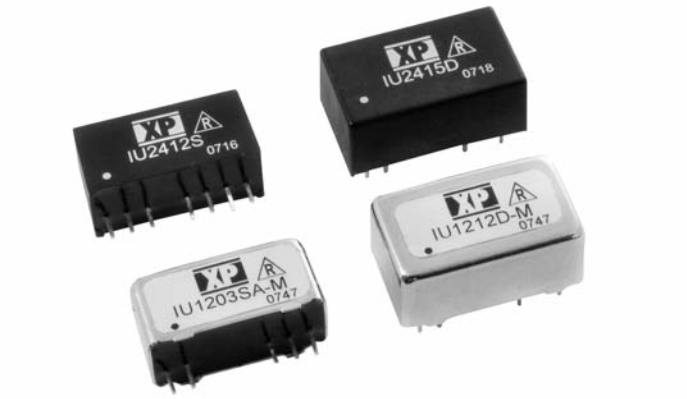
2 Watts
IU Series



- 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 µH inductor, 5-20 MHz
Input Filter	• Capacitor

Output

Output Voltage	• See table
Minimum Load	• None[8]
Line Regulation	• ±0.5%
Load Regulation	• ±1% for a 25-100% load change[7]
Setpoint Accuracy	• ±2%
Cross Regulation	• ±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[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

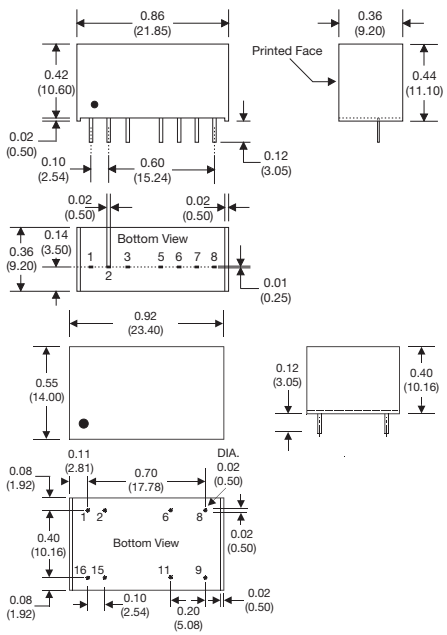
Notes

1. For dual inline package replace 'S' in model number with 'D'.
2. For optional 3 kV isolation add suffix '-H' to the model number.
3. For dual output delete suffix 'A' & split output current equally between rails.
4. For optional Remote On/Off on SIP models, add suffix '-R' to model number. Applying 5 V via 1 k current limiting resistor and diode turns output off.
5. For optional metal case, add suffix '-M' to model number.
6. Output capacitor of 100 µF required to meet quoted ripple & noise.
7. Minimum load of 25% required to meet load regulation & ripple & noise specifications.
8. Operation at no load will not damage device but may not meet all specifications.
9. Pin pitch tolerance: ±0.014 (±0.35), Case tolerance: ±0.02 (±0.5)
10. 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[3]	Output Current	Max. Capacitve Load	Efficiency	Model Number (1-5)
4.5-9.0 V	15 mA	3.3 V	500 mA	3300 µF	67%	IU0503SA†^
	15 mA	5.0 V	400 mA	3300 µF	70%	IU0505SA†^
	30 mA	9.0 V	222 mA	470 µF	72%	IU0509SA†^
	30 mA	12.0 V	167 mA	470 µF	72%	IU0512SA†^
	30 mA	15.0 V	133 mA	470 µF	73%	IU0515SA†^
	60 mA	24.0 V	83 mA	220 µF	75%	IU0524SA†^
9.0-18.0 V	15 mA	3.3 V	500 mA	3300 µF	67%	IU1203SA†^
	15 mA	5.0 V	400 mA	3300 µF	77%	IU1205SA†^
	15 mA	9.0 V	222 mA	470 µF	78%	IU1209SA†^
	15 mA	12.0 V	167 mA	470 µF	80%	IU1212SA†^
	15 mA	15.0 V	133 mA	470 µF	78%	IU1215SA†^
	15 mA	24.0 V	83 mA	220 µF	80%	IU1224SA†^
18.0-36.0 V	8 mA	3.3 V	500 mA	3300 µF	70%	IU2403SA†^
	8 mA	5.0 V	400 mA	3300 µF	77%	IU2405SA†^
	8 mA	9.0 V	222 mA	470 µF	80%	IU2409SA†^
	8 mA	12.0 V	167 mA	470 µF	80%	IU2412SA†^
	8 mA	15.0 V	133 mA	470 µF	80%	IU2415SA†^
	8 mA	24.0 V	83 mA	220 µF	80%	IU2424SA†^
36.0-72.0 V	6 mA	3.3 V	500 mA	3300 µF	71%	IU4803SA†^
	6 mA	5.0 V	400 mA	3300 µF	74%	IU4805SA†^
	6 mA	9.0 V	222 mA	470 µF	78%	IU4809SA†^
	6 mA	12.0 V	167 mA	470 µF	78%	IU4812SA†^
	6 mA	15.0 V	133 mA	470 µF	78%	IU4815SA†^
	6 mA	24.0 V	83 mA	220 µF	80%	IU4824SA†^

† Available from Farnell & element14. See pages 284-290.
^ Available from Newark. See pages 291-296.

Mechanical Details



All dimensions in inches (mm)

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