

IEEE 802.18 RR-TAG

New UWB Regulation Framework in Europe

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UWB emission masks and related mitigations / requirements for UWB below 10,6 GHz

Assessment of ECC/DEC/(06)04 and ECC/DEC/(07)01

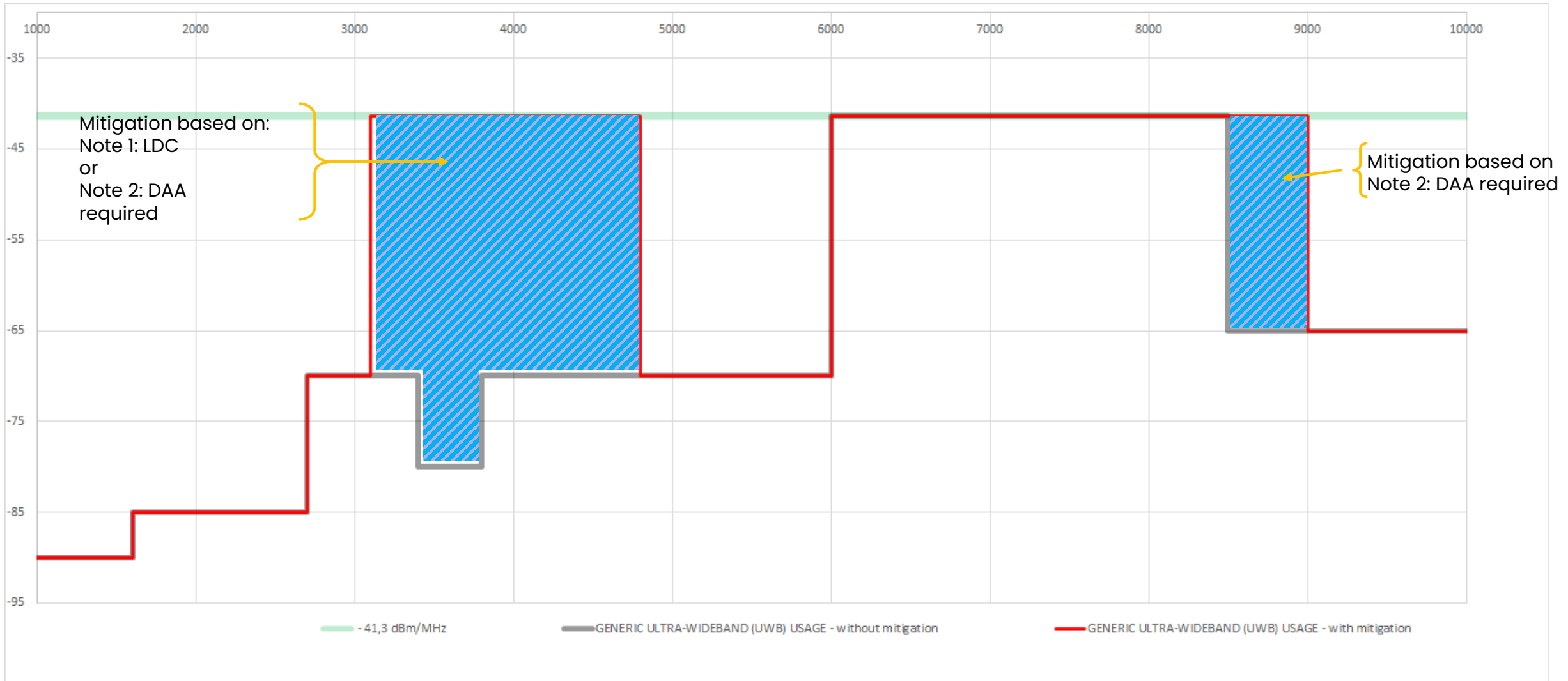
11/2022

General case based on ECC/DEC/(06)04

The technical requirements below are **not** applicable to:

- devices and infrastructure used at a fixed outdoor location or connected to a fixed outdoor antenna;
- devices installed in flying models, aircraft and other aviation;
- devices installed in road and rail vehicles.

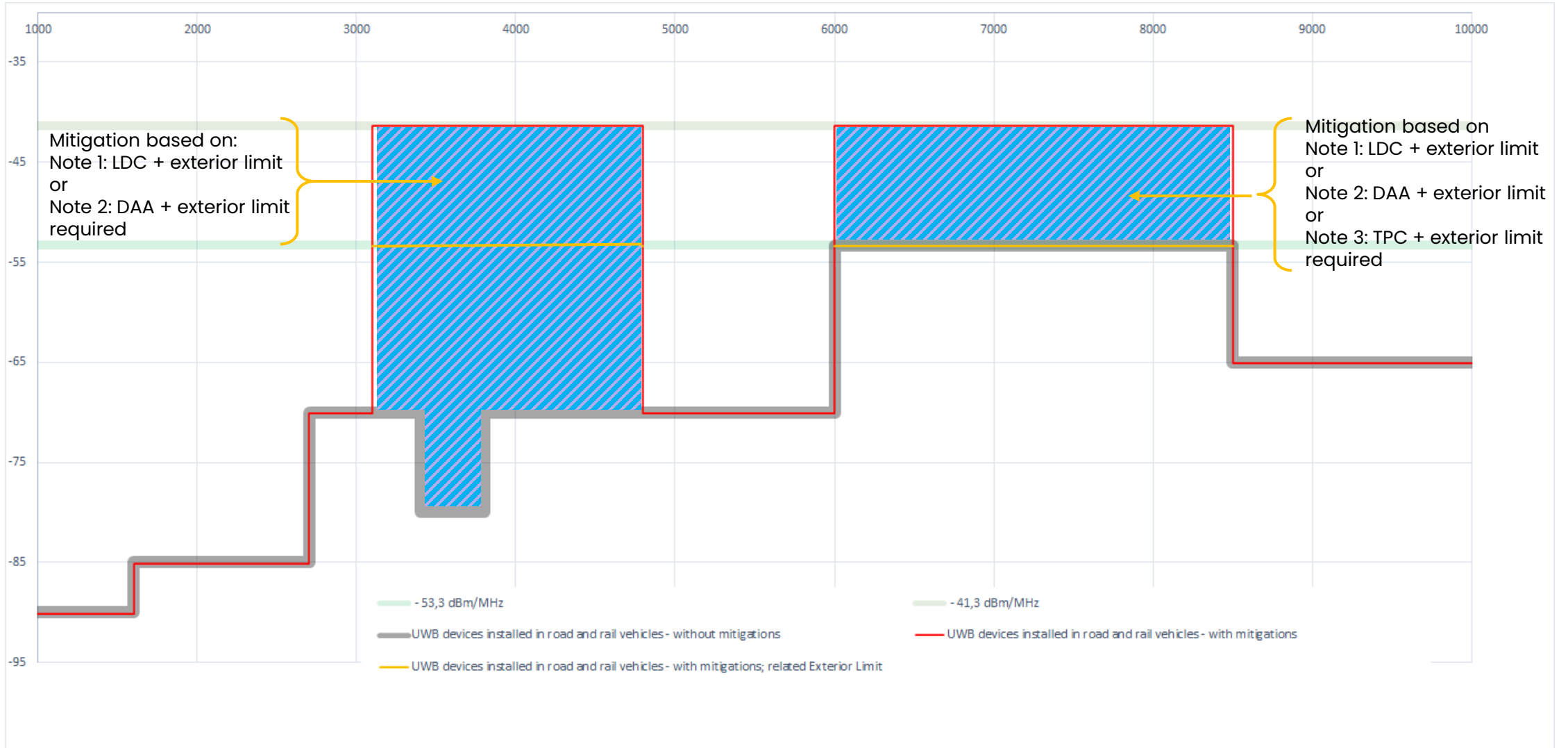
ECC/DEC/(06)04, table 1; generic case
A1.1 General case for UWB devices



Vehicular applications based on ECC/DEC/(06)04

ECC/DEC/(06)04, table 2; generic vehicle

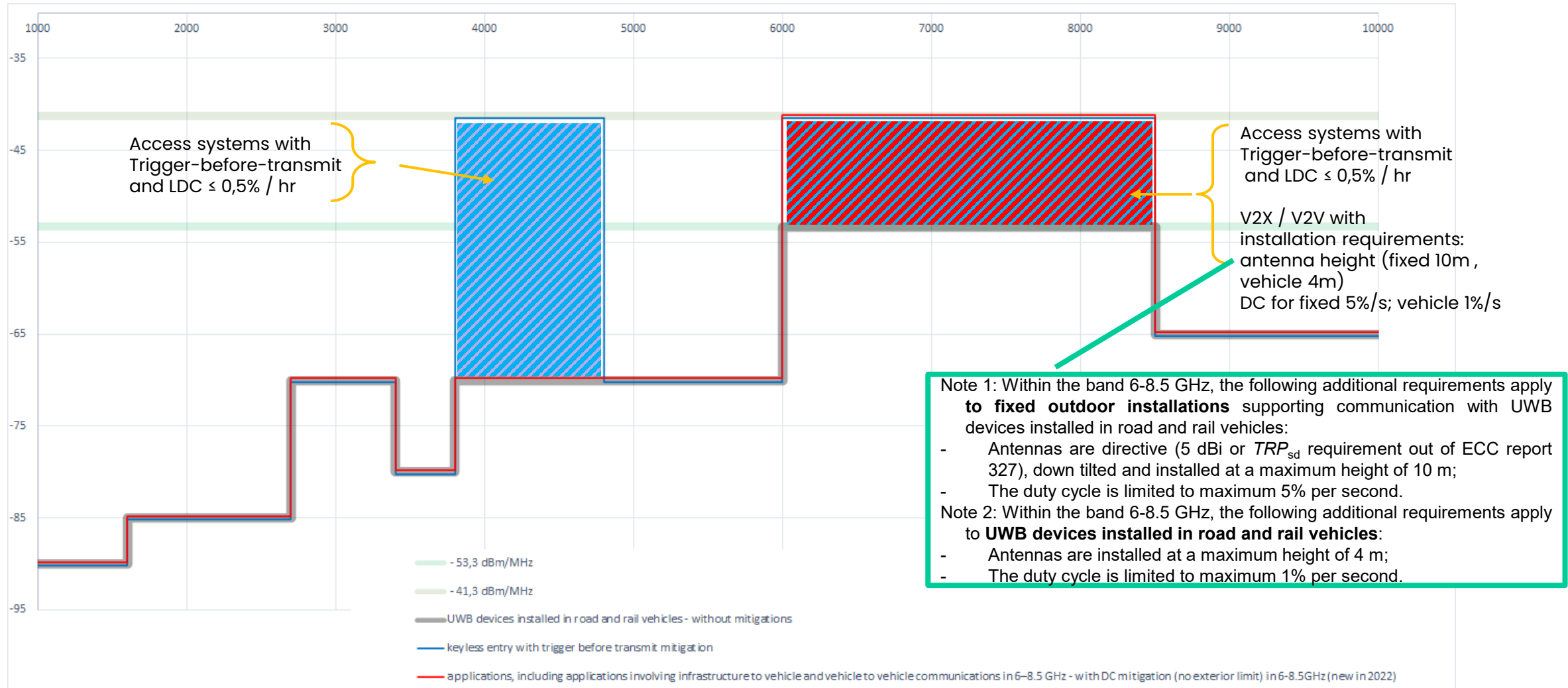
A1.2.1 General case for UWB devices installed in road and rail vehicles



ECC/DEC/(06)04, table 2 generic vehicle without mitigations

A1.2.2 Specific vehicular access systems using trigger-before-transmit (table 3)

New: A.1.2.3 applications involving V2X and V2V communications in 6–8.5 GHz (table 4)

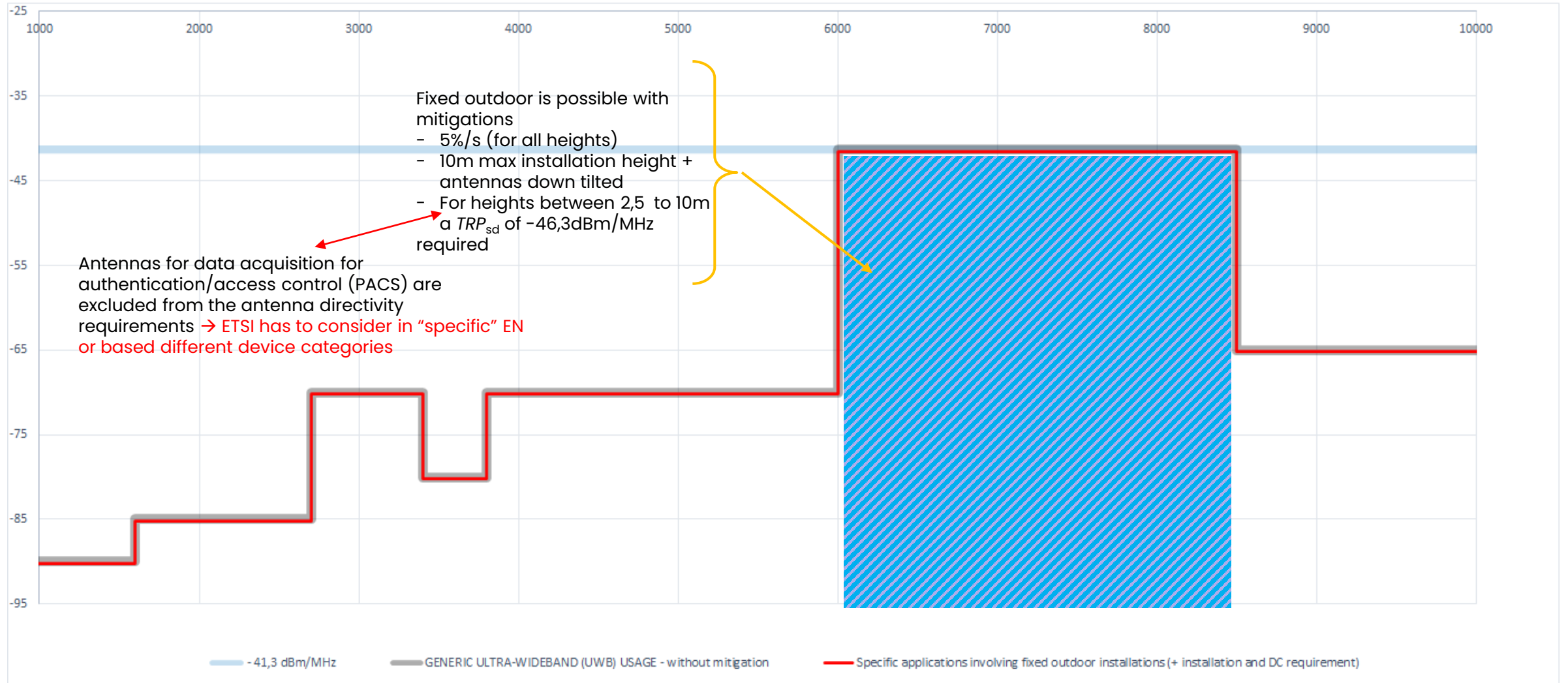


**SPECIFIC RADIODETERMINATION,
LOCATION TRACKING, TRACING AND
DATA ACQUISITION APPLICATIONS IN 6-8.5 GHz;**

ECC/DEC/(06)04, table 1 generic case; without mitigations

New: A.1.3.1 **Specific applications involving fixed outdoor installations** (table 5)

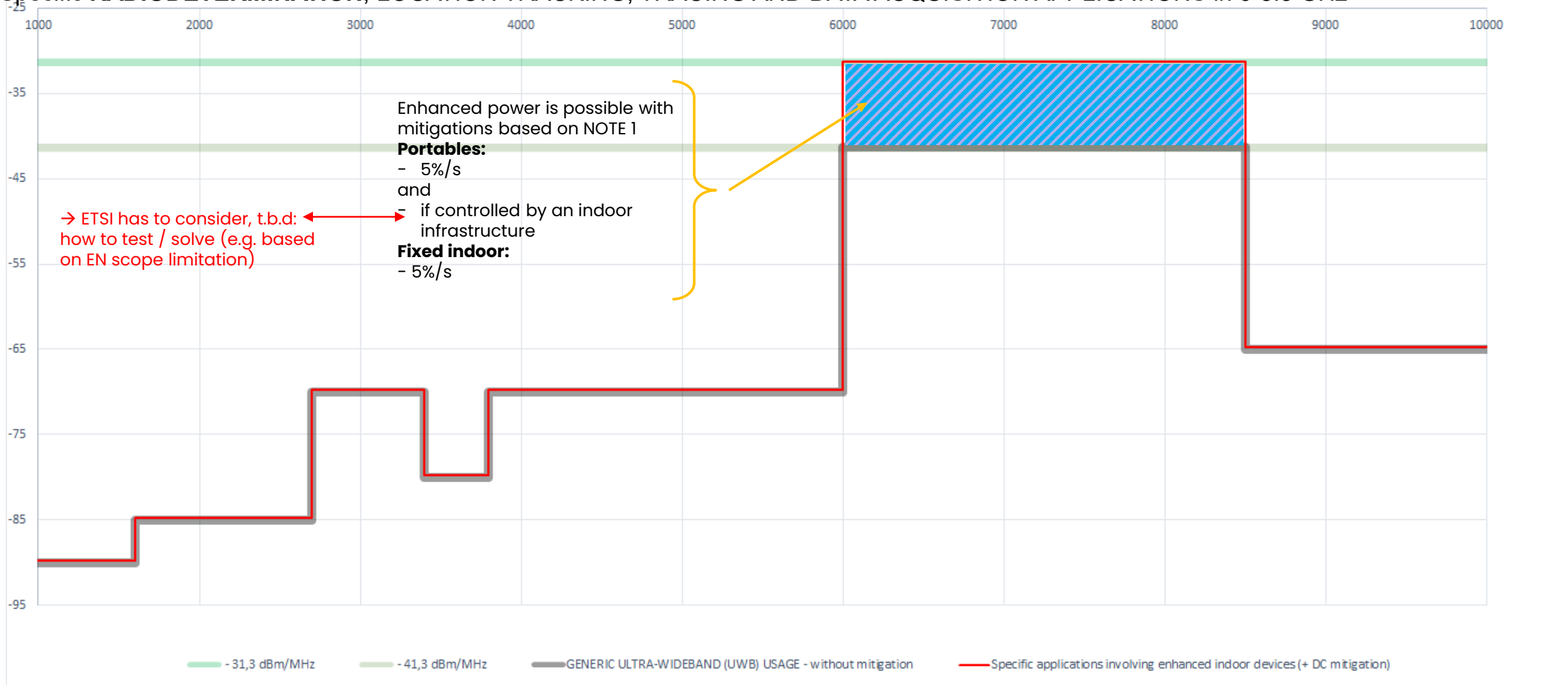
SPECIFIC RADIODETERMINATION, LOCATION TRACKING, TRACING AND DATA ACQUISITION APPLICATIONS IN 6-8.5 GHz



ECC/DEC/(06)04, table 1 generic case; without mitigations

New: A.1.3.2 **Specific applications involving enhanced indoor devices** (table 6)

Specific **RADIODETERMINATION, LOCATION TRACKING, TRACING AND DATA ACQUISITION APPLICATIONS** in 6-8.5 GHz



Annex: Sensor UWB Regulation

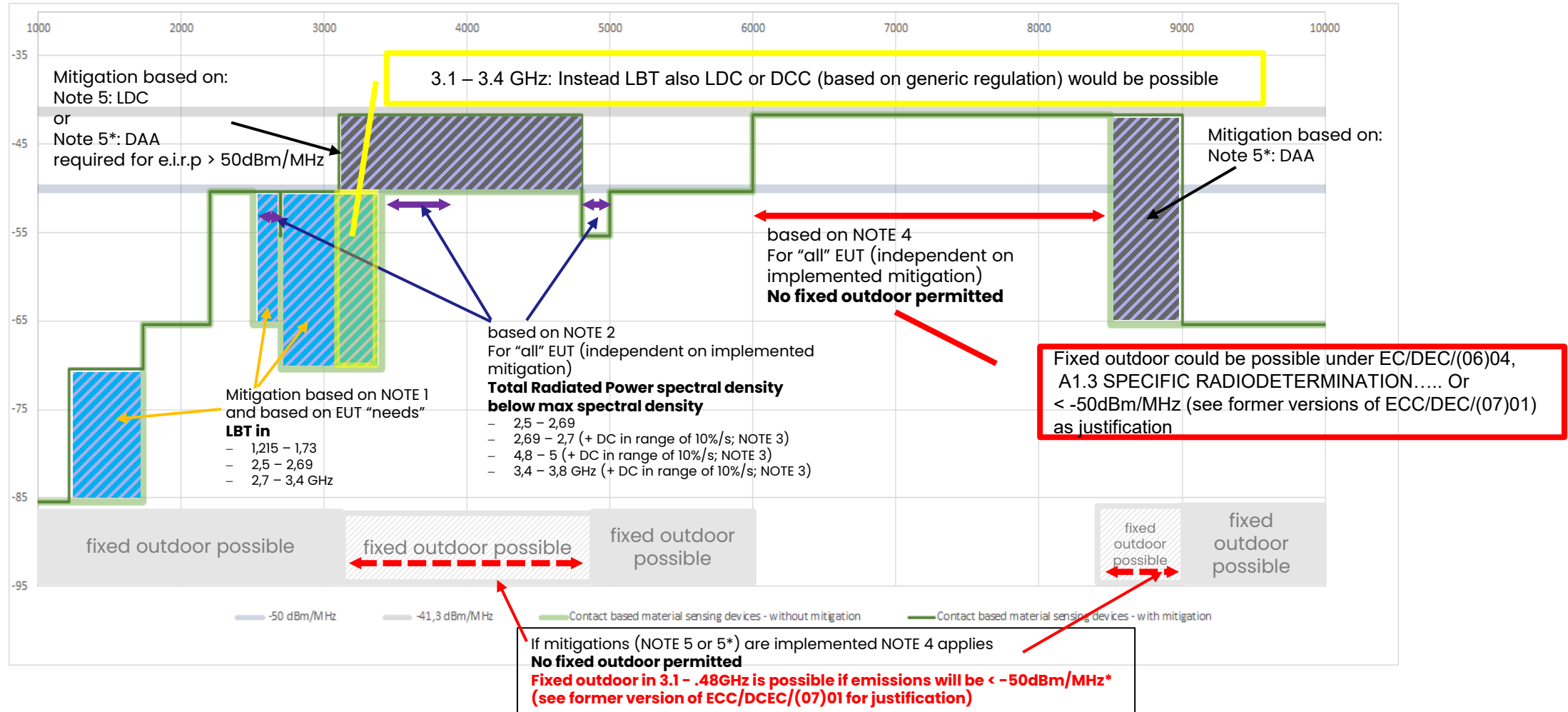
Limits for contact based UWB material sensing devices; based on ECC/DEC/(07)01

Contact-based sensors and imaging devices.

→ The UWB transmitter is only switched on when in direct contact with the material under investigation;

ECC/DEC/(07)01, table 1; Limits for contact based UWB material sensing devices

→ All emissions (e.i.r.p) & mitigations will be tested based on a “test scenario” reflecting the intended use (EUT in contact with representative material) as specified in the related specific EN



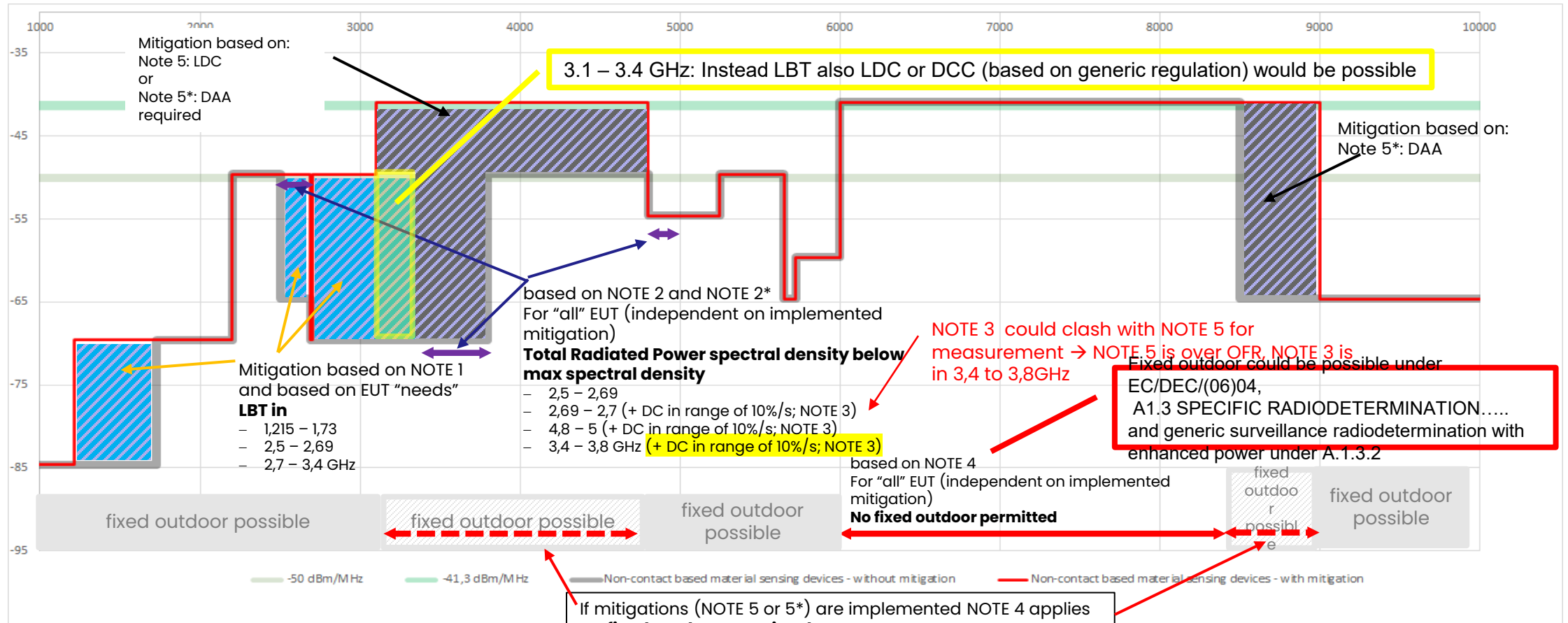
Limits for **non**-contact based UWB material sensing devices; based on ECC/DEC/(07)01

Non-contact-based sensor and imaging devices.

The UWB transmitter is only switched on when in close proximity with the investigated material and the UWB transmitter is directed into the direction of the material under investigation (e.g. manually, by using a proximity sensor or by mechanical design).

ECC/DEC/(07)01, table 1; Limits for non-contact based UWB material sensing devices

→ All emissions (e.i.r.p) & mitigations will be tested based on a "test scenario" reflecting the intended use (EUT in contact with representative material) as specified in the related specific EN



If mitigations (NOTE 5 or 5*) are implemented NOTE 4 applies
No fixed outdoor permitted
Fixed outdoor is possible if emissions will be < -50dBm/MHz*
(see former version of ECC/DEC/(07)01)