Н	Sektion	SECTION H — ELECTRICITY
H01	Klasse	BASIC ELECTRIC ELEMENTS
H01Q	Unterklasse	AERIALS (microwave radiators for near-field therapeutic treatment A61N 5/04; apparatus for testing aerials or for measuring aerial characteristics G01R; waveguides H01P; radiators or aerials for microwave heating H05B 6/72)
H01Q 1/00	Hauptgruppe	Details of, or arrangements associated with, aerials (arrangements for varying orientation of directional pattern $H01Q\ 3/00)$
H01Q 1/02	1-Punkt Untergruppe	. Arrangements for de-icing; Arrangements for drying-out
H01Q 1/04	1-Punkt Untergruppe	. Adaptation for subterranean or subaqueous use
H01Q 1/06	1-Punkt Untergruppe	. Means for the lighting or illuminating of aerials, e.g. for purpose of warning
H01Q 1/08	1-Punkt Untergruppe	. Means for collapsing aerials or parts thereof (collapsible loop aerials H01Q $7/02$ ; collapsible H-aerials or Yagi aerials H01Q $19/04$ )
H01Q 1/10	2-Punkt Untergruppe	Telescopic elements
H01Q 1/12	1-Punkt Untergruppe	. Supports; Mounting means (supporting conductors in general H02G 7/00)
H01Q 1/14	2-Punkt Untergruppe	for wire or other non-rigid radiating elements
H01Q 1/16	3-Punkt Untergruppe	Strainers, spreaders, or spacers
H01Q 1/18	2-Punkt Untergruppe	Means for stabilising aerials on an unstable platform
H01Q 1/20	2-Punkt Untergruppe	Resilient mountings
H01Q 1/22	2-Punkt Untergruppe	by structural association with other equipment or articles
H01Q 1/24	3-Punkt Untergruppe	with receiving set
H01Q 1/26	3-Punkt Untergruppe	with electric discharge tube
H01Q 1/27	1-Punkt Untergruppe	. Adaptation for use in or on movable bodies (H01Q 1/08, H01Q 1/12, H01Q 1/18 take precedence) [3]
H01Q 1/28	2-Punkt Untergruppe	Adaptation for use in or on aircraft, missiles, satellites, or balloons [3]
H01Q 1/30	3-Punkt Untergruppe	Means for trailing aerials [3]
H01Q 1/32	2-Punkt Untergruppe	Adaptation for use in or on road or rail vehicles (telescopic elements H01Q 1/10; resilient mountings for aerials H01Q 1/20) [3]
H01Q 1/34	2-Punkt Untergruppe	Adaptation for use in or on ships, submarines, buoys, or torpedoes (for subaqueous use H01Q 1/04; retractable loop aerials H01Q 7/02) [3]
H01Q 1/36	1-Punkt Untergruppe	. Structural form of radiating elements, e.g. cone, spiral, umbrella (H01Q 1/08, H01Q 1/14 take precedence)
H01Q 1/38	2-Punkt Untergruppe	formed by a conductive layer on an insulating support (conductors in general H01B 5/14)
H01Q 1/40	1-Punkt Untergruppe	. Radiating elements coated with, or embedded in, protective material
H01Q 1/42	1-Punkt Untergruppe	. Housings not intimately mechanically associated with radiating elements, e.g. radome
H01Q 1/44	1-Punkt Untergruppe	. using equipment having another main function to serve additionally as an aerial ( $H01Q\ 1/28-H01Q\ 1/34$ take precedence)
H01Q 1/46	2-Punkt Untergruppe	Electric supply lines or communication lines

Symbol	Тур	Titel
H01Q 1/48	1-Punkt Untergruppe	. Earthing means; Earth screens; Counterpoises (earthing pins H01R 4/66)
H01Q 1/50	1-Punkt Untergruppe	. Structural association of aerials with earthing switches, lead-in devices, or lightning protectors (lead-in devices H01B; lightning protectors, switches H01H)
H01Q 1/52	1-Punkt Untergruppe	. Means for reducing coupling between aerials; Means for reducing coupling between an aerial and another structure (absorbing means H01Q 17/00)
H01Q 3/00	Hauptgruppe	Arrangements for changing or varying the orientation or the shape of the directional pattern of the waves radiated from an aerial or aerial system
H01Q 3/01	1-Punkt Untergruppe	. varying the shape of the aerial or aerial system [3]
H01Q 3/02	1-Punkt Untergruppe	. using mechanical movement of aerial or aerial system as a whole
H01Q 3/04	2-Punkt Untergruppe	for varying one co-ordinate of the orientation
H01Q 3/06	3-Punkt Untergruppe	over a restricted angle
H01Q 3/08	2-Punkt Untergruppe	for varying two co-ordinates of the orientation
H01Q 3/10	3-Punkt Untergruppe	to produce a conical or spiral scan
H01Q 3/12	1-Punkt Untergruppe	. using mechanical relative movement between primary active elements and secondary devices of aerials or aerial systems
H01Q 3/14	2-Punkt Untergruppe	for varying the relative position of primary active element and a refracting or diffracting device
H01Q 3/16	2-Punkt Untergruppe	for varying relative position of primary active element and a reflecting device
H01Q 3/18	3-Punkt Untergruppe	wherein the primary active element is movable and the reflecting device is fixed
H01Q 3/20	3-Punkt Untergruppe	wherein the primary active element is fixed and the reflecting device is movable
H01Q 3/22	1-Punkt Untergruppe	. varying the orientation in accordance with variation of frequency of radiated wave
H01Q 3/24	1-Punkt Untergruppe	. varying the orientation by switching energy from one active radiating element to another, e.g. for beam switching
H01Q 3/26	1-Punkt Untergruppe	. varying the relative phase or relative amplitude of energisation between two or more active radiating elements; varying the distribution of energy across a radiating aperture (H01Q 3/22, H01Q 3/24 take precedence)
H01Q 3/28	2-Punkt Untergruppe	varying the amplitude [3]
H01Q 3/30	2-Punkt Untergruppe	varying the phase [3]
H01Q 3/32	3-Punkt Untergruppe	by mechanical means [3]
H01Q 3/34	3-Punkt Untergruppe	by electrical means (active lenses or reflecting arrays H01Q 3/46) [3]
H01Q 3/36	4-Punkt Untergruppe	with variable phase-shifters [3]
H01Q 3/38	5-Punkt Untergruppe	the phase-shifters being digital [3]
H01Q 3/40	4-Punkt Untergruppe	with phasing matrix [3]
H01Q 3/42	4-Punkt Untergruppe	using frequency-mixing [3]
H01Q 3/44	1-Punkt Untergruppe	. varying the electric or magnetic characteristics of reflecting, refracting, or diffracting devices associated with the radiating element [3]
H01Q 3/46	2-Punkt Untergruppe	Active lenses or reflecting arrays [3]
H01Q 5/00	Hauptgruppe	Arrangements for simultaneous operation of aerials on two or more different wavebands (length

Symbol	Тур	Titel
		of elements adjustable H01Q $9/14$ ; combinations of separate active aerial units operating in different wavebands and connected to a common feeder system H01Q $21/30$ ) [3]
H01Q 5/01	1-Punkt Untergruppe	. Resonant aerials [3]
H01Q 5/02	2-Punkt Untergruppe	for operation of centre-fed aerials which comprise a single, or two or more collinear, substantially straight elongated active elements [3]
H01Q 7/00	Hauptgruppe	Loop aerials with a substantially uniform current distribution around the loop and having a directional radiation pattern in a plane perpendicular to the plane of the loop
H01Q 7/02	1-Punkt Untergruppe	. Collapsible aerials; Retractable aerials
H01Q 7/04	1-Punkt Untergruppe	. Screened aerials (H01Q 7/02, H01Q 7/06 take precedence)
H01Q 7/06	1-Punkt Untergruppe	. with core of ferromagnetic material (H01Q 7/02 takes precedence)
H01Q 7/08	2-Punkt Untergruppe	Ferrite rod or like elongated core
H01Q 9/00	Hauptgruppe	Electrically-short aerials having dimensions not more than twice the operating wavelength and consisting of conductive active radiating elements (loop aerials H01Q 7/00; waveguide horns or mouths H01Q 13/00; slot aerials H01Q 13/00; combinations of active elements with secondary devices to give desired directional characteristic H01Q 19/00; combinations of two or more active elements H01Q 21/00)
H01Q 9/02	1-Punkt Untergruppe	. Non-resonant aerials
H01Q 9/04	1-Punkt Untergruppe	. Resonant aerials
H01Q 9/06	2-Punkt Untergruppe	Details
H01Q 9/08	3-Punkt Untergruppe	Junction boxes specially adapted for supporting adjacent ends of collinear rigid elements
H01Q 9/10	3-Punkt Untergruppe	Junction boxes specially adapted for supporting adjacent ends of divergent elements
H01Q 9/12	4-Punkt Untergruppe	adapted for adjustment of angle between elements
H01Q 9/14	3-Punkt Untergruppe	Length of element or elements adjustable (telescopic elements H01Q 1/10)
H01Q 9/16	2-Punkt Untergruppe	with feed intermediate between the extremities of the aerial, e.g. centre-fed dipole (H01Q 9/44 takes precedence)
H01Q 9/18	3-Punkt Untergruppe	Vertical disposition of the aerial
H01Q 9/20	3-Punkt Untergruppe	Two collinear substantially straight active elements; Substantially straight single active elements (H01Q 9/28 takes precedence)
H01Q 9/22	4-Punkt Untergruppe	Rigid rod or equivalent tubular element or elements
H01Q 9/24	4-Punkt Untergruppe	Shunt feed arrangements to single active elements, e.g. for delta matching
H01Q 9/26	3-Punkt Untergruppe	with folded element or elements, the folded parts being spaced apart a small fraction of operating wavelength (resonant loop aerials H01Q 7/00)
H01Q 9/27	4-Punkt Untergruppe	Spiral aerials [3]
H01Q 9/28	3-Punkt Untergruppe	Conical, cylindrical, cage, strip, gauze, or like elements having an extended radiating surface; Elements comprising two conical surfaces having collinear axes and adjacent apices and fed by two-conductor transmission lines (biconical horns H01Q 13/04)
H01Q 9/30	2-Punkt Untergruppe	with feed to end of elongated active element, e.g. unipole (H01Q 9/44 takes precedence)
H01Q 9/32	3-Punkt Untergruppe	Vertical arrangement of element (H01Q 9/40 takes precedence)
H01Q 9/34	4-Punkt Untergruppe	Mast, tower, or like self-supporting or stay-supported aerials

Symbol	Тур	Titel
H01Q 9/36	4-Punkt Untergruppe	with top loading
H01Q 9/38	4-Punkt Untergruppe	with counterpoise (with counterpoise comprising elongated elements coplanar with the active element H01Q 9/44)
H01Q 9/40	3-Punkt Untergruppe	Element having extended radiating surface
H01Q 9/42	3-Punkt Untergruppe	with folded element, the folded parts being spaced apart a small fraction of the operating wavelength
H01Q 9/43	4-Punkt Untergruppe	Scimitar aerials [3]
H01Q 9/44	2-Punkt Untergruppe	with plurality of divergent straight elements, e.g. V-dipole, X-aerial; with plurality of elements having mutually inclined substantially straight portions (turnstile aerials H01Q 21/26)
H01Q 9/46	3-Punkt Untergruppe	with rigid elements diverging from single point
H01Q 11/00	Hauptgruppe	Electrically-long aerials having dimensions more than twice the shortest operating wavelength and consisting of conductive active radiating elements (leaky-waveguide aerials, slot aerials H01Q 13/00; combinations of active elements with secondary devices to give desired directional characteristic H01Q 19/00; aerial arrays or systems H01Q 21/00)
H01Q 11/02	1-Punkt Untergruppe	. Non-resonant aerials, e.g. travelling-wave aerial
H01Q 11/04	2-Punkt Untergruppe	with parts bent, folded, shaped, screened, or electrically loaded to obtain desired phase relation of radiation from selected sections of the aerial (rhombic aerials, V-aerials H01Q 11/06)
H01Q 11/06	2-Punkt Untergruppe	Rhombic aerials; V-aerials
H01Q 11/08	2-Punkt Untergruppe	Helical aerials
H01Q 11/10	2-Punkt Untergruppe	Log-periodic aerials (H01Q 11/08 takes precedence) [3]
H01Q 11/12	1-Punkt Untergruppe	. Resonant aerials
H01Q 11/14	2-Punkt Untergruppe	with parts bent, folded, shaped, or screened, or with phasing impedances, to obtain desired phase relation of radiation from selected sections of the aerial or to obtain desired polarisation effects
H01Q 11/16	3-Punkt Untergruppe	in which the selected sections are collinear
H01Q 11/18	3-Punkt Untergruppe	in which the selected sections are parallelly spaced [3]
H01Q 11/20	2-Punkt Untergruppe	V-aerials
H01Q 13/00	Hauptgruppe	Waveguide horns or mouths; Slot aerials; Leaky-waveguide aerials; Equivalent structures causing radiation along the transmission path of a guided wave (multimode aerials H01Q 25/04)
H01Q 13/02	1-Punkt Untergruppe	. Waveguide horns
H01Q 13/04	2-Punkt Untergruppe	Biconical horns (biconical dipoles comprising two conical surfaces having collinear axes and adjacent apices and fed by a two-conductor transmission line H01Q 9/28)
H01Q 13/06	1-Punkt Untergruppe	. Waveguide mouths (horns H01Q 13/02)
H01Q 13/08	1-Punkt Untergruppe	. Radiating ends of two-conductor microwave transmission lines, e.g. of coaxial lines, of microstrip lines
H01Q 13/10	1-Punkt Untergruppe	. Resonant slot aerials
H01Q 13/12	2-Punkt Untergruppe	Longitudinally slotted cylinder aerials; Equivalent structures
H01Q 13/14	3-Punkt Untergruppe	Skeleton cylinder aerials
H01Q 13/16	2-Punkt Untergruppe	Folded slot aerials
H01Q 13/18	2-Punkt Untergruppe	the slot being backed by, or formed in boundary wall of, a resonant cavity (longitudinally slotted cylinder H01Q 13/12)

Symbol	Тур	Titel
H01Q 13/20	1-Punkt Untergruppe	. Non-resonant leaky-waveguide or transmission-line aerials; Equivalent structures causing radiation along the transmission path of a guided wave
H01Q 13/22	2-Punkt Untergruppe	Longitudinal slot in boundary wall of waveguide or transmission line
H01Q 13/24	2-Punkt Untergruppe	constituted by a dielectric or ferromagnetic rod or pipe (H01Q 13/28 takes precedence)
H01Q 13/26	2-Punkt Untergruppe	Surface waveguide constituted by a single conductor, e.g. strip conductor
H01Q 13/28	2-Punkt Untergruppe	comprising elements constituting electric discontinuities and spaced in direction of wave propagation, e.g. dielectric elements, conductive elements forming artificial dielectric (Yagi aerials H01Q 19/30)
H01Q 15/00	Hauptgruppe	Devices for reflection, refraction, diffraction, or polarisation of waves radiated from an aerial, e.g. quasi-optical devices (variable for purpose of altering directivity H01Q 3/00; arrangements of such devices for guiding waves H01P 3/20; variable for purpose of modulation H03C 7/02)
H01Q 15/02	1-Punkt Untergruppe	. Refracting or diffracting devices, e.g. lens, prism
H01Q 15/04	2-Punkt Untergruppe	comprising wave-guiding channel or channels bounded by effective conductive surfaces substantially perpendicular to the electric vector of the wave, e.g. parallel-plate waveguide lens
H01Q 15/06	2-Punkt Untergruppe	comprising plurality of wave-guiding channels of different length
H01Q 15/08	2-Punkt Untergruppe	formed of solid dielectric material
H01Q 15/10	2-Punkt Untergruppe	comprising three-dimensional array of impedance discontinuities, e.g. holes in conductive surfaces or conductive discs forming artificial dielectric (leaky-waveguide aerials H01Q 13/28)
H01Q 15/12	2-Punkt Untergruppe	functioning also as polarisation filter
H01Q 15/14	1-Punkt Untergruppe	. Reflecting surfaces; Equivalent structures
H01Q 15/16	2-Punkt Untergruppe	curved in two dimensions, e.g. paraboloidal
H01Q 15/18	2-Punkt Untergruppe	comprising plurality of mutually inclined plane surfaces, e.g. corner reflector
H01Q 15/20	3-Punkt Untergruppe	Collapsible reflectors
H01Q 15/22	2-Punkt Untergruppe	functioning also as polarisation filter
H01Q 15/23	1-Punkt Untergruppe	. Combinations of reflecting surfaces with refracting or diffracting devices [3]
H01Q 15/24	1-Punkt Untergruppe	. Polarising devices; Polarisation filters (devices functioning simultaneously both as polarisation filters and as refracting or diffracting devices or as reflectors H01Q 15/12, H01Q 15/22)
H01Q 17/00	Hauptgruppe	Devices for absorbing waves radiated from an aerial; Combinations of such devices with active aerial elements or systems
H01Q 19/00	Hauptgruppe	Combinations of primary active aerial elements and units with secondary devices, e.g. with quasi- optical devices, for giving the aerial a desired directional characteristic
H01Q 19/02	1-Punkt Untergruppe	. Details
H01Q 19/04	2-Punkt Untergruppe	Means for collapsing H-aerials or Yagi aerials
H01Q 19/06	1-Punkt Untergruppe	. using refracting or diffracting devices, e.g. lens
H01Q 19/08	2-Punkt Untergruppe	for modifying the radiation pattern of a radiating horn in which it is located
H01Q 19/09	2-Punkt Untergruppe	wherein the primary active element is coated with or embedded in a dielectric or magnetic material ( protective material H01Q 1/40; with variable characteristics H01Q 3/44) [3]
H01Q 19/10	1-Punkt Untergruppe	. using reflecting surfaces
H01Q 19/12	2-Punkt Untergruppe	wherein the surfaces are concave (H01Q 19/18 takes precedence) [3]

Symbol	Тур	Titel
H01Q 19/13	3-Punkt Untergruppe	the primary radiating source being a single radiating element, e.g. a dipole, a slot, a waveguide termination (H01Q 19/15 takes precedence) [3]
H01Q 19/15	3-Punkt Untergruppe	the primary radiating source being a line source, e.g. leaky waveguide aerials [3]
H01Q 19/17	3-Punkt Untergruppe	the primary radiating source comprising two or more radiating elements (H01Q 19/15, H01Q 25/00 take precedence) [3]
H01Q 19/18	2-Punkt Untergruppe	having two or more spaced reflecting surfaces (producing pencil beam by two cylindrical reflectors with their focal lines orthogonally disposed H01Q 19/20)
H01Q 19/185	3-Punkt Untergruppe	wherein the surfaces are plane [3]
H01Q 19/19	3-Punkt Untergruppe	comprising one main concave reflecting surface associated with an auxiliary reflecting surface [3]
H01Q 19/195	4-Punkt Untergruppe	wherein a reflecting surface acts also as a polarisation filter or a polarising device [3]
H01Q 19/20	1-Punkt Untergruppe	. Producing pencil beam by two cylindrical focusing devices with their focal lines orthogonally disposed
H01Q 19/22	1-Punkt Untergruppe	. using a secondary device in the form of a single substantially straight conductive element
H01Q 19/24	2-Punkt Untergruppe	the primary active element being centre-fed and substantially straight, e.g. H-aerial
H01Q 19/26	2-Punkt Untergruppe	the primary active element being end-fed and elongated
H01Q 19/28	1-Punkt Untergruppe	. using a secondary device in the form of two or more substantially straight conductive elements (log-periodic aerials H01Q $11/10$ ; constituting a reflecting surface H01Q $19/10$ )
H01Q 19/30	2-Punkt Untergruppe	the primary active element being centre-fed and substantially straight, e.g. Yagi aerial
H01Q 19/32	2-Punkt Untergruppe	the primary active element being end-fed and elongated
H01Q 21/00	Hauptgruppe	Aerial arrays or systems (producing a beam the orientation or the shape of the directional pattern of which can be changed or varied H01Q $3/00$ ; electrically-long aerials H01Q $11/00$ )
H01Q 21/06	1-Punkt Untergruppe	. Arrays of individually energised aerial units similarly polarised and spaced apart
H01Q 21/08	2-Punkt Untergruppe	the units being spaced along, or adjacent to, a rectilinear path
H01Q 21/10	3-Punkt Untergruppe	Collinear arrangements of substantially straight elongated conductive units
H01Q 21/12	3-Punkt Untergruppe	Parallel arrangements of substantially straight elongated conductive units (travelling-wave aerials comprising transmission line loaded with transverse elements, e.g. "fishbone" aerial, H01Q 11/04)
H01Q 21/14	4-Punkt Untergruppe	Adcock aerials
H01Q 21/16	5-Punkt Untergruppe	U-type
H01Q 21/18	5-Punkt Untergruppe	H-type
H01Q 21/20	2-Punkt Untergruppe	the units being spaced along, or adjacent to, a curvilinear path
H01Q 21/22	2-Punkt Untergruppe	Aerial units of the array energised non-uniformly in amplitude or phase, e.g. tapered array, binomial array
H01Q 21/24	1-Punkt Untergruppe	. Combinations of aerial units polarised in different directions for transmitting or receiving circularly and elliptically polarised waves or waves linearly polarised in any direction
H01Q 21/26	2-Punkt Untergruppe	Turnstile or like aerials comprising arrangements of three or more elongated elements disposed radially and symmetrically in a horizontal plane about a common centre
H01Q 21/28	1-Punkt Untergruppe	. Combinations of substantially independent non-interacting aerial units or systems
H01Q 21/29	1-Punkt Untergruppe	. Combinations of different interacting aerial units for giving a desired directional characteristic (H01Q 25/00 takes precedence) [3]

Symbol	Тур	Titel
H01Q 21/30	1-Punkt Untergruppe	. Combinations of separate aerial units operating in different wavebands and connected to a common feeder system
H01Q 23/00	Hauptgruppe	Aerials with active circuits or circuit elements integrated within them or attached to them [3]
H01Q 25/00	Hauptgruppe	Aerials or aerial systems providing at least two radiating patterns (arrangements for changing or varying the orientation or the shape of the directional pattern H01Q 3/00) [3]
H01Q 25/02	1-Punkt Untergruppe	. providing sum and difference patterns (multimode aerials H01Q 25/04) [3]
H01Q 25/04	1-Punkt Untergruppe	. Multimode aerials [3]