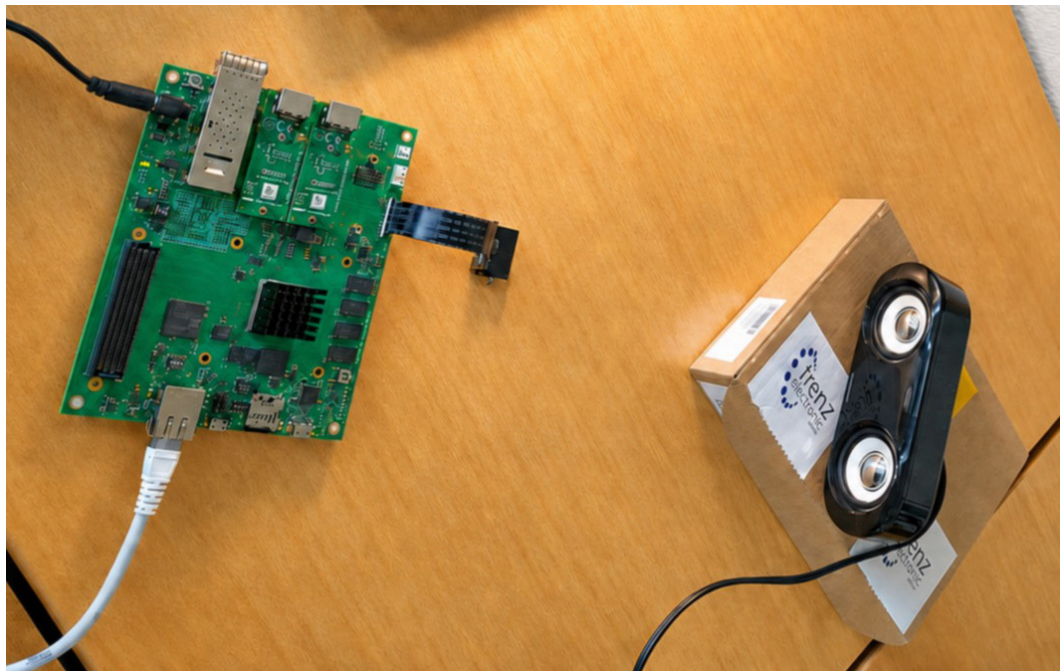


Phase-Based Motion Magnification Using Rolling-Shutter Sensors on the AMD Versal AI Edge Platform



- High-frequency sampling exploiting rolling-shutter camera characteristics
- Subpixel motion extraction using DTCWT and U²-Net segmentation
- Spectral analysis via Lomb-Scargle periodogram
- Accelerated pipeline deployment on the AMD Versal AI Edge platform
- Validated physical frequency detection up to 3.4 kHz

