

**Product Name:** ZX122AX – PCISIG M.2 NGFF passive adapter converter module, converting ANY M.2 finger connector type to any M.2 connector type

**Product Description:** ZX122AX enables conversion of M.2 Key\_id to any Key\_id connector. All signals are available for converting any M.2 finger edge connector KEY\_ID to any M.2 connector KEY ID.  
PCISIG M.2 a.k.a. Next Generation Form Factor , NGFF, passive breakout adapter enabling access to all accessible M.2 signals while the ZX122AX is placed between Host and Target. Designed with 50Ω trace impedance on all traces, improved signal integrity and crosstalk.

ZX122AX provides access to all 75 signals via accessible 0402 SMD landing pads. Dedicated GND test point, interfacing with the inner ground layers + top/bottom GND fills.

ZX122AX can be inserted into any M.2 NGFF PCISIG connector and wired ( stitched ) to any Evaluation board ( development board ) for purpose of debugging, development, testing, or characterization.

- Designed in 4 layer PCB
- All signals accessible via 0402 SMD landing pads.
- Dedicated Module GND test point for ease of probing and system ground reference.
- The “GND” test point, accessing inner ground layers for improved signal integrity and crosstalk.
- Matching 50Ω trace impedance on all traces.

“GND” test points and Mounting holes are connected to 2 internal GND layers.

**Application:** Bringup, testing, emulation, development, modular design evaluations for wifi GPS GYRO Compass BT FM sensor module

**Mates with :** Any standard M.2 NGFF PCISIG connector, please see ORDER info for “Key”, meeting Keys A, B, E, M and ANY configuration –  
TE 2199125 2199119 2199230 2199133  
JAE SM3ZS067  
Bellwether: SD-80148 SD-80149 SD-80152 SD-80159

**OnBoard M.2 connector** 4.1 mm Height

**Pitch:** 0.5mm

**Breakout Access:** Accessible via 0402 SMD landing pads. All signals are accessible on top layer of the module. Dedicated GND test point interfacing with the inner ground layers + top/bottom GND fills.

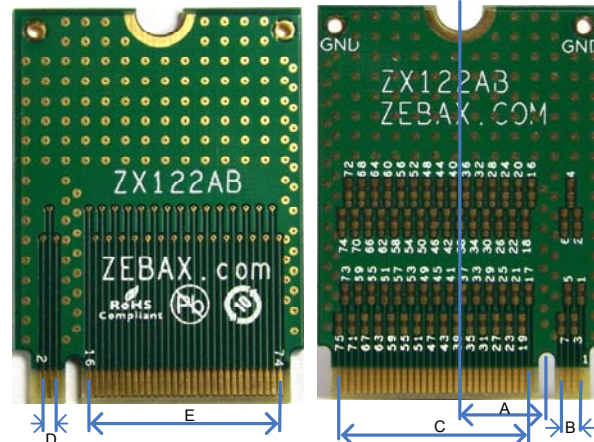
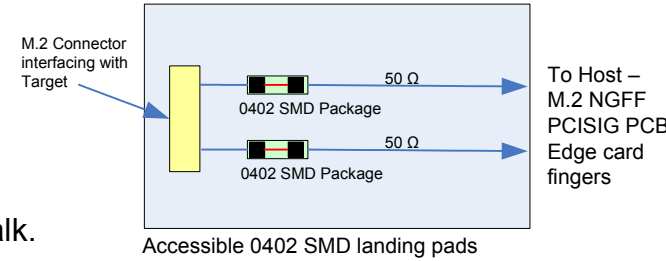
Key ID	Pin	Interface
A	8-15	PCIe X2/ USB / I2C / DP X4
B	12-19	PCIe X2 / SATA / USB / PCM / UIM / SSIC / UART-I2C
C	16-23	Reserved for Future Use
D	20-27	Reserved for Future Use
E	24-31	PCIe / USB / I2C / SDIO / UART / PCM
F	28-35	Reserved for Future Use
G	39-46	Future Memory Interface ( FMI )
H	43-50	Reserved for Future Use
J	47-54	Reserved for Future Use
K	51-58	Reserved for Future Use
L	55-62	Reserved for Future Use
M	59-66	PCIe X4 / SATA

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Figure 2- Simplified Block diagram

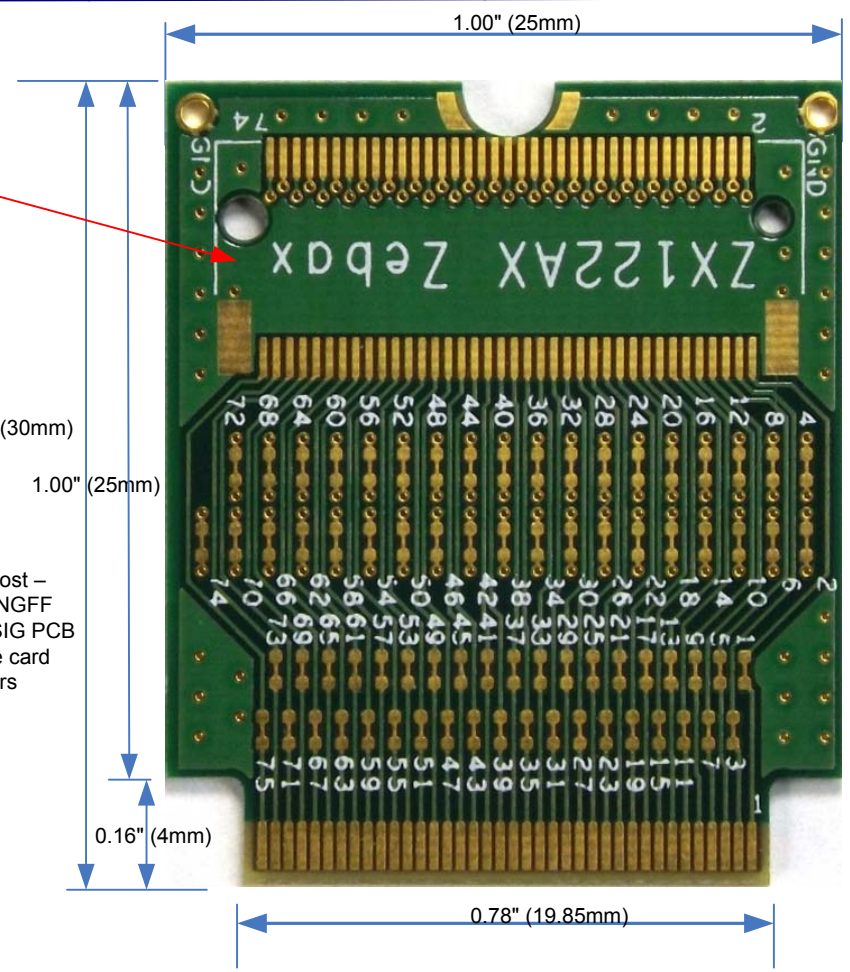
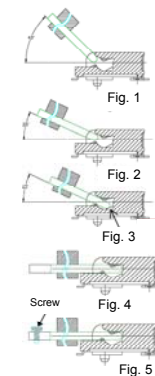


Diemnsion	KEY ID						
	A	B	C	D	E	F	
A	6.625	5.625	4.625	3.625	2.625	1.625	
B	1.500	3.500	3.500	4.500	5.500	6.500	
C	14.500	13.500	12.500	11.500	10.500	9.500	
D	1.000	2.000	3.000	4.000	5.000	6.000	
E	14.500	13.500	12.500	11.500	10.500	9.500	

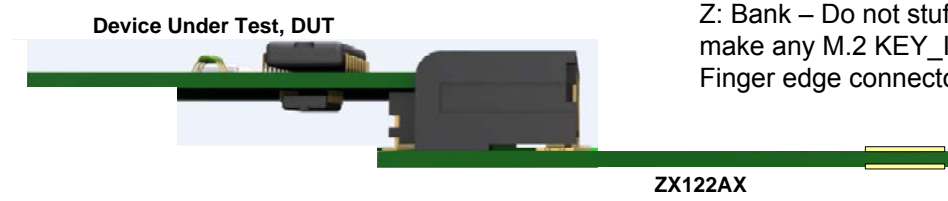
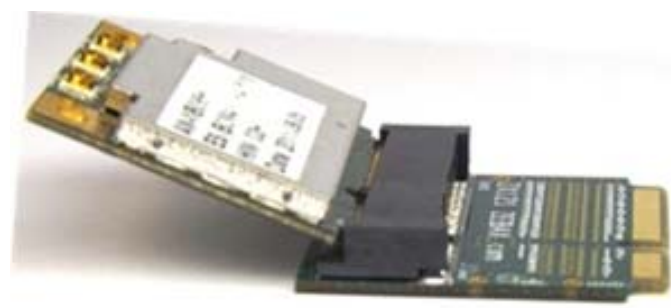
Dimension, See ZX122AB reference listed above

Module Insertion, Removal process:

- 1- Move the Module against the housing chamber, see figure 1
- 2- Rotate module to 25°, insert it until the module surface reaches the ramp, figure 2, 3
- 3- Rotate the module to horizontal position, see figure 4
- 4- Fix the module by screw, see figure 5



M.2 Connector installed here, see ordering info



**Ordering INFO:**  
Part Number  
ZX122AX M.2 Connector Finger  
A X  
B X  
E X  
M X  
Z X  
Z Z  
X: Any M.2 KEY\_ID Combination  
Z: Bank – Do not stuff M.2 connector or make any M.2 KEY\_ID cutout on the Finger edge connector.

Note  
ALL ZEBAX products are RoHS compliant and Lead Free unless otherwise indicated.

**ZEBAX TECHNOLOGIES**  
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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	ASSEMBLY DRAWING
ITEM: ZX122AX M.2 NGFF PCISIG	
DESCRIPTION: M.2 NGFF PCISIG passive adapter converter module ANY keys A B E and M	
CHECKED: M. MARINA	DRAWN: SLAVIK
REVISION: 1.0	
SHEET: 1 OF 1	