



Webinar : New features ATDI tools (from v.23.0.0 to v.23.0.2)



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Compatibility analysis between MW links and Radioastronomy

Menu: “*spectrum/NATIONAL/REGIONAL/FR: FM interference...*”

The CEPT recommendation 74-01 has been updated (version from May 2019) and the spectrum masks from ETSI EN 302 217-2 V3.2.2 (2020-2) for all classes have been added. This feature uses specific spectrum masks for spurious domain emission limits with reference bandwidth.

Radio astronomy interference

Calculation

OOB EIRP (dBW/MHz) dBm/MHz=dBW/MHz+30
127=from station

RA station(s)

P2P parameters

Extended report

OK
Cancel

Wanted RA are on map.
Unwanted microwaves are on map.

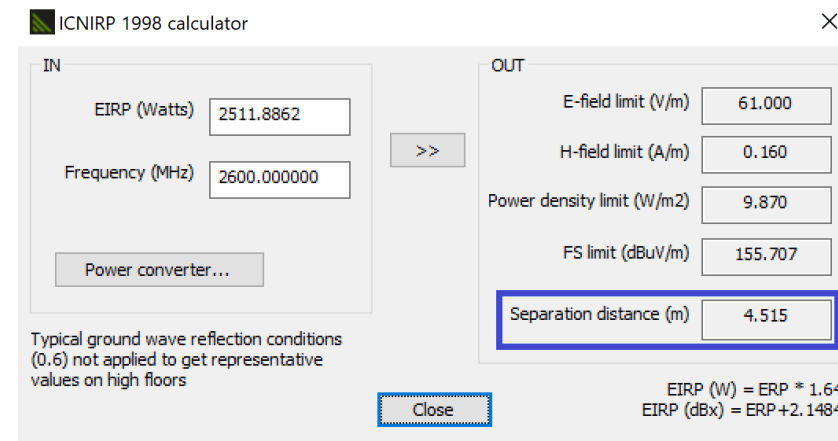
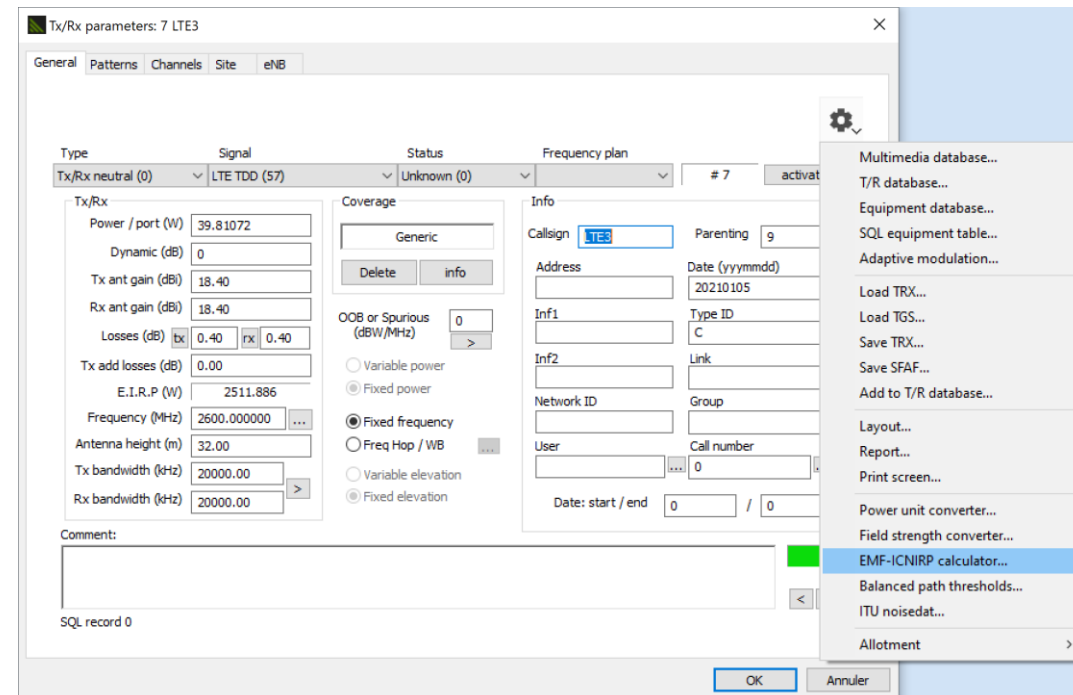
RA stations are activated
Interferers are activated MW
RA TIL must be filled
References: CEPT REC 74-01 (2019) - ETSI EN 302 217 - ITU-R SM 329-12



EMF-ICNIRP calculator

Menu: “station /Options/EMF-ICNRP calculator...”

- ▶ Used for the calculation of the safe separation distance (compliance distance) to maintain between the radio equipment and public as per ICNIRP 1998 reference levels for general public exposure to EMF.
- ▶ Output values also include reference limit levels (E-field, H-field power density) from ICNIRP 1998 guidelines.



New ETSI Masks for fixed services

Menu: “Microwave link /Equipment Tab”

The ETSI Spectrum masks 2020 for Fixed Radio services coming from ETSI EN 302 217-2 V3.2.2 (2020-02) have been added (\Base\TSR folder). The tables can be now used for interference analysis purposes.

Microwave link parameters

General Patterns Site Equipment Objective

Database

A none lead cable none feeder none lead cable none
none c none c none c none c none
Amplifier dB 0.0 0.00 meter 0.00 meter 0.00 meter none
MUX1

- : 23 meters

B none lead cable none feeder none lead cable none
none c none c none c none c none
Amplifier dB 0.0 0.00 meter 0.00 meter 0.00 meter none
MUX1

Update Update Info(1) and info(2) fields

ETSI class 5L

- Class 1: 2FSK-2PSK ACCP if CS<27.5MHz (CS: 1.75, 3.5, 7, 14, 28, 56, 62.5, 112 MHz)
- Class 2: 4FSK-4QAM ACCP if CS<27.5MHz (CS: 1.75, 3.5, 7, 14, 28, 56, 62.5, 112 MHz)
- Class 3: 8PSK ACCP if CS<27.5MHz (CS: 1.75, 3.5, 7, 14, 28, 56, 62.5, 112 MHz)
- Class 4L: 16QAM-16APSK ACCP if CS<27.5MHz (CS: 1.75, 3.5, 7, 14, 28, 56, 62.5, 112 MHz)
- Class 4H: 32QAM-32APSK ACCP if CS<27.5MHz (CS: 1.75, 3.5, 7, 14, 28, 56, 62.5, 112 MHz)
- ✓ Class 5L: 64QAM (CS: 7, 14 MHz)
- Class 5HA: 64QAM ACAP (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 5HB: 128QAM ACAP (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 5LB: 64QAM CCDD (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 5HBL: 128QAM CCDD (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 6L: 256QAM (CS: 7, 14 MHz)
- Class 6H: 512QAM (CS: 14 MHz)
- Class 6LA: 256QAM ACAP (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 6HA: 512QAM ACAP (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 6LB: 256QAM CCDD (CS: 28, 40, 56, 62.5, 112 MHz)
- Class 6HBL: 512QAM CCDD (CS: 28, 40, 56, 112 MHz)
- Class 7: 1024QAM (CS: 14 MHz)
- Class 7A: 1024QAM ACAP (CS: 28, 40, 56, 112 MHz)
- Class 7B: 1024QAM CCDD (CS: 28, 40, 56, 112 MHz)
- Class 8A: 2048QAM ACAP (CS: 28, 40, 56, 112 MHz)
- Class 8B: 2048QAM CCDD (CS: 28, 40, 56, 112 MHz)

OK Annuler

Physical Layer Cell Identities (PCI)

Menu: "Coverage/Planning/Physical layer cell identities... .."

Potential conflicts analysis between the "PCI MODn" values improved:

▶ Intracell case:

- MODn conflicts are checked "Max number of sector(s)".
- For 5G stations and if Max number of sector(s)"=4, MOD-3 and MOD-4 cases are checked;

▶ Intercell case:

- MODn conflicts are checked with $n = 30$ (for 5G stations only).

Physical Layer Cell Identities (from neighbours)

Max physical cell ID: 1008 4G 5G

Max number of sector(s): 3

Align station color (1-12) to PHY_ID

Maximize PHY_ID usage

Sectors ordered

Group stations

none

If same Network ID

If same site code

If same coordinates

Co-site distance <= 0.00 m

Use station neighbour list



THANK YOU FOR YOUR ATTENTION

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