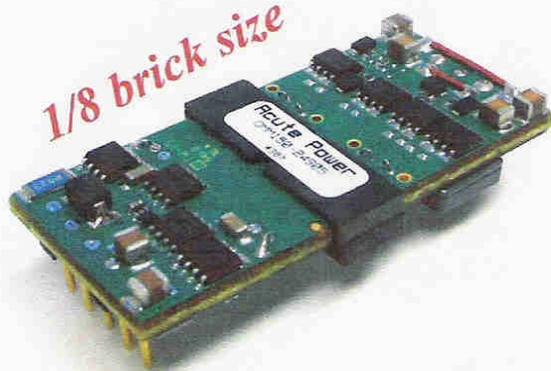




# 150 Watt DC-DC

## QMM150



- Dual** independently regulated & Isolated output Types
- Single** outputs (2X Io)
- Interleaved ripple canceling operation
- 0.9V To 5.0V Outputs
- Output Trim Vo2 & Singles
- Greater Than 91% Efficiency
- Remote On/Off (each channel)
- Overvoltage Protection
- 40C To +105C Operation
- Short Circuit Protection
- External Sync Pin

The QMM150 DC DC converter is a high density, dual phase (interleaved) constructed design. This product is a highly flexible / configured design, where as the Dual outputs are independently regulated and isolated meaning they can be configure as independent, dual positive , +/- dual or series (stacked). The single output simply configures the two like outputs for twice the output current of each channel. The QMM150 has additional flexibility by utilizing our paralleling output modules that allow multiple additional outputs all running at the same frequency without the need for external complex circuitry.

### Model Number Configuration

QMM150	(DC input)	(Output Type)	(Output options)	Singles
<b>24</b> (18-36Vin)	<b>D</b> (Dual Output)	<b>V1/V2</b>	<u>5.0 @15A</u> <u>3.3 @20A</u> <u>2.5 @20A</u> <u>1.8 @20A</u> <u>1.5 @20A</u>	<u>5.0 @ 30A</u> <u>3.3 @ 40A</u> <u>2.5 @ 40A</u> <u>1.8 @ 40A</u> <u>1.5 @ 40A</u>
<b>48</b> (36-75Vin)	<b>S</b> (single Output)			

Modifications and Customs available

*Preliminary*



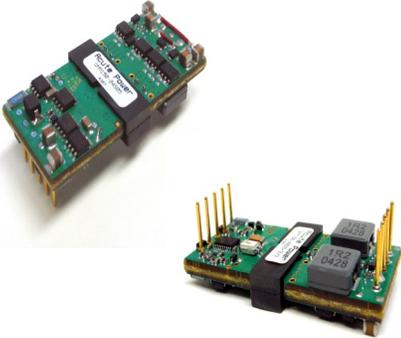
# QMM150 Watt Eighth-brick DC-DC SERIES

**NEW PRODUCT**



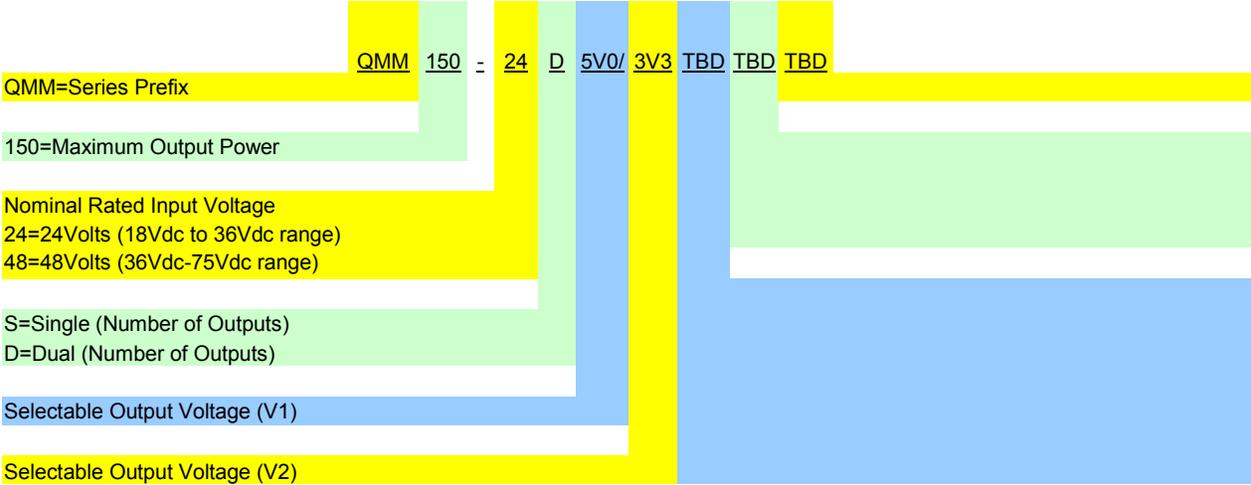
**1/8 brick size**

- Dual independently regulated and Isolated Output Types
- Single Outputs (2XIo)/channel
- Interleaved ripple canceling operation
- 0.9V to 5.0V Outputs
- Output Trim V02 & Singles
- Greater than 91% Efficiency
- Remote On/Off (each channel)
- Overvoltage Protection
- -40C to +105 Operation
- Basic Insulation system
- Short Circuit Protection
- External Sync Pin



The QMM150 converter is a high density, dual phase (interleaved) constructed design. This product is a highly flexible/configured design, where as the Dual outputs are independently regulated and isolated, meaning they can be configured as an independent, dual positive, +/- dual or series (stacked). The single output simply configures the two like outputs for twice the output current of each channel. The QMM 150 has additional flexibility by utilizing our paralleling output modules that allow multiple additional outputs all running at the same frequency without the need for external complex circuitry.

**Example Part Number Configuration: QMM150-24D5V0/3V3 TBD TBD TBD**



# QMM150 Watt Eighth-brick DC-DC SERIES

## NEW PRODUCT Eighth-brick size

Input Specifications	
Input Voltage Range Note (3)	2:1
	18-36 Vdc (24V Models)
	36-75 Vdc (48V Models)
Input filter	LC Type
Under Voltage Lockout	16.5V (24V Models)
	32V (48V Models)
Remote: ON	+5V or open, Ref (-)Vin
Remote: OFF	+0.7V, Ref (-)Vin
Conducted noise	EN55022, level A (Note 5)

General Specifications	
Efficiency	See Model Graph
Isolation Voltage	2250Vdc I/P to Output's 500 Vdc O/P1 to O/P2 (Floating configuration)
Isolation Resistance	30M
Switching Frequency	400 KHz

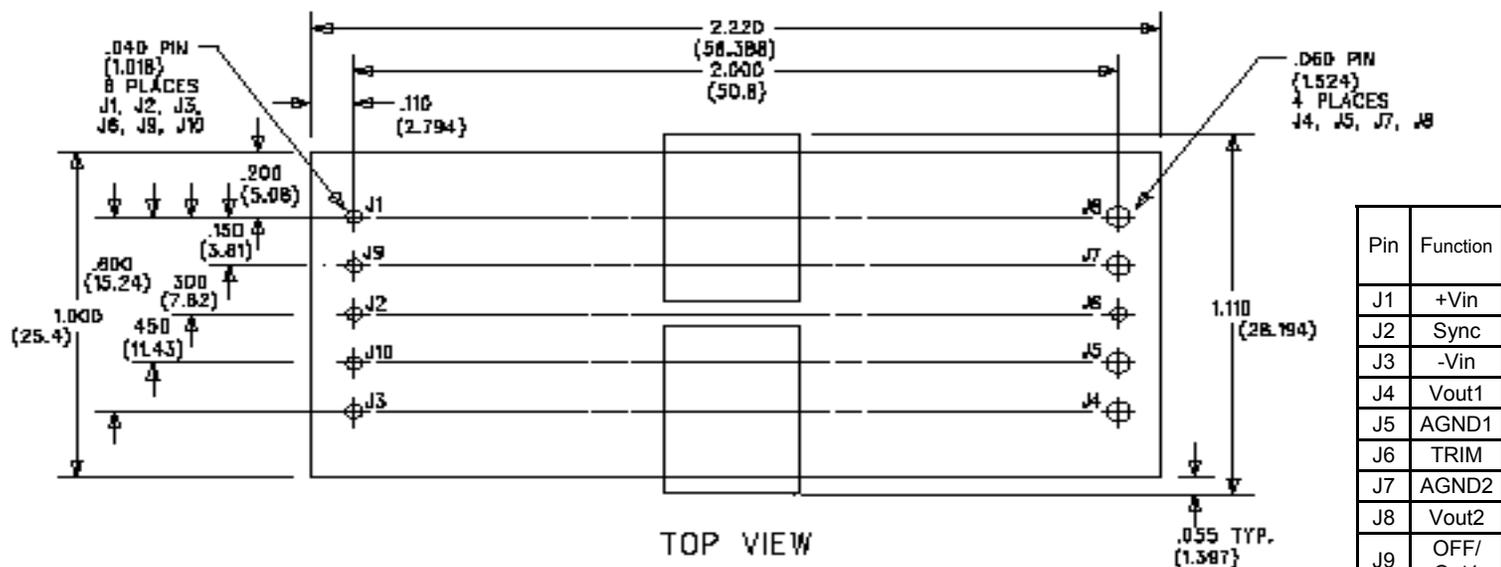
Output Specifications	
Output Power	150W Continuous (Max)
Output Voltage/current	See Model table
Output Setting Accuracy Vo1	+/-1% typ., +/-1.5% max.
Load Variation Vo1 (FL-NL)	+/-0.5%
Line Regulation	+/-0.5% (Vo1 & Vo2)
Total Error Band Vo1 Vo2	+/-3% Line/Load/Temp +/-3% Line/Load/Temp
Ripple & Noise(20Mhz BW)	50mV(Vo1 & Vo2)20mV Single
Transient Response FL- 1/2L	2% Deviation, 200uS
Temp Coefficient	+/-0.01%/c
Short circuit Protection	Indefinite, Modulated, Automatic Recovery
Over Voltage Protection	Clamp Type
Overshoot	None

	SINGLE	OUTPUT	
Output Voltage (1)	SINGLE	Efficiency (Typ) *	Model Number
24Vin Models			
1.5V	40A	88.5%	QMM150-24S1V5
1.8V	40A	90.0%	QMM150-24S1V8
2.5V	40A	89.5%	QMM150-24S2V5
3.3V	40A	90.5%	QMM150-24S3V3
5.0V	30A	91.5%	QMM150-24S5V0
48Vin Models			
1.5V	40A	89.5%	QMM150-48S1V5
1.8V	40A	90.5%	QMM150-48S1V8
2.5V	40A	90.0%	QMM150-48S2V5
3.3V	40A	91.0%	QMM150-48S3V3
5.0V	30A	92.0%	QMM150-48S5V0

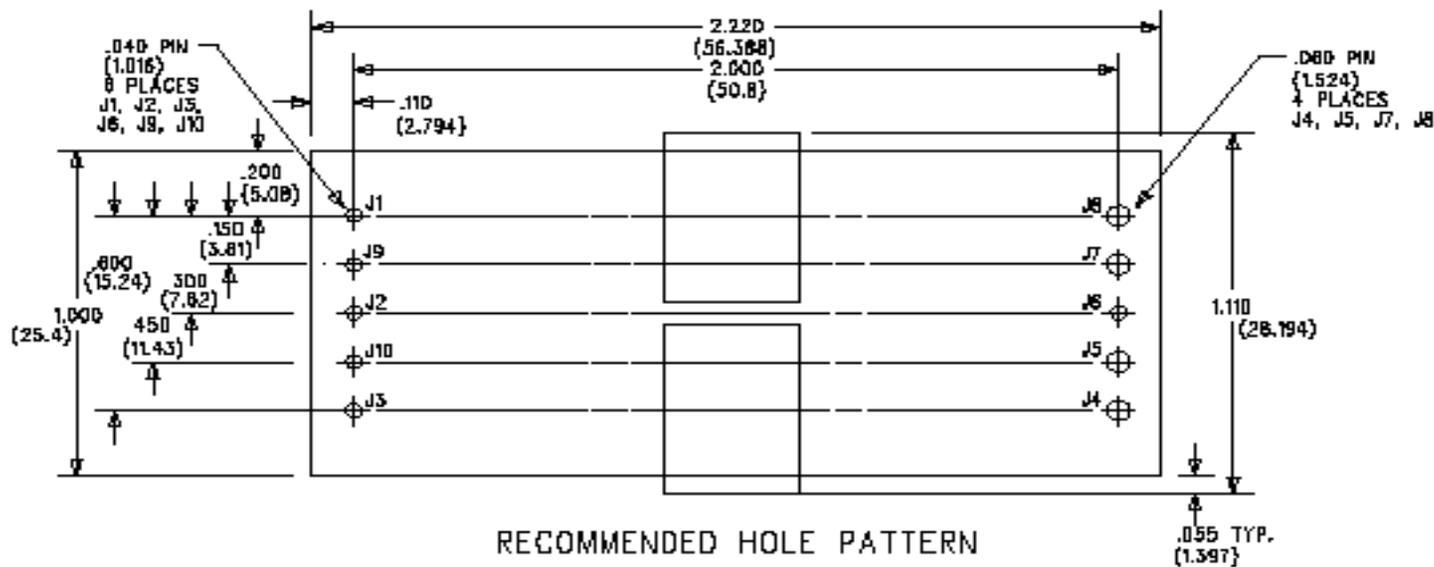
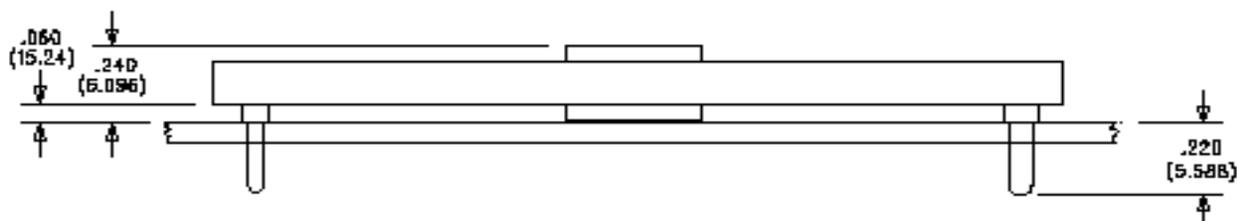
**\*Dual outputs will have an sum efficiency of the two outputs  
Efficiencies are @ 75% load / output**

# SCHEMATIC

## QMM150 Watt Eighth-brick DC-DC SERIES



Pin	Function
J1	+Vin
J2	Sync
J3	-Vin
J4	Vout1
J5	AGND1
J6	TRIM
J7	AGND2
J8	Vout2
J9	OFF/ Out1
J10	OFF/ Out2



Dimensions in Inches (mm)  
 Tolerances (unless specified)  
 x.xx = 0.02 (x.x = 0.5)  
 x.xxx = 0.010 (x.xx = 0.25)