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# Technical Support Package

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## Ultrafast Processor for Interferometric Radar

NASA Tech Briefs  
NPO-42026



National Aeronautics and  
Space Administration

Technical Support Package  
for  
**ULTRAFAST PROCESSOR FOR INTERFEROMETRIC RADAR**  
**NPO-42026**  
*NASA Tech Briefs*

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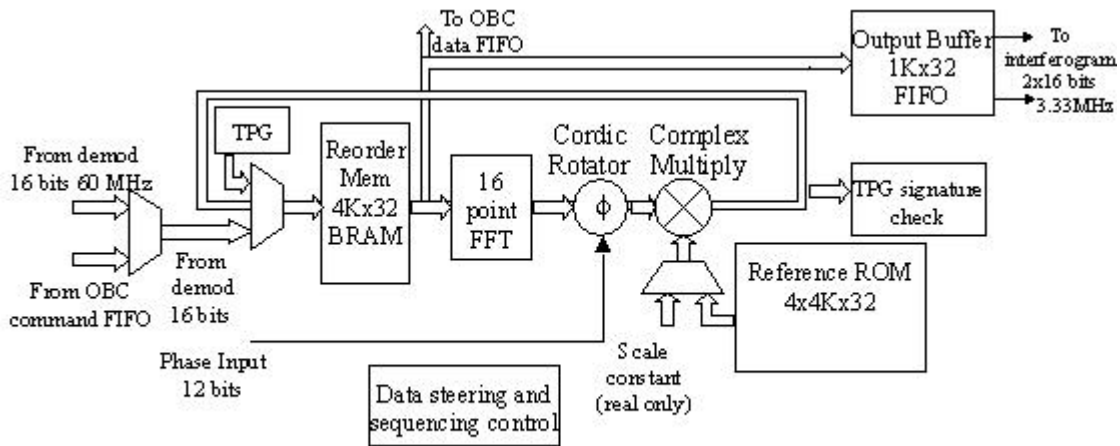


Fig. 1. Fast convolution engine developed for the processor FPGA aboard WSOA. The phase input interface makes it possible to simultaneously perform pulse-compression, time-shift, and frequency-shift operations required for radar interferometry.

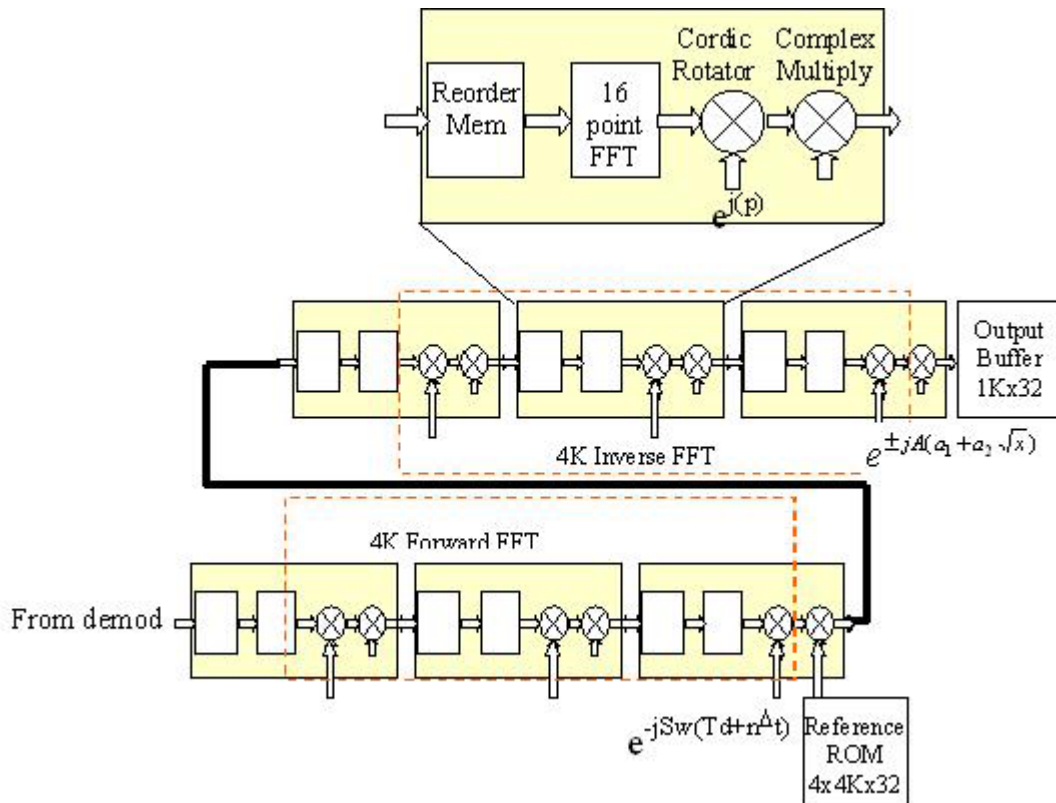


Fig. 2. Convolution function, showing the timeline for running the radar return data through multiple passes of the convolution processing cell.