Semiconductors

Linear I.C.'s - Consumer Circuits

LM373 AM/FM/SSB IF Strip

REFERENCE TABLE

Code	Stock No.
LM373H	29344H
LM373N	31136X

GENERAL DESCRIPTION

The LM373 is a broadband communications subsystem, capable of performing the diverse functions required in AM, FM or Single Sideband receivers and transmitters. Simple external connections convert the strip from one mode to another. Bandpass shaping may be performed by a single external filter, which may be crystal, ceramic, mechanical or LC, at frequencies from audio up to 15 MHz.

FEATURES

Connected for FM operation:

Three emitter coupled limiting stages, quadrature detector.

For wideband FM, a single LC tuned quadrature circuit gives 80mV audio out for \pm 75kHz deviation at 10.7 MHz IF.

Active network for precise DC balance of quadrature detector input.

Connected for AM operation:

Self-contained AGC system, gain stages and active detector.

AGC Range: 70dB

High gain: AGC operates down to $50\mu V$ r.m.s. input.

Connected for SSB operation:

Self-contained audio operated AGC system, gain stages, and double balanced product detector.

Fast attack, slow release AGC operated by recovered audio peaks.

Automatic active mixer balancing loop. Separate external DC control available for nulling of signal and local oscillator ports.

In addition, the versatile microcircuit may be used as a:

Gated video amplifier with AGC.

Constant amplitude or amplitude modulated RF oscillator.

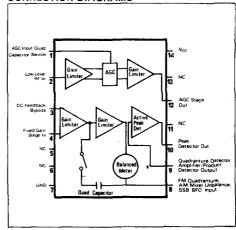
Balanced modulator.

Suppressed carrier signal generator.

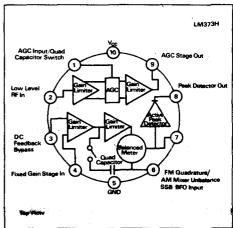
Synchronous demodulating IF strip.

Receiver first IF strip, with balanced mixer output at the second IF.

CONNECTION DIAGRAMS



See outline drawing No. 109 for dimensions.



See outline drawing No. 98 for dimensions.

ABSOLUTE MAXIMUM RATINGS

24V
18V
-65°C to +150°C
0°C to +70°C
1.4V p-p
1.4V p-p

See next page for Electrical Characteristics