

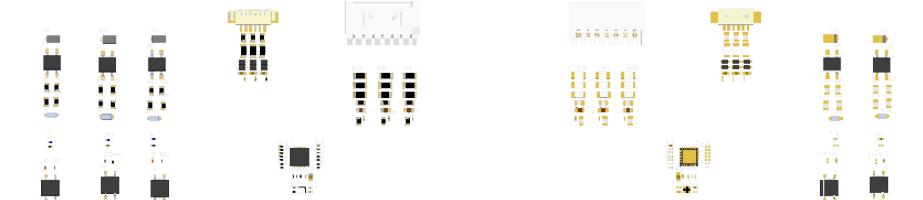
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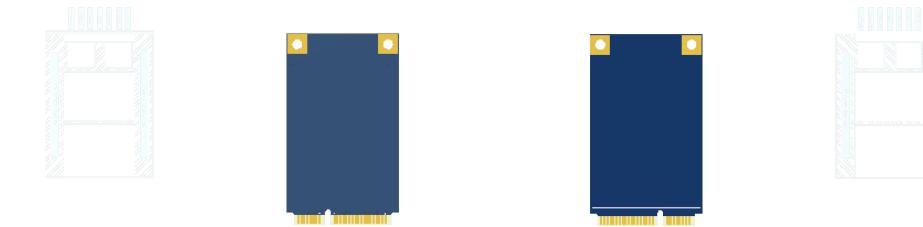
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B202AA-PCIe module is an energy measurement module (EMM) for poly phase power monitoring systems. It is designed for real-time monitoring for a variety of typical three-phase configurations in industrial applications. It is available in a mini PCIe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

B202AA-PCIe		Engineer : Guncel Akkoyun	-
Customer :		-	-
Size : A4	Project : PolyPhase Energy Analyzer	Product ID : B202AA-PCIe	-
Date : 7.11.2025	Time : 15:54	Module ID : B202AA-PCIe	Version : R1
File : B202AA-PCIe.PCBDwf		Revision :	00.00.01

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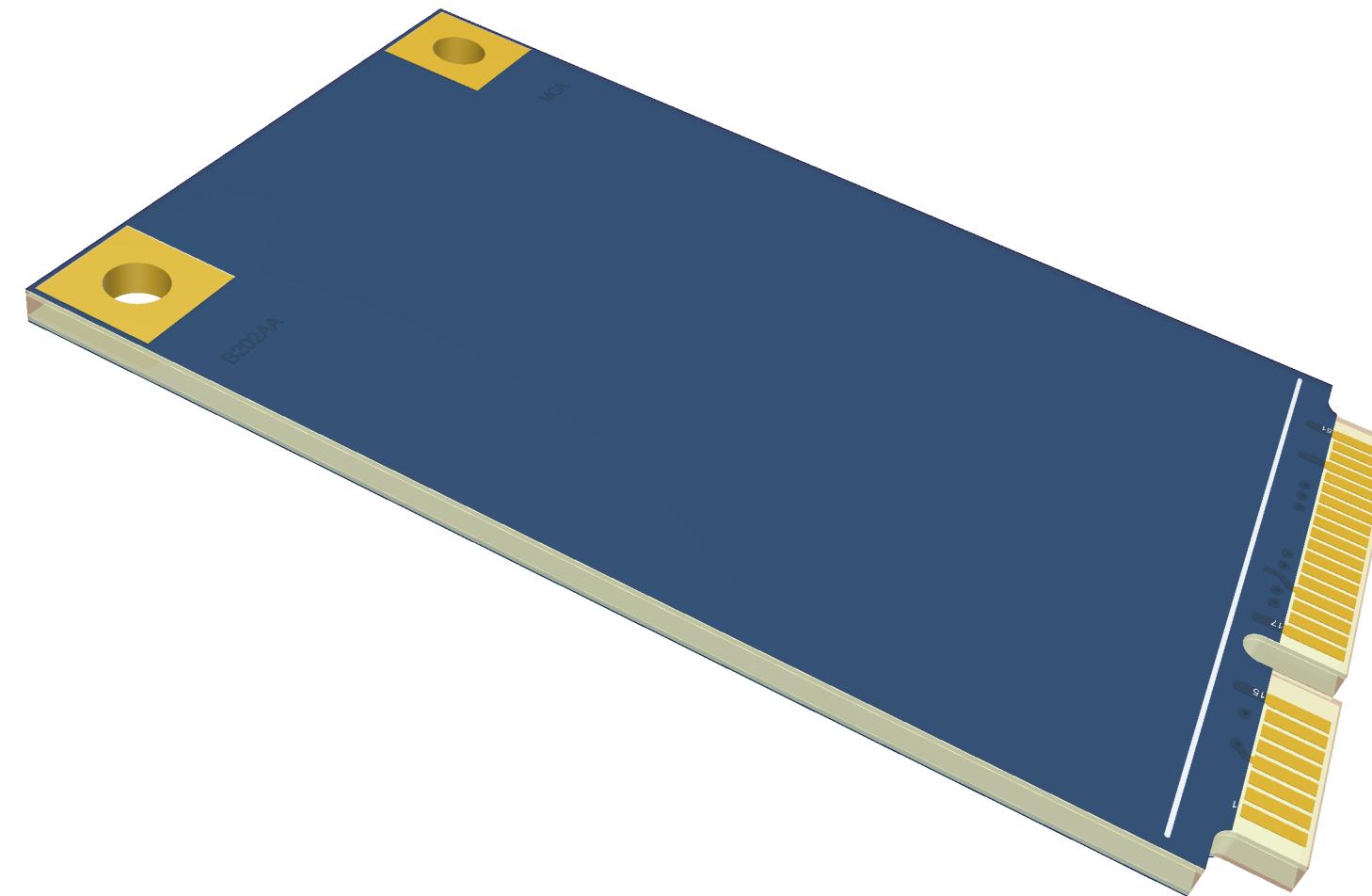
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www.github.com/akkoyun/B202AA-PCIe

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Date : 7.11.2025	Time : 15:54	Page : 2 / 6	Version : R1
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Buyuk Kayacik Mah. 4. OSB
 103. Cad. No : 12
 Selcuklu / Konya/Turkey

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Layer Stack Legend

	Material	Layer	Thickness	Dielectric Material	Type	Gerber
1		Top Overlay			Legend	GTO
		Surface Material	0.03mm	SM-001	Solder Mask	GTS
	Nickel, Gold	Top Copper Plating	0.02mm		Surface Finish	
	CF-004	Top Layer	0.04mm		Signal	GTL
			0.21mm	PP-022	<i>Dielectric</i>	
2						
	CF-004	Int1	0.04mm		Signal	G1
	Core		0.99mm	Core-042	<i>Dielectric</i>	
	CF-004	Int2	0.04mm		Signal	G2
3						
			0.21mm	PP-022	<i>Dielectric</i>	
	Prepreg					
	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
4						
	Total thickness: 1.64mm					

Bill Of Materials

Designator	Quantity	Manufacturer Name	Manufacturer Part Number
C1, C4, C11, C14, C25, C26	6	AVX	04026D104KAT4A
C2, C5, C24, C27	4	Murata Electronics	GRM153R60J105ME95D
C3, C6	2	KYOCERA AVX	04026D473KAT2A
C7, C8, C9	3	Murata	GRM1885C1H471JA01
C10	1	Murata Electronics	GCJ188R71E105KA01D
C12, C13	2	KYOCERA AVX	04025A8R0CAT2A
C15, C16, C17	3	Yageo	C0805C223K5RACTU
C18, C19, C20	3	Murata	GRM155R71H102KA01D
C21, C22, C23	3	KYOCERA AVX	04026D104KAT4A
C28	1	KEMET	C0402C475M9PACTU
C29	1	Wurth Elektronik	885012207024
D1, D2, D9, D13, D17	5	ROHM Semiconductor	SML-P12VTT86R
D3, D4, D5, D6, D7, D8	6	Panjit	BAS316_R1
D10, D12, D14	3	Nexperia	BZT52H-B5V1,115
D11, D15, D19	3	Bourns	SMAJ440A
FB1	1	Murata Electronics	BLM18EG101TZ1D
J2	1	Molex	53426-0710
J3	1	Molex	53261-0671
R1, R4, R49, R55, R61	5	Vishay	CRCW04024K70FKED
R2, R5	2	Vishay	CRCW04021K80FKED
R3, R6	2	Vishay	CRCW040247R0FKED
R7, R10, R13	3	Yageo	RT0805BRD0710RL
R8, R11, R14	3	Yageo	RT1206BRD0724R9L
R9, R12, R15, R30	4	Vishay	CRCW04020000Z0ED
R16, R17, R18, R19, R20, R21, R33, R75	8	Vishay	CRCW040210K0FKED
R22, R24, R26, R27, R28, R29, R31, R32, R67, R68, R69, R70	12	Vishay	CRCW040247K0FKED
R23, R25, R71, R72, R73, R74	6	Vishay	CRCW040233R0FKED
R34, R35, R36, R38, R39, R40, R42, R43, R44	9	Yageo	RT1206BRD071M1L
R37, R41, R45	3	Vishay	CRCW0805100RFKEA
R46, R47, R48	3	Panasonic	ERA-6AEB102V
R50, R56, R62	3	Vishay	CRCW0402100KFKED
R51, R52, R53, R54, R57, R58, R59, R60, R63, R64, R65, R66	12	Panasonic	ERJ5R06D1803V
U1, U2	2	Toshiba	TLR2362(TPR,E R1)
U3	1	Silergy	MAX78630+PPM/D00
U4, U5, U6	3	Vishay	VOM617A-4T

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Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
❖	9	0.20mm	Plated	
❖	7	1.00mm	Plated	
○	2	2.60mm	Plated	+/-0.05mm
18 Total				

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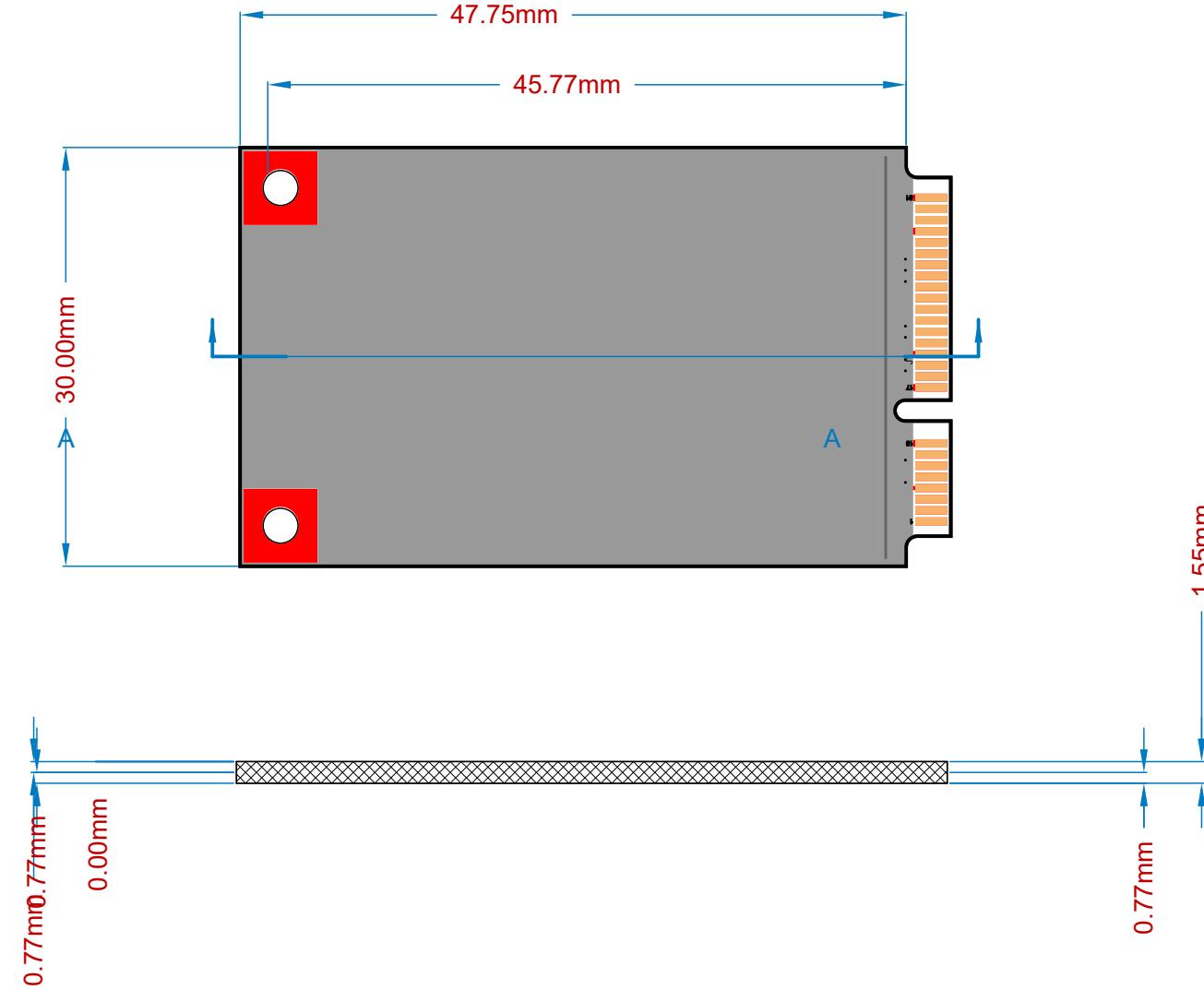
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Büyük Kayacık Mah. 4. OSB
 103. Cad. No : 12
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