Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 18 November 2024

Case Number: T 0136/23 - 3.5.05

Application Number: 16190624.3

Publication Number: 3148229

IPC: H04W4/22, G08B27/00, H04M11/04, H04W76/00

Language of the proceedings: EN

Title of invention:
Methods and apparatus for contingency communications

Applicant:
Neo Wireless LLC

Headword:
Repetition of synchronisation signals/NEO WIRELESS

Relevant legal provisions:
EPC Art. 76(1), 123(2)
RPBA 2020 Art. 12(8)

Keyword:
Decision in written proceedings: cancellation of hearing following appellant's announcement of non-attendance
Added subject-matter - all claim requests (yes)

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 0136/23 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 18 November 2024

Appellant: (Applicant)	Neo Wireless LLC 123 West Wayne Avenue, Floor 1 Wayne, PA 19087 (US)
Representative:	Gaunt, Thomas Derrick Lewis Silkin LLP Arbor 255 Blackfriars Road London SE1 9AX (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 16 September 2022 refusing European patent application No. 16190624.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	J. Eraso Helguera
	R. Romandini

Summary of Facts and Submissions

I. The appellant lodged an appeal against the decision of the examining division to refuse the present European patent application.

II. With its statement of grounds of appeal, the appellant submitted the following prior-art document:

D8: 3GPP TS 36.211 V9.1.0 (2010-03) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation (Release 9).

Moreover, it requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of any of three claim requests: **main request**, **first and second auxiliary requests**, all of them forming part of the decision under appeal - albeit in a different order - and being re-submitted with the statement setting out the grounds of appeal.

III. In a communication pursuant to Article 15(1) RPBA, the board stated its negative preliminary opinion on the allowability of the main request and of the first and second auxiliary requests.

IV. In response to that communication, the appellant informed the board that it would not be attending the arranged oral proceedings.

V. The board subsequently cancelled those oral proceedings (see Article 12(8) RPBA).

VI. Claim 1 of the **main request** reads as follows:

"A communication method in a long-term evolution (LTE) wireless system employing Orthogonal Frequency Division Multiplexing (OFDM), the method comprising:

receiving, at a portable device, a primary synchronization signal that is repeated in a first plurality of consecutive OFDM symbols; and

receiving, at the portable device, a secondary synchronization signal that is repeated in a second plurality of consecutive OFDM symbols."

Claim 1 of the **first auxiliary request** reads as follows:

"A communication method for a long-term evolution (LTE) system device comprising:

transmitting, in the downlink, a primary synchronization signal (PSS) or a secondary synchronization signal (SSS) that are repeated in a plurality of consecutive Orthogonal Frequency Division Multiplexing (OFDM) symbols to increase signal to noise ratio (SNR) and penetration."

Claim 1 of the **second auxiliary request** reads as follows:

"A communication method for a portable device in a long-term evolution (LTE) wireless system employing Orthogonal Frequency Division Multiplexing (OFDM), the LTE wireless system having operating frequency bands for normal operation, the method comprising:

receiving a primary synchronization signal that is repeated in a first plurality of consecutive OFDM symbols in an operating frequency band different from

the operating frequency bands for normal operation."

Reasons for the Decision

1. MAIN REQUEST

Claim 1 of the **main request** comprises the following limiting features:

A communication method in an LTE wireless system employing OFDM, the method comprising:
(a) receiving, at a portable device, a PSS that is repeated in a first plurality of consecutive OFDM symbols;
(b) receiving, at the portable device, an SSS that is repeated in a second plurality of consecutive OFDM symbols.

1.1 Claim 1 - added subject-matter (Articles 76(1) and 123(2) EPC)

1.1.1 In Reasons 19 of the appealed decision, the examining division found that there was no basis for the claimed combination of a *first* and *second* plurality of symbols. Instead, the earlier application as filed (see paragraph [0077]), as well as the original description of the present divisional application defined that the "PSS, the SSS and/or the PBCH are repeated in multiple consecutive OFDM symbols". In Reasons 20 of the appealed decision, the examining division stated that the claimed subject-matter comprised an embodiment with a gap between the first plurality of PSS and the second plurality of SSS which was not unambiguously disclosed.

1.1.2 The appellant argued that, as described in **D8**, page 75, first and second paragraphs, two different frame structure types were disclosed, where the PSS was mapped to specific OFDM symbols in specific slots. At the same time, section 6.11.2.2 at page 77 of D8 described mapping the SSS to different symbols and different slots, including those which were not adjacent. It followed that if the skilled person were to envisage repeating the PSS and SSS, as required by the claims, this could have resulted in arrangements where the PSS and SSS repetitions were *adjacent*, as well as scenarios where they were not, depending on, for example, the number of repetitions. In other words, the skilled person was not provided with any teaching or suggestion that the PSS repetitions were required to be adjacent to the SSS repetitions. Hence, the wording provided in at least paragraph [0077] of both the present divisional and the earlier application as filed provided basis for the claimed first plurality of consecutive PSS and a second plurality of consecutive SSS.

1.1.3 The board agrees with the examining division. The disclosure of paragraph [0077] of the present divisional and the earlier application as filed is too vague for the skilled person to be able to directly and unambiguously derive therefrom that the PSS is repeated in a *first* plurality of consecutive OFDM symbols, whereas the SSS is repeated in a *second* plurality of consecutive OFDM symbols.

1.1.4 In passing, the board observes that there is no single embodiment indicated in the present divisional and the earlier application as filed showing how the repetition of any of the PSS, the SSS and the PBCH in *multiple consecutive OFDM symbols* could actually be carried out.

As the appellant evidenced by means of **D8**, i.e. in conformity with the LTE standard, each of these signals must be present in specific OFDM symbols of specific slots of a radio frame. It is not apparent how the claimed repetition could be carried out without substantially amending the channel structure of the known LTE system.

1.1.5 Concerning the **second auxiliary request**, the appellant also argued that paragraphs [0075] and [0077] of the present divisional and the earlier application as filed appeared in the same section and were not described as alternative embodiments. Paragraph [0075] referenced an LTE system and paragraph [0077] referenced *specific* implementations of such an LTE system. Indeed, both the present divisional and the earlier application as filed specifically address "contingency communications" (see paragraph [0002]). Furthermore, paragraph [0075] explicitly mentions "emergency networks" whilst paragraph [0077] explains that "an LTE system can be reconfigured into a search and rescue system". In stark contrast to this specificity, claim 1 of the main request concerns an LTE wireless system in general. This in turn constitutes in itself an unallowable generalisation that contravenes Articles 76(1) and 123(2) EPC.

1.2 Consequently, the main request is not allowable under Articles 76(1) and 123(2) EPC.

2. FIRST AUXILIARY REQUEST

Claim 1 of the **first auxiliary request** comprises the following limiting features:

A communication method

(c) for an LTE system device comprising:
(d) transmitting, in the downlink, a PSS or an SSS
(e) that are repeated in a plurality of consecutive OFDM symbols
(f) to increase signal to noise ratio (SNR) and penetration.

2.1 Claim 1 - added subject-matter (Articles 76(1) and 123(2) EPC).

The reasons set out in point 1.1.5 above apply *mutatis mutandis* to claim 1 of the first auxiliary request.

2.2 Thus, the first auxiliary request is not allowable under Articles 76(1) and 123(2) EPC either.

3. SECOND AUXILIARY REQUEST

Claim 1 of the **second auxiliary request** comprises the following limiting features:

A communication method for a portable device in an LTE wireless system employing OFDM,
(g) the LTE wireless system having operating frequency bands for normal operation,
the method comprising:
(h) receiving a PSS that is repeated in a first plurality of consecutive OFDM symbols in an operating frequency band different from the operating frequency bands for normal operation.

3.1 Claim 1 - added subject-matter (Articles 76(1) and 123(2) EPC)

3.1.1 As explained in point 1.1.5 above, the appellant referred to paragraphs [0075] and [0077] of the present

divisional and the earlier application as filed. It submitted that these paragraphs appeared in the same section and were not described as alternative embodiments. Paragraph [0075] referenced an LTE system and paragraph [0077] referenced specific implementations of such an LTE system. Thus, the skilled person would have recognised that they might be encompassed in the same embodiments.

3.1.2 This is not convincing. Paragraph [0075] generally states that "[a]lternatively, the emergency network may operate in a frequency band different from operation frequency bands of a normal radio network". The board agrees that paragraphs [0075] and [0077] are to be read together (see point 1.1.5 above). However, the present divisional and the earlier application as filed still fall short of a direct and unambiguous disclosure for **feature (h)**, where a PSS is specifically received "in an operating frequency band different from the operating frequency bands for normal operation".

3.2 Hence, the second auxiliary request is likewise not allowable under Articles 76(1) and 123(2) EPC.

4. Since there is no allowable claim request on file, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

B. Brückner K. Bengi-Akyürek

Decision electronically authenticated