ELC 4351: Digital Signal Processing

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MATLAB Project Topics

1. Dual-Tone Multi-Frequency (DTMF) Signal Detection

2. Musical Analysis and Synthesis

Dual-Tone Multi-Frequency (DTMF) Signaling

DTMF tones are the tones that a telephone makes to indicate which button was pressed.
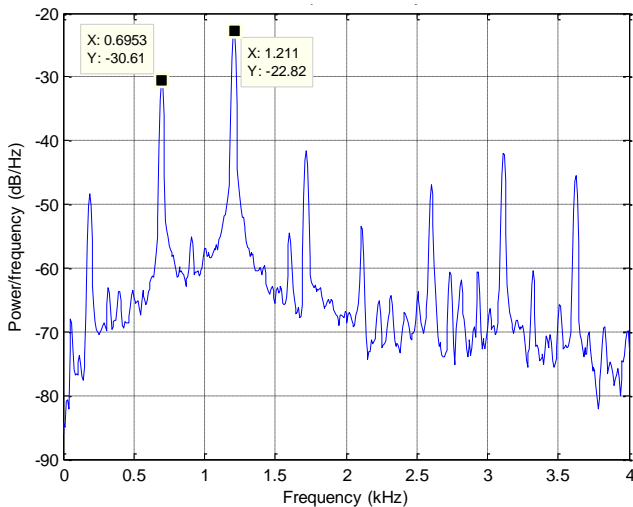
The signal consists of two sinusoids at different frequencies.

	1209 Hz	1336 Hz	1477 Hz	1633 Hz
697 Hz	1	2	3	A
770 Hz	4	5	6	B
852 Hz	7	8	9	C
941 Hz	*	0	#	D

http://www.dialabc.com/sound/dtmf.html

Musical Analysis and Synthesis

Frequencies of Music Notes:
http://www.profdong.com/elc4351/notefreqs.html

Musical Analysis and Synthesis Matlab Example:
http://amath.colorado.edu/pub/matlab/music/