

Transio A52/A53 Series

Entry-level RS-232 to RS-422/485 converters



Features and Benefits

- ADDC[™] (Automatic Data Direction Control) RS-485 data control
- · Automatic baudrate detection
- RS-422 hardware flow control: CTS, RTS signals
- · LED indicators for power and signal status
- RS-485 multidrop operation, up to 32 nodes
- 2 kV isolation protection (A53)
- Built-in 120-ohm termination resistors

Certifications



Introduction

The A52 and A53 are general RS-232 to RS-422/485 converters designed for users who need to extend RS-232 transmission distance and increase networking capability.

Specifications

Serial Interface

Ochar interiace		
Connector	10-pin RJ45	
Flow Control	RTS/CTS	
Isolation	A53 Series: 2 kV	
No. of Ports	2	
RS-485 Data Direction Control	ADDC® (automatic data direction control)	
Serial Standards	RS-232, RS-422, RS-485	
Serial Signals		
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND	
RS-422	Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND	
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND	
RS-485-2w	Data+, Data-, GND	
Power Parameters		
Input Current	A52 Series: 170 mA @ 9 VDC A53 Series: 195 mA @ 9 VDC	
Input Voltage	9 to 30 VDC	
No. of Power Inputs	1	
Overload Current Protection	Supported	





Power Consumption ASS Sense: 19 m. As 9 VDC Source of Input Power Power Input jack Physical Characteristics Flastic Housing Plastic Dimensions 80 x 80 x 21 mm (3.54 x 2.36 x 0.33 in) Weight 85 g (0.19 lb) Installation bestop Environmental Limits Frequency Operating Temperature 0 to 55°C (32 to 131°F) Storage Temperature (package included) 20 to 75°C (-4 to 167°F) Ambient Relative Humidity 5 to 95% (non-condensing) Standards and Certifications EMC EMC EN 50032/24 EMI CISPR 32, FCC Part 158 Class A EMS IEC 610004-42 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4.2 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4-2 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4-2 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air. 8 kV IEC 61000-4 ESD. Contact: 4 kV, Air.		
Physical Characteristics	Power Consumption	
Plasting Plastic Plasting Plastic Plasting	Source of Input Power	Power input jack
P30	Physical Characteristics	
Dimensions	Housing	Plastic
Weight Bs 5 g (0.19 lb) Installation Desktop	IP Rating	IP30
Desktop	Dimensions	90 x 60 x 21 mm (3.54 x 2.36 x 0.83 in)
Environmental Limits	Weight	85 g (0.19 lb)
Operating Temperature 0 to 55°C (32 to 131°F) Storage Temperature (package included) -20 to 75°C (-4 to 167°F) Ambient Relative Humidity 5 to 95% (non-condensing) Standards and Certifications EMS EMC EN 55032/24 EMI CISPR 32, FCC Part 15B Class A EMS IEC 61000-4-2 ESD: Contact: 4 kV; Air. 8 kV IEC 61000-4-2 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-5 RS: 90 Pewer: 1 kV; Signal: 0.5 kV IEC 61000-4-5 RS: 90 Pewer: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 3 V/m; Signal: 3 V/m; EC 61000-4-5 EV IEC 61000-4-5 RS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m; EC 61000-4-5 PFMF Environmental Testing IEC 60068-2-1 IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-2 IEC 60068-2-2 IEC 60068-2-2 IEC 60068-2-3 Safety EN 60950-1, IEC 60950-1 Vibration IEC 60068-2-6 MTBF Time 1,870,854 hrs Standards Telcordia (Belicore), GB Warranty Warranty Period 5 years Details See www.moxa.com/warranty Package Contents 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB9E (-DB25F models)	Installation	Desktop
Storage Temperature (package included) -20 to 75°C (-4 to 167°F)	Environmental Limits	
Ambient Relative Humidity Standards and Certifications EMC EN 55032/24 EMI CISPR 32, FCC Part 15B Class A EMS EMS EIC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV	Operating Temperature	0 to 55°C (32 to 131°F)
EMC EN 55032/24 EMI CISPR 32, FCC Part 15B Class A EMS IEC 61000-42 ESD: Contact: 4 kV; Air. 8 kV IEC 61000-43 ES: 80 MHz to 1 GHz: 3 V/m IEC 61000-44 EFT: Power 1 kV; Signal: 0.5 kV IEC 61000-48 ESD: Gontact: 4 kV; Air. 8 kV IEC 61000-48 ESD: Contact: 4 kV; Air. 8 kV IEC 61000-48 ESD: Signal: 0.5 kV IEC 61000-48 ESD: Power: 1 kV; Signal: 0.5 kV IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV; Signal: 3 V/m IEC 61000-48 ESD: Power: 1 kV;	Storage Temperature (package included)	-20 to 75°C (-4 to 167°F)
EMC EN 55032/24 EMI CISPR 32, FCC Part 15B Class A EMS IEC 61000-42 ESD: Contact: 4 kV; Air. 8 kV IEC 61000-43 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-44 EFT: Power: 1 kV; Signat: 0.5 kV IEC 61000-48 PFMF Environmental Testing IEC 61000-48 PFMF Environmental Testing IEC 60068-2-14 IEC 60068-2-14 IEC 60068-2-14 IEC 60068-2-2 IEC 60068-2-2 IEC 60068-2-3 Safety EN 60950-1, IEC 60950-1 Vibration IEC 60068-2-6 MTBF 1,870,854 hrs Standards Telcordia (Bellcore), GB Warranty Warranty Period Details See www.moxa.com/warranty Package Contents 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models)	Ambient Relative Humidity	5 to 95% (non-condensing)
EMS EMS EMS EC 61000-4-2 ESD: Contact: 4 KY, Air: 8 KV	Standards and Certifications	
IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-8 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF	EMC	EN 55032/24
EC 61000-4-3 R3: 80 MHz to 1 GHz: 3 V/m EC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 160 kHz: 3 V/m; Signal: 3 V/m; Signal: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 1 V/m; Signal: 3 V/m; Signal: 3 V/m; Signal: 3 V/m EC 61000-4-6 CS: 1 V/m; Signal: 3 V/m; Sign	ЕМІ	CISPR 32, FCC Part 15B Class A
IEC 60068-2-14 IEC 60068-2-2 IEC 60068-2-3 Safety	EMS	IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m
Vibration IEC 60068-2-6 MTBF 1,870,854 hrs Standards Telcordia (Bellcore), GB Warranty Warranty Period Details See www.moxa.com/warranty Package Contents 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Environmental Testing	IEC 60068-2-14 IEC 60068-2-2
MTBF Time 1,870,854 hrs Standards Telcordia (Bellcore), GB Warranty Warranty Period 5 years Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Safety	EN 60950-1, IEC 60950-1
Time 1,870,854 hrs Standards Telcordia (Bellcore), GB Warranty Warranty Period 5 years Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) 1 x quick installation guide	Vibration	IEC 60068-2-6
Standards Telcordia (Bellcore), GB Warranty Warranty Period 5 years Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	MTBF	
Warranty Period 5 years Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Time	1,870,854 hrs
Warranty Period 5 years Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Standards	Telcordia (Bellcore), GB
Details See www.moxa.com/warranty Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Warranty	
Package Contents Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Warranty Period	5 years
Device 1 x Transio A52/A53 Series converter Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Details	See www.moxa.com/warranty
Cable 1 x 10-pin RJ45 to DB9F (-DB9F models) 1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Package Contents	
1 x 10-pin RJ45 to DB25F (-DB25F models) Documentation 1 x quick installation guide	Device	1 x Transio A52/A53 Series converter
	Cable	
	Documentation	





Ordering Information

Model Name	Serial Isolation	Power Adapter Included	Serial Cable
A52-DB9F w/o Adapter	-	-	DB9F
A52-DB25F w/o Adapter	-	-	DB25F
A52-DB9F w/ Adapter	-	✓	DB9F
A52-DB25F w/ Adapter	-	✓	DB25F
A53-DB9F w/o Adapter	✓	-	DB9F
A53-DB25F w/o Adapter	✓	-	DB25F
A53-DB9F w/ Adapter	✓	✓	DB9F
A53-DB25F w/ Adapter	✓	✓	DB25F

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