

WiMAX 802.16e/m CTC encoder product brief

TurboBest

1. Introduction	3
2. Block diagram	3
3. Features.....	3
4. Throughput	4
5. Ordering information	4
6. References	4
Figure 1 - CTC encoder block diagram	3

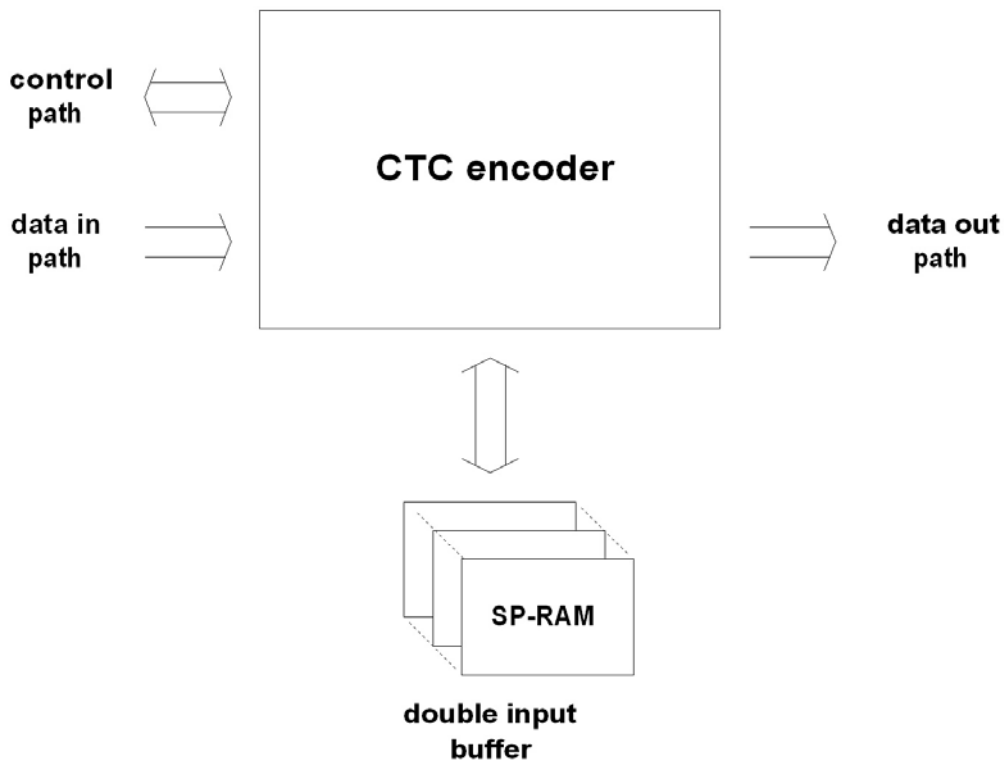
1. Introduction

The dual CTC decoder designed to meet the WiMAX IEEE802.16e/m specifications [\[Ref 1/2/3\]](#).

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

2. Block diagram

Below is the CTC encoder block diagram.



* The CTC encoder does not have an output buffer, the encoded data is placed directly on the encoder output interface

Figure 1 - CTC encoder block diagram

3. Features

- Implements the WiMAX IEEE802.16e/m specifications [\[Ref 1/2/3\]](#)
- All 802.16 block size range supported (40-4800).
- Block-by-block change of encoder block size.
- Matlab bit exact model is available.

4. Throughput

The throughput is 1 bit per clock.

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. IEEE Std 802.16TM-2004, Part 16: Air Interface for Fixed Broadband Wireless Access Systems.
8.4.9.2.3.1 CTC encoder
Table 326—Optimal CTC channel coding per modulation
Table 327—Optimal CTC channel coding per modulation when supporting H-ARQ
2. IEEE Std 802.16eTM-2005 and IEEE Std 802.16TM-2004/Cor1-2005, Part 16: Air Interface for Fixed Broadband Wireless Access Systems.
8.4.9.2.3.1 CTC encoder
Table 326—Optimal CTC channel coding per modulation
Table 327—Optimal CTC channel coding per modulation when supporting H-ARQ
3. IEEE P802.16m/D2 - October 2009, Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems
15.3.11.1.5.1 Convolutional turbo codes
Table 911—Interleaver Parameters