



Coil Technology Corporation



Isolated DC-DC converter
Non-isolated DC-DC converter
AC-DC converter
Digital Isolator





CTC will be your best partner

CTCは、1987年よりハイエンドパワーモジュールの専門サービスプロバイダーです。

製品ラインナップ

タイプ	Model	Power	入力	出力	出力電流	Package	Product Photos	ステータス
絶縁型 DC-DC converter	M3WRB シリーズ	3W	5-48	3.3-24V	125-600mA	SIP8		Industrial 2:1input
絶縁型 DC-DC converter	MB3.5WRA シリーズ	3.5W	5-48	5-15V	117-700mA	DIP24/ SMD		High Isolation voltage Medical/Industrial 2:1 input
絶縁型 DC-DC converter	MB6WRA シリーズ	6W	12-48V	9-15V	200-667mA	DIP24/ SMD		High Isolation voltage Medical/Industrial 2:1 input
絶縁型 DC-DC converter	PC40WR4 シリーズ	40W	24-48V	3.3-24V	833-6000mA	2x1"		Industrial 4:1input
絶縁型 DC-DC converter	PC60WR4 シリーズ	60W	24-48V	3.3-24V	2500-12000mA	2x1"		Industrial 4:1input
絶縁型 DC-DC converter	PF15WR4 シリーズ	15W	24-48V	3.3-24V	500-4000mA	1x1"		Industrial 4:1input
絶縁型 DC-DC converter	PF30WR4 シリーズ	30W	24-48V	3.3-24V	1000-7000mA	1x1"		Industrial 4:1input
絶縁型 DC-DC converter	PH150WR8 シリーズ	150W	48V	12-54V	2778-12500mA	1/2 BRICK		Industrial 8:1input
非絶縁型 DC-DC converter	A78A-1.0 シリーズ	-	4.75-32V	1.8-15V	1000mA	SIP 3		LM78xx regulator
非絶縁型 DC-DC converter	A78EB-0.5 シリーズ	-	4.75-36V	1.8-15V	500mA	SIP 3		LM78xx regulator
非絶縁型 DC-DC converter	AGN-12T12A	-	3-14.4V	0.6-5.5V	12000mA	SMD		Programmable output voltage
非絶縁型 DC-DC converter	ATN-12T1000	-	3-14V	0.6-5.5V	1000mA	SMD		Programmable output voltage

タイプ	Model	Power	入力	出力	Isolated voltage	Package	Product Photos	Feature
Digital Isolator	ISO485F	-	5V	-	7070Vdc	SMD		CC-Link
Digital Isolator	ISO485T2	-	5V	-	4242Vdc	SMD		RS-485
CAN	ISO55T2	-	5V	-	4242Vdc	SMD		CAN-BAS

タイプ	Model	Power	入力	出力	Isolated voltage	Package	Product Photos	Feature
Digital Isolator	ISO232T1	0.4W	5V	5V	4242Vdc	SMD		Single RS-232
Digital Isolator	ISO232T2	0.4W	5V	5V	4242Vdc	SMD		Dual RS-232
Digital Isolator	ISO41T	0.4W	5V	3.3V or 5V	4242Vdc	SMD		4channel digital iso
Digital Isolator	ISO422T	-	5V	-	4242Vdc	SMD		RS-422
Digital Isolator	ISO42T	0.4W	5V	3.3V or 5V	4242Vdc	SMD		4channel digital iso
Digital Isolator	ISOI2CT	0.4W	5V	3.3V or 5V	4242Vdc	SMD		I2C

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The products were used in Computers, Industrial controls, Medical equipment, Transportation, EV, ECO-power, Aero-space application and communication.

特徴

- ・ 2:1 広い入力電圧範囲
- ・ 業界標準SIP8パッケージ
- ・ UL94V-0 準拠素材
- ・ 高効率
- ・ -40°C to +100°C 動作温度範囲
- ・ 絶縁 2-3kVDC/1sec.
- ・ 短絡防止回路

アプリケーション

- ・ 入力電圧範囲 4.5V to 72V
- ・ 産業機器
- ・ 通信機器



セクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	入力電流 @ no load (typ.)	効率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
M3WRB-053.3H2	4.5-9 VDC Nom. 5VDC	3.3VDC	600mA	46mA	74.0%	2200uF
M3WRB-0505H2		5VDC	600mA	46mA	75.0%	2200uF
M3WRB-0509H2		9VDC	333mA	46mA	77.0%	1000uF
M3WRB-0512H2		12VDC	250mA	70mA	78.0%	1000uF
M3WRB-0515H2		15VDC	200mA	70mA	78.0%	1000uF
M3WRB-0524H2		24VDC	125mA	70mA	80.0%	1000uF
M3WRB-123.3H2	9-18 VDC Nom. 12VDC	3.3VDC	600mA	20mA	74.0%	2200uF
M3WRB-1205H2		5VDC	600mA	20mA	77.0%	2200uF
M3WRB-1209H2		9VDC	333mA	20mA	79.0%	1000uF
M3WRB-1212H2		12VDC	250mA	30mA	80.0%	1000uF
M3WRB-1215H2		15VDC	200mA	30mA	80.0%	1000uF
M3WRB-1224H2		24VDC	125mA	30mA	80.0%	1000uF
M3WRB-243.3H2	18-36 VDC Nom. 24VDC	3.3VDC	600mA	12mA	75.0%	2200uF
M3WRB-2405H2		5VDC	600mA	12mA	79.0%	2200uF
M3WRB-2409H2		9VDC	333mA	12mA	80.0%	1000uF
M3WRB-2412H2		12VDC	250mA	12mA	81.0%	1000uF
M3WRB-2415H2		15VDC	200mA	12mA	81.0%	1000uF
M3WRB-2424H2		24VDC	125mA	12mA	81.0%	1000uF
M3WRB-483.3H2	36-72 VDC Nom. 48VDC	3.3VDC	600mA	10mA	75.0%	2200uF
M3WRB-4805H2		5VDC	600mA	10mA	80.0%	2200uF
M3WRB-4809H2		9VDC	333mA	10mA	80.0%	1000uF
M3WRB-4812H2		12VDC	250mA	10mA	81.0%	1000uF
M3WRB-4815H2		15VDC	200mA	10mA	81.0%	1000uF
M3WRB-4824H2		24VDC	125mA	10mA	81.0%	1000uF

- ⁽¹⁾ The efficiency is test by nominal input and max. full load @25°C.
- ⁽²⁾ The capacitive load is test by minimum input and constant resistive load.
- Add "H2" after P/N for isolation 2kVdc, add "H3" after P/N for isolation 3kVdc, e.g, M3WRB-2405H2, M3WRB-2405H3.
- All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.

型名称呼方法

M 3 W R B - 24 05 H2

電力

入力
電圧

出力
電圧

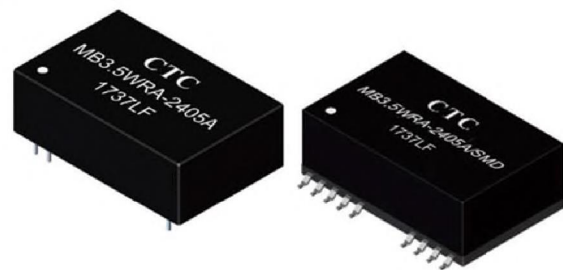
H2: 2KVdc 絶縁
H3: 3KVdc 絶縁

特徴

- ・ 2:1広い入力電圧範囲
- ・ 3.5W DIP24 パッケージ/ SMD パッケージ
- ・ 5000Vac の強化絶縁/250Vrms 動作電圧
- ・ 8mm クリアランスと沿面距離
- ・ 2MOPP アプリケーション
- ・ UVLO 機能オプション
- ・ 短絡防止回路
- ・ CTRL ピンオプション

アプリケーション

- ・ 医療機器



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	効率 ⁽¹⁾		容量性負荷 ⁽²⁾ max.
				typ.	min.	
MB3.5WRA-0505A	4.5-9Vdc	5Vdc	700mA	76%	75%	4700uF
MB3.5WRA-0509A		9Vdc	388mA	80%	79%	3300uF
MB3.5WRA-0512A		12Vdc	290mA	82%	81%	2200uF
MB3.5WRA-0515A		15Vdc	233mA	83%	82%	2200uF
MB3.5WRA-0524A		24Vdc	145mA	82%	81%	1000uF
MB3.5WRA-0505DA		±5Vdc	±350mA	76%	75%	±2200uF
MB3.5WRA-0509DA		±9Vdc	±194mA	80%	79%	±1600uF
MB3.5WRA-0512DA		±12Vdc	±145mA	82%	81%	±1000uF
MB3.5WRA-0515DA		±15Vdc	±117mA	83%	82%	±1000uF
MB3.5WRA-1205SA	9-18Vdc	5Vdc	700mA	80%	79%	4700uF
MB3.5WRA-1209A		9Vdc	388mA	81%	80%	2200uF
MB3.5WRA-1212A		12Vdc	290mA	82%	81%	2200uF
MB3.5WRA-1215A		15Vdc	233mA	82%	81%	2200uF
MB3.5WRA-1224A		24Vdc	145mA	82%	81%	1000uF
MB3.5WRA-1205DA		±5Vdc	±350mA	80%	79%	±2200uF
MB3.5WRA-1209DA		±9Vdc	±194mA	81%	80%	±1600uF
MB3.5WRA-1212DA		±12Vdc	±145mA	82%	81%	±1000uF
MB3.5WRA-1215DA		±15Vdc	±117mA	82%	81%	±1000uF
MB3.5WRA-2405A	18-36Vdc	5Vdc	700mA	81%	80%	4700uF
MB3.5WRA-2409A		9Vdc	388mA	82%	81%	2200uF
MB3.5WRA-2412A		12Vdc	290mA	83%	82%	2200uF
MB3.5WRA-2415A		15Vdc	233mA	84%	83%	2200uF
MB3.5WRA-2424A		24Vdc	145mA	84%	83%	1000uF
MB3.5WRA-2405DA		±5Vdc	±350mA	81%	80%	±2200uF
MB3.5WRA-2409DA		±9Vdc	±194mA	82%	81%	±1600uF
MB3.5WRA-2412DA		±12Vdc	±145mA	83%	82%	±1000uF
MB3.5WRA-2415DA		±15Vdc	±117mA	84%	83%	±1000uF
MB3.5WRA-4805A	36-75Vdc	5Vdc	700mA	82%	81%	4700uF
MB3.5WRA-4809A		9Vdc	388mA	82%	81%	2200uF
MB3.5WRA-4812A		12Vdc	290mA	82%	81%	2200uF
MB3.5WRA-4815A		15Vdc	233mA	83%	82%	2200uF
MB3.5WRA-4824A		24Vdc	145mA	83%	82%	1000uF
MB3.5WRA-4805DA		±5Vdc	±350mA	82%	81%	±2200uF
MB3.5WRA-4809DA		±9Vdc	±194mA	82%	81%	±1600uF
MB3.5WRA-4812DA		±12Vdc	±145mA	82%	81%	±1000uF
MB3.5WRA-4815DA		±15Vdc	±117mA	83%	82%	±1000uF

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2. The capacitive load is test by nominal input and constant resistive load.
3. Special input and output voltage combinations available by request, please check with our sales.
4. Suffix /X1 is mean under voltage lock function.
5. Suffix /CTRL is mean remote on/off function.
6. Suffix /SMD for SMD package.

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型名称方法

MB3.5WRA-0505A

医療機器 電力 入力電圧 出力電圧

仕様

	パラメーター	条件	Min.	Typ.	Max.	単位
入 力	Input filter			Pi type		
	Input voltage range			2:1		
		5V input		3.9		Vdc
	Under voltage lockout (/X1 Version)	12V input		7.9		Vdc
		24V input		16.7		Vdc
		48V input		34.3		Vdc
出 力	CTRL Function			Option		
	Voltage accuracy			±1.5		%
	Line voltage regulation	LL to HL at 100%load			±0.3	%
	Load voltage regulation	20% to 100% load			±0.5	%
	Minimum load				10	%
	Ripple & noise (20MHz)	Nominal Vin @Full load			150	mVp-p
	Operating frequency	Nominal Vin @Full load	120			kHz
	Cross Regulation			±5		%
	Transient Response				5	ms
環 境	Temperature Coefficient				±0.05	%
	Operating temperature	Nominal Vin @Full load with nature convection	-40		85	°C
	Storage temperature		-55		125	°C
	Max. case temperature				105	°C
	MTBF (MIL-HDBK-217F)	+25°C		1999 x 10 ³		Hours
Function		+75°C		637 x 10 ³		Hours
	Short-circuit protection			Continuous, Auto Restart		
		R8: DIP 24 (1 sec.)	8			kVdc
		R8: DIP 24 (60 sec.)	4			kVac
	Isolation voltage	R10: DIP 24 (1 sec.)	10			kVdc
		R10: DIP 24 (60 sec.)	5			kVac
		SMD (60sec.)	6			kVdc
	Isolation capacitance			20		pF
	Isolation resistance		10G			Ω
Physical	Safety Approvals			EN60601-1 3nd for 2MOPP		
	Dimension			31.8(L)x20.3(W)x10.2(H) mm		
	Weight			14g		
	Cooling method			Free air convection		
	Base material			Non-conductive black plastic (UL94V-0)		
	Case material			Non-conductive black plastic (UL94V-0)		
	Potting material			Silicon (UL94V-0)		
EMC	EMI	EN55032		CLASS A/B		
	ESD	EN61000-4-2, Air±15kV; Contact±8kV		Perf. Criteria A		
	Radiated immunity	EN61000-4-3, 10 V/m		Criteria A		
	Fast transient	EN61000-4-4, ± 2kV		Criteria A		
	Surge	EN61000-4-5, ± 1kV		Criteria A		
	Conducted immunity	EN61000-4-6, 10 Vr.m.s		Criteria A		

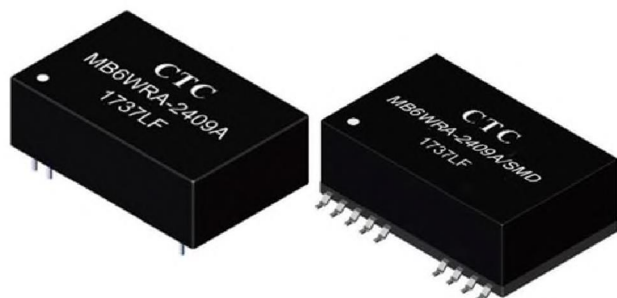
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特徴

- ・ 2:1広い入力電圧範囲
- ・ 6W DIP24 パッケージ
- ・ 5000Vac の強化絶縁/250Vrms 動作電圧
- ・ 8mm クリアランスと浴面距離
- ・ 2MOPP アプリケーション
- ・ UVLO 機能オプション
- ・ 短絡防止回路
- ・ CTRL ピンオプション

アプリケーション

- ・ 医療機器



セクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	効 率 ⁽¹⁾		容量性負荷 ⁽²⁾ (max.)
				(typ.)	(min.)	
MB6WRA-1209A	9-18Vdc	9Vdc	667mA	81%	80%	2200uF
MB6WRA-1212A		12Vdc	500mA	82%	81%	2200uF
MB6WRA-1215A		15Vdc	400mA	83%	82%	2000uF
MB6WRA-1224A		24Vdc	250mA	83%	82%	1000uF
MB6WRA-1209DA		±9Vdc	±335mA	81%	80%	±2200uF
MB6WRA-1212DA		±12Vdc	±250mA	82%	81%	±2200uF
MB6WRA-1215DA		±15Vdc	±200mA	83%	82%	±2200uF
MB6WRA-2409A	18-36Vdc	9Vdc	667mA	82%	81%	2200uF
MB6WRA-2412A		12Vdc	500mA	83%	82%	2200uF
MB6WRA-2415A		15Vdc	400mA	84%	83%	2200uF
MB6WRA-2424A		24Vdc	250mA	84%	83%	1000uF
MB6WRA-2409DA		±9Vdc	±335mA	82%	81%	±2200uF
MB6WRA-2412DA		±12Vdc	±250mA	83%	82%	±2200uF
MB6WRA-2415DA		±15Vdc	±200mA	84%	83%	±2200uF
MB6WRA-4809A	36-75Vdc	9Vdc	667mA	83%	82%	2200uF
MB6WRA-4812A		12Vdc	500mA	84%	83%	2200uF
MB6WRA-4815A		15Vdc	400mA	85%	84%	2200uF
MB6WRA-4824A		24Vdc	250mA	85%	84%	1000uF
MB6WRA-4809DA		±9Vdc	±335mA	83%	82%	±2200uF
MB6WRA-4812DA		±12Vdc	±250mA	84%	83%	±2200uF
MB6WRA-4815DA		±15Vdc	±200mA	85%	84%	±2200uF

1. The efficiency is test by nominal input and max. full load @25°C
2. The capacitive load is test by nominal input and constant resistive load.
3. Special input and output voltage combinations available by request, please check with our sales.
4. Suffix /X1 is mean under voltage lock function.
5. Suffix /CTRL is mean remote on/off function.
6. Suffix /SMD for SMD package.

型名称呼方法

MB 6 W R A - 24 09 A
 ↓ ↓ ↓ ↓
 医療機器 電力 入力電圧 出力電圧

特徴

- ・ 40W出力電力
- ・ 最大効率92%
- ・ -40°C to +105°C 広い動作温度範囲
- ・ 短絡防止回路
- ・ 4:1 広い入力範囲
- ・ 外部ON/OFF制御
- ・ クラスAに適合する EMIフィルター
- ・ UL1950コンポーネント認証
- ・ RoHS 対応

アプリケーション

- ・ 産業機器
- ・ 計測機器
- ・ 通信機器
- ・ バッテリー制御システム



セクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	リップル & ノイズ*	効率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
PC40WR4-243.3	9 - 36 VDC Nom. 24Vdc	3.3 Vdc	10000 mA	100mVp-p	88%	26600μF
PC40WR4-2405		5Vdc	8000 mA	100mVp-p	90%	20000μF
PC40WR4-2412		12 Vdc	3333 mA	125mVp-p	92%	3900μF
PC40WR4-2415		15 Vdc	2666 mA	125mVp-p	92%	2600μF
PC40WR4-2412D		±12 Vdc	±1666 mA	125mVp-p	90%	±2600μF
PC40WR4-2415D		±15 Vdc	±1333 mA	125mVp-p	90%	±1600μF
PC40WR4-2424D		±24 Vdc	±833 mA	200mVp-p	91%	±650μF
PC40WR4-483.3	18 - 75 VDC Nom. 48Vdc	3.3 Vdc	10000 mA	100mVp-p	88%	26600μF
PC40WR4-4805		5Vdc	8000 mA	100mVp-p	90%	20000μF
PC40WR4-4812		12 Vdc	3333 mA	125mVp-p	92%	3900μF
PC40WR4-4815		15 Vdc	2666 mA	125mVp-p	92%	2600μF
PC40WR4-4812D		±12 Vdc	±1666 mA	125mVp-p	90%	±2600μF
PC40WR4-4815D		±15 Vdc	±1333 mA	125mVp-p	90%	±1600μF
PC40WR4-4824D		±24 Vdc	±833 mA	200mVp-p	90%	±650μF

1. The efficiency is test by nominal input and full load at 25°C.
2. The capacitive load is test by minimum input and constant resistive load.
3. All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.
4. The product information and specifications are subject to change without prior notice.

型名称呼方法

PC 40 W R 4 - 24 3.3
 ↓ ↓ ↓ ↓ ↓
 モデル No. 電力 入力電圧 出力電圧

特徴

- ・コンパクトで高効率な60W
- ・-40°C to +110°C 広い動作温度範囲
- ・6面シールド構造
- ・短絡防止回路
- ・最小負荷は不要
- ・過負荷保護/過熱保護/過電圧保護
- ・高信頼性

アプリケーション

- ・産業機器
- ・通信機器
- ・省スペースソリューション
- ・ネットワーク機器



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	入力電流 @ no load	効率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
PC60WR4-243.3	9~36VDC Nom. 24VDC	3.3VDC	12000mA	15 mA	89%	28000uF
PC60WR4-2405		5VDC	12000mA	15 mA	91%	28000uF
PC60WR4-2412		12VDC	5000mA	15 mA	91%	5850uF
PC60WR4-2415		15VDC	4000mA	15 mA	92%	3900uF
PC60WR4-2424		24VDC	2500mA	15 mA	92%	2000uF
PC60WR4-2412D		±12VDC	±2500mA	15 mA	91%	±3900uF
PC60WR4-2415D		±15VDC	±2000mA	15 mA	91%	±2400uF
PC60WR4-2424D	18~75VDC Nom. 48VDC	±24VDC	±1250mA	15 mA	91%	±1000uF
PC60WR4-483.3		3.3VDC	12000mA	15 mA	89%	28000uF
PC60WR4-4805		5VDC	12000mA	15 mA	91%	28000uF
PC60WR4-4812		12VDC	5000mA	15 mA	92%	5850uF
PC60WR4-4815		15VDC	4000mA	15 mA	92%	3900uF
PC60WR4-4824		24VDC	2500mA	15 mA	92%	2000uF
PC60WR4-4812D		±12VDC	±2500mA	15 mA	90%	±3900uF
PC60WR4-4815D		±15VDC	±2000mA	15 mA	90%	±2400uF
PC60WR4-4824D		±24VDC	±1250mA	15 mA	90%	±1000uF

1. The efficiency is test by nominal input and max. full load @25°C.
2. The capacitive load is test by minimum input and constant resistive load.
3. All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.
4. The product information and specifications are subject to change without prior notice.

型名称呼方法

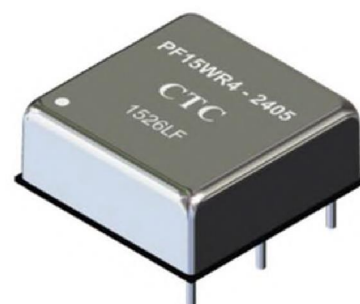
PC 60 WR4 - 24 05
 ↓ ↓ ↓ ↓ ↓
 モデルNo. 電力 ワイドレンジ (4:1) 入力電圧 出力電圧

特徴

- ・ 4:1 広い入力電圧範囲
- ・ コンパクト設計1x1" パッケージ
- ・ 高効率 90%
- ・ -40℃ to +105℃ 動作温度範囲
- ・ EMI class A
- ・ 短絡防止回路
- ・ 超低待機電力
- ・ 最小負荷は不要

アプリケーション

- ・ 低リップルノイズ
- ・ 産業機器
- ・ 通信機器
- ・ エネルギー/バッテリー電源アプリケーション



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	入力電流 @ no load	効 率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
PF15WR4-243.3	9-36 VDC Nom. 24 VDC	3.3 VDC	4000mA	7mA	85%	12000uF
PF15WR4-2405		5 VDC	3000mA	7mA	88%	6400uF
PF15WR4-2412		12 VDC	1250mA	7mA	88.5%	1200uF
PF15WR4-2415		15 VDC	1000mA	7mA	89%	900uF
PF15WR4-2424		24 VDC	625mA	7mA	89.5%	240uF
PF15WR4-2412D		±12 VDC	±625mA	7mA	87%	±520uF
PF15WR4-2415D		±15 VDC	±500mA	7mA	89%	±330uF
PF15WR4-483.3	18-75 VDC Nom. 48 VDC	3.3 VDC	4000mA	5mA	85%	12000uF
PF15WR4-4805		5 VDC	3000mA	5mA	88%	6400uF
PF15WR4-4812		12 VDC	1250mA	5mA	89%	1200uF
PF15WR4-4815		15 VDC	1000mA	5mA	89.5%	900uF
PF15WR4-4824		24 VDC	625mA	5mA	90%	240uF
PF15WR4-4812D		±12 VDC	±625mA	5mA	89.5%	±520uF
PF15WR4-4815D		±15 VDC	±500mA	5mA	89.5%	±330uF

1. The efficiency is tested by nominal input and maximum full load @25°C.
2. The capacitive load is tested by minimum input and constant resistive load.

型名称呼方法

P F 1 5 W R 4 - 2 4 0 5
 ↓ ↓ ↓ ↓ ↓ ↓
 モデル No. 電力 ワイドレンジ 入力電圧 出力電圧
 (4:1)

特徴

- ・ 4:1 広い入力電圧範囲
- ・ 30W コンパクト設計 1x1" パッケージ
- ・ -40°C to +105°C 動作温度範囲
- ・ 最小負荷は不要
- ・ 6面シールド構造
- ・ 短絡保護回路
- ・ EMI class A

アプリケーション

- ・ 産業機器
- ・ 待機電力アプリケーション
- ・ 通信機器
- ・ 省スペースソリューション



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	入力電流 @ no load	効 率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
PF30WR4-243.3	9-36 VDC Nom. 24VDC	3.3 VDC	7000 mA	10 mA	88.5%	10000µF
PF30WR4-2405		5 VDC	6000 mA	10 mA	89.0%	7200µF
PF30WR4-2412		12 VDC	2500 mA	10 mA	90.0%	1200µF
PF30WR4-2415		15 VDC	2000 mA	10 mA	90.5%	1000µF
PF30WR4-2424		24 VDC	1250 mA	10 mA	90.5%	380µF
PF30WR4-2412D		±12 VDC	±1250 mA	10 mA	89.0%	±750µF
PF30WR4-2415D		±15 VDC	±1000 mA	10 mA	90.0%	±500µF
PF30WR4-483.3	18-75 VDC Nom. 48VDC	3.3 VDC	7000 mA	10 mA	88.0%	10000µF
PF30WR4-4805		5 VDC	6000 mA	10 mA	90.0%	7200µF
PF30WR4-4812		12 VDC	2500 mA	10 mA	90.5%	1200µF
PF30WR4-4815		15 VDC	2000 mA	10 mA	90.5%	1000µF
PF30WR4-4824		24 VDC	1250 mA	10 mA	91.0%	380µF
PF30WR4-4812D		±12 VDC	±1250 mA	10 mA	90.5%	±750µF
PF30WR4-4815D		±15 VDC	±1000 mA	10 mA	91.0%	±500µF

1. The efficiency is test by nominal input and max. full load @25°C.
2. The capacitive load is test by minimum input and constant resistive load.
3. All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.

Part Number

P F 3 0 W R 4 - 2 4 0 5

↓
電力

↓
入力電圧

↓
出力電圧

特徴

- ・ ワイド入力電圧範囲 9-75Vdc
- ・ ハーフブリックパッケージで150W
- ・ 固定スイッチング周波数
- ・ 短絡防止回路
- ・ 過熱保護、過電圧/過電流保護、入力低電圧
ロックアウト、およびリモートON / OFF制御機能
- ・ 絶縁耐圧 3kVDC
- ・ UL62368/ IEC62368/ IEC60950/ EN62368/
EN50155 安全認証済

アプリケーション

- ・ 産業機器
- ・ 電力機器
- ・ バッテリー制御システム
- ・ オートメーションパワー機器
- ・ サーバー・データセンター



セレクトションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	リップル & ノイズ*	効率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max.)
PH150WR8-4812	9-75Vdc Nom. 48Vdc	12Vdc	12500mA	120mVp-p	89.5%	5000μF
PH150WR8-4824		24Vdc	6250mA	240mVp-p	88.5%	2000μF
PH150WR8-4828		28Vdc	5357mA	240mVp-p	89.0%	1500μF
PH150WR8-4848		48Vdc	3125mA	240mVp-p	88.5%	1000μF
PH150WR8-4854		54Vdc	2778mA	240mVp-p	89.0%	1000μF

1. The efficiency is test by 48V nominal input and max. full load @25°C.
2. The capacitive load is test by 9V input and constant resistive load.
3. Special input and output voltage combinations available by request, please check with our sales.

型名称呼方法

PH150WR8-4812

電力 ワイド 入力 出力
 入力レンジ 電圧 電圧

特徴

- ・ スイッチングレギュレーター
- ・ 非絶縁型DC-DCコンバーター
- ・ LM78xx linearと同ピン配列
- ・ 高効率 94.5%
- ・ -40°C to +90°C 動作温度範囲
- ・ 短絡防止回路
- ・ EN62368 安全認証

アプリケーション

- ・ レギュレーター
- ・ MCU アプリケーション
- ・ 通信機器



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	入力電流 @ no load	リップル & ノイズ [°] (Max.)	効率 ⁽³⁾ (typ.)	容量性負荷 ⁽⁴⁾ (max.)
A78A1.8-1.0	4.75-26 VDC	1.8 VDC	1000 mA	10mA	50mVp-p ⁽¹⁾	84-74%	470μF
A78A3.3-1.0	4.75-32 VDC	3.3 VDC	1000 mA	12mA	50mVp-p	89-81%	470μF
A78A5.0-1.0	6.5-32 VDC	5.0 VDC	1000 mA	16mA	50mVp-p	92-84.5%	470μF
A78A6.5-1.0	8-32 VDC	6.5 VDC	1000 mA	20mA	75mVp-p ⁽²⁾	93.5-87.5%	470μF
A78A12-1.0	15-32 VDC	12 VDC	1000 mA	23mA	100mVp-p	94-90.5%	470μF
A78A15-1.0	18-32 VDC	15 VDC	1000 mA	25mA	100mVp-p	94.5-91.5%	330μF

- ⁽¹⁾ If you use 26V input and the loading is less 5%, the R&N will be 100mVp-p (max.).
- ⁽²⁾ With a 4.7μF/50V X7R MLCC, the R&N will be 50mVp-p (max.).
- ⁽³⁾ The efficiency is test by max./ min. input voltage and full load @25°C, and ±2% tolerance.
- ⁽⁴⁾ The capacitive load is test by minimum input and constant resistive load.
- Special input and output voltage combinations available by request, please check our sales.
- All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.

型名称呼方法

A 7 8 A 1 . 8 - 1 . 0

↓ ↓

出力電圧 出力電流

特徴

- ・ スイッチングレギュレーター
- ・ 非絶縁型DC-DCコンバーター
- ・ LM78xx linearと同ピン配列
- ・ 高効率 94.5%
- ・ -40°C to +90°C 動作温度範囲
- ・ 短絡防止回路
- ・ EN62368 安全認証

アプリケーション

- ・ レギュレーター
- ・ MCU アプリケーション
- ・ 通信機器



セレクトションガイド

型 式	入力電圧	出力電圧	出力電流 @ full load	リップル & ノイズ ⁽¹⁾ (Max.)	効率 ⁽²⁾		容量性負荷 ⁽³⁾ (Max.)
					Min. Vin	Max. Vin	
A78EB1.8-0.5	4.75-36 VDC	1.8 VDC	500mA	50mVp-p	90.0%	73.0%	470μF
A78EB3.3-0.5	4.75-36 VDC	3.3 VDC	500mA	50mVp-p	94.5%	82.5%	470μF
A78EB5.0-0.5	6.5-36 VDC	5.0 VDC	500mA	50mVp-p	95.5%	86.0%	470μF
A78EB6.5-0.5	8-36 VDC	6.5 VDC	500mA	60mVp-p	96.5%	87.5%	470μF
A78EB9.0-0.5	11-36 VDC	9.0 VDC	500mA	70mVp-p	96.5%	90.0%	470μF
A78EB12-0.5	15-36 VDC	12 VDC	500mA	70mVp-p	96.5%	91.0%	330μF
A78EB15-0.5	18-36 VDC	15 VDC	500mA	70mVp-p	96.5%	93.5%	270μF

- ⁽¹⁾ At the lowest input voltage, the loading is less 15%(75mA), the R&N will be 150mVp-p (max.).
- ⁽²⁾ The efficiency is test by max./ min. input voltage and full load @25°C.
- ⁽³⁾ The capacitive load is test by minimum input and constant resistive load.
- All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.

型名称方法

A 7 8 E B 1 . 8 - 0 . 5

出力電圧 出力電流

特徴

- ・ 非絶縁型DC-DCコンバーター
- ・ 3-14.4Vdc 入力電圧範囲
- ・ Programmable 出力電圧 0.6-5.5Vdc
- ・ 高効率 91%
- ・ 短絡保護とリモート ON/OFF 機能
- ・ 動作温度範囲 -40°C to 90°C
- ・ EN62368 安全認証

アプリケーション

- ・ 分散型電源アーキテクチャ
- ・ バス電圧アプリケーション
- ・ 通信機器
- ・ サーバー、ストレージアプリケーション
- ・ ネットワーク機器
- ・ 産業機器



セレクションガイド

型 式	入力電圧	出力電圧	出力電流 @full load	入力電流 ⁽¹⁾ @no load	効率 ⁽²⁾ (typ.)	容量性負荷 ⁽³⁾ (max)	ON/OFF Logic
AGN-12T12A-P	3 - 14.4 VDC	0.6 - 5.5 VDC	12 A	30mA	91%	200μF	Positive
AGN-12T12A-N	3 - 14.4 VDC	0.6 - 5.5 VDC	12 A	30mA	91%	200μF	Negative

1. The no load input current is test by 0.6V output.
2. The efficiency is test by nominal input, 5Vout and full load @25°C.
3. The capacitive load is test by minimum input and constant resistive load.
4. All specifications valid at 12V input, full load and 25°C after warm-up time unless otherwise stated.

Part Number

AGN-12T12A-P

モデル No. 入力電圧 出力電流 Positive

特徴

- 非絶縁型DC-DCコンバーター
- 3-14Vdc 入力電圧範囲
- Programmable 出力電圧範囲 0.9-5.5Vdc
- 高効率 89.5%
- 短絡防止回路とリモート ON/OFF 機能
- 動作温度範囲 -40°C to 82°C

アプリケーション

- 産業機器
- MCU制御アプリケーション
- 費用対効果の高いアプリケーション



セクションガイド

型 式	入力電圧	出力電圧	出力電流 @full load	入力電流 @no load	効率 ⁽¹⁾ (typ.)	容量性負荷 ⁽²⁾ (max)
ATN-12T1000	3-14Vdc Nom. 12Vdc	0.9-5.5Vdc Nom. 5Vdc	1000 mA	15mA	89.5%	200μF

1. The efficiency is test by nominal input, 5Vout and full load @25°C.
2. The capacitive load is test by minimum input and constant resistive load.
3. All specifications valid at 12V input, full load and 25°C after warm-up time unless otherwise stated.
4. Special input and output voltage combinations available by request, please check with our sales.

型名称呼方法

A T N - 12 T 1000

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 入力電圧 出力電流

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD, Contact of Bus terminal: ± 15 kV
- IEC 61000-4-4 EFT, Electrical fast transient : ± 4 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 7070Vdc
- Insulation rating : Reinforced, 8mm creepage/clearance
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated RS-485 TRX
 - Compatible with TIA/EIA-485-A, CC-Link
 - Wide VDD = 1.71~5.5V to MCU interface
 - Higher VOD > 2.0V for better noise immunity
 - Up to 12Mbps
 - Up to 4000 feet communication at 9600bps
 - 1/8 Unit load up to 256 nodes on bus
- High CMTI : 100KV/ μ s (typ.)
- Glitch-free power-up and power-down for hot plugin
- Protection Schemes
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
 - True Failsafe receiver for bus open, short, and idle
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Reinforced insulation
 - Listed validation standards qualified

アプリケーション

- CC-Link
- ESS and UPS
- VFD Motor Control
- Solar Inverter
- Factory Automation
- HVAC and Building Automation

外形寸法

Body Size: 18 x 16 x 7.5 mm (20 pins)



IEC/EN62368

(planned, on-going)

ISO485Fについて

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	EIA-485, CC-Link
Data rate	12Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	7070Vdc
Insulation	Reinforced

ISO485F is an All-in-One galvanically isolated RS-485/ EIA-485-A Compatible module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of EIA-485 standard up to 12Mbps data rate, compatible to 10Mbps CC-Link, and results high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. For safety requirement, ISO485F is certified by Reinforced insulation with minimum 8mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO485F in RS-485 half-duplex applications such as factory automation (PLC, DSC, VFD, CC-Link, etc) and industrial power system (ESS, UPS, Solar Inverter, etc). The protection features of ISO485F include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD, Contact of Bus terminal: ± 15 kV
- IEC 61000-4-4 EFT, Electrical fast transient : ± 4 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated RS-485 TRX
 - Compatible with TIA/EIA-485-A and PROFIBUS
 - Wide VDD = 1.71~5.5V to MCU interface
 - Min. VOD = 1.5V to meet RS-485 requirement
 - Up to 1Mbps
 - Up to 4000 feet communication at 9600bps
 - 1/8 Unit load up to 256 nodes on bus
- High CMTI : 100KV/ μ s (typ.)
- Glitch-free power-up and power-down for hot plugin
- Protection Schemes
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
 - Failsafe receiver for bus open, short, and idle
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Power Grid Infrastructure
- ESS and UPS
- VFD Motor Control
- Solar Inverter
- Factory Automation
- HVAC and Building Automation

外形寸法

Small Body Size: 16 x 12.5 x 7.5 mm (16 pins)



IEC/EN62368

(planned, on-going)

ISO485T2について

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	EIA-485-A
Data rate	1Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	4242Vdc
Insulation	Basic

ISO485T2 is an All-in-One galvanically isolated RS-485 Compatible module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of TIA/EIA-485-A standard up to 1Mbps data rate and results high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. For safety requirement, ISO485T2 is certified by Basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO485T2 in RS-485 half-duplex applications such as factory automation (PLC, DSC, VFD, etc) and industrial power system (ESS, UPS, Solar Inverter, etc). The protection features of ISO485T2 include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD contact : ± 8 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance (min.)
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated CAN TRX
 - Wide VDD = 1.71~5.5V to MCU interface
 - Classic CAN to 1Mbps and FD mode up to 5Mbps
 - High CMTI : 85KV/ μ s (min.)
 - 100 or more nodes on the bus
 - CAN BUS fault tolerance up to ± 58 V
 - CAN BUS RX common mode input voltage ± 12 V
- Protection Schemes
 - CAN BUS line short-circuit fault protection
 - CAN BUS TX dominate timeout protection 2 ms (min.)
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - Miswire protection @ CANH and CANL ± 58 V to GND2
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- PLC and DSC
- ESS and UPS
- VFD Motor Control
- Solar Inverter
- Electric Motorcycle
- Elevators and Escalators
- OpenCAN, ARINC 825, NMEA 2000

外形寸法

Small SMT Size: 16 x 12.5 x 7.5 mm (16 pins)



CE
IEC/EN62368

ISO55T2について

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	Classic CAN and FD mode
Data rate	5Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	85KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	4242Vdc
Insulation	Basic

ISO55T2 is a complete galvanically isolated CAN (controller area network) module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of the ISO11898-2 (2016) standard 1Mbps and 5Mbps FD (Flexible data rate) mode and results high CMTI (Common Mode Transient Immunity) 85KV/ μ s for extremely good signal integrity. For safety requirement, ISO55T2 is certified by basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO55T2 in CAN applications such as factory automation (PLC, DSC, VFD, etc) and industrial power system (ESS, UPS, Solar Inverter, etc). The protection features of ISO55T2 include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial grade : -40°C to 85°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD, Air discharge of Bus terminal: ± 15 kV
- IEC 61000-4-4 EFT, Electrical fast transient : ± 4 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated RS-232 full duplex TRX
 - Compatible with TIA/EIA-232-F and ITU V.28
 - Wide VDD = 2.25~5.5V to MCU interface
 - One driver and One receivers, single channel
 - Up to 250Kbps
 - High CMTI : 75KV/ μ s
 - Driver output slew rate 30V / μ s
- Protection Schemes
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
 - True Failsafe receiver for bus open, short, and idle
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Isolated RS-232 interface
- Isolated Diagnostic port
- High noise data communication
- ESS and UPS
- Factory Automation
- Test and Measurement equipment

外形寸法

Body Size: 18 x 16 x 7.5 mm (20 pins)



IEC/EN62368

(planned, on-going)

ISO232T1について

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	TIA/EIA-232 (Single)
Data rate	250Kbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	75KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	4242Vdc
Insulation	Basic

ISO232T1 is an All-in-One galvanically isolated RS-232/ EIA-232-F Compatible module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of TIA/EIA-232 standard up to 250Kbps data rate and results high CMTI (Common Mode Transient Immunity) 75KV/ μ s for extremely good signal integrity. For safety requirement, ISO232T1 is certified by basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO232T1 in RS-232 full-duplex applications such as factory automation and industrial high noise communication. The protection features of ISO232T1 include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

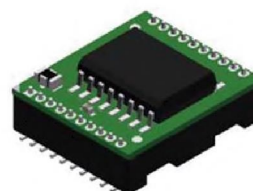
- Industrial grade : -40°C to 85°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD, Air discharge of Bus terminal: ± 15 kV
- IEC 61000-4-4 EFT, Electrical fast transient : ± 4 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated RS-232 full duplex TRX
 - Compatible with TIA/EIA-232-F and ITU V.28
 - Wide VDD = 2.25~5.5V to MCU interface
 - Two drivers and two receivers, dual channel
 - Up to 250Kbps
 - High CMTI : 100KV/ μ s
 - Driver output slew rate 30V / μ s
- Protection Schemes
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
 - True Failsafe receiver for bus open, short, and idle
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Isolated RS-232 interface
- Isolated Diagnostic port
- High noise data communication
- ESS and UPS
- Factory Automation
- Test and Measurement equipment

外形寸法

Body Size: 18 x 16 x 7.5 mm (20 pins)



IEC/EN62368

(planned, on-going)

ISO232T2について

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	TIA/EIA-232 (Dual)
Data rate	250Kbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	4242Vdc
Insulation	Basic

ISO232T2 is an All-in-One galvanically isolated RS-232/ EIA-232-F Compatible module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of TIA/EIA-232 standard up to 250Kbps data rate and results high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. For safety requirement, ISO232T2 is certified by basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO232T2 in RS-232 full-duplex applications such as factory automation and industrial high noise communication. The protection features of ISO232T2 include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply Range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD contact : ± 8 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance
- Integrated isolated DC/DC converter
 - max. 500mW output power
- Selectable 5V or 3.3V output, $\pm 0.2\%$ load regulation
 - If SEL = VISO, and then VISO = 5V
 - If SEL = GND2, and then VISO = 3.3V
- Integrated 4-channel digital isolators
 - wide VDD = 2.25~5.5V to MCU interface
 - 3 of Forward channels (output default low)
 - 1 of Reverse channel (output default low)
 - Max. data rate : 50Mbps
- High CMTI : 100KV/ μ s typ.
- Protection Schemes:
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - Short current limit @ 0.25A typical
 - UVLO 4.2V with 0.5V hysteresis to prevent fault operation
 - Thermal shut down typ. @ 150°C and resumes @ 130°C
- Easy-To-Use and Validation
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Industrial automation
- Isolated sensor interfaces
- 4-wire Isolated SPI
- Industrial PLCs
- Motor control
- General purpose isolators

外形寸法

Small Body Size: 16 x 12.5 x 7.5 mm (16 pins)



IEC/EN62368
(planned, on-going)

ISO41Tについて

Major Characteristic	
VIN	4.5V~5.5V
VOUT	5V or 3.3V, $\pm 0.2\%$ regulation
IOUT	max. 500mW
Interface	4-channel digital isolators
Data rate	0~50Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 class A and B
Isolation	4242Vdc
Insulation	Basic

ISO41T is a complete galvanically isolated 4-channels Digital Isolator module integrated an isolated DC-DC converter with CISPR32/EMI compliant. For safety requirement, ISO41T is certified by basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. ISO41T contains 3 of forward channels and 1 of reverse channel featuring data rate 50Mbps and high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. User is very flexible to use ISO41T in different scenarios such as 4-wire SPI to access an ADC for voltage or current measurement. In such case, VISO pin can offer a regulated 3.3V or 5.0V output to power up the external ADC by SEL pin setting. In addition, protection features of ISO41T include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD, Contact of Bus terminal: ± 15 kV
- IEC 61000-4-4 EFT, Electrical fast transient : ± 4 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 8mm creepage/clearance
- All-in-One integrated module
- Integrated isolated DC/DC converter
- Integrated galvanically-isolated RS-422 TRX
 - Compatible with TIA/EIA-422-A full duplex (A B Z Y)
 - Wide VDD = 1.71~5.5V to MCU interface
 - Higher VOD > 2.0V for better noise immunity
 - Up to 12Mbps
 - Up to 4000 feet communication at 9600bps
 - 1/8 Unit load up to 256 nodes on bus
- High CMTI : 100KV/ μ s (typ.)
- Glitch-free power-up and power-down for hot plugin
- Protection Schemes
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - UVLO of VIN and VDD to prevent fault operation
 - Thermal shut down with auto recovery
 - True Failsafe receiver for bus open, short, and idle
- Easy-To-Use
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Power Grid Infrastructure
- ESS and UPS
- VFD Motor Control
- Solar Inverter
- Factory Automation
- HVAC and Building Automation

外形寸法

Body Size: 18 x 16 x 7.5 mm (20 pins)



IEC/EN62368

(planned, on-going)

ISO422Tについて

Major Characteristic	
VIN	4.5V~5.5V
VOUT	n/a
IOUT	n/a
Interface	EIA-422 (A B Y Z)
Data rate	12Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 Filter on-board
Isolation	4242Vdc
Insulation	Basic

ISO422T is an All-in-One galvanically isolated RS-422/ EIA-422-A Compatible module integrated a DC-DC converter with CISPR32/EMI class A and B compliant. This module meets the specifications of EIA-422 standard up to 12Mbps data rate and results high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. For safety requirement, ISO422T is certified by basic insulation with minimum 8mm creepage/clearance according to IEC/EN62368 standard. User is very easy to use ISO422T in RS-422 full-duplex applications such as factory automation (PLC, DSC, VFD, etc) and industrial power system (ESS, UPS, Solar Inverter, etc). The protection features of ISO422T include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.

特徴

- Industrial Extended grade : -40°C to 105°C
- Input Supply Range : 4.5V ~ 5.5V
- IEC61000-4-2 ESD contact : ± 8 kV
- Low EMI and high Surge, EFT immunity
- Isolation rating : 4242Vdc
- Insulation rating : Basic, 4mm creepage/clearance
- Integrated isolated DC/DC converter
 - max. 500mW output power
- Selectable 5V or 3.3V output, $\pm 0.2\%$ load regulation
 - If SEL = VISO, and then VISO = 5V
 - If SEL = GND2, and then VISO = 3.3V
- Integrated 4-channel digital isolators
 - wide VDD = 2.25~5.5V to MCU interface
 - 2 of Forward channels (output default low)
 - 2 of Reverse channels
 - Max. data rate : 50Mbps
- High CMTI : 100KV/ μ s typ.
- Protection Schemes:
 - Soft start to prevent inrush current from VIN
 - Short-circuit protection with auto recovery
 - Short current limit @ 0.25A typical
 - UVLO 4.2V with 0.5V hysteresis to prevent fault operation
 - Thermal shut down typ. @ 150°C and resumes @ 130°C
- Easy-To-Use and Validation
 - No external component required
 - Remote ON/OFF control
 - Built-in EMI filter with CISPR 32 class A and B compliant
 - No minimum load required
 - RoHS/REACH compliant
 - IEC/EN62368 recognized, Basic insulation
 - Listed validation standards qualified

アプリケーション

- Industrial automation
- Data Acquisition
- Industrial PLCs
- Motor control
- General purpose isolators
- Full bridge Power Supplier

外形寸法

Small Body Size: 16 x 12.5 x 7.5 mm (16 pins)



IEC/EN62368

(planned, on-going)

ISO42Tについて

Major Characteristic	
VIN	4.5V~5.5V
VOUT	5V or 3.3V, $\pm 0.2\%$ regulation
IOUT	max. 500mW
Interface	4-channel digital isolators
Data rate	0~50Mbps
Protection	SCP, UVLO, OTP, Soft start
CMTI	100KV/ μ s
EMI	CISPR32 class A and B
Isolation	4242Vdc
Insulation	Basic

ISO42T is a complete galvanically isolated 4-channels Digital Isolator module integrated an isolated DC-DC converter with CISPR32/EMI compliant. For safety requirement, ISO42T is certified by basic insulation with minimum 4mm creepage/clearance according to IEC/EN62368 standard. ISO42T contains 2 of forward channels and 2 of reverse channels featuring data rate 50Mbps and high CMTI (Common Mode Transient Immunity) 100KV/ μ s for extremely good signal integrity. User is very flexible to use ISO42T in different scenarios such as two-channels of UART or general purposes. In addition, protection features of ISO42T include auto recovery SCP (Short Circuit Protection), OTP (Over Temperature Shut Down), UVLO (Under Voltage Lockout) and soft start to reduce inrush current. Overall, those features are integrated into a small, robust, and easy-to-use module with no external component required.



Coil Technology Corporation

Coil Technology Corporation 頻譜電子工業股份有限公司は、1987年以来、
グローバルブランド向けのハイエンドパワーモジュールの専門プロバイダーです。
最先端のテクノロジーと非常に柔軟なリードタイムで高品質な製品をお届けいたします。

本 社	台 湾
設 立	1987年
主 要 商 品	絶縁型DC-DCコンバーター/非絶縁DC-DCコンバーター/AC-DCコンバーター/デジタルアイソレーター/など
認 証 企 画	ISO 9001 / IATF 16949 / ISO/TS 22163 / ANSI/ESD 2020

