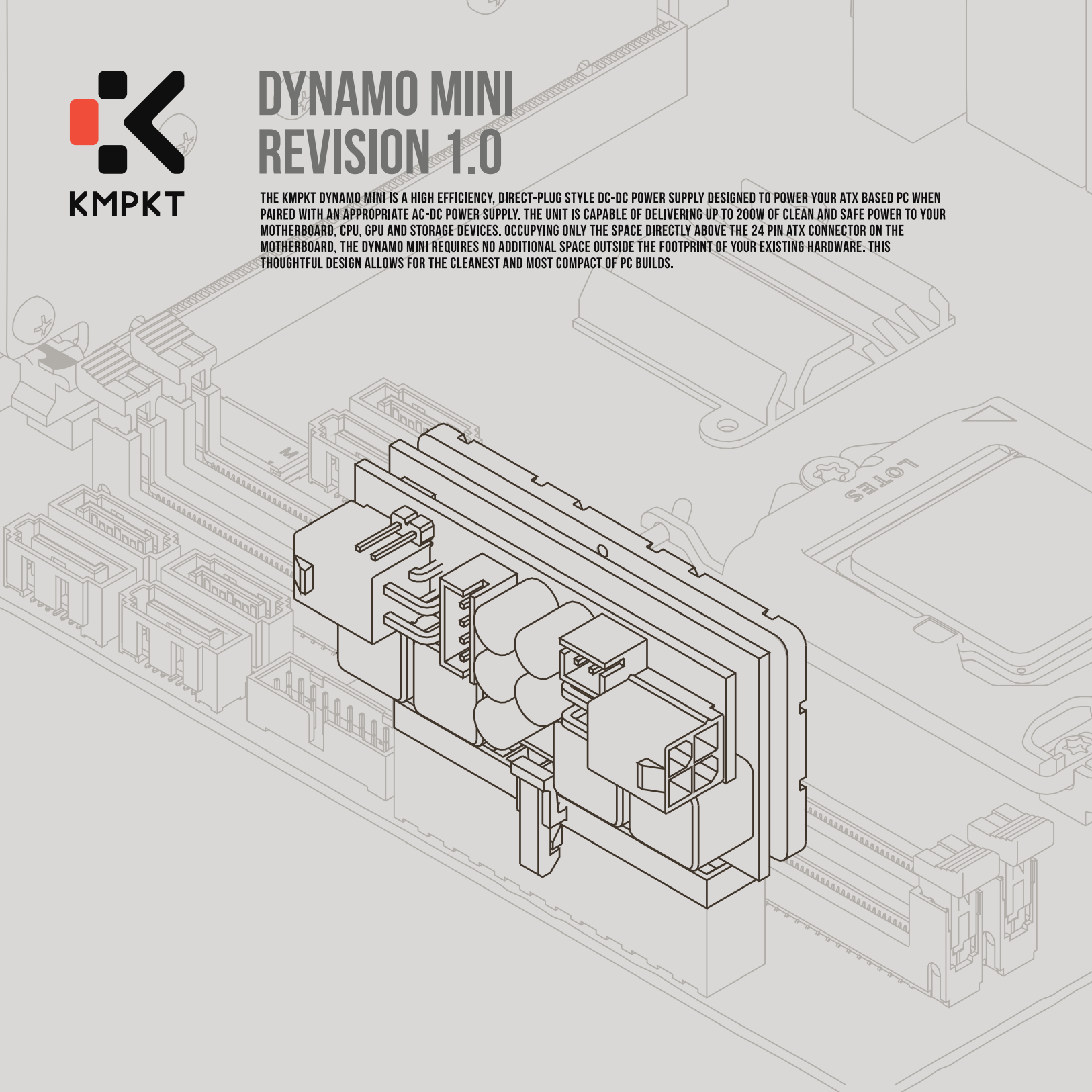




# DYNAMO MINI REVISION 1.0

THE KMPKT DYNAMO MINI IS A HIGH EFFICIENCY, DIRECT-PLUG STYLE DC-DC POWER SUPPLY DESIGNED TO POWER YOUR ATX BASED PC WHEN PAIRED WITH AN APPROPRIATE AC-DC POWER SUPPLY. THE UNIT IS CAPABLE OF DELIVERING UP TO 200W OF CLEAN AND SAFE POWER TO YOUR MOTHERBOARD, CPU, GPU AND STORAGE DEVICES. OCCUPYING ONLY THE SPACE DIRECTLY ABOVE THE 24 PIN ATX CONNECTOR ON THE MOTHERBOARD, THE DYNAMO MINI REQUIRES NO ADDITIONAL SPACE OUTSIDE THE FOOTPRINT OF YOUR EXISTING HARDWARE. THIS THOUGHTFUL DESIGN ALLOWS FOR THE CLEANEST AND MOST COMPACT OF PC BUILDS.





# DYNAMO MINI SPECIFICATIONS

## CONNECTORS

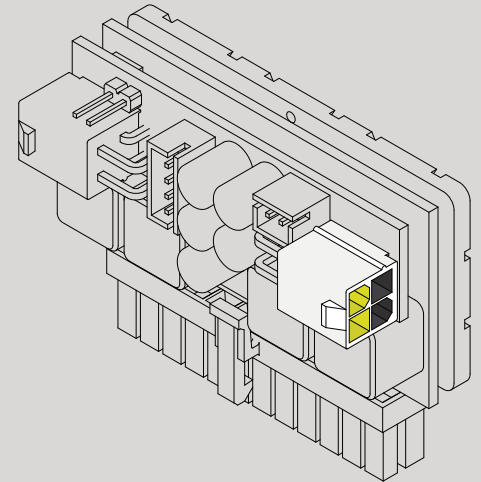
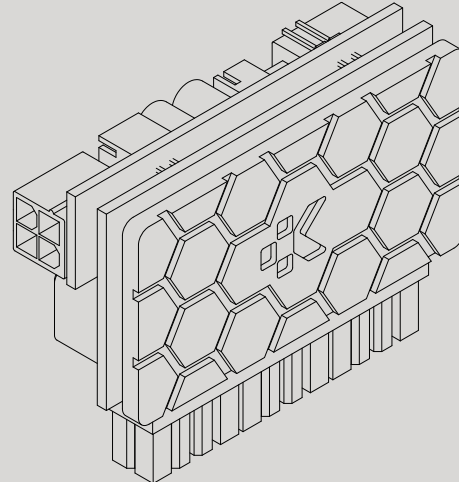
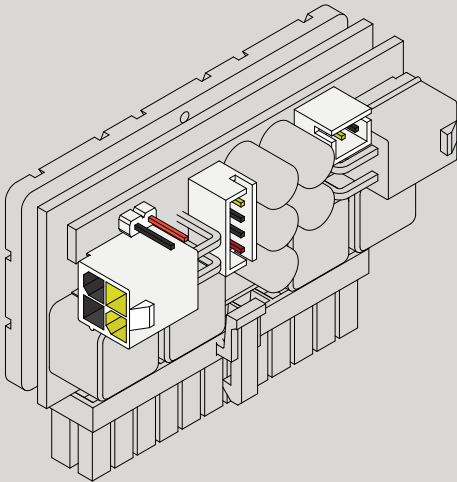
TYPE	FUNCTION	MATING PART NUMBER	
2X2 MINI-FIT JR.	+16VDC TO +24VDC INPUT	46992-0410	MOUSER
2X2 MINI-FIT JR.	4+4 CPU EPS	46992-0410	MOUSER
2X2 MINI-FIT JR.	6+2 PCIE	46992-0410	MOUSER
JST B4B-XH-2	SATA/MOLEX	1516266	FARNELL
JST B2B-XH-2	AUXILIARY 12V	1516264	FARNELL
2X1 2,54MM HEADER	SYNC CABLE	M20-1060200	FARNELL

## POWER OUTPUT SPECIFICATIONS

OUTPUT VOLTAGE	PEAK DC CURRENT	FULL LOAD DC CURRENT	VOLTAGE TOLERANCE	MAX RIPPLE NOISE
+3.3V	7A	5A	1%	50MV
+5V	10A	7A	1%	60MV
+12V	20A	15A	1%	70MV
+5VSB	3A	0.5A	3%	30MV



# DYNAMO MINI CONNECTOR PINOUTS



## PINOUT

+5VDC

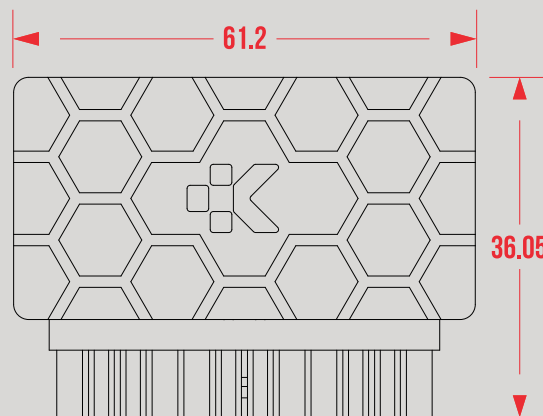
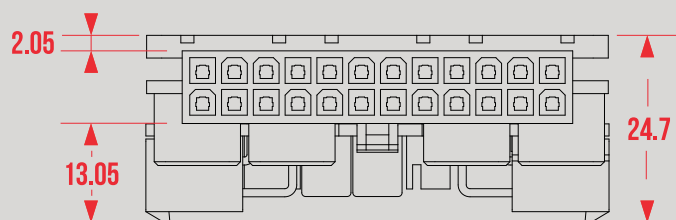
GROUND

SYNC

+12VDC



# DYNAMO MINI DIMENSIONS





# DYNAMO MINI CONNECTION GUIDE

## STEP 1

FIRST PLUG THE DC INLET CABLE INTO THE CABLE CONNECTED 2X2 MINIFIT JR. CONNECTOR ON THE DYNAMO MINI. DO NOT PLUG THE 7.4MM X 5.0MM BARREL CONNECTOR INTO YOUR AC-DC CONVERTER AT THIS TIME.

## STEP 2

ONCE YOU HAVE PLUGGED IN YOUR DC-INLET CABLE, YOU CAN NOW PLUG THE UNIT ENTIRELY INTO THE 24-PIN POWER HEADER ON YOUR MOTHERBOARD. IF THE AMOUNT OF SPACE AROUND YOUR DYNAMO MINI IS INCREDIBLY TIGHT DUE TO THE SIZE OF YOUR PC ENCLOSURE, YOU MAY WANT TO LEAVE THIS STEP UNTIL AFTER YOU HAVE PERFORMED STEPS 3 AND 4.

## STEP 3

NEXT, WITH THE HEATSINK OF THE DYNAMO MINI FACING AWAY FROM YOU, PLUG IN THE 4-PIN TO 4+4-PIN CABLE TO THE RIGHTMOST PCB-MOUNTED CONNECTOR ON THE UNIT. THIS WILL POWER THE SUPPLEMENTAL 12V CONNECTOR (EPS CONNECTOR) ON YOUR MOTHERBOARD. DEPENDING ON YOUR MOTHERBOARD, THIS WILL EITHER BE A 4-PIN OR 8-PIN BOARD MOUNTED CONNECTOR.

## STEP 4

ONCE YOU HAVE CONNECTED YOUR EPS POWER, YOU MAY CHOOSE TO CONNECT A DISCRETE GPU OR OTHER PCIE DEVICE REQUIRING SUPPLEMENTAL POWER. IF YOU DO NOT PLAN TO USE SUCH A DEVICE IN YOUR PC THEN YOU CAN SKIP THIS STEP. TO ENABLE THIS FUNCTIONALITY, PLUG IN THE 4-PIN TO 6+2 PIN PCIE CABLE TO THE LEFTMOST PCB-MOUNTED CONNECTOR ON THE UNIT. PLUGGING THE OTHER END OF THE CABLE INTO YOUR GPU OR OTHER DEVICE AS APPROPRIATE WILL COMPLETE THIS CONNECTION.

## STEP 5

IF YOU PLAN TO USE SATA BASED STORAGE, YOU CAN ENABLE THIS FUNCTIONALITY BY PLUGGING THE JST 4 PIN TO MULTI-SATA CONNECTOR INCLUDED WITH THE DYNAMO MINI INTO THE 4-PIN JST HEADER ON THE DYNAMO MINI AND PLUGGING SATA CONNECTORS INTO YOUR STORAGE DEVICES AS APPROPRIATE.

## STEP 6

WHEN YOU HAVE SATISFACTORILY COMPLETED ALL PREVIOUS STEPS, THEN PROCEED TO PLUG YOUR AC-DC POWER SUPPLY INTO THE 7.4MM X 5.0MM BARREL CONNECTOR THAT WAS CONNECTED TO THE DYNAMO MINI IN STEP 1. ONCE THIS HAS BEEN CONNECTED, YOU SHOULD SEE THE BLUE LED ON THE DYNAMO MINI ILLUMINATE INDICATING THAT THE BOARD IS NOW POWERED. YOUR DYNAMO MINI IS NOW READY TO GO!



# DYNAMO MINI USE CASE 01

ILLUSTRATED IS A MAXED OUT DYNAMO MINI, WHERE A FULLY FUNCTIONING PC WITH DISCRETE GPU IS POWERED ONLY BY THE DYNAMO MINI. AN EXTERNAL AC-DC ADAPTER PLUGS INTO THE DC-JACK OF THE DYNAMO MINI. FROM THERE THE 4+4 EPS FOR THE CPU, THE 6+2 PIN FOR THE GPU AND A SATA POWER CABLE ARE CONNECTED TO THE DYNAMO MINI. IN PLACE OF THE EXTERNAL AC-DC ADAPTER, AN INTERNAL AC-DC ADAPTER CAN BE USED AND CONNECTED TO THE 2X2 MINI-FIT JR.

