

3GPP LTE CTC decoder product brief

TurboBest

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1. Introduction

The LTE CTC decoder designed to meet the *3GPP Mobile Communication System* specification [\[Ref 1\]](#).

CTC encoder and decoder enable an extremely effective way of transmitting data reliably over noisy data channels.

2. Block diagram

Below is the CTC decoder block diagram.

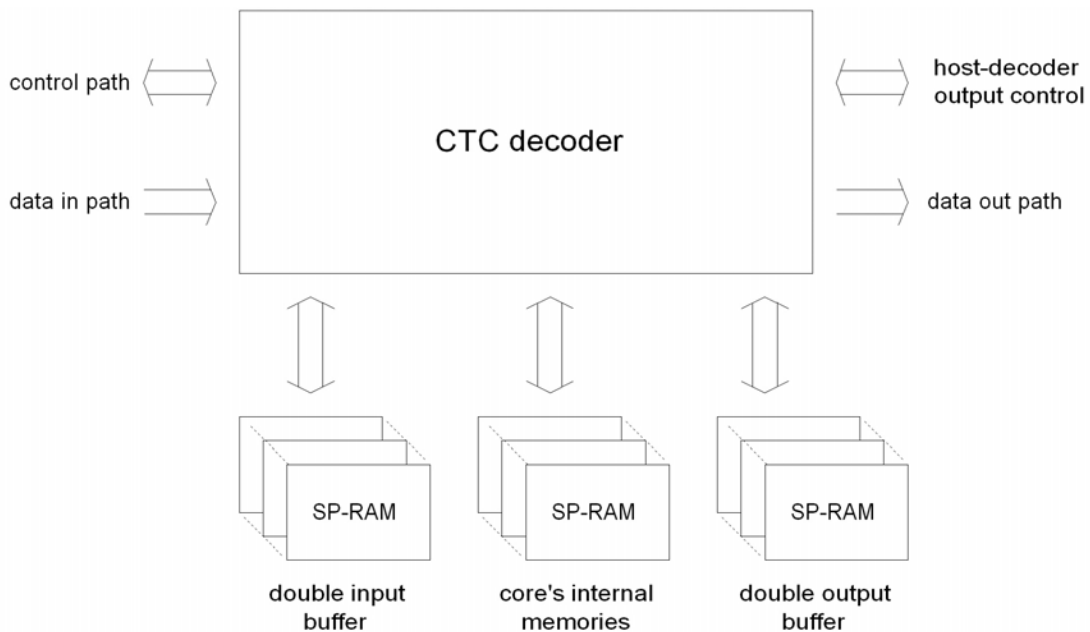


Figure 1 - CTC decoder block diagram

3. Features

- Implements the 3GPP Long Term Evaluation (LTE) specification [\[Ref 1\]](#)
- All 188 (40–6114) 3GPP LTE block size range supported.
- Core contains the full interleaver
- Scalable architecture to support various throughput targets. X1, X2, X4, X8 and X16 architectures are available.
- Dynamically selectable number of Iterations 1–32, in half iteration resolution.
- Parametric soft input width (pre compile).
- Optional early termination mechanism is available to support power saving and higher statistical throughput.
- Matlab bit exact model is available.

4. Throughput

The throughput is function of architecture parallelism and technology target. The decoder is able to reach throughput of hundreds of Mbps.

5. Ordering information

For more information please contact us at info@turbobest.com

You can visit our Web site at <http://www.turbobest.com>

We are offering hardware and software free evaluations.

6. References

1. 3G TS.36.212 V1.0.0 (2007-03), *Multiplexing and Channel Coding (Release 8)*, Technical Specification Group Radio Access Network, 3rd Generation Partnership Project.