

Last Updated: Oct 29, 2017

Project: **BMS_Current_Sense.PrjPcb**

Title: **BMS Current Sense Block Diagram**

Project Lead: **Taiping Li**

Size: **Letter**

Date: **2018-02-07**

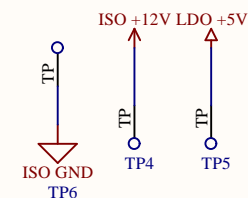
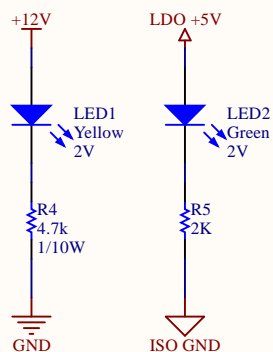
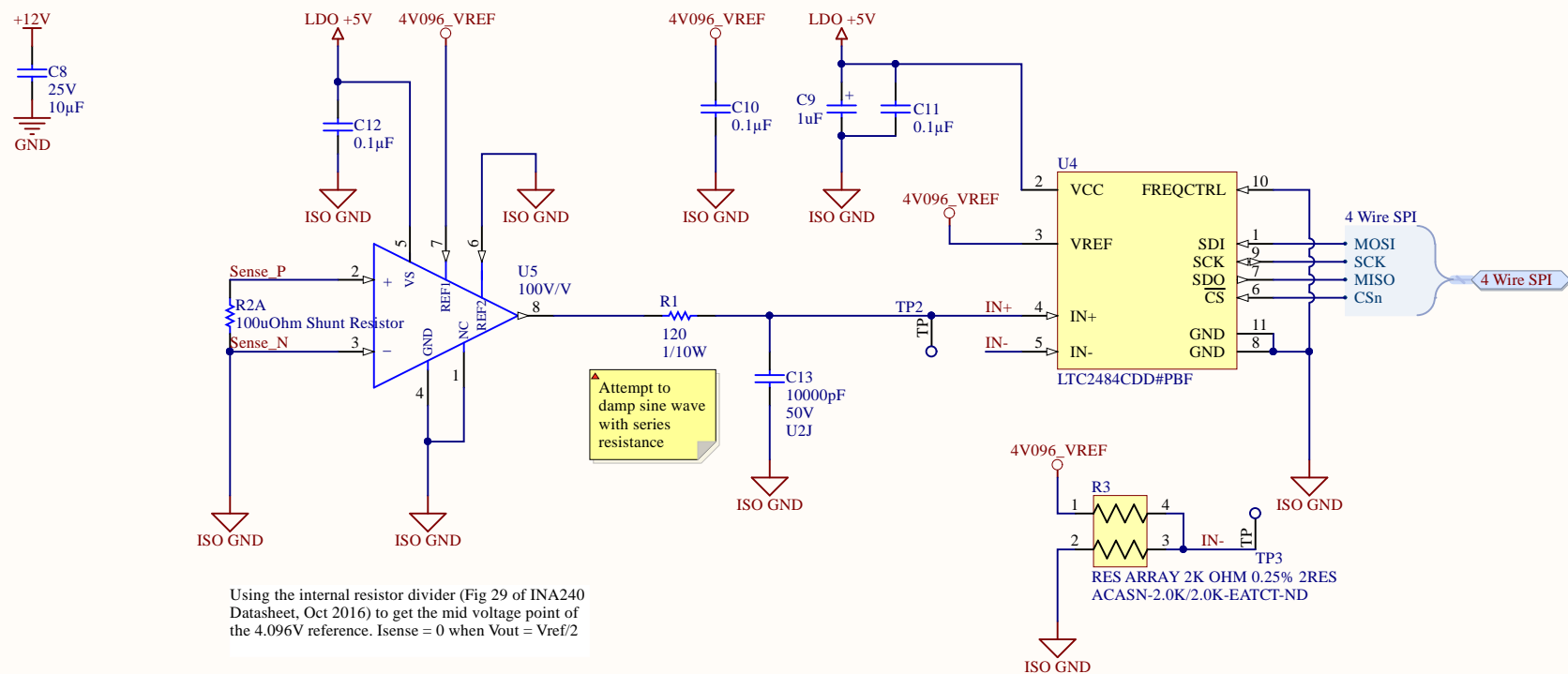
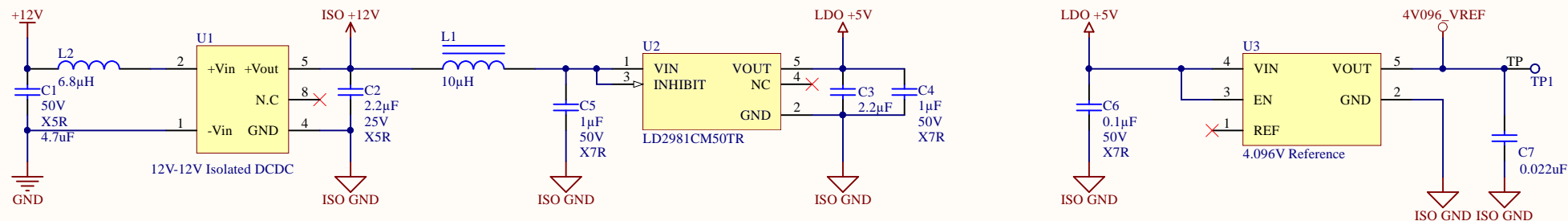
Revision: **2.1**


Sheet 1 of 3

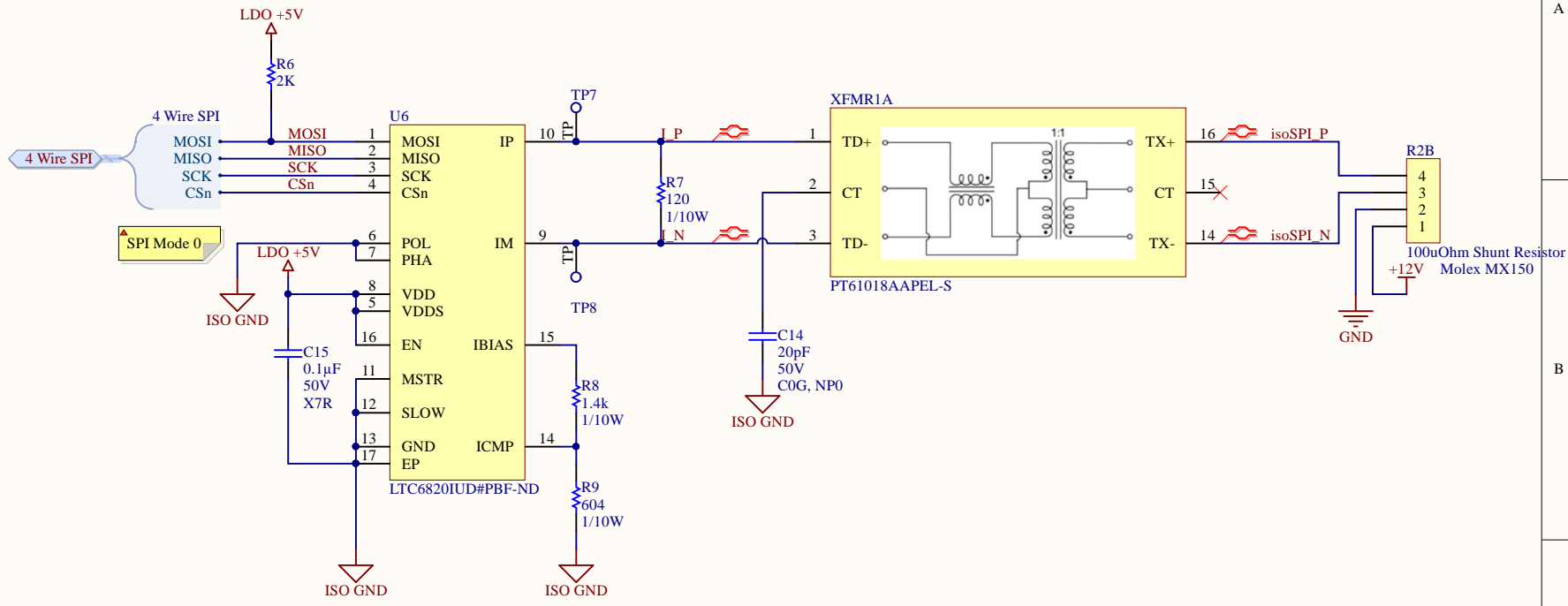


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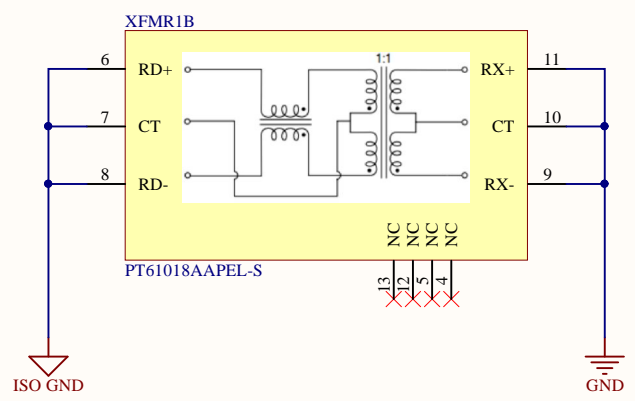
Website: www.uwmidsun.com




Project: <i>BMS_Current_Sense.PrjPcb</i>		<div><div>MIDNIGHT</div><div></div><div>SUN</div></div>
Title: BMS Current Sense Board		
Project Lead: Taiping Li		University of Waterloo 200 University Ave W Waterloo, ON, Canada N2L 3E9
Size: Letter	Revision: 2.1	
Date: 2018-02-07	Sheet2 of 3	
		Website: www.uwmidsun.com

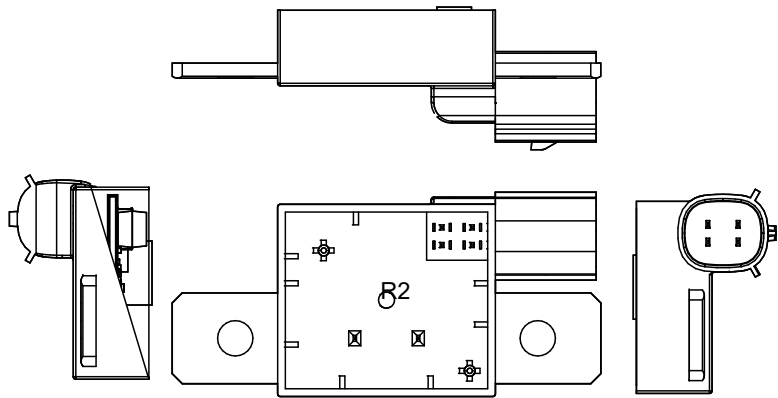
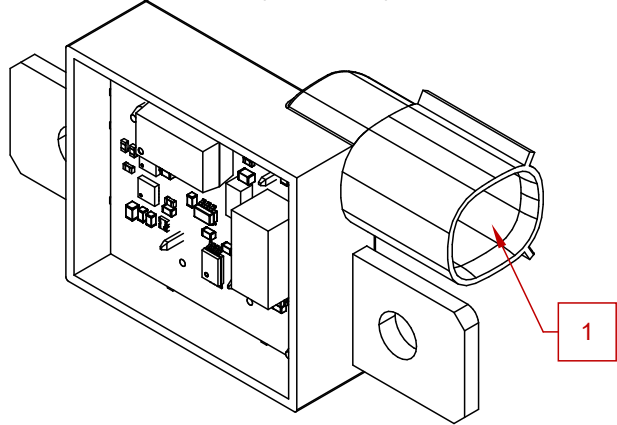


- TP MOSI
- TP9 MISO
- TP10 SCK
- TP11 CSn
- TP12



Project: <i>BMS_Current_Sense.PrjPcb</i>		<div><div>MIDNIGHT</div><div></div><div>SUN</div></div>
Title: BMS Current Sense isoSPI Interface		
Project Lead: Taiping Li		University of Waterloo 200 University Ave W Waterloo, ON, Canada N2L 3E9
Size: Letter	Revision: 2.1	
Date: 2018-02-07	Sheet3 of 3	
		Website: www.uwmidsun.com

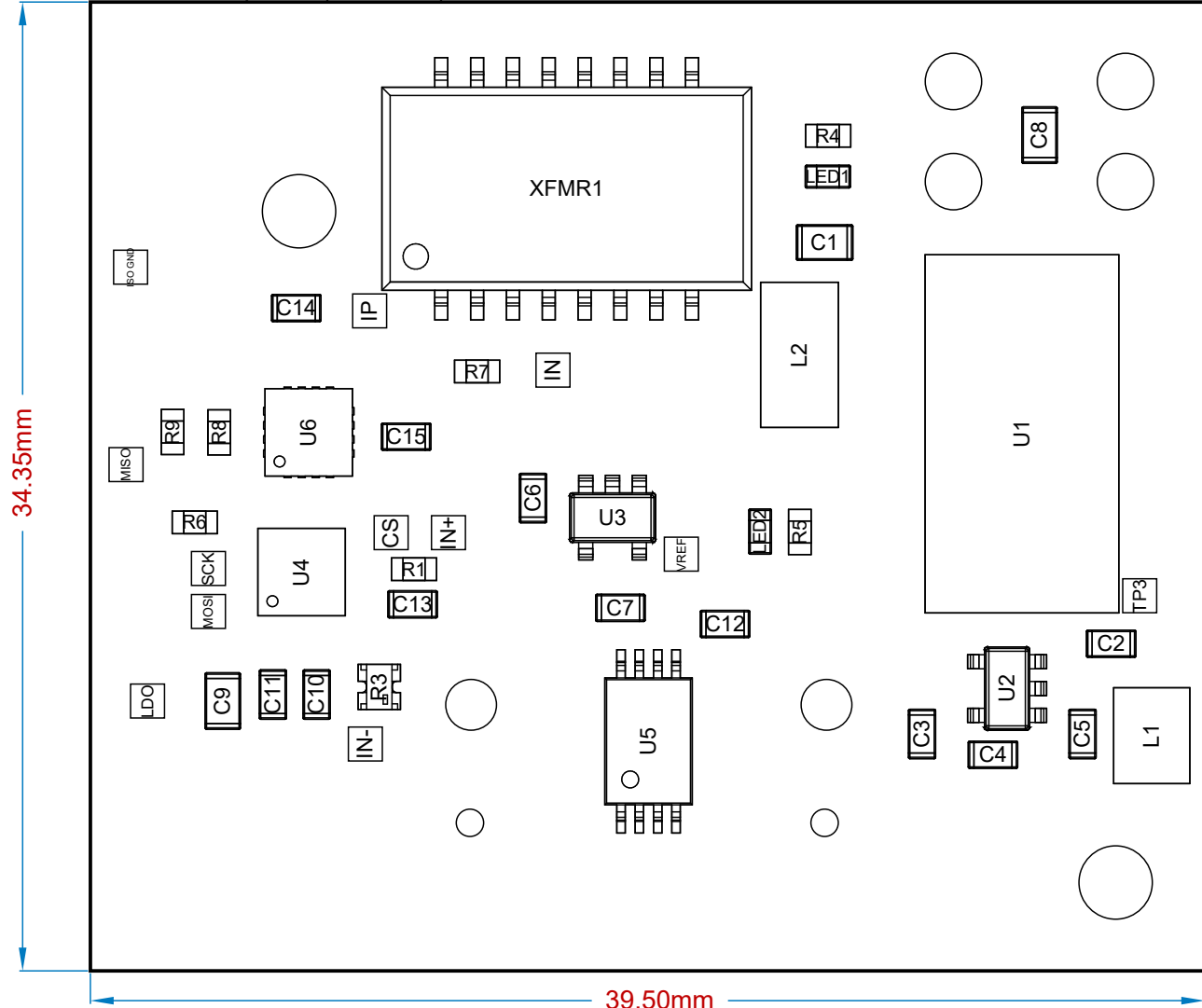
View from Top side (Scale 1:1)



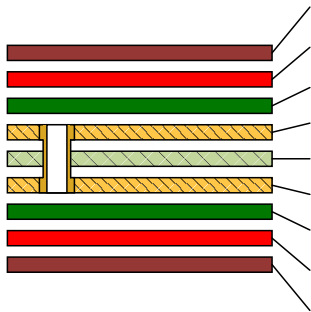
Notes:

- 1 Mating: Molex 0334824001
2. Layer stack based on data from Oshpark

View from Top side (Scale 4:1)



Layer Stack Legend



Top Paste			Paste Mask	GTP
Top Overlay			Legend	GTO
Top Solder	0.00mm	Solder Resist	Solder Mask	GTS
L1	0.04mm		Signal	GTL
	1.52mm	FR-4	Dielectric	
L2	0.04mm		Signal	GBL
Bottom Solder	0.00mm	Solder Resist	Solder Mask	GBS
Bottom Overlay			Legend	GBO
Bottom Paste			Paste Mask	GBP

Total thickness: 1.60mm

Device	Processor	Memory	Storage	OS	Price
ASUS ROG Zephyrus G14	AMD Ryzen 7 6800H	16 GB	1 TB	Windows 11	\$1,499
MSI Stealth 16	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,799
HP Spectre x360	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
Lenovo Yoga 9i	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,599
Acer Swift 14	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,199
Dell XPS 13	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
Surface Laptop 5	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
ASUS ZenBook 14	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,199
MSI Prestige 14	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
HP EliteBook 840	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
Lenovo ThinkPad X1	Intel Core i7-1355U	16 GB	512 GB	Windows 11	\$1,299
Acer Swift 16	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,599
Dell XPS 15	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,699
Surface Laptop Studio 2	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,699
ASUS ZenBook 16	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,599
MSI Prestige 16	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,699
HP EliteBook 850	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,699
Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,699
Acer Swift 17	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,799
Dell XPS 17	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,899
Surface Laptop Studio 2	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,899
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Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,899
Acer Swift 18	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$1,999
Dell XPS 18	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$2,099
Surface Laptop Studio 2	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$2,099
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MSI Prestige 18	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$2,099
HP EliteBook 870	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$2,099
Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$2,099
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HP EliteBook 1050	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,699
Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,699
Acer Swift 37	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,799
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ASUS ZenBook 37	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,799
MSI Prestige 37	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,899
HP EliteBook 1060	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,899
Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$5,899
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HP EliteBook 1070	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,099
Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,099
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ASUS ZenBook 39	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,199
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HP EliteBook 1080	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,299
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Lenovo ThinkPad X1	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,499
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Dell XPS 41	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,699
Surface Laptop Studio 2	Intel Core i7-13700H	32 GB	2 TB	Windows 11	\$6,699
ASUS ZenBook 41					

