

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1429

DATE: MAY 1, 2023

PROJECT RP11666

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Symbols New:	H04B	7/04013, 7/04026, 7/0479, 7/048, 7/0481, 7/0487, 7/06952, 7/06954, 7/06956, 7/06958, 7/0696, 7/06962, 7/06964, 7/06966, 7/06968
Titles Changed:	H04B	7/0478
Warnings New:	H04B	7/04, 7/04013, 7/0478, 7/0479, 7/048, 7/0481, 7/0486, 7/0487, 7/0695, 7/06952

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

- A. New, Modified or Deleted Group(s)
- 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 H04B – TRANSMISSION

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
C	H04B 7/04	2	using two or more spaced independent antennas	H04B 7/04, H04B 7/04013, H04B 7/04026
N	H04B 7/04013	3	{Intelligent reflective surfaces}	
N	H04B 7/04026	4	{with codebook-based beamforming}	
C	H04B 7/0478	5	{Special codebook structures directed to feedback optimisation}	H04B 7/0478, H04B 7/0479, H04B 7/048, H04B 7/0481
N	H04B 7/0479	6	{for multi-dimensional arrays, e.g. horizontal or vertical pre-distortion matrix index [PMI]}	
N	H04B 7/048	6	{using three or more PMIs}	
N	H04B 7/0481	6	{using subset selection of codebooks}	
C	H04B 7/0486	5	{taking channel rank into account}	H04B 7/0486, H04B 7/0487
N	H04B 7/0487	6	{Codebooks having a nested structure}	
C	H04B 7/0695	5	{using beam selection}	H04B 7/0695, H04B 7/06952, H04B 7/06954, H04B 7/06956, H04B 7/06958, H04B 7/0696, H04B 7/06962, H04B 7/06964, H04B 7/06966, H04B 7/06968
N	H04B 7/06952	6	{Selecting one or more beams from a plurality of beams, e.g. beam training, management or sweeping}	
N	H04B 7/06954	7	{Sidelink beam training with support from third instance, e.g. the third instance being a base station}	
N	H04B 7/06956	7	{using a selection of antenna panels}	
N	H04B 7/06958	7	{Multistage beam selection, e.g. beam refinement}	
N	H04B 7/0696	7	{Determining beam pairs}	
N	H04B 7/06962	8	{Simultaneous selection of transmit [Tx] and receive [Rx] beams at both sides of a link}	
N	H04B 7/06964	7	{Re-selection of one or more beams after beam failure}	
N	H04B 7/06966	7	{using beam correspondence; using channel reciprocity, e.g. downlink beam training based on uplink sounding reference signal [SRS]}	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of</u> <u>dots (e.g. 0,</u> <u>1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
N	H04B 7/06968	7	{using quasi-colocation [QCL] between signals}	

*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; T = 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:

- **No {curly brackets} are used for titles in CPC only subclasses, 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} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). 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.
- “Transferred to” column must 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>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or <administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning(s)

SUBCLASS H04B – TRANSMISSION

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H04B 7/04		Group H04B 7/04 is impacted by reclassification into groups H04B 7/04013 and H04B 7/04026. Groups H04B 7/04, H04B 7/04013 and H04B 7/04026 should be considered in order to perform a complete search.
N	H04B 7/04013		Groups H04B 7/04013 and H04B 7/04026 are incomplete pending reclassification of documents from group H04B 7/04. Groups H04B 7/04, H04B 7/04013 and H04B 7/04026 should be considered in order to perform a complete search.
N	H04B 7/0478		Group H04B 7/0478 is impacted by reclassification into groups H04B 7/0479, H04B 7/048 and H04B 7/0481. All groups listed in this Warning should be considered in order to perform a complete search.
N	H04B 7/0479		Group H04B 7/0479 is incomplete pending reclassification of documents from group H04B 7/0478. Groups H04B 7/0478 and H04B 7/0479 should be considered in order to perform a complete search.
N	H04B 7/048		Group H04B 7/048 is incomplete pending reclassification of documents from group H04B 7/0478. Groups H04B 7/0478 and H04B 7/048 should be considered in order to perform a complete search.
N	H04B 7/0481		Group H04B 7/0481 is incomplete pending reclassification of documents from group H04B 7/0478. Groups H04B 7/0478 and H04B 7/0481 should be considered in order to perform a complete search.
N	H04B 7/0486		Group H04B 7/0486 is impacted by reclassification into group H04B 7/0487. Groups H04B 7/0486 and H04B 7/0487 should be considered in order to perform a complete search.
N	H04B 7/0487		Group H04B 7/0487 is incomplete pending reclassification of documents from group H04B 7/0486. Groups H04B 7/0486 and H04B 7/0487 should be considered in order to perform a complete search.
N	H04B 7/0695		Group H04B 7/0695 is impacted by reclassification into groups H04B 7/06952, H04B 7/06954, H04B 7/06956, H04B 7/06958, H04B 7/0696, H04B 7/06962, H04B 7/06964, H04B 7/06966 and H04B 7/06968. All groups listed in this Warning should be considered in order to perform a complete search.
N	H04B 7/06952		Groups H04B 7/06952, H04B 7/06954, H04B 7/06956, H04B 7/06958, H04B 7/0696, H04B 7/06962, H04B 7/06964, H04B 7/06966 and H04B 7/06968 are incomplete pending reclassification of documents from group H04B 7/0695. All groups listed in this Warning 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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3. REVISION CONCORDANCE LIST (RCL)

<u>Type*</u>	<u>From CPC Symbol (existing)</u>	<u>To CPC Symbol(s)</u>
C	H04B 7/04	H04B 7/04, H04B 7/04013, H04B 7/04026
C	H04B 7/0478	H04B 7/0478, H04B 7/0479, H04B 7/048, H04B 7/0481
C	H04B 7/0486	H04B 7/0486, H04B 7/0487
C	H04B 7/0695	H04B 7/0695, H04B 7/06952, H04B 7/06954, H04B 7/06956, H04B 7/06958, H04B 7/0696, H04B 7/06962, H04B 7/06964, H04B 7/06966, H04B 7/06968

* 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; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“To”)symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

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4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
H04B 7/04013	H04B 7/04	NEW
H04B 7/04026	H04B 7/04	NEW
H04B 7/0479	H04B 7/0456	NEW
H04B 7/048	H04B 7/0456	NEW
H04B 7/0481	H04B 7/0456	NEW
H04B 7/0487	H04B 7/0456	NEW
H04B 7/06952	H04B 7/06	NEW
H04B 7/06954	H04B 7/06	NEW
H04B 7/06956	H04B 7/06	NEW
H04B 7/06958	H04B 7/06	NEW
H04B 7/0696	H04B 7/06	NEW
H04B 7/06962	H04B 7/06	NEW
H04B 7/06964	H04B 7/06	NEW
H04B 7/06966	H04B 7/06	NEW
H04B 7/06968	H04B 7/06	NEW

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are not included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.