

## SECTION H — ELECTRICITY

### H03 BASIC ELECTRONIC CIRCUITRY

**H03C MODULATION** (measuring, testing G01R; masers, lasers H01S; modulators specially adapted for use in dc amplifiers H03F 3/38; modulating pulses H03K 7/00; so-called modulators capable only of switching between predetermined states of amplitude, frequency or phase H03K 17/00, H04L; coding, decoding or code conversion, in general H03M; synchronous modulators specially adapted for colour television H04N 9/65)

#### Note(s)

1. This subclass covers only modulation, keying, or interruption of sinusoidal oscillations or electromagnetic waves, the modulating signal having any desired waveform.
2. In this subclass, circuits usable both as modulator and demodulator are classified in the group dealing with the type of modulator involved.

<b>1/00</b>	<b>Amplitude modulation</b> (H03C 5/00, H03C 7/00 take precedence)	<b>1/54</b>	• • Balanced modulators, e.g. bridge type, ring type, double balanced type
1/02	• Details	1/56	• • • comprising variable two-pole elements only
1/04	• • Means in, or combined with, modulating stage for reducing angle modulation	1/58	• • • • comprising diodes
1/06	• • Modifications of modulator to reduce distortion, e.g. by feedback, and clearly applicable to more than one type of modulator	1/60	• • with one sideband wholly or partially suppressed
1/08	• by means of variable impedance element (H03C 1/28-H03C 1/34, H03C 1/46-H03C 1/52, H03C 1/62 take precedence)	1/62	• Modulators in which amplitude of carrier component in output is dependent upon strength of modulating signal, e.g. no carrier output when no modulating signal is present (H03C 1/28-H03C 1/34, H03C 1/46, H03C 1/48 take precedence)
1/10	• • the element being a current-dependent inductor	<b>3/00</b>	<b>Angle modulation</b> (H03C 5/00, H03C 7/00 take precedence)
1/12	• • the element being a voltage-dependent capacitor	3/02	• Details
1/14	• • the element being a diode	3/04	• • Means in, or combined with, modulating stage for reducing amplitude modulation
1/16	• by means of discharge device having at least three electrodes (H03C 1/28-H03C 1/34, H03C 1/50, H03C 1/52, H03C 1/62 take precedence)	3/06	• • Means for changing frequency deviation
1/18	• • carrier applied to control grid	3/08	• • Modifications of modulator to linearise modulation, e.g. by feedback, and clearly applicable to more than one type of modulator
1/20	• • • modulating signal applied to anode	3/09	• • Modifications of modulator for regulating the mean frequency [3]
1/22	• • • modulating signal applied to same grid	3/10	• by means of variable impedance (H03C 3/30-H03C 3/38 take precedence)
1/24	• • • modulating signal applied to different grid	3/12	• • by means of a variable reactive element
1/26	• • • modulating signal applied to cathode	3/14	• • • simulated by circuit comprising active element with at least three electrodes, e.g. reactance-tube circuit
1/28	• by means of transit-time tube	3/16	• • • • in which the active element simultaneously serves as the active element of an oscillator
1/30	• • by means of a magnetron	3/18	• • • the element being a current-dependent inductor
1/32	• by deflection of electron beam in discharge tube	3/20	• • • the element being a voltage-dependent capacitor
1/34	• by means of light-sensitive element	3/22	• • • the element being a semiconductor diode, e.g. varicap diode
1/36	• by means of semiconductor device having at least three electrodes (H03C 1/34, H03C 1/50, H03C 1/52, H03C 1/62 take precedence)	3/24	• • by means of a variable resistive element, e.g. tube
1/38	• • carrier applied to base of a transistor	3/26	• • • comprising two elements controlled in push-pull by modulating signal
1/40	• • • modulating signal applied to collector	3/28	• • using variable impedance driven mechanically or acoustically
1/42	• • • modulating signal applied to base	3/30	• by means of transit-time tube
1/44	• • • modulating signal applied to emitter	3/32	• • the tube being a magnetron
1/46	• Modulators with mechanically- or acoustically-driven parts	3/34	• by deflection of electron beam in discharge tube
1/48	• by means of Hall-effect devices		
1/50	• by converting angle modulation to amplitude modulation (H03C 1/28-H03C 1/34, H03C 1/46, H03C 1/48 take precedence)		
1/52	• Modulators in which carrier or one sideband is wholly or partially suppressed (H03C 1/28-H03C 1/34, H03C 1/46, H03C 1/48 take precedence)		

H03C

- 3/36

- by means of light-sensitive element
- 3/38

- by converting amplitude modulation to angle modulation
- 3/40

- • using two signal paths the outputs of which have a predetermined phase difference and at least one output being amplitude-modulated
- 3/42

- by means of electromechanical devices (H03C 3/28 takes precedence) [3]
- 5/00

**Amplitude modulation and angle modulation produced simultaneously or at will by the same modulating signal** (H03C 7/00 takes precedence)
- 5/02

- by means of transit-time tube
- 5/04

- • the tube being a magnetron
- 5/06

- by deflection of electron beam in discharge tube
- 7/00

**Modulating electromagnetic waves** (devices or arrangements for the modulation of light G02F 1/00; for generating oscillations H03B, H03K)
- 7/02

- in transmission line, waveguide, cavity resonator, or radiation field of aerial
- 7/04

- • Polarisation of transmitted wave being modulated
- 99/00

**Subject matter not provided for in other groups of this subclass [2006.01]**