

DominoEX

DominoEX is an experimental amateur mode using a MFSK with 18 tones which are separated by a shift which is related to the transmission speed. The main data of this waveform are collected in the following table:

Mode	Baudrate	WPM	Tone Shift	Total Bandwidth
DominoEX 4	3.90625 Bd	27	7.8125 Hz	140 Hz
DominoEX 7	5.3833 Bd	38	10.766 Hz	194 Hz
DominoEX 8	7.8125 Bd	55	15.625 Hz	281 Hz
DominoEX 11	10.766 Bd	77	10.766 Hz	194 Hz
DominoEX 16	15.625 Bd	110	15.625 Hz	281 Hz
DominoEX 22	21.533 Bd	154	21.533 Hz	388 Hz

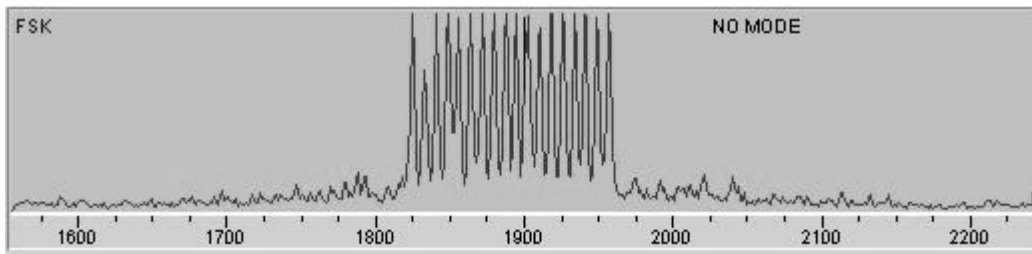
DominoEX is using the incremental frequency keying (IFK).

Each transmitted character is composed of 1 to 3 "nibbles" (group of 4 bits). The first one is called "Initial nibble" and has a value between 0 to 7, the 2 others are called "Continuation nibbles" and have a value between 0 to 15. The "initial nibble" is compulsory and, from its value, permits to know that it is the first 4 bits start of the character. The "continuation nibbles" exist only depending of the transmitted character.

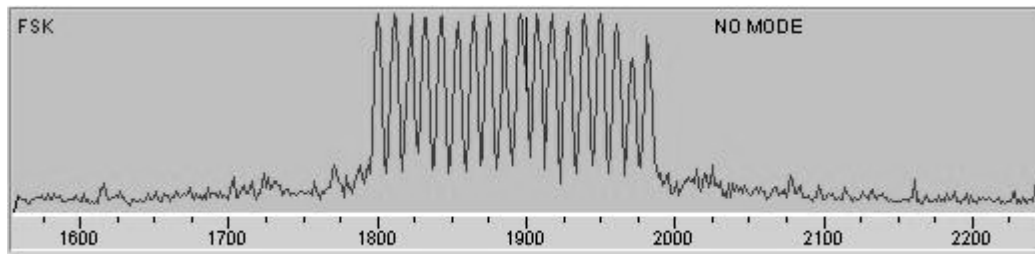
Only one tone is used for a given "nibble". For determination of the tone number, it is used the following formula:

* Tone number (between 0 and 17) = Previous tone number + data nibble (0 to 15) +2

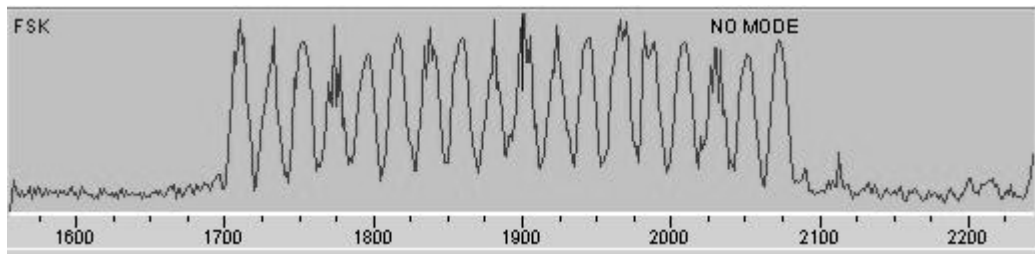
* If the tone number ≥ 18 then Tone number = Tone number - 18



Picture 65: Spectrum of DominoEX with 4 Bd



Picture 66: Spectrum of DominoEX with 11 Bd



Picture 67: Spectrum of DominoEX with 22 Bd

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