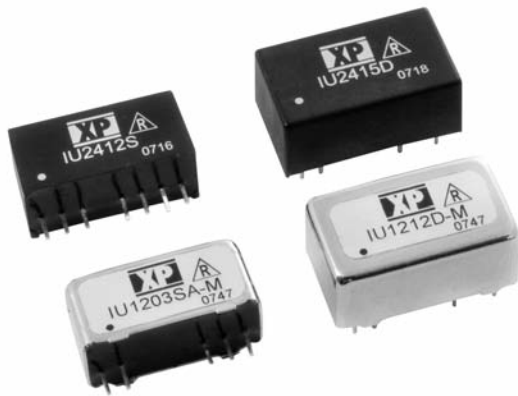


2 Watts IU Series



- Regulated Single & Dual Output
- Wide 2:1 Input Range
- SIP or DIP Package
- 1000 VDC Isolation (Optional 3000 VDC)
- Optional Metal Case
- Continuous Short Circuit Protection
- 3 Year Warranty

Specification

Input

- Input Voltage Range • See table
- Input Reflected Ripple Current • 35 mA pk-pk through 12 μ H inductor, 5-20 MHz
- Input Filter • Capacitor

Output

- Output Voltage • See table
- Minimum Load • None⁽⁸⁾
- Line Regulation • $\pm 0.5\%$
- Load Regulation • $\pm 1\%$ for 25-100% load
- Setpoint Accuracy • $\pm 2\%$
- Cross Regulation • $\pm 5\%$ on dual output models
- Ripple & Noise • 80 mV pk-pk max, 20 MHz bandwidth⁽⁶⁾
- Short Circuit Protection • Continuous with auto recovery (foldback)
- Max Capacitive Load • See table
- Remote On/Off • Optional on SIP package model⁽⁴⁾
- Temperature Coefficient • 0.02%/C

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC, Optional 3000 VDC (see note 2)
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 60 pF
- Switching Frequency • 100-650 kHz
- MTBF • >1.61 Mhrs to MIL-HDBK-217F, at 25 °C, GB

Environmental

- Operating Temperature • -40 °C to +85 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • +100 °C max
- Cooling • Convection cooled

Notes

- For dual inline package replace 'S' in model number with 'D'.
- For optional 3 kV isolation add suffix '-H' to the model number.
- For dual output delete suffix 'A' & split output current equally between rails.
- For optional Remote On/Off on SIP models, add suffix '-R' to model number. Applying 5 V via 1 k Ω current limiting resistor and diode turns output off.
- For optional metal case, add suffix '-M' to model number.
- Output capacitor of 100 μ F required to meet quoted ripple & noise.
- Minimum load of 25% required to meet quoted specifications.
- Operation at no load will not damage device but may not meet all specifications.
- Pin pitch tolerance: ± 0.014 (± 0.35), Case tolerance: ± 0.02 (± 0.5)
- Weight: SIP 0.009 lbs (4.0 g), DIP 0.013 lbs (6.0 g), Metal case weight: SIP 0.014 lbs (6.5 g), DIP 0.017 lbs (8.0 g), consult sales for drawing

Input Voltage	No Load Input Current	Output Voltage ⁽⁹⁾	Output Current	Max. Capacitive Load	Efficiency	Model Number (1,2,3,4,5)
4.5-9.0 V	15 mA	3.3 V	500 mA	3300 μ F	67%	IU0503SA†‡
	15 mA	5.0 V	400 mA	3300 μ F	70%	IU0505SA†‡
	30 mA	9.0 V	222 mA	470 μ F	72%	IU0509SA†‡
	30 mA	12.0 V	167 mA	470 μ F	72%	IU0512SA†‡
	30 mA	15.0 V	133 mA	470 μ F	73%	IU0515SA†‡
	60 mA	24.0 V	83 mA	220 μ F	75%	IU0524SA†‡
9.0-18.0 V	15 mA	3.3 V	500 mA	3300 μ F	67%	IU1203SA†‡
	15 mA	5.0 V	400 mA	3300 μ F	77%	IU1205SA†‡
	15 mA	9.0 V	222 mA	470 μ F	78%	IU1209SA†‡
	15 mA	12.0 V	167 mA	470 μ F	80%	IU1212SA†‡
	15 mA	15.0 V	133 mA	470 μ F	78%	IU1215SA†‡
	15 mA	24.0 V	83 mA	220 μ F	80%	IU1224SA†‡
18.0-36.0 V	8 mA	3.3 V	500 mA	3300 μ F	70%	IU2403SA†‡
	8 mA	5.0 V	400 mA	3300 μ F	77%	IU2405SA†‡
	8 mA	9.0 V	222 mA	470 μ F	80%	IU2409SA†‡
	8 mA	12.0 V	167 mA	470 μ F	80%	IU2412SA†‡
	8 mA	15.0 V	133 mA	470 μ F	80%	IU2415SA†‡
	8 mA	24.0 V	83 mA	220 μ F	80%	IU2424SA†‡
36.0-72.0 V	6 mA	3.3 V	500 mA	3300 μ F	71%	IU4803SA†‡
	6 mA	5.0 V	400 mA	3300 μ F	74%	IU4805SA†‡
	6 mA	9.0 V	222 mA	470 μ F	78%	IU4809SA†‡
	6 mA	12.0 V	167 mA	470 μ F	78%	IU4812SA†‡
	6 mA	15.0 V	133 mA	470 μ F	78%	IU4815SA†‡
	6 mA	24.0 V	83 mA	220 μ F	80%	IU4824SA†‡

† Available from Farnell. See pages 266-269.
 ‡ Available from Newark. See pages 270-272.

Mechanical Details

PIN CONNECTIONS

Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	Opt. ROF*	Opt. ROF**
5	N.P. / N.C.	N.C.
6	+V Output	+V Output
7	-V Output	-V Output
8	NC	Common

* When optional ROF is present pin 5 is No Connection. When not present pin 3 & 5 are No Pin.

** When optional ROF is present pin 5 is No Connection. When not present pin 3 & 5 are No Connection.

PIN CONNECTIONS

Pin	Single	Dual
1	-V Input	-V Input
2	-V Input	-V Input
6	NC	Common
8	NC	-V Output
9	+V Output	+V Output
11	-V Output	Common
15	+V Input	+V Input
16	+V Input	+V Input