

SECTION H — ELECTRICITY

H03 BASIC ELECTRONIC CIRCUITRY

H03D DEMODULATION OR TRANSFERENCE OF MODULATION FROM ONE CARRIER TO ANOTHER (masers, lasers H01S; circuits capable of acting both as modulator and demodulator H03C, e.g. balanced modulators H03C 1/54; details applicable to both modulators and frequency-changers H03C; demodulating pulses which have been modulated with a continuously-variable signal H03K 9/00; transforming types of pulse modulation H03K 11/00; relay systems, e.g. repeater stations H04B 7/14; demodulators adapted for digitally modulated-carrier systems H04L 27/00; synchronous demodulators adapted for colour television H04N 9/66)

Note(s)

This subclass covers only:

- demodulation or transference of signals modulated on a sinusoidal carrier or on electromagnetic waves;
- comparing phase or frequency of two mutually-independent oscillations.

Subclass index

DEMODULATION

Amplitude; angle; combined; super-regenerative.....1/00, 3/00, 5/00, 9/00, 11/00

TRANSFERENCE.....7/00, 9/00

COMPARING PHASE OR FREQUENCY.....13/00

SUBJECT MATTER NOT PROVIDED FOR IN OTHER GROUPS OF THIS SUBCLASS.....99/00

1/00 Demodulation of amplitude-modulated oscillations
(H03D 5/00, H03D 9/00, H03D 11/00 take precedence;
amplitude demodulators adapted for digitally modulated
carrier systems, e.g. using on-off keying, single
sideband or vestigial sideband modulation H04L 27/06)

1/02 • Details

1/04 • • Modifications of demodulators to reduce
interference by undesired signals

1/06 • • Modifications of demodulators to reduce
distortion, e.g. by negative feedback

1/08 • by means of non-linear two-pole elements
(H03D 1/22, H03D 1/26, H03D 1/28 take
precedence)

1/10 • • of diodes

1/12 • • • with provision for equalising ac and dc loads

1/14 • by means of non-linear elements having more than
two poles (H03D 1/22, H03D 1/26, H03D 1/28 take
precedence)

1/16 • • of discharge tubes

1/18 • • of semiconductor devices

1/20 • • with provision for preventing undesired type of
demodulation, e.g. preventing anode detection in a
grid detection circuit

1/22 • Homodyne or synchrodyne circuits

1/24 • • for demodulation of signals wherein one sideband
or the carrier has been wholly or partially
suppressed

1/26 • by means of transit-time tubes

1/28 • by deflecting an electron beam in a discharge tube
(H03D 1/26 takes precedence)

3/00 Demodulation of angle-modulated oscillations
(H03D 5/00, H03D 9/00, H03D 11/00 take precedence;
frequency demodulators adapted for digitally modulated
carrier systems, i.e. using frequency shift keying
H04L 27/14; phase demodulators adapted for digitally
modulated carrier systems, i.e. using phase shift keying
H04L 27/22)

3/02 • by detecting phase difference between two signals
obtained from input signal (H03D 3/28-
H03D 3/32 take precedence)

3/04 • • by counting or integrating cycles of oscillations

3/06 • • by combining signals additively or in product
demodulators

3/08 • • • by means of diodes, e.g. Foster-Seeley
discriminator

3/10 • • • in which the diodes are simultaneously
conducting during the same half period of
the signal, e.g. ratio detector

3/12 • • • by means of discharge tubes having more than
two electrodes

3/14 • • • by means of semiconductor devices having
more than two electrodes

3/16 • • • by means of electromechanical resonators

3/18 • • by means of synchronous gating arrangements

3/20 • • • producing pulses whose amplitude or duration
depends on the phase difference

3/22 • • by means of active elements with more than two
electrodes to which two signals are applied
derived from the signal to be demodulated and
having a phase difference related to the frequency
deviation, e.g. phase detector

H03D

- 3/24 • • Modifications of demodulators to reject or remove amplitude variations by means of locked-in oscillator circuits
- 3/26 • by means of sloping amplitude/frequency characteristic of tuned or reactive circuit (H03D 3/28-H03D 3/32 take precedence)
- 3/28 • Modifications of demodulators to reduce effect of temperature variations
- 3/30 • by means of transit-time tubes
- 3/32 • by deflecting an electron beam in a discharge tube (H03D 3/30 takes precedence)
- 3/34 • by means of electromechanical devices (H03D 3/16 takes precedence) [3]
- 5/00 **Circuits for demodulating amplitude-modulated or angle-modulated oscillations at will** (H03D 9/00, H03D 11/00 take precedence; demodulators adapted for digitally modulated carrier systems characterised by combinations of amplitude and angle modulation, e.g. quadrature amplitude modulation H04L 27/38)
- 7/00 **Transference of modulation from one carrier to another, e.g. frequency-changing** (H03D 9/00, H03D 11/00 take precedence; dielectric amplifiers, magnetic amplifiers, parametric amplifiers used as frequency-changers H03F)
 - 7/02 • by means of diodes (H03D 7/14-H03D 7/22 take precedence)
 - 7/04 • • having negative resistance characteristic, e.g. tunnel diode
 - 7/06 • by means of discharge tubes having more than two electrodes (H03D 7/14-H03D 7/22 take precedence)
 - 7/08 • • the signals to be mixed being applied between the same two electrodes
 - 7/10 • • the signals to be mixed being applied between different pairs of electrodes
- 7/12 • by means of semiconductor devices having more than two electrodes (H03D 7/14-H03D 7/22 take precedence)
- 7/14 • Balanced arrangements
- 7/16 • Multiple frequency-changing (superheterodyne receivers H04B 1/26)
- 7/18 • Modifications of frequency-changers for eliminating image frequencies
- 7/20 • by means of transit-time tubes
- 7/22 • by deflecting an electron beam in a discharge tube (H03D 7/20 takes precedence)
- 9/00 **Demodulation or transference of modulation of modulated electromagnetic waves** (devices or arrangements for demodulating light, transferring the modulation of modulated light or for changing the frequency of light G02F 2/00)
 - 9/02 • Demodulation using distributed inductance and capacitance, e.g. in feeder lines
 - 9/04 • • for angle-modulated oscillations
 - 9/06 • Transference of modulation using distributed inductance and capacitance
- 11/00 **Super-regenerative demodulator circuits**
 - 11/02 • for amplitude-modulated oscillations
 - 11/04 • • by means of semiconductor devices having more than two electrodes
 - 11/06 • for angle-modulated oscillations
 - 11/08 • • by means of semiconductor devices having more than two electrodes
- 13/00 **Circuits for comparing the phase or frequency of two mutually-independent oscillations** (arrangements for measuring phase angle between a voltage and a current or between voltages or currents G01R 25/00)
- 99/00 **Subject matter not provided for in other groups of this subclass [2006.01]**