

(15256849) represents just 19.66% of the cycle number of OFDM receiver (30000000) and 3.93% of RAKE receiver (6000000000) in [7].

7. CONCLUSIONS

In this work, the approach that has been adopted shows that the use of the CORDIC algorithm to calculate the cosine and sine of the DFT / IDFT is very efficient and the use of the fixed point gives a remarkable speed while keeping a better precision. Also the use of a powerful fixed-point processor dedicated to the signal processing could have had better results than other results obtained in the literature.

According to the obtained results in our implementation, we can conclude that using the CORDIC algorithm on fixed point is faster (with a ratio of 4.67) compared to receiver without CORDIC algorithm.

The perspective work is the implementation of the system in a hybrid circuit containing Field Programmable Gate Arrays (FPGA) and DSP.

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