Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**802.16 Improvements in Optional FEC for TG4**
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Re:	IEEE 802.16ab-01/01, June 2001, Proposed revision
Abstract	This proposal describes a modified set of parameters for optional TPCs in TG4 draft spec. The changes are highlighted in red and result in slightly better performance and lower complexity implementation.
Purpose	This document is a revision to the document cited above. Section 8.3.6.4.2.6.3, in document IEEE 802.16ab-01/01, June 2001
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Improvements in Optional FEC for TG4

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8.3.6.4.2.6.3 Turbo Product Coding

If selected, the Turbo Product Codes used in Mode A, Mode B or Mode C are given in Table 1, Table 2 and Table 3 respectively. The parameters shown cover each of the three subcarrier modulation schemes, QPSK, 16 QAM and 64 QAM.

Data Block Size (bytes)	Coded block Size (bytes)	Code Rate	Constituent Codes	Code Parameters
9	24	~3/8	(16,11)(16,11)	I_x=2, I_y=2, B=4
14	24	~3/5	(16,11)(16,15)	I_x=2, I_y=2, B=4
20	24	~5/6	(16,15)(16,15)	I_x=2, I_y=2, B=4

Table 1 - Mode 'a' - 64pt FFT OFDM

Data Block Size (bytes)	Coded block Size (bytes)	Code Rate	Constituent Codes	Code Parameters
9	24	~3/8	(16,11)(16,11)	I_x=2, I_y=2, B=4
14	24	~3/5	(16,11)(16,15)	I_x=2, I_y=2, B=4
20	24	~5/6	(16,15)(16,15)	I_x=2, I_y=2, B=4

Table 2 - Mode 'b' - 256pt FFT OFDM

Data Block Size (bytes)	Coded block Size (bytes)	Code Rate	Constituent Codes	Code Parameters
11	26	~2/5	(16,11)(16,11)	I_x=2, I_y=1, B=2
15	26	~3/5	(16,11)(16,15)	I_x=2, I_y=1, B=2
22	26	~5/6	(16,15)(16,15)	I_x=2, I_y=1, B=2

Table 3 - Mode 'c' - 2048pt FFT OFDMA