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An Investigation into Speech Compression

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AN INVESTIGATION INTO SPEECH COMPRESSION

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for: EET 499

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ABSTRACT

The objective of this report is to evaluate the performance of and to study the operation of a solid state speech compressor.

The speech compressor is a transistorized unity-gain amplifier having a compression of 15db around an average level of approximately 45db below 1 volt at an impedance of 10,000 ohms.

Various tests were conducted on the compressor unit. When the speech compressor was connected to a spectrum analyzer it was determined that the frequency response of the compressor was almost flat between 0 and 5KHz. It was therefore compatible for use with a transmitter because its frequency response was within the normal operating range of the input signal.

The distortion meter, when connected to the compressor's output, only showed a maximum reading of $3\frac{1}{2}$ percent at an input frequency of 5KHz. There seemed to be no variations of this as the amount of compression was increased.