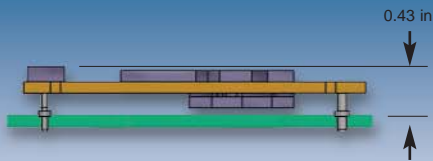


Performance Comparison

QUARTER BRICK BUS CONVERTER



Board Area 1.45"W x 2.30"L

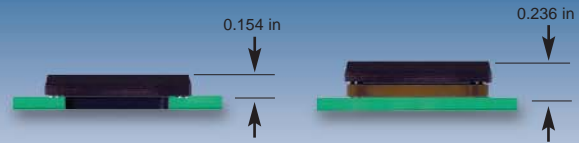
Power Density 168 W/in³

Board Utilization 72 W/in²

V-I CHIP BUS CONVERTER

In-Board Mounting

On-Board Mounting



0.85"W x 1.26"L

0.85"W x 1.26"L

1190 W/in³

800 W/in³

187 W/in²

187 W/in²

SPECIFICATION

Input

			Units	Notes
V _{IN} Range	42 - 53	42 - 53	Vdc	
I _{IN} , No Load	170	52	mA	
I _{IN} , Reflected Ripple	5	*	mArms	10 µH Inductor and 47 µF Tantalum
	-	8	mArms	8 µF Ceramic
C _{IN} , External, Recommended	47	8	µF	

Output

Voltage	12	12	Vdc	@ 48Vdc Input
Power	240	200	W	
Current	20	17	A	
Current Surge Capability	-	25	A	1 ms
Load Regulation	4.1/500	3.0/365	%/mV	No Load to Full Load
Ripple and Noise, p-p	130	*	mVp-p	15 µF Tantalum
	-	10	mVp-p	1 µF Ceramic
Current Sharing Accuracy	10	5	%	

Dynamic Response

Load Transient 0.1A/µs				
25% Step Change	200	100	mV	50% → 75% → 50%
Settling Time	100	1	µs	To within 1% of V_{OUT}
Load Transient 10A/µs				No external components
90% Step Change	-	295	mV	10% → 100% → 10%
Settling Time	-	1	µs	To within 1% V _{OUT}
Switching Frequency	0.15	3.5	MHz	

Efficiency

Half Load	96.3	96.4	%	
Full Load	96.5	95.7	%	

Thermal

T _{MAX} , Operating	100	125	°C	
T _{MAX} , Storage	125	150	°C	

* Negligible