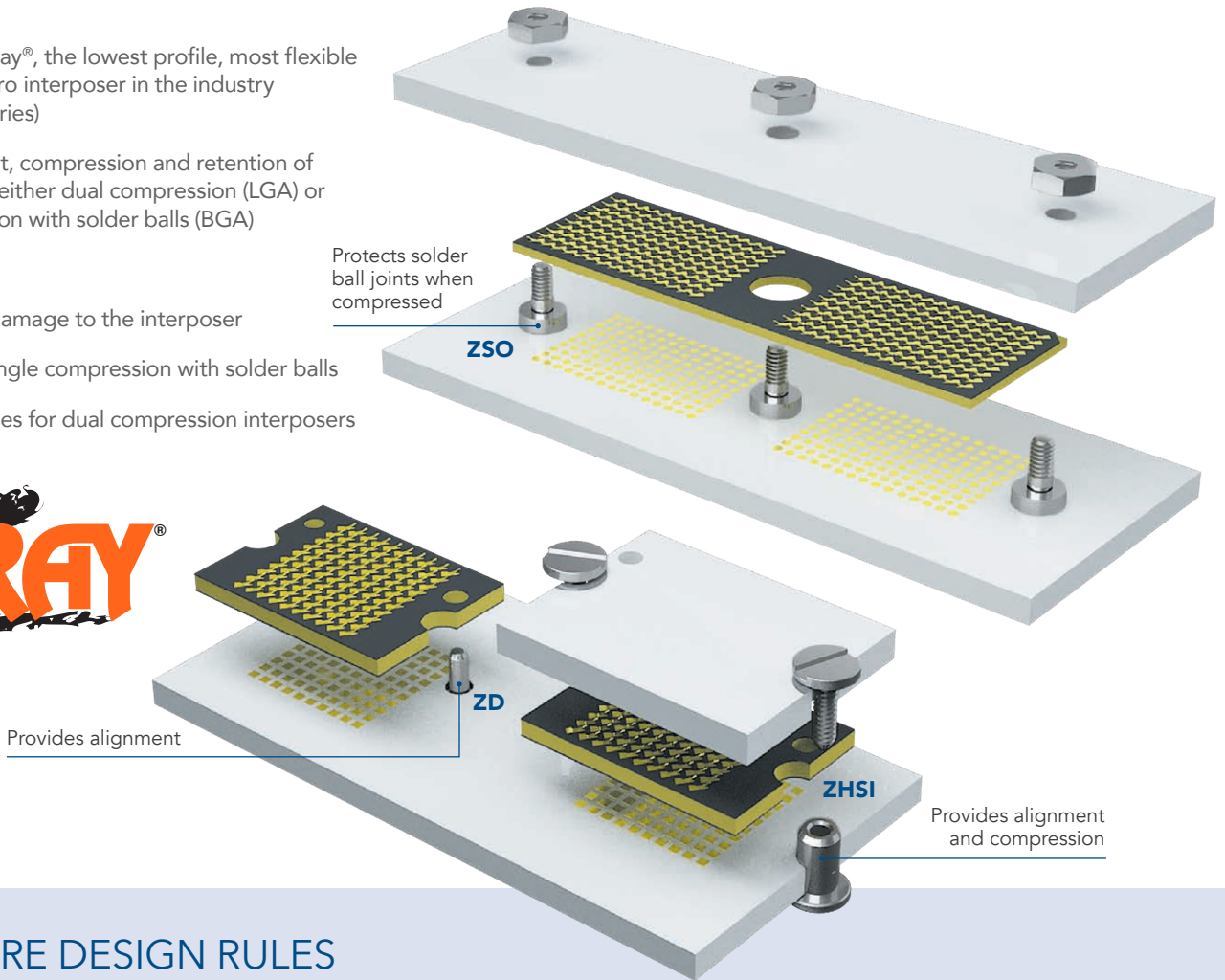




COMPRESSION HARDWARE

ULTRA LOW PROFILE SYSTEMS FOR Z-RAY® INTERPOSERS

- Designed for Z-Ray®, the lowest profile, most flexible high-density micro interposer in the industry (ZA8 and ZA1 Series)
- Precise alignment, compression and retention of interposers with either dual compression (LGA) or single compression with solder balls (BGA)
- Ultra low profile
- Reduces risk of damage to the interposer
- ZSO Series for single compression with solder balls
- ZHSI and ZD Series for dual compression interposers



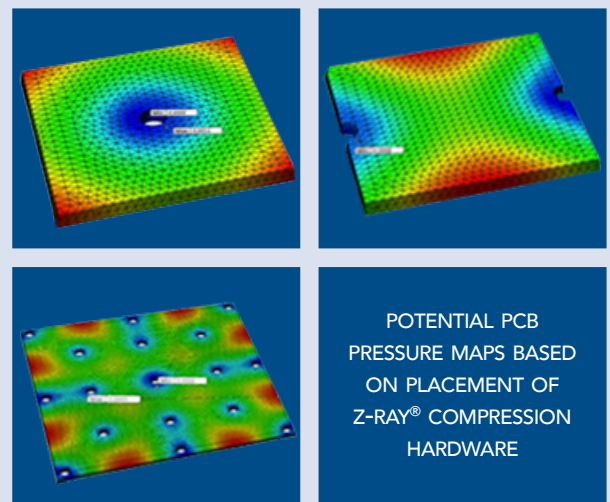
HARDWARE DESIGN RULES

Normal Force	Pitch	Maximum Number of Positions Allowed	
		Overhanging Fasteners	Between Fasteners
30 g / contact	0.80 mm*	6	15
	1.00 mm	6	15

ASSUMPTIONS

1) 0.056" thick FR4, 2) 0.001-0.002" resulting deflection, and 3) Initial PCB bow and warp = 0.000"

* 0.80 mm pitch with 30 g / contact normal force requires fasteners to be evenly dispersed and torqued from the inside out.

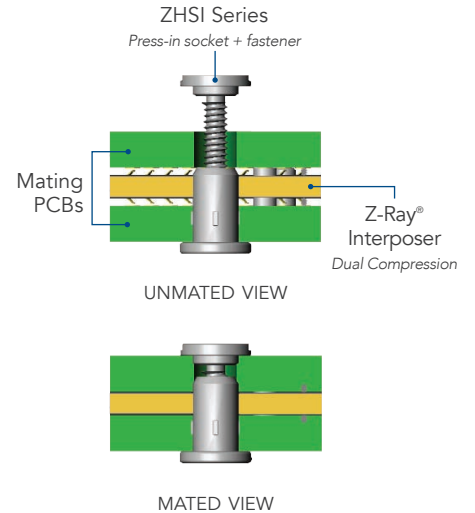
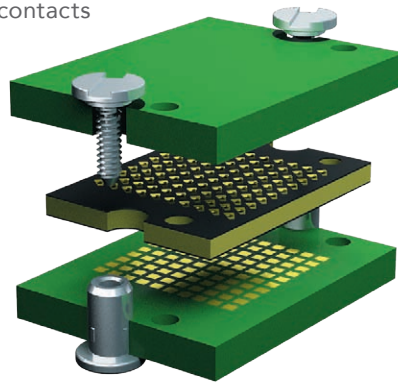


Z-RAY® HARDWARE SYSTEMS

Z-Ray® interposers are designed to work with the following alignment and fixture compression systems to make application integration smooth and flexible.

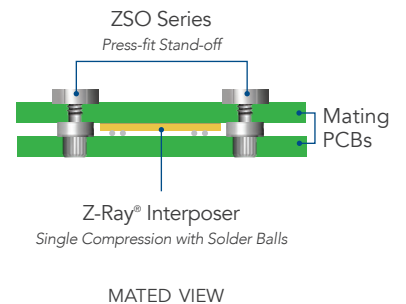
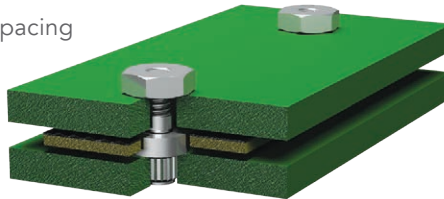
ZHSI Series Alignment/Compression Hardware

- Prevents over compression of dual compression contacts on interposer
- "Fitted" press-in threaded socket and top compression fastener
- Outer shell of socket provides both alignment and a platform for compression when the screw is torqued down
- Eliminates the need for additional fasteners
- Max torque of 4 in-oz. inner per the female mating half
- Accommodates .062" and .093" PCB thickness



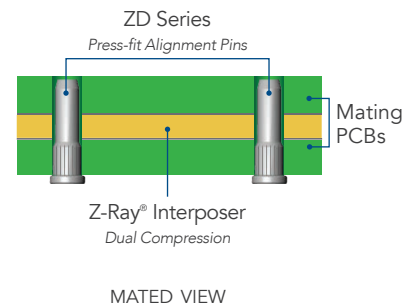
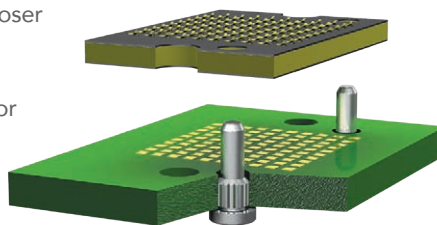
ZSO Series Alignment/Compression Hardware

- Prevents over compression and potential damage of solder ball joints on interposer
- Provides alignment and compression
- Ensures proper contact retention and board spacing
- Press-fit base post is threaded to align interposer and mating PCB, then secured with top compression nut
- 1 mm board stack height
- For additional stack heights, contact Samtec



ZD Series Standard Alignment Hardware

- Provides alignment for dual compression interposer
- Press-fit
- 3.7 mm, 5.3 mm and 5.7 mm lengths available for various stack heights
- Micro 1 mm diameter
- Used along with industry standard hardware to secure and compress interposer



For more Z-Ray® solutions, please visit www.samtec.com/ZRay or contact ZRay@samtec.com.

