

EXHIBIT 8 B  
FCC ID: QKGRDX-V1

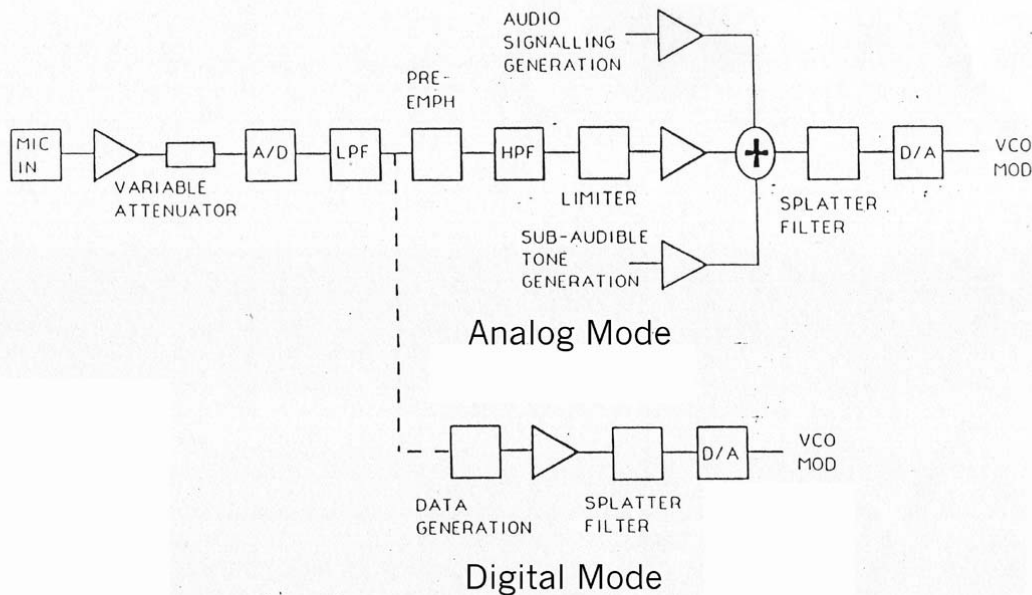
MODULATION LIMITING AND LOW PASS FILTERING

Circuit Description:

The pre-emphasis, modulation limiting and low pass filtering of this transmitter are accomplished in the Digital Signal Processor IC (U405) using software implementations of digital filters. Analog audio is digitized in the DSP Support IC (U406) and then transferred to the DSP (U405) where it is pre-emphasized and scaled. Sub-audible tones and audio frequency signaling information is generated in the DSP, scaled, and summed with audio. The combined signal is then filtered using a low pass filter. Signals are then returned to the DSP Support IC (U405) and converted to analog signals. The limited, filtered audio is then fed through digitally programmable attenuators to the modulation ports of the synthesizer module. Digital mode modulation is similar, except no pre-emphasis or summing is required.

A block diagram of the limiting and low pass filtering is included as exhibit 8B-1.

Exhibit 8B-1



Modulation limiting and Low pass Filtering Scheme