EUROPEAN PATENT OFFICE U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 520

MAY 1, 2018

PROJECT RP0514

The following classification changes will be effected by this Notice of Changes:

Action*	Subclass	Group(s)
SCHEME:		
Titles Changed:	H01Q	Subclass
	H01Q	1/00, 1/002, 1/005, 1/02, 1/06, 1/08, 1/082,
		1/084, 1/12, 1/1228, 1/125, 1/1257, 1/18,
		1/185, 1/22, 1/2208, 1/2233, 1/2241, 1/225,
		1/2283, 1/247, 1/27, 1/30, 1/32, 1/34, 1/38,
		1/44, 1/46, 1/48, 1/50, 1/52, 1/525, 1/526,
		1/528
	H01Q	3/00, 3/005, 3/01, 3/02, 3/12, 3/26, 3/2605,
		3/267, 3/2676, 3/36
	H01Q	5/00, 5/10, 5/15, 5/48, 5/49, 5/55
	H01Q	7/00, 7/005, 7/02, 7/04
	H01Q	9/00, 9/02, 9/04, 9/16, 9/18, 9/26, 9/27,
		9/28, 9/34, 9/43, 9/44
	H01Q	11/00, 11/02, 11/04, 11/06, 11/08, 11/10,
		11/12, 11/14, 11/20
	H01Q	13/00, 13/10, 13/12, 13/14, 13/16, 13/20,
		13/28
	H01Q	15/00, 15/10, 15/14, 15/22, 15/24
	H01Q	17/00
	H01Q	19/00, 19/04, 19/09, 19/15, 19/18, 19/24,
		19/28, 19/30
	H01Q	21/00, 21/06, 21/12, 21/14, 21/22, 21/24,
		21/26, 21/28, 21/29, 21/30
	H01Q	23/00
	H01Q	25/00, 25/02, 25/04
	H01P	3/20
XV' N.	11010	10/20
Warnings New:	H01Q	19/30
	H01Q	21/12
Notes Modified:	H01Q	Subclass
	H01Q	1/00
	H01Q	23/00
DEFINITIONS:	11010	0.1.1
Definitions Modified:	H01Q	Subclass
	H01Q	1/00, 1/08, 1/27, 1/32, 1/34, 1/36, 1/38,
	*****	1/44, 1/52
	H01Q	3/26
	H01Q	5/00, 5/20

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Action*	Subclass	Group(s)
	H01Q	7/005, 7/04
	H01Q	9/00, 9/045, 9/065, 9/14, 9/16, 9/26, 9/28,
		9/285, 9/44
	H01Q	11/00, 11/02, 11/04, 11/14
	H01Q	13/0208, 13/0233, 13/103, 13/20, 13/28
	H01Q	15/00, 15/10, 15/14, 15/22
	H01Q	19/18
	H01Q	21/00, 21/06, 21/12, 21/24, 21/29
	H01Q	25/00

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following [Check the ones included]:

1.	CLASSIFICATION SCHEME CHANGES
	☑ B. New, Modified or Deleted Warning(s)
	C. New, Modified or Deleted Note(s)
	☐ D. New, Modified or Deleted Guidance Heading(s)
2.	DEFINITIONS
	A. New or Modified Definitions (Full definition template)
	☐ B. Modified or Deleted Definitions (Definitions Quick Fix)
3.	☐ REVISION CONCORDANCE LIST (RCL)
4.	☐ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5.	☐ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS H01Q – ANTENNAS, i.e. RADIO AERIALS

Type*	Symbol	Indent	Title	Transferred to#
	·	Level	(new or modified)	
		Number of	"CPC only" text should normally be enclosed in	
		dots (e.g. 0,	{curly brackets}**	
		<u>1, 2)</u>		
M	H01Q	SUBCLASS	ANTENNAS, i.e. RADIO AERIALS (radiators or	
			antennas for microwave heating H05B 6/72)	
M	H01Q 1/00	0	Details of, or arrangements associated with, antennas	
			(arrangements for varying orientation of directional	
	*****		pattern H01Q 3/00)	
M	H01Q	1	{Protection against seismic waves, thermal radiation or	
	1/002		other disturbances, e.g. nuclear explosion;	
			Arrangements for improving the power handling capability of an antenna}	
M	H01Q	1	{Damping of vibrations; Means for reducing wind-	
171	1/005	1	induced forces	
M	H01Q 1/02	1	Arrangements for de-icing; Arrangements for drying-	
111	1101Q 1/02	1	out {; Arrangements for cooling; Arrangements for	
			preventing corrosion}	
M	H01Q 1/06	1	Means for the lighting or illuminating of antennas, e.g.	
			for purpose of warning	
M	H01Q 1/08	1	Means for collapsing antennas or parts thereof	
			(collapsible loop antennas H01Q 7/02; means for	
			collapsing H-antennas or Yagi antennas H01Q 19/04)	
M	H01Q	3	{Balloon antennas}	
	1/082			
M	H01Q	2	{Pivotable antennas}	
	1/084			
M	H01Q 1/12	1	Supports; Mounting means	
M	H01Q 1/1228	3	{on a boom}	
M	H01Q	2	{Means for positioning}	
	1/125			
M	H01Q	3	{using the received signal strength}	
	1/1257			
M	H01Q 1/18	2	Means for stabilising antennas on an unstable platform	
M	H01Q 1/185	3	{by electronic means}	
M	H01Q 1/22	2	by structural association with other equipment or articles	
M	H01Q	3	{associated with components used in interrogation type	
1,1	1/2208		services, i.e. in systems for information exchange	
			between an interrogator/reader and a tag/transponder,	
1			e.g. in Radio Frequency Identification [RFID] systems	
			(methods or arrangements for sensing record carriers,	

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		<u>Level</u>	(new or modified)	
		Number of	"CPC only" text should normally be enclosed in	
		dots (e.g. 0, 1, 2)	{curly brackets}**	
		<u> 1, 2/</u>	e.g. for reading patterns G06K7/00; record carrier for	
			use with machines and with at least a part designed to	
			carry digital markings G06K19/00)}	
M	H01Q	4	{used in consumption-meter devices, e.g. electricity,	
	1/2233		gas or water meters}	
M	H01Q	4	{used in or for vehicle tyres}	
	1/2241			
M	H01Q	3	{used in level-measurement devices, e.g. for level	
	1/225		gauge measurement}	
M	H01Q	3	{mounted in or on the surface of a semiconductor	
	1/2283		substrate as a chip-type antenna or integrated with other	
M	11010	4	components into an IC package}	
M	H01Q	4	{with frequency mixer, e.g. for direct satellite reception	
M	1/247 H01Q 1/27	1	or Doppler radar} Adaptation for use in or on movable bodies (H01Q)	
IVI	H01Q 1/2/	1	1/08, H01Q 1/12, H01Q 1/18 take precedence)	
M	H01Q 1/30	3	Means for trailing antennas	
M	H01Q 1/30	2	Adaptation for use in or on road or rail vehicles	
M	H01Q 1/34	2	Adaptation for use in or on ships, submarines, buoys or	
171	1101Q 1/34	2	torpedoes (for subaqueous use H01Q 1/04)	
M	H01Q 1/38	2	formed by a conductive layer on an insulating support	
		_	{(patch antennas H01Q 9/0407; microstrip dipole	
			antennas H01Q 9/065; microstrip slot antennas H01Q	
			13/106; transmission line microstrip antennas H01Q	
			13/206; manufacturing reflecting surfaces using	
			insulating material for supporting the reflecting surface	
			H01Q 15/142)}	
M	H01Q 1/44	1	using equipment having another main function to serve	
			additionally as an antenna {, e.g. means for giving an	
			antenna an aesthetic aspect} (H01Q 1/27 - H01Q 1/34	
1	11010 1/46	2	take precedence)	
M	H01Q 1/46	2	Electric supply lines or communication lines	
M	H01Q 1/48	1	Earthing means; Earth screens; Counterpoises	
M	H01Q 1/50	1	Structural association of antennas with earthing switches, lead-in devices or lightning protectors	
M	H01Q 1/52	1	Means for reducing coupling between antennas; Means	
141	1101Q 1/32	1	for reducing coupling between an antenna and another	
			structure (absorbing means H01Q17/00)	
M	H01Q	3	{between emitting and receiving antennas}	
	1/525		(
M	H01Q	2	{Electromagnetic shields}	
	1/526			
M	H01Q	2	{reducing the re-radiation of a support structure (in a	
	1/528		parabolic reflector antenna H01Q 19/023)}	
M	H01Q 3/00	0	Arrangements for changing or varying the orientation	
			or the shape of the directional pattern of the waves	

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		<u>Level</u> Number of	(new or modified) "CPC only" text should normally be enclosed in	
		dots (e.g. 0,	{curly brackets}**	
		1, 2)		
			radiated from an antenna or antenna system {(means	
) /	11010	1	for positioning H01Q1/125)}	
M	H01Q 3/005	1	{using remotely controlled antenna positioning or scanning}	
M	H01Q 3/01	1	varying the shape of the antenna or antenna system	
M	H01Q 3/02	1	using mechanical movement of antenna or antenna	
			system as a whole	
M	H01Q 3/12	1	using mechanical relative movement between primary	
			active elements and secondary devices of antennas or	
	11010 2/26		antenna systems	
M	H01Q 3/26	1	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 3/12,} H01Q 3/22, H01Q	
			3/24 take precedence)	
M	H01Q	2	{Array of radiating elements provided with a feedback	
	3/2605		control over the element weights, e.g. adaptive arrays}	
M	H01Q	2	{Phased-array testing or checking devices}	
	3/267	2	(0.00 - 11	
M	H01Q 3/2676	2	{Optically controlled phased array}	
M	H01Q 3/36	4	with variable phase-shifters	
M	H01Q 5/00	0	Arrangements for simultaneous operation of antennas	
			on two or more different wavebands, e.g. dual-band or	
			multi-band arrangements (combinations of separate	
			active antenna units operating in different wavebands	
			and connected to a common feeder system H01Q 21/30)	
M	H01Q 5/10	1	Resonant antennas	
M	H01Q 5/15	2	for operation of centre-fed antennas comprising one or	
141	1101 Q 3/13	-	more collinear, substantially straight or elongated active	
			elements	
M	H01Q 5/48	2	Combinations of two or more dipole type antennas	
M	H01Q 5/49	3	with parasitic elements used for purposes other than for	
) A	11010 5/55	2	dual-band or multi-band, e.g. imbricated Yagi antennas	
M M	H01Q 5/55	0	for horn or waveguide antennas Loop antennas with a substantially uniform current	
IVI	H01Q 7/00	U	distribution around the loop and having a directional	
			radiation pattern in a plane perpendicular to the plane	
			of the loop	
M	H01Q	1	{with variable reactance for tuning the antenna}	
	7/005			
M	H01Q 7/02	1	Collapsible antennas; Retractable antennas	
M	H01Q 7/04	1	Screened antennas (H01Q 7/02, H01Q 7/06 take	
			precedence)	

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Type*	Symbol	Indent	Title	Transferred to#
		Level	(new or modified)	
		Number of	"CPC only" text should normally be enclosed in	
		<u>dots (e.g. 0,</u>	{curly brackets}**	
3.6	******	1, 2)		
M	H01Q 9/00	0	Electrically-short antennas having dimensions not more	
			than twice the operating wavelength and consisting of	
M	H01Q 9/02	1	conductive active radiating elements Non-resonant antennas	
M	H01Q 9/02	1	Resonant antennas	
M	H01Q 9/16	2	with feed intermediate between the extremities of the	
1,1	1101Q 3/10	_	antenna, e.g. centre-fed dipole (H01Q 9/44 takes	
			precedence)	
M	H01Q 9/18	3	Vertical disposition of the antenna	
M	H01Q 9/26	3	with folded element or elements, the folded parts being	
			spaced apart a small fraction of operating wavelength	
			(resonant loop antennas H01Q 7/00)	
M	H01Q 9/27	4	Spiral antennas	
M	H01Q 9/28	3	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 (waveguide horns or mouths	
M	H01Q 9/34	4	H01Q13/00; slot antennas H01Q 13/00) Mast, tower, or like self-supporting or stay-supported	
IVI	HUIQ 9/34	4	antennas	
M	H01Q 9/43	4	Scimitar antennas	
M	H01Q 9/44	2	with a plurality of divergent straight elements, e.g. V-	
1,1	1101 Q 3/ 11	_	dipole, X-antenna; with a plurality of elements having	
			mutually inclined substantially straight portions	
			(combinations of two or more active elements H01Q	
			21/00; turnstile antennas H01Q 21/26)	
M	H01Q	0	Electrically-long antennas having dimensions more	
	11/00		than twice the shortest operating wavelength and	
			consisting of conductive active radiating elements	
			(leaky waveguides antennas or slot antennas	
ν	11010	1	H01Q 13/00)	
M	H01Q 11/02	1	Non-resonant antennas, e.g. travelling-wave antenna (Yagi antennas H01Q 19/30)	
M	H01Q	2	with parts bent, folded, shaped, screened or electrically	
141	11/04		loaded to obtain desired phase relation of radiation	
	11/01		from selected sections of the antenna (H01Q 11/06 –	
			H01Q 11/10 take precedence)	
M	H01Q	2	Rhombic antennas; V-antennas	
	11/06			
M	H01Q	2	Helical antennas	
	11/08			
M	H01Q	2	Logperiodic antennas (H01Q 11/08 takes precedence)	
1.5	11/10		D	
M	H01Q	1	Resonant antennas	
	11/12			

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		<u>Level</u>	(new or modified)	
		Number of	"CPC only" text should normally be enclosed in	
		dots (e.g. 0,	{curly brackets}**	
M	H01Q	1, 2) 2	with parts bent, folded, shaped or screened or with	
171	11/14	2	phasing impedances, to obtain desired phase relation of	
	,		radiation from selected sections of the antenna or to	
			obtain desired polarisation effect (H01Q 11/20 takes	
			precedence)	
M	H01Q	2	V-antennas	
3.6	11/20	0	77	
M	H01Q	0	Waveguide horns or mouths; Slot antennas; Leaky-	
	13/00		waveguide antennas; Equivalent structures causing radiation along the transmission path of a guided wave	
M	H01Q	1	Resonant slot antennas	
1,1	13/10	1	resonant siot untermus	
M	H01Q	2	Longitudinally slotted cylinder antennas; Equivalent	
	13/12		structures	
M	H01Q	3	Skeleton cylinder antennas	
	13/14			
M	H01Q	2	Folded slot antennas	
M	13/16 H01Q	1	Non-resonant leaky-waveguide or transmission-line	
IVI	13/20	1	antennas; Equivalent structures causing radiation along	
	13/20		the transmission path of a guided wave	
M	H01Q	2	comprising elements constituting electric	
	13/28		discontinuities and spaced in direction of wave	
			propagation, e.g. dielectric elements or conductive	
			elements forming artificial dielectric	
M	H01Q	0	Devices for reflection, refraction, diffraction or	
	15/00		polarisation of waves radiated from an antenna, 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)	
M	H01Q	2	comprising three-dimensional array of impedance	
	15/10		discontinuities, e.g. holes in conductive surfaces or	
			conductive discs forming artificial dielectric	
M	H01Q	1	Reflecting surfaces; Equivalent structures	
3.7	15/14		{(electromagnetic shields H01Q1/526)}	
M	H01Q	2	functioning also as polarisation filter	
M	15/22 H01Q	1	Polarising devices; Polarisation filters (H01Q 15/12,	
141	15/24	1	H01Q 15/22 take precedence)	
M	H01Q	0	Devices for absorbing waves radiated from an antenna;	
	17/00		Combinations of such devices with active antenna	
			elements or systems	
M	H01Q	0	Combinations of primary active antenna elements and	
	19/00		units with secondary devices, e.g. with quasi-optical	
]	devices, for giving the antenna a desired directional	

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Type*	Symbol	<u>Indent</u>	<u>Title</u> <u>Transferr</u>	
		Level <u>Number of</u> <u>dots (e.g. 0,</u> <u>1, 2)</u>	(new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	
			characteristic {(combination of horns with slotted	
			waveguide array H01Q13/0233)}	
M	H01Q 19/04	2	Means for collapsing H-antennas or Yagi antennas	
M	H01Q 19/09	2	wherein the primary active element is coated with or embedded in a dielectric or magnetic material (protective material H01Q 1/40, varying the electric or magnetic characteristics of refracting or diffracting devices H01Q 3/44)	
M	H01Q 19/15	3	the primary radiating source being a line source, e.g. leaky waveguide antennas	
M	H01Q 19/18	2	having two or more spaced reflecting surfaces (H01Q 19/20 takes precedence)	
M	H01Q 19/24	2	the primary active element being centre-fed and substantially straight, e.g. H-antenna	
М	H01Q 19/28	1	using a secondary device in the form of two or more substantially straight conductive elements (log periodic antennas H01Q 11/10; constituting a reflecting surface H01Q 19/10)	
E	H01Q 19/30	2	the primary active element being centre-fed and substantially straight, e.g. Yagi antenna	
M	H01Q 21/00	0	Antenna arrays or systems (arrangements for changing or varying the orientation or the shape of the directional pattern of the waves radiated from an antenna or antenna system H01Q 3/00)	
M	H01Q 21/06	1	Arrays of individually energised antenna units similarly polarised and spaced apart	
С	H01Q 21/12	3	Parallel arrangements of substantially straight elongated conductive units (travelling-wave antennas comprising transmission line loaded with transverse elements H01Q 11/02; Yagi antennas H01Q 19/30)	H01Q 19/30, H01Q 21/12
M	H01Q 21/14	4	Adcock antennas	
M	H01Q 21/22	2	Antenna units of the array energised non-uniformly in amplitude or phase, e.g. tapered array or binomial array	
М	H01Q 21/24	1	Combinations of antenna units polarised in different directions for transmitting or receiving circularly and elliptically polarised waves or waves linearly polarised in any direction {(circularly polarised patch antennas H01Q 9/0428; circularly polarised horns H01Q 13/0241; cross-polarised horns H01Q 13/0258; polarisation converters H01Q 15/242; cross-polarised rear feeds H01Q 19/136; crossed polarisation dual antenna H01Q 25/001)}	
M	H01Q 21/26	2	Turnstile or like antennas comprising arrangements of three or more elongated elements disposed radially and	

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Type*	<u>Symbol</u>	<u>Indent</u>	<u>Title</u>	Transferred to#
		Level	(new or modified)	
		Number of	"CPC only" text should normally be enclosed in	
		<u>dots (e.g. 0, </u>	<u>{curly brackets}</u> **	
		<u>1, 2)</u>		
			symmetrically in a horizontal plane about a common	
			centre	
M	H01Q	1	Combinations of substantially independent non-	
	21/28		interacting antenna units or systems {(multiple beam	
			H01Q 25/00)}	
M	H01Q	1	Combinations of different interacting antenna units for	
	21/29		giving a desired directional characteristic (H01Q 25/00	
			takes precedence)	
M	H01Q	1	Combinations of separate antenna units operating in	
	21/30		different wavebands and connected to a common	
			feeder system	
M	H01Q	0	Antennas with active circuits or circuit elements	
	23/00		integrated within them or attached to them	
M	H01Q	0	Antennas or antenna systems providing at least two	
	25/00		radiating patterns (arrangements for changing or	
			varying the orientation or the shape of the directional	
			pattern H01Q 3/00)	
M	H01Q	1	providing sum and difference patterns (H01Q 25/04	
	25/02		takes precedence)	
M	H01Q	1	Multimode antennas {(corrugated horns H01Q	
	25/04		13/0208)}	

SUBCLASS H01P – WAVEGUIDES; RESONATORS, LINES OR OTHER DEVICES OF THE WAVEGUIDE TYPE

Type*	<u>Symbol</u>	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to [#]
M	H01P 3/20	1	Quasi-optical arrangements for guiding a wave, e.g. focusing by dielectric lenses	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; E = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES: CPC Form – v.5

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- **No {curly brackets} are used for titles in CPC only <u>subclasses</u>, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} <u>are</u> used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types except "D" which requires only a symbol.
- #"Transferred to" column <u>must</u> be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>" or "<administrative transfer to XX and YY simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be "invention information", unless otherwise
 indicated, and to 2000 series groups is assumed to be "additional information".

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B. New, Modified or Deleted Warning notice(s)

SUBCLASS H01Q – ANTENNAS, i.e. RADIO AERIALS

Type*	Location	Old Warning notice	New/Modified Warning notice
N	H01Q 19/30		Group H01Q 19/30 is incomplete
			pending reclassification of documents
			from group H01Q 21/12. Groups
			H01Q 21/12 and H01Q 19/30 should
			be considered in order to perform a
			complete search.
N	H01Q 21/12		Group H01Q 21/12 is impacted by
			reclassification into group
			H01Q 19/30. Groups H01Q 21/12 and
			H01Q 19/30 should be considered in
			order to perform a complete search.

^{*}N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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C. New, Modified or Deleted Note(s)

SUBCLASS H01Q – ANTENNAS, i.e. RADIO AERIALS

Type*	Location	Old Note	New/Modified Note
M	H01Q	This subclass covers: in addition to the primary active radiating elements, secondary devices for absorbing or for modifying the direction or polarisation of waves radiated from aerials, and combinations with auxiliary devices such as earthing switches, lead-in devices, and lightning protectors; both transmitting and receiving aerials This subclass does not cover devices of the waveguide type, such as resonators or lines, not designed as radiating elements, which are covered by subclass H01P. In this subclass, the following expression is used with the meaning indicated: "active radiating element" covers corresponding parts of a receiving aerial.	 This subclass covers: in addition to the primary active radiating elements, i. secondary devices for absorbing or for modifying the direction or polarisation of waves radiated from antennas, and ii. combinations with auxiliary devices such as earthing switches, lead-in devices, and lightning protectors; both transmitting and receiving antennas. This subclass does not cover devices of the waveguide type, such as resonators or lines, not designed as radiating elements, which are covered by subclass H01P. In this subclass, the following expression is used with the meaning indicated: "active radiating element" covers
M	H01Q 1/00	This group covers only: structural details or features of aerials not dependent on electric operation; structural details or features applicable to more than one type of aerial or aerial element. Structural details or features described with reference to, or clearly applicable only to, aerials or aerial elements of a particular type are classified in the group appropriate to that type.	corresponding parts of a receiving antenna. 1. This group covers only: • structural details or features of antennas not dependent on electric operation; • structural details or features applicable to more than one type of antenna or antenna element. 2. Structural details or features described with reference to, or clearly applicable only to, antennas or antenna elements of a particular type are classified in the group appropriate to that type
M	H01Q 23/00	Group H01Q23/00 includes only such combinations in which the type of aerial or aerial element is immaterial. Combinations with a particular type of aerial are classified in the group appropriate to that type.	This group <u>covers</u> only such combinations in which the type of antenna or antenna element is immaterial.

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Type*	Location	Old Note	New/Modified Note
			2. Combinations with a particular type of antenna are classified in the group
			appropriate to that type.

N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

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2. A. DEFINITIONS (modified)

H01Q

Relationships with other classification places

Delete the entire Relationships with other classification places section.

References:

Insert the following new Limiting references section:

Limiting references

This place does not cover:

Radiators or antennas for microwave heating	H05B 6/72
---	-----------

Insert the following new Application-oriented references section:

Application-oriented references:

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Cells with adaptive channel assignment	H04W16/02
Cell structures using beam steering	H04W16/28
Communication route or path selection based on characteristics of available wireless antennas	H04W 40/06
Radio direction-finding; radio navigation; determining distance or velocity; locating	G01S
Beacons or beacon systems using radio waves	G01S 1/02
Direction-finders using radio waves	G01S 3/02
Circuits or components for simulating antennas, e.g. dummy antenna	H04B 1/72
Near-field transmission using leaky cable	H04B 5/0018

Informative references

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<u>Delete</u> the current Informative references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Microwave radiators for near-field therapeutic treatment	A61N 5/04
Apparatus for testing antennas or for measuring antenna characteristics	G01R
Radiation diagrams of antennas; antenna testing	G01R 29/10
using anechoic chamber	G01R 29/105
Modification of radiation pattern for cancelling noise or interfering signals	G01S 7/2813
Means for calibrating or monitoring	G01S 7/40
Optical elements	G02B
Photonic crystals	G02B 1/005
Recognition and presentation of data; record carriers; handling record carriers	G06K
Transponder cards without electrical contacts	G06K 19/07749
Waveguides	H01P
Line connectors; current collectors	H01R
Modulating electromagnetic waves in radiation field of antenna	H03C 7/02
Impedance networks	H03H
coupling circuits between transmission lines and antennas	H03H 2/005
impedance-matching networks	H03H 7/38
Hand-held transceivers	H04B 1/3833
with reducing RF exposure	H04B 1/3838
Radio transmission systems	H04B 7/00
Diversity systems	H04B 7/02
at transmitting station	H04B 7/06

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at receiving station	H04B 7/08
Relay systems	H04B 7/14
Capacity expanding techniques	H04B 7/26
Monitoring, testing	H04B 17/00
Selecting	H04Q
Printed circuits; Casings or constructional details of electric apparatus; manufacture	H05K
screening against electric or magnetic fields	H05K 9/00

H01Q1/00

References

Informative references

<u>**Delete**</u> the entire Informative references section.

Insert the following new Limiting references section:

Limiting references

This place does not cover:

Arrangements for varying orientation of directional pattern	H01Q 3/00
---	-----------

H01Q1/08

References

Insert the following new Limiting references section:

Limiting references

This place does not cover:

Collapsible loop antennas	H01Q 7/02	
---------------------------	-----------	--

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Collapsible H-antennas or Yagi	H01Q 19/04
antennas	

Informative references

<u>Delete</u> the following two table rows from the Informative references section.

Collapsible loop aerials	H01Q 7/02
Collapsible H-aerials or Yagi aerials	H01Q 19/04

Special rules of classification

<u>Delete</u> "clamm-shell" and replace with "clamshell" in the Special rules section as shown below:

Not used for the extractable antennas as used on mobile phones, nor for the clamm-shell phones with integrated antennas.

H01Q1/27

References

Limiting references

<u>Delete</u> "aerials" and replace with "antennas" in the Limiting references section as shown below:

Means for collapsing aerialsantennas or parts thereof	H01Q 1/08
Support; mounting means	H01Q 1/12
Means for stabilising aerialsantennas on an unstable platform	H01Q 1/18
Portable transceivers	H04B 1/3827

<u>Delete</u> the following table row from the Limiting references section:

Portable transceivers H04B 1/382	7
----------------------------------	---

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Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

ole transceivers H04B 1/3827

H01Q1/32

Definition statement

<u>Delete</u> "aerials" and replace with "antennas" in the sentence that appears after the image in the Definition statement as shown below:

NOT the windscreen aerials antennas.

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Telescopic elements	H01Q 1/10
Resilient mountings for antennas	H01Q 1/20

H01Q1/34

References

Limiting references

<u>Delete</u> the following table row from the Limiting references section:

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Retractable loop aerials	H01Q 7/02
--------------------------	-----------

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

H01Q1/36

References

Limiting references

<u>Delete</u> the following table row from the Limiting references section:

Device acting selectively as reflecting surface, as diffracting or as refracting device e.g. frequency filtering or angular spatial filtering devices	H01Q 15/0006

<u>Insert</u> the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Device acting selectively as reflecting surface, as diffracting or as	H01Q 15/0006
refracting device e.g. frequency filtering or angular spatial filtering	
devices	

H01Q1/38

References

Limiting references

<u>Delete</u> the following table row from the Limiting references section:

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Conductors in general H01B 5/14

Insert the following new Informative references section:

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Conductors in general	H01B 5/14
-----------------------	-----------

H01Q1/44

References

Limiting references

<u>Insert</u> the following new table row into the Limiting references section:

Adaptation for use in or on movable bodies	H01Q 1/27
--	-----------

H01Q1/52

Definition statement

<u>Insert</u> the following sentence so that it appears as the first sentence in the Definition statement:

Increasing isolation between antennas.

Synonyms and Keywords

Delete the entire Synonyms and Keywords section.

H01Q11/00

References

Limiting references

<u>Delete</u> the following two table rows from the Limiting references section:

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Combinations of active elements with secondary devices to give desired directional characteristic	H01Q 19/00
Antenna arrays or systems	H01Q 21/00

<u>Delete</u> "aerials" and replace with "antennas" in the Limiting references section as shown below:

La ala unava quida a cariala antonna	alat agricla <mark>antannaa</mark>	11040 42/00
Leaky waveguides aerialsantennas	. Siot aenais antennas	H01Q 13/00
	,	11010,1010

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Combinations of active elements with secondary devices to give desired directional characteristic	H01Q 19/00
Antenna arrays or systems	H01Q 21/00

H01Q11/02

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Yagi antennas	H01Q 19/30

H01Q11/04

References

Limiting references

<u>Delete</u> "aerials" and replace with "antennas" in the current Limiting references table row as shown below:

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D1 11 11 1		11040 44/00
Rhombic aerialsantennas	, V- aerials antennas	H01Q 11/06

<u>Insert</u> the following two new table rows in the Limiting references section:

Helical antennas	H01Q 11/08
Log-periodic antennas	H01Q 11/10

H01Q11/14

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

V-antennas	H01Q 11/20
------------	------------

H01Q13/0208

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Waveguide mouth antenna with corrugated flange	H01Q 13/065
Manufacturing details	H01Q 13/0283

H01Q13/0233

Insert the following new References/Limiting references section:

References

Limiting references

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This place does not cover:

Biconical horns	H01Q 13/06
-----------------	------------

H01Q13/103

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

with variable reactance for tuning the antenna	H03J
--	------

H01Q13/20

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

varying the phase velocity	H01Q 3/443
near-field transmission systems using leaky cable	H04B 5/0018

H01Q13/28

References

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Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Elements, conductive elements forming artificial dielectric	H01Q19/30
---	-----------

H01Q15/00

References

Informative references

<u>Delete</u> the entire Informative references section.

Insert the following new Limiting references section:

Limiting references

This place does not cover:

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

H01Q15/10

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

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Attention is drawn to the following places, which may be of interest for search:

leaky-waveguide antennas H01Q 13/28	
-------------------------------------	--

H01Q15/14

References

Limiting references

<u>Delete</u> the following table row from the Limiting references section:

Radar-reflecting targets in general	F41J 2/00	

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Radar-reflecting targets in general	F41J 2/00
-------------------------------------	-----------

H01Q15/22

Definition statement

<u>Delete</u> the semicolon from the second paragraph of the Definition statement and replace it with a comma as shown below:

For example, double gridded reflector.

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

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in combination with polarising devices	H01Q 15/24
--	------------

H01Q19/18

References

Limiting references

<u>Delete</u> the following table rows from the Limiting references section:

surfaces of convex toroidal shape	H01Q 19/102
using a deflecting plane mirror	H01Q 19/104
splash plate feeds	H01Q 19/134

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

surfaces of convex toroidal shape	H01Q 19/102
using a deflecting plane mirror	H01Q 19/104
splash plate feeds	H01Q 19/134

Special rules of classification

Delete the entire Special rules of classification section.

H01Q21/00

References

Limiting references

<u>Delete</u> the following table rows from the Limiting references section:

Combination of imbricated antennas or arrays operating on different wavebands	H01Q 5/40
Electrically-long antennas	H01Q 11/00

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Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

Combination of imbricated antennas or arrays operating on different wavebands	H01Q 5/40
Electrically-long antennas	H01Q 11/00

Synonyms and Keywords

<u>Delete</u> the following bulleted text from the Synonyms and Keyword section:

• "array antenna" and "antenna array"

Insert the following new table in the Synonyms and Keyword section:

H01Q 21/06

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

varying the relative phase or relative amplitude of	H01Q 3/26 and
energisation between two or more active radiating	subgroups
elements; varying the distribution of energy across a	
radiating aperture	

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H01Q21/12

References:

Limiting references:

<u>Delete</u> all current table rows in the Limiting references section.

Insert the following new table rows in the Limiting references section:

Non-resonant antennas, e.g. travelling-wave antennas	H01Q 11/02
Travelling-wave antennas comprising transmission line loaded with transverse elements, e.g. "fishbone" antenna	H01Q 11/04
Yagi antennas	H01Q 19/30

Special rules of classification

<u>Delete</u> the entire Special rules of classification section.

H01Q 21/24

References

Limiting references

<u>Delete</u> "cross-polarised rear feeds" and replace the deleted text with "polarisation converters" in the Limiting references section as shown in the table row below:

<u>Delete</u> "crossed polarisation dual antenna" and replace the deleted text with "cross-polarised rear feeds" in the Limiting references section as shown in the table row below:

crossed polarisation dual antennacross-polarised rear	H01Q 19/136
<mark>feeds</mark>	

H01Q 21/29

References

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Limiting references

<u>Delete</u> "Combinations of different interacting aerial units for giving a desired directional characteristic" and replace the deleted text with "Antennas or antenna systems providing at least two radiating patterns" in the Limiting references section as shown in the table row below:

Combinations of different interacting aerial units for giving	H01Q 25/00
a desired directional characteristic Antennas or antenna	
systems providing at least two radiating patterns	

H01Q25/00

References

<u>Delete</u> the entire Informative references section.

Insert the following new Limiting references section:

Limiting references:

This place does not cover:

snape of the directional pattern	Arrangements for changing or varying the orientation or the shape of the directional pattern	H01Q 3/00
----------------------------------	--	-----------

H01Q3/26

References

Limiting references

<u>Delete</u> the following table rows from the Limiting references section:

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 3/00
Using mechanical relative movement between primary active elements and secondary devices of aerials or aerial systems	H01Q 3/12

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<u>Delete</u> "aerials" and replace with "antennas" in the current Limiting references table row as shown below:

Arrangements for changing or varying the orientation or the shape of the directional pattern of the waves radiated from an aerialantenna or aerialantenna system, e.g. using mechanical relative movement between primary active elements and secondary devices of aerialantennas or aerialantenna systems

H01Q 3/12

Informative references:

<u>Delete</u> the following table row from the Informative references section:

Use of steered beams for mobile service area coverage	H04Q 7/3615
steering	

Insert the following table row into the Informative references section:

Network planning using cell structures using beam	H04W 16/28	
steering		

H01Q5/00

Definition statement

<u>Delete</u> the second paragraph in the Definition statement:

Antennas with (inherent) broadband characteristics are classified in the antenna type, e.g. folded or loaded or extended surface monopole antennas with broadband are classified in the relevant antenna type groups.

References

Limiting references

<u>Delete</u> the following table rows from the Limiting references section:

Ground plane features per se	H01Q 1/48
The changing per se of electrical (for example by switching) or physical length of the antenna	H01Q 9/14

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Insert the following table row into the Limiting references section:

Combinations of separate active antenna units operating in different	H01Q 21/30	
wavebands and connected to a common feeder system		

Informative references:

Insert the following two table rows into the Informative references section:

Ground plane features per se	H01Q 1/48
The changing per se of electrical (for example by switching) or physical length of the antenna	H01Q 9/14

Insert the new Special rules of classification section:

Special rules of classification:

Antennas with (inherent) broadband characteristics are classified in the antenna type, e.g. folded or loaded or extended surface monopole antennas with broadband are classified in the relevant antenna type groups.

H01Q5/20

References

Limiting references

<u>Delete</u> the entire Limiting references section.

Insert the following new Informative references section:

Informative references

Attention is drawn to the following places, which may be of interest for search:

The achievement of operation on two or	H01Q 5/30,	H01Q 5/40,	H01Q 5/50
more different wavebands			

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H01Q7/005

Insert the following new References/Informative references section:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tuning resonant circuits	H03J

H01Q 7/04

Definition statement

<u>Delete</u> the space following "G08B13/2402" in the sentence that appears immediately after the image in the Definition statement:

Application for article surveillance (G08B13/2402, G08B13/2402-).

References

Limiting references

<u>Delete</u> "aerials" and replace with "antennas" in the current Limiting references table rows as shown below:

Collapsible aerialsantennas; Retractable aerialsantennas	H01Q 7/02
Loop aerialsantennas with a substantially uniform current	H01Q 7/06
distribution around the loop and having a directional	
radiation pattern in a plane perpendicular to the plane of	
the loop with core of ferromagnetic material	

Synonyms and Keywords

Delete the following text in the Synonyms and Keywords section:

In patent document the following words are often used:

Shielded, electrostatic shielding.

Insert the following text in the Synonyms and Keywords section:

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In patent documents, the following words/expresssions are often used as synonyms:

shielding, electrostatic shielding

H01Q9/00

Insert the following new References/Informative references section:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Loop antennas	H01Q 7/00
Waveguide horns or mouths; Slot antennas	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

H01Q9/045

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Feeding means for circular polarisation	H01Q 9/0428

H01Q9/065

Insert the following new References/Limiting references section:

References

Limiting references

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This place does not cover:

Patch antennas	H01Q 9/0407
----------------	-------------

Synonyms and Keywords

<u>Delete</u> the following text from the Synonyms and Keywords section:

In patent documents, the following words/expressions are often used as synonyms:

"strip dipole", "printed dipole", "monopole strip" and "icrostrip antenna with dipole resonator"

Insert the following text into the Synonyms and Keywords section:

In patent documents, the word/expression in the first column is often used instead of the word/expression in the second column, which is used in the classification scheme of this place:

strip dipole	"printed dipole", "monopole strip" and "microstrip	
	antenna with dipole resonator"	

H01Q9/14

<u>Insert</u> the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Telescopic elements	H01Q 1/10
---------------------	-----------

Delete the entire Special rules of classification section.

H01Q9/16

<u>Insert</u> the following new References/Limiting references section:

References

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Limiting references

This place does not

with a plurality of divergent straight elements, e.g. V-	H01Q 9/44
dipole, X-antenna; with a plurality of elements having	
mutually inclined substantially straight portions	

H01Q 9/26

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Resonant loop antennas	H01Q 7/00
------------------------	-----------

H01Q9/28

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Waveguide horns or mouths; slot antennas	H01Q 13/00

H01Q9/285

Insert the following new References/Limiting references section:

References

Limiting references

This place does not cover:

Patch antennas	H01Q 9/0407
----------------	-------------

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Microstrip dipole antennas	H01Q 9/065
----------------------------	------------

H01Q9/44

References

Limiting references

<u>Delete</u> the following table row from the Limiting references section:

with plurality of elements having mutually inclined substantially	H01Q 21/26
straight portions	

Insert the following new table rows into the Limiting references section:

Combinations of two or more active elements	H01Q 21/00
Turnstile antennas	H01Q 21/26

<u>Delete</u> the entire Informative references section.

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3. REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
С	H01Q 21/12	H01Q 19/30, H01Q 21/12

^{*} C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries.

NOTES:

- Only C, D, F and Q type entries are included in the table above.
- When multiple symbols are included in the "To" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>" or "<administrative transfer to XX and YY simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be "invention information", unless otherwise indicated, and to 2000 series groups is assumed to be "additional information".