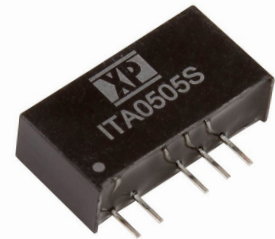


The ITA series is housed in a SIP7 plastic case for PCB mounting. Featuring a $\pm 10\%$ input voltage range for 5, 12 & 24VDC nominal inputs, offering dual outputs ± 5 , ± 12 & ± 15 VDC.

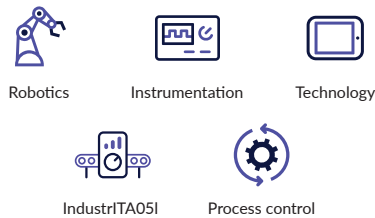
The 1W ITA provides 1.5kVDC isolation between input and output, short circuit protection is standard. The operating temperature range is from -40°C to $+105^{\circ}\text{C}$ with derating from $+95^{\circ}\text{C}$.



Features

- ▶ Semi-regulated dual outputs
- ▶ $\pm 10\%$ input range
- ▶ Dual outputs ± 3.3 to ± 15 VDC
- ▶ SIP7 package
- ▶ 1.5kVDC isolation
- ▶ Class B conducted & radiated emissions
- ▶ -40°C to $+105^{\circ}\text{C}$ operation
- ▶ Full load to 95°C ambient
- ▶ 3 year warranty

Applications



Dimensions

19.5 x 6.0 x 10.0mm (0.76" x 0.24" x 0.39")

Models & ratings

Model number ⁽¹⁾	Input voltage	Output voltage	Output current ⁽²⁾	Input current		Maximum Capacitive Load	Efficiency
				No load	Full load		
ITA0505S	5VDC	± 5.0 VDC	± 100 mA	30mA	253mA	± 100 μ F	80%
ITA0512S		± 12 VDC	± 41.6 mA		250mA	± 47 μ F	81%
ITA0515S		± 15 VDC	± 33.3 mA		250mA	± 47 μ F	81%
ITA1205S	12VDC	± 5.0 VDC	± 100 mA	15mA	106mA	± 100 μ F	80%
ITA1212S		± 12 VDC	± 41.6 mA		106mA	± 47 μ F	80%
ITA1215S		± 15 VDC	± 33.3 mA		104mA	± 47 μ F	81%
ITA2405S	24VDC	± 5.0 VDC	± 100 mA	7mA	53mA	± 100 μ F	80%
ITA2412S		± 12 VDC	± 41.6 mA		53mA	± 47 μ F	80%
ITA2415S		± 15 VDC	± 33.3 mA		53mA	± 47 μ F	80%

Notes:

1. Replace 'S' in model number with 'D' for DIP package.

2. Outputs power-trade.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage range	4.5		5.5	VDC	5V nominal
	10.8		13.2		12V nominal
	21.6		26.4		24V nominal
Input filter	Capacitor				
Input reflected ripple			15	mA pk-pk	Through 12 μ H inductor and 47 μ F capacitor
Input surge			9	VDC for 1000ms	5V models
			18		12V models
			30		24V models

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	± 5		± 15	VDC	See models and ratings table
Initial set accuracy			± 5	%	At 70% load
Minimum load	10			%	Minimum load required to meet specification, operation at no load will not cause damage.
Line regulation			± 1.2	%/1%Vin	
Load regulation			+5, -2.5	%	From 10% to full load from 70% load point
Cross regulation			± 5	%	When one load is varied between 25% and 100% and other is fixed at 100%
Ripple & noise			60	mV pk-pk	20MHz bandwidth. Measured using 0.1 μ F ceramic capacitor
Short circuit protection					Continuous, with auto recovery
Maximum capacitive load	See models and ratings table				
Temperature coefficient			0.02	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency		80		%	
Isolation: input to output	1500			VDC	
Switching frequency	40/50		50/70	kHz	5V/12-24V input
Isolation resistance	10 ⁹			Ω	
Isolation capacitance		50		pF	
Power density			0.85 (14)	W/cm ³ (W/in ³)	
Mean time between failure	3.6			Mhrs	MIL-HDBK-217F, +25 °C GB
Weight		2.4 (0.0053)		g (lb)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+105	°C	Derate from 100% load at +95°C to 90% at +105°C
Storage temperature	-55		+125	°C	
Case temperature			+115	°C	
Humidity			95	%RH	Non-condensing
Cooling	Natural convection				

Safety approvals

Certification	Standard	Notes & conditions
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

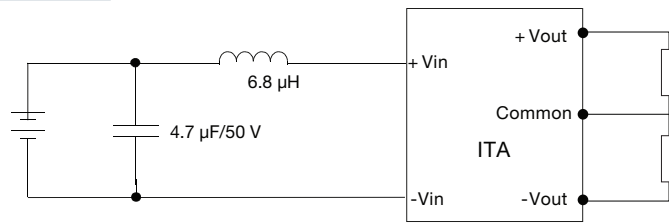
Emissions - EMC

Phenomenon	Standard	Test level	Notes & conditions
Conducted	EN55022	Class B	Class B / external components
Radiated	EN55022	Class B	

Immunity - EMC

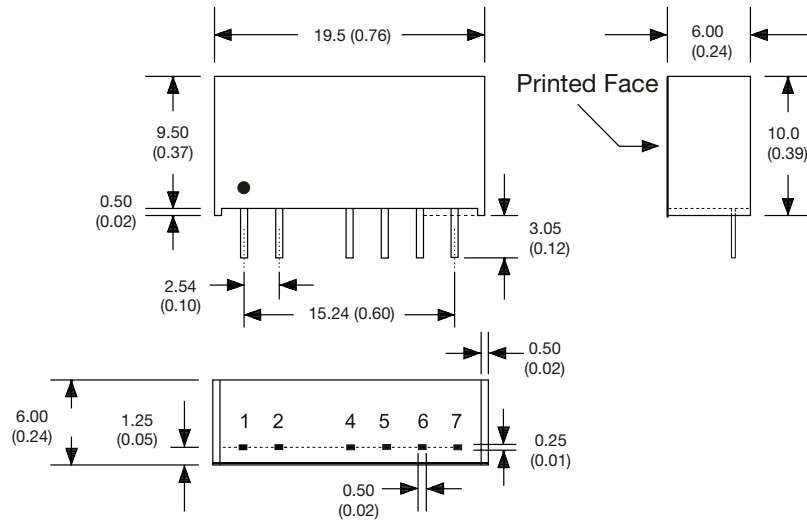
Phenomenon	Standard	Test level	Criteria	Notes & conditions
ESD immunity	EN61000-4-2	3	A	
RadITA05ted immunity	EN61000-4-3	10 Vrms	A	
EFT/Burst	EN61000-4-4	3	A	External input capacitor required 330µF/100V
Surge	EN61000-4-5	1	A	External input capacitor required 330µF/100V
Conducted immunity	EN61000-4-6	3 V rms	A	
Magnetic fields	EN61000-4-8	1 A/m	A	

Application notes



1206 Chip Capacitor, placed as close as possible to the input pins

Mechanical details



Pin number	Dual
1	+Vin
2	-Vin
4	-Vout
5	Common
6	+Vout
7	No Pin

Notes:

- All dimensions in mm (inches).
- Weight: 2.4g (0.0053lbs)

- Pin diameter: 0.5±0.05 (0.02±0.002)
- Pin pitch tolerance: ±0.35 (±0.014)
- Case tolerance: ±0.5 (±0.02)

Specifications subject to change without notice.