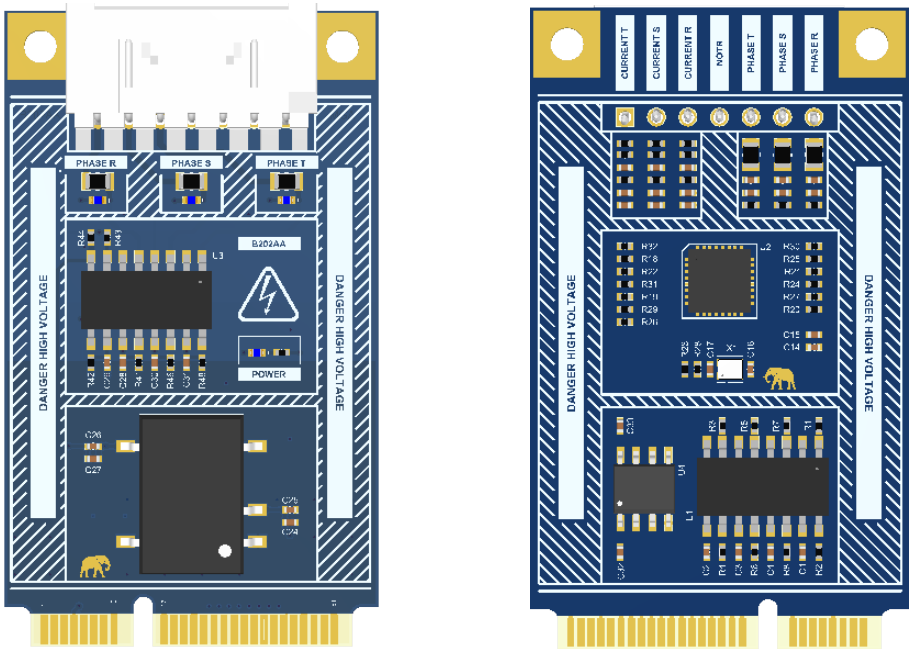


B202AA-PCIe module is an energy measurement module (EMM) for poly phase power monitoring systems. It is designed for real-time monitoring for a variety of typical three-phase configurations in industrial applications. It is available in a mini PCIe size PCB module.

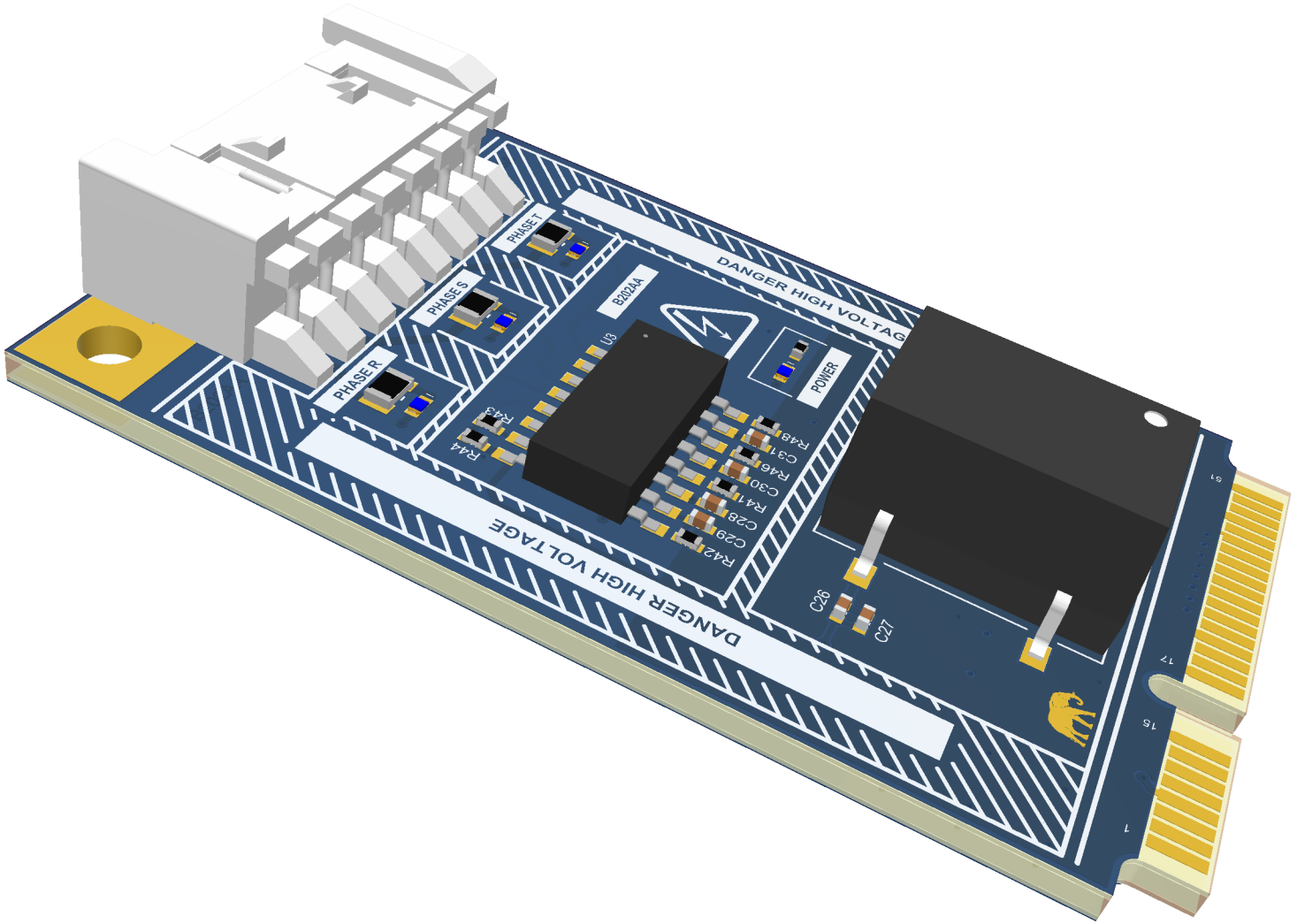
The B202AA-PCIe provides up to six analog inputs for interfacing to voltage and current sensors. Scaled voltages from the sensors are fed to the single converter front-end utilizing a high-resolution delta-sigma converter. Supported current sensors include current transformers (CT), Rogowski coils, and resistive shunts.

An embedded 24-bit measurement processor and firmware perform all necessary computations and data formatting for accurate reporting to the host. With integrated flash memory for storing nonvolatile calibration coefficients and device configuration settings, the B202 is capable of being a completely autonomous solution.

www.github.com/akkoyun/B202AA-PCIe

B202AA-PCIe			Engineer : Gunce Akkoyun	-
			Customer : -	
Size : A4	Project :PollyPhase Energy Analyzer		Product ID : B202AA-PCIe	Buyuk Kayacik Mah. 4. OSB 103. Cad. No : 12 Selcuklu / KonyaTürkiye
			Module ID : B202AA-PCIe	
Date : 6.11.2025	Time : 14:21	Page : 1 / 6	Version : R1	
File : B202AA-PCIe.PCBDwf			Revision : 00.00.01	

Property of -



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B202AA-PCIe			Engineer : Gunce Akkoyun Customer : -	-
Size : A4	Project :PollyPhase Energy Analyzer		Product ID : B202AA-PCIe Module ID : B202AA-PCIe	Buyuk Kayacik Mah. 4. OSB 103. Cad. No : 12 Selcuklu / KonyaTürkiye
Date : 6.11.2025	Time : 14:21	Page : 2 / 6	Version : R1	
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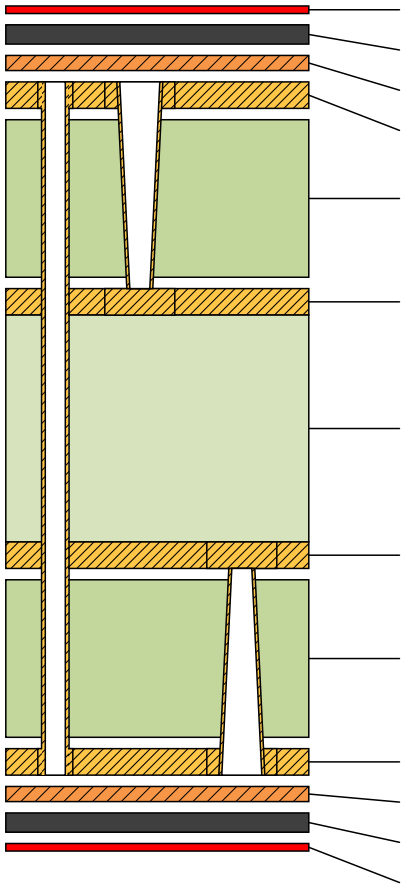
Layer Stack Legend



Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.03mm	SM-001	Solder Mask	GTS
Nickel, Gold	Top Copper Plating	0.02mm		Surface Finish	
CF-004	**Top Layer**	**0.04mm**		**Signal**	**GTL**
Prepreg		*0.21mm*	*PP-022*	*Dielectric*	
CF-004	**Int1**	**0.04mm**		**Signal**	**G1**
Core		*0.99mm*	*Core-042*	*Dielectric*	
CF-004	**Int2**	**0.04mm**		**Signal**	**G2**
Prepreg		*0.21mm*	*PP-022*	*Dielectric*	
CF-004	**Bottom Layer**	**0.04mm**		**Signal**	**GBL**
Nickel, Gold	Bottom Copper Plating	0.02mm		Surface Finish	
Surface Material	Bottom Solder	0.03mm	SM-001	Solder Mask	GBS
	Bottom Overlay			Legend	GBO

Total thickness: 1.64mm

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B202AA-PCIe		Engineer : Gunce Akkoyun	-
Size : A4	Project :PollyPhase Energy Analyzer	Customer : -	Buyuk Kayacik Mah. 4. OSB 103. Cad. No : 12 Selcuklu / KonyaTürkiye
Date : 6.11.2025	Time : 14:21 Page : 3 / 6	Product ID : B202AA-PCIe Module ID : B202AA-PCIe	
File : B202AA-PCIe.PCBDwf		Version : R1 Revision : 00.00.01	

Property of-

Bill Of Materials

Designator	Quantity	Manufacturer Name	Manufacturer Part Number
C1, C15, C24, C27, C32, C33	6	AVX	04026D104KAT4A
C2, C26	2	KYOCERA AVX	04026D473KAT2A
C3, C25, C34, C35	4	Murata Electronics	GRM153R60J105ME95D
C4	1	KEMET	C0402C475M9PACTU
C5, C6, C7	3	Murata	GRM1885C1H471JA01
C14	1	Murata Electronics	GCJ188R71E105KA01D
C16, C17	2	KYOCERA AVX	04025A8R0CAT2A
C18, C19, C20	3	Yageo	C0805C223K5RACTU
C21, C22, C23	3	Murata	GRM155R71H102KA01D
C28, C30, C31	3	KYOCERA AVX	04026D104KAT4A
C36	1	Wurth Elektronik	885012207024
D1, D3, D7, D10, D14	5	ROHM Semiconductor	SML-P12VTT86R
D2, D4, D11	3	Onsemi	MB10S
D5, D9, D13	3	Nexperia	BZT52H-B5V1,115
D6, D8, D12	3	Bourns	SMAJ440A
D15, D16, D17, D18, D19, D20	6	Panjit	BAS316_R1
FB1	1	Murata Electronics	BLM18EG101TZ1D
J2	1	Molex	53426-0710
J3	1	Molex	53261-0671
R1, R6	2	Vishay	CRCW04021K80FKED
R2, R7	2	Vishay	CRCW040247R0FKED
R3, R4, R45, R52, R55	5	Vishay	CRCW04024K70FKED
R5, R18, R19, R20, R23, R24, R25, R32	8	Vishay	CRCW040210K0FKED
R8, R21, R22, R26, R27, R28, R29, R31, R61, R62, R63, R64	12	Vishay	CRCW040247K0FKED
R9, R12, R15, R30	4	Vishay	CRCW04020000Z0ED
R10, R13, R76	3	Yageo	RT0805BRD0710RL
R11, R14, R77	3	Yageo	RT1206BRD0724R9L
R33, R34, R35, R37, R38, R43, R69, R70, R71	9	Yageo	RT1206BRD071M1L
R36, R44, R72	3	Vishay	CRCW0805100RFKEA
R39, R42, R65, R66, R67, R68	6	Vishay	CRCW040233R0FKED
R40, R47, R48, R49, R50, R51, R53, R54, R57, R58, R59, R60	12	Panasonic	ERJ-P06D1803V
R41, R46, R56	3	Vishay	CRCW04021K00KFKED
R73, R74, R75	3	Panasonic	ERA-6AEB102V
U1, U3	2	Toshiba	TLP2362(TPR,E
U2	1	Silergy	MAX78630+PPM/D00
U4	1	Texas Instruments	ISOW7821FDWE

B202AA-PCIe

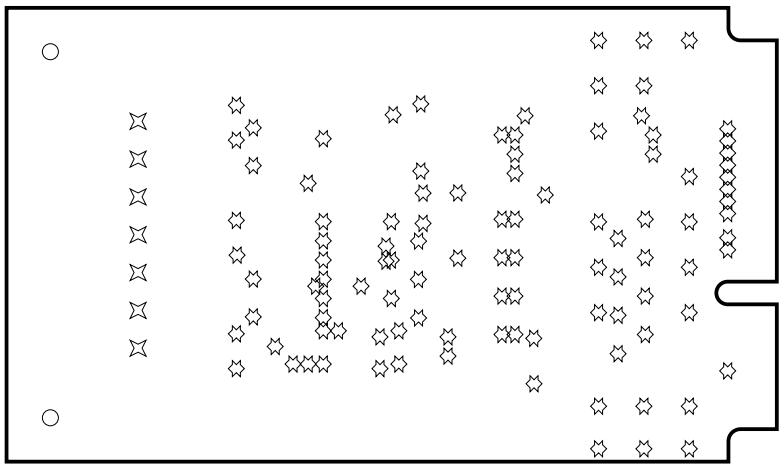
Engineer : Gunce Akkoyun
Product ID : B202AA-PCIe
Module ID : B202AA-PCIe
Revision : 0.0.0.01

Size : A4 | Project : PollyPhase Energy Analyzer | Revision : R1
Date : 6.11.2022 | Time : 14:21 | Page : 4 / 6
File : B202AA-PCIe.PCBDwf

www.github.com/akkoyun/B202AA-PCIe

Buyuk Kayacik Mah. 4. OSB
103. Cad. No : 12
Selcuklu / Konya Türkiye

Property of -



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
✡	104	0.20mm	Plated	
⛌	7	1.00mm	Plated	
○	2	2.60mm	Plated	+/-0.05mm
	113 Total			

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Size : A4	Project :PollyPhase Energy Analyzer		Product ID : B202AA-PCIe Module ID : B202AA-PCIe	Buyuk Kayacik Mah. 4. OSB 103. Cad. No : 12 Selcuklu / KonyaTürkiye
Date : 6.11.2025	Time : 14:21	Page : 5 / 6	Version : R1	
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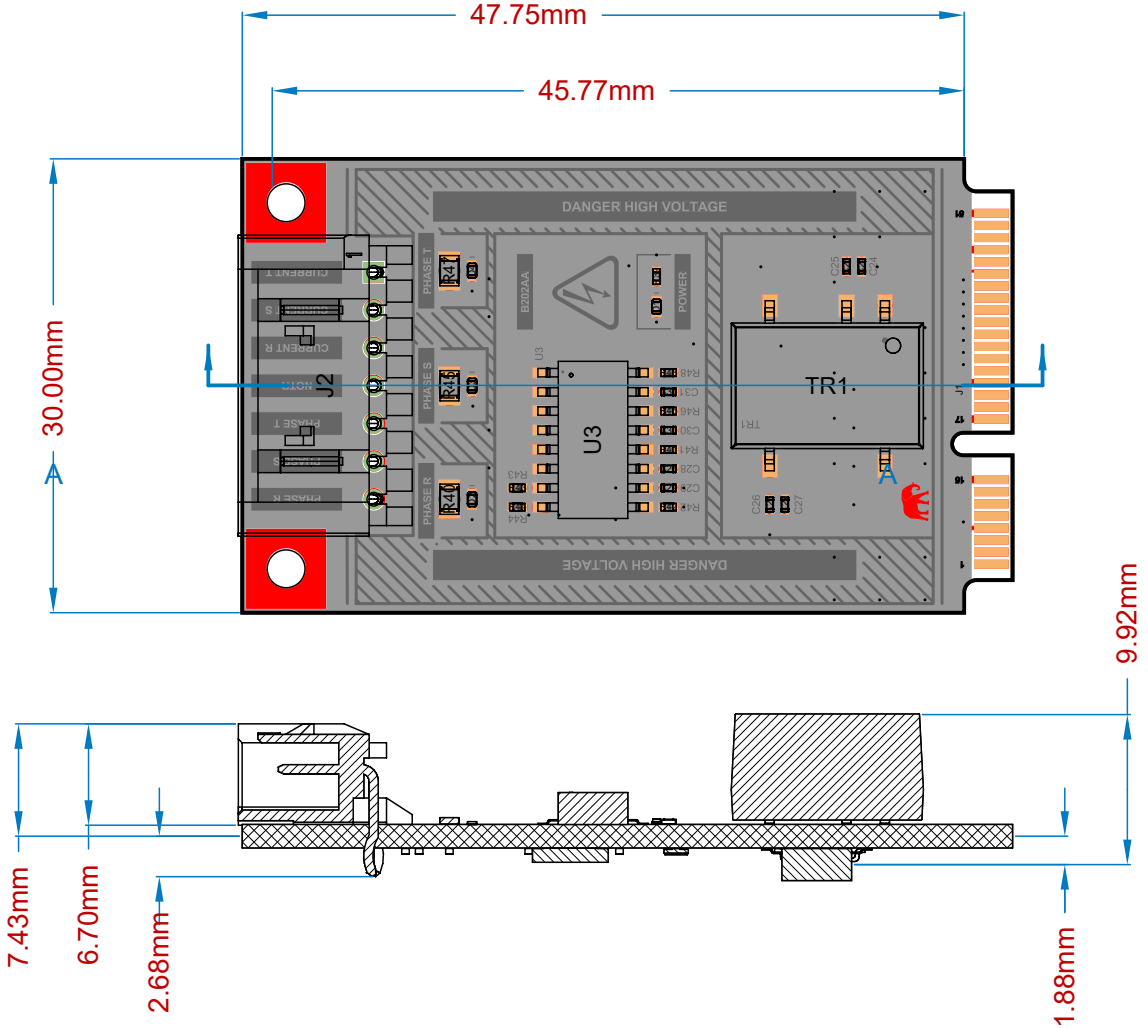

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