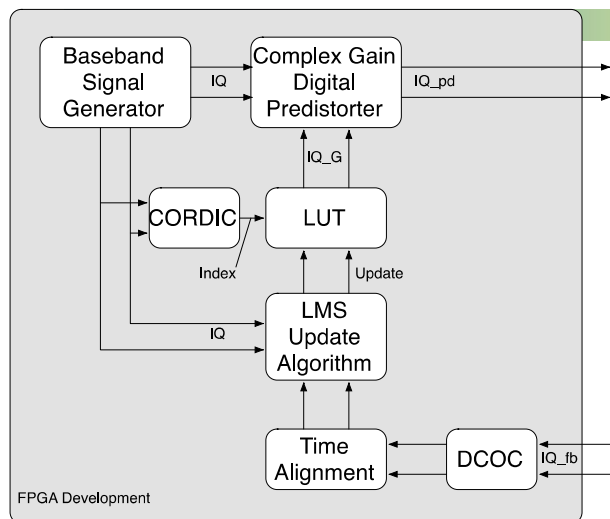




Delayed-LUT-Based Digital Pre-distortion Technique for Reducing Memory Effect in Power Amplifier

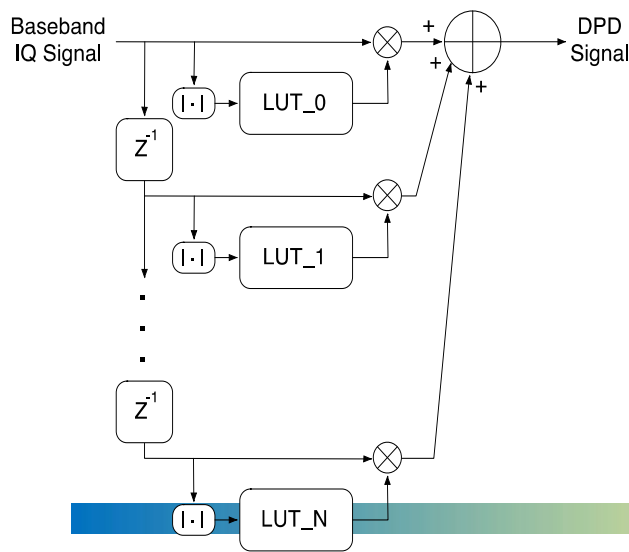


■ A Delayed-LUT-based digital pre-distortion is proposed.

- Low Computation
- ACLR Suppression
- Reducing memory effect of power amplifiers
- Real-time implementation in FPGA

■ Measurement result of Delayed-LUT with 16 entries shows

- Delayed-LUT DPD system is worked in any PA
- With Delayed-LUT-based DPD
 - ✓ Non-interpolated: 1.54dB improved.
 - ✓ Lin-interpolated: 2.61dB improved.



	ACLR 2	ACLR 1	ACLR 1	ACLR 2
w/o DPD	-42.43	-25.89	-26.16	-42.54
Memoryless DPD	-44.58	-40.06	-40.09	-44.56
Memoryless with lin-interpolated DPD	-45.91	-41.30	-41.19	-45.84
Delayed-LUT DPD	-44.75	-41.35	-41.63	-44.54
Delayed-LUT with lin-interpolated DPD	-45.75	-42.67	-42.48	-46.29