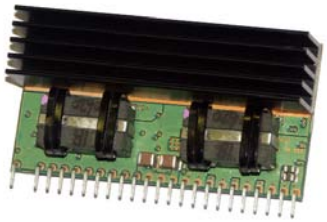
SIL/SMT80C2

80 Amps

Total Power: 400 Watts
Input Voltage: 4.7-13.8 V
No. of Outputs: Single



RoHS 2002/95/EC

Special Features

- 80 A output rating
- Input voltage range: 4.7-13.8 V
- Output voltage range: 0.8375-5.1 V
- Current sharing
- Industry leading value
- Cost optimized design
- Excellent transient response
- Output voltage adjustability
- Pathway for future upgrades
- Supports silicon voltage migration
- Resulting in reduced design-in and qual time
- Over-temperature protection
- RoHS compliant

Safety

Designed to meet:

- UL, cUL 60950-1
- (EN60950)

Electrical Specifications

Output		
Voltage adjustability	See Note 5	0.8375-5.1 V
Output setpoint accuracy	1.0% trim resistors	±1.0%
Line regulation	Low line to high line	±0.2% max
Load regulation	Full load to min load	±0.5% max
Min/max load		0 A/80 A
Overshoot	At turn-on	0.5% max
Undershoot	At turn-off	100 mV max
Ripple and noise 5 Hz to 20 MHz	See Note 1	35 mV Vin=12, Vout=2.5 V
Transient response See Notes 1 and 2	Deviation Vin=12 V Vout=2.5 V	150 mV 20 µs recover to within regulation band
Input		
Input voltage		4.7-13.8 VDC
Input current	Minimum load Remote OFF	290 mA 30 mA
Input current (max)	See Note 3	60 A max @ lo max
Start-up time	Power up Remote ON/OFF	<12 ms <12 ms
General		
Efficiency	Vo=2.5 V, Vin=12 V, Iout=80 A	88%
Switching frequency	Fixed	500 kHz
Material flammability		UL94V-0
Weight		1.6 oz
MTBF (calculated)	12 V @ 40 °C 100% load Bellcore 332	3.7 MHrs
Coplanarity		TBD

EMERSON
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Environmental Specifications

Thermal performance See Note 6	Operating ambient Non-operating ambient	0 °C to +85 °C -40 °C to +125 °C

Protection

Over-temp	Hiccup, non-latching
Short-circuit	Hiccup, non-latching
Over-voltage	Hiccup, non-latching

Recommended System Capacitance

Input	See Note 7	0 µF
Output	See Note 8	0 µF

Pin Assingments

Pin Number	Function	Pin Number	Function
1	Trim	14	Vin
2	No Pin	15	Vout
3	Ground	16	Vout
4	Power Good	17	Ground
5	(-) Trim	18	Vout
6	Ishare	19	Ground
7	Ground	20	Vout
8	Ground	21	Ground
9	Enable	22	Vout
10	Rem Sense (-)	23	Ground
11	Rem Sense (+)	24	Vout
12	Vin	25	*Mech Support
13	Vin	26	*Mech Support

*For Horizontal mounts only

Setting Output Voltage

Default output voltage: 0.8375 V

The output voltage may be adjusted with a resistor placed between Trim (Pin 1) and (-)Trim (Pin 5).

The formula for calculating the value of this resistor is:

RTrim (k) = 1.675 / (Vout - 0.8375)

Notes:
1. Measured as per recommended system capacitance.
2. di/dt = 10 A/ µs, Vin = Nom, Tc = 25 ˚C, load change = 0.50 lo max. and vice versa.
3. External fusing is recommended.
4. Measured with external filter.
5. Uses external resistor from trim pin to (-) trim pin.
6. Airflow dependent, 300 LFM minimum required.
7. No capacitor needed for ripple current capability.
8. No capacitor needed for stability
9. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local representative for details.
10. NOTICE: Some models do not support all options. Please contact your local Emerson Network Power representative or use the on-line model number search tool at http://www. powerconversion/products.htm to find a suitable alternative.

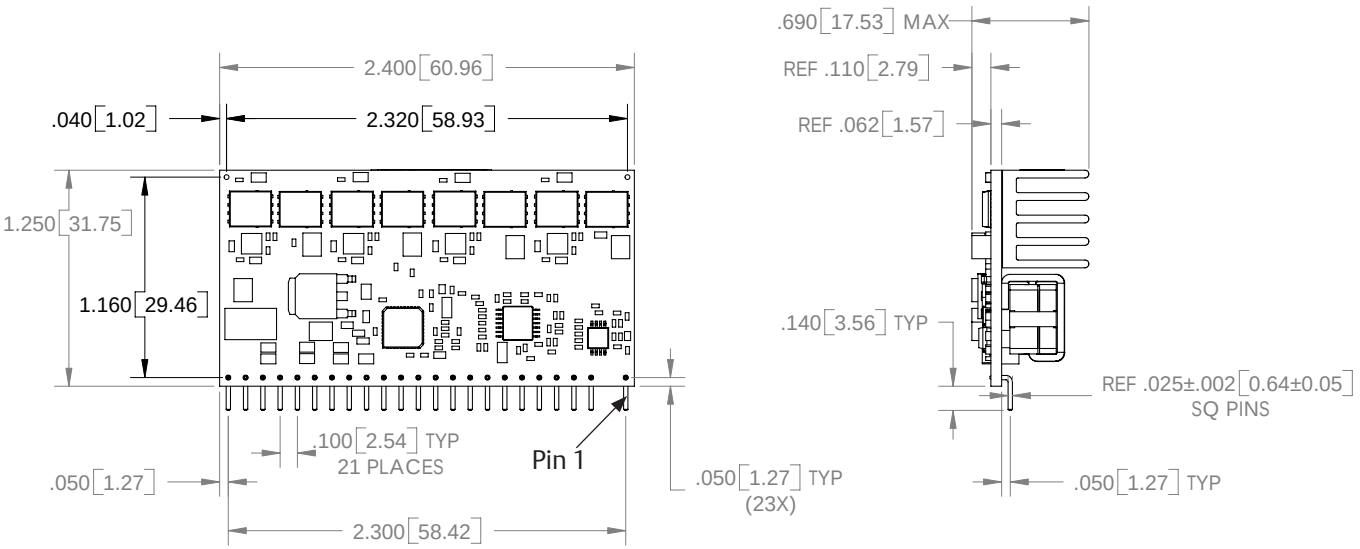
Part Number System with Options

Product Family	Rated Output Current	Performance	Generation		Input Voltage	Output Voltage	Mounting Option	Custom Options	RoHs Compliance(9)
SIL	**80**	**C**	**2**	**-**	**00**	**SADJ**	**-**	**X**	**X**	**J**
Product Family SIL = Single In Line	**Rated Output Current** 80 = 80 A	**Performance** C = Cost Optimized	**Generation** 2 = Increased Current Density		**Input Voltage** 00 = 4.7-13.8 V	**Output Voltage** Single Adjustable Output	**Mounting Option** H = Horizontal V = Vertical	**Custom Options** Blank = 3.05mm pin 3 = 3.50mm pin (horizontal mount only)	**RoHS Compliance** J = Pb-free (RoHS 6/6 compliant)

Product Family	Rated Output Current	Performance	Generation		Input Voltage	Output Voltage	Mounting Option	Custom Options	RoHs Compliance(9)
SMT	**80**	**C**	**2**	**-**	**00**	**SADJ**	**X**	**X**	**J**
Product Family SMT = Surface Mount	**Rated Output Current** 80 = 80 A	**Performance** C = Cost Optimized	**Generation** 2 = Increased Current Density		**Input Voltage** 00 = 4.7-13.8 V	**Output Voltage** Single Adjustable Output	**Mounting Option** Blank = Horizontal -V = Vertical	**Custom Options** Blank = Standard	**RoHS Compliance** J = Pb-free (RoHS 6/6 compliant)

Mechanical Drawings

SIL80C2-00SADJ-VJ



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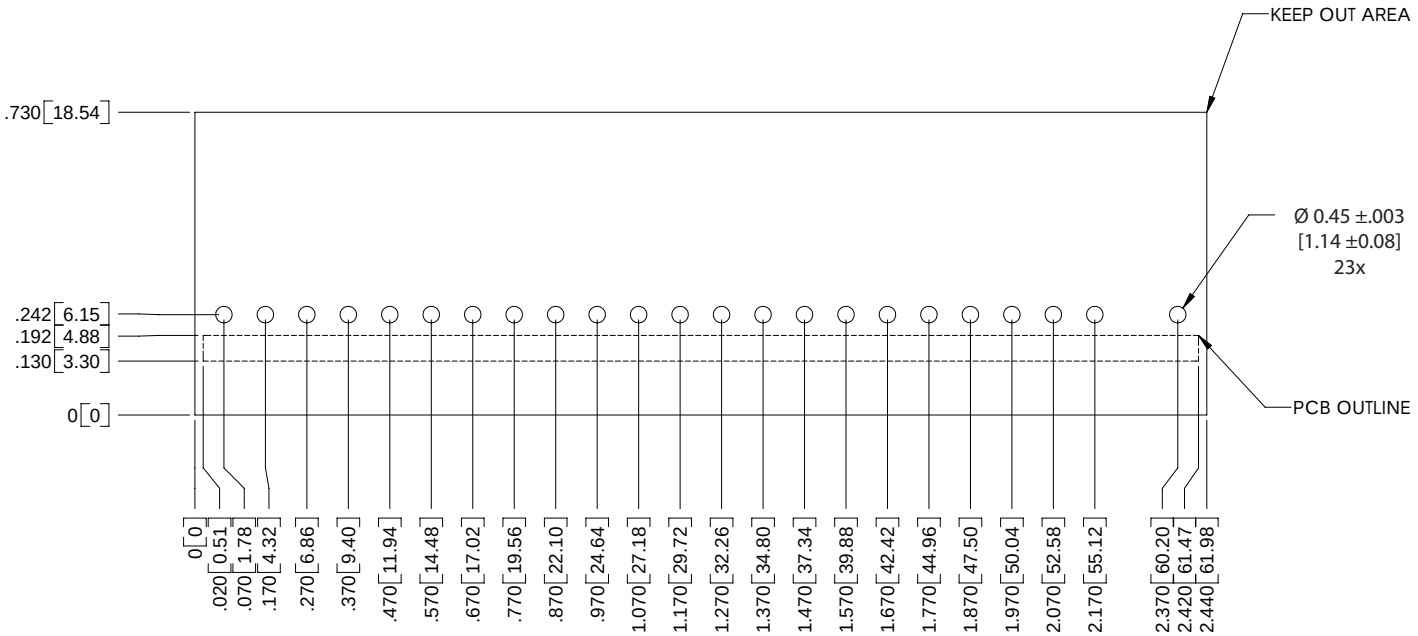
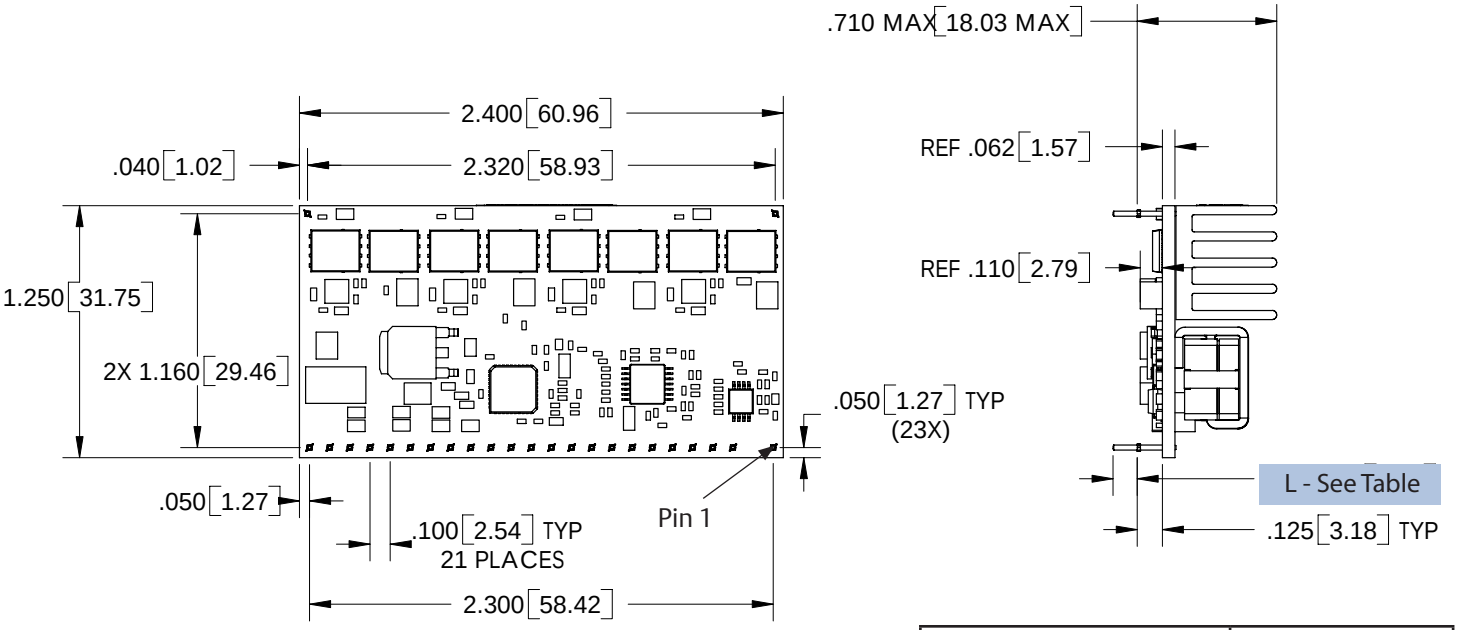


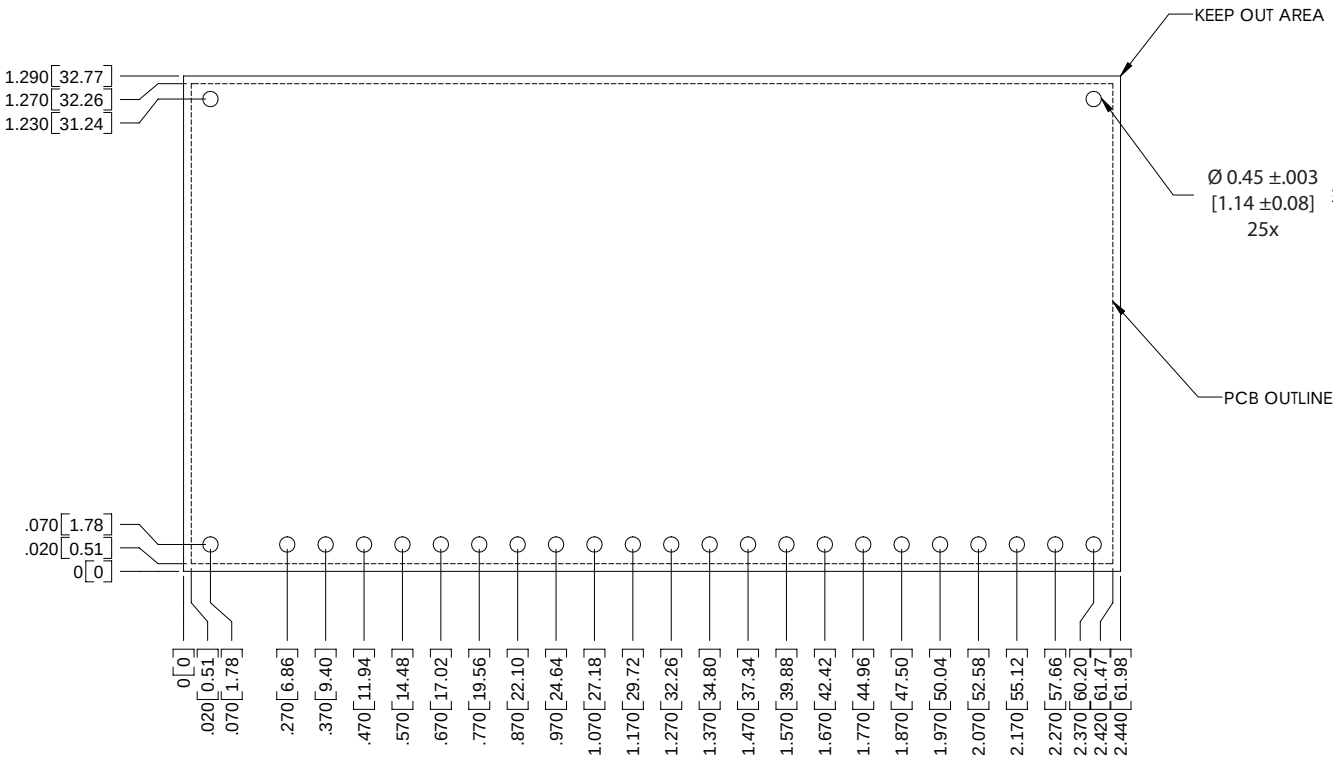
Mechanical Drawings

SIL80C2-00SADJ-HJ/H3J



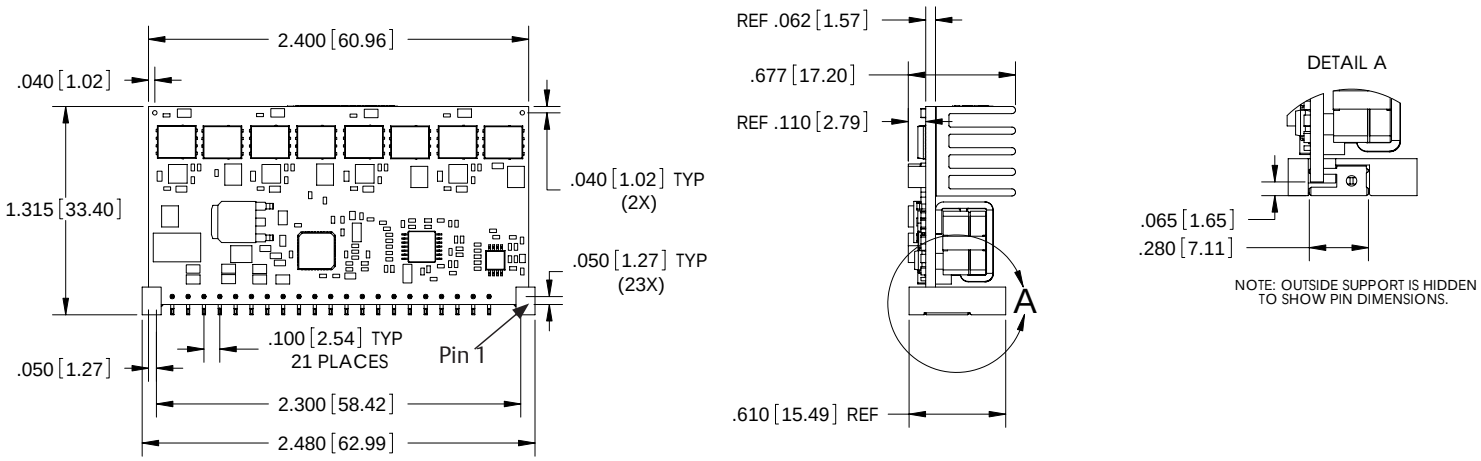
Model	L Dimension
SIL80C2-00SADJ-HJ	REF .120 [3.05]
SIL80C2-00SADJ-H3J	REF .138 [3.50]

Footprint



Mechanical Drawings

SMT80C2-00SADJ-VJ



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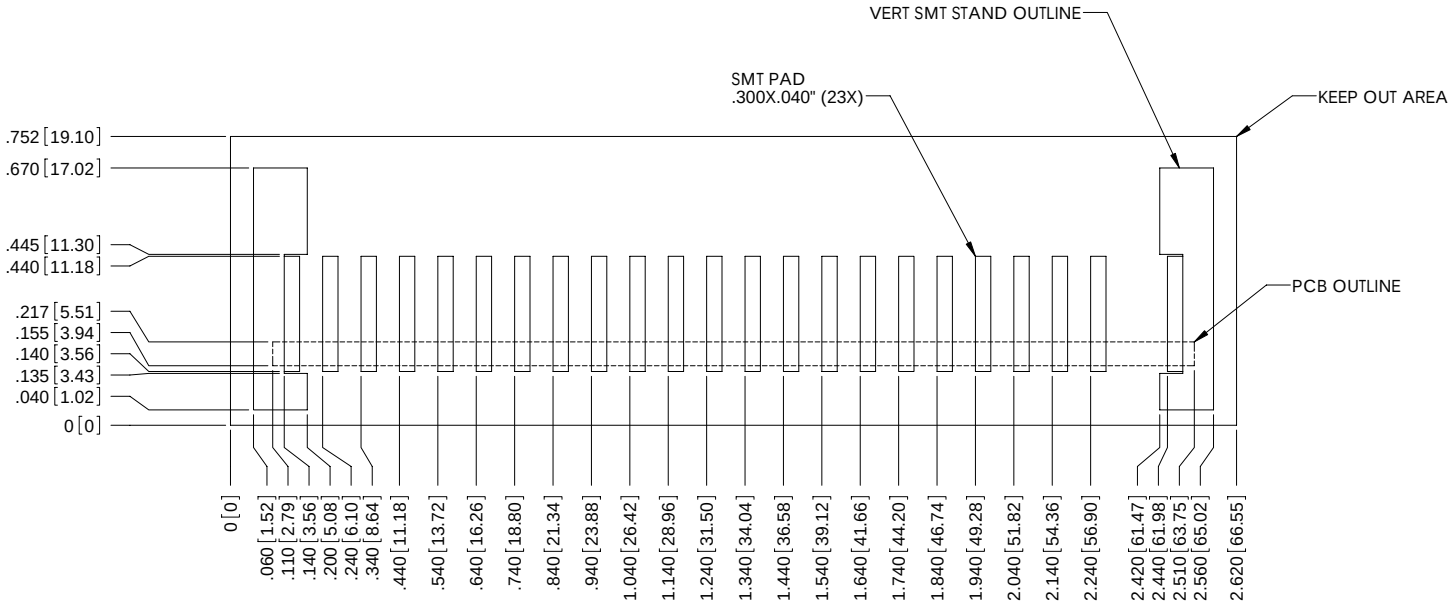
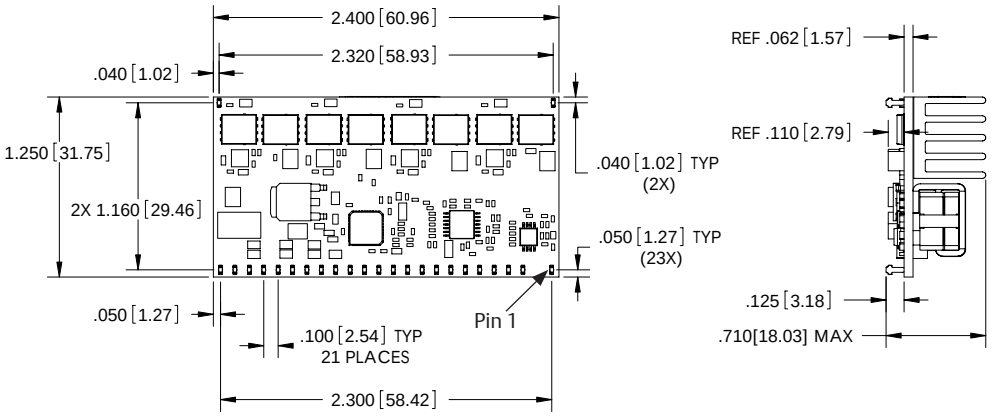


Mechanical Drawings (cont'd)

SMT80C2-00SADJJ



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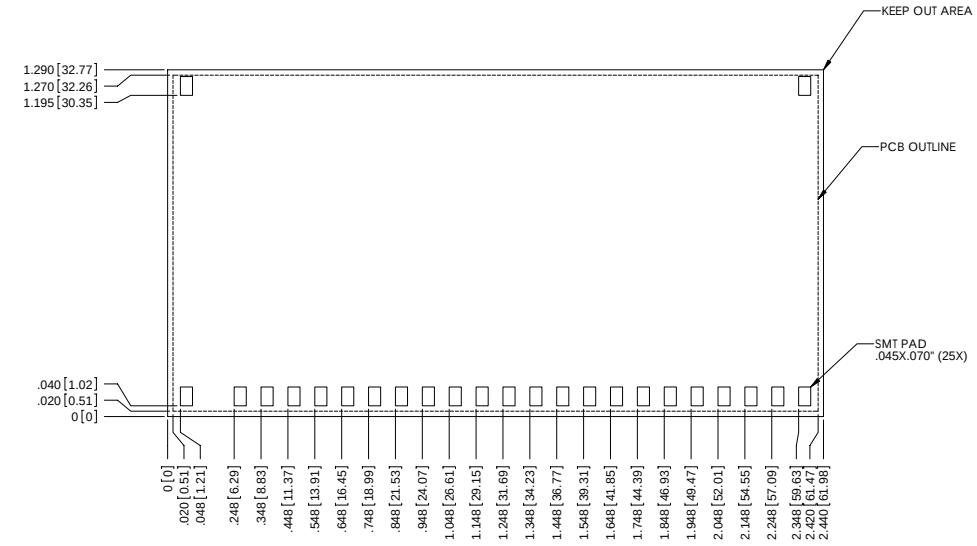

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