TCC-82

Port-powered RS-232 4-channel isolators



Features and Benefits

- · Four channels of 4 kV RMS isolation for 1 minute
- · External power source supported but not required
- Automatic baudrate detection
- Compact size

Certifications



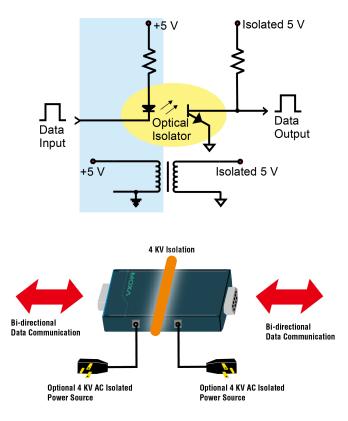
Introduction

The TCC-82 provides full electrical isolation for bidirectional serial communication between two RS-232 devices in a compact, industrial-grade package. Both sides of an RS-232 connection are isolated optically to provide perfect protection against lightning surges, accidental high-voltage shorts, and ground loops. The built-in, wide range isolators are tested to ensure that they can withstand more than 4 kV rms input to output for one minute. This means that the TCC-82 not only meets the requirements of general serial data communications, but also the high standards required by industrial automation and medical applications. The TCC-82 protects the TxD and RxD data lines, and it also protects the RTS and CTS handshake lines for a total of four isolated channels to provide complete protection of your RS-232 applications.

External Power Source Not Required

The TCC-82 supports port-powered operation, which means that it can obtain power directly from the attached serial devices. Power is obtained from the RS-232 TxD, RTS, or DTR lines, regardless of whether the signal is high or low, eliminating the need for an external power supply. However, external power can be used if handshake lines are not available, if the serial cable is too long, or if the serial device is a low-power device. For external power, the TCC-82 can use a 5 to 12 VDC adapter or a USB power cord. Note that both sides of the connection are powered independently, so if necessary, one side can rely on port power and the other on an external power source.

When installing the TCC-82, we recommend that you connect all output signals. The TCC-82 obtains power from these signals even if they are not used by your system. Care should be taken when choosing the external power supply if your application requires the full 4 kV of isolation. Most commercial power supplies provide only 1500 VAC isolation between the primary and secondary windings. If you are using external power for both sides of the TCC-82, make sure that separate power sources are used, each with sufficient isolation protection.





Specifications

Serial Interface

ConnectorDBB maleNo. of Ports2Serial StandardsRS-232BaudrateRS-232BaudrateSerial StandardsSorial Signals	Senar Interface	
Serial StandardsRS-32Baudrate50 bps to 221.6 kbps (supports non-standard baudrates)Sorial SignalsRS-322To, RoD, RTS, CTS, DTR, DSR, DDD, GNDPower ParametersInput Current20 mA & 65 to 12 VDCInput Voltage5 to 12 VDCNo. of Power Inputs1Over oda Current ProtectionSupportedPower Consumption20 mA & 65 to 12 VDCSource of Input Power0 mA & 65 to 12 VDCSource of Input Power0 mA & 65 to 12 VDCSource of Input Power0 mA & 65 to 12 VDCPower Consumption20 mA & 65 to 12 VDCSource of Input Power0 mover input jackPhysical CharacteristicsPower input jackPower Source of Input PowerPower input jackPower Source of Input Power10 source input jackSource of Input Power10 source input jackPower Source of Input Power10 source in	Connector	DB9 male
BardrateBips to 921.8 kbps (supports non-standard baudrates)Serial SignalsBs/222TAD.RAD.RTS.CTS.DTR.DSR.DCD.GNDPower ParametersInput Current20 mA & 5 to 12 VDCInput Voltage5 to 12 VDCNo. of Power Inputs1Over doad Current ProtectionSupportedPower Consumption20 mA & 6 to 12 VDCSource of Input Power20 mA & 6 to 12 VDCSource of Input Power20 mA & 6 to 12 VDCPower Consumption20 mA & 6 to 12 VDCSource of Input Power20 mA & 6 to 12 VDCPower Consumption20 mA & 6 to 12 VDCSource of Input Power20 mA & 6 to 12 VDCPower Consumption20 mA & 6 to 12 VDCSource of Input Power20 mA & 6 to 12 VDCPower Input Source of Input Power20 mA & 6 to 12 VDCPower Input Source of Input Power20 mA & 6 to 12 VDCPower Input Source of Input PowerPower Input JackPotiscal Characteristics20 mA & 6 to 12 VDCPotiscal Characteristics20 mA & 6 to 12 VDCPotiscal Characteristics20 for 5 C (4 to 16 / T)Sourge Temperature (package Included)10 60 °C (32 to 140 °F)Stonage Temperature (package Included)10 50 °C (32 to 140 °F)Stonage Temperature (package Included)10 50 °C (24 to 16 / T)Stonage Temperature (package Included)10 50 °C (24 to 16 / T)Stonage Temperature (package Included)10 50 °C (24 to 16 / T)Stonage Temperature (package Included)10 50 °C (24 to 16 / T)Stonage Stonage Characteristi	No. of Ports	2
Serial SignalsR5-232TAD, RAD, RTS, CTS, DTR, DSR, DCD, GNDPower Parameters20mA & 5 to 12 VDCInput Voltage20mA & 5 to 12 VDCNo. of Power Inputs1Overdoad Current ProtectionSupportedPower Consumption20 mA & 6 to 12 VDCSource of Input PowerPower Input jackPhysical CharacteristicsPasticHousingPlasticIP Rating00 g (0.13 lb)InstalationDesktopSorage Temperature (package included)6 to 60°C (32 to 140°F)Storage Temperature (package included)0 to 60°C (32 to 140°F)Storage Temperature (package included)10 to 60°C (32 to 140°F)Storage Temperature (package included)Sto 930°Z/4EMCISPR 32, FCC Part 15B Class BEMSCISPR 32, FCC Part 15B Class BEMSCISPR 32, FCC Part 15B Class BEMSCISPR 32, FCC Part 15B Class BEnvironmental TestingICS 60068-21 IEC 600064-25 Strömet: 440, AFR 84 VI IEC 61000-45 Ströme, Power: 14V IEC 61000-45 Ströme, Power	Serial Standards	RS-232
RS-222TAD, RAD, RTS, CTS, DTR, DSR, DCD, GNDPower ParametersInput Qurrent20 mA @ 5 to 12 VDCInput Voltage5 to 12 VDCNo. of Power Inputs1Overload Current ProtectionSupportedPower Consumption20 mA @ 5 to 12 VDCSource of Input PowerPower input jackPhysical CharacteristicsPasticHousingPasticInnensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)WeightBog (0.13 lb)InstallationDesktopEnvironmental Limits50 s (25 to 140°F)Storage Temperature (package included)40 to 75°C (4 to 167°F)Storage Temperature (package included)Sto 55% (non-condensing)EndStorage Temperature (sackage included)EMGStor3ge2/EEMGStor3ge2/EEMGStor3ge2/EEMGStor3ge2/EEMSStor3ge2/EEMSStor3ge2/EEVironmental TestingStor3ge2.2Evironmental Testing	Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Power ParametersInput Current20 mA & 5 to 12 VDCInput Voltage5 to 12 VDCNo. of Power Inputs1Overload Current ProtectionSupportedPower Consumption20 mA & 5 to 12 VDCSource of Input Powerpower input jackPhysical CharacteristicsPower Input jackPhysical CharacteristicsPlasticPower Source of Input PowerPlasticPower Source of Input Power900 (0.13 lb)Inensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Veight0 to 60°C (32 to 140°F)Sourge Temperature (package included)-20 to 75°C (-4 to 167°F)Antient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEVSOURCE SOURCE SUBJECT SOURCE SOURCE SOURCE SOURCE SOURCE SOURCE SOURCE SUBJECT SOURCE SOURCE SOURCE SOURCE SOURCE SOURCE SUBJECT SUBJ	Serial Signals	
Input Current20 mA @ 5 to 12 VDCInput Voltage5 to 12 VDCNo. of Power Inputs1Overload Current ProtectionSupportedPower Consumption20 mA @ 5 to 12 VDCSource of Input PowerPower Input jackPhysical CharacteristicsPower Input jackHousingIPaticIP RatingIPaticDimensions42 x 80 x 23.6 mm (1.55 x 3.15 x 0.93 in)Weight0 g (0.13 h)InstallationDesktopForuronmental Limits20 to 50°C (4 to 167°F)Oprang Temperature (package included)20 to 75°C (4 to 167°F)Storage Temperature (package included)5 to 95% (non-condensing)Standards and CortificationsENS032/24EMCCISFR 32, FCC Pat 15B Class BEMSCISFR 32, FCC Pat 15B Class BEMSEl 61000-42 E SD: Contact: 4 kV //s 15 kV //m Signal: 3 V/m IEC 61000-43 RS: 80 MHz; 3 V/m; Signal: 3 V/m IEC 61000-43 RS: 80 MHz; 3 V/m; Signal: 3 V/m IEC 61000-44 RS: 80 MHz; 3 V/m; Signal: 3 V/mEnvironmental TestingEl 60086-21Environmental TestingEl 60086-21E	RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
input Voltage5 to 12 VDCNo. of Power Inputs1Overload Current ProtectionSupportedPower Consumption20 m & 6 to 12 VDCSource of Input PowerPower input jackPhysical CharacteristicsPower Input jackPhysical CharacteristicsPostHousingPlasticIP Rating06 g (0.13 lb)Dimensions06 g (0.13 lb)InstallationDesktopPoyerating Temperature (package included)20 to 75°C (4 to 167°F)Ambient Relative Humidity5 to 59% (non-condensing)Standards and CertificationsEN S032/24EMCSi S032/24EMSCi S100 4-2 ESD: Contact: 4 MY, Air: 8 kV IEC 61000 4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000 4-3 RS: 80 M	Power Parameters	
No. of Power inputs1Overload Current ProtectionSupportedPower Consumption20 mA & 5 to 12 VDCSource of Input PowerPower input jackPhysical CharacteristicsPower input jackPhysical CharacteristicsPosticHousingPlasticIP Rating09 (0.13 lb)Ibmensions00 g (0.13 lb)Notal TableStorage TemporatureOperating Temporature01 66°C (82 to 140°F)Storage Temporature (package included)-20 to 75°C (4 to 157°F)Ambient Relative Humidity5 to 55% (non-condensing)EMCENS6932/24EMSCiSPR 32, FCC Part 15B Class BEMSCiSPR 32, FCC Part 15B Class BEMSEC 61000 4-2 ESD. Contact: 4 MY, Airt B KY IEC 61000 4-3 ESD MH+ 101 1614:: 3 Vim IEC 61000 4-3 ESD MH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC 61000 4-3 ESD: 60 HH+ 101 2014:: 3 Vim IEC	Input Current	20 mA @ 5 to 12 VDC
Overload Current ProtectionSupportedPower Consumption20 mA @ 5 to 12 VDCSource of Input PowerPower input jackPhysical CharacteristicsPlasticPhusingPlasticIP RatingIP30Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.03 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature (package included)2 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Environmental CertificationsEN 55032/24EMCCiSPR 32, FCC Part 15B Class BEMSLEC 61000-4-2 ESD: Contact: 4 kV, Air. 8 kV IEC 61000-4-3 SR Sis 0 MHz to 1 GHz: 3 V/m IEC 61000-4-3 SR Sis 0 MHz to 1 GHz: 3 V/m IEC 61000-4-3 SR Sis 0 MHz to 1 GHz: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 10 LHZ: 3 V/m; IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-4 SR Sis 0 MHz: 20 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-5 SIS 0 KHz: to 80 MHz: 3 V/m; Signal: 3 V/m IEC 6100	Input Voltage	5 to 12 VDC
Power Consumption20 mA @ 5 to 12 VDCSource of Input PowerPower input jackPhysical CharacteristicsPlasticHousingPlasticIP RatingIP30Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Storage Temperature (package included)2 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 55% (non-condensing)Storaget Temperature (package included)CISPR 32, FCC Part 15B Class BEMCIEC 61000-4-2 ESD: Contact: 4 kV; Air. 8 kV IEC 61000-4-3 SR: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-3 SR: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-3 SR: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-3 FFMFEnvironmental TestingIEC 60008-2-1 IEC 60008-2-3 IEC 60008-2-3StertyMotor One of SCI (-1 EC 60050-1	No. of Power Inputs	1
Source of hput PowerPower input jackPhysical CharacteristicsPlasticHousingPlasticIP RatingIP30Dimensions42 x8 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 el (2 to 140°F)Operating Temperature0 to 60°C (32 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Storage TemperatureEN 55032/24EMCEN 55032/24EMSEC 61000-4.2 ESD: Contact: 4 KV; Air: 8 kV EC 61000-4.5 ESD: Contact	Overload Current Protection	Supported
Physical CharacteristicsHousingPlasticHousingPlasticIP RatingIP30Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature0 to 60°C (42 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsENSEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSEC 61000-4.2 ESD: Contact: 4 KV; Air; 8 kVEC 61000-4.2 ESD: Contact: 4 KV; Air; 8 kVEC 61000-4.5 Surge: Power: 1 kVEC 61000-4.5 Surge	Power Consumption	20 mA @ 5 to 12 VDC
HousingPlasticIP RatingIP30Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature (package included)-20 to 75°C (-4 to 167'F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsENS5032/24EMICISPR 32, FCC Part 15B Class BEMSEISC 61000-42 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-43 SN: 80 MHz: 3 V/m IEC 61000-43 SN: 80 MHz: 3 V/m IEC 61000-43 SN: 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-43 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3SafelyNe 0050-1, IEC 60050-1	Source of Input Power	Power input jack
IP RatingIP30Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature (package included)-20 to 75°C (-4 to 167°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCISPS 32, FCC Part 15B Class BEMSIEC 61000-4.2 ESD: Contact: 4 kV; Air; 8 kV IEC 61000-4.2 SSI: 80 MHz to 1 GHz: 3 V/m IEC 61000-4.8 SSI 60 MHz to 1 GHz: 3 V/m IEC 61000-4.8 SSI 60 MHz to 3 V/m; Signal: 3 V/m IEC 61000-4.8 SFMEnvironmental TestingIEC 60068-2.1 IEC 60068-2.3SafeyEN 6950-1, IEC 60950-1	Physical Characteristics	
Dimensions42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature0 to 60°C (32 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and Certifications-EMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSEC 61000-42 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-43 SR: 80 MHz to 1 (Hz: 3 V/m IEC 61000-45 Surge: Power: 1 kV IEC 61000-45 Closs AV/m IEC 61000-45 Closs AV/m IEC 61000-45 Closs AV/m IEC 61000-45 Close ACS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Close ACS: 160 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-45 Clo	Housing	Plastic
Weight60 g (0.13 lb)InstallationDesktopEnvironmental Limits0 to 60°C (32 to 140°F)Operating Temperature (package included)-20 to 75°C (-4 to 167°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCEMCEN 55032/24EMSCISPR 32, FCC Part 15B Class BEMSCISPR 32, FCC Part 15B Class BEMSEC 60100-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 ESN: 80 MHz to 16 Hz: 3 V/m IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 EFMFEnvironmental TestingEC 60068-2-1 IEC 60068-2-3SafetyN6 0950-1, IEC 60950-1	IP Rating	IP30
InstallationDesktopEnvironmental LimitsOperating Temperature0 to 60°C (32 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 PS: 80 MHz to 1 GHz: 3 V/m 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 PFMFEnvironmental TestingEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Dimensions	42 x 80 x 23.6 mm (1.65 x 3.15 x 0.93 in)
Environmental LimitsOperating Temperature0 to 60°C (32 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsENEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m IEC 61000-4-6 FMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Weight	60 g (0.13 lb)
Operating Temperature0 to 60°C (32 to 140°F)Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 Surge: Power: 1 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 IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Installation	Desktop
Storage Temperature (package included)-20 to 75°C (-4 to 167°F)Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Environmental Limits	
Ambient Relative Humidity5 to 95% (non-condensing)Standards and CertificationsEMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-8 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Operating Temperature	0 to 60°C (32 to 140°F)
Standards and Certifications EMC EN 55032/24 EMI CISPR 32, FCC Part 15B Class B EMS IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m 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 IEC 61000-4-8 PFMF Environmental Testing IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3 Safety EN 60950-1, IEC 60950-1	Storage Temperature (package included)	-20 to 75°C (-4 to 167°F)
EMCEN 55032/24EMICISPR 32, FCC Part 15B Class BEMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m 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 IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	Ambient Relative Humidity	5 to 95% (non-condensing)
EMICISPR 32, FCC Part 15B Class BEMSEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-5 Surge: Power: 1 kV 	Standards and Certifications	
EMSIEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m 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 IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	EMC	EN 55032/24
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m 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 IEC 61000-4-8 PFMFEnvironmental TestingIEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3SafetyEN 60950-1, IEC 60950-1	EMI	CISPR 32, FCC Part 15B Class B
IEC 60068-2-2 IEC 60068-2-3 Safety EN 60950-1, IEC 60950-1	EMS	IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m 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
	Environmental Testing	IEC 60068-2-2
Vibration IEC 60068-2-6	Safety	EN 60950-1, IEC 60950-1
	Vibration	IEC 60068-2-6

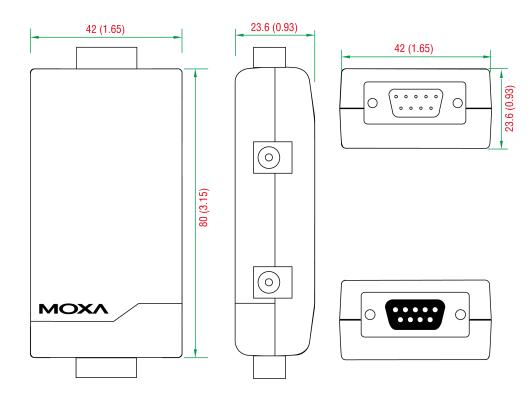


MTBF

Time	959,780 hrs
Standards	MIL-HDBK-217F
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x TCC-82 isolator
Cable	1 x USB power cord, 50 cm
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Port Power	Isolation	Serial Connector
TCC-82	\checkmark	4 kV	DB9

Accessories (sold separately)

Cables	
CBL-USBAP-50	USB A male/2.1 mm DC Jack cable, 50 cm
Connectors	
ADP-RJ458P-DB9F	DB9 female to RJ45 connector
	Applicable Models:



	TCC-82
Mini DB9F-to-TB	DB9 female to terminal block connector
	Applicable Models: TCC-82
Power Adapters	
PWR-12050-WPUSJP-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, United States/Japan (US/JP) plug, 0 to 40°C operating temperature
	Applicable Models: TCC-82
PWR-12050-WPUK-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, United Kingdom (UK) plug, 0 to 40°C operating temperature
	Applicable Models: TCC-82
PWR-12050-WPAU-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, Australia (AU) plug, 0 to 40°C operating temperature
	Applicable Models: TCC-82
PWR-12050-WPEU-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, Continental Europe (EU) plug, 0 to 40°C operating temperature
	Applicable Models: TCC-82
PWR-12050-WPCN-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, China (CN) plug, 0 to 40°C operating temperature
	Applicable Models: TCC-82

© Moxa Inc. All rights reserved. Updated Apr 14, 2020.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.

