

IHLP® DESIGN CALCULATOR EXPRESS

Vishay's Design Calculator Express was designed to allow the user to quickly determine the best IHLx inductor for their Buck or Boost converter.



Source: <https://www.vishay.com>

Inputs: Enter data into yellow fields			
DC/DC Converter Type	-- Select --		
Max Footprint	-- Select --		mm ²
Max Profile	-- Select --	mm	
P/N Type	-- Select --		
Vin		Volts	
Vout		Volts	
Switching Frequency		Hz	
Output Current		Amps	
Ambient Temp		°C	
Pk-Pk Ripple Target %	-- Select --		Amps pk-pk
Calculated I _{max}			Amps pk-pk
Calculated Duty Cycle			
Calculated min L for desired ripple			uH
Inductor Current for Boost Converter			Amps

Reset All

Results									
Rank	IHLP P/N	Footprint mm ²	Profile mm	Nominal L uH	Nom L Ripple A	Inductor Temp °C	Rated Operating Temp °C	Total Inductor Loss W	Inductor Efficiency
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

* Inductor efficiency is the watt loss in the inductor divided by the output power

Example: If the converter output is 5V @ 2A, the output power is 10 watts

If the inductors has 1 watt of losses, then the inductor efficiency is $(1-1W/10W) \times 100\%$ or 90%

<https://www.vishay.com/en/inductors/ihlp-design-calculator-express/>

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