SECTION H — ELECTRICITY

H01   BASIC ELECTRIC ELEMENTS

H01P   WAVEGUIDES; RESONATORS, LINES OR OTHER DEVICES OF THE WAVEGUIDE TYPE (operating at optical frequencies G02B)

Note(s)

In this subclass, the following expression is used with the meaning indicated:
- "waveguide type" as applied to transmission lines includes only high-frequency coaxial cables or Lecher lines, and as applied to resonators, delay lines, or other devices includes all devices having distributed inductance and capacitance.

Subclass index

1/00   **Auxiliary devices** (coupling devices of the waveguide type H01P 5/00)

1/02   • Bends; Corners; Twists

1/04   • Fixed joints

1/06   • Movable joints, e.g. rotating joints

1/08   • Dielectric windows

1/10   • for switching or interrupting

1/11   • • by ferromagnetic devices **[3]**

1/12   • • by mechanical chopper

1/14   • • by electric discharge devices (discharge devices H01J 17/64)

1/15   • • by semiconductor devices **[2]**

1/16   • for mode selection, e.g. mode suppression or mode promotion; for mode conversion **[3]**

1/161   • • sustaining two independent orthogonal modes, e.g. orthomode transducer **[3]**

1/162   • • absorbing spurious or unwanted modes of propagation **[3]**

1/163   • • specifically adapted for selection or promotion of the TE_{01} circular-electric mode **[3]**

1/165   • for rotating the plane of polarisation **[2]**

1/17   • • for producing a continuously rotating polarisation, e.g. circular polarisation **[2]**

1/175   • • using Faraday rotators **[3]**

1/18   • Phase-shifters (H01P 1/165 takes precedence) **[2]**

1/185   • • using a diode or a gas filled discharge tube **[3]**

1/19   • • using a ferromagnetic device **[3]**

1/195   • • • having a toroidal shape **[3]**

1/20   • Frequency-selective devices, e.g. filters

1/201   • • Filters for transverse electromagnetic waves (H01P 1/212, H01P 1/213, H01P 1/215, H01P 1/219 take precedence) **[3]**

1/202   • • • Coaxial filters (cascaded coaxial cavities H01P 1/205) **[3]**

1/203   • • • Strip line filters **[3]**

1/205   • • • Comb or interdigital filters; Cascaded coaxial cavities (H01P 1/203 takes precedence) **[3]**

1/207   • • Hollow waveguide filters (H01P 1/212, H01P 1/213, H01P 1/215, H01P 1/219 take precedence) **[3]**

1/208   • • • Cascaded cavities; Cascaded resonators inside a hollow waveguide structure (H01P 1/205 takes precedence) **[3]**

1/209   • • • comprising one or more branching arms or cavities wholly outside the main waveguide **[3]**

1/211   • • • Waffle-iron filters; Corrugated structures **[3]**

1/212   • • suppressing or attenuating harmonic frequencies (H01P 1/215 takes precedence) **[3]**

1/213   • • combining or separating two or more different frequencies (H01P 1/215 takes precedence) **[3]**

1/215   • • using ferromagnetic material **[3]**

1/217   • • • the ferromagnetic material acting as a tuning element in resonators **[3]**

1/218   • • • the ferromagnetic material acting as a frequency selective coupling element, e.g. YIG-filters **[3]**

1/219   • • Evanescent mode filters **[3]**

1/22   • Attenuating devices (dissipative terminating devices H01P 1/26)

1/23   • • using ferromagnetic material **[3]**

1/24   • Terminating devices

1/26   • • Dissipative terminations

1/28   • • Short-circuiting plungers

1/30   • for compensation of, or protection against, temperature or moisture effects

1/32   • Non-reciprocal transmission devices (H01P 1/02-H01P 1/30 take precedence) **[3]**

1/36   • • Isolators **[2, 3]**

1/365   • • • Resonance absorption isolators **[3]**

1/37   • • • Field displacement isolators **[3]**

1/375   • • • using Faraday rotators **[3]**

1/38   • • Circulators **[2, 3]**

1/383   • • • Junction circulators, e.g. Y-circulators **[3]**

1/387   • • • • Strip line circulators **[3]**

1/39	• • • • Hollow waveguide circulators **[3]**
1/393	• • • using Faraday rotators **[3]**
1/397	• • • using non-reciprocal phase shifters (H01P 1/393 takes precedence) **[3]**

3/00 **Waveguides; Transmission lines of the waveguide type**

3/02	• with two longitudinal conductors
3/04	• • Lines formed as Lecher wire pairs
3/06	• • Coaxial lines
3/08	• • Microstrips; Strip lines
3/10	• Wire waveguides, i.e. with a single solid longitudinal conductor
3/12	• Hollow waveguides (H01P 3/20 takes precedence)
3/123	• • with a complex or stepped cross-section, e.g. ridged or grooved waveguides (H01P 3/14 takes precedence) **[3]**
3/127	• • with a circular, elliptic, or parabolic cross-section **[3]**
3/13	• • specially adapted for transmission of the TE_{01} circular-electric mode **[2]**
3/14	• • flexible
3/16	• Dielectric waveguides, i.e. without a longitudinal conductor
3/18	• built-up from several layers to increase operating surface, i.e. alternately conductive and dielectric layers
3/20	• Quasi-optical arrangements for guiding a wave, e.g. focusing by dielectric lenses

5/00 **Coupling devices of the waveguide type**

5/02	• with invariable factor of coupling (H01P 5/12 takes precedence) **[3]**
5/04	• with variable factor of coupling
5/08	• for linkinglines or devices of different kinds (H01P 1/16, H01P 5/04take precedence; linking lines of the same kind but with different dimensions H01P 5/02) **[3]**
5/10	• • for coupling balanced with unbalanced lines or devices
5/103	• • • Hollow-waveguide/coaxial-line transitions **[3]**
5/107	• • • Hollow-waveguide/strip-line transitions **[3]**
5/12	• Coupling devices having more than two ports (H01P 5/04 takes precedence) **[3]**
5/16	• • Conjugate devices, i.e. devices having at least one port decoupled from one other port **[2]**
5/18	• • • consisting of two coupled guides, e.g. directional couplers **[2]**
5/19	• • • of the junction type **[3]**
5/20	• • • • Magic-T junctions **[2, 3]**
5/22	• • • • Hybrid ring junctions **[2, 3]**

7/00 **Resonators of the waveguide type**

7/02	• Lecher resonators
7/04	• Coaxial resonators
7/06	• Cavity resonators
7/08	• Strip line resonators **[3]**
7/10	• Dielectric resonators **[3]**

9/00 **Delay lines of the waveguide type**

9/02	• Helical lines
9/04	• Interdigital lines

11/00 **Apparatus or processes specially adapted for manufacturing waveguides or resonators, lines, or other devices of the waveguide type**