

La Matinale de l'Alumni du CEIPI

Les Licences FRAND

05/11/2019

I am only expressing my own views today and nothing in this document represents an official view and/or position of my employer

Agenda

- ▶ How standardization is working? How do we identify an essential patent?
- ▶ What is the added value of an essential patent? Its limits?
- ▶ How does it play out in the value chain?

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How standardization is working?
How do we identify an essential
patent?

Why standardization?

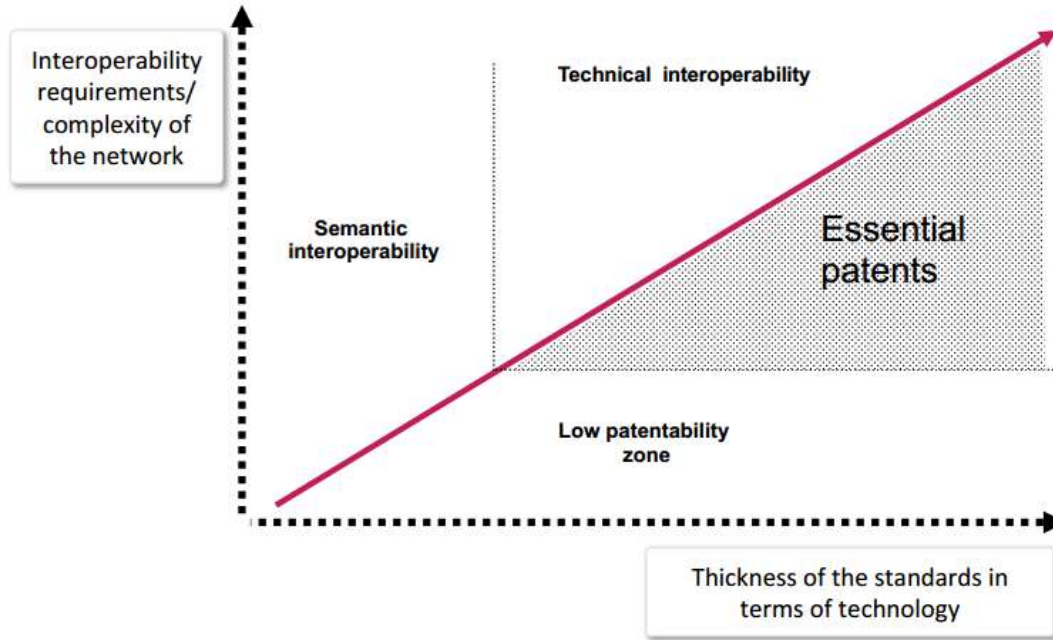


Safety standards



Technical standards

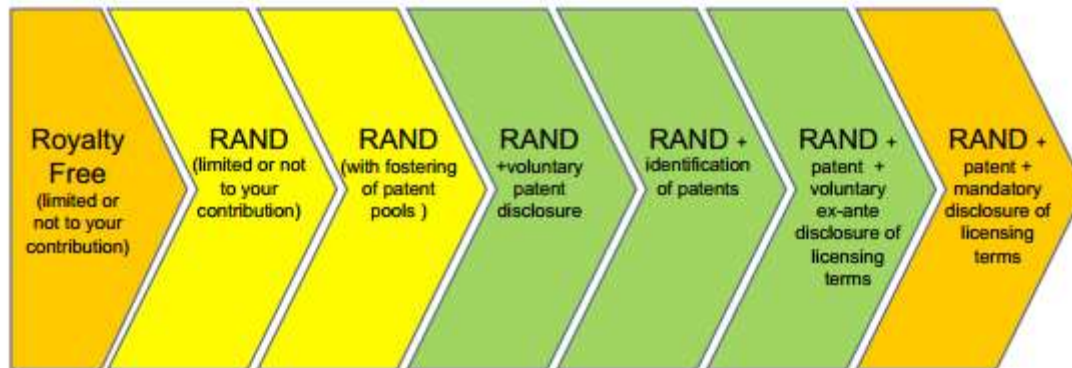
Why Patents & standards?



Why an IPR policy?



Which kind of IPR policies?

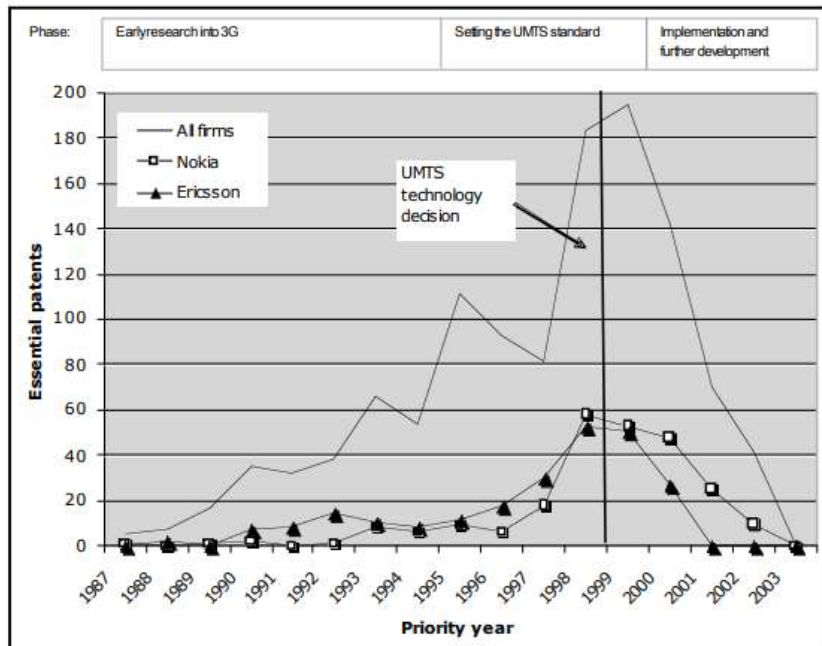


Where are the essential patents?



When essential patents are filed?

Figure 1: Timing of essential UMTS patents by leading manufacturers



The limits to IPR standardization policies as evidenced by strategic patenting in UMTS – Rudi Bekkers / Joel West

What is an essential patent?

- 6 **"ESSENTIAL"** as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by

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technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.

Easy to manage disclosure?

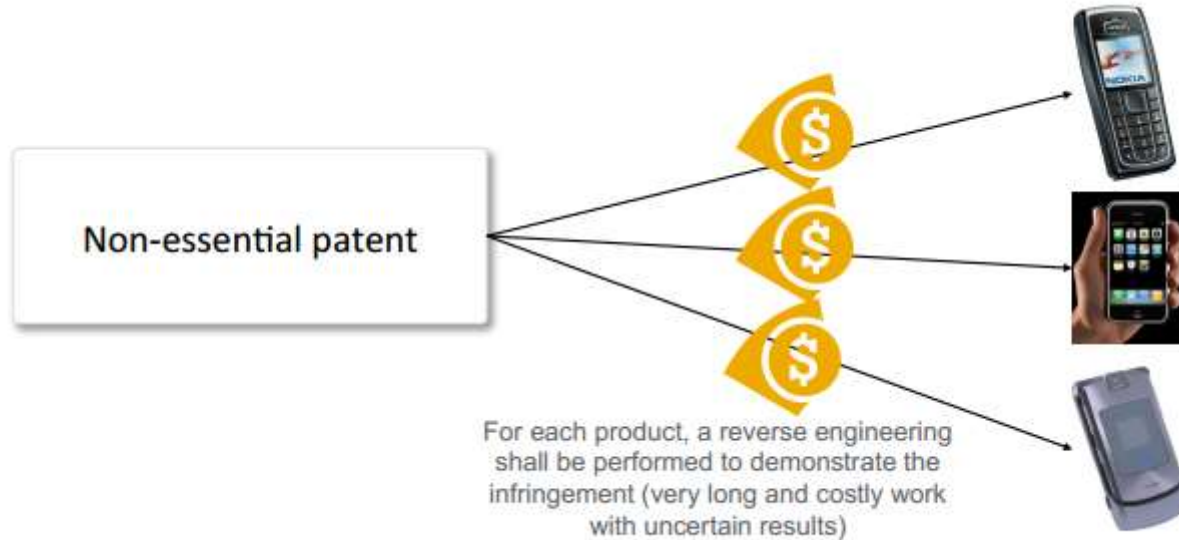
4 Disclosure of IPRs

- 4.1 Subject to Clause 4.2 below, each MEMBER shall use its reasonable endeavours, in particular during the development of a STANDARD or TECHNICAL SPECIFICATION where it participates, to inform ETSI of ESSENTIAL IPRs in a timely fashion. In particular, a MEMBER submitting a technical proposal for a STANDARD or TECHNICAL SPECIFICATION shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER's IPR which might be ESSENTIAL if that proposal is adopted.
- 4.2 The obligations pursuant to Clause 4.1 above do however not imply any obligation on MEMBERS to conduct IPR searches.

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What is the added value of an essential patent? its limits?

A non-essential patent



Expensive but powerful

13. An inductive coupling reader having an active operating mode and a passive operating mode [A], the inductive coupling reader comprising:
an antenna circuit [B]
substantially tuned to a working frequency [C],
the antenna circuit having at least one input terminal [D],
at least one capacitor [E],
and an antenna coil having two end terminals [F],
the capacitor and the coil being chosen so that the antenna circuit is substantially tuned to the working frequency and has, at the working frequency and as measured with respect to the at least one input terminal, a first impedance [G],
an emitter circuit [H]
that applies to the input terminal of the antenna circuit [I],
when the reader is in the active operating mode, an excitation signal oscillating at the working frequency, so that the antenna coil emits a magnetic field [J], and
that modulates the excitation signal to send data [K]; and
an auxiliary supply circuit coupled to the antenna circuit [L] and
and configured to supply an auxiliary supply voltage of the reader using an alternating voltage induced at the antenna circuit by an external magnetic field [M].

Figure 2: SI-31231 Samsung Nexus 5 Testing using 10 turns of 30AWG wire to capture the field generated by NFC antenna

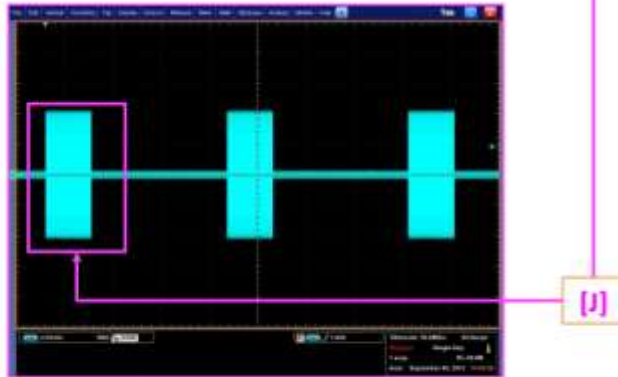
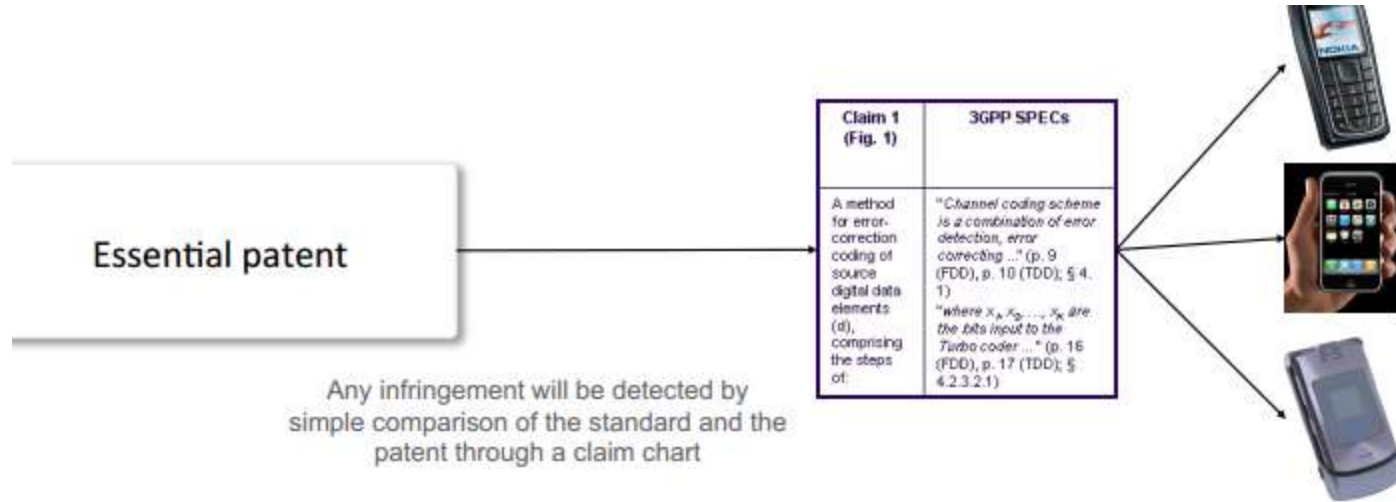


Figure 17: Oscilloscope trace showing magnetic field emitted by NFC antenna on Samsung and captured by 10 turn coil and oscilloscope probe.

An essential patent



Easier to demonstrate infringement

Claim Chart for Claim 12 against ETSI TS 102 622 V11.0.0 (2011-09) (Release 11) Smart Cards; UICC - Contactless Front-end (CLF) Interface; Host Controller Interface (HCI)



12. A chipset for sending/receiving data comprising
a Near Field Communication (NFC)-type contactless data send/receive interface,
a controller, and
at least one input/output port to link the contactless data send/receive interface to a host processor,
the contactless interface, the controller, and the host processor being arranged in a portable device,
the controller being configured to:
in response to a command for opening a first data path sent by a source point located in a host processor and designating a destination point located in the contactless data send/receive interface , open the first data path between the source point and a destination point
by allocating to the first data path a routing channel number and
by saving in a routing table the routing channel number and routing parameters comprising at least one identifier of the source point and one identifier of the destination point; and
upon receiving data from the source point encapsulated in a frame having a header field comprising the routing channel number, search for a destination point of the data in the routing table using the routing channel number as index to select the destination point to which the controller is configured to send the data.

Continued

CLF "gates" are described in clauses 9 and 10.

9 Contactless card emulation

9.1 Overview

The host operates contactless card applications and the CLF handles the RF communication layers to the external contactless reader.

The host controller has one card RF gate for each RF technology it supports. For each card RF gate it wants to use, the host has one card application gate.

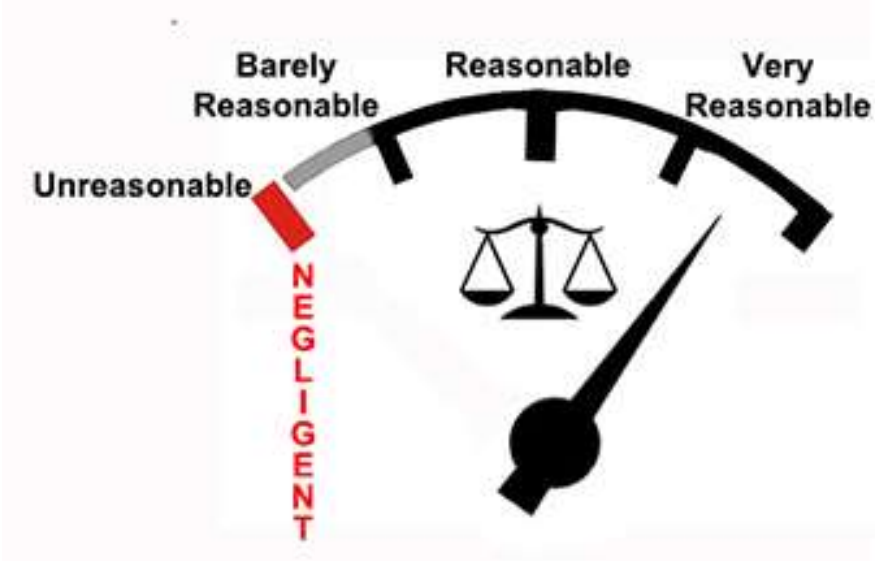
For the contactless platform for card emulation mode the pipes to card RF gates shall be created, opened, closed and deleted by the host. ...

10 Contactless reader

10.1 Overview

The host operates contactless reader applications and the CLF handles the RF communication layers towards the external contactless card(s).

But



But again



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How does it play out in the value chain?

This was the good old days



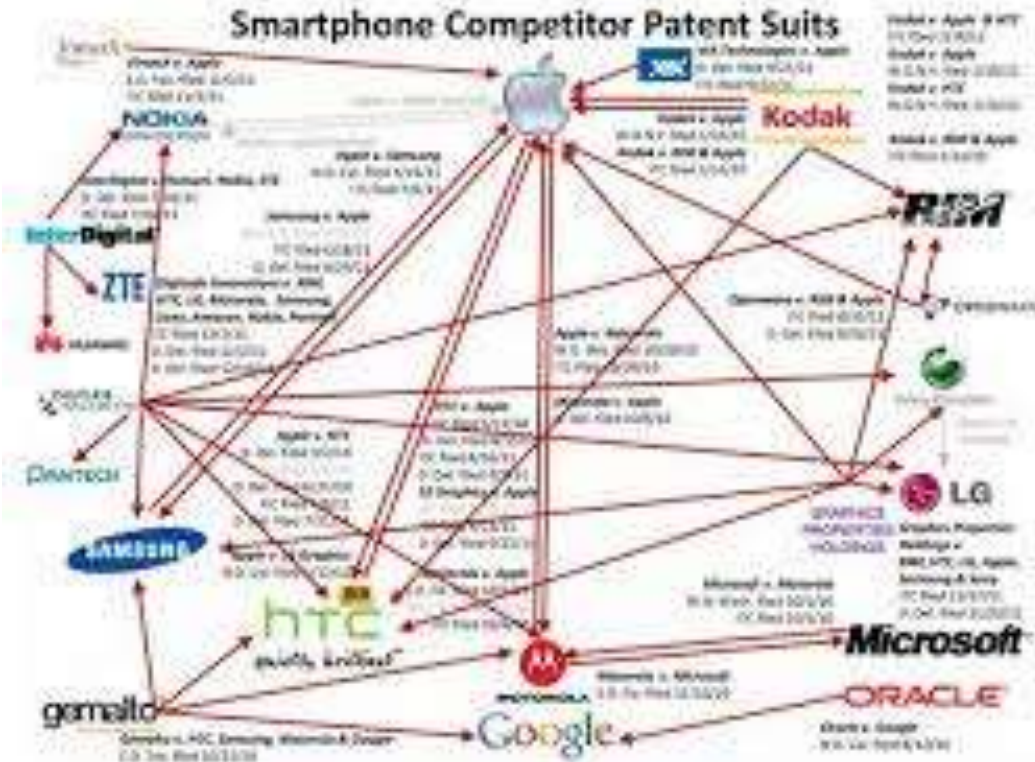
But



TESLA



And it all started



The iPhone and iPod example: smallest saleable unit (component) vs. added value of the feature

- An iPod is, in essence, an iPhone without a 3G/4G connectivity
- The iPod and iPhone share the same processors, Wi-Fi, cameras and similar technical capabilities with the exception of the 3G/4G mobility freedom
- The price of the 3G/4G baseband components is around 27,5\$ (source:teardown.com)
- The price difference between and iPod and an iPhone is significant: 510€
- The 3G/4G **added-value** is reflected in the price difference between both products, *not the cost of the 3G/4G baseband components*

iPod touch

Sélectionnez un iPod touch

1 Sélectionnez une couleur :

Argent

2 Sélectionnez une capacité :

Déjà disponible avec une capacité de stockage atteignant 128 Go!

Capacité	Prix	Prix pour expédition
16 Go ¹	339,00 €	44,300 €
32 Go ¹	389,00 €	44,300 €
64 Go ¹	509,00 €	44,300 €
128 Go ¹	609,00 €	44,300 €

iPhone 6s

iPhone 6s

Argent

16 Go¹

✓ Ajouter l'AppleCare+
10 ans

✓ Ajouter une coque
à partir de 19 €

✓ Ajouter une station d'accueil iPhone Lightning Dock
100 €

749,00 €

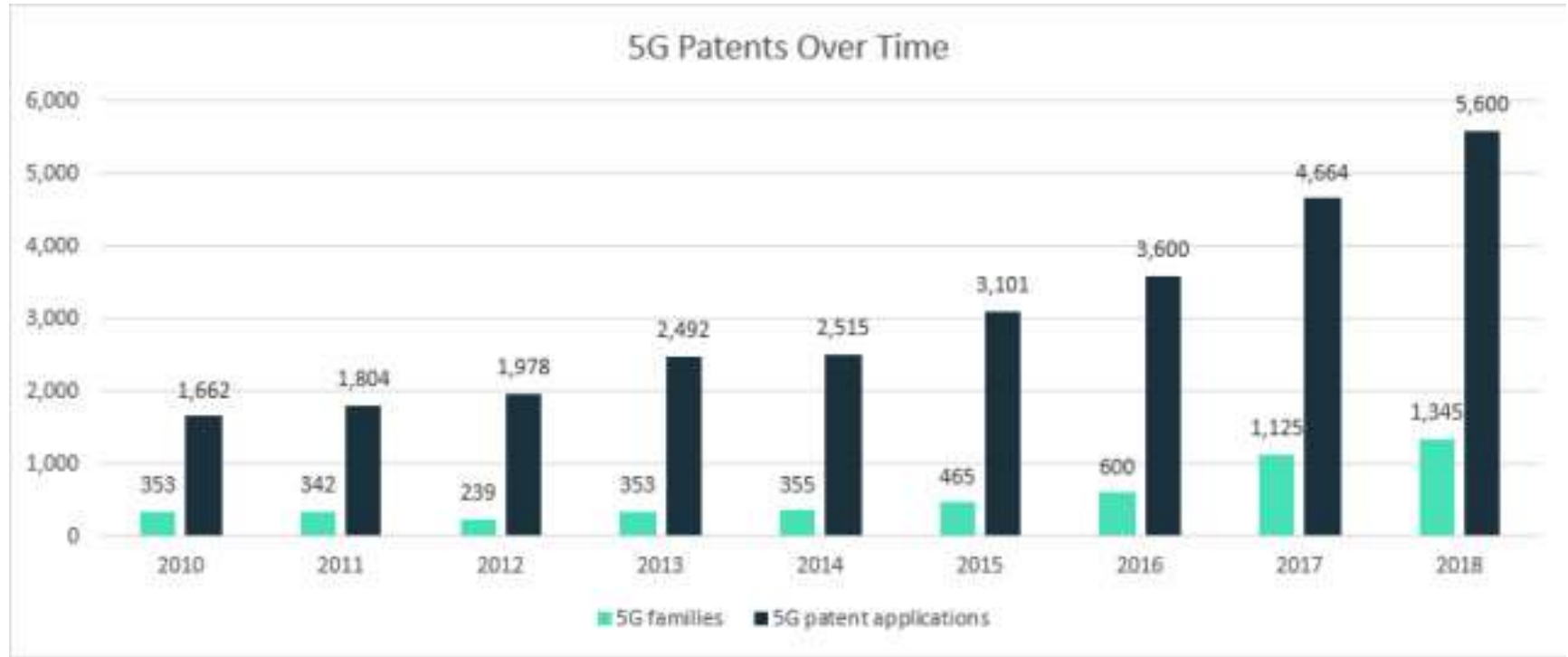
- In application of the smallest saleable unit, the price difference between the iPod and the iPhones *should be a fraction of the price of the 3G/4G components. Yet, this is not the case.*
- Companies implementing standardized features in their products can charge higher premiums while free-riding on the back of innovators developing the standardized embedded features

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What is your smallest saleable unit?



The apportionment or FRAND+FRAND+FRAND=FRAND or Not



Thank you

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