Industrial Device Server SDSFX3113-111-LRT and SDSFX3114-111-LRT Serial Device Servers

User Guide



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1. Getting to Know Your Device Server

1.1 About the SDSFX311x-111-LRT Serial Device Server

The SDSFX311x-111-LRT is an innovative 1 port RS232/422/485 to 1 port fiber optical device server. The network fiber port can be multi-mode (SDSFX3113-111-LRT) or single mode (SDSFX3114-111-LRT) for different transmission distances. To assure the agility and security of critical data, the SDSFX311x-111-LRT device servers offer many powerful features for SW redundancy.



The SDSFX311x-111-LRT device servers can simultaneously transfer data to 5 host PCs. This feature can assure all critical data is saved on different servers to avoid loss of data in the event of a network segment or server failure.

The SDSFX311x-111-LRT device servers provide dual redundant power inputs on the DC power jack and terminal block. The SDSFX311x-111-LRT device servers also provide a NAT pass through function so that you are able to manage the SDSFX311x-111-LRT device servers inside or outside the NAT router. It is easy for different IP domains to use SDSFX311x-111-LRT device servers. You can configure and manage the devices by using the SDS-Manager application.

These product numbers are covered in this manual:

SDSFX3113-111-LRT: one 100BASE-FX 1310nm MM (SC) (2 km/1.2 mi.) and one RS232/422/485 DB9 port.

SDSFX3114-111-LRT: one 100BASE-FX 1310nm SM (SC) (30 km/18.6 mi.) and one RS232/422/485 DB9 port.

1.2 Software Features

- NAT Pass-through: Lets you manage the SDSFX311x-111-LRT device servers with a NAT router.
- Redundant Power Inputs: 12~48VDC on terminal block.
- Redundant multiple host devices: five simultaneous connections via Virtual COM, TCP Server, TCP Client mode, UDP.
- Secured Management by HTTPS and SSH.
- Versatile Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP.
- Event Warning via Syslog, Email, and SNMP traps.
- Windows OSes supported: Windows NT/2000/ XP/ 2003/VISTA 32bits/Windows 7 (32/64 bits).

1.3 Hardware Features

- Redundant Power Inputs: 12~48 VDC on terminal block and power jack.
- Operating temperature: -40°C to +70°C
- Storage Temperature: -40 to 85°C.
- Operating Humidity: 5% to 95%, non-condensing.
- Casing: IP-30.
- One 10/100Base-FX Ethernet port.
- Dimensions: Width: 2.83" (72mm); Depth: 1.16" (29.4 mm); Height: 4.86" (123.4 mm).
- Device Weight: 0 .72 lbs. (0.327 kg).

2. Hardware Installation

2.1 Install SDSFX311x-111-LRT on DIN-Rail

Each SDSFX311x-111-LRT has a Din-Rail clip on rear panel. The Din-Rail clip can be used to mount the SDSFX311x-111-LRT on a 35mm Din-Rail.

2.1.1 Mount SDSFX311x-111-LRT on DIN-Rail

Step 1: Slant the SDSFX311X-111-LRT and position the metal spring behind the top edge of the Din-Rail.



Step 2: Push the SDSFX311X-111-LRT down on the Din-Rail until the bottom of the clip grips the bottom edge of the DIN Rail. You may hear a "click" sound when this happens.



2.2 Wall Mounting Installation

Each SDSFX311x-111-LRT also contains a wall mount bracket that can be found in the package. The following steps show how to mount the SDSFX311x-111-LRT on a panel or wall:

2.2.1 Mount SDSFX311x-111-LRT on wall

Step 1: Remove the Din-Rail by removing the 3 screws.



Figure 2-3

Step 2: Use the screws that can be found in the package to install the wall mount bracket.





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The screws specification shows in the following two pictures. In order to prevent SDSFX311x-111-LRT from any damage, the size of screws should not be larger than the size that used for the DIN Rail clip.



Step 3: Mount the SDSFX311x-111-LRT on a panel or wall using the holes in the wall mount bracket.



Figure 2-6

3. Hardware Overview

3.1 Front Panel





- 1. LED for PWR1 and system status. When the PWR1 links, the green LED will light.
- 2. LED for PWR2 and system status. When the PWR2 links, the green LED will light.
- 3. LED of 100Base-FX Ethernet port.
- 4. LED of serial port. Green for transmitting, red for receiving

3.2 Front Panel LEDS

LED	Color	Status	Description
		On	DC power 1 activated.
PWR1	Green/Red	Red blinking	Indicates an IP conflict, or DHCP or BOOTP server did not respond properly
	Croop/Dod	On	DC power 2 activated.
PWRZ	Green/Red	Red blinking	Indicates an IP conflict, or DHCP or BOOTP server did not respond properly
ETH	Green	Green On/Blinking	100Mbps LNK/ACT
Sorial	Green	Blinking	Serial port is transmitting data
Selia	Red	Blinking	Serial port is receiving data

The following table describes the SDSFX311x-111-LRT front panel LEDs.

Table 3-1 Front panel LEDs

3.3 Top Panel

The Top panel components of SDSFX311x-111-LRT are shown as below:

- 1. Terminal block includes: PWR1 (12 ~ 48V DC)
- 2. Power Jack includes: PWR2 (12 ~ 48V DC)
- 3. 100Base-FX Ethernet interface.



Figure 3-2

3.4 Bottom Panel

The bottom panel components of IDS-5011F are shown as below:





- 1. Reset button. Press for 5 seconds to restore factory default settings.
- 2. Male DB9 connector: Serial interface of RS-232/422/485 (2 wire)(4 wire).

DB9 Connector

Pin #	RS 232	RS 422	RS 485 (4 wire)	RS 485 (2 wire)	
1	DCD	RXD -	RXD -		
2	RXD	RXD +	RXD +		
3	TXD	TXD +	TXD +	DATA +	
4	DTR	TXD -	TXD -	DATA -	
5	GND	GND	GND	GND	
6	DSR				
7	RTS				
8	CTS				
9	RI				
RS 232 mod act as DTE					

Table 3-2 Pin assignment



3. DIP Switch: Termination for RS-422/485

DIP 1	DIP 2	Termination Configuration
ON	ON	Termination for long distance 4-wire RS485/422
ON	OFF	Reserved
OFF	ON	Termination for long distance 2-wire RS485
OFF	OFF	No termination for RS485/ 422 (short distance)

Table 3-2 DIP Switch

4. Cables

4.1 Fiber Ethernet Cables

The SDSFX311x-111-LRT device servers have one fiber optical port. The fiber optical port is multi-mode (0 to 2 km, 1310 nm, 50/125 μ m to 62.5/125 μ m) or single-mode (0 to 30 km, 1310 nm, 9/125 μ m) with SC connector. Please remember that the TX port of SDSFX311x-111-LRT device servers should be connected to the RX port of Switch and vice versa.



5. Power Sources

Power Source Options

The SDSFX311x-111-LRT device servers provide 2 different methods of supplying input power.

- 1. Terminal block include: PWR1 (12 ~ 48V DC)
- 2. Power Jack include: PWR2 (12 ~ 48V DC)



Power Supply Options

Depending on the use and location for the serial device server, two different power supply options are recommended.

25135 DIN Rail Mounted Power Supply

The DIN rail power supply is best suited for usage in non-climate controlled environments. In these environments equipment is normally installed inside equipment cabinets with DIN rails for mounting.

Basic Specs:

Input Voltage: 85~264VAC or 120~370VDC Output Voltage: 24VDC Rated Power: 10 Watts Operating Temperature: -40°C to +70°C Screw terminal power connections



SPS-UA12DHT Shelf Mounted Power Supply

The shelf mounted power supply is best suited to areas where the device server may be mounted to a wall and use a standard A/C outlet for powering the device.

Basic Specs:

Input Voltage: 90~264VAC Output Voltage: 12VDC Rated Power: 18 Watts Operating Temperature: 0°C to +70°C Standard A/C plug and barrel connector



6. Management Interface





The SDS-Manager is a powerful Windows utility that supports serial device server discovery, device configuration, group setup, group firmware update, monitoring functions, etc. It makes it easy to install and configure devices over the network.

5.1.1 Install ISDS-Manager

Installing SDS-Manager requires approximately 8785 K of PC memory. The default Destination Directory is *C:\Program Files\SDS-Manager*.

- Step 1: Execute the Setup program; double-click on the SDS-Manager_20150203.exe file.
- **Step 2**: Click "**start**" after selecting the folder for SDS-Manager.

🔏 Installing SDS-Manage	er	
	Destination Directory C:\Program Files\SDS-Manager	
	Required: 8785 K Available: 2289556 K	Browse
		Start <u>E</u> xit

Step 3: When the installation completes successfully, click "OK".



Step 4: Check to launch the SDS-Manager either Now or Later.



Step 5: At the Confirmation dialog, click the Yes button to restart your computer immediately, or click No to restart your computer later.



Step 6: Double-click the he SDS-Manager icon in the icon tray to display the startup screen.



5.1.2 Using SDS-Manager

5.1.2.1 Explore Device Servers

The SDS-Manager startup screen is shown below.

🍠 SDS-Manager					
Eile Device Configuration COM Configu	ration Options Help				
Broadcast Add Device Map	P COM	vcom Wizard Wizard	virmware Wizard		
SDS-Manager	Pefresh		Device List	alive	le warning
VCOM List	+ Number IP address	MAC Address	Name	Model	Status
B					
	er				//

Broadcast button: If you click the **Broadcast** button, the SDS-Manager will broadcast to the network and search all available DS devices in the network. The default IP address of the device is "**192.168.1.77**"; select the device you wish to use and click the "**Add**" button.

Add Device button: select the device you wish to use and click the "Add Device" button.

You can set Static IP address or in DHCP client mode to get an IP address automatically. When done, click the "**OK** "button to add the device.

SDS-Manager Ele Device Configuration _COM Configur	ation	Broadcast Se New Device: 172.16.44 172.16.44 172.16.44 172.16.44	serching s 130_001E-94.01 EALD3 Invalid IP Locked 131_001E-94.01 A95A Invalid IP Locked	C, Alive, Lock		
Broadcast Bevice Brove Map	Com		MAC 00:1E:94:01:EA:D3 Original IP 172:16:44.130 ✓ Using Static IP ✓ Using Static IP Assign Static IP ✓		alive	ilable
€ Setup Wizard → B IP Collection - B System Log			IP Address 17216.44.130 Netmask 255.255.255.0 Gatway 172.16.44.130 DNS1			
		Cance	DNS2 ESA Auto Scan Password	Add		
		A ct	Cancel OK	Your best Click here		

The added device displays in the Device List:

🍠 SDS-Manager						
Ele Device Configuration COM Configuration	figuration Options	Help				
Broadcast		Wizard	vcom Wizard Wizard	Piraware Vizard		
E SDS-Manager	S Refrest			Device List	alive not availat	ple warning
B 5 172.16.44.130	+ Number IP	address	MAC Address	Name	Model	Status
-	1 172	216.44.130	00:1E:94:01:EA:D3	DeviceServer-DEFAULT	5D5TX3110-121-L	R Alive, Locked
Setup Wizard Setup Wizard System Log						

On the Device List, right click a device to display its options.

J SDS-Manager					
File Device Configuration COM Config	uration Options Help				
Broadcast State		VCOM Vizard Wizard Wizard	Viravare Vizard		
SDS-Manager	Retresh		Device List	alive not availab	le warning
B 5 172.16.44.130	+ Number IP address	MAC Address	Name	Model	Status
- y port1 - y port2	1 122.36 44.120 View/Edit Device Set	tings 00 1E:94:01:EA:D3	DeviceServer-DEFAULT	505TX3110-121-LR	Alive, Locked
- 97 port3 - 97 port4 - 464 VCOM List	Locate This Device Turn Locate Off				
Setup Wizerd JP Collection System Log	Remove This Device Remove All Devices				

The options displayed are:

View/Edit Device Settings: displays the Configure Device Servers page and its tabs.

Locate This Device: attempts to locate the device.

Turn Locate Off: turns off the attempt to locate device information.

Remove This Device: deletes the selected instance from the Device List.

Remove All Devices: deletes all configured instances from the Device List.

5.1.2.2 Configure Device Servers

General tab

This page lets you set the device name, SNTP server and Auto IP Report.

a sus manager				
Ble Device Configuration COM Config	uration gations Help			
	General Security Ethernet Model	Vican Vinard Vinard DONS Notification Manager	nert Upgrade Firmwa	we Save/Load
- jý port2 Vil port2	LAN IP Address	LAN MAC Address	Version	Networking
- y post	172.16.44,130	00 1E 94:01 EA:D3	1.0	1 2
Setup Waard A IP Collection System Log	Device Name/Location			M Locate On
	DeviceServer-DEFAULT			
	Using SNTP Time Serv	er 🦵 Auto IP Rej	port	
	Rebesh			Apply Dely 🖉 🛷 Apply and Save

Figure 5-5 General settings tab

The following table describes the labels in this screen.

Label	Description
Device	You can set the device name or related information. Click the "Locate On" button
Name/Location	to locate the serial server's position.
	Input the SNTP server domain name or IP address, port and select the Time
SINTP TIME Server	zone.

Table 5-1 General settings

The IP collection option shows the device server status. The default report interval is 0, indicating disabled, but you can set the other IP or Port.

Security tab

🍠 SDS-Manager		
File Device Configuration COM Configu	uration <u>Options H</u> elp	
Broadcast Add Device	pp COM Usard Vizard Vizard	
🖃 🛋 SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
E-F Device List	Access IP Table Password	
□	IP1 Mask Enabled 🔶 New Password	
port2	IP2 Mask Enabled	
- y port3	IP3 Mask Enabled Confirm New Password	
- c∰a VCOM List	IP4 Mask English	
	DId Password	
IP Collection		
System Log	IP6 Mask Enabled	
	IP7 Mask Enabled	
	S Refresh 🛛 🕹 Apply Only	pply and Save

Figure 5-6 Security tab

The following table describes the labels in this screen.

Table 5-2 Security tab

Label	Description
Accessible IP Table	To prevent unauthorized access by setting host IP addresses and network masks.
Password settings	You can set the password to prevent unauthorized access from your server. The factory default is no password.

Note: The username for the device server login can be changed when using the WEB interface. The username cannot be changed within SDS-Manager. The default username is **root**.

Ethernet tab - PPoE

The **PPoE** tab is shown below.

🍠 SDS-Manager		
Eile Device Configuration COM Configu	uration <u>Options</u> Help	
Broadcast Add Device	p COM Unapp	
⊡@ SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
E - 172.16.44.130	Wire PPPoE	
y port1 y port2 y port3 y port4 c c vCDM List € Setup Wizard y IP Collection y System Log	PPPoE Setting User Name Password Link Status Link down Connect Disconnect	
	🂫 Refresh 🛛 🐟 Apply Only 🔿 A	pply and Save
1		

Figure 5-7 Ethernet tab - PPoE

Label	Description
User Name	Entry field for the user's name.
Password	Entry field for the user's password.
Link Status	Displays the current link status (e.g., Link up or Link down).
Connect button	Click to make the connection when complete.

Ethernet tab - Wire

The **Wire** tab is shown below.

🍠 SDS-Manager		
<u>File</u> <u>Device</u> Configuration <u>COM</u> Configu	ration <u>Options</u> <u>H</u> elp	
Broadcast Add Device	Image: Communication of Communicatio of Communication of Communication of Communication of	
E SDS-Manager	General Security Ethemet DDNS Notification Management Upgrade Firmware Save/Load	
Device List Tr2 16 44 130	Wire PPPoE	
port1	🔽 Using Static IP 🛛 🔲 Using DHCP/BOOTP	
g port3	Static IP Settings	
port4	IP Address 172.16.44.130	
ਦ ∰ Setup Wizard	Netmask 255.252.0	
🦾 🥃 System Log	Gateway 172.16.44.21	
	DNS1 172.16.44.151	
	DNS2	
	<u></u>	
	🎽 Refresh 🛛 🐟 Apply Only	pply and Save

Figure 5-7 Ethernet tab - Wire

Label	Description
Using Static IP	Allows manually assigning an IP address.
Using DHCP/BOOTP	IP Address automatically assigned by a DHCP server in your network.
IP Address	The device's IP address.
Netmask	All devices on the network must have the same subnet mask to communicate on
	the network.
Gateway	Enter the IP address of the router in your network.
DNS 1 / DNS 2	Enter the IP address of the DNS server; The DNS server translates domain names
	into IP addresses.

Transition Networks

DDNS tab

Here you can enable or disable DDNS globally and configure DDNS settings.

🍠 SDS-Manager	
<u>File Device Configuration</u> COM Configu	ration <u>Options</u> <u>H</u> elp
Broadcast Add Bevice	VCOM UIII Device Vizard Vizard Vizard Vizard
E SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load
Device List Device List 0 -	DDNS Enable DDNS Setting Service Provider ezip
	Hostname Account
	Password
	Check WAN IP Schedule Every Hour Start at O (Hour): O (Minute)
	🍳 Apply Only 🌏 Apply and Save

Figure 5-8 DDNS tab

Label	Description
DDNS Enchlo	Enable or Disable DDNS (Dynamic DNS) on a global basis (at the
DDNS Enable	system level). The default is Disabled.
	At the dropdown select ezip, pgpow, dhs, constanttime, dyndns,
Service Provider	dyndns-static, dyndns-custom, ods, tzo, easydns, easydns-partner,
	gnudip, justlinux, dyns, hn, zoneedit, heipv6tb, or 3322.
Hostname	Set the device name or related information.
Account	The serial server's position.
Deserverd	You can set the password to prevent unauthorized access from your
Password	server. The factory default is no password.
	At the dropdown select every hour, day, week or month and select the start time
Check WAN IP Schedule	in hours and minutes.

Notification tab - SNMP Trap

Here you can specify the events that should be sent to the administrator of events alarmed by SNMP trap, Email Notification, Syslog Notification, and or Fault LED/Relay.

🍠 SDS-Manager	
Eile Device Configuration COM Configu	uration Options Help
Broadcast Device Bevice	p com United Factor Done Done Done Done Done Done Done Done
SDS-Manager → ■ ■ > > > > > > > > > > > > > > > > > <	Image: Control of the second of the secon
	Redundant Power Changed Redundant Ethernet Changed Trap Server1 Trap Server2 Tra
	Trap Server3 Trap Server4

Figure 5-8 Notification tab - SNMP Trap

Label	Description
SNMP Trap	To notify events by SNMP trap.
Email Notification	To notify events by Email.
Syslog Notification	To notify events by Syslog.
Notifed Items	Events to be notified.
Trap Server 1-4	The IP addres for up to four SNMP Trap Servers.
Apply Only	Apply current setting.
Apply and Save	Apply and save current setting.

Notification tab - Email Notification

Here you can specify the events that should be sent to the administrator by E-mail.

🍠 SDS-Manager		
File Device Configuration COM Con	ifiguration Options Help	
Broadcast Device	Map COM Ungard Wizard Wizard Wizard	
⊡	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
⊡ -	SNMP Trap 🔽 Email Notification 🔽 Syslog Notification 🔽 Fault LED/Relay	
— y port2 → port3	Email Settings	
y port4 y port4 Generation	Notified Items Imadware Reset (Cold Start) Di_1 Changed Power 1 Fault Software Reset (Warm Start) Di_2 Changed Power 2 Fault Login Failed Di_3 Changed POE Fault IP Changed Di_4 Changed Eth 1 Link Down Password Changed D0_1 Changed Eth 2 Link Down Access IP Blocked D0_2 Changed Eth 2 Link Down Redundart Power Changed D0_3 Changed SMTP Settings SMTP Settings Port Port	
	25	
	Authentication Required	
	Email List Email Address 1 Email Address 3 Sender	
	Email Address 2 Email Address 4	
	Sefresh Apply Only	pply and Save
-		

Figure 5-9 Notification tab - Email Notification

Label	Description
Email Notification	To notify events by Email.
Notifed Items	Events to be notified. The default is all disabled (unchecked).
SMTP Server	The IP address of the SMTP Server.
Port	The SMTP Server's port number (port 25 by default).
Authentication Required	Checkbox to enable or disable authentication.
Email Address 1-4	The Email address where notifications are to be sent.
Sender	The Email sernder's name.

Notification tab - Syslog Notification

Here you can specify the events that should be notified to the administrator by System log.

🍠 SDS-Manager		
File Device Configuration COM Configu	ration Options Help	
Broadcast Add Device	Image: Source bound of the second	
⊡@ SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
⊡ -	SNMP Trap 🔽 Email Notification 🔽 Systog Notification 🔽 Fault LED/Relay	
port2	Syslog Settlings	
port3	Notified Items	1
J port4 c∰a \(CDM Lise	☐ Hardware Reset (Cold Start) ☐ DI_1 Changed	
Est VCOM List	Software Reset (Warm Start) DI_2 Changed Power 2 Fault	
IP Collection	Login Failed Di_3 Changed POE Fault	
🧕 System Log		
	Access IP Blocked DO_2 Changed	
	🔽 Redundant Power Changed 📁 D.O3 Changed	
	🥅 Redundant Ethernet Changed 🥅 DO_4 Changed	
	System Log Settings	
	Server IP Port	
	0 Using Current Host's Log Server	
	Nefresh Apply Only	opply and Save

Figure 5-9 Notification tab - Syslog Notification

Label	Description
Syslog Notification	To notify events by system log.
Notifed Items	Events to be notified.
Server IP	The Syslog server's IP address.
Port	The Syslog server's port number (0 by default).
Using Current Host's Log Server	Click the button to use the local host's Syslog server.

Notification tab - Fault LED/Relay

Here you can specify the events that should be notified to the administrator by Fault

LED/Relay.

🍠 SDS-Manager		
File Device Configuration COM Configu	uration <u>O</u> ptions <u>H</u> elp	
Broadcast Add Device	Device Vizard Vizard Vizard Vizard	<u>^</u>
🖃 🛋 SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
Device List Device List Order Order	SNMP Trap Email Notification Syslog Notification Fault LED/Relag Fault LED/Relag Notified Items Power 1 Fault Power 2 Fault POE Fault POE Fault Eth 1 Link Down	
🗠 🦉 System Log	Eth 2 Link Down	and Save

Figure 5-10 Notification tab - Fault LED/Relay

Label	Description
Fault LED/Relay	To notify events by fault LEDs/Relay.
Notifed Items	Events to be notified.
Power 1 Fault	Notification if a Power 1 fault occurs.
Power 2 Fault	Notification if a Power 2 fault occurs.
Eth Link 1 Down	Notification if Ethernet Link 1 is down.
Eth Link 2 Down	Notification if Ethernet Link 2 is down.

Management tab

🍠 SDS-Manager	
Eile Device Configuration COM Configu	ration Options Help
Broadcast Device Remove Device	VCOM VCOM Wizard Wizard
⊡-• SDS-Manager	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load
E S 172.16.44.130	Web Management Enable Goto Web Management
ÿ port2 ∵© port3	Telnet Management Enable Goto Telnet Management
port4	SNMP Management Enable
	SNMP Management Settings
System Log	Community
	Location
	Contact
	Trap Server1
	Trap Server2
	Trap Server3
	Trap Server4
	🧐 Refresh

Figure 5-9 Management tab

The following table describes the labels in this screen.

Label	Description	
Web Management Enable	To enable management from Web. Click the "Goto Web Management"	
	button to access the web.	
Telnet Management Enable	To enable management by Telnet. Click "Goto Telnet Management"	
	button to execute Telnet command.	
SNMP Management Enable	To enable management by SNMP.	
SNMP Management Settings	To configure SNMP related settings (SNMP Community, Location,	
	Contact, and Trap Servers 1-4 IP addresses).	

Table 5-4 Managementtab settings

Upgrade Firmware tab

🍠 SDS-Manager		
File Device Configuration COM Configu	ration <u>Options</u> <u>H</u> elp	
Broadcast Device	p com Vizard Vizard	^
⊡	General Security Ethernet DDNS Notification Management Upgrade Firmware Save/Load	
 Device List T2.16.44.130 	Firmware Image	
y port1 y port2	Browsing Upgrade	
سي port3 سي port4 ⊷ظي VCOM List		~

Figure 5-10 Upgrade Firmware tab

The following table describes the labels in this screen.

Label	Description
Firmware Image	The filename of the FW image (.dat file).
Browsing	Browse the file and upgrade.
Upgrade	Enable the firmware upgrade.

Table 5-5 Upgrade Firmware tab settings

Save/Load tab

🍠 SDS-Manager	
<u>File</u> <u>D</u> evice Configuration <u>C</u> OM Configu	ration <u>O</u> ptions <u>H</u> elp
Broadcast Add Device May	Com Unare Wizard Wizard
SDS-Manager SDS-Manager T2216.44.130 Sport1 Sport2 Sport4 Sport4 Student Stude	General Security Ethemet DDNS Notification Management Upgrade Firmware Save/Load Save Configuration to Flash Save Save/Load Save/Load Load Default Save/Load Default Save/Load Default Save/Load Default Reboot Device Save/Load Default Save/Load Default Save/Load Default Import/Export Configuration Save/Load Default Save/Load Default Save/Load Default
	THetresh Apply Only Apply and Save

Figure 5-11 Save / Load tab

The following table describes the labels in this screen.

Label	Description
Save Configuration to Flash	Apply and Save to apply the selected config file and save current
	configuration into flash memory.
Load Default	Load default configuration except the network settings. If you want to load all
	factory defaults, press the " Reset " button on the device (Hardware restore).
Reboot Device	Reboot the device server (warm start).
Import Configuration	Restore the previous exported configuration.
Export Configuration	Export the current configuration to a file to backup the configuration.

Table 5-6 Save / Load tab settings

5.1.2.3 Configure Serial Port

🦻 SDS-Manager	
Elle Device Configuration COM Configuration Options Help	
Vicon Device Finaware Broadost Berroe Map COM Wizard Wizard Wizard SDS-Manager Sofial Settings Service Mode Notification Device List rot rot	
Image: port interface Port Alias Port Alias Port Alias Image: port interface Image: port interface Performant Image: port interface Performant Performant	pe Throughput
Delimiter Settings System Log Delimiter Settings Serial to Ethernet Ethernet to Serial Delimiter 1 Delimiter 2 Delimiter 3 Delimiter 4 Delimiter 1 Delimiter 2 Delimiter 3 Delimiter 4 Delimiter 5 Enabled Flush Ethernet to Serial Data Buffer After Delimiter 5 Delimiter 6 Delimiter 6	ta 3 Jifer
Pefresh	Apply Only 😽 Apply and Save
·	

Serial Settings



Label	Description
Port Alias	Text label on the port to describe the connected device.
	110bps/300bps/1200bps/2400bps/4800bps/9600bps/19200bps/
Daudrale	38400bps/57600bps/115200bps/230400bps/460800bps
Stop Bits	Select 1, 2, or (1.5) stop bits.
Data Bits	Select 5, 6, 7, or 8 data bits.
Parity	Select No, Even, Odd, Mark, or Space parity.
Flow Control	Select No, XON/XOFF, RTS/CTS, or DTR/DSR Flow Control.
Interface	RS232 / RS422 / RS485(2-wires) / RS485(4-wires)
Performance	Throughput: This mode optimizes for highest transmission speed.
	Latency: This mode optimizes for shortest response time.
Serial to Ethernet	Delimiter: You can define a maximum of 4 delimiters (00~FF, Hex) for each
	communication direction. The data will be held until the delimiters are received
	or the option "Flush Serial to Ethernet data buffer" times out. 0 will disable
	this feature (factory default).
	Flush Data Buffer After: The received data will queue in the buffer until all the

	delimiters are matched. When the buffer is full (4K Bytes) or after "flush S2E data
	buffer" timeout the data will also be sent. You can set the time from 0 to 65535
	seconds.
	Delimiter: You can define a maximum of 4 delimiters (00~FF, Hex) for each
Ethernet to Serial	communication direction. The data will be hold until the delimiters are received
	or the option "Flush Ethernet to Serial data buffer" times out. 0 will disable
	this feature (factory default).
	Flush Data Buffer After: The received data will queue in the buffer until all the
	delimiters are matched. When the buffer is full (4K Bytes) or after "flushE2S
	data buffer" timeout the data will also be sent. You can set the time from 0 to
	65535 seconds.
Force TX Interval Time	Force TX interval time is used to specify the timeout when no data has been
	transmitted. When the timeout is reached or the TX buffer is full (4K Bytes), the
	queued data will be sent. 0 means to disable. Factory default value is 0.

Table 5-7 Serial settings

Service Mode – Virtual COM Mode

In Virtual COM Mode, the driver establishes a transparent connection between host and serial device by mapping the serial device server serial port to a local COM port on the host computer. Virtual COM Mode supports up to 5 simultaneous connections, so that multiple hosts can send or receive data via the same serial device at the same time.

🍠 SDS-Manager	
Broadcast Device	p COM Com Vizard Vizard Vizard
SDS-Manager SDS-Manager Gene List Gene 172.16.44.130 Gene 172.16.44.1	Serial Settings Service Mode Notification Port1 Service Mode Virtual COM Mode Virtual COM Mode Virtual COM Settings Misc.
	Image: Weight of the second secon
	Max Connections 3 Image: Connections Destination Host VCDM Name 1 Image: VCDM connection of the conneconnection of the connection of the
	Waiting for VCDM connect Goto VCom Image VCom Waiting for VCDM connect Goto VCom Image VCom Waiting for VCDM connect Goto VCom Image VCom
	Refresh

Figure 5-13 Virtual COM mode

The following table describes the labels in this screen.

Label	Description
Map Virtual COM	Click to select a Virtual COM Name to map on.
Max Connections	The maximum number of simultaneous connections is 5: the default value is 1.
Idle Timeout	When serial port stops data transmission for a defined period of time (Idle Timeout), the
	connection will be closed and the port can try to connect with other hosts. 0 disables this
	function (factory default). If Multilink is configured, only the first host connection is effective
	for this setting.
Alive Check	The serial device will send TCP alive-check package in each defined time interval (Alive
	Check) to remote host to check the TCP connection. If the TCP connection is not alive, the
	connection closes and the port is freed. 0 disables this feature (default).

Table 5-8 Virtual COM

*Mapping Virtual COM ports is not available in the device web interface

Service Mode – TCP Server Mode

In TCP Server Mode, the device server is configured with a unique Port combination on a TCP/IP network. In this case, the device server waits passively to be contacted by the device. After a connection is established, it can then proceed with data transmission. TCP Server mode supports up to 5 simultaneous connections, so that multiple devices can receive data from the same serial device at the same time.

🍠 SDS-Manager	
File Device Configuration COM Configura	ation Options <u>H</u> elp
Broadcast Device Remove Map	Composition Victorial Device Firmware
E-E Device List	Seral Sections Service mode Notification
	Service Mode TCP Server Mode
g port2	TCP Server Mode
y port3	TCP Server Settings
VCOM List	Encryption with SSL Telnet Negotiation Idle Timeout 340 (0-65535) Seconds
⊡ Setup Wizard IP Collection	Data Port 10040 Auto Scan Alive Check 40 (0-65535) Seconds
System Log	Control Port 10041
	Max Connections
	Refresh
	Destination Host
	Disconnect
	2
	3 Disconnect
	🍫 Refresh 🕹 Apply Only 🌏 Apply and Save
<u> </u>	

Figure 5-13 TCP Server mode

Label	Description
TCP Server	Encryption with SSL: TCP Server uses Secure Socket Layer encryption.
Settings	Telnet Negotiation: TCP Server uses Telnet Negotiation protocol encryption.
Data Port	Set the port number for data transmission.
Auto Scan	Scan the data port automatically.
Idle Timeout	When serial port stops data transmission for a defined period of time (Idle Timeout), the
	connection will be closed and the port will be freed and try to connect with other hosts.
	A value of 0 disables this function. The factory default value is 0. If Multilink is configured,
	only the first host connection is effective for this setting.
Alive Check	The serial device will send TCP alive-check package in each defined time interval (Alive
	Check) to remote host to check the TCP connection. If the TCP connection is not alive,
	the connection will be closed and the port will be freed. 0 disables this function. The
	factory default is 0.
Max Connection	The SDS supports up to 5 simultaneous connections; the default value is 1.

Service Mode – TCP Client Mode

In TCP Client Mode, the device can establish a TCP connection with a server by the method you have selected (Startup or Any Character). After the data has been transferred, device can disconnect automatically from the server by using the TCP alive check time or Idle time settings.

🍠 SDS-Manager	
File Device Configuration COM Configurat	tion Options Help
SDS-Manager File Device Configuration COM Configuration Percentional Device Device Device Device List SDS-Manager Device List Percention Port 21: 16: 44: 130 Port 21: 16: 44: 150 Port 21: 16: 45: 45: 45: 45: 45: 45: 45: 45: 45: 45	tion Options Help Vicand Vizard Vizard Vizard Vizard Vizard Vizard Vizard Vizard Vizard Serial Settings Service Mode Notification pott Service Mode TCP Client Mode TCP Client Mode Bestination Host Pont Interview Interview Vizard Vizard
	3eQA Auto Scan
	4 E& Auto Scan
	Refresh 🌏 Apply Only 🌛 Apply and Save

Figure 5-14 TCP Client mode

Label	Description	
Destination Host	Set the IP address of host.	
Port	Set the port number of data port.	
	When serial port stops data transmission for a defined period of time (Idle Timeout), the	
Idle Timesut	connection will be closed and the port is freed to try to connect with other hosts. A value of	
	0 disables this function (factory default). If Multilink is configured, only the first host	
	connection is effective for this setting.	
	The serial device will send TCP alive-check package in each defined time interval (Alive	
Alive Check	Check) to remote host to check the TCP connection. If the TCP connection is not alive, the	
Alive Check	connection will be closed and the port will be freed. A value of 0 disables this function	
	(factory default).	
Connect on		
Startup	The TCP Client will build TCP connection once the connected serial device is started.	
Connect on Any	The TCP Client will build TCP connection once the connected serial device starts to send	
Character	data.	

Service Mode – UDP Mode

Compared to TCP communication, UDP is faster and more efficient. In UDP mode, you can Uni-cast or Multi-cast data from the serial device server to host computers, and the serial device can also receive data from one host or from multiple hosts.

SDS-Manager	
e Device Configuration COM Configuration Options Help	
Add Add Add Add Add Add Add Add Bevice Map Map Map Map Map Map	
SDS-Manager Setial Settings Service Mode Notification	
Device List port	
IZ_16.44.13U Service Mode UDP Mode ▼	
g port2 UDP Mode	
- y port3	1
UDP Settings	
vCDM List Listening Port 10040 ₽ Auto Scan	
tires seup weard	
S System Lon Multilink	
Destination Host Begin Destination Host End Sending Port	
to PG Auto Scan	
2	
to es Auto Scan	
-2	
to PALA Auto Scan	
j to j <u>eSA</u> Auto Scan	
😒 Refresh 💦 🕹 Apply 2nt	d Save

Figure 5-15 UDP mode

Label	Description
Listening Port	The UDP listening port (e.g., port number 10040).
Auto Scan	Click to automatically scan for a UDP listening port.
Destination Host Begin	Enter a beginning IP address for the destination host address.
Destination Host End	Enter an ending IP address for the destination host address.
Sending port	Enter the sending port number.
Notification

Specify the events to be noticed and select the method (E-mail, SNMP trap, System log).

🍠 SDS-Manager					
Broadcast Add Bevice	Device Device Wizard Wizard Wizard				
⊡ — 🗐 SDS-Manager	Serial Settings Service Mode Notification				
	SNMP Trap V Email Notification V Systog Notification				
y port2	SNMP Settings Email Settings Suslag Settings				
g port3 g port4 VCOM List € Setup Wizard JP Collection g System Log	Notified Items CTS Changed DDD Changed Port Connected RI Changed Port Disconnected Trap Server1				
	Trap Server2				
	PRefresh	ply and Save			

Figure 5-16 Notification

The following table describes the labels in this screen.

Label	Description
DCD Changed	When DCD (Data Carrier Detect) signal changes, it indicates that the modem connection
DCD Changed	status has changed. Notification will be sent.
DSP Changed	When DSR (Data Set Ready) signal changes, it indicates that the data communication
DSK Changed	equipment is powered off. A Notification will be sent.
PI Changed	When RI (Ring Indicator) signal changes, it indicates that the incoming of a call.
Ki Changed	A Notification will be sent.
CTS Changed	When CTS (Clear To Send) signal changes, it indicates that the transmission between
CTS Changed	computer and DCE can proceed. A notification will be sent.
	In TCP Server Mode, when the device accepts an incoming TCP connection, this event
Port Connected	will trigger. In TCP Client Mode, when the device has connected to the remote host, this
	event will trigger. In Virtual COM Mode, Virtual COM is ready to use. A notification is sent.
	In TCP Server/Client Mode, if the device loses the TCP link, this event will trigger. In
Port Disconnected	Virtual COM Mode, when Virtual COM is not available, this event will trigger. A notification
	will be sent.

5.1.2.4 VCOM List

At the VCOM List, click the Select Monitor Items button to display the Available and Selected Monitor Items.

🗦 SDS-Manager						
File Device Configuration COM Configuration	File Device Configuration COM Configuration Options Help					
Broadcast Add Device Total Remove Total Add Total Remove	Available Monitor Items	Selected Monitor Items Number VCDM Device Name P Address MAC Status	EQ. Select Monitor Items AC Status Image: Status Image: Status			
	Cancel	OK				
_			J			
·						

Label	Description		
Available Monitor Items	Check one or more items for selection. Use the green right arrow button to		
	move a selected item to the Available Monitor items column.		
Selected Monitor Items	Check one or more items for selection. Use the red left arrow b utton to		
	move a selected item to the "Available Monitor Items" column.		
Cancel	Click to cancel any changes.		
ОК	Click to OK any changes.		

5.1.2.5 Setup Wizard

The Setup Wizard provides links to the Virtual COM Wizard, Serial Tunnel Wizard, Group IP Wizard, Group Setup Wizard, and Group Firmware Wizard.



Virtual COM Wizard lets you set up the device serial port and map it to Virtual COM port.

STEP 1. Select serial port(s) from available devices.

STEP 2. Setup serial ports configuration, baudrate, data bits...etc.

STEP 3. Select the Virtual COM naming.

STEP 4. Done.

Serial Tunnel Wizard helps you couple two serial devices to directly communicate by Ethernet without the PC.

STEP 1. Select two devices that should be tunneled together

STEP 2. Select serial parameters such as baud rate, data bits.

STEP 3. Finish.

Group IP Wizard helps you configure the IP addresses of a group of new devices. The devices

already in the configuration list will not be included.

STEP 1. Locate the new devices by broadcast or by IP range.

STEP 2. Configure the IP range or DHCP IP.

STEP 3. Start

Group Setup Wizard helps you to copy one device settings to the other same models. If the listbox is empty, then no devices were located. Please search and add the devices again.

Select a Device Model	
	-
SDSTX3110-121-LRT	
SDSFX3113-111-LRT SDSTX3110124-LRT	

- STEP 1. Select the device model.
- STEP 2. Select the source device and destination devices.
- STEP 3. Select the device and port settings to copy
- STEP 4. Start copying

Group Firmware Wizard helps you to update firmware for a group of devices.

- STEP 1. Select the device model.
- STEP 2. Select the target devices.
- STEP 3. Select the new firmware.
- STEP 4. Go.

5.1.2.6 IP Collection

🖻 SDS-Manager					
File Device Configuration COM Configu	ration Options Help				
Broadcast Add Device Map		vcom Wizard Wizard Wizard Vizard	are ard X	^	
	Port Number: 60001	Update		=	
⊡ 5 0 172.16.44.131 ⊡ 5 0 172.16.44.132	+ IP Address	Device Name	Model	Last Reported Time	
j port1					
in 172.16.47.156					
- COM List					
IP Collection					
System Log					
				<u> </u>	

Label	Description
Port Number	The IP collection port number (e.g., port number 60001.
Update	Button to update the information display.
IP Address	The reported IP address.
Device Name	The reported device's name.
Model	The reported model.
Last Reported	The day, data and time of the last report
Time	

5.1.2.7 System Log

Displays log messages if any are found.

🍠 SDS-Manager		×
File Device Configuration COM Configu	ration <u>Options</u> <u>H</u> elp	
Broadcast Add Bevice Ma	Image: Second	
E⊶¶ SDS-Manager È⊶¶ Device List	Log Message	
	No Log file found!	
Gen VCUM List Generation Ge	Year 2015 Mon Tue Wed Thu Fri Sat Sun Total Log Message Lines 0 Month 3 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	

Label	Description
	The related log file message. Displays 'No Log file found!' if none reported.
Log Message	Double-click an instance to display event specifics.
Year	Select the year.
Month	Select the month.
Day	Select the day (Mon - Sun).
Total Message Lines	Displays the number of lines currently shown.
Clear Log Message	Click to clear the log messages displayed.

5.1.2.8 Top Bar Icons - Remove Device

Clicking the Remove Device icon lets you delete an added (existing) device from the device list.



5.1.2.9 Map COM

Clicking the Map COM icon lets you map an existing COM port.

5.1.2.10 Unmap COM

Clicking the **Unmap COM** icon lets you unmap an existing mapped COM port.

5.1.2.11 Wizard

Clicking the **Wizard** icon displays the Welcome to Wizard Center where you can select the various Wizards.See the related section.

5.1.2.12 vcom Wizard

Clicking the vcom Wizard icon displays the Virtual COM Wizard; see the related section.

5.1.2.13 Device Wizard

Clicking the Device Wizard icon displays the Group Setup Wizard; see the related section.

5.1.2.14 Firmware Wizard

Clicking the **Firmware Wizard** icon displays the Group Firmware Wizard; see the related section.









5.1.2.15 Top Bar Dropdown Menu Items

The Top Bar (drop down) menu items provide a set of functions similar to the left pane menu items.

File options

The options presented here include New/Load/Save SDS-Manager configs, Wizards for Virtual COM,

Serial Tunnel, Group IP/Setup/Firmware, and Exit.



Device Configuration options

These options include Broadcast Search, Add Device by IP, Remove Device, and Import/Export Device Configuration functions.

3 s	DS-Manager	
File	Device Configuration COM Configura	ition Options Help
1	🚰 Broadcast Search	Vcom Device Firmware
/// Broa	Add Device by IP	Mizard Wizard Wizard
•••• /	Import Device Configuration Export Device Configuration Setup Wizard	SDS-Manager

Options > Network Bandwidth options

Here you can select from four network BW categories: 1. Intranet, T1 or faster. 2. Internet, ADSL or cable modem. 3. Modem, wireless or lower. 4. 3G, ping time > 3 seconds.



Help > Help option

The Help > Help Options menu provides the Serial Management Tool HELP in several categories.



Help > Help About option

This menu option displays version, build, and copyright information.

About	X
Ţ	SDS-Manager
2	Version 1.0 (Build Feb32015112758)
	Copyright 2015 TRANSITION Co., Ltd.
	1
	OK

Exit the SDS-Manager

If you right-click the SDS-Manager icon in the Windows icon tray and select Exit, the Quit dialog displays with the message "*Keep the virtual COM running?*".



The options here are:

Cancel: cancel the exit attempt and return to the SDS-Manager.

No, remove the virtual COM.: quit the SDS-Manager and remove the configured virtual COM.

Yes, keep the virtual COM resident.: quit the SDS-Manager and keep the configured virtual COM resident.

5.2 Configuration by Web Browser

The SDS-Manager lets you configure the System, Port Serial Setting, Management, and Reset / Restore / Backup / Upgrade /Reboot functions.

5.2.1 CONNECT TO THE WEB PAGE

- Input the Device Server IP address "https://192.168.1.77" in the Internet Explorer Address input box.
- 2. Click "Yes" button on the dialog box.





3. Input the name (admin) and password (admin) (only if password is set), then click "OK".



Close all
Serial Device Server
System
Time(SNTP)
File Configuration
DDNS Configuration
User Authentication
Serial Setting
Serial Configuration
Port Profile
Service Mode
Service Mode
SMTP/SNMP Conf.
System Event Conf.
Syste

4. Enter the IP Address and MAC Address for the device at the System Information page.

5. Navigate to the System > Time(SNTP) menu to configure SNTP and Telnet Console access at the SNTP Configuration page. Click the **Apply** button when done.

Name: DeviceServer-DEFAULT

SNTP: Enable or Disable SNTP globally. The default is Disable.

Time Zone: e.g., (GMT-12:00)Eniwetok,

(GMT-06:00)Central Time (US & Canada) or (GMT+08:00)Taipei.

Local Time: e.g., Fri Feb 6 07:59:18 CST 2015.

Telnet Console: select Enable or Disable for the Console access. The default is telnet access Enabled.

6. Navigate to System > IP Configuration to configure IP and Ethernet mode parameters. Click Apply when done.

TRANSITION

TRANSITION

IP Configuration: At the dropdown, select **Static**, **DHCP/BOOTP**, or **PPPoE**. The default is **Static**.

Using Static IP allows manually assigning an IP address.

Using DHCP/BOOTP an IP Address is automatically assigned by a DHCP server in your network.

Using **PPPoE** allows Point-to-Point Protocol over Ethernet as the network protocol for encapsulating PPP frames inside Ethernet

TRANSITION SDSTX	3110-121-LRT		
een all Senial Device Server IP Confi System Time(CNTP)	iguration		
P Configuration 20	P Configuration	Static	
User Authentication Port Denial Defing	P Address	172.16.44.129	
Management N SaveReboot	etmask	255-255-252-0	
G Help	ateway	172.16.44.21	
D	NS Server 1	172.16.44.151	
D	NS Server 2		
A	uto IP Report		
^	uto Report to IP		
^	uto Report to TCP Port	0	
A	uto Report Interval	0 seconds	
	themet Mode		
e	themet Mode	S Redundant Switch	
	aba l		

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172.16.44.129

er-DEFAUL

SDSTX3110-121-LRT

System Information IP Address

MAC Address

SDSTX3110-121-LRT SNTP Configuration

ne Zo

frames. The "PPPoE Setting" page displays with "User Name" and "Password" entry fields, a read-only "Status" field, Connect and Disconnect buttons, and the Return button.

You must assign a valid IP address for the serial device server before attaching to your network. Your network administrator should provide you the IP address and related settings. The IP address must be unique within the network (otherwise, DS will not have a valid connection to the network). The factory default IP address is "192.168.1.77"

Time Server: e.g., pool.ntp.org.

Port: e.g., commonly used port number 123.

Netmask: e.g., **255.255.252.0**. All devices on the network must have the same subnet mask to communicate on the network.

Gateway: Assign the IP address of the gateway

DNS Server 1: Enter the IP address of the DNS server; The DNS server translates domain names into IP addresses.

DNS Server 2: Enter a DNS Server address for a second DNS server or leave blank.

Auto Report to IP: enter an IP address for the auto IP reporting.

Auto Report to TCP Port: enter a TCP port for auto reporting to this TCP port.

Auto Report Interval: the time interval between reports in seconds. The default is **0** seconds. The device server will report its status periodically.

7. For DDNS (Dynamic DNS) configuration, navigate to the **System** > **DDNS Configuration** menu and configure the related parameters. Click the

TRANSITION

SDSTX3110-121-LRT

Apply

Every Hour 💌 start at 0 : 0

Apply button when done.

DDNS: select **Enable** or **Disable** DDNS on a global basis (at the system level). The default is **Disable**d.

Service Provider: at the dropdown select ezip,

pgpow, dhs, constanttime, dyndns, dyndns-static, dyndns-custom, ods, tzo, easydns, easydns-partner, gnudip, justlinux, dyns, hn, zoneedit, heipv6tb, or 3322.

Host Name: Sets the DDNS host device name

Account: Sets the login name for the DDNS service

Password: Sets the login password for the DDNS service

Check WAN IP Schedule: at the dropdown select every hour, day, week or month and select the start time in hours and minutes.

8. Configure User Authentication via the the
System > User Authentication menu. Enter
the User Name, old password, enter and
confirm the new password, and then click the
Apply button.

TRANSITION NETWORKS.	SDSFX3113-111-LRT	
open at Senia Device Server • System • Traccimitty	User Authentication	
 IP Configuration DOAS Configuration 	User Name	root
 User Authentication Port Serial Setting 	Old Password	[
 Management SaveFleboot 	New Password	[
R Hep	Confirm New Passwo	rd
	Annha	

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Transition Networks

9. Navigate to the **Port Serial Setting** > **Serial Configuration** menu and configure the related parameters. Click the **Apply** button when done.

open

Port: At the Port dropdown, select Port 1, 2, 3, or 4.

Port Alias: e.g., Port1.

Interface: At the dropdown, select RS232, RS422, RS485(2-wires), or

RS485(4-wires). The default is RS232.

Baud Rate: At the dropdown, select 110, 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, or 460800 bps baud rate. The default is 38,400 bps.

RANSITION NETWORKS.	SDSTX3110-124-LRT				
all Serial Device Server System Port Serial Setting	Serial Configuration				
Serial Configuration		Port1 ¥			
Senice Mode	Port Alias	Port1			
Save/Reboot	Interface	R\$232 ¥			
HED	Baud Rate	38400 ¥			
	Data Bits	8 💌			
	Stop Bits	1 💌			
	Parity	None 💌			
	Flow Control	None			
	Force TX Interval Time	0 ms			
	Performance	Throughput O Latency			
	Apply				

Data Bits: At the dropdown, select 8, 7, 6, or 5 data bits.

Stop Bits: At the dropdown, select 1 or 2(1.5) stop bits.

Parity: At the dropdown, select None, Odd, Even, Mark, or Space parity.

Flow Control: At the dropdown, select None, XON/XOFF, RTS/CTS, or DTR/DSR.

Force TX Interval Time: use to specify the timeout when no data has been transmitted. When the timeout is reached or TX buffer is full (4K Bytes), the queued data will be sent. An entry of **0** disables this function. The factory default value is **0**.

Performance: click the radio button for either Throughput or Latency mode, where:

Throughput mode is optimized for highest transmission speed.

Latency mode is optimized for shortest response time.

10. Navigate to the Port Serial Setting > Port Profile menu and configure the related parameters.

Click the **Apply** button when done.

Port: At the Port dropdown, select Port 1, 2, 3, or 4.

Local TCP Port: enter the port number of the local TCP port (e.g., port 4000).

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 DSTX3110-124-LRT

 Set of runk
 DSTX3110-124-LRT

 Construction
 DSTX3110-124-LRT

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 DSTX3110-124-LRT

 Mode
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 Set of runk
 DSTX3110-124-LRT

 Mode
 Set of runk

 Set of runk
 DSTX3110-124-LRT

 Mode

Mode: the current mode (Serial to Ethernet or Ethernet to Serial).

Flush Data Buffer After: the meaning depends on the 'Mode' setting above:

If Mode is *Serial to Ethernet*, the received data is queued in the buffer until all the delimiters are matched. When the buffer is full (4K Bytes) or after "flush S2E data buffer" timeout, the data is also sent. Set the time from 0 - 65535 seconds.

If Mode is *Ethernet to Serial*, the received data is queued in the buffer until all the delimiters are matched. When the buffer is full (4K Bytes) or after "flush E2S data buffer" timeout, the data will also be sent. Set the time from 0 - 65535 seconds.

Delimiter(Hex 0~ff): the meaning depends on the 'Mode' setting above:

If 'Mode' is **Serial to Ethernet**, you can define up to four delimiters (00~FF, Hex) for each. The data is held until the delimiters are received or the option "Flush Serial to Ethernet data buffer" times out. A **0** entry disables this function (factory default value).

If 'Mode' is *Ethernet to Serial*, you can define upt to four delimiters (00~FF, Hex) for each. The data is held until the delimiters are received or the option "Flush Ethernet to Serial data buffer" times out. A **0** entry disables this function (factory default setting).

11. Navigate to the **Port Serial Setting** > **Service Mode** menu and configure the related parameters. Click the **Apply** button when done. The parameters are described below.

Data Encryption: enable or disable data encryption globally. The default is Disabled.

Service Mode: At the dropdown, select Virtual COM Mode, TCP Server Mode, TCP Client Mode, or UDP Mode. Click the **Apply** button when done. The parameter descriptions are below:

In Virtual COM Mode, the driver establishes a transparent connection between host and serial device by mapping the Port of the serial server serial port to local COM port on the host computer. Virtual COM Mode also supports up to five simultaneous connections, so that multiple hosts can send or receive data by the same serial device at the same time.

In TCP Server Mode, DS is configured with a unique Port combination on a TCP/IP network. In this case, DS waits passively to be contacted by the device. After the device establishes a connection with the serial device, it can then proceed with data transmission. TCP Server mode also supports up to five simultaneous connections, so that multiple device can receive data from the same serial device at the same time.

In **TCP Client Mode**, the device can establish a TCP connection with a server by the method you set (Startup or Any Character). After the data is transferred, the device can disconnect automatically from the server by using the TCP Alive Check time or Idle timeout settings.

In **UDP Mode**, you can Uni-cast or Multi-cast data from the serial device server to host computers, and the serial device can also receive data from one or multiple host. Compared to TCP communication, UDP is faster and more efficient.

Telnet Negotiation: Displays only if 'Data Encryption' is Disabled (see above). The default is Disabled.

Destination Host: Displays only in 'TCP Client Mode' and if 'Data Encryption' is Disabled (see above).

Destination Port: e.g., 65535. Displays only in 'TCP Client Mode' and if 'Data Encryption' is Disabled (see above).

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Idle Timeout: when serial port stops data transmission for a defined period of time (Idle Timeout), the connection will be closed and the port will be freed and try to connect with other hosts. The valid range is 0-65535 seconds. An entry of 0 disables this feature (factory default value). If Multilink is configured, only the first host connection is effective for this setting.

Alive Check: the serial device will send TCP alive-check package in each defined time interval (Alive Check) to remote host to check the TCP connection. If the TCP connection is not alive, the connection will be closed and the port will be freed. The valid range is 0-65535 seconds. An entry of 0 disables this feature (factory default value). The factory default is **0**.

Connect on: check the Startup or Any Character radio button. The parameters are:

Connect on Startup: the TCP Client will build TCP connection once the connected serial device is started.

Connect on Any Character: the TCP Client will build TCP connection once the connected serial device starts to send data.

Max Connection: up to five simultaneous connections are supported; the default value is 1 connection.

Service Mode Sample Screens

Service Mode = Virtual COM Mode

CPU AND	SDSTX3110-121-LR Service Mode	іт	
Serial Configuration		Port1	
Service Mode	Data Encryption	○ Enable ④ Disable	
Save/Reboot	Service Mode	Virtual COM Mode 🛩	
E Picip	Idle Timeout	0 (0~65535)seconds	
	Alive Check	40 (0~65535)seconds	
	Max Connection	1 w max. connection (1~5)	
	Apply		

Service Mode = TCP Server Mode

	SDSTX3110-124-LR Service Mode	T	
Setial Configuration		Porti V	
Senice Mode	Data Encryption	© Enable ⊙ Disable	
SaveRebost	Service Mode	TCP Server Mode M	
B Hep	Telnet Negotiation	⊙ Enable . ● Disable	
	TCP Server Port	4000	
	Idle Timeout	0 (0~65535)seconds	
	Alive Check	40 (0~65535)seconds	
	Max Connection	1 w max. connection(1~5)	
	Max Connection	1 max. connection(1~5)	

Service Mode = TCP Client Mode

SDSTX3110-121-L Service Mode	RT	
	Port1	
Data Encryption	O Enable @ Disable	
Service Mode	TCP Client Mode	
Destination Host	: 4000	
Idle Timeout	0 (0~65535)seconds	
Alive Check	40 (0~65535)seconds	
Connect on	Startup O Any Character	
Destination Host	Port	
1.	65535	
2.	65535	
3.	65535	
4.	65535	
	SDSTX3110-121-L Bervice Mode Data Encryption Service Mode Destination Hose Life Destination Hose Life Life Life Life Life	SDSTX3110-121-LET Service Mode Pertinent Reserved

Service Mode = UDP Mode

open all Serial Device Server System System	SDSTX3110-12 Service Mode	1-LRT			
Serial Configuration		Port1	Port1		
Service Mode	Service Mode	UDP Mode			
SaveReboot	Listen Port	4000	4000		
Help	Host start IP	Host end IP	Send Port		
	1.		65535		
	2.		65535		
	3.		65535		
	4		65535		

Access IP Control Lis

12 13

12. Navigate to the **Management > Access IP Control** menu and configure the related parameters.

The Access IP Control settings let you add or block the remote host IP addresses to prevent unauthorized access. If a host's IP address is in the accessible IP table, then the host will be allowed to access the device server. You can control device server access by setting the parameter.

- a) Only one host with a special IP address can access the device server, "IP address /255.255.255.255" (e.g., "192.168.0.1/255.255.255.255").
- b) Hosts on a specific subnet can access the device server. "IP address/255.255.255.0" (e.g., "192.168.0.2/255.255.255.0").
- c) Any host can access the device server. Disable this function by un-checking the "Enable IP Filter" checkbox.

The parameters are described below.

Enable IP Filtering: Not checking this option will allow any IP to have assessibility.

No.: column with lines for instances 1-16.

Activate the IP: check the checkbox to activate this IP.

IP Address: entry box for the IP address for the entity.

Netmask: entry box for the IP address for the entity (e.g., 255.255.252.0).

Click the **Apply** button when done.

13. Navigate to the Management > SMTP/SNMP Conf menu and configure the related parameters. Here you can configure E-Mail Settings, server authentication, SNMP Trap Servers and Syslog Server parameters as described below.

SMTP Server configuration includes the mail server's IP address or domain. If the authentication is required, specify your Username and Password. You can specify up to four Email addresses to receive the notification.

SNMP Server configuration includes the SNMP Trap

Server IP address, Community, Location and Contact.	There are 4 SNMP	addresses	you can
specify to receive the notification.			

e assessibility.		
:2.0) .		

E-mail Settings	
SMTP Server	Port 25
My server require	res authentication
User Name	
Password	
E-mail Sender	
E-mail Address 1	1
E-mail Address 2	2
E-mail Address 3	3
E-mail Address 4	•
SNMP Trap Serve	r
SNMP Server 1	
SNMP Server 2	
SNMP Server 3	
SNMP Server 4	
Community	
Location	
Contact	
Syslog Server	
Syslog Server IP	•
Syslog Server Po	ort 0
Apply	

SMTP/SNMP Configuration

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SysLog Server configuration includes the server IP and server Port. This option must be used with SDS-Manager.

Click the **Apply** button when done.

14. Navigate to the **Management** > **System Event Conf** menu and configure the Device Event Notification and Port Event Notification parameters.

Hardware Reset (Cold Start) refers to starting the system from power off (contrast this with warm start). When performing a cold start, DS will automatically issue an Auto warning message by sending E-mail, log information or an SNMP trap after booting.

Software Reset (Warm Start) refers to restart the computer without turning the power off. When performing a warm start, DS will automatically send an E-mail, log information or SNMP trap after reboot.

Login Failed: when an unauthorized access from the Console or Web interface, a notification will be sent.

System Event Configuration

Device Event Notification				
Hardware Reset (Cold Start)	SMTP Mail	SNMP Trap	Syslog	
Software Reset (Warm Start)	SMTP Mail	SNMP Trap	Syslog	
Login Failed	SMTP Mail	SNMP Trap	Syslog	
IP Address Changed	SMTP Mail	SNMP Trap	Syslog	
Password Changed	SMTP Mail	SNMP Trap	Syslog	
Access IP Blocked	SMTP Mail	SNMP Trap	Syslog	
Redundant Power Changed	SMTP Mail	SNMP Trap	Syslog	
Redundant Ethernet Changed	SMTP Mail	SNMP Trap	Syslog	
Port Event Notification				
DCD Changed	SMTP Mail	SNMP Trap	Syslog	
DSR Changed	SMTP Mail	SNMP Trap	Syslog	
RI Changed	SMTP Mail	SNMP Trap	Syslog	
CTS Changed	SMTP Mail	SNMP Trap	Syslog	
Port Connected	SMTP Mail	SNMP Trap	Syslog	
Port Disconnected SMTP Mail SNMP Trap Syslog				

Apply

IP Address Changed: when IP address of device changes, a notification will be sent.

Password Changed: when password of device changes, a notification will be sent.

Access IP Blocked: when the host accesses the device with blocked IP addresses, a notification will be sent.

Redundant Power Change: when status of power changed, a notification will be sent.

Redundant Ethernet Change: when the status of an Ethernet port changes, a notification will be sent.

DCD changed: when DCD (Data Carrier Detect) signal changes, it indicates that the modem connection status has been changed. A Notification will be sent.

DSR changed: when DSR (Data Set Ready) signal changes, it indicates that the data communication equipment is powered off. A Notification will be sent.

RI changed: when RI (Ring Indicator) signal changes, it indicates an incoming call. Notification will be sent.

CTS changed: when CTS (Clear To Send) signal changes, it indicates that the transmission between computer and DCE can proceed. A notification will be sent.

Port connected In TCP Server Mode, when the device accepts an incoming TCP connection, this event will be trigger. In TCP Client Mode, when the device has connected to the remote host, this event will be trigger. In Virtual COM Mode, Virtual COM is ready to use.

A notification will be sent.

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Transition Networks

Port disconnected: In TCP Server/Client Mode, when the device loses the TCP link, this event will trigger. In Virtual COM Mode, when Virtual COM is not available, this event will trigger. A notification will be sent.

Click the **Apply** button when done.

15. Navigate to the **Save/Reboot** menu to Reset to Factory Defaults, Restore Configuration, Backup Configuration, Upgrade Firmware, and/or Reboot the Device as described below.

Factory Default: Click the Reset button to load the default configuration (except Network settings).

If you want to load <u>all</u> factory defaults, press and hold the device's **Reset** button for about five seconds for a Hardware restore.

Restore Configuration: Browse to and select the firmware image to upgrade to be restored. Click the Restore button to restore the previously exported configuration. Choose a file to upload and click Restore. Firmware version and Uptime information displays with the message "*Please click [Restart]*

	Factory Default
ver	Reset to default configuration.
9	Reset
	Bestore Configuration
	You can restore the previous saved configuration to Device Server.
	File to restore: Browse
	Restore
	Backup Configuration
	You can save current EEPROM value from the Device Server as a backup file of configuration.
	Backup
	Upgrade Firmware
	Specify the firmware image to upgrade. Note: Please DO NOT power off this device while upgrading firmware.
	Firmware: Browse.
	Upgrade
	Reboot Device
	Please click [Reboot] button to restart device.
	Rebot

button to restart Ser2Net. All Config setting must reboot to make it work". Click the Restart button.

Backup Configuration: Click the **Backup** button to export the current configuration to a file. This lets you save the current EEPROM value from the Device Server as a backup file of configuration. At the dialog, select 'save' this file. At the 'Save As' dialog, specify the save location.

Upgrade Firmware: Browse to and select the firmware image to upgrade to. <u>Note</u>: Do NOT power off this device while upgrading firmware. Click the **Close** button when done.

Reboot Device: Click the Reboot button to reboot the device.

Help Screen

The Device Server helps screen is shown and described below.

SNTP Configuration: Server name display, Date and time update, Time server address assign, Telnet/ssh console enable, disable function.

	SDSF Web	X3114-121-LRT	r help
SaveRebost		SNTP Configuration	Server name display, Date and time update, Time server address assign, Teinet/ssh console enable, disable function.
		IP Configuration	Lan static IP ,dynamic IP or PPPOE setting, Autoip report Setting.
		Ddns Configuration	Ddns Service Provider, Host Name, Account, Password, Check Wan Ip Schedue Setting.
		User Authentication	Assign a password to provide security during remote management.
		Serial Configuration	Baud rate, start bits, data bits, stop bits, flow control, UART FIFO.
		Port Profile	Operation mode, Data Encryption, Server Telnet Negotiation, TCP alive check, inactivity, delimiters, force transmit timeout.
		Access IP Control List	Set up an IP address table for access permission.
		SMTP/SNMP Conf.	Auto warning E-mail and SNMP Trap settings.
		System Event Conf.	Set up pre-defined events that will trigger the auto warning alarm.
		Return to Default	Reset to Factory Default settings.

IP Configuration: Lan static IP , dynamic IP ,or PPPOE setting, Autoip report Setting.

Ddns Configuration: Ddns Service Provider, Host Name, Account, Password, Check Wan Ip Schedue Setting.

User Authentication: Assign a password to provide security during remote management. **Serial Configuration**: Baud rate, start bits, data bits, stop bits, flow control, UART FIFO.

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Port Profile: Operation mode, Data Encryption, Server Telnet Negotiation, TCP alive check, inactivity, delimiters, force transmit timeout.

Access IP Control List: Set up an IP address table for access permission.

SMTP/SNMP Conf.: Auto warning E-mail and SNMP Trap settings.

System Event Conf.: Set up pre-defined events that will trigger the auto warning alarm.

Return to Default: Reset to Factory Default settings.

5.1.2 Uninstall the SDS Manager

1. Close the SDS-Manager if it is running.

2. Select the Windows Start -> All Programs -> SDS Manager -> uninstall menu.

3. A .bat file screen displays momentarily and then the SDS icon is removed from the Windows icon tray.

5.1.3 Messages

Message: There is a problem with this website's security certificate.



Message: SDS-Manager is running. Please close it, then do uninstall.



5.3 Configuration by SSH Console

5.3.1 Connect to SDS Commander

You can use an SSH tool (e.g., PuTTY) to access the SDS SSH console (shown below). The default password is '**admin**'. The SDS Commander functions are shown below.

*** TRANSITION Industrial Serial Device Server Commander ***

Input System Password: *****
[SUPERCOM iCOM3000 Series]
1. Overview
2. General Settings
3. Network Settings
4. Ports settings
5. Security(Accessible IP) Settings
6. Notification(Auto Warning) Settings
A. DDNS setting
C. Change Password
L. Load Factory Default
S. Save configuration
R. Reboot
Q. Exit & Logout
Select one function (0-9,A,C,L,S,R,Q):

Each of the SDS Commander functions is shown below.

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Figure 5-30. SSH Connection - Main menu



Figure 5-31. SSH Connection - 1. Overview menu

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🗬 172.16.44.129 - PuTTY		
Select one function (O-	-9,A,C,L,S,R,Q): 2	^
[General Settings]		
<basic setting=""></basic>		
1. Device name :	DeviceServer-DEFAULT	
<sntp time=""></sntp>		
2. SNTP Enable Enabl	Le	
3. SNTP server :	pool.ntp.org	
4. Port :	123	
5. Time Zone :	Canada/Central	
<management></management>		
6. Web console :	Enable	
<snmp management=""></snmp>		_
7. Community :		
8. Location :		
9. Contact :		
Q. Exit		
Select one function (1-	-8,Q):	~

Figure 5-32. SSH Connection - 2. General Settings



Figure 5-33. SSH Connection - 3. Network Settings

PuTTY 372.16.44.129 - PuTTY	
Select one function (0-9, A, C, L, S, R, Q): 4	~
[Ports setting] 1. port1 (Port0) Q. Exit	
Select port or (Q)uit:	~

Figure 5-34. SSH Connection - 4. Ports Settings

🖨 172.16.44.129 - PuTTY		
Select one function (C	-9, A, C, L, S, R, Q): 5	^
[Access IP Setting]		
IP Address	Netmask	
1. IP-1		
2. IP-2		
3. IP-3		
4. IP-4		
5. IP-5		
6. IP-6		
7. IP-7		
8. IP-8		
9. IP-9		
10. IP-10		
11. IP-11		
12. IP-12		
13. IP-13		
14. IP-14		
15. IP-15		
16. IP-16		
Q. Exit		
Select one function (1	-16,Q):	~

Figure 5-35. SSH Connection - 5. Security(Accessible IP) Settings



igure 5-36. SSH Connection - 6. Notification(Auto Warning) Settings

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P 172.16.44.130 - PuTTY	
Select one function $(0-9, \lambda, C, L, S, R, Q)$: c	
[Change Password] Input old password:	v

Figure 5-38. SSH Connection - C. Change Password

P 172.16.44.129 - PuTTY	
Select one function (0-9, A, C, L, S, R, Q): 1	~
[Load Default] Are you sure? (Y/N)	×

Figure 5-39. SSH Connection - L. Load Factory Default

₽ 172.16.44.129 - PuTTY	
Select one function $(O-9, \lambda, C, L, S, R, Q)$: s	<u>^</u>
[Save to file] Are you sure? (Y/N)	~

Figure 5-40. SSH Connection - S. Save configuration



Figure 5-41. SSH Connection - R. Reboot

7. Technical Specifications

Network Interface				
Ethernet	1x 100Base-FX with SC connector			
Drete colo	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS,			
FIOLOCOIS	SMTP, SSL, PPPoE, DDNS			
Serial Interface				
	(1) DB9M			
	Protocols: RS-232/422/485 (2 and 4 wire)			
	Baud Rates: 110bps to 460Kbps			
	Data Bits: 5, 6, 7, 8			
	Partiy: Odd, Even, None, Space			
Serial Interface	Stop Bits: 1, 1.5, 2			
	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND			
	RS-422: Tx+. Tx-, Rx+, Rx-, GND			
	RS-485 (4 wire): Tx+. Tx-, Rx+, Rx-, GND			
	RS-485 (2 Wire): Data+, Data-, GND			
	Flow Control: XON/XOFF, RTS/CST, DTR/DSR			
	SDSFX3113-111-LRT: One 100BASE-FX 1310nm MM (SC) [2 km/1.2 mi.]			
Connectore	and one RS232/422/485 DB9 port.			
Connectors	SDSFX3114-111-LRT: One 100BASE-FX 1310nm SM (SC) (30 km/18.6 mi.]			
	and one RS232/422/485 DB9 port.			
Carial Line Dratestian	Built-in15KV ESD protection			
Senal Line Protection	2KV DC isolation for each port (SDSFX311x-111-LRT-I+ only)			
	PWR (1)(2) / Ready:			
	1) Red On: Power is on and booting up.			
LED Indicators	Red Blinking: Indicates an IP conflict, or DHCP or BOOTP server did not			
	respond properly.			
	2) Green On: Power is on and functioning normally.			
	Green Blinking: Located by Administrator.			
	ETH1(2) Link / ACT:			
	Green ON/Blinking:100 Mbps Ethernet			
	Serial TX / RX LEDS:			

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	Red: Serial port is receiving data		
	Green: Serial port is transmitting data.		
Power Requirements			
Dower Input	PWR1/2: 12~48VDC		
Power input	3-PIN Terminal Block, power jack		
Reverse Polarity Protection	Present at terminal block		
Power Consumption	4 Watts		
Software Utility			
	SDS-Manager for Windows NT/2000/XP/ 2003/VISTA/ Windows 7 (32/64		
	bits)		
	Device discovery		
	Auto IP report		
11026	Device setting (run-time change, no rebooting)		
Utility	Access control list		
	Group setting		
	Device monitoring		
	Serial port monitoring		
	Log info		
	Group Firmware update		
	Virtual Com / TCP Server / TCP Client / UDP /Serial Tunnel		
	TCP Alive Check Timeout		
Serial Mode	Inactivity Timeout		
	Delimiter for Data Packing		
	Force TX Timeout for Data Packing		
Multiple Link	5 Hosts simultaneous connection: Virtual Com /		
	TCP server / TCP Client / UDP		
VCOM Driver	Windows NT/2000/XP/2003/VISTA/Windows 7 (32/64 bits)		
Configuration	Web HTTPS console, SSH console, Console Command		
Configuration	SDS-Manager for Windows NT/2000/XP/VISTA		
Environmental			
Operating Temperature	-40 to 70°C (-40 to 185°F)		
Operating Humidity	5% to 95%(Non-condensing)		
Storage Temperature	-40 to 85°C (-40 to 185°F)		
Mechanical			
Dimensions(W x D x H)	72mm(W)x123.4mm(D)x29.4mm(H)		
Casing	IP-30 protection		

Regulatory Approvals	
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
EMI	FCC Part 15, CISPR22 / EN55022 Class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS); EN61000-4-4 (EFT);
	EN61000-4-5 (Surge); EN61000-4-6 (CS)
MTBF	561,145 Hrs.
Warranty	Lifetime

8. Troubleshooting

1. Is the **PWR1** or **PWR2** LED blinking Red?

YES

- Check if an IP conflict exists. Re-install the device. See the Network Setting section.
- Check if DHCP or BOOTP server did not respond properly. See the installation instructions.
- Proceed to step 2.
- 2. Is one of the Green Power LEDs (PWR, PWR1 PWR3) lit?

NO

- Is the power source live and to spec?
- Is the power adapter properly installed?

YES

- Proceed to step 3.
- 3. Check the P7 and P8 LEDs. Are the Green for port Link/Act or Amber for Link LEDs lit?

NO

• Verify that the fiber cable requirements are met.

YES

• Proceed to step 4.

For unresolved issues:

• Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

Troubleshooting Q&A

Q1: Should SDS-Manager x64 install into "Program Files (x86)" directory on Win7 x64 (or into "Program Files" directory)?

A1: Yes, the difference of the X64 version of SDS-Manager is the VCOM driver install location, but not necessarily the other files. So it will be put into "Program Files (x86)" in the default directory.

Q2: SDS-Manager GUI indicates the DUT's DB9 port being set to RS232 while the DUT's hardware DIP switch indicates that it is set to RS485 (which takes precedence? Why is there a discrepancy)
A2: The dip switch is for the RS-422/485 termination but not the mode. The mode can only be changed by using software.

Q3: Using the SDS-Manager to map a device to a COM port, and then using TeraTerm to connect to that COM port results in the COM port being listed twice in TeraTerm (a COM port should only show up once).

A3: This problem not found when using other Terminal software.

Q4: COM ports mapped by the SDS-Manager do not show up in Windows Device Manager (they should).

A4: It's designed not to show up in Windows' Device Manager.

Q5: While setting up a second unit, this warning displayed during discovery of device that was directly connected to the second PC and nothing else: "*IP 192.168.1.77 will be collision with other device. Please select another IP again.*" The other device server used the same IP, but they weren't connected together, which means either there was a bug and the warning was invalid, or the devices somehow communicated wirelessly.

A5: Check if this PC is connected with any device with the same IP address. Try to clear the ARP table of this PC.

9. Safety Warnings and Cautions

These products are not intended for use in life support products where failure of a product could reasonably be expected to result in death or personal injury. Anyone using this product in such an application without express written consent of an officer of Transition Networks does so at their own risk, and agrees to fully indemnify Transition Networks for any damages that may result from such use or sale.

Attention: this product, like all electronic products, uses semiconductors that can be damaged by ESD (electrostatic discarge). Always observe appropriate precuations when handling.



Warning: Potential for damage to equipment or personal injury.



Warning: Risk of Electrical Shock



Protective grounding point

Special considerations

10. Service, Warranty and Tech Support

Contact Us

Technical Support

Technical support is available 24 hours a day. US and Canada: 1-800-260-1312 International: 00-1-952-941-7600 Transition Now 7:00 AM to 6:00 PM CST Voice Mail: 800-260-1312 x 579 or 952-941-7600 x 579 Chat live via the Web with Transition Networks Technical Support. Log onto www.transition.com and click the Tech Support/Transition Now link. **Web-Based Seminars** Transition Networks provides seminars via live web-based training.

Log onto www.transition.com and click the Learning Center link.

E-Mail

To ask a question anytime, send an e-mail to our technical support staff at techsupport@transition.com.

Address

Transition Networks 10900 Red Circle Drive, Minnetonka, MN 55343, U.S.A. Telephone: 952-941-7600 Toll free: 800-526-9267 Fax: 952-941-2322

Warranty

This warranty is your only remedy. No other warranties, such as fitness for a particular purpose, are expressed or implied. Transition Networks is not liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory. Authorized resellers are not authorized to extend any different warranty on transition networks' behalf.

Effective for products shipped May 1, 1999 and after. Every Transition Networks' labeled product purchased after May 1, 1999 will be free from defects in material and workmanship for its liftime. This warranty covers the original user only and is not transferable.

What the Warranty Does Not Cover

This warranty does not cover damage from accident, acts of God, neglect, contamination, misuse or abnormal conditions of operation or handling, including over-voltage failures caused by use outside the product's specified rating, or normal wear and tear of mechanical components. If the user is unsure of the proper means of installing or using the equipment, contact Transition Networks' free technical support services.

Establishing Original Ownership

To establish original ownership and provide date of purchase, please complete and return the registration card accompanying the product or register the product on-line on our product registration page.

Transition Networks will at its option:

- •Repair the defective product to functional specifications at no charge
- •Replace the product with an equivalent functional product
- •Refund the purchase price of a defective product

Who to Contact for Returns

To return a defective product for warranty coverage, contact Transition Networks' technical support department for a return authorization number. Transition's technical support department can be reached through any of the following means:

How and Where to Send Returns

Send the defective product postage and insurance prepaid to the following address:

Transition Networks, Inc.

10900 Red Circle Drive

Minnetonka, MN 55343 USA

Attn: RETURNS DEPT: CRA/RMA # _____

Failure to properly protect the product during shipping may void this warranty. The return authorization number must be written on the outside of the carton to ensure its acceptance. We cannot accept delivery of any equipment that is sent to us without a CRA or RMA number.

CRA's are valid for 60 days from the date of issuance. An invoice will be generated for payment on any unit(s) not returned within 60 days.

Upon completion of a demo/ evaluation test period, units must be returned or purchased within 30 days. An invoice will be generated for payment on any unit(s) not returned within 30 days after the demo/ evaluation period has expired.

The customer must pay for the non-compliant product(s) return transportation costs to Transition Networks for evaluation of said product(s) for repair or replacement. Transition Networks will pay for the shipping of the repaired or replaced in-warranty product(s) back to the customer (any and all customs charges, tariffs, or/and taxes are the customer's responsibility).

Before making any non-warranty repair, Transition Networks requires a \$200.00 charge plus actual shipping costs to and from the customer. If the repair is greater than \$200.00, an estimate is issued to

the customer for authorization of repair. If no authorization is obtained, or the product is deemed 'not repairable', Transition Networks will retain the \$200.00 service charge and return the product to the customer not repaired. Non-warranted products that are repaired by Transition Networks for a fee will carry a 180-day limited warranty. All warranty claims are subject to the restrictions and conventions set forth by this document.

Transition Networks reserves the right to charge for all testing and shipping incurred, if after testing, a return is classified as "No Problem Found."

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. TRANSITION NETWORKS IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON TRANSITION NETWORKS'S BEHALF.

Customer Pays Non-Compliant Return Costs

The customer must pay the non-compliant product(s) return transportation cost to Transition Networks for evaluation of said product(s) for repair or replacement. Transition Networks will pay for shipping the repaired or replaced in-warranty product(s) back to the customer (any and all customs charges, tariffs, or/and taxes are the customer's responsibility).

Non-Warranty Repair Costs

Before making any non-warranty repair, Transition Networks requires a \$200 charge, plus actual shipping costs to and from the customer. If the repair is greater than \$200, an estimate is issued to the customer for authorization before making the repair. If no authorization is obtained, or the product is deemed not repairable, Transition Networks will retain the \$200 service charge and return the product to the customer not repaired.

Repaired Non-Warranty Products

Non-warranted products repaired by Transition Networks for a fee will carry a 180-day limited warranty. All warranty claims are subject to the restrictions and conventions set forth by this document. Transition Networks reserves the right to charge for all testing and shipping incurred, if after testing, a return is classified as "No Problem Found."

11. Compliance Certifications

- EN60950
- UL508

Declaration of Conformity

Declaration of Conformity				
	<u>Transition</u>	Networks, Inc.		
	Man	ufacture 's Name		
<u>10900 Rea</u>	l Circle Drive, Min	netonka, Minnesota	<u>55343 U.S.A.</u>	
		Jachune 's Address		
	DECLARES TH	AT THE PRODUCT(S)		
	SDSTX3110-121-LR1	and SDSTX3110-124-	LRT	
1	SDSFX3113-111-LR1	and SDSFX3114-111-	LRT	
CONFO	RM TO THE FOLLO	WING PRODUCT REG	ULATIONS:	
FCC Part 15, CISPR22 / EN55022 Class A EN61000-4-2 (ESD), EN61000-4-3 (RS); EN61000-4-4 (EFT); EN61000-4-5 (Surge); EN61000-4-6 (CS) EN61000-4-8, EN61000-4-11, IEC60068-2-27, IEC60068-2-32, IEC6068-2-6				
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standards(s).				
Minnetonka, Minnesota	March 12, 2015	Stercher	- anderrow	
Bace	Date	0	Signature	
		<u>Stephen Anderson</u> FullName	<u>Vice President of Engineering</u> Position	281418

European Regulations

WARNING: This is a Class A product. In a domestic environment, this product could cause radio interference in which case the user may be required to take adequate measures.

Achtung! Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.

Attention ! Ceci est un produit de Classe A. Dans un environment domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilsateur de prende les measures spécifiques appropriées.

In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Transition Networks will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE



NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EG-Mitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über

Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.
Electrical Safety Warnings



IMPORTANT: This equipment must be installed in accordance with safety precautions.

Elektrische Sicherheit

WICHTIG: Für die Installation dieses Gerätes ist die Einhaltung von Sicherheitsvorkehrungen erforderlich.

Elektrisk sikkerhed

VIGTIGT: Dette udstyr skal 73nstallers I overensstemmelse med sikkerhedsadvarslerne.

Elektrische veiligheid

BELANGRIJK: Dit apparaat moet in overeenstemming met de veiligheidsvoorschriften worden geïnstalleerd.

Sécurité électrique

IMPORTANT : Cet équipement doit être utilisé conformément aux instructions de sécurité.

Sähköturvallisuus

TÄRKEÄÄ : Tämä laite on asennettava turvaohjeiden mukaisesti.

Sicurezza elettrica

IMPORTANTE: questa apparecchiatura deve essere installata rispettando le norme di sicurezza.

Elektrisk sikkerhet

VIKTIG: Dette utstyret skal 73nstallers I samsvar med sikkerhetsregler.

Segurança eléctrica

IMPORTANTE: Este equipamento tem que ser instalado segundo as medidas de precaução de segurança.

Seguridad eléctrica

IMPORTANTE: La instalación de este equipo deberá llevarse a cabo cumpliendo con las precauciones de seguridad.

Elsäkerhet

OBS! Alla nödvändiga försiktighetsåtgärder måste vidtas när denna utrustning används.

Record of Revisions

Rev	Date	Description of Changes
A	5/15/15	Initial release for SDSFX311x-111-LRT at v 1.11.
		Firmware: SDSFX3113-111-LRT_V1.1_20150421.bin
		Firmware: SDSFX3114-111-LRT_V1.1_20150421.bin

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