

RF Spectrum Ad Hoc – Minutes August 20, 2013

Provided the IEEE-SA Patent Policy link. Everyone on the call was familiar with the patent policy.

- <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>

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The Feasibility Study on Higher Frequency Band for EPoC FDD Downstream

Naoki Agata and Keiji Tanaka (KDDI Labs)

Q: Are you proposing the option DS from 2100 to 2620?

A: We are proposing that 1212 to 2620 MHz be optional for FDD downstream.

Q: The figure shows the satellite up to 2070 MHz and you show EPoC starting at 2100 MHz. The figure shows only passive components, is there any filtering?

A: We did not consider filtering yet.

C: The satellite modulation is low order, like QPSK, and there may be noise in the plant that prevents the higher-order modulation of EPoC.

A: We calculated transmission loss of the transmission model and calculated the CNR and compared it to the required CNR.

C: In a low-noise block downconverter (LNB) there has large gain which in addition to amplifying the signal also amplifies the noise, so the noise may be high. Have you considered this?

A: We can discuss this more off-line.

C: It should be possible to measure the noise with a low-noise spectrum analyzer.

C: It is important to measure this with the satellite signal present.

C: There will be more loss in this upper frequency. With the extra noise, the high-order modulation may not be possible.

C: In typical satellite systems the SNR is in the range of 12 to 15 dB.

Q: Will you make measurements before the York meeting?

A: Yes, that is the plan.

Q: Do you plan to have a motion to have 1212 to 2610 MHz optional for FDD downstream?

A: We want to do the measurements and have the discussion first, and then we will consider a motion.

Attendance

| Person | Affiliation |
|-------------------|-------------|
| Naoki Agata | KDDI Labs |
| Leo Montreuil | Broadcom |
| Steve Shellhammer | Qualcomm |
| Keiji Tanaka | KDDI Labs |