

EXHIBIT 1008

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**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

mitsubishi electric
corporation and sisvel
international s.a.,

Plaintiffs,

vs.

tcl communication
technology holdings
limited, tcl mobile
international limited,
tcl mobile (us) inc., and tcl
mobile (us) holdings inc.,

Defendants.

Case No. 8:22-cv-01073-GW-DFM

**PLAINTIFFS' OPENING
CLAIM CONSTRUCTION
BRIEF**

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I. INTRODUCTION

Mitsubishi Electric Corporation and Sisvel International S.A. (collectively “Plaintiffs”) submit this Opening Claim Construction Brief in support of their positions regarding the disputed claim terms in U.S. Patent Nos. 9,635,656 (“the ’656 Patent”), 9,713,068 (“the ’068 Patent”), and 10,200,976 (“the ’976 Patent”) (collectively, “Asserted Patents”) and in opposition to the positions offered by Defendants TCL Communication Technology Holdings Limited, TCT Mobile International Limited, TCT Mobile, Inc., TCT Mobile (US) Inc., and TCT Mobile (US) Holdings Inc. (collectively, “Defendants”).

The parties submitted an Amended Joint Claim Construction Chart (D.I. 51) identifying the following disputed claim terms for construction:

- 1) “quality notification signal”
- 2) “when a transmission of said quality notification signal coincides with that of said scheduling request signal in said transmitter”
- 3) “stopping transmitting said quality notification signal during a time interval during which said transmitter transmits said scheduling request signal”
- 4) “cells for “specific subscribers”
- 5) “said base stations manually selected by user equipment”
- 6) “an associated cell configured by the base station to include a resource for uplink and a resource for downlink”
- 7) “a non-associated cell configured by the base station to include only “another resource for downlink”
- 8) “the other resource for downlink being allocated to the downlink communication from the base station device”

II. BACKGROUND OF THE ASSERTED PATENTS

A. The '656 Patent

The '656 patent is directed to an improved communications system that complies with the LTE standard. The patent teaches the use of a base station to transmit data by using an OFDM (Orthogonal Frequency Division Multiplexing) method as a downlink access method, to a mobile terminal. ('656 patent at Abstract.) LTE utilizes a shared channel to transmit to a plurality of mobile terminals, rather than a dedicated channel for each mobile terminal. (*Id.* at 2:19-24.) When receiving data, via a downlink, from a base station, a mobile terminal transmits a signal indicating whether the mobile terminal has received the data perfectly, and a signal indicating either the quality of the received data or the quality of the downlink communication path to the base station via an uplink. (*Id.* at 2:25-30.)

In an exemplary embodiment, the response signal indicating whether the mobile terminal could receive the data correctly from the base station is referred to as an Ack/Nack, and the quality information indicating the quality of the received data or the quality of the downlink communication path is referred to as a CQI (Channel Quality Indicator). (*Id.* at 2:30-35.) Furthermore, when the mobile terminal wishes to transmit data to the base station, it transmits a signal with which to make a request for allocation of uplink radio resources to the base station. (*Id.* at 2:46-49.) In an exemplary embodiment, such a request signal is called a scheduling request, an uplink resource request, or an uplink scheduling request signal (SR: Scheduling Request). (*Id.* at 2:49-52.) The claims of the '656 patent recite that when a mobile terminal transmits an uplink scheduling request signal SR using a Synchronous Random Access Channel (S-RACH) when an Ack/Nack signal is being transmitted by using an Ack/Nack exclusive channel, the transmission of the Ack/Nack signal is stopped while the uplink scheduling request

signal SR is transmitted. (*Id.* at 7:55-8:3.) As a result, because it is not necessary to use a multi carrier method of simultaneously transmitting data associated with two physical channels (an Ack/Nack exclusive channel and an S-RACH) which are allocated to two types of bands, the inventions of the '656 patent prevent an increase in the radio resource load of the communication system due to temporary increase in the physical channels, and serve to reduce the PAPR (peak to average power ratio). ('656 patent at 8:4-13, 8:28-35.)

B. The '068 Patent

The '068 patent is directed to the use of a closed subscriber group (CSG) cell that allows access by specific mobile subscribers. ('068 patent at Abstract.) The patent teaches that a user equipment (UE) (e.g., a mobile terminal) that is outside the reach of a non-CSG cell (such as a base station) may wish to receive service from a CSG cell instead. (*Id.* at 6:52-55.) However, if the UE is within the reach of a large number of CSG cells, the patent teaches that the search and selection of a CSG could be endlessly repeated for the CSG cells that cannot be accessed, leading to a control delay in a system, reductions in radio resource utilization efficiency and signaling efficiency, and an increase in power consumption of the UE. (*Id.* at 7:5-17.)

Accordingly, the claims of the '068 patent recite that the base station in the CSG cell first transmits a tracking area update request from the user equipment to a core network, and the core network determines whether the user equipment is allowed to use the CSG cell. If the use is allowed, the base station transmits a CSG-ID along with a signal for allowing assignment of radio resources to the UE. (*Id.* at 8:12-32.) The user equipment is able to access the CSG cell with the use of the CSG-ID. (*Id.* at 5:32-37.)

C. The '976 Patent

The '976 patent is directed to addressing the inefficient use of bandwidth by the use of flexible frequency band allocation in an LTE communications system. ('976 patent at 10:48-52.) Specifically, the 100 MHz of bandwidth may not be available contiguously, and only discrete and narrow-band frequency resources may be available. (*Id.* at 10:27-31.) In other instances, the services provided by LTE may require different frequency bandwidths between a downlink (base station to mobile) and uplink (mobile to base station), even though the downlink and uplink frequency bands are generally paired. (*Id.* at 10:33-44.) Accordingly, the '976 patent teaches flexible use of frequency resources and improved efficiency of frequency resources while increasing data rate. (*Id.* at 11:58-65.)

Specifically, the patent teaches that in addition to using an associated cell where an uplink carrier is paired with a downlink carrier in the same frequency band, a base station also configures a non-associated cell that includes a resource for downlink only and does not include a resource for uplink. (*Id.* at 11:29-39.) Exemplary claim 2 of the '976 patent recites a communication terminal device that uses the associated cell and the non-associated cell to perform downlink communication but performs uplink communication using only the associated cell.

III. LEVEL OF ORDINARY SKILL IN THE ART

For the asserted patents, a person of ordinary skill in the art ("POSITA") would have at least a Bachelor's Degree in electrical engineering or a related discipline and 3 to 5 years' experience in wireless communications.

IV. LEGAL STANDARDS

Claim terms are generally given their plain and ordinary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant

community at the relevant time.”) (vacated on other grounds). The plain and ordinary meaning is the ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1313.

To determine the meaning of the claims, courts start by considering the intrinsic evidence—the claims themselves, the specification, and the prosecution history. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc 'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001); *Phillips*, 415 F.3d at 1314.

“The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa ' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1354 (Fed. Cir. 2015). First, “the context in which a term is used in the asserted claim can be highly instructive.” *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* at 1314.

The specification may resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc 'ns, Inc.*

v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning are when the patentee (1) acts as his or her own lexicographer or (2) disavows the full scope of the claim term either in the specification or during prosecution. *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). To act as his or her own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* at 1365. To disavow the full scope of a claim term, the patentee’s statements in the specification or prosecution history must represent “a clear disavowal of claim scope.” *Id.* at 1366. Accordingly, when “an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013); *Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797-98 (Fed. Cir. 2019).

Conversely, “[a] claim construction that excludes the preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.” *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1378-79 (Fed. Cir. 2013) (quotations omitted).

Extrinsic evidence can play a role in the claim construction process, but it is “less significant than the intrinsic record in determining the legally operative

meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may also be useful on subsidiary factual issues such as, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

A court should not rely upon such extrinsic evidence to interpret the claim terms where their meaning is clear from the intrinsic sources. Extrinsic evidence “may not be ‘used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.’” *ArcelorMittal France v. AK Steel Corp.*, 700 F.3d 1314, 1320 (Fed. Cir. 2012) (quotations omitted); *see also Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 907-08 (Fed. Cir. 2005).

Further, it bears discussing what terms should be construed given Defendants’ proposal to construe common terms easily understood by one skilled in the art. “District courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (emphasis original). The Federal Circuit “has repeatedly held that a district court is not obligated to construe terms with ordinary meanings, lest trial courts be inundated with requests to parse the meaning of every word in the asserted claims.” *Id.* at 1360; *see also QPSX Devs. 5 PTY Ltd. v. Ciena Corp.*, No. 2:07-CV-118-CE, 2011 U.S. Dist. LEXIS 32290, at *14 (E.D. Tex. Mar. 28, 2011) (“In *Finjan*, the Federal Circuit confirmed that a court can resolve a claim construction dispute by rejecting a narrow claim construction and concluding that no additional construction is

required In short, courts are free to reject overly narrow constructions and rely instead on the plain and ordinary meaning of the claim language”), citing *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010)); *ReedHycalog UK, Ltd. v. Baker Hughes Oilfield Operations Inc.*, No. 6:06-CV-222, 2008 U.S. Dist. LEXIS 40877, at *5 (E.D. Tex. May 21, 2008). Thus, “although every word used in a claim has a meaning, not every word requires a construction.” *Orion IP, LLC v. Staples, Inc.*, 406 F. Supp. 2d 717, 738 (E.D. Tex. 2005). Here, the terms proposed for construction by Defendants simply do not require construction.

V. DISPUTED TERMS OF THE PATENTS IN SUIT

A. “Quality notification signal” (‘656 patent - Claim 3)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	Channel Quality Indication (CQI) signal

The term “quality notification signal” requires no construction. Nothing in the words themselves, nor in the order of their appearance in the claims, requires explanation to a POSITA or a layperson; they are readily understandable. Further, the specification does not contain any express definition for the term that would convey anything different from the ordinary meaning of this term. In contrast, Defendants’ proposed construction unnecessarily (and improperly) imports limitations from the specification, into the claim language through reference to a specific 3GPP term. Channel Quality Information (CQI) is a term with significance outside the language of the specification, and limits the claim to just that one exemplary type of quality notification signal. Claim terms are generally to be given their plain and ordinary meaning. *Phillips*, 415 F.3d at 1312. Although

the specification “may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns*, 156 F.3d at 1187. Indeed, it is “improper to read limitations” from an embodiment “into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co.*, 358 F.3d at 913. The patentee notes the concept of CQI in the specification; had they intended to limit the scope of the claims to CQI, the patentee would have used that language in the claims.

Many types of signals may provide a notification as to the quality of received data or a data path. To limit the claims to a specific example recited within a specific standard (the 3GPP’s LTE standard), *i.e.*, the CQI signal, improperly imports language from the specification and disclaims all other signals that may provide a notification as to the quality of received data or a data path. *See id.* at 913. Again, CQI is a 3GPP term. Adopting Defendants’ proposed construction would not only improperly limit the scope of claim 3 of the ’656 patent to the realm of 3GPP standards and devices compliant therewith, but would limit the claim to a one particular example of signal.

Further, as a 3GPP term, CQI comes with additional definitions and relations, as well as other 3GPP concepts set forth in standards specifications which are not further disclosed let alone explained by Defendants. Understanding the intended meaning of CQI is not readily apparent to a layperson, which further underscores the peril of its adoption as the construction for “quality notification signal”. By contrast, the meaning of the words “quality”, “notification”, and “signal” are more readily apparent to a layperson and Defendants offer no explanation why the commonly understood meanings of these words should not collectively apply in this instance, rather than substituted for the specific yet

undefined alternative of “CQI” signal proposed by Defendants. In sum, no construction is necessary for this term.

**B. “when a transmission of said quality notification signal coincides with that of said scheduling request signal in said transmitter”
(’656 patent - Claim 3)**

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	when said [quality notification signal] is transmitted by the transmitter simultaneously with the transmission of the scheduling request signal over the same channel

Similarly, there is no need to construe the term “when a transmission of said quality notification signal coincides with that of said scheduling request signal in said transmitter,” as the terms are readily apparent to both a POSITA and a layperson. *See, Phillips*, 415 F.3d at 1312; *Azure Networks*, 771 F.3d at 1347 (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds). Further, Defendants’ proposed construction includes the additional restriction that the scheduling request be simultaneously transmitted “over the same channel.” The ’656 patent makes no use of the word “channel” in the claims; it appears only in the specification. Once again, Defendants seek the impermissible: to impose a limitation from the specification onto the claims. *Comark Commc’ns*, 156 F.3d at 1187.

Moreover, Defendants’ construction reads-out one of the embodiments laid out in the specification upon which they rely. Embodiment 6 presents the use of multiple channels, which would be precluded under Defendants’ proposed construction. (’656 Patent, 43:50-44:12 (“ . . . during a time interval during which

the mobile terminal is performing transmission of an uplink scheduling request signal SR[,] . . . [the terminal is] allowed not to use an Ack/Nack exclusive channel at that time.”.) Elsewhere the ’656 patent makes clear that the scheduling request signal may be sent on a channel that is different from the channel on which a quality notification signal is sent:

. . . the time interval . . . [for the] **scheduling request signal SR** becomes short. Therefore, the transmission stop time interval during which transmission of an Ack/Nack symbol and/or **a CQI symbol in the Ack/Nack exclusive channel** is stopped during the transmission of the uplink scheduling request signal SR also becomes short. . . . in such a case, **the S-RACH [Synchronous Random Access Channel] used for the transmission of the uplink scheduling request signal SR** and the Ack/Nack exclusive channel are allocated in time-frequency is shown in FIG. 11.

(*Id.*, 21:47-57).) Thus, Defendants’ proposed construction—requiring transmission of the two signals on the same channel—would exclude a recited embodiment of the ’656 patent.

Insofar as Defendants seek to swap the word “coincides” for “simultaneously,” the Court need not do so because it resolves no tension in the claim language and would only serve to confuse the jury. *Evolusion Concepts, Inc. v. Juggernaut Tactical, Inc.*, 2019 U.S. Dist. LEXIS 120127 at *8 (C.D. Cal. July 17, 2019) (quoting *02 Micro*, 521 F.3d at 1361 (“A court need not construe a term where the parties do not present a ‘fundamental dispute’ with respect to the meaning of the term, but instead propose the use of different language.”)). Moreover, the phrase in dispute is followed by the words “stopping transmitting” and clarifies that when the transmissions at issue are anticipated to coincide, they will get then staggered. Thus, the claim 3 of the ’656 patent actually seeks to avoid “simultaneous” transmission of the signals at issue. Finally, Defendants

have not yet identified a meaningful distinction between “coincides” and “simultaneously” in the context of the claim. Without more there is no need to construe the term.

C. “stopping transmitting said quality notification signal during a time interval during which said transmitter transmits said scheduling request signal” (’656 patent - Claim 3)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	stopping the transmission of said [quality notification signal] during a time interval when the transmitter is also transmitting a scheduling request signal on the same channel

Defendants’ proposed construction here fails for the same reasons articulated in section V(B) for the term “when a transmission of said quality notification signal coincides with that of said scheduling request signal in said transmitter.” The term stopping transmitting said quality notification signal during a time interval during which said transmitter transmits said scheduling request signal” has no specialized meaning in the art or in the context of the patent. Moreover, the term is sufficiently clear so as not to require any construction.

Defendants propose to commit the “cardinal sin” of claim construction by importing a limitation from the specification into the claims. *Phillips*, 415 F.3d at 1316; *see also Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346-47 (Fed. Cir. 2015). Once again, Defendants seek to limit the claim to a single channel, a limitation that appears nowhere in the claims and exists only in the specification. Further, such a construction is odds with another embodiment set forth in the specification; reading-out such an embodiment is impermissible. (*See supra*, Sect. V.B.) *SynQor*, 709 F.3d at 1378-79 (“a claim construction that excludes a

preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.”).

As noted above, the phrase “stopping transmitting” clarifies that when the signals transmissions at issue are anticipated to coincide, the two coinciding signals will get staggered. Thus, the claim 3 of the ’656 patent actually seeks to avoid “simultaneous” transmission of the signals at issue. Finally, Defendants have not yet identified a meaningful distinction between “coincides” and “simultaneously” in the context of the claim. Without more there is no need to construe the term. *Evolusion Concepts*, 2019 U.S. Dist. LEXIS 120127, at *8.

D. “Cells for specific subscribers” (’068 patent - claim 3)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	Home-eNB (HeNB) cells that support wireless communication only for user equipments allowed to use the HeNB cells

The term “cells for specific subscribers” requires no construction. The term involves common words that are used as they are normally understood in plain English: “cells,” “specific,” and “subscribers.” Nothing in these words themselves, nor in the way that they are strung together, requires explanation to either a POSITA or a layperson. The specification does not set forth an express definition for this term that would differ from its ordinary meaning. Likewise, there is no evidence that the Applicants disclaimed any subject matter in prosecution. Defendants commit the classic errors that are regularly seen with result-oriented constructions; namely, reading in examples from the preferred embodiments or merely substituting narrower terms for those actually recited in the claims.

Defendants’ proposed construction would only serve to confuse the finder of fact. Specifically, Defendants’ proposed construction fails for at least two reasons:

- (1) it narrows the claim by restricting “cells” to “Home-eNB (HeNB) cells,” and
- (2) it improperly conflates “subscribers” with “user equipments.”

First, there is no basis to restrict the commonly understood word “cells” to mean “Home-eNB (HeNB) cells.” The ’068 patent specification is clear that besides LTE HeNB cells, “**the present invention** is also applicable to the UMTS using a HNB in which a CSG is used, a HeNB in which a CSG is not used, a HNB, and a base station having a small radius (also referred to as pico cell or macro cell).” (’068 patent at 71:11-15, 73:48-53, 97:3-8.) Indeed, the specification explains that “the present invention is applicable to the W-CDMA system (UTRAN, UMTS) and LTE-Advanced.” (*Id.* at 97:67-98:6.)

Defendants’ construction therefore improperly seeks to restrict the claims to a preferred embodiment of the specification that describes “HeNB cells.” *Liebel-Flarsheim*, 358 F.3d at 913. Moreover, Defendants’ proposed construction improperly excludes other types of cells and wireless communication systems described by the specification. *SynQor*, 709 F.3d at 1378-79.

Second, Defendants’ proposed construction improperly replaces the commonly-understood phrase “subscribers” with the less-clear “user equipments.” However, the specification describes that “specific subscribers” can refer to “specific ones of” either “user equipments” or “subscribers.” (’068 patent at 7:29-32.) In other words, the phrase “subscribers” is not coextensive with “user equipments.” Defendants’ construction would limit this claim to apply only to “user equipments” and would exclude, for example, other types of “subscribers.” It should therefore be rejected. *SynQor*, 709 F.3d at 1378-79.

E. “Said base stations manually selected by user equipment”¹ (’068 patent - claim 3)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	manual selection of a base station by a user of user equipment

This term does not have any specialized meaning in the context of the ’068 patent and is used as it is normally understood. Nothing in these words requires explanation to either a POSITA or a layperson. Defendants do not contend that the specification sets forth an express definition for this phrase that would differ from its ordinary meaning, nor argue that the Applicants disclaimed any subject matter in prosecution. Defendants’ proposed construction simply adds a phrase (“by a user of”) to the term and substitutes the singular form of the term. Each of these changes to the plain language of the claim is unsupported by the intrinsic or extrinsic evidence and would only serve to confuse the factfinder.

The first portion of Defendants’ proposed construction (*i.e.*, “manual selection of a base station”) would be inconsistent with the surrounding claim language. For example, the limitation “receive a signal indicating that said radio network controller accepted said update of said tracking area to said user equipments through said base stations manually selected by said user equipments” of claim 3 would be replaced with “receive a signal indicating that said radio network controller accepted said update of said tracking area to said user equipments through ***manual selection of a base station by a user of user equipment,***” rendering it absurd. Defendants’ proposed construction therefore offers no more clarity than what the claims themselves already provide to the jury

¹ As an initial matter, this limitation does not occur in claim 3 of the ’068 patent. For clarity, MELCO assumes Defendants are referring to the limitation “said base stations manually selected by said user equipments.”

and should accordingly be rejected. *See, e.g., United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”).

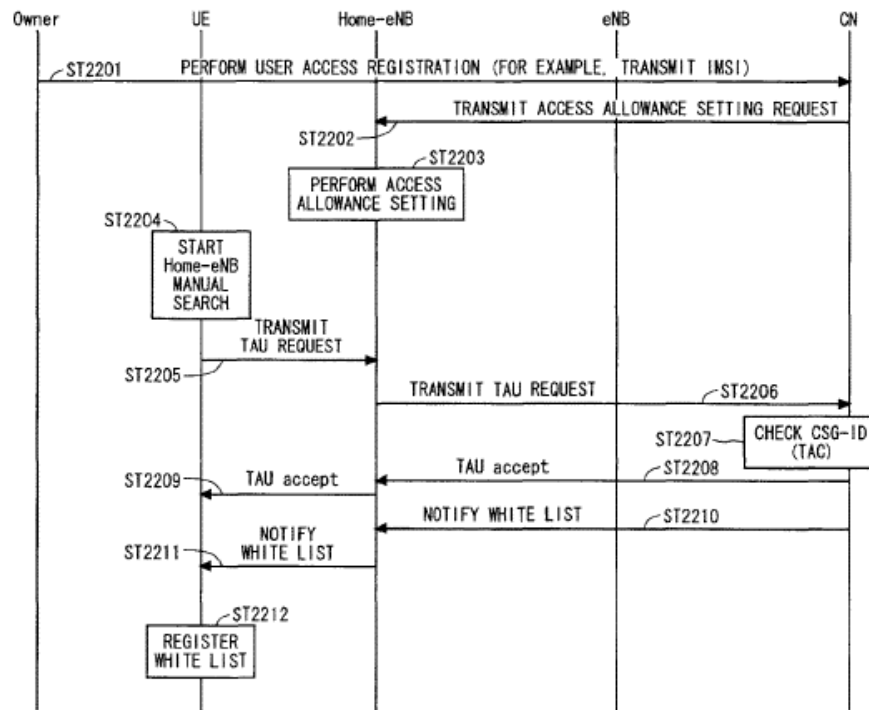
Defendants’ approach further adds confusion for the jury by substituting singular terms for plural terms. For example, Defendants fail to cite any intrinsic evidence for its proposal that “said base **stations**” is equivalent to “**a** base station” or that “said user **equipments**” is equivalent to “user **equipment**.” Indeed, doing so would also be inconsistent with the preamble of claim 3, which recites a plurality of “user equipments” and “base stations.” Defendants’ construction does not clarify which of the many “base stations” and which of the many “user equipments” it addresses. It defies logic for “a user” of one “equipment” to “manually select” “a base station” corresponding to the plurality of “base stations” and “user equipments” recited by the claim. This proposed construction would therefore render the claim nonsensical. *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1255 (Fed. Cir. 2010) (“A claim construction that renders asserted claims facially nonsensical ‘cannot be correct.’”) (citing *Schoenhaus v. Genesco, Inc.*, 440 F.3d 1354, 1357 (Fed. Cir. 2006)); *see also Bd. of Regents v. BENQ Am. Corp.*, 533 F.3d 1362, 1370 (Fed. Cir. 2008) (refusing to adopt a claim construction that “would effect [a] nonsensical result”).

Moreover, the second portion of Defendants’ proposed construction (*i.e.*, “by a user of user equipment”) is unsupported by the specification and would exclude the process of cell selection described in several embodiments. The specification teaches that “manual” cell search and selection—which is performed only by a UE that does not have a whitelist and is therefore unable to access a CSG

cell—comprises several steps, **only the first of which is performed by a “user” of the UE.**

For example, Figure 22 of the specification, reproduced below, discloses an exemplary sequence for conducting such a manual search and obtaining a whitelist:

FIG. 22



According to Fig. 22, the user first performs user access registration with a UE in a CSG cell (here, Home-eNB), and the owner of the CSG cell then transmits an identification number of a UE (such as UE-ID and IMSI) to the core network for notifying the network operator that the user access registration of the user has been performed. ('068 patent Fig. 22 at Step ST2201.) In response, the network operator transmits an access allowance setting request from the core network to the CSG cell such that the UE can access the CSG cell, which results in the CSG cell

performing setting to allow access from the UE. (*Id.* Fig. 22 at Steps ST2202 and ST2203; 25:19-35.)

Next, the UE starts manual search of the CSG cell with which user access registration has been performed, and is allowed to access the cell. (*Id.* Fig. 22 at Step ST2204.) Following a series of handshaking steps (ST2205 through ST2207), the core network identifies the UE as registered with the CSG cell and transmits a whitelist to the CSG cell for the UE. (*Id.* Fig. 22 at Steps 2208-2211.)

The above general steps are also disclosed by Figs. 24, 25, 26, 27, 28, 29, 30, 31, 32, and the corresponding paragraphs of the specification. **Importantly, in each of these figures and embodiments, the role of a “user” of the UE is limited to one step out of several steps required to be notified of a whitelist. (See, e.g., ’068 patent at 28:40-42.) Defendants’ proposed construction, which requires “manual selection of a base station by a user,” would exclude all such embodiments in which “selection” of a base station occurs after user access registration and is not performed by the “user.”** There is no reason to adopt Defendants’ proposed limitations on this term.

F. “an associated cell configured by the base station to include a resource for uplink and a resource for downlink” (’976 patent - claim 2)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	a first type of cell configured by the base station, where the first type of cell is configured with a resource for uplink and a resource for downlink, both assigned to a specific communication terminal device

This term requires no construction. The term involves common words that are used as they are normally understood in plain English: “associated,” “cell,”

“configured,” “resource,” “uplink,” and “downlink.” Nothing in these words themselves, nor in the way that they are strung together, requires explanation to either a POSITA or a layperson. The specification does not set forth an express definition for this term that would differ from its ordinary meaning. Likewise, there is no evidence that the Applicants disclaimed any subject matter in prosecution. Defendants commit the classic errors that are regularly seen with result-oriented constructions; namely, reading in examples from the preferred embodiments or merely substituting narrower terms for those actually recited in the claims.

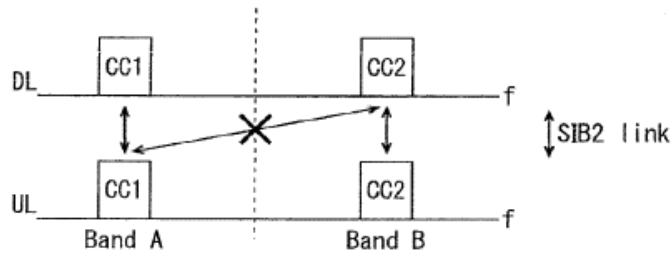
Defendants’ proposed construction would only serve to confuse the finder of fact. Specifically, Defendants’ proposed construction fails for at least two reasons: (1) it narrows the claim by restricting an “associated” cell to a “first type of” cell, and (2) it adds a new limitation not present in the claim, namely, “both assigned to a specific communication terminal device.”

First, Defendants’ proposed limitation that an “associated cell” be a “first **type** of cell” is unsupported by the ’976 patent specification. There is no teaching in the specification of “type[s]” of cells, or that an “associated” cell is a particular “type” of cell. The specification merely labels an “associated cell” cell1 and explains that it must be **configured** by a downlink component carrier CC1 and an uplink component carrier CC1. (’976 patent at Abstract.)

The ’976 patent is directed to carrier aggregation, where two or more component carriers (CCs) are aggregated to support wider transmission bandwidths up to 100 MHz. (*Id.* at 9:6-9.) The specification goes on to explain, in various embodiments, that a cell “corresponds to” an “associated cell” when an uplink component carrier is “associated” with a downlink component carrier by a DL/UL link. (*Id.* at Abstract.) For example, in Figure 18, reproduced below, the downlink component carrier CC1 and the uplink component carrier CC1 are both configured

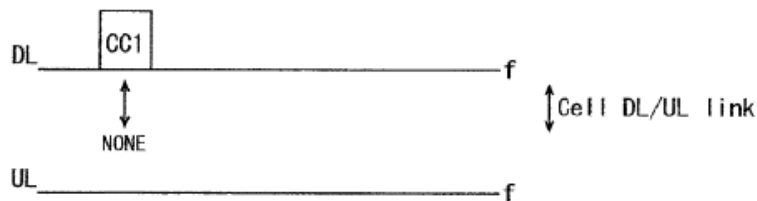
in the same frequency band (band A). (*Id.* at 23:54-60.) In general, an uplink component carrier to be associated with a downlink component carrier needs to be necessarily provided in the same frequency band as that of the downlink component carrier. ('976 patent at 24:1-2.)

F I G . 1 8

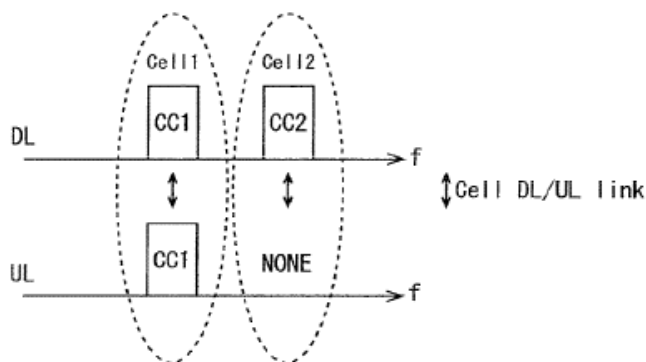


On the other hand, Figure 19, reproduced below, is a cell that does not include an uplink component carrier to be associated with the downlink component carrier CC1:

F I G . 1 9



The specification describes that cell cell1 is “associated” merely because it is configured by a downlink component carrier CC1 and an uplink component carrier CC1. (*Id.* at 33:13-25.) Specifically, the carrier frequency of the uplink component carrier CC1 is associated with the downlink component carrier CC1, as shown in Figure 28, reproduced below:



Nothing in the above figure or portions of the specification suggests that cell1 and cell2 are different “types” of cells. Rather, the specification confirms that any cell can be “associated” if its downlink component carrier and uplink component carrier are associated with each other. Indeed, the specification explains that the process of associating an uplink component carrier with a downlink component carrier merely involves setting the system information (SI) of a cell. (’976 patent at 26:58-61.) There is no evidence that setting the system information changes the “type” of cell. Therefore, the first portion of Defendants’ proposed construction should be rejected. *SynQor*, 709 F.3d at 1378-79.

The second portion of the proposed construction, “both assigned to a specific communication terminal device,” is likewise improper. Claim 2 readily recites “a communication terminal device.” Defendants’ proposal would render this language superfluous because it seeks to introduce the same phrase already present in the claims, which is “disfavored.” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012) (construing claim term in a manner so as to “not render the term superfluous”).

Because Defendants’ proposed construction overlaps with the existing claim language, it offers no more clarity than what the claims themselves already provide to the jury and should accordingly be rejected. See, e.g., *United States Surgical*

Corp., 103 F.3d at 1568 (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *Atlas IP, LLC v. Medtronic, Inc.*, 809 F.3d 599, 607 (Fed. Cir. 2015) (explaining that established convention “counsels against constructions that render some claim language superfluous”); *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”); *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed. Cir. 2004) (explaining the “generally disfavored” nature of a claim construction that renders claim terms superfluous).

Defendants appear to rely on the phrase “the communication terminal device” in the specification. (’976 patent at Abstract; 11:11-17.) However, nothing in these disclosures, or in Fig. 28 (reproduced above), suggests “*a specific* communication terminal device,” and in any event, Defendants appear to import the limitation from a preferred embodiment, which is improper. *Liebel-Flarsheim*, 358 F.3d at 913.

G. “a non-associated cell configured by the base station to include only another resource for downlink” (’976 patent - claim 2)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	a second type of cell configured by the same base station that also configures the associated cell, where the second type of cell is configured to communicate only by another resource for downlink

Defendants’ proposed construction would again serve to confuse the finder of fact. Specifically, Defendants’ proposed construction fails for at least two reasons: (1) it narrows the claim by restricting a “non-associated” cell to a “second type of” cell, and (2) it adds new limitations not present in the claim, namely, “the same base station that also configures the associated cell” and “the second type of cell is configured to communicate only by another resource for downlink.”

First, Defendants’ proposed limitation that a “non-associated cell” be a “second **type** of cell” is unsupported by the ’976 patent specification, for the same reasons as the “associated cell” term. There is no teaching in the specification of “type[s]” of cells, or that an “non-associated” cell is a particular “type” of cell. The specification merely labels a “non-associated cell” cell2 and explains that an uplink component carrier is “not configured as the DL/UL link information of a cell.” (’976 patent at 33:19-20.)

Second, Defendants’ proposed addition of “the same base station that also configures the associated cell” to claim 2 would render existing language superfluous. Claim 2 readily recites “a base station device” and “the base station”/“the base station device.” The plain language of these phrases is readily apparent to a POSITA in the context of the claim as a whole. No further construction is necessary. Indeed, the proposed language offers no more clarity than what the claims themselves already provide to the jury and should accordingly be rejected. *See, e.g., United States Surgical Corp.*, 103 F.3d at 1568; *Atlas IP*, 809 F.3d at 607; *Merck*, 395 F.3d at 1372; *Power Mosfet Techs.*, 378 F.3d at 1410.

Third, Defendants’ proposed addition of “the second type of cell is configured to communicate only by another resource for downlink” is unsupported by the language of the claim and the specification. The claim is directed to a “communication terminal device,” which performs all “communication.” (’976 patent cl. 2.) The claim does not recite any “communication” being performed by

a “**cell**.” Moreover, Defendants’ cited disclosures confirm that all “communication” is performed by a base station or a UE (i.e., a “communication terminal device”). (*Id.* at 11:29-39 (“the base station device communicates with the communication terminal device using the frequency band for downlink”); 32:40-50 (“an eNB and a UE communicate with each other using the non-associated cell”).) Nothing in the specification teaches or describes any “communication” performed by a “cell.” Defendants’ proposal would therefore exclude every embodiment of the specification and is improper. *SynQor*, 709 F.3d at 1378-79.

H. “the other resource for downlink being allocated to the downlink communication from the base station device” (’976 patent - claim 2)

Plaintiffs’ Proposed Construction	Defendants’ Proposed Construction
No construction necessary	the another resource for downlink being allocated to the downlink communication from the base station device

Defendants improperly derive their proposed construction here by merely replacing the word “other” in the claim with the word “another.” This proposed substitution would only serve to confuse the finder of fact and should be rejected. The word “other” is used as it is normally understood in plain English. Nothing in the way it is used in the context of the claim as a whole requires explanation to either a POSITA or a layperson. Moreover, nothing in Defendants’ cited disclosures supports this substitution. No construction is necessary.

VI. CONCLUSION

For the foregoing reasons, Plaintiffs respectfully request the Court enter an order adopting Plaintiffs' proposals for the disputed claim terms listed above, and reject Defendants' proposed constructions.

Dated: May 4, 2023

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L.R. 11.6-2 CERTIFICATE OF COMPLIANCE

The undersigned, counsel of record for Plaintiffs Mitsubishi Electric Corporation and Sisvel International S.A., certifies that this brief contains 6,659 words, which complies with the word limit of L.R. 11-6.1.

Executed on May 4, 2023.

/s/James M. Lennon

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the Electronic Service List for this case.

Executed on May 4, 2023.

/s/ James M. Lennon