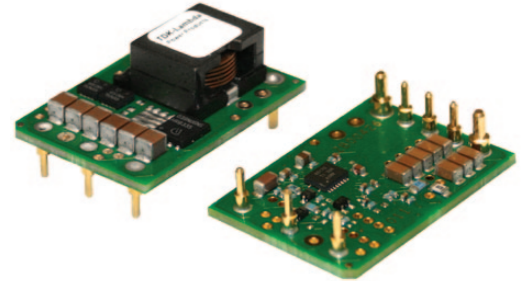




250W, 9-53V Input Non-isolated DC-DC Converter

Features	Benefits
• Up to 250W in a 1/16th brick package	• Very High Power Density
• Very high Efficiency up to 97%	• Easier Thermal Management
• Wide Output Adjustment 3.3 to 15V & 3.3 to 40V	• Address Multiple Applications
• Minimal External Components Needed	• Less Board Area Required



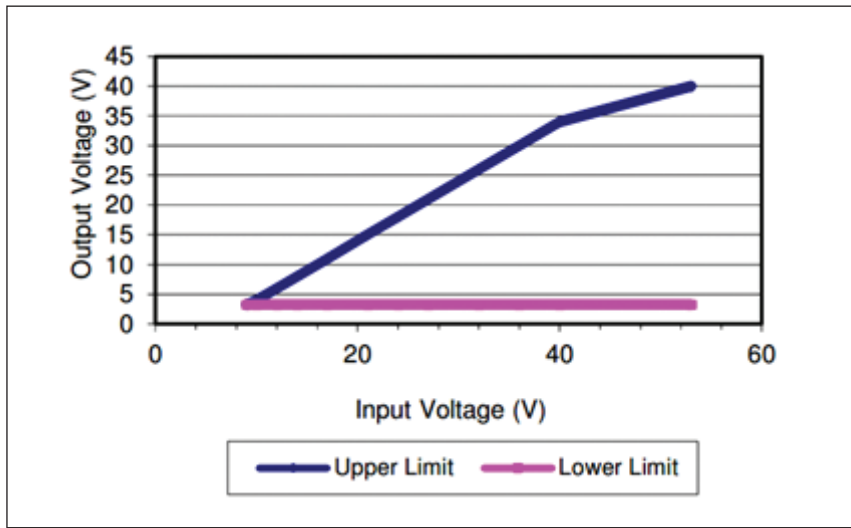
Specification		i6A4W010A033V	i6A4W020A033V
Model			
DC Output Voltage	V	3.3 to 40V	3.3 to 15V
DC Output Power (max)	W	250	
DC Input Voltage	V	9 to 53 (Turn on at 10V or greater)	
Efficiency	%	90 - 97	
Output Voltage Tolerance	%	±4	
Switching Frequency	kHz	400	
Line Regulation	%	0.4%	0.3%
Load Regulation	%	0.9%	1.2%
External Load Capacitance	uF	0 - 1500	
Output Ripple and Noise	mVpp	50	20
Overcurrent Protection	A	27	
Remote On / Off	-	See options table	
Remote Sense	-	(+) Sense, compensating up to 5% of output voltage	
Power Good	-	Optional (Full Feature Version)	
Sync & Sequencing	-	Optional (Full Feature Version)	
Operating Temperature	°C	-40 °C to 125 °C (see thermal data on website)	
Storage Temperature	°C	-55 °C to 125 °C	
Safety Agency Certifications	-	UL/EN60950-1, CE Mark	
Weight	g	15	
Size (LxWxH)	mm	33 x 22.9 x 12.7	
Warranty	yrs	3	

Model Selector						
Input Model	Input Voltage (V)	Output Current (A)	Output Voltage (V)	Positive Logic On/Off	Negative Logic On/Off	Full Feature
i6A4W010A033V-001-R	9 to 53	10	3.3 to 40	-	Yes	-
i6A4W020A033V-000-R	9 to 53	20	3.3 to 15	Yes	-	-
i6A4W020A033V-001-R	9 to 53	20	3.3 to 15	-	Yes	-
i6A4W020A033V-002-R	9 to 53	20	3.3 to 15	Yes	-	Yes
i6A4W020A033V-003-R	9 to 53	20	3.3 to 15	-	Yes	Yes

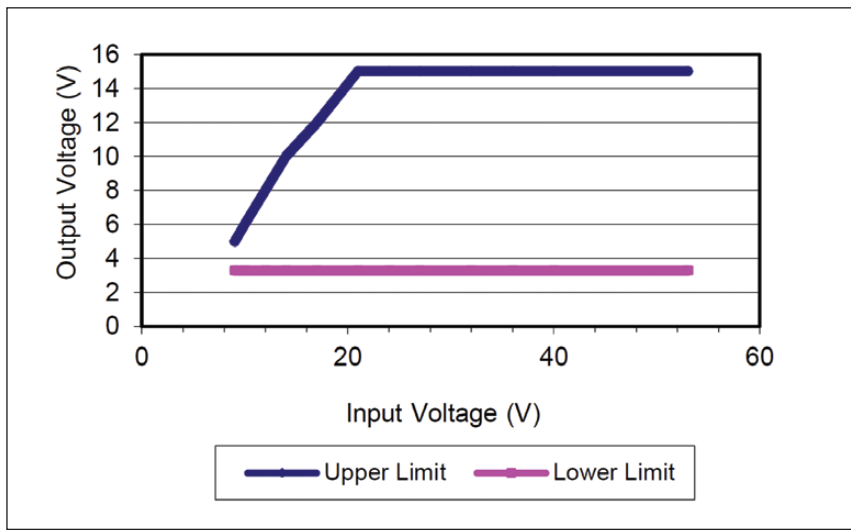
Preferred

Note: Output voltage cannot exceed input voltage (see graph below).

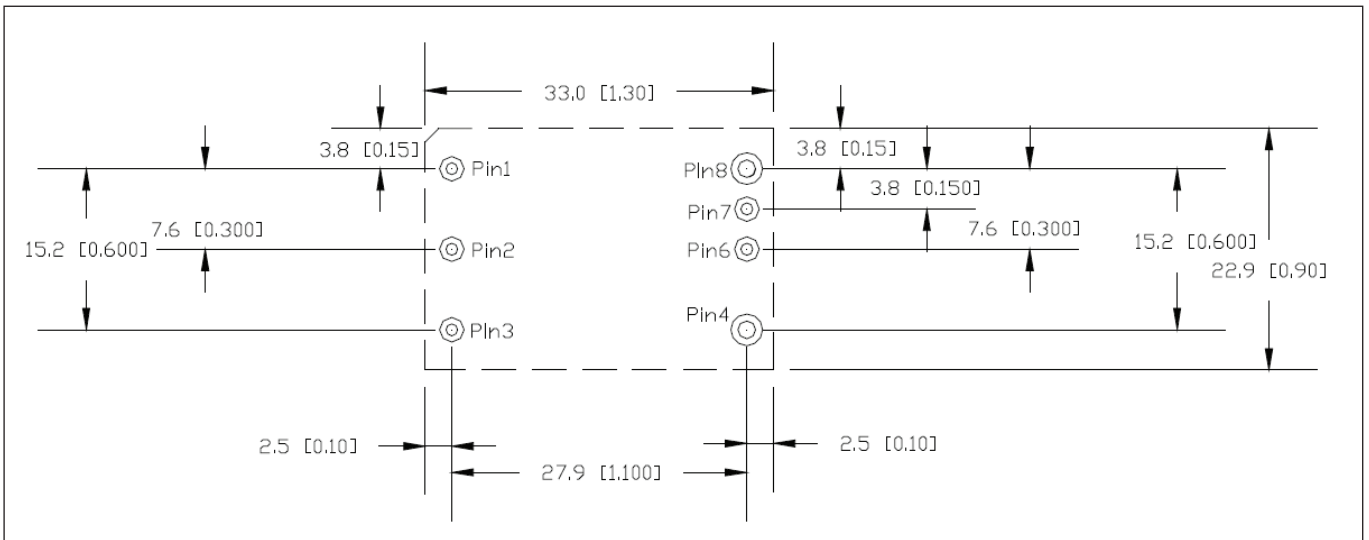
i6A4W10A Output Voltage vs Input Voltage Operating Range



i6A4W20A Output Voltage vs Input Voltage Operating Range



Outline Drawing i6A4W



Pin Assignment

PIN	Function	PIN	Function
1	VIN (+)	7	SENSE (+)
2	ON / OFF	8	VOUT (+)
3	VIN (-)	32	Sync (Option)
4	VOUT (-)	33	MS (Option)
5	PWR GOOD (Option)	34	SEQ (Option)
6	TRIM		

Evaluation Board

Evaluation kit part #	Contents
i6A20A-001-EVK-S1PX	Populated with one piece of I6A4W020A033V-001-R
I6A20A-001-EVK-S1CC	Populated with one piece of I6A4W020A033V-001-R to set for constant current operation

User manual available at I6A4W technical files in our website, contact technical support for more details on constant current version.



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