



Encore's DTMF Generation & Detection

Processor

FreeScale ColdFire (MCF52xx) Series.

Technology

Dual Tone Multi Frequency (DTMF) signalling is widely used in telephony. DTMF signals consist of two sinusoidal signals, one sinusoid from the high frequencies (1209, 1336, 1477 and 1633Hz) and the other from low frequencies (697, 770, 852 and 941Hz). Four frequencies from each group gives a total of 16 combinations, and are represented for digits 0 to 9, A to D, * and #.

The function of the DTMF generator is to generate the corresponding DTMF signal for a given digit, where as the DTMF detector identifies the digit from the given signal samples.

Features

- Fully compatible with the ITU-T Q.23 and Q.24 (AT&T) standards.
- DTMF generation function can be called for every digit.
- Frame based design for DTMF detection. Current frame is designed as 80 samples (10msec). The return data will indicate the status of the process.
- Multi-channel capability.
- Flexible interface with 'C' callability, with a single archive file for all functions.
- Relocatable program and data spaces. Static (state) and scratch data memory are dynamically relocatable.
- The code is interruptible and full re-entrant. It can be used in systems with multi threaded software architecture.

Performance

Resource Requirements

Memory (KBytes)

Program Memory	Data Memory			MHz
	Table	Static	Scratch	
2.72	0.35	0.23	-	Generation: 1 MIPS Detection: 7 MIPS

Note: MIPS measurements are taken on **MCF5249** based target platform, with all memory requirements placed internal

Availability

Now.

For further information please visit our web site, <http://www.ncoretech.com> or email to: ip@ncoretech.com or contact:

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