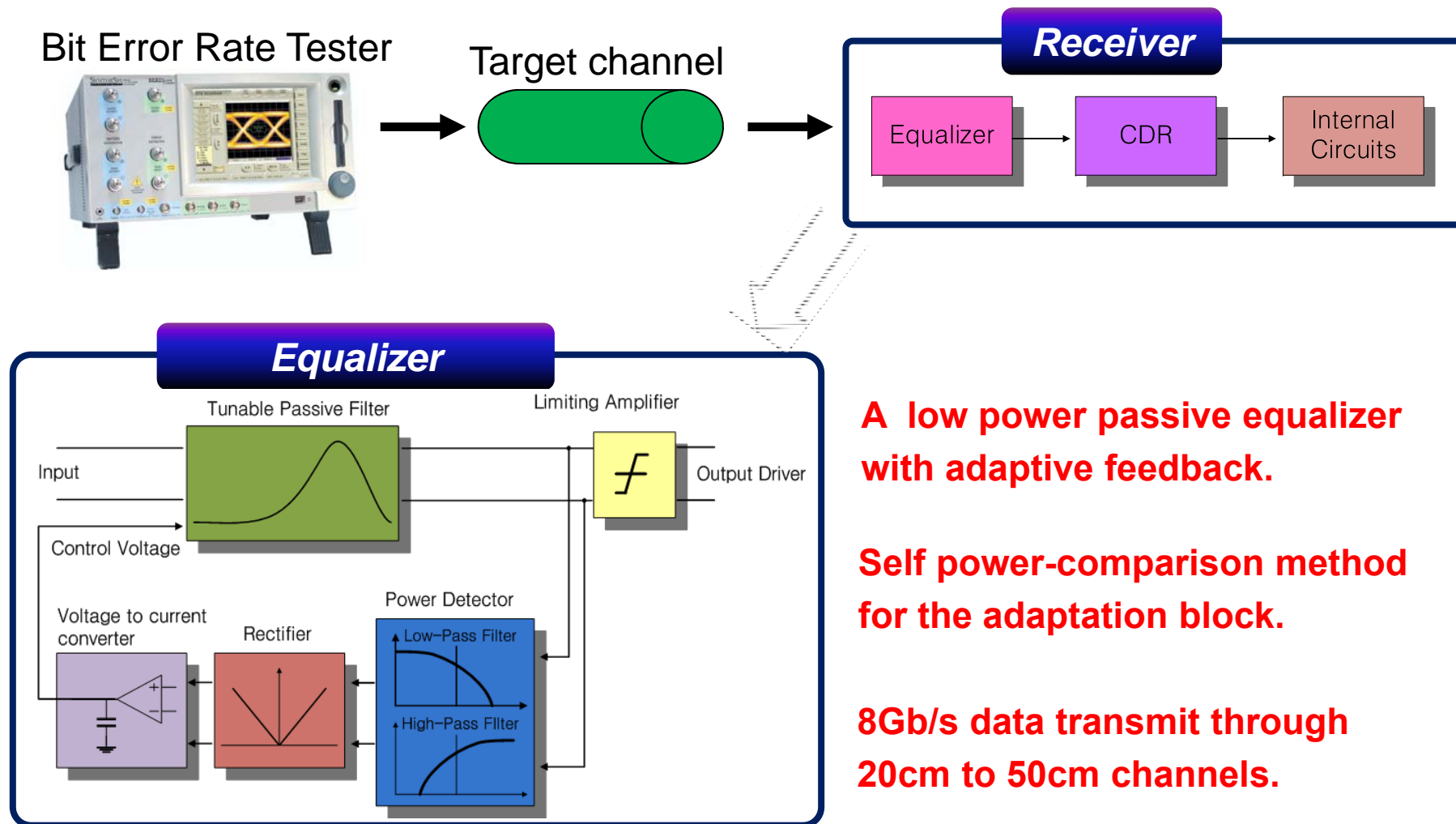


# Low Power Adaptive Passive equalizer

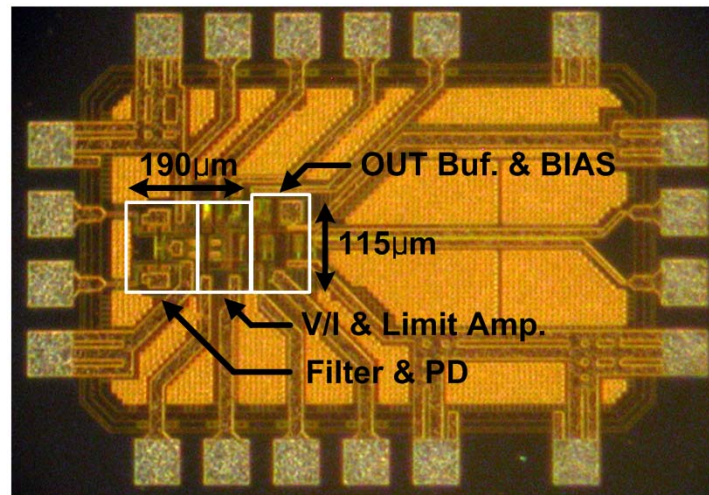


**A low power passive equalizer with adaptive feedback.**

**Self power-comparison method for the adaptation block.**

**8Gb/s data transmit through 20cm to 50cm channels.**

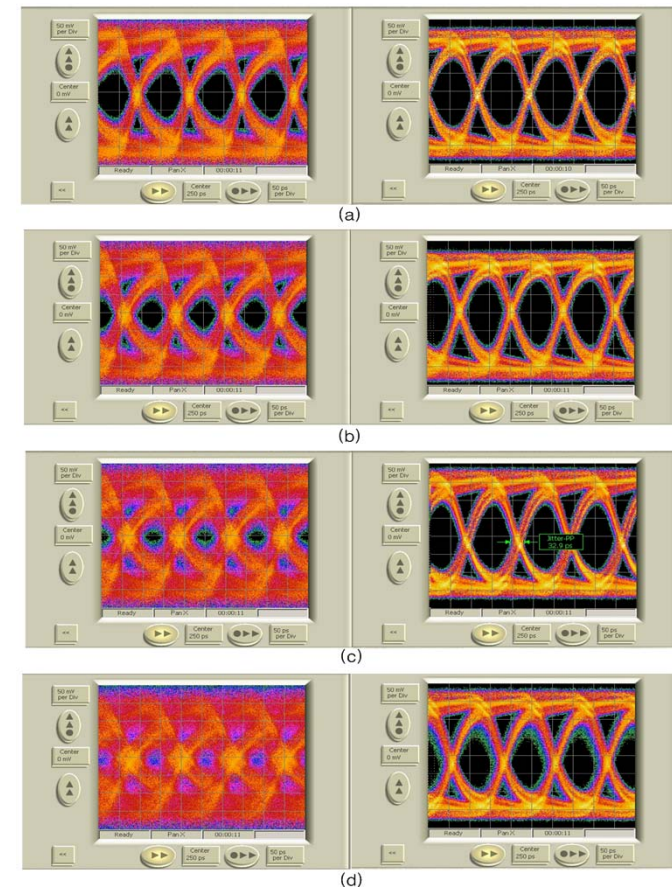
# Low Power Adaptive Passive equalizer



Die photographs of adaptive EQ

**Achieves the error-free condition ( $BER < 10^{-13}$ ) at all target channels.**

**The equalizer has very small power efficiency of 0.84 mW/Gbps and occupies only 0.021 mm<sup>2</sup> of chip area in 0.18- $\mu$ m CMOS technology.**



Measured waveform before (left) and after (right) equalization at 8 Gb/s of  
(a) 20-cm FR4 PCB trace  
(b) 30-cm FR4 PCB trace  
(c) 40-cm FR4 PCB trace  
(d) 50-cm FR4 PCB trace