5	Ethernet Link LED
6	Ethernet Link Speed LED
7	Sys LED
8	Ethernet Activity LED
9	RJ45 Ethernet Connector
10	CAN Connector
11	Remote Scanner Power Connector
12	Ethernet MAC address

## 1.5.1 CAN Connector

The Male Micro (M12) CAN connector conforms to the standard DeviceNet pinout. Pin numbers and names are identified in the figure below.

Figure 2: CAN Connector



### 1.5.1.1 V+, V-

These terminals provide power to the isolated section of the network interface, and must be connected for the Remote Scanner to function. On DeviceNet networks, they connect directly to the “V+” and “V-” wires of the DeviceNet cable. On non-powered CAN networks, they must be connected to an external 11-24VDC supply.

### 1.5.1.2 CAN\_H, CAN\_L

These are the CAN communication bus signal terminals. Use only shielded twisted pair cable.



### 1.5.1.3 SHIELD

This is the shield connector. This terminal is “snubbed” to chassis ground via a 1M-ohm resistor.



#### Note

According to the DeviceNet specification, the snubber circuit can be omitted if the Remote Scanner has no local connection to ground.



#### Note

The shield should be connected directly to earth ground at only one point in the network. Refer to Section 2.4, [Connecting Power, DeviceNet and Ethernet](#), for more information.

### 1.5.2 LEDs

The Remote Scanner has 8 LEDs:

Table 2: LED Descriptions

Feature	Description
1	DeviceNet Power LED
2	Remote Scanner Power LED
3	COMM LED
4	HEALTH LED
5	Ethernet Link LED
6	Ethernet 10/100 LED
7	Sys LED
8	Ethernet Activity LED



#### Note

For information on troubleshooting using LEDs, refer to Section 5.1, [Troubleshooting with the LEDs](#).

### 1.5.2.1 DeviceNet Power LED

The DeviceNet Power LED indicates the detection of CAN network power. For more information, refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 3: DeviceNet Power LED Behavior

Color	Status
Off	The Remote Scanner is not powered
Green	CAN Network power detected
Red	No CAN Network power detected

### 1.5.2.2 Remote Scanner Power LED

The Remote Scanner's Power LED indicates whether the Remote Scanner is powered up. For more information, refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 4: Remote Scanner Power LED Behavior

Color	Status
Off	The Remote Scanner is not powered
Green	The Remote Scanner is powered

### 1.5.2.3 COMM LED

The COMM LED indicates the DeviceNet network status. This LED's behavior is determined by the DeviceNet firmware module. For more details, refer to the SST DeviceNet Scanner Module 3.x Firmware/Windows DLL Reference Guide (717-0001).

Table 5: COMM LED Behavior for DeviceNet Firmware Module 3.X

Colour	Status
Off	Offline
Flashing Green	Online – No Active DeviceNet Connections
Green	Online – At least 1 Active DeviceNet Connection
Red	Bus Off (unrecoverable fault)

### 1.5.2.4 HEALTH LED

The HEALTH LED indicates the channel's health status. For more details, refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 6: HEALTH LED Behavior

Color	Status
Off	Firmware is not yet loaded to the Remote Scanner, or the Remote Scanner is not powered
Green	The firmware is loaded and running
Red	An error occurred during the firmware load, or there is a firmware run-time error

### 1.5.2.5 Ethernet Link LED

The Ethernet Link LED indicates the Ethernet Link Status. For more details, refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 7: Ethernet Link LED Behavior

Color	Status
Off	No Ethernet Link established
Green	Valid Ethernet Link established

### 1.5.2.6 Ethernet 10/100 LED

The Ethernet 10/100 LED indicates the Ethernet Link Speed. For more details refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 8: Ethernet Link LED Behavior

Color	Status
Off	No Ethernet Link established
Green	Remote Scanner has auto-negotiated a 100Mbit/s Ethernet Link
Red	Remote Scanner has auto-negotiated a 10Mbit/s Ethernet Link

### 1.5.2.7 Sys LED

The Sys LED indicates the overall health of the Remote Scanner. For more details, refer to Section 5.1, [Troubleshooting with the LEDs](#).

Table 9: Ethernet Link LED Behavior

Color	Status
Off	Remote Scanner operational
Red	The Remote Scanner has encountered a fatal error

### 1.5.2.8 Ethernet Act LED

Table 10: Ethernet Act LED

Color	Status
Off	No Ethernet activity
Green (solid or blinking)	Ethernet activity present

# 2

## Hardware Installation

### Chapter Sections:

- System Requirements
- Handling Precautions
- Installing the Remote Scanner
- Connecting Power, DeviceNet, and Ethernet

## 2.1 System Requirements

Although the Remote Scanner may operate in systems that don't meet the minimum requirements, extended data latencies may be observed. Using PC systems that don't meet the minimum requirements is not recommended.

- PC with Microsoft Windows 2000 SP4 or XP SP2 or greater. Recommended 2GHz with 1G Ram or better.
- 10/100 MBit Ethernet port. Recommended 100MBit

## 2.2 Handling Precautions

The Remote Scanner contains components that are sensitive to electrostatic discharge (ESD). Do not touch it without following these precautions:



### Caution

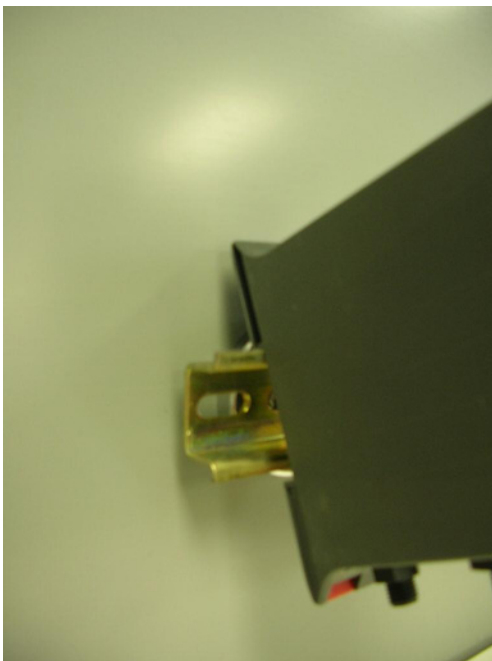
- Always follow correct ESD procedures before handling the card. We strongly recommend the use of a grounding wrist strap.
- Never touch any of the Remote Scanner's connectors or pins.
- When the Remote Scanner is not in use, always store it in its protective anti-static bag.

## 2.3 Installing the Remote Scanner

To install the Remote Scanner:

1. Unplug the power cord and any network cables.
2. Insert the upper part of the Remote Scanner onto the DIN rail.

Figure 3: Remote Scanner Insertion



3. Press until the clip clicks onto the lower part of the DIN rail.

Figure 4: Remote Scanner Installed



4. Connect the power, DeviceNet, and Ethernet cables, as explained in the following section.



### Note

For spacing and orientation requirements, see [Appendix A](#).



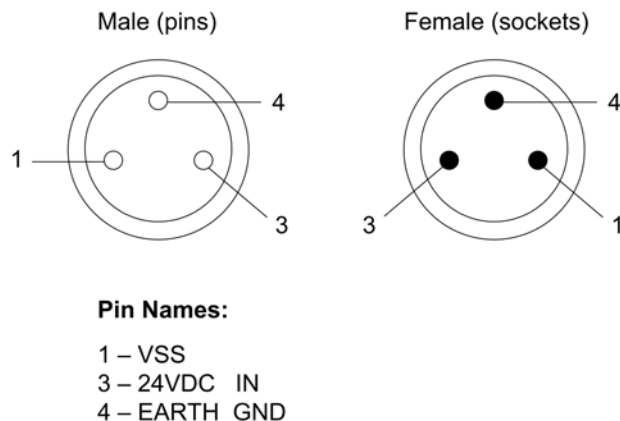
## 2.4 Connecting Power, DeviceNet and Ethernet

### 2.4.1 Connecting Power

The Remote Scanner requires a 10-30 VDC external isolated power supply. For detailed power supply requirements, refer to Section B.1, [Technical Specifications](#).

The Remote Scanner's power connector is a standard Male Nano (M8) connector, as shown below:

Figure 5: Nano (M8) Connector



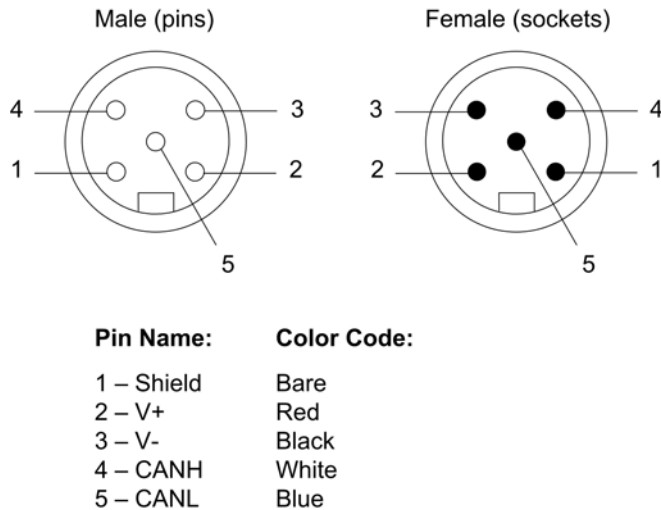
### 2.4.2 Connecting Ethernet

The Remote Scanner's Ethernet connector is a standard RJ45. The RJ45 connector is equipped with a metal shroud with grounding tabs. The shroud and tabs are connected to chassis ground on the Remote Scanner. For recommended installation and grounding procedures, consult the Ethernet infrastructure components (i.e., Ethernet switches) documentation.

### 2.4.3 Connecting to a DeviceNet Network

The DeviceNet connector is a standard Male Micro (M12) CAN connector, as shown below:

Figure 6: CAN Connector



#### 2.4.3.1 Termination

The Remote Scanner does not have a built-in termination resistor. Each network must have two termination resistors, one at each end of the trunk. Always refer to the DeviceNet Specification for proper network termination and wiring directions.

#### 2.4.3.2 Power

Refer to <http://www.odva.org> for basic network guidelines, and to the DeviceNet Specification for proper powering directions.

#### 2.4.3.3 Grounding

The network shield should be connected directly to earth ground at a single point in the network. Refer to <http://www.odva.org> for basic network guidelines, and to the DeviceNet Specification for proper grounding directions.

## **2.4.4 Connecting to a CAN Network**

### **2.4.4.1 Termination**

The Remote Scanner does not have a built-in termination resistor. You must add termination in accordance with the requirements of the target CAN network.

### **2.4.4.2 Power**

The CAN Network must supply 11-24 VDC power.

### **2.4.4.3 Grounding**

For grounding directions, refer to the CAN network documentation.



# 3

## Software Installation

### Chapter Sections:

- Installing the Software and Drivers

## 3.1 Installing the Software and Drivers

Insert the DeviceNet Products installation CD shipped with the Remote Scanner and follow the on-screen instructions.



### Note

By default, the DeviceNet Remote Scanner feature will be checked. This feature is currently not supported on Windows Vista.

You can still install and use the Remote Scanner on Vista, but any applications that support it (e.g., the Console, the Remote Diagnostic Tool) must be run under administrator rights on Vista. You would therefore need to modify the application properties to set the privilege level to **Run this program as an administrator**.

# 4

## Configuration and Diagnostic Software

### Chapter Sections:

- Overview of Card Names



### Note

The software and drivers must be installed before proceeding.  
For details, refer to Section 3.1, [Installing the Software and Drivers](#).

## 4.1 Overview of Card Names

“Card Names” are used by applications when accessing Woodhead Software & Electronics DeviceNet Scanners. Each DeviceNet channel that exists in a system must be assigned a unique “Card Name”. For instance, if a PC system contains a DeviceNet PCI card and a Remote DeviceNet Scanner, a “Card Name” must be assigned to each. Applications can then address a particular DeviceNet module in the system. For more details on how “Card Names” are used by the Application, refer to the SST DeviceNet Scanner Module 3.x Firmware/DLL Reference Guide (717-0001).



### Note

Assigning Card Names to Local cards (e.g., PCI, PC104) will not be discussed in this manual. For details on those products, consult the relevant documentation.

### 4.1.1 Configuring Remote Scanner Card Names

For details on how to configure card names, refer to Section 3.1 of the Remote DeviceNet Diagnostic User Guide (717-0034).



# 5

## Troubleshooting

### Chapter Sections:

- Troubleshooting with the LEDs
- Debugging with Firmware
- Debugging with the Diagnostic Tool



### Warning

Only qualified electrical personnel familiar with the construction and operation of this equipment and the hazards involved should install, adjust, operate, or service this equipment. Failure to observe this precaution could result in severe bodily injury or loss of life.

## 5.1 Troubleshooting with the LEDs

This section describes strategies for troubleshooting the Remote Scanner using LEDs. For LED locations, refer to [Table 1](#) in Section 1.5.

### 5.1.1 HEALTH LED

LED State	Possible Causes	Solutions
Off	No power	<ul style="list-style-type: none"> <li>Apply power to system</li> </ul>
	Remote Scanner did not initialize	<ul style="list-style-type: none"> <li>Hardware failure. Report issue to <a href="#">Technical Support</a>.</li> </ul>
	Remote Scanner not in use	<ul style="list-style-type: none"> <li>An application has yet to connect to the Remote Scanner</li> </ul>
Red	Firmware assert	<ul style="list-style-type: none"> <li>Firmware has stopped due to a fatal error. Report issue to <a href="#">Technical Support</a>. To restart, cycle power to the Remote Scanner.</li> </ul>
Green	Firmware loaded and running	Not applicable

### 5.1.2 COMM LED

For the precise definition of the operation of the COMM LED see the firmware reference manual. In general:

LED State	Possible Causes	Solutions
Off	No communications	<ul style="list-style-type: none"> <li>No other node on network</li> <li>Node at wrong baud rate</li> </ul>
	Not online	<ul style="list-style-type: none"> <li>Issue Online command</li> </ul>
Green	Communications occurring	Not applicable
Flash Green	Online, but not connected	<ul style="list-style-type: none"> <li>Awaiting connection with master</li> </ul>
Red	Communications fault	<ul style="list-style-type: none"> <li>Node at wrong baud rate</li> </ul>
		<ul style="list-style-type: none"> <li>Network errors. Check cabling.</li> </ul>

### 5.1.3 DeviceNet Power LED

LED State	Possible Causes	Solutions
Red	No CAN network power	<ul style="list-style-type: none"> <li>• Check CAN Network power source</li> <li>• Check CAN cabling</li> </ul>
Green	CAN network power applied	Not applicable
Off	The Remote Scanner is not powered up	<ul style="list-style-type: none"> <li>• Power-up the Remote Scanner</li> <li>• Faulty board</li> </ul>

### 5.1.4 Remote Scanner Power LED

LED State	Possible Causes	Solutions
Green	Remote Scanner power applied	Not applicable
Off	The Remote Scanner is not powered up	<ul style="list-style-type: none"> <li>• Apply power to the Remote Scanner</li> <li>• Faulty board</li> </ul>

### 5.1.5 Ethernet Link LED

LED State	Possible Causes	Solutions
Green	Remote Scanner has established an Ethernet link	Not applicable
Off	No Ethernet link established	<ul style="list-style-type: none"> <li>• Ensure that the Remote Scanner is powered up</li> <li>• Ensure that the Remote Scanner is connected to a powered Ethernet switch</li> <li>• Check Ethernet cabling</li> </ul>

### 5.1.6 Ethernet 10/100 LED

LED State	Possible Causes	Solutions
Green	Remote Scanner has auto-negotiated a 100Mbit/s Ethernet link	Not applicable
Red	Remote Scanner has auto-negotiated a 10Mbit/s Ethernet link	Not applicable
Off	No Ethernet link established	<ul style="list-style-type: none"> <li>• Ensure that the Remote Scanner is powered up</li> <li>• Ensure that the Remote Scanner is connected to a powered Ethernet switch</li> <li>• Check Ethernet cabling</li> </ul>

### 5.1.7 Ethernet Act LED

LED State	Possible Causes	Solutions
Off	No Ethernet activity	Not applicable
Green (solid or blinking)	Ethernet activity present	Not applicable

### 5.1.8 Remote Scanner Sys LED

LED State	Possible Causes	Solutions
Off	No fatal errors present	Not applicable
Red	The Remote Scanner has encountered a fatal error	<ul style="list-style-type: none"> <li>Contact <a href="#">Technical Support</a></li> </ul>

## 5.2 Debugging with Firmware

Once firmware has been loaded, every SST DeviceNet firmware module has a common header. This can be retrieved via the Windows32 API call, "GetModuleHeader()". Below is an example of the AMH for the Remote Scanner firmware module. For more information, consult the Firmware Reference Guide.

Table 11: Application Module Header

Offset	Name	Data Type	Description
0000h	ModuleType	CHAR[2]	"DN" (444eh) = card OK "ER" (4552h) = fatal error
0002h	Reserved	UINT2	0000h
0004h	CardId	UINT2	For host application use
0006h	Kernel ID	UINT2	0003h (CAN 2.0 A/B Kernel)
0008h	Kernel Rev	UINT2	Depends on the version used by firmware
000ah	ModuleId	UINT2	Module Id, 0x14 = DNSCAN
000ch	ModuleRev	UINT2	Module revision
000eh	NetSerial	UINT4	DeviceNet serial number
0012h	CardType	CHAR[16]	Card type (i.e., "SST-EDN")
0022h	CardSerial	CHAR[8]	Card serial number
002ah	IrqControl	UINT2	Card interrupt control
002ch	IrqStatusA	UINT1	Card interrupt status A
002dh	IrqStatusB	UINT1	Card interrupt status B
002eh	MainCode	UINT2	Main Application Error Code

Offset	Name	Data Type	Description
0030h	CanStatus	UINT2	CAN status word
0032h	CanTx	UINT2	CAN transmit counter. Incremented when messages are submitted to the CAN controller.
0034h	CanAck	UINT2	CANAck error counter. Incremented when a transmit message is aborted due to lack of acknowledgment from other stations. When CanAck is incremented, CanTx is decremented to compensate for messages not actually transmitted.
0036h	CanRx	UINT2	CAN receive counter. Incremented when messages are received. Messages that fail the receive filter still increment CanRx.
0038h	CanError	UINT2	CAN communication error counter. Incremented when a CAN frame error is detected.
003ah	CanLost	UINT2	CAN lost messages counter. Incremented when a CAN message is received before the previous one is queued.
003ch	CanOverrun	UINT2	CAN receive queue overrun counter. Incremented when a CAN message is lost due to a full receive queue.
003eh	AddCode	UINT2	Additional Application Error Code
0040h	Message	CHAR[60]	When ModuleType is "DN", contains the module identification string. When ModuleType is "ER", contains the kernel error string.
007Ch	Major Tick Interval	UINT2	0005h (ms per tick)
007Eh	Minor Tick Interval	UINT2	1388 (number of minor ticks per major tick)

### 5.3 Debugging with the Diagnostic Tool

For details on debugging software with the Diagnostic Tool, refer to Section 3.6 in the Remote DeviceNet Diagnostic User Guide (717-0034).



# A

## Spacing Requirements

### Appendix Sections:

- Vertical Mounting
- Horizontal Mounting

## A.1 Vertical Mounting

When mounted vertically (connectors facing down), Remote Scanners can have zero space between each other on the DIN rail.

Figure 7: Remote Scanners, Mounted Vertically



In this orientation, the Remote Scanners are rated to operate up to 50 degrees Celsius ambient in a restricted-air-flow environment. “Restricted air flow environment” is defined as an environment without forced air movement, such as a cabinet without fans.



## A.2 Horizontal Mounting

When mounted horizontally (connectors facing to the left or right), Remote Scanners must have a minimum of 5 cm (2 in.) between each other or other components mounted on the same DIN rail.

Figure 8: Remote Scanners, Mounted Horizontally



In this orientation, with a minimum of 5 cm (2 in.) spacing, the Remote Scanners are rated to operate up to 40 degrees Celsius ambient in a restricted-air-flow environment. “Restricted-air-flow environment” is defined as an environment without forced air movement, such as a cabinet without fans.



# B

## Technical Specifications

### Appendix Sections:

- Technical Specifications

## B.1 Technical Specifications

The following tables list the technical specifications for the Remote Scanner.

Table 12: Environmental Specifications

<b>Ambient Conditions</b>	Storage temp:	-40°C to +85°C
	Operating temp:	0°C to 50°C Vertical Mount. For details, refer to <a href="#">Section A.1</a> . 0°C to 40°C Horizontal Mount. For details, refer to <a href="#">Section A.2</a> .
	Humidity:	5% to 95% non-condensing

Table 13: Network Specifications - CAN

<b>Cable</b>	Shielded twisted pair, compatible with target network
<b>Connector</b>	Male Micro (M12)
<b>External Power</b>	11-24 VDC, 50mA (typical)
<b>Isolation</b>	500V
<b>Protocol</b>	CAN 2.0 A/B
<b>Data Rate</b>	Up to 1 Mbaud for CAN 125K, 250K and 500K baud for DeviceNet

Table 14: Network Specifications - Ethernet

<b>Cable</b>	Recommended Cat 5e Shielded
<b>Connector</b>	RJ45
<b>Data Rate</b>	10/100 MBit/s – auto-negotiate

Table 15: Remote Scanner Power

<b>Connector</b>	Male Nano (M8)
<b>External Power Supply Requirements</b>	Isolated 10-30 VDC 0.33A @ 24 volts (typical - per Remote Scanner) 2 Amps @ 24 volts (peak startup inrush current - per Remote Scanner)
<b>Cable Length Requirements</b>	Maximum 3 Meters




# C

## CE Compliance

### Appendix Sections:

- CE Compliance Statement

## C.1 CE Compliance Statement

	
<p><b>DECLARATION DE CONFORMITE</b> <b>DECLARATION OF CONFORMITY</b></p>	
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p><b>CC 07 - 104</b></p> </div>	
<p>I, the undersigned, hereby declare that the equipment named below has been designed to comply with the relevant sections of the below referenced specifications. The unit complies with all essential requirements of the directive.</p>	
<p>Je soussigné, par la présente déclaration, atteste que l'équipement (s) désigné(s) ci-dessous a été conçu pour répondre aux dispositions de la directive ci-dessous et répond aux exigences essentielles de cette directive.</p>	
<p>Application of Council Directive 89/336/EEC – The EMC Directive Application de la Directive du conseil 89/336/CEE - CEM</p>	
<p>EN 61000-6-2 Edition 2001 En 55022 Edition 1998 / A2 Edition 2003 EN 61000-6-4 Edition 2001</p>	
<p>Désignation / <i>Brand name</i> : SST-EDN-1 Remote DeviceNet Scanner Type(s) / <i>Type(s)</i> : GT057 490-1840 and MGT060 490-1845 Revision Hardware / <i>Hardware Revision</i> : 1.2.0</p> <p>Constructeur / <i>Manufacturer's name</i> : Woodhead Software &amp; Electronics <i>Adresse / Manufacturer's address</i> : 43 rue Mazagran 76320 CAUDEBEC LES ELBEUF FRANCE</p>	
<p>aplicom® Direct-Link™ R.J-Linx® SST™</p>	<p><u>Condition de validité du Certificat / <i>Validity requirements for this certificate</i> :</u></p> <p>Cette attestation n'est valable que dans la mesure où l'équipement reste conforme aux normes applicables / <i>This attestation is only valid provided that the equipment continues to comply with the quoted specifications.</i></p> <p>Ce certificat résulte d'essais effectués sur un exemplaire du produit, il n'implique pas une appréciation de l'ensemble de la fabrication des produits de série. <i>This certificate results of the tests done on one sample, it doesn't implicate a valuation of all manufactured equipments.</i></p>
	<p>Caudebec les Elbeuf, le 31 Juillet 2007</p> <p>Damien LETERRIER Engineering Manager</p>

# D

## Warranty and Support

### Appendix Sections:

- Warranty
- Reference Documents
- Technical Support

## D.1 Warranty

For warranty information, refer to: <http://www.mysst.com/warranty.asp>.

## D.2 Reference Documents

- **DeviceNet Specification**
  - CIP Networks Library, Volume I, “Common Industrial Protocol”, Edition 2.2
  - CIP Networks Library, Volume III, “DeviceNet Adaptation of CIP”, Edition 1.1

## D.3 Technical Support

Please ensure that you have the following information readily available before calling for technical support:

- Card model, type and serial number
- Computer’s make, model, CPU speed and hardware configuration (other cards installed)
- Operating system type and version
- Details of the problem you are experiencing: firmware module type and version, target network, and circumstances that may have caused the problem



## D.3.1 Getting Help

Technical support is available during regular business hours by telephone, fax or email from any Woodhead Software & Electronics office, or from <http://www.woodhead.com>. Documentation and software updates are also available on the website.



### Note

If you are using the Remote Scanner with a third-party application, refer to the documentation for that package for information on configuring the software for the card.

## North America

Canada:

Tel: 1-519-725-5136

Fax: 1-519-725-1515

Email: [WoodheadSupportNA@molex.com](mailto:WoodheadSupportNA@molex.com)

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Email: [WoodheadSupportEU@molex.com](mailto:WoodheadSupportEU@molex.com)**Asia-Pacific****Japan:**

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Tel: 86-21-5835-9885

Fax: 86-21-5835-9980

Email: [WoodheadSupportAP@molex.com](mailto:WoodheadSupportAP@molex.com)

For the most current contact details, please visit <http://www.woodhead.com>.

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