
[SPECTRAexchange]

XML-Description 2.35.0

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TCSC_NAT_S :NATURE OF SERVICE	4-1
TCSC_NAT_U : NATURE OF FREQUENCY USAGE	4-2
TCSC_S_CAT : CLASS OF STATION	4-2

TCC_NETWORK_TYPE : NETWORK TYPE	4-3
TCC_USAGE_TYPE : USAGE TYPE	4-3
SID_LOC : SITE LOCATION	4-5
EQP_EQUIP_TYPE : EQUIPMENT TYPE	4-5
EQ_CHAN_O : CHANNEL OCCUPATION	4-6
ETX_POW_UNIT : POWER UNIT	4-6
ETX_POW_TYPE : POWER TYPE	4-6
EAC_AN_POL : ANTENNA POLARIZATION	4-6
EAP_TYPE : ANTENNA PATTERN TYPE	4-6
EFL_GSM_SYS : GSM SYSTEM	4-7
EFL_USE_TYPE : USAGE TYPE	4-7
COF_STATUS : COORDINATION STATUS	4-7
AP_ACTION_TYPE	4-8
LI_VALIDITY_UNIT	4-8
TCS_SAT_STATION_TYPE	4-8

1 WELCOME

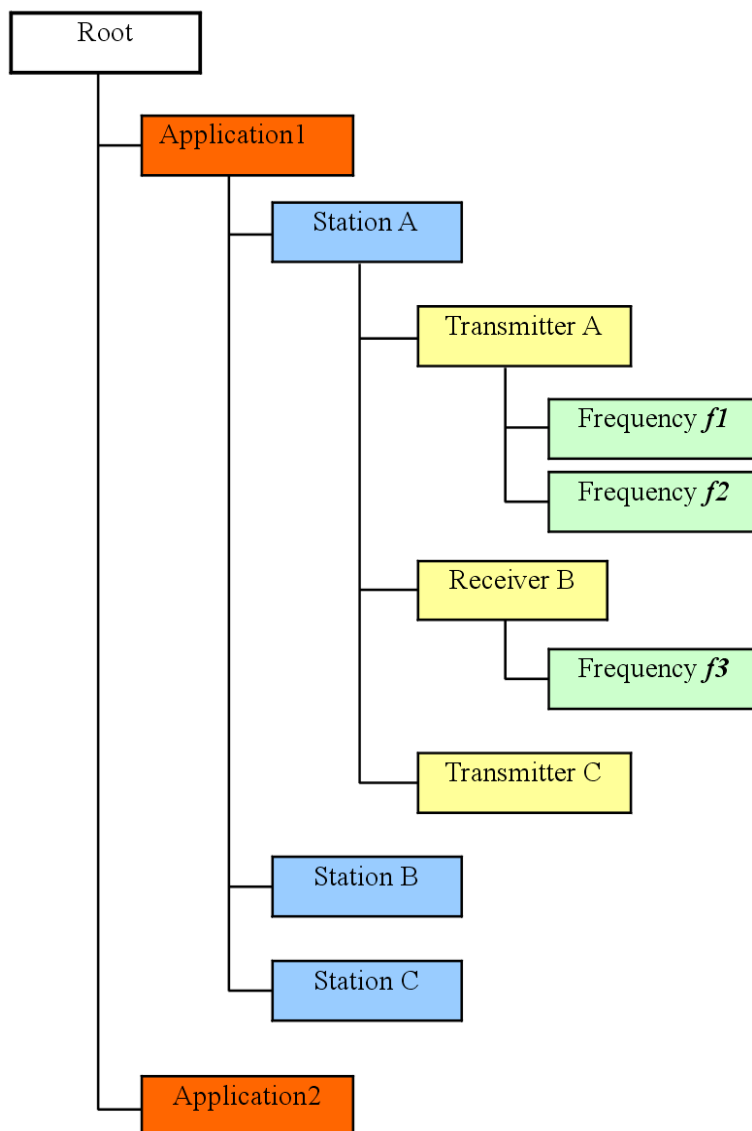
This document provides a detailed description of the SPECTRAexchange XML file format.

The SPECTRAexchange XML format is used for electronic exchange of administrative and technical license data by different components of the LS Spectrum Management System.

Another important purpose of the SPECTRAexchange XML format is the exchange of data of the LS Spectrum Management System with various third party software systems.

The XML format in general is getting more and more a standard file format for exchange of any type of hierarchical organized data. The format can be used independent of the computer platform and supports character coding for most languages worldwide. The number of major standard computer applications supporting this format increases from year to year.

The hierarchical schema of the SPECTRAexchange XML format is shown in the following picture:



1.1 ABOUT SPECTRUM MANAGEMENT SYSTEM

LS Spectrum Management System provides a comprehensive integrated solution for the licensing procedures of all radio services.

The main features of the Spectrum Management System can be summarized as follows:

- Highly modular client-server-architecture
- Adaptation of the system to customers needs

1-2

Hiba! A(z) Heading 2 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

- Extension of capabilities by including new modules for specific tasks
- Central Spectrum Management database
 - Administrative data
 - Technical data
 - Frequency allocations
 - Monitoring data
- Frequency assignment procedures based on calculations (propagation models) and technical data specific for the particular radio service
- Co-ordination procedures based on ITU recommendations or other international/national agreements for the particular radio service
- Specific workflows for the licensing procedures of different radio services
- Deadline management/set up of user roles with specific permissions on workflow actions
- Administration of national frequency plans
- Analysis of monitoring data from radio emissions to be in compliance with licenses

The following figure illustrates a general and a detailed overview of the LS Spectrum Management System with tools for the data administration, visualization, cross-checking measurements with licensed data, inter-service calculations, and technical planning tools for specific services.

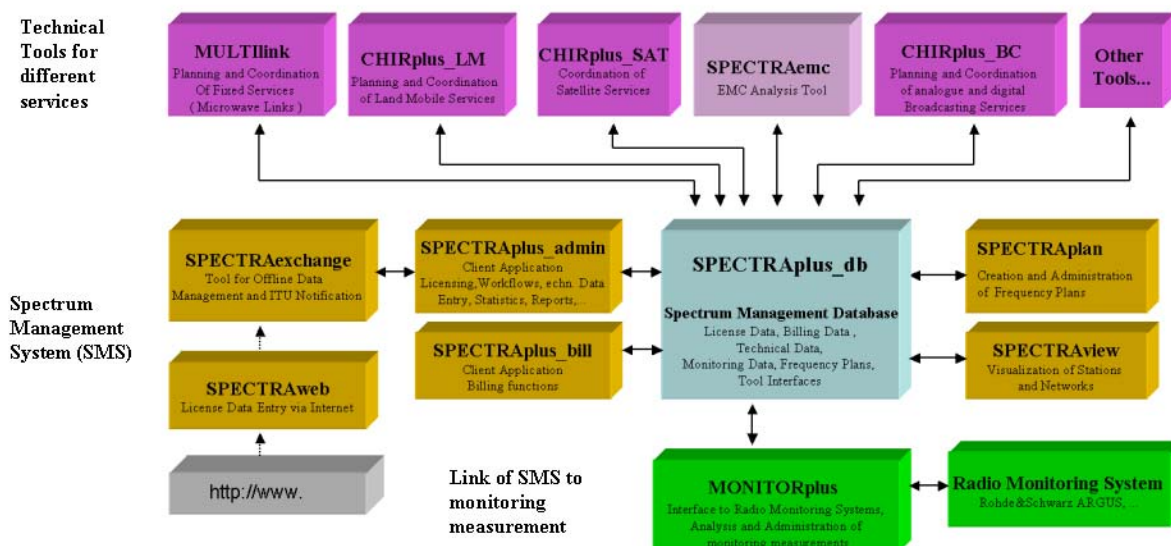






Figure 1-1: LS telcom Spectrum Management System / General Overview

<input checked="" type="checkbox"/> <i>Check Box</i>	Check Boxes are indicated with the symbol <input checked="" type="checkbox"/> The corresponding label is marked up in <i>italic</i> .
<input type="radio"/> <i>Single selection item</i>	Single Selection items are represented by the symbol <input type="radio"/> The corresponding label is marked up in <i>italic</i> .
<i>Field names</i>	Field names are marked up in <i>italic</i> .
<i>"Field contents"</i>	Example field contents are indicated with quotation marks and marked up in <i>italic</i> .
 <i>File</i>	Files are represented by the symbol  The corresponding label is marked up in <i>italic</i> .
 <i>Folder</i>	Folders are represented by the symbol  The corresponding label is marked up in <i>italic</i> .
Ctrl	Keys on the PC keyboard are indicated by the corresponding international abbreviation caption respectively of the keystroke.
»OK«	Buttons are indicated by brackets » «.
Click	This is the instruction to move the mouse pointer to a given object on the screen and then to press the left mouse button once.
Double-click	This is the instruction to move the mouse pointer to a given object on the screen and then to press the left mouse button twice in quick succession.
Right-click	This is the instruction to move the mouse pointer to a given object on the screen and then to press the right mouse button once.

The following symbols will help guide you through the user procedures:



Provides additional background information.



Makes day to day work easier.



Alerts about what NOT to do.



Informs about LS Component manual volumes with additional information

Before working with SPECTRAexchange the user shall be familiar with the operating system (Windows), hard- and software. We strongly recommend reading the appropriate manuals. In particular, the user shall be familiar with the user interface (e.g. menus, mouse operation) as well as with the file system.

1.4 TECHNICAL SUPPORT

If there are any problems with the SPECTRAexchange software, please contact the LS telcom Technical Support via mail, phone, FAX or email:

LS telcom AG

Im Gewerbegebiet 31-33

77839 LICHTENAU

GERMANY

Phone: +49 (0) 7227 9535 - 600

FAX: +49 (0) 7227 9535 - 605

Email: support@lstelcom.com

1.5 WHAT'S NEW

1.5.1 WHAT'S NEW IN VERSION 2.35.0

- New element in <ANTENNACONFIGgroup>: EAC_REFL_AZI, EAC_REFL_ELEV, EAC_REFL_GAIN

1.5.2 WHAT'S NEW IN VERSION 2.34.0

- New element in <FREQUENCY>: EFL_FREQ_IDENT

1.5.3 WHAT'S NEW IN VERSION 2.33.0

- Change in <EQUIPMENTgroup>: modified data type of ETX_ATPC from long to double

1.5.4 WHAT'S NEW IN VERSION 2.32.0

- Modified element in <ANTENNA_PATTERN>: EAP_TYPE string 3 -> 15
- New element in <ANTENNA>: EAN_PAT_CUT_GEOM
- New element in <FREQUENCY>: EFL_SYSTEM

1.5.5 WHAT'S NEW IN VERSION 2.31.0

- New element in <APPLICATION>: LI_TRADE_DATE
- New element in <STATION>: TCS_END_DATE

1.5.6 WHAT'S NEW IN VERSION 2.30.0

- New element in <ADDRESS>: AD_BLOCK_NO
- New element in <ATTACHMENT>: LE_YOUR_SIGN, LE_YOUR_DATE

1.5.7 WHAT'S NEW IN VERSION 2.29.0

- New structure in <APPLICATION>: <APPLICATION_TEXT_BLOCK>
- New complex type: <APPLICATION_TEXT_BLOCKType>: APTB_TABLE_PREFIX, APTB_TABLE_ID, APTB_DESCRIPTION, APTB_CATEGORY, APTB_TEXT.
- New attribute in <APPLICATION>: LI_APTB_ID
- New attribute in <STATION>: TCS_APTB_ID

- New attribute in <TRANSMITTER>, <TRANSMITTER_DL>, <RECEIVER>, <RECEIVER_DL>: EQ_APTB_ID

1.5.8 WHAT'S NEW IN VERSION 2.28.0

- New element in <SITEtype>: SID_SITE_IDENT
- New element in <ANTENNAgroup>: EAN_ANT_IDENT
- New elements in <FREQUENCY>: EFL_ITU_IFRB_DATE, EFL_ITU_IFRB_NO

1.5.9 WHAT'S NEW IN VERSION 2.27.0

- New element in <EQUIPMENTgroup>: EQP_EQUIP_OWNER, EQP_TYPE_BOAT

1.5.10 WHAT'S NEW IN VERSION 2.26.0

- New element in <EQUIPMENTgroup>: EQP_TYPE_BASE, EQP_TYPE_PORTABLE, EQP_TYPE_MOBILE
- New elements in <VEHICLE>: VH_CHASSIS_NUMBER, VH_COLOUR
- New elements in <SHIP>: SH_PROF_MARITIME, SH_PROF_INLAND, SH_PLEASURE_MARITIME, SH_PLEASURE_INLAND

1.5.11 WHAT'S NEW IN VERSION 2.25.0

- New element in <EQUIPMENTgroup>: EQ_DUPLEX_SPACE, EQ_DUPLEX_SPACE_DUNIT

1.5.12 WHAT'S NEW IN VERSION 2.24.0

- New elements in <ADDRESS>: AD_FLAT_NO, AD_WEB
- New elements in <APPLICATION_FLAGS>: AF_WEB_S01_COMMENT, AF_WEB_S02COMMENT, AF_WEB_S03_COMMENT, AF_WEB_S04COMMENT, AF_WEB_S05_COMMENT, AF_WEB_S06COMMENT, AF_WEB_S07_COMMENT, AF_WEB_S08COMMENT, AF_WEB_S09_COMMENT, AF_WEB_S10_COMMENT, AF_WEB_D01, AF_WEB_D01_COMMENT, AF_WEB_D02, AF_WEB_D02_COMMENT, AF_WEB_D03, AF_WEB_D03_COMMENT, AF_WEB_D04, AF_WEB_D04_COMMENT, AF_WEB_D05, AF_WEB_D05_COMMENT, AF_WEB_D06, AF_WEB_D06_COMMENT, AF_WEB_D07, AF_WEB_D07_COMMENT, AF_WEB_D08, AF_WEB_D08_COMMENT, AF_WEB_D09, AF_WEB_D09_COMMENT, AF_WEB_D10, AF_WEB_D10_COMMENT

1.5.13 WHAT'S NEW IN VERSION 2.23.0

- Change in <EQUIPMENTgroup>: increase length of EQP_CSEQP_CATEGORY1, EQP_CSEQP_CATEGORY2 from String(12) to String(31)

1.5.14 WHAT'S NEW IN VERSION 2.22.0

- New element in <FREQUENCY>: EFL_CARRIER_NUM

1.5.15 WHAT'S NEW IN VERSION 2.21.0

- New element in <EQUIPMENTgroup>: EQP_CSEQP_CATEGORY2, EQ_CH_TRANS_AUDIO
- New element in <STATION>: TCS_AREA_TYP

1.5.16 WHAT'S NEW IN VERSION 2.20.0

- New attribute group: SITEAttribute
- Add SITEAttribute to <STATION>
- New elements in <SHIP>: SH_EPFS, SH_HEIGHT, SH_WIDTH
- New elements in <EQUIPMENTgroup>: EQP_CSEQP_CATEGORY1

1.5.17 WHAT'S NEW IN VERSION 2.19.0

- New element in <APPLICATION>: LI_PARAM_ONLINE, LI_PAY_CATEGORY
- New elements in <FREQUENCY>: LEQ_PATHLOSS_ADD, LEQD_XPIC_GRD_ID
- New element in <RECEIVER>, <RECEIVER_DL>: ERX_XIF

1.5.18 WHAT'S NEW IN VERSION 2.18.0

- New elements in <ANTENNACONFIGgroup>: EAC_SWITCH_LOSS, EAC_CONNECTOR_LOSS

1.5.19 WHAT'S NEW IN VERSION 2.17.0

- New elements in <APPLICATION>: LI_CUSTOMER_DATE1, LI_CUSTOMER_DATE2, LI_CUSTOMER_DATE3, LI_CUSTOMER_DATE4, LI_CUSTOMER_DATE5, LI_CUSTOMER_CAT1, LI_CUSTOMER_CAT2, LI_CUSTOMER_CAT3, LI_CUSTOMER_CAT4, LI_CUSTOMER_CAT5,

LI_CUSTOMER_NUM1, LI_CUSTOMER_NUM2, LI_CUSTOMER_NUM3,
LI_CUSTOMER_NUM4, LI_CUSTOMER_NUM5, LI_CUSTOMER_CHAR1,
LI_CUSTOMER_CHAR2, LI_CUSTOMER_CHAR3, LI_CUSTOMER_CHAR4,
LI_CUSTOMER_CHAR5

1.5.20 WHAT'S NEW IN VERSION 2.16.0

- New structure in <STATION>: <EMFS>
- New complex types: <EMFS>, <EMF>

1.5.21 WHAT'S NEW IN VERSION 2.15.0

- New structure in <APPLICATION>: <RD_EQUIP_REGISTRATIONS>
- New complex types: <RD_EQUIP_REGISTRATIONSType>, <RD_EQUIP_REGISTRATIONType>

1.5.22 WHAT'S NEW IN VERSION 2.14.0

- Changes in <APPLICATION>: LI_LIC_DATE, LI_CANCEL_DATE changed from xs:date to xs:dateTime.
- New element in <FREQUENCY>: EFL_LIC_START_DATE, EFL_LIC_END_DATE

1.5.23 WHAT'S NEW IN VERSION 2.13.0

- New structure in <EQUIPMENTgroup>: ADDRESS

1.5.24 WHAT'S NEW IN VERSION 2.12.0

- New element in <STATION>: TCS_ITU_IFRB_NO, TCS_ITU_SERVICE_CODE
- New element in <EQUIPMENTgroup>: EQ_FREQ_RANGE_MIN, EQ_FREQ_RANGE_MIN_DUNIT, EQ_FREQ_RANGE_MAX, EQ_FREQ_RANGE_MAX_DUNIT
- New element in <ANTENNACONFIGgroup>: EAC_AN_POL_ANG
- New element in <FREQUENCY>: EFL_TIME_DELAY

1.5.25 WHAT'S NEW IN VERSION 2.11.0

- New element in <AIRCRAFT>: AI_SERIAL_NO
- New elements in <TRANSMITTER> and <TRANSMITTER_DL>: ETX_PULS_WIDTH_MAX, ETX_PULS_REP_FREQ_MAX

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- New element in <EQUIPMENTgroup>: EQ_EQUIP_OTHER
- New element in <FREQUENCY>: EFL_FREQ_TO
- New element in <ANTENNACONFIGgroup>: EAC_SAT_MERIT_G_T
- New element in <SATELLITE>: SA_SAT_MERIT_G_T

1.5.26 WHAT'S NEW IN VERSION 2.10.0

- New structure in <APPLICATION>: COMPLAINT
- New complex type <COMPLAINTType>

1.5.27 WHAT'S NEW IN VERSION 2.9.1

- New elements in <FREQUENCY>: EFL_ITU_NOTICE_NO, EFL_ITU_PLAN_ENTRY, EFL_ITU_ASSGN_CODE, EFL_ITU_REF_PLAN_CFG, EFL_ITU_RX_MODE, EFL_ITU_ADM_ALLOT_ID, EFL_ITU_ALLOT_SFN_ID, EFL_ITU_IS_PUB_REQ, EFL_ITU_ADDR_CODE, EFL_ITU_REM_COND_MET

1.5.28 WHAT'S NEW IN VERSION 2.9.0

- New attribute in <ANTENNA>, <RECEIVER>, <RECEIVER_DL>, <TRANSMITTER>, <TRANSMITTER_DL>: EAN_NO_NORMALIZE
→ Enable/disable data import normalisation: 1=disabled 0/empty=enabled
- New attribute in <ADDRESS>: AD_NO_NORMALIZE
→ Enable/disable data import normalisation: 1=disabled 0/empty=enabled
- New attribute in <SATELLITE>: SA_NO_NORMALIZE
→ Enable/disable data import normalisation: 1=disabled 0/empty=enabled
- New attribute in <SITE>: SID_NO_NORMALIZE
→ Enable/disable data import normalisation: 1=disabled 0/empty=enabled

1.5.29 WHAT'S NEW IN VERSION 2.8.2

- New elements in <FREQUENCY>: EFL_TIMESLOT_LEN, EFL_TIMESLOT_LEN_DUNIT

1.5.30 WHAT'S NEW IN VERSION 2.8.1

- New elements in <EQUIPMENTgroup>: EQP_MAX_AGGREG_POW, EQP_MAX_AGGREG_POW_DUNIT

1.5.31 WHAT'S NEW IN VERSION 2.8.0

- New element in <ADDRESS>: AD_CSAD_CATEGORY
- New element in <APPLICATION>: LI_PARAM_TRADING
- Change in <APPLICATION>: LI_CSLI_CATEGORY changed from int to double
- Change in <STATION>: TCS_CSST_CATEGORY changed from int to double
- Change in <EQUIPMENTgroup>: EQ_CSEQ_CATEGORY changed from int to double

1.5.32 WHAT'S NEW IN VERSION 2.7.1

- New element in <STATION>: TCS_SIGNATURE

1.5.33 WHAT'S NEW IN VERSION 2.7.0

- New structure in <ANTENNA>: ANTENNA_SERVICES

1.5.34 WHAT'S NEW IN VERSION 2.6.2

- New elements in <TRANSMITTER> and <RECEIVER>:
EAC_OP_AZI_ANG_FROM, EAC_OP_AZI_ANG_TO,
EAC_OP_ELEV_ANG_FROM, EAC_OP_ELEV_ANG_TO,
EAC_SAT_B_PTACC, EAC_H_MOTION_SPEED, EAC_V_MOTION_SPEED

1.5.35 WHAT'S NEW IN VERSION 2.6.1

- EFL_SIG_CODE: size increased from 255 to 2000

1.5.36 WHAT'S NEW IN VERSION 2.6.0

- New structure in <APPLICATION>: WORKFLOW_HISTORY
- New element in <STATION>: TCS_TCS_ID_SRC
- New elements in <TRANSMITTER>: EQP_UPDATE_STATUS, EQ_EQ_ID_SRC, ETX_UPDATE_STATUS
- New elements in <RECEIVER>: EQP_UPDATE_STATUS, EQ_EQ_ID_SRC, ERX_UPDATE_STATUS
- New elements in <FREQUENCY>: EFL_UPDATE_STATUS, EFL_COLOR_CODE
- New element in <VEHICLE>: VH_NUMBER_PLATE

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1.5.37 WHAT'S NEW IN VERSION 2.5.0

- New structure in <STATION>: VECTORS
- New element in <SHIP>: SH_SERIAL_NO
- New element in <FREQUENCY> and in <LINK>: LEQD_SYSTEM

1.5.38 WHAT'S NEW IN VERSION 2.4.29

- New element in <APPLICATION>: LI_REASONING
- New elements in <FREQUENCY>: LEQD_UPDATE_STATUS, EFL_FPLAN_EL_NAME
- New element in <LINK>: LEQD_UPDATE_STATUS

1.5.39 WHAT'S NEW IN VERSION 2.4.28

- New structure in <APPLICATION>: MMSIS, CALL_SIGNS

1.5.40 WHAT'S NEW IN VERSION 2.4.27

- New structure in <APPLICATION>: MMSI

1.5.41 WHAT'S NEW IN VERSION 2.4.26

- New structure in <APPLICATION>: CALL_SIGNS
- New elements in <STATION>: TCS_SAT_STATION_TYPE, TCS_MMSI, TCS_MMSI_GROUP
- New elements in <TRANSMITTER> and <RECEIVER>: EAN_VARIANT, EAN_SN

1.5.42 WHAT'S NEW IN VERSION 2.4.25

- New element in <ADDRESS>: AD_MAP_POS
- New element in <APPLICATION>: TCC_NW_NAME
- New structure in <APPLICATION>: APPLICATION_LINK
- New structure in <APPLICATION>: APPLICATION_OFFICIAL
- New attribute in <FREQUENCY>: EFL_EFL_ID_SRC
- New element in <FREQUENCY>: LEQ_PATHLOSS
- New element in <COORDINATED_FREQUENCY>: COF_COMMENT
- New element in <STATION>: TCS_UPDATE_STATUS

- New structure in <TRANSMITTER> and <RECEIVER>: EQUIP_EMISSION

1.5.43 WHAT'S NEW IN VERSION 2.4.24

- New elements in <APPLICATION>: LI_RESTRICT, LI_EXAM_DATE

1.5.44 WHAT'S NEW IN VERSION 2.4.23

- New element in <APPLICATION>: AP_COMMENT_LARGE
- New elements in <ADDRESS>: AD_E_MAIL2, AD_COMPANY_SHORT, AD_COMMENT_INTERN
- New element in <SITE>: SID_DESC
- New elements in <TRANSMITTER> and <RECEIVER>: EAN_DIAG, EAN_WIDTH

1.5.45 WHAT'S NEW IN VERSION 2.4.22

- New structure in <APPLICATION>: APPLICATION_FLAGS

1.5.46 WHAT'S NEW IN VERSION 2.4.21

- New element in <APPLICATION>: AF_WEB_S01
- New structure in <TRANSMITTER> and <RECEIVER>: INSTALLED_EQUIPMENTS

1.5.47 WHAT'S NEW IN VERSION 2.4.20

- New element in <APPLICATION>: LI_RENEWAL_DATE

1.5.48 WHAT'S NEW IN VERSION 2.4.19

- New attributes in <SITE>: SID_ID_SRC_SPECTRA, SID_ID_SRC_EXTERN
- New attributes in <SATELLITE>: SA_ID_SRC_SPECTRA, SA_ID_SRC_EXTERN

1.5.49 WHAT'S NEW IN VERSION 2.4.18

- New element in <FREQUENCY>: EFL_UPPER_LOWER

1.5.50 WHAT'S NEW IN VERSION 2.4.17

- New element in <ADDRESS>: AD_SECOND_NAME
- New elements in <APPLICATION>: AP_VERSION, AP_NAME_REFERENCE
- Field AP_PLAN_NO size increased from 20 to 511

1.5.51 WHAT'S NEW IN VERSION 2.4.16

- New element in <TRANSMITTER> and <TRANSMITTER_DL>: ETX_ACTIVITY

1.5.52 WHAT'S NEW IN VERSION 2.4.15

- New elements in <ADDRESS>: AD_UPDATE_STATUS, AD_CAT_COM, AD_CAT2, AD_DELIVERY_TYPE
- New elements in <TRANSMITTER> and <RECEIVER>:
EAN_FREQ_RANGE_MIN_DUNIT, EAN_FREQ_RANGE_MAX_DUNIT,
EQ_KF_BANDWIDTH_DUNIT, EQ_CHANNEL_SPACE_DUNIT,
EQ_F_STAB_DUNIT, ERX_MIN_LEVEL_DUNIT, ERX_BAND_WIDTH_DUNIT,
ERX_MPL_DUNIT, ERX_MIN_SENSE_DUNIT, ETX_POW_DUNIT,
ETX_POW_MAX_DUNIT, ETX_POW_MIN_DUNIT, ETX_POW_H_DUNIT,
ETX_POW_V_DUNIT, ETX_MAX_POW_EQUIP_DUNIT,
ETX_MAX_SENS_DUNIT, ETX_POW_AVERAGE_DUNIT,
ETX_FREQ_SWEEP_MAX_DUNIT
- New elements in <FREQUENCY>: EFL_CHANNEL_SPACE_DUNIT,
EFL_REF_FREQ_DUNIT, EFL_TV_SOUND_CARRIER_DUNIT,
EFL_TV_SOUND_CARRIER2_DUNIT

1.5.53 WHAT'S NEW IN VERSION 2.4.14

- New element in <STATION>: TCS_TOW_STRUCT_DESC
- New element in <TRANSMITTER> and <RECEIVER>: EAC_LOCATION

1.5.54 WHAT'S NEW IN VERSION 2.4.13

- New elements in <TRANSMITTER> and <RECEIVER>: ETX_COMMENT, ERX_COMMENT
- New elements in <FREQUENCY>: EFL_COMMENT, EFL_MODE_OP, EFL_TIMESLOT, EFL_SIG_CODE

1.5.55 WHAT'S NEW IN VERSION 2.4.12

- New element in <FREQUENCY>: LEQD_NAME

1.5.56 WHAT'S NEW IN VERSION 2.4.11

- New element in <TRANSMITTER> and <RECEIVER>: EAC_BRANCH_LOSS

1.5.57 WHAT'S NEW IN VERSION 2.4.10

- New element in <STATION>: TCS_TOW_TOWER_HEIGHT_DELTA
- New element in <TRANSMITTER> and <RECEIVER>: EQ_FREQ_LO, EQ_FREQ_UP, EQ_SPEC EFFIC_CLASS, EAN_CLASS
- New element in <FREQUENCY>: LEQ_RELIAB, LEQD_FPLAN_EL_NAME, LEQD_CIRC_LEN
- New attribute in <FREQUENCY>: LEQD_ID_SRC_EXTERN

1.5.58 WHAT'S NEW IN VERSION 2.4.9

- New element in <APPLICATION>: AP_CATEGORY
- New element in <TRANSMITTER> and <RECEIVER>: EAN_ETSI
- New element in <TRANSMITTER>: ETX_POW_CTRL, ETX_ATPC
- New element in <FREQUENCY>: EFL_RF_BWIDTH_DUNIT

1.5.59 WHAT'S NEW IN VERSION 2.4.8

- New element in <STATION>: TCS_REF_FLAG
- New element in <FREQUENCY>: EFL_MAP_POS

1.5.60 WHAT'S NEW IN VERSION 2.4.7

- New element in <EQUIPMENT>: EQ_RF_BWIDTH_DUNIT
- New element in <TRANSMITTER>: ETX_EQ_OUTPUT_DUNIT

1.5.61 WHAT'S NEW IN VERSION 2.4.6

- New element in <APPLICATION>: LI_CAT

1.5.62 WHAT'S NEW IN VERSION 2.4.5

- New elements in <APPLICATION>: LI_AR_CLASS, TCC_SPECIFIC_SERV
- New elements in <ADDRESS>: AD_PASS_ISSUE_DATE, AD_MOTHER_NAME
- New element in <STATION>: TCS_MAP_POS
- New elements in <RECEIVER>: ERX_MPIL, ERX_MPIL_DUNIT
- New element in <FREQUENCY>: EFL_FREQ_DUNIT
- New elements in <SHIP>: SH_CORRESP_CAT, SH_INDIV_CLASS, SH_BEACON_NO, SH_BEACON_A, SH_BEACON_B, SH_BEACON_C, SH_BEACON_D, SH_BEACON_E, SH_BEACON_F, SH_BEACON_G

1.5.63 WHAT'S NEW IN VERSION 2.4.4

- New element in <SHIP>: SH_SSFC
- New element in <TRANSMITTER> and <RECEIVER>: EQP_EQUIP_MAP_POS
- New element in <EQUIP_DETAIL>: ED_EQUIP_MAP_POS

1.5.64 WHAT'S NEW IN VERSION 2.4.3

- New element in <SATELLITE>: SA_SAT_GEO_POS
- New element in <TRANSMITTER>: ETX_POW_ANT_DUNIT

1.5.65 WHAT'S NEW IN VERSION 2.4.2

- New element in <SHIP>: <SH_CALL>.
- Attribute <AD_TYPE> from <ADDRESS>: size is increased from 15 to 255.

1.5.66 WHAT'S NEW IN VERSION 2.4.1

- New elements in <STATION>: <TCS_COMMENT_INTERN>, <TCS_TOW_STRUCT_CODE>.
- New elements in <TRANSMITTER> and <RECEIVER>: <EQ_FREQ_DIVERSITY>, <EQ_ANGLE_DIVERSITY>, <EQ_POL_DIVERSITY>.

1.5.67 WHAT'S NEW IN VERSION 2.4.0

- New complex type in <APPLICATION>: <CAN> (see xsd).

- New complex types in <STATION>: <MSC>, <CAS> (see xsd).
- New complex type in <FREQUENCY>: <ADDRESS> (see xsd).
- New element in <APPLICATION>: <AP_COMMENT_INTERN>.
- New elements in <STATION>: <TCS_REF_NUMBER>, <TCS_COMMENT>, <TCS_SI_H_EFF_MAX>, <TCS_SI_H_EFF_MAX_ANG>.
- New elements in <TRANSMITTER> and <RECEIVER>: <EQP_SOFTWARE_VERSION>, <EQP_HARDWARE_VERSION>, <EQP_CAT_COMMENT>, <EQ_TV_PREC_OFFSET>, <EQ_TV_OFF>, <EQ_TV_OFF_FREQ>, <EQ_TV_OFF_FREQ_DUNIT>, <EQ_F_STAB>, <EQ_ANALOG_OR_DIGITAL>, <EQE_EMI_CARRIER1>, <EQE_EMI_CARRIER2>, <EQ_TV_POWER_RATIO>, <EQ_TV_POWER_RATIO2>, <EQ_TV_COLOR_SYS>, <EQ_TV_SYS>, <EQ_TV_SEC_SOUND_SYS>, <EAC_COMMENT_INTERN>, <EAC_FEEDER_LEN>, <EAC_FEEDER_LINE_TYPE>, <EAN_FREQ_RANGE_MIN>, <EAN_FREQ_RANGE_MAX>, <EAN_OP_AZI_ANG_FROM_MAX>, <EAN_OP_AZI_ANG_TO_MAX>, <EAN_POL>, <EAN_SLEW_ANGLE>, <EAN_RED_ELEM_TYPE>, <EAN_FREQ_GAIN>, <EAN_ELEMENT_NO_VER>.
- New elements in <TRANSMITTER>: <ETX_POW_AVERAGE>, <ETX_FREQ_SWEEP_MAX>.
- New elements in <FREQUENCY>: <EFL_REF_FREQ>, <EFL_TV_SOUND_CARRIER>, <EFL_TV_SOUND_CARRIER2>, <EFL_CHANNEL>, <EFL_SOUND_MO_ST>, <EFL_PRG>, <EFL_DECISION_NO>, <EFL_PRG_PROV_CONTRACT_NO>, <EFL_DECISION_DATE>, <EFL_PRG_PROV_CONTRACT_DATE>, <EFL_PROG_PROV_CANCEL_DATE>, <EFL_PRG_RANGE>, <EFL_PRG_CHARACTER>, <EFL_PRG_INFO>, <EFL_PRG_LANG>.

1.5.68 WHAT'S NEW IN VERSION 2.3.4

- New element in <APPLICATION>: <LI_STATUS>:

Licence status. Used to update licence status of SPECTRAweb applications (according to corresponding SPECTRAplus applications). Field set only by SPECTRAplus-OPENinterface-Export functions.

1.5.69 WHAT'S NEW IN VERSION 2.3.3

- New element in <ADDRESS>: <AD_PASS_CAT>
- <ADDRESS>: size of text fields increased to 255.

1.5.70 WHAT'S NEW IN VERSION 2.3.2

- New elements in <APPLICATION>: <LI_PERIOD>, <LI_PERIOD_UNIT>.
- New element in <FREQUENCY>: <LEQ_TRANSFER_RATE>.

1.5.71 WHAT'S NEW IN VERSION 2.3.1

- New structures in SPECTRAexchange: <FILTER_DL>, <SATELLITE_DL>, <SITE_DL>. See SPECTRAexchange.xsd.

1.5.72 WHAT'S NEW IN VERSION 2.3.0

- New elements in <ADDRESS>: <AD_DISTRICT> and <AD_COUNTY>.
- New elements in <APPLICATION>: <AP_ACTION_TYPE>, <LI_VALIDITY>, <LI_VALIDITY_UNIT>, <TCC_AAIC>.
Ap_Action_Type permits to identify the process status of an application coming in SPECTRAplus. See corresponding text lookups.
- New elements in <STATION>: <TCS_TOW_TOWER_HEIGHT>, <TCS_TOW_AN_H_MAX>, <SA_AZI_ANG_FROM>, <SA_AZI_ANG_TO>, <SA_MIN_ELEV>, <SA_SAT_INCEXC>, <SID_RAIN_CLIM_ZONE>.
- New element in <HORIZONTAL_ELEVATION>: <HE_DIST>.
- New elements in <TRANSMITTER> and <RECEIVER>: <EQP_EQUIP_NUM>, <EQP_TYPE_APROV_NO>, <EQ_FS_TRANSFER_RATE>, <EAN_F2BRATIO>, <EAC_BEAM_DES>, <EAC_SAT_MAX_POW_DENSITY>, <EAN_PAT_DESC_COEFF_A>, <EAN_PAT_DESC_COEFF_B>, <EAN_PAT_DESC_COEFF_C>, <EAN_PAT_DESC_COEFF_D>.
- New elements in <TRANSMITTER>: <ETX_POW_MIN> and <ETX_POW_ANT>.
- New element in <RECEIVER>: <ERX_BER>.
- New structures in <APPLICATION>: <AIRCRAFT>, <SHIP>, <ATTACHMENT>.
- New structure in <STATION>: <VEHICLE>.
- New structure in <TRANSMITTER> and <RECEIVER>: <EQUIP_DETAIL>.
- New structures in <FREQUENCY>: <ITU_NOTIFICATION_TERRA>, <ITU_NOTIFICATION_SPACE>

1.5.73 WHAT'S NEW IN VERSION 2.2.2

- New element in <STATION>: <SID_LONG_E_W> and <SID_LAT_N_S>
In former SPECTRAexchange xml definition a latitude on the south hemisphere has a negative value. Now latitude degree <SID_LAT_DEG> and longitude degree <SID_LONG_DEG> must be a positive integer.
Old styled longitude/latitude definition is compatible with this version.

- New xxx_ID_SRC_SPECTRA & xxx_ID_SRC_EXTERN attributes in structural elements. Those optional attributes stores referential IDs to source system:
 - A reference ID to SPECTRA system (e.g. primary key of corresponding row within SPECTRA system) can be stored in xxx_ID_SRC_SPECTRA.
 - References to a foreign or legacy system (e.g. primary key of corresponding row within foreign system) should be stored in xxx_ID_SRC_EXTERN.
- Following reference IDs are introduced in:
 - <ADDRESS>: AD_ID_SRC_SPECTRA
AD_ID_SRC_EXTERN
 - <APPLICATION>: AP_ID_SRC_SPECTRA
AP_ID_SRC_EXTERN
 - <FILTERS>: FIDE_ID_SRC_SPECTRA
FIDE_ID_SRC_EXTERN
 - <FREQUENCY>: EFL_ID_SRC_SPECTRA
EFL_ID_SRC_EXTERN
 - <COORDINATED_FREQUENCY>: COF_ID_SRC_SPECTRA
COF_ID_SRC_EXTERN
 - <BILLING_CUSTOMER_DATA>: BIC_ID_SRC_SPECTRA
BIC_ID_SRC_EXTERN
 - <STATION>: TCS_ID_SRC_SPECTRA
TCS_ID_SRC_EXTERN
 - <RECEIVER>: EQP_ID_SRC_SPECTRA
EQP_ID_SRC_EXTERN
EQ_ID_SRC_SPECTRA
EQ_ID_SRC_EXTERN
EAN_ID_SRC_SPECTRA
EAN_ID_SRC_EXTERN
EAC_ID_SRC_SPECTRA
EAC_ID_SRC_EXTERN
 - <TRANSMITTER>: EQP_ID_SRC_SPECTRA
EQP_ID_SRC_EXTERN
EQ_ID_SRC_SPECTRA
EQ_ID_SRC_EXTERN
EAN_ID_SRC_SPECTRA
EAN_ID_SRC_EXTERN
EAC_ID_SRC_SPECTRA
EAC_ID_SRC_EXTERN

1.5.74 WHAT'S NEW IN VERSION 2.2.1

- Possibility to link one contact address to a given address type via the [<AD_SPPLUS_TYPE>](#) (in previous versions only one contact address per application was allowed, now it is possible to use one contact address for each address type within one application).

- Correction of wrong unit comments at attenuation tags <ETX_TOT_ATT> and <ERX_TOT_ATT_H44>

1.5.75 WHAT'S NEW IN VERSION 2.1

- Because of the introduction of the more expressive W3C xml schema the sequence (order) of the elements and sub structures should be in accordance with this documentation.
For instance the <AD_NAME> element must not appear after the <AD_FIRST_NAME> element within a <ADDRESS> structure.
- New element <AD_SPPLUS_TYPE> in structure <ADDRESS>
- New Element <SA_SAT_LONG_NOM> in structure <STATION>
- New Element <ERX_C_I_SHORT> in structure <RECEIVER>
- New Element <EFL_FREQ_ID> in structure <FREQUENCY>

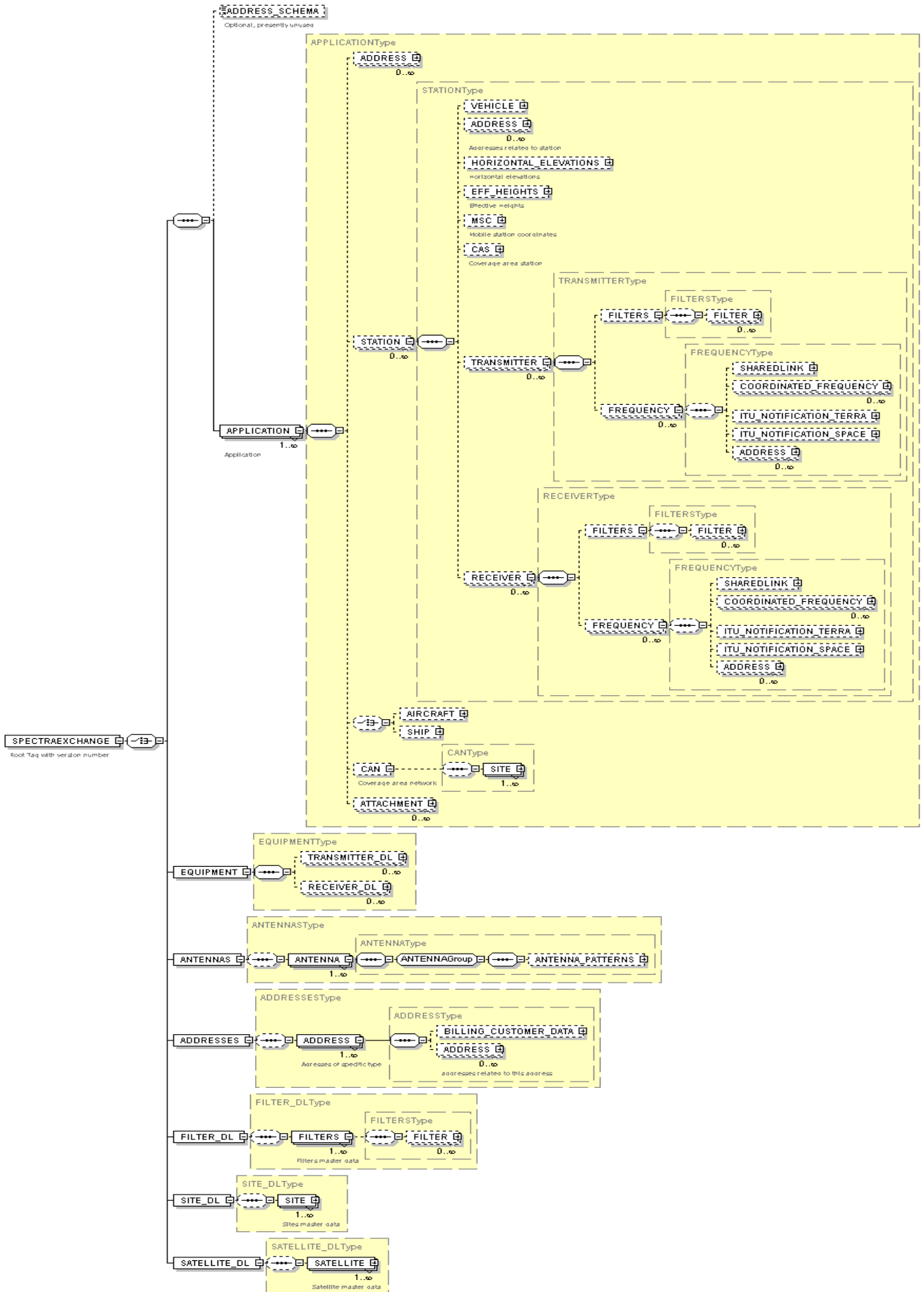
2 STRUCTURE

2.1 DESCRIPTION OF XML-STRUCTURE

2.1.1 DIAGRAM

Following diagram is a graphical and hierarchical representation of the SPECTRAexchange schema.

In the next paragraphs each complex type will be described in detail.



2.1.2 ANTENNA PATTERN

Starting with version 2.32.0 SPECTRAexchange also supports NSMA antenna pattern. Use of the old pattern types in ANTENNA_PATTERNType.EAP_TYPE is still possible (as described in text lookups). Consider the new NSMA pattern types:

NSMA pattern type	NSMA description	Symmetrical (EAN_PAT_CUT_GEOM In ANTENNAType is set to S)	Azi/Elev Cut (EAN_PAT_CUT_GEOM In ANTENNAType is set to C)
AZHH	Horizontal polarized port response to a horizontally polarized signal in the horizontal direction	Y	Y
AZHV	Horizontal polarized port response to a vertically polarized signal in the horizontal direction	Y	Y
ELHH	Horizontal polarized port response to a horizontally polarized signal in the vertical direction	Not needed	Y
ELHV	Horizontal polarized port response to a vertically polarized signal in the vertical direction	Not needed	Y
AZVV	Vertical polarized port response to a vertically polarized signal in the horizontal direction	Y	Y
AZVH	Vertical polarized port response to a horizontally polarized signal in the horizontal direction	Y	Y
ELVV	Vertical polarized port response to a vertically polarized signal in the	Not needed	Y

	vertical direction		
ELVH	Vertical polarized port response to a horizontally polarized signal in the vertical direction	Not needed	Y

If using the old non-NSMA pattern type EAN_PAT_CUT_GEOM must not be set. Polarization is still on EAN_POL.

If using NSMA pattern type EAN_PAT_CUT_GEOM must not be NULL. Polarization on EAN_POL is **not** used.

2.1.3 SPECTRAEXCHANGE

<SPECTRAEXCHANGE>		Root Tag with version number
<Attribute: "version">	string	version number
<ADDRESS_SCHEMA>	string (15)	Optional, presently unused
<APPLICATION> {1 ... n}	APPLICATIONType	see APPLICATIONType description
or		
<EQUIPMENT>	EQUIPMENTType	see EQUIPMENTType description
or		
<ANTENNAS>	ANTENNASType	see ANTENNASType description
or		
<ADDRESSES>	ADDRESSESType	see ADDRESSESType description
or		
<FILTER_DL>	FILTER_DLType	see FILTER_DLType description
or		
<SATELLITE_DL>	SATELLITE_DLType	see SATELLITE_DLType description
</SPECTRAEXCHANGE>		

2.1.4 ADDRESSES TYPE

<ADDRESSES>		Master data ADDRESS
<ADDRESS> {1 ... n}	ADDRESSType	see ADDRESSType description
</ADDRESSES>		

2.1.5 ADDRESS TYPE

<ADDRESS>		
<Attribute: AD_TYPE>	string (255)	address type (see text lookups)
<Attribute: AD_ID_SRC_SPECTRA>	string (63)	
<Attribute: "AD_ID_SRC_EXTERN">	string (63)	

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Hiba! A(z) Heading 2 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

<Attribute: "AD_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<AD_SPPLUS_TYPE>	string (15)	type of Address. Same value as AD_TYPE.
<AD_NAME>	string (255)	Name
<AD_SECOND_NAME>	string (255)	Second Name
<AD_FIRST_NAME>	string (255)	First Name
<AD_SALUTATION>	string (255)	e.g.: Mr. or Mrs.
<AD_TITLE>	string (255)	Title
<AD_COMPANY>	string (255)	Company
<AD_DEPARTMENT>	string (255)	Department
<AD_PERSON_CODE>	string (255)	Person Code
<AD_HOUSE>	string (255)	House
<AD_STREET>	string (255)	Street
<AD_BUILDING_NO>	string (255)	Building Number
<AD_SUBURB>	string (255)	Suburb
<AD_ZIP>	string (255)	ZIP
<AD_COUNTRY>	string (3)	Country
<AD_PO_BOX>	string (255)	P.O. Box
<AD_ZIP_PO_BOX>	string (255)	P.O. Box Zip Code
<AD_CITY_PO_BOX>	string (255)	P.O. Box City
<AD_CITY>	string (255)	City
<AD_PHONE>	string (255)	Phone
<AD_PHONE2>	string (255)	Phone 2
<AD_FAX>	string (255)	Fax
<AD_MOBILE>	string (255)	Mobile
<AD_E_MAIL>	string (255)	E-mail
<AD_COMMENT>	string (1000)	Comment
<AD_COMMENT_LARGE>	string (1000)	Comment (large)
<AD_MAN_NUMBER>	string (255)	Address Number
<AD_PASS>	string (255)	Passport Number
<AD_NATIONALITY>	string (255)	Nationality
<AD_BIRTH_DATE>	Date	Birth Date
<AD_BIRTH_PLACE>	string (255)	Birth Place
<AD_COMPCODE>	string (255)	Company Code
<AD_TAX_ADMIN_NUM>	string (255)	Tax Number
<WEB_ADDRESS>	string (255)	WEB Address
<AD_POSITION>	string (255)	Position
<AD_DATE_OF_DEATH>	Date	Date of death
<AD_CAT1>	string (5)	Company State
<AD_DISTRICT>	string (255)	District
<AD_COUNTY>	string (255)	County
<AD_PASS_CAT>	string (3)	Passport Number category
<AD_PASS_ISSUE_DATE>	Date	Passport issue date
<AD_MOTHER_NAME>	string (255)	Mother name
<AD_UPDATE_STATUS>	string (3)	Update status
<AD_CAT_COM>	string (255)	com. category

<AD_CAT2>	string (3)	category (2)
<AD_DELIVERY_TYPE>	long	Delivery Type
<AD_E_MAIL2>	string (255)	email address
<AD_COMPANY_SHORT>	string (255)	company's short name
<AD_COMMENT_INTERN>	string (511)	comment (internal)
<AD_MAP_POS>	string (64)	Field for mapping support only
<AD_CSAD_CATEGORY>	double	cost category
<AD_FLAT_NO>	string (255)	flat number
<AD_WEB2>	string (255)	second website address
<AD_BLOCK_NO>	string (255)	block no
<BILLING_CUSTOMER_DATA> BILLING_CUSTOMER_DATAType	BILLING_CUSTOMER_DATAType	see
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description
</ADDRESS>		

2.1.6 AIRCRAFT TYPE

<AIRCRAFT>		
<Attribute: "AI_ID_SRC_SPECTRA">		
<Attribute: "AI_ID_SRC_EXTERN">		
<AI_CALL>	string (15)	Call sign or other identification
<AI_NAME>	string (63)	<i>Aircraft Name</i>
<AI_OWNER>	string (31)	Owner of ship
<AI_NAT>	string (50)	Nationality and registration mark of aircraft
<AI_MODEL>	string (63)	<i>Model of aircraft</i>
<AI_TYPE>	string (63)	<i>Type of aircraft</i>
<AI_USE>	string (63)	<i>Aircraft use</i>
<AI_HOME_AIRPORT>	string (63)	<i>Home airport</i>
<AI_COMMENT>	string (511)	<i>Comment</i>
<AI_SERIAL_NO>	string (31)	aircraft serial number
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description
</AIRCRAFT>		

2.1.7 ANTENNACONFIG GROUP

<ANTENNACONFIGgroup>		
<EAC_AN_H>	double	<i>Antenna Height (m)</i>
<EAC_AN_H_EFF>	double	Antenna Effective Height (m)
<EAC_AN_H_EFF_MAX>	double	Antenna Max Effective Height (m)
<EAC_AN_POL>	string (3)	Antenna Polarization (cf Text Lookups)
<EAC_AN_AZI>	double	<i>Antenna Azimuth (°)</i>
<EAC_AN_ELEV>	double	<i>Antenna Elevation (°)</i>
<EAC_FEEDING_LOSS>	double	Antenna Feeding Loss (dB)
<EAC_SAT_NOISE>	double	Antenna Satellite Noise Temp.

<EAC_COMMENT>	string (255)	<i>Antenna Comment</i>
<EAC_FI_BAND_LOSS>	double	Band filter transmission attenuation (dB)
<EAC_FI_DUP_LOSS>	double	Duplex filter transmission attenuation (dB)
<EAC_SAT_MAX_POW_DENSITY>	double	maximum of power density (dBW/Hz)
<EAC_BEAM_DES>	string (15)	Name of antenna beam for satellite service
<EAC_COMMENT_INTERN>	string (511)	Antenna comment
<EAC_FEEDER_LEN>	double	Feeder line length [m]
<EAC_FEEDER_LINE_TYPE>	string (63)	Type of TX/RX cable
<EAC_BRANCH_LOSS>	double	Branch loss [dB]
<EAC_LOCATION>	string (63)	Antenna location
<EAC_OP_AZI_ANG_FROM>	double	antenna pointing azimuth from [deg]
<EAC_OP_AZI_ANG_TO>	double	antenna pointing azimuth to [deg]
<EAC_OP_ELEV_ANG_FROM>	double	antenna pointing elevation from [deg]
<EAC_OP_ELEV_ANG_TO>	double	antenna pointing elevation to [deg]
<EAC_SAT_B_PTACC>	double	stabilising pointing accuracy [deg]
<EAC_H_MOTION_SPEED>	double	pointing update time [deg/sec]
<EAC_V_MOTION_SPEED>	double	pointing update time [deg/sec]
<EAC_SAT_MERIT_G_T>	double	G/T [dBK]
<EAC_AN_POL_ANG>	long	polarization angle [°]
<EAC_SWITCH_LOSS>	double	switch loss (dB)
<EAC_CONNECTOR_LOSS>	double	connector loss (dB)
<EAC_REFL_AZI>	double	Azimuth angle of the reflector surface (towards
north in degrees), true passive bearing (normal to passive face)		
<EAC_REFL_ELEV>	double	Elevation Angle of the reflector surface (towards
the horizon in degrees), true passive bearing (normal to passive face)		
<EAC_REFL_GAIN>	double	Gain of the reflector surface [dBi]

</ANTENNACONFIGgroup>

2.1.8 ANTENNA_PATTERNS TYPE

<ANTENNA_PATTERNS>		
<ANTENNA_PATTERN> {0 ... n}	ANTENNA_PATTERNType	see ANTENNA_PATTERNType
description		
</ANTENNA_PATTERNS>		

2.1.9 ANTENNA_PATTERN TYPE

<ANTENNA_PATTERN>		
<EAP_TYPE>	string (15)	Pattern Type (cf Text Lookups)
<EAP_ANGLE>	double	<i>Pattern Angle</i> (°)
<EAP_ATTENUATION>	double	<i>Pattern Attenuation</i> (dB)
</ANTENNA_PATTERN>		

2.1.10 ANTENNA_SERVICES TYPE

<ANTENNA_SERVICES>
 <SV_SV_ID> long SPECTRAplus service id
</ANTENNA_SERVICES>

2.1.11 ANTENNAS TYPE

<ANTENNAS>
 <ANTENNA> {1... n} ANTENNAtype see ANTENNAtype description
</ANTENNAS>

2.1.12 ANTENNA GROUP

<ANTENNAgroup>
 <EAN_NAME> string (80) *Antenna Name*
 <EAN_TYPE> string (80) *Antenna Type*
 <EAN_CODE_HOR> string (15) *Antenna Code Hor.*
 <EAN_CODE_VER> string (15) *Antenna Code Ver.*
 <EAN_GAIN> double *Antenna Gain*
 <EAN_REF_ANT> string (1) *Unit of Gain (I = dBi, E = dBd)*
 <EAN_AN_DIR> string (1) *Direction of the antenna*
 <EAN_V_BEAMWIDTH> double *Vertical beam width (°)*
 <EAN_H_BEAMWIDTH> double *Horizontal beam width (°)*
 <EAN_BACK_RAD_ATT> double *Backward radiation attenuation (dB)*
 <EAN_MANUFACTURE> string (255) *Antenna Manufacture*
 <EAN_PAT_DESC_PHI> double *Antenna Desc. Phi0 only for Sat.*
 <EAN_COMMENT> string (255) *Antenna Comment*
 <EAN_DIAM> double *Antenna Diameter*
 <EAN_F2BRATIO> double *Front to back ratio*
 <EAN_PAT_DESC_COEFF_A> double *Coefficient for alternative radiation pattern*
 <EAN_PAT_DESC_COEFF_B> double *Coefficient for alternative radiation pattern*
 <EAN_PAT_DESC_COEFF_C> double *Coefficient for alternative radiation pattern*
 <EAN_PAT_DESC_COEFF_D> double *Coefficient for alternative radiation pattern*
 <EAN_FREQ_RANGE_MIN> double *Frequency range minimum [Hz]*
 <EAN_FREQ_RANGE_MIN_DUNIT> string (3) *Frequency range min. display unit*
 <EAN_FREQ_RANGE_MAX> double *Frequency range maximum [Hz]*
 <EAN_FREQ_RANGE_MAX_DUNIT> string (3) *Frequency range max. display unit*
 <EAN_OP_AZI_ANG_FROM_MAX> double *Tracking from azimuth*
 <EAN_OP_AZI_ANG_TO_MAX> double *Tracking to azimuth*
 <EAN_POL> string (3) *Polarization of antenna*
 <EAN_SLEW_ANGLE> double *Antenna Slew Angle*
 <EAN_RAD_ELEM_TYPE> string (12) *Radiating system type*

<EAN_FREQ_GAIN>	double	Gain frequency [Hz]
<EAN_ELEMENT_NO_VER>	double	
<EAN_ETSI>	string (12)	ETSI recommendation number
<EAN_CLASS>	string (31)	ETSI antenna class
<EAN_DIAG>	string (80)	antenna diagram
<EAN_WIDTH>	double	antenna width
<EAN_VARIANT>	string (80)	antenna variant
<EAN_SN>	string (80)	antenna serial number
<EAN_ANT_IDENT>	string (31)	antenna identification code
<EAN_PAT_CUT_GEOM>	string (3)	Pattern Cut Geometry
<ANTENNA_PATTERNS> description	ANTENNA_PATTERNStype	see ANTENNA_PATTERNStype
<ANTENNA_SERVICES> description	ANTENNA_SERVICESType	see ANTENNA_SERVICESType
</ANTENNAgroup>		

2.1.13 ANTENNA TYPE

<ANTENNA>		
<Attribute: "EAN_ID_SRC_SPECTRA">		
<Attribute: "EAN_ID_SRC_EXTERN">		
<Attribute: "EAN_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<ANTENNAgroup>	ANTENNAgroup	see ANTENNAgroup description
</ANTENNA>		

2.1.14 APPLICATION TYPE

<APPLICATION>		
<Attribute: "AP_ID_SRC_SPECTRA">	string (63)	
<Attribute: "AP_ID_SRC_EXTERN">	string (63)	
<Attribute: "LI_APTB_ID">	long	
<SV_SV_ID>	long	Service ID (cf Text Lookups)
<SS_SS_ID>	long	Sub service ID (cf Text Lookups)
<AP_NAME> SPECTRAplus)	string (63)	Application Name (not used for import to
<AP_NAME_REFERENCE>	string (63)	Former application name
<AP_VERSION>	string (63)	Application version number
<AP_PRJ_IDENT>	string (31)	<i>Project Id</i>
<AP_CONCESSION_IDENT>	string (31)	<i>Concession Id</i>
<AP_REGISTER_PERSON>	string (7)	<i>Register Person Code</i>
<AP_REF_NUMBER>	string (63)	<i>Application Reference Number</i>
<AP_COMMENT>	string (511)	<i>Application Comment</i>
<AP_PLAN_NO>	string (20)	<i>Plan Number</i>

<AP_ACTION_TYPE>	string (1)	Application type (new,renew,...)
<AP_COMMENT_INTERN>	string (511)	Application comment (internal)
<AP_CATEGORY>	string (63)	category of request
<AP_COMMENT_LARGE>	string (1000)	comment (internal)
<TCC_SAT_NETID>	string (31)	<i>Network Id</i>
<TCC_NW_AREA_SIZE>	double	<i>Network Area Size</i>
<TCC_NETWORK_TYPE>	long	<i>Type of network</i>
<TCC_NW_SERVICE_TYPE>	string (14)	<i>Service Type</i>
<TCC_NW_NAME>	stringb(63)	network name
<TCC_AAIC>	string (15)	<i>AAIC</i>
<TCC_SPECIFIC_SERV>	string (31)	specific service
<LI_REQ_DATE>	Date	<i>Request Date</i>
<LI_LIC_DATE>	DateTime	<i>License Date</i>
<LI_CANCEL_DATE>	DateTime	<i>Cancellation Date</i>
<LI_PER_OP_TIME_BEGIN>	Date	Beginning of operational time
<LI_PER_OP_TIME_END>	Date	<i>End of operational time</i>
<LI_FACTOR_PERC_ONCE>	double	<i>Invoice factor once</i>
<LI_FACTOR_PERC_REGULAR>	double	<i>Invoice factor regular</i>
<LI_COMMENT>	string (511)	<i>License Comment</i>
<LI_CSLI_CATEGORY>	double	<i>Cost category</i>
<LI_CUSTOMER_REF_NO>	string (63)	<i>Customer Reference Number</i>
<LI_VALIDITY>	long	Period of validity of licence
<LI_VALIDITY_UNIT>	long	Unit for validity period (see textlookup)
<LI_PERIOD>	double	Period of validity of licence
<LI_PERIOD_UNIT>	long	Unit for validity period (see textlookup)
<LI_STATUS>	string (128)	<i>Status of licence.</i>
<LI_AR_CLASS>	string (15)	Class of radio-amateur licence
<LI_CAT>	string (3)	Licence category
<LI_RENEWAL_DATE>	Date	Licence renewal date
<LI_RESTRICT>	string (63)	licence restrictions
<LI_EXAM_DATE>	date	examination date
<LI_REASONING>	string (1023)	reasoning
<LI_PARAM_TRADING>	long	is tradable ? (1=yes, 0=no)
<LI_CUSTOMER_DATE1>	Date	Date 1
<LI_CUSTOMER_CAT1>	string (63)	Category 1
<LI_CUSTOMER_NUM1>	double	Number 1
<LI_CUSTOMER_CHAR1>	string 511	String 1
<LI_CUSTOMER_DATE2>	Date	Date 2
<LI_CUSTOMER_CAT2>	string (63)	Category 2
<LI_CUSTOMER_NUM2>	double	Number 2
<LI_CUSTOMER_CHAR2>	string 511	String 2
<LI_CUSTOMER_DATE3>	Date	Date 3
<LI_CUSTOMER_CAT3>	string (63)	Category 3
<LI_CUSTOMER_NUM3>	double	Number 3
<LI_CUSTOMER_CHAR3>	string 511	String 3
<LI_CUSTOMER_DATE4>	Date	Date 4

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Hiba! A(z) Heading 2 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

<LI_CUSTOMER_CAT4>	string (63)	Category 4
<LI_CUSTOMER_NUM4>	double	Number 4
<LI_CUSTOMER_CHAR4>	string 511	String 4
<LI_CUSTOMER_DATE5>	Date	Date 5
<LI_CUSTOMER_CAT5>	string (63)	Category 5
<LI_CUSTOMER_NUM5>	double	Number 5
<LI_CUSTOMER_CHAR5>	string 511	String 5
<LI_PARAM_ONLINE>	long	online processing
<LI_PAY_CATEGORY>	string (3)	payment category
<LI_TRADE_DATE>	Date	requested trade date
<AD_NAME>		not used anymore
<AD_FIRST_NAME>		<i>not used anymore</i>
<AD_SALUTATION>		<i>not used anymore</i>
<AD_TITLE>		not used anymore
<AD_COMPANY>		not used anymore
<AD_DEPARTMENT>		<i>not used anymore</i>
<AD_PERSON_CODE>		<i>not used anymore</i>
<AD_BUILDING_NO>		<i>not used anymore</i>
<AD_HOUSE>		not used anymore
<AD_STREET>		not used anymore
<AD_ZIP>		not used anymore
<AD_COUNTRY>		not used anymore
<AD_PO_BOX>		not used anymore
<AD_ZIP_PO_BOX>		<i>not used anymore</i>
<AD_CITY_PO_BOX>		<i>not used anymore</i>
<AD_CITY>		not used anymore
<AD_PHONE>		not used anymore
<AD_FAX>		not used anymore
<AD_MOBILE>		not used anymore
<AD_E_MAIL>		not used anymore
<AD_COMMENT>		not used anymore
<AD_MAN_NUMBER>		<i>not used anymore</i>
<AD_PASS>		not used anymore
<AD_NATIONALITY>		<i>not used anymore</i>
<AD_BIRTH_DATE>		<i>not used anymore</i>
<AD_BIRTH_PLACE>		<i>not used anymore</i>
<AD_COMMENT_LARGE>		<i>not used anymore</i>
<AD_COMPCODE>		not used anymore
<AD_TAX_ADMIN_NUM>		<i>not used anymore</i>
<AD_PHONE2>		not used anymore
<AD_SUBURB>		not used anymore
<ADO_NAME>		not used anymore
<ADO_FIRST_NAME>		<i>not used anymore</i>
<ADO_SALUTATION>		<i>not used anymore</i>
<ADO_TITLE>		not used anymore
<ADO_COMPANY>		not used anymore

<ADO_DEPARTMENT>		<i>not used anymore</i>
<ADO_PERSON_CODE>		<i>not used anymore</i>
<ADO_HOUSE>		not used anymore
<ADO_STREET>		not used anymore
<ADO_ZIP>		not used anymore
<ADO_COUNTRY>		not used anymore
<ADO_PO_BOX>		not used anymore
<ADO_ZIP_PO_BOX>		<i>not used anymore</i>
<ADO_CITY_PO_BOX>		<i>not used anymore</i>
<ADO_CITY>		not used anymore
<ADO_PHONE>		not used anymore
<ADO_FAX>		not used anymore
<ADO_MOBILE>		not used anymore
<ADO_E_MAIL>		not used anymore
<ADO_COMMENT>		not used anymore
<ADO_MAN_NUMBER>		<i>not used anymore</i>
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description
<STATION> {0 ... n}	STATIONType	see STATIONType description
<AIRCRAFT>	AIRCRAFTType	see AIRCRAFTType description
or		
<SHIP>	SHIPType	see SHIPType description
<CAN>	CANType	see CANType description
<CALL_SIGNS>	CALL_SIGNSType	see CALL_SIGNSType description
<MMSIS>	MMSISType	see MMSISType description
<ATTACHMENT> {0 ... n}	ATTACHMENTType	see ATTACHMENTType description
<APPLICATION_FLAGS> {0 - 1} description	APPLICATION_FLAGSType	see APPLICATION_FLAGSType
<APPLICATION_LINK> {0 - 1} description	APPLICATION_LINKType	see APPLICATION_LINKType
<APPLICATION_OFFICIAL> {0 - 1} description	APPLICATION_OFFICIALType	see APPLICATION_OFFICIALType
<WORKFLOW_HISTORY> {0 - n} description	WORKFLOW_HISTORYType	see WORKFLOW_HISTORYType
<COMPLAINT> {0 - n}	COMPLAINTType	see COMPLAINTType description
<RD_EQUIP_REGISTRATIONS> RD_EQUIP_REGISTRATIONType description	RD_EQUIP_REGISTRATIONSType	see

</APPLICATION>

2.1.15 APPLICATION_FLAGS TYPE

<APPLICATION_FLAGS>		
<AF_WEB_S01>	string (63)	status flag
<AF_WEB_S01_COMMENT>	string (511)	status flag comment
<AF_WEB_S02>	string (63)	status flag
<AF_WEB_S02_COMMENT>	string (511)	status flag comment
<AF_WEB_S03>	string (63)	status flag

<AF_WEB_S03_COMMENT>	string (511)	status flag comment
<AF_WEB_S04>	string (63)	status flag
<AF_WEB_S04_COMMENT>	string (511)	status flag comment
<AF_WEB_S05>	string (63)	status flag
<AF_WEB_S05_COMMENT>	string (511)	status flag comment
<AF_WEB_S06>	string (63)	status flag
<AF_WEB_S06_COMMENT>	string (511)	status flag comment
<AF_WEB_S07>	string (63)	status flag
<AF_WEB_S07_COMMENT>	string (511)	status flag comment
<AF_WEB_S08>	string (63)	status flag
<AF_WEB_S08_COMMENT>	string (511)	status flag comment
<AF_WEB_S09>	string (63)	status flag
<AF_WEB_S09_COMMENT>	string (511)	status flag comment
<AF_WEB_S10>	string (63)	status flag
<AF_WEB_S10_COMMENT>	string (511)	status flag comment
<AF_WEB_D01>	Date	status flag date
<AF_WEB_D01_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D02>	Date	status flag date
<AF_WEB_D02_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D03>	Date	status flag date
<AF_WEB_D03_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D04>	Date	status flag date
<AF_WEB_D04_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D05>	Date	status flag date
<AF_WEB_D05_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D06>	Date	status flag date
<AF_WEB_D06_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D07>	Date	status flag date
<AF_WEB_D07_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D08>	Date	status flag date
<AF_WEB_D08_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D09>	Date	status flag date
<AF_WEB_D09_COMMENT>	string (511)	comment to status flag date
<AF_WEB_D10>	Date	status flag date
<AF_WEB_D10_COMMENT>	string (511)	comment to status flag date

</APPLICATION_FLAGS>

2.1.16 APPLICATION_LINK TYPE

<APPLICATION_LINK>		
<AP_AP_ID_FROM>	string (63)	id of former application
<AL_TYPE>	long	application link type: 1(=default)
</APPLICATION_LINK>		

2.1.17 APPLICATION_OFFICIAL TYPE

<APPLICATION_LINK>
 <ADDRESS> {0 ... n} ADDRESSType see ADDRESSType description
</APPLICATION_LINK>

2.1.18 APPLICATION_TEXT_BLOCK TYPE

< APPLICATION_TEXT_BLOCK >
 <APTB_TABLE_PREFIX> string (30) table prefix
 <APTB_TABLE_ID> long primary key id of a table
 <APTB_DESCRIPTION> string (255) text block description
 <APTB_CATEGORY> string (255) text block category
 <APTB_TEXT> string (1999) text block
</ APPLICATION_TEXT_BLOCK >

2.1.19 ATTACHMENT TYPE

<ATTACHEMENT>
 <DESCRIPTION> string (255) Attachement description
 <FILE_NAME> string (255) name of attachment. In case of
 IS_REFERENCE==1 this is the location of the external file (content is not within xml/FILE_BLOB)
 <FILE_BLOB> Base64Binary Base64 encoded attachment content
 or
 <IS_REFERENCE> long set this to 1 if attachment content is referenced
 by FILE_NAME (content is not within xml/FILE_BLOB)
 <LE_YOUR_SIGN> string (63) letter reference
 <LE_YOUR_DATE> Date letter date
</ATTACHEMENT>

2.1.20 BILLING_CUSTOMER_DATA TYPE

<BILLING_CUSTOMER_DATA>
 <Attribute: "BIC_ID_SRC_SPECTRA"> string (63)
 <Attribute: "BIC_ID_SRC_SPECTRA"> string (63)
 <BIC_BOOK_ACCOUNT> string (15) Book Account
 <BIC_BANK_ACCOUNT> string (31) Bank Account
 <BIC_BANK_NAME> string (63) Bank Name
 <BIC_BANK_IDENT> string (63) Bank Identification
 <BIC_PAYM_TYPE> Long Payment Type
 <BIC_KSH_NUM> string (31) KSH number
 <BIC_TAX_ADMIN_NUM> string (31) Tax Admin Number
 <BIC_TAX_ADMIN_NUM_EU> string (31) European Union tax num
 <BIC_FIN_REG_NUM> string (31) Financial register number

<BIC_HIRE_PURCHASE_FLAG>	Long	Hire-purchase agreement flag (0/1)
<BIC_COMMENT>	string (511)	
<BIC_COMMENT_LARGE>	string (1000)	
<BIC_COMMENT_INTERN>	string (511)	
</BILLING_CUSTOMER_DATA>		

2.1.21 CAN TYPE

<CAN>		Coverage area network
<SITE> {1 ... n}	SITEType	see SITEType description
</CAN>		

2.1.22 CALL_SIGN TYPE

<CALL_SIGN>		
<TCCS_CALL>	string (255)	call sign
</CALL_SIGN>		

2.1.23 CALL_SIGNS TYPE

<CALL_SIGNS>		
<CALL_SIGN> {0 ... n}	CALL_SIGNTYPE	see CALL_SIGNTYPE description
</CALL_SIGNS>		

2.1.24 CAS TYPE

<CAS>		Coverage area station
<SITE> {1 ... n}	SITEType	see SITEType description
</CAS>		

2.1.25 COMPLAINT TYPE

<COMPLAINT>		
<Attribute: "TCCO_ID_SRC_SPECTRA ">	string (63)	
<Attribute: "AP_AP_ID_AF ">	string (63)	
<Attribute: "TCS_TCS_ID ">	string (63)	
<TCCO_COMPLAINT>	string (1000)	report of irregularity or infringement
<TCCO_MEASURE>	string (1000)	measures to be taken
<TCCO_OUTCOME>	string (1000)	outcome of investigation
<TCCO_COMMENT>	string (1000)	complaint comments
</ COMPLAINT>		

2.1.26 COORDINATED_FREQUENCY TYPE

<COORDINATED_FREQUENCY>		
<Attribute: "COF_ID_SRC_SPECTRA">	string (63)	
<Attribute: "COF_ID_SRC_EXTERN">	string (63)	
<COF_DAT>	Date	Coordination Date
<COF_USE_DATE>	Date	Date of Bringing in Use
<COF_FIN>	Date	Coordination Final Date
<COF_COUNTRY>	string (3)	Country Code for Active Coordination
<COF_STATUS>	string (1)	Coordination Status (cf T. Lookups)
<COF_COMMENT>	string (511)	coordination comment
</COORDINATED_FREQUENCY>	Coordinated Frequency End Tag	

2.1.27 EFF_HEIGHTS TYPE

<EFF_HEIGHTS>		
<EFF_HEIGHT> {0 ... n}	EFF_HEIGHTType	see EFF_HEIGHTType description
</EFF_HEIGHTS >		

2.1.28 EFF_HEIGHT TYPE

<EFF_HEIGHT>		
<EH_ANGLE>	double	Angle (°)
<EH_HEIGHT>	double	Height (m)
</EFF_HEIGHT>		

2.1.29 EMFSTYPE

<EMFS>		
<EMF> {0 ... n}	EMFType	see EMFType description
</EMFS>		

2.1.30 EMFTYPE

<EMF>		
<EMF_EXPQ_LFR> Range (Existing sources)	double	Exposure Quotient Low Frequency

<EMF_EXPQ_HFR_TH> Range Thermal (Existing sources)	double	Exposure Quotient HighFrequency
<EMF_EXPQ_HFR_NONTH> Range Nonthermal (Existing sources)	double	Exposure Quotient HighFrequency
<EMF_EXPQ_LFR_NEW> Range (Existing sources and new station)	double	Exposure Quotient Low Frequency
<EMF_EXPQ_HFR_TH_NEW> Range Thermal (Existing sources and new station)	double	Exposure Quotient HighFrequency
<EMF_EXPQ_HFR_NONTH_NEW> Range Nonthermal (Existing sources and new station)	double	Exposure Quotient HighFrequency
<EMF_COMMENT>	string (511)	comment
<EMF_COMMENT_INTERN>	string (511)	internal comment

</EMF>

2.1.31 EQP_OP_COUNTRIES TYPE

<EQP_OP_COUNTRIES>		
<COUNTRY_CODE>	string (3)	ITU country code
<OPERATION_PLANNED>	string (1)	1: yes, 0: no
<NOTIFICATION>	string (3)	I: individual license G: general license
</EQP_OP_COUNTRIES>		

2.1.32 EQUIP_DETAIL TYPE

<EQUIP_DETAIL>		
<ED_EQUIP_SN>	string (80)	Serial number of equipment
<ED_EQUIP_SN_PREFIX>	string (15)	Prefix for serial number of equipment
<ED_EQUIP_MAP_POS>	string (20)	Field for mapping support only
</EQUIP_DETAIL>		

2.1.33 EQUIP_EMISSION TYPE

<EQUIP_EMISSION>		
<EQE_EMI>	string (63)	Emission Class
<EQE_EMI_CARRIER1>	string (63)	Designation of emission (Sound carrier 1)
<EQE_EMI_CARRIER2>	string (63)	Designation of emission (Sound carrier 2)
</EQUIP_EMISSION>		

2.1.34 EQUIPMENT GROUP

<EQUIPMENTgroup>		
<EQP_EQUIP_NAME>	string (511)	Equipment Name

<EQP_EQUIP_TYPE>	string (15)	Equipment Type (cf Text Lookups)
<EQP_TYPE_IS_APPROVED>	long	Type Approved (1=yes)
<EQP_EQUIP_IDENT>	string (255)	Identification Number
<EQP_EQUIP_MODEL>	string (511)	Model of Physical Equipment
<EQP_EQUIP_PROD>	string (127)	Manufacture
<EQP_EQUIP_NUM>	long	Number of equipments
<EQP_EQ_PURPOSE>	string (511)	Purpose
<EQP_CAT>	string (63)	Category
<EQP_CAT_COMMENT>	string (511)	Comment
<EQP_COMMENT>	string (255)	Comment
<EQP_MODE_OP>	string (31)	Mode of Operation (Simplex, Duplex, ..)
<EQP_STANDARDS> specifications	string (255)	Harmonized Standards or technical
<EQP_ASSESS_PROC> assessment procedure the EQ has to pass during EQ approval/notification	string (63)	Name/Description of kind of conformity
<EQP_ASSESS_ORG> involved in the conformity assessment procedure	string (63)	Name/Number or numbers of the notified bodies
<EQP_SOFTWARE_VERSION>	string (31)	Version number of the Software/Firmware
<EQP_HARDWARE_VERSION>	string (31)	Version number of the Hardware
<EQP_EQUIP_MAP_POS>	string (20)	Field for mapping support only
<EQP_UPDATE_STATUS>	string (3)	update status
<EQP_MAX_AGGREG_POW> group [W]	double	maximum aggregated power of transponder
< EQP_MAX_AGGREG_POW_DUNIT> transponder group	string (3)	display unit for maximum aggregated power of
<EQP_CSEQP_CATEGORY1>	string (31)	cost category 1
<EQP_CSEQP_CATEGORY2>	string (31)	cost category 2
<EQP_TYPE_BASE>	integer	type base (1=yes / 0=no)
< EQP_TYPE_PORTABLE>	integer	type portable (1=yes / 0=no)
< EQP_TYPE_MOBILE>	integer	type mobile (1=yes / 0=no)
< EQP_TYPE_BOAT>	integer	type boat (1=yes / 0=no)
< EQP_EQUIP_OWNER>	string (255)	equipment owner
<EQP_OP_COUNTRIES> description	EQP_OP_COUNTRIESType	see EQP_OP_COUNTRIESType
<EQUIP_DETAIL>	EQUIP_DETAILType	see EQUIP_DETAILType description
<EQ_EQUIP_NAME>	string (31)	Name of Equipment
<EQ_RF_BWIDTH>	double	Radio Frequency Bandwidth (Hz)
<EQ_RF_BWIDTH_DUNIT> lookups)	string (3)	Radio frequency bandwidth display unit (cf Text
<EQ_KF_BANDWIDTH>	double	KF Bandwidth (Hz)
<EQ_KF_BANDWIDTH_DUNIT>	string (3)	Display unit (cf text lookups)
<EQ_CHAN_O>	long	Channel occupation
<EQ_NOISE_FACTOR>	double	Noise Factor
<EQ_CSEQ_CATEGORY>	double	Cost category
<EQ_COMMENT>	string (255)	Comment
<EQ_FREQ_BAND>	string (512)	Frequency Band
<EQ_FREQ_OPERA>	string (255)	Operating frequencies
<EQ_MODULATION>	string (31)	Type of modulation
<EQ_CH_TRANS_SERVICE>	long	Number of service channels
<EQ_CHANNEL_SPACE>	double	Channel spacing (in Hz)

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<EQ_CHANNEL_SPACE_UNIT>	string (3)	
<EQ_CHANNEL_SPACE_DUNIT>	string (3)	Display unit
<EQ_OP_TIME_DESC>	string (63)	Duty cycle/Operating time
<EQ_MULTIPLEX>	string (15)	Multiplexing method
<EQ_AN_TYPE>	string (63)	Type of antenna
<EQ_SPACE_DIVERSITY>	long	Space diversity (0 = No, 1 = Yes)
<EQ_FREQ_DIVERSITY>	long	Frequency diversity (0 = No, 1 = Yes)
<EQ_ANGLE_DIVERSITY>	long	Angle diversity (0 = No, 1 = Yes)
<EQ_POL_DIVERSITY>	long	Polarization diversity (0 = No, 1 = Yes)
<EQ_FS_TRANSFER_CAPACITY>	string (21)	Max. data transfer rate
<EQ_FS_TRANSFER_RATE>	double	Max. data transfer rate [bit/s]
<EQ_INTERNAL_IDENT>	long	Equipment internal identification
<EQ_TV_PREC_OFFSET>	string (3)	Offset type
<EQ_TV_OFF>	string (3)	Frequency offset (TV)
<EQ_TV_OFF_FREQ>	double	Frequency offset (absolute)
<EQ_TV_OFF_FREQ_DUNIT>	string (3)	display unit (cf Text lookups)
<EQ_F_STAB>	double	Frequency stability
<EQ_F_STAB_DUNIT>	string (3)	display unit (cf Text lookups)
<EQ_ANALOG_OR_DIGITAL>	string (1)	Analog or digital signal [A/D]
<EQ_TV_POWER_RATIO>	double	Vision to sound ratio
<EQ_TV_POWER_RATIO2>	double	Vision to sound ratio (2)
<EQ_TV_COLOR_SYS>	string (3)	Color system (PAL, SECAM, etc.)
<EQ_TV_SYS>	string (15)	System
<EQ_TV_SEC_SOUND_SYS>	string (20)	Second sound system
<EQ_FREQ_LO>	double	lower frequency band [Hz]
<EQ_FREQ_LO_DUNIT>	string (3)	display unit (cf text lookups)
<EQ_FREQ_UP>	double	upper frequency band [Hz]
<EQ_FREQ_UP_DUNIT>	string (3)	display unit (cf text lookups)
<EQ_EQUIP_OTHER>	string (499)	other equipment
<EQ_SPEC EFFIC CLASS>	string (31)	spectrum efficiency class
<EQ_FREQ_RANGE_MIN>	double	frequency range minimum [Hz]
<EQ_FREQ_RANGE_MIN_DUNIT>	string (3)	display unit (cf text lookups)
<EQ_FREQ_RANGE_MAX>	double	frequency range maximum [Hz]
<EQ_FREQ_RANGE_MAX_DUNIT>	string (3)	display unit (cf text lookups)
<EQ_CH_TRANS_AUDIO>	double	number of audio channels
<EQ_DUPLEX_SPACE>	double	spacing - Lower/Upper Band
<EQ_DUPLEX_SPACE_DUNIT>	string (3)	display unit (cf text lookups)
<EQE_EMI>	string (63)	Emission Class
<EQE_EMI_CARRIER1>	string (63)	Designation of emission (Sound carrier 1)
<EQE_EMI_CARRIER2>	string (63)	Designation of emission (Sound carrier 2)
<EQUIP_EMISSION> {0 ... n}	EQUIP_EMISSIONType	see EQUIP_EMISSIONType
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description

</EQUIPMENTgroup>

2.1.35 EQUIPMENT TYPE

<EQUIPMENT>
 <TRANSMITTER_DL> {0 ... n} TRANSMITTER_DLType see TRANSMITTER_DLType description
 <RECEIVER_DL> {0 ... n} RECEIVER_DLType see RECEIVER_DLType description
</EQUIPMENT>

2.1.36 FILTER_DL TYPE

<FILTER_DL>
 <FILTERS> {1 ... n} FILTERSType see FILTERSType description
</FILTER_DL >

2.1.37 FILTERS TYPE

<FILTERS>
 <Attribute: "FIDE_ID_SRC_SPECTRA"> string (63)
 <Attribute: "FIDE_ID_SRC_EXTERN"> string (63)
 <FILTER> {0 ... n} FILTERType see FILTERType description
</FILTERS >

2.1.38 FILTER TYPE

<FILTER>
 <FI_FREQ> double *Frequency (Hz)*
 <FI_ATTENUATION> double *Attenuation (dB)*
</FILTER>

2.1.39 FREQUENCY TYPE

<FREQUENCY>
 <Attribute: "EFL_ID_SRC_SPECTRA"> string (63)
 <Attribute: "EFL_ID_SRC_EXTERN"> string (63)
 <Attribute: "LEQ_ID_SRC_EXTERN"> string (63)
 <Attribute: "EFL_EFL_ID_SRC"> int
 <Link> string (31)
 <SHAREDLINK> SHAREDLINKType see SHAREDLINKType description
 <Related> string Related Frequency
 <EFL_FREQ_ID> string (63) internal frequency identification
 <EFL_FREQ> double *Frequency (Hz)*

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<EFL_FREQ_DUNIT>	string (3)	Frequency display unit (cf Textlookups)
<EFL_OP_HOUR>	string (11)	Hours of Operation (hhmm-hhmm, where hh is one or two digits which correspond to the hours and mm are always two digits which correspond to the minutes, examples 730-1500, 1345-2400, ...)
<EFL_GSM_SYS>	string (31)	Gsm System (cf Text Lookups)
<EFL_CHANNEL_SPACE>	double	Channel Space (Hz)
<EFL_CHANNEL_SPACE_DUNIT>	string (3)	Channel space display unit (CF Textlookups)
<EFL_RF_BWIDTH>	double	Bandwidth (Hz)
<EFL_RF_BWIDTH_DUNIT>	string (3)	Bandwidth display unit (CF
<EFL_USE_TYPE>	string (14)	Usage Type (cf Text Lookups)
<EFL_REF_FREQ>	double	Reference frequency [Hz]
<EFL_REF_FREQ_DUNIT>	string (3)	Reference frequency display unit (CF Text
<EFL_TV_SOUND_CARRIER>		lookups)
<EFL_TV_SOUND_CARRIER_DUNIT>	string (3)	display unit
<EFL_TV_SOUND_CARRIER2>		
<EFL_TV_SOUND_CARRIER2_DUNIT>	string (3)	display unit
<EFL_CHANNEL>	string (31)	Channel name
<EFL_SOUND_MO_ST>	string (1)	Mono/Stereo transmission
<EFL_PRG>	string (63)	Program
<EFL_DECISION_NO>	string (15)	ORTT decision number
<EFL_PRG_PROV_CONTRACT_NO>	string (15)	Program providing contract number
<EFL_DECISION_DATE>	Date	ORTT decision date
<EFL_PRG_PROV_CONTRACT_DATE>	Date	Program Providing contract date
<EFL_PRG_PROV_CANCEL_DATE>	Date	Program Providing cancel date
<EFL_PRG_RANGE>	string (5)	Program(s) range (national, district, regional)
<EFL_PRG_CHARACTER>	string (5)	Program(s) character (public [P], commercial[C],
<EFL_PRG_INFO>		non-profit [N]
<EFL_PRG_INFO>	string (31)	Other information broadcasted simultaneously
<EFL_PRG_LANG>	string (31)	with program
<EFL_PRG_LANG>	string (31)	Language of the transmitted program
<LEQ_TRANSFER_RATE>	double	transfer rate of link (Bit/s)
<LEQ_RELIAB>	double	link reliability (%)
<LEQ_PATHLOSS>	double	path loss [dB]
<LEQ_PATHLOSS_ADD>	double	additional path loss [dB]
<LEQD_NAME>	string (63)	link name
<LEQD_FPLAN_EL_NAME>	string (63)	name of frequency plan element
<LEQD_CIRC_LEN>	double	Length of circuit [km]
<LEQD_UPDATE_STATUS>	string (3)	update status
<LEQD_SYSTEM>	string (63)	system ID
<LEQD_XPIC_GRP_ID>	string (63)	XPIC Group ID
<EFL_MAP_POS>	string (20)	Field for mapping support only
<EFL_COMMENT>	string (511)	comment
<EFL_MODE_OP>	string (255)	Operation mode
<EFL_TIMESLOT>	string (255)	Time slots
<EFL_SIG_CODE>	string (2000)	Signalling codes
<EFL_UPPER_LOWER>	string (1)	upper/lower band (U=upper/L=lower)
<EFL_FPLAN_EL_NAME>	string (63)	frequency plan element name
<EFL_UPDATE_STATUS>	string (3)	update status
<EFL_COLOR_CODE>	string (31)	color code

<EFL_TIMESLOT_LEN>	double	to capture timeslot length [msec]
<EFL_TIMESLOT_LEN_DUNIT>	string (3)	display unit for timeslot capture length
<EFL_ITU_NOTICE_NO>	string (31)	notice number (unique id of admin.)
<EFL_ITU_PLAN_ENTRY>	string (3)	plan entry
<EFL_ITU_ASSGN_CODE>	string (3)	assignement code
<EFL_ITU_REF_PLAN_CFG>	string (5)	reference plan config
<EFL_ITU_RX_MODE>	string (5)	rx mode
<EFL_ITU_ADM_ALLOT_ID>	string (31)	corresponding allotment id
<EFL_ITU_ALLOT_SFN_ID>	string (31)	corresponding allotment SFN id
<EFL_ITU_IS_PUB_REQ>	string (3)	is pub. req.
<EFL_ITU_ADDR_CODE>	string (3)	address code
<EFL_ITU_REM_COND_MET>	string (3)	remark cond. Met
<EFL_FREQ_TO>	double	<i>Frequency (Hz)</i>
<EFL_FREQ_TO_DUNIT>	string (3)	Frequency display unit (cf Textlookups)
<EFL_TIME_DELAY>	double	time delay [s]
<EFL_LIC_START_DATE>	DateTime	License start date
<EFL_LIC_END_DATE>	DateTime	License end date
<EFL_CARRIER_NUM>	string (15)	number of carriers
<EFL_ITU_IFRB_DATE>	DateTime	date of IFRB notification
<EFL_ITU_IFRB_NO>	string (15)	No. of IFRB notification
<EFL_SYSTEM>	string (63)	System ID
<EFL_FREQ_IDENT>	string (31)	Frequency Ident Code
<COORDINATED_FREQUENCY> {0 ... n} COORDINATED_FREQUENCYType description	COORDINATED_FREQUENCYType	see
<ITU_NOTIFICATION_TERRA> ITU_NOTIFICATION_TERRAType description	ITU_NOTIFICATION_TERRAType	see
<ITU_NOTIFICATION_SPACE> ITU_NOTIFICATION_SPACEType description	ITU_NOTIFICATION_SPACEType	see
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description

</FREQUENCY>

2.1.40 HORIZONTAL_ELEVATIONS TYPE

<HORIZONTAL_ELEVATIONS>		
<HORIZONTAL_ELEVATION> {0 ... n} HORIZONTAL_ELEVATIONType description	HORIZONTAL_ELEVATIONType	see

</HORIZONTAL_ELEVATIONS>

2.1.41 HORIZONTAL_ELEVATION TYPE

<HORIZONTAL_ELEVATION>		
<HE_AZIMUT>	double	Azimuth (°)
<HE_ELEVATION>	double	Elevation (°)
<HE_DIST>	double	

</HORIZONTAL_ELEVATION>

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2.1.46 LINKS TYPE

<LINKS>
 <LINK> {1 ... n} LINKType see LINKType description
</LINKS>

2.1.47 LINK TYPE

<LINK>
 <Attribute: "LINK_TYPE"> long type of link
 <Attribute: "SHARED"> long shared link? 0:no, 1:yes
 <ID> string (31) Link ID
 <LEQD_NAME> string (63) Link name
 <LEQD_CIRC_LEN> double Length of circuit [km]
 <LEQD_COMMENT> string (511) Comment
 <LEQD_UPDATE_STATUS> string (3) update status
 <LEQD_SYSTEM> string (63) system ID
</LINK>

2.1.48 MMSI TYPE

<MMSI>
 <TCM_MMSI> string (255) MMSI
</MMSI>

2.1.49 MMSIS TYPE

<MMSIS>
 <MMSI> {0 ... n} MMSISType see MMSISType description
</MMSIS>

2.1.50 MSC TYPE

<MSC>
 <SITE> {0 ... n} SITEType see SITEType description
</MSC>

2.1.51 RD_EQUIP_REGISTRATION TYPE

<RD_EQUIP_REGISTRATION>		
<RDER_SUBCATEGORY>	string (15)	registration subcategory
<RDER_REGISTERED> registered	long	is equipment registered ? 0 = not registered; 1 =
<RDER_COMMENT>	string (511)	comment
</RD_EQUIP_REGISTRATION >		

2.1.52 RD_EQUIP_REGISTRATIONS TYPE

<RD_EQUIP_REGISTRATIONS>		
<RD_EQUIP_REGISTRATION> {0 ... n}	RD_EQUIP_REGISTRATION	see
RD_EQUIP_REGISTRATION	Type	description
</RD_EQUIP_REGISTRATIONS>		

2.1.53 RECEIVER_DL TYPE

<RECEIVER_DL>		
<Attribute: "EQP_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQP_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQ_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAN_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<Attribute: "EAC_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAC_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_APTB_ID">	long	
<EQUIPMENTgroup>	EQUIPMENTgroup	see EQUIPMENTgroup description
<ERX_MIN_LEVEL>	double	Minimum Receive Level (dBm)
<ERX_MIN_LEVEL_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_BAND_WIDTH>	double	<i>Bandwidth (Hz)</i>
<ERX_BAND_WIDTH_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_C_I>	double	Carrier Interference (dB)
<ERX_C_I_SHORT>	double	Carrier Interference Short(dB)
<ERX_MPL>	double	Minimum Power Level (dBm)
<ERX_MPL_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_NOISE_TEMP>	double	Noise Temperature (Kelvin)
<ERX_MIN_SENSE>	double	Receiver Sensitivity (Volts)
<ERX_MIN_SENSE_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ERX_TOT_ATT_H44> dB)	double	Receiver side equipment total attenuation (+/-
<ERX_BER>	double	Bit error rate
<ERX_MPIL>	double	Maximum permissible interference level [dBm]
<ERX_MPIL_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>

<ERX_COMMENT>	string (511)	Comment
<ERX_UPDATE_STATUS>	string (3)	update status
< ERX_XIF>	double	XIF [dB]
</RECEIVER_DL>		

2.1.54 RECEIVER TYPE

<RECEIVER>		
<Attribute: "EQP_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQP_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQP_EQP_ID_SRC">	int	
<Attribute: "EQ_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQ_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_EQ_ID_SRC">	int	
<Attribute: "EAN_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAN_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<Attribute: "EAC_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAC_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_APTB_ID">	long	
<EQUIPMENTgroup>	EQUIPMENTgroup	see EQUIPMENTgroup description
<ERX_MIN_LEVEL>	double	Minimum Receive Level (dBm)
<ERX_MIN_LEVEL_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_BAND_WIDTH>	double	<i>Bandwidth (Hz)</i>
<ERX_BAND_WIDTH_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_C_I>	double	Carrier Interference (dB)
<ERX_C_I_SHORT>	double	Carrier Interference Short(dB)
<ERX_MPL>	double	Minimum Power Level (dBm)
<ERX_MPL_DUNIT>	string (3)	display unit (cf text lookups)
<ERX_NOISE_TEMP>	double	Noise Temperature (Kelvin)
<ERX_MIN_SENSE>	double	Receiver Sensitivity (Volts)
<ERX_MIN_SENSE_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ERX_TOT_ATT_H44> dB)	double	Receiver side equipment total attenuation (+/- dB)
<ERX_BER>	double	Bit error rate
<ERX_MPIL>	double	Maximum permissible interference level [dBm]
<ERX_MPIL_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ERX_COMMENT>	string (511)	Comment
<ERX_UPDATE_STATUS>	string (3)	update status
< ERX_XIF>	double	XIF [dB]
<ANTENNACONFIGgroup>	ANTENNACONFIGgroup	see ANTENNACONFIGgroup description
<ANTENNAgroup>	ANTENNAgroup	see ANTENNAgroup description
<FILTERS>	FILTERSType	see FILTERSType description
<FREQUENCY> {0 ... n}	FREQUENCYType	see FREQUENCYType description

<INSTALLED_EQUIPMENTS>	INSTALLED_EQUIPMENTSType	see
INSTALLED_EQUIPMENTSType description		

</RECEIVER>

2.1.55 SATELLITE_DL TYPE

<SATELLITE_DL>		
<SATELLITE> {1 ... n}	SATELLITEType	see SATELLITEType description

</SATELLITE_DL>

2.1.56 SATELLITE GROUP

<SATELLITEgroup>		
<SA_SAT_NAME>	string (31)	Satellite Name only for sat. service
<SA_SAT_LONG_NOM> West, + for East)	double	nominal longitude of geostationary satellite (- for
<SA_SAT_INCEXC>	double	Inclination angle of satellite [°]
<SA_AZI_ANG_FROM>	double	Azimuth (From) angle for NGSO [°]
< SA_AZI_ANG_TO>	double	Azimuth (To) angle for NGSO [°]
<SA_MIN_ELEV>	double	Minimum elevation angle for NGSO [°]
< SA_SAT_GEO_POS >	string (1)	is satellite geostationary? 1=yes,0=no
<SA_SAT_MERIT_G_T>	double	G/T [dBK]

</SATELLITEgroup>

2.1.57 SATELLITE TYPE

<SATELLITE>		
<Attribute: SA_ID_SRC_SPECTRA>	string (63)	
<Attribute: "SA_ID_SRC_EXTERN">	string (63)	
<Attribute: "SA_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<SATELLITEgroup>	SATELLITEgroup	see SATELLITEgroup description

</SATELLITE>

2.1.58 SHAREDLINK TYPE

<SHAREDLINK>		
<ID>	string (31)	Shared link ID
<FORMERREFNUMBER>	string (63)	Application Reference Number
<LICENSEECODE>	string (31)	License Code
<NETWORKCODE>	string (31)	Network Identification

<STATIONCODE>	string (31)	Station Identification
</SHAREDLINK>		

2.1.59 SHIP TYPE

<SHIP>

<Attribute: "SH_ID_SRC_SPECTRA">

<Attribute: "SH_ID_SRC_EXTERN">

<SH_NAME>	string (31)	Name of ship
<SH_CALL>	string (15)	Call sign of ship
<SH_SHIP_TYPE>	string (31)	Ship type
<SH_SHIP_CLASS>	string (31)	Ship class
<SH_HOME_PORT>	string (63)	Home port
<SH_GROSS_TONNAGE>	double	Gross tonnage
<SH_PASSENGERS>	double	Number of passengers
<SH_LENGTH>	double	Ship length
<SH_LIFEBOATS_NUM>	double	Number of lifeboats
<SH_AREA_CODE>	string (31)	Area Code
<SH_MMSI_DSC>	string (31)	Selective call No_M
<SH_SSFC>	string (31)	Selective call No_S
<SH_GMDSS>	string (3)	GMDSS compliant
<SH_COMMENT>	string (511)	Comment
<SH_COMMENT_INTERN>	string (511)	Comment
<SH_CORRESP_CAT>	string (3)	Public correspondence category
<SH_INDIV_CLASS>	string (31)	Individual ship classification
<SH_BEACON_NO>	double	Number of the EPIRB's on board of the ship
<SH_BEACON_A> ship	double	Number of the EPIRB's type A on board of the
<SH_BEACON_B> ship	double	Number of the EPIRB's type B on board of the
<SH_BEACON_C> ship	double	Number of the EPIRB's type C on board of the
<SH_BEACON_D> ship	double	Number of the EPIRB's type D on board of the
<SH_BEACON_E> ship	double	Number of the EPIRB's type E on board of the
<SH_BEACON_F> ship	double	Number of the EPIRB's type F on board of the
<SH_BEACON_G> ship	double	Number of the EPIRB's type G on board of the
<SH_SERIAL_NO>	string (31)	ship serial number
<SHI_TYPE>	string (2)	Inmarsat type
<SHI_IS_ID>	string (31)	Inmarsat ID
<SH_EPFS>	string (31)	EPFS (Electronic Position Fixing System)
<SH_HEIGHT>	double	ship height [m]

<SH_WIDTH>	double	ship width [m]
<SH_PROF_MARITIME>	nteger	professional maritime (1=yes / 0=no)
<SH_PROF_INLAND>	integer	professional inland (1=yes / 0=no)
<SH_PLEASURE_MARITIME>	integer	pleasure maritime (1=yes / 0=no)
<SH_PLEASURE_INLAND>	integer	pleasure inland (1=yes / 0=no)
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description

</SHIP>

2.1.60 SITEATTRIBUTE

<SITEAttribute>		
<Attribute: SID_ID_SRC_SPECTRA>	string (63)	
<Attribute: "SID_ID_SRC_EXTERN">	string (63)	
<Attribute: "SID_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation

</SITEAttribute>

2.1.61 SITE_DL TYPE

<SITE_DL>		
<SITE> {1 ... n}	SITEType	see SITEType description

</SITE_DL>

2.1.62 SITE GROUP

<SITEgroup>		
<SID_LONG_DEG>	long	<i>Longitude Degree</i>
<SID_LONG_E_W>	string (1)	<i>Longitude direction (E/W)</i>
<SID_LONG_MIN>	long	<i>Longitude Min.</i>
<SID_LONG_SEC>	double	<i>Longitude Sec.</i>
<SID_LAT_DEG>	long	<i>Latitude Degree</i>
<SID_LAT_N_S>	string (1)	<i>Latitude direction (N/S)</i>
<SID_LAT_MIN>	long	<i>Latitude Min.</i>
<SID_LAT_SEC>	double	<i>Latitude Sec.</i>
<SID_GEO_DATE>	string (15)	<i>Type of Geo Date</i>
<SID_LOC>	string (31)	<i>Site Location (cf Text Lookups)</i>
<SID_H_NN>	long	<i>Site Height amsl (m)</i>
<SID_COMMENT>	string (63)	<i>Site Comment</i>
<SID_RAIN_CLIM_ZONE>	string (15)	<i>Code of ITU rain climatic zone</i>
<SID_DESC>	string (255)	site description
<SID_SITE_IDENT>	string (31)	site identification code

</SITEgroup>

2.1.63 SITE TYPE

<SITE>

<Attribute group: SITEAttribute>

<SITEgroup>

</SITE>

SITEAttribute

SITEgroup

see SITEgroup description

2.1.64 STATION TYPE

<STATION>

<Attribute: "TCS_ID_SRC_SPECTRA">

string (63)

<Attribute: "TCS_ID_SRC_EXTERN">

string (63)

<Attribute: "TCS_TCS_ID_SRC">

int

<Attribute: "TCS_APTB_ID">

long

<Attribute group: SITEAttribute>

SITEAttribute

<TCS_NAME>

string (63)

Station Name

<TCS_REF_NUMBER>

string (63)

Station ref. number

<TCS_CALL>

string (255)

Call Sign

<TCS_AREA_RADIUS>

double

Area Radius (m)

<TCS_AREA_DESC>

string (255)

Description Service Area

<TCS_STATION_IDENT>

string (31)

Station Identification

<TCS_SET_NUM>

long

Number of stations

<TCS_CSST_CATEGORY>

double

Cost Category

<TCS_NUM>

long

1= Base Station 2 = Mobile Station

<TCS_PER_OP_TIME_BEGIN>

Date

Begin of operating time

<TCS_PER_OP_TIME_END>

Date

End of operating time

<TCSC_NAT_S>

string (3)

Nature of Service (cf Text Lookups)

<TCSC_NAT_U>

string (5)

Nature of Frequency Usage (cf T.L.)

<TCSC_S_CAT>

string (3)

Class of Station (cf Text Lookups)

<TCS_USE_DATE>

Date

Date of Bringing into Use

<TCS_INTERNAL_IDENT>

long

Station internal identification

<TCS_TOW_TOWER_HEIGHT>

double

Height of the tower

<TCS_TOW_AN_H_MAX>

double

Max. Antenna height

<TCS_TOW_STRUCT_CODE>

string (15)

code of the structure of the tower

<TCS_TOW_STRUCT_DESC>

string (255)

description of the structure of the tower

<TCS_COMMENT>

string (511)

station comment

<TCS_COMMENT_INTERN>

string (511)

station comment

<TCS_SI_H_EFF_MAX>

double

Max. effective heigth

<TCS_SI_H_EFF_MAX_ANG>

double

Azimuth angle of max. effective heigth

<TCS_MAP_POS>

string (20)

Field for mapping support only

<TCS_REF_FLAG>

1=yes;

long

Reference station? default: null(=no); 0=no;

<TCS_TOW_TOWER_HEIGHT_DELTA>

double

increase of the tower height [m]

<TCS_UPDATE_STATUS>

string (3)

update status

<TCS_MMSI>

string (31)

MMSI

<TCS_MMSI_GROUP>	string (31)	MMSI group
<TCS_SAT_STATION_TYPE>	string (1)	cf text lookup
<TCS_SIGNATURE>	string (255)	station signature
<TCS_ITU_IFRB_NO>	string (15)	ITU iFRB No
<TCS_ITU_SERVICE_CODE>	string (31)	ITU service code
<TCS_AREA_TYP>	long	area type: 1=Primary; 2=Secondary
<TCS_END_DATE>	Date	end of use
<SATELLITEgroup>	SATELLITEgroup	see SATELLITEgroup description
<SITEgroup>	SITEgroup	see SITEgroup description
<AD_SUBURB>		not used anymore
<AD_NAME>		not used anymore
<AD_FIRST_NAME>		<i>not used anymore</i>
<AD_SALUTATION>		<i>not used anymore</i>
<AD_TITLE>		not used anymore
<AD_COMPANY>		not used anymore
<AD_DEPARTMENT>		<i>not used anymore</i>
<AD_PERSON_CODE>		<i>not used anymore</i>
<AD_BUILDING_NO>		<i>not used anymore</i>
<AD_HOUSE>		not used anymore
<AD_STREET>		not used anymore
<AD_ZIP>		not used anymore
<AD_COUNTRY>		not used anymore
<AD_PO_BOX>		not used anymore
<AD_ZIP_PO_BOX>		<i>not used anymore</i>
<AD_CITY_PO_BOX>		<i>not used anymore</i>
<AD_CITY>		not used anymore
<AD_PHONE>		not used anymore
<AD_FAX>		not used anymore
<AD_MOBILE>		not used anymore
<AD_E_MAIL>		not used anymore
<AD_COMMENT>		not used anymore
<AD_MAN_NUMBER>		not used anymore
<VEHICLE>	VEHICLEType	see VEHICLEType description
<ADDRESS> {0 ... n}	ADDRESSType	see ADDRESSType description
<HORIZONTAL_ELEVATIONS> HORIZONTAL_ELEVATIONSType description	HORIZONTAL_ELEVATIONSType	see
<EFF_HEIGHTS>	EFF_HEIGHTSType	see EFF_HEIGHTSType description
<MSC>	MSCType	see MSCType description
<CAS>	CASType	see CASType description
<VECTORS>	VECTORSType	see VECTORSType description
<EMFS>	EMFSType	see EMFSType description
<TRANSMITTER> {0 ... n}	TRANSMITTERType	see TRANSMITTERType description
<RECEIVER> {0 ... n}	RECEIVERType	see RECEIVERType description
</STATION>		

2.1.65 TRANSMITTER_DL TYPE

<TRANSMITTER_DL>		
<Attribute: "EQP_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQP_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQ_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAN_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<Attribute: "EAC_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAC_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_APTB_ID">	long	
<EQUIPMENTgroup>	EQUIPMENTgroup	see EQUIPMENTgroup description
<ETX_POW>	double	Transmitter Power (W)
<ETX_POW_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_MAX>	double	Transmitter Max Power (W)
<ETX_POW_MAX_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_MIN>	double	Transmitter Min Power (W)
<ETX_POW_MIN_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_UNIT>	string (3)	Transmitter Power Unit (cf Text Lookups)
<ETX_POW_TYPE>	string (5)	Transmitter Power Type (cf Text Lookups)
<ETX_POW_H>	double	Transmitter Power Hor. (W)
<ETX_POW_H_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_V>	double	Transmitter Power Ver. (W)
<ETX_POW_V_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_EQ_OUTPUT>	double	Transmitter Power Output. (W)
<ETX_EQ_OUTPUT_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_DESIGN>	string (14)	Transmitter Power Density (dBW/m ²) for Sat.
<ETX_MAX_POW_EQUIP>	double	Max. Power on transmitter output
<ETX_MAX_POW_EQUIP_UNIT>	string (3)	
<ETX_MAX_POW_EQUIP_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_TOT_ATT> (dB)	double	Transmitter side equipment total attenuation (+/- dB)
<ETX_MAX_SENS>	double	Maximum sensitivity
<ETX_MAX_SENS_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_ANT>	double	Power to Antenna
<ETX_POW_ANT_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_AVERAGE>	double	Average radiated power (in all directions)
<ETX_POW_AVERAGE_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_FREQ_SWEEP_MAX>	double	Maximum freq. sweep (Hz)
<ETX_FREQ_SWEEP_MAX_DUNIT>	string (3)	display unit (cf text lookups)
<ETX_POW_CTRL> power? 1=yes;0=no;	long	is transmitter capable of increasing transmitting
<ETX_ATPC>	double	Automatic Transmitter Power Control[db]
<ETX_COMMENT>	string (511)	comment

<ETX_ACTIVITY>	double	activity factor
<ETX_UPDATE_STATUS>	string (3)	update status
<ETX_PULS_WIDTH_MAX>	double	max pulse width [s]
<ETX_PULS_REP_FREQ_MAX>	double	pulse repetition frequency [Hz]
</TRANSMITTER_DL>		

2.1.66 TRANSMITTER TYPE

<TRANSMITTER>		
<Attribute: "EQP_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQP_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQP_EQP_ID_SRC">	int	
<Attribute: "EQ_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EQ_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_EQ_ID_SRC">	int	
<Attribute: "EAN_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAN_ID_SRC_EXTERN">	string (63)	
<Attribute: "EAN_NO_NORMALIZE"> (1=disabled; 0/empty=enabled)	Long	enable/disable data import normalisation
<Attribute: "EAC_ID_SRC_SPECTRA">	string (63)	
<Attribute: "EAC_ID_SRC_EXTERN">	string (63)	
<Attribute: "EQ_APTB_ID">	long	
<EQUIPMENTgroup>	EQUIPMENTgroup	see EQUIPMENTgroup description
<ETX_POW>	double	<i>Transmitter Power (W)</i>
<ETX_POW_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_MAX>	double	<i>Transmitter Max Power (W)</i>
<ETX_POW_MAX_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_MIN>	double	<i>Transmitter Min Power (W)</i>
<ETX_POW_MIN_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_UNIT>	string (3)	<i>Transmitter Power Unit (cf Text Lookups)</i>
<ETX_POW_TYPE>	string (5)	<i>Transmitter Power Type (cf Text Lookups)</i>
<ETX_POW_H>	double	<i>Transmitter Power Hor. (W)</i>
<ETX_POW_H_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_V>	double	<i>Transmitter Power Ver. (W)</i>
<ETX_POW_V_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_EQ_OUTPUT>	double	<i>Transmitter Power Output. (W)</i>
<ETX_EQ_OUTPUT_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_DESIGN>	string (14)	<i>Transmitter Power Density (dBW/m²) for Sat.</i>
<ETX_MAX_POW_EQUIP>	double	<i>Max. Power on transmitter output</i>
<ETX_MAX_POW_EQUIP_UNIT>	string (3)	
<ETX_MAX_POW_EQUIP_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_TOT_ATT> dB)	double	<i>Transmitter side equipment total attenuation (+/- dB)</i>
<ETX_MAX_SENS>	double	Maximum sensitivity
<ETX_MAX_SENS_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>

<ETX_POW_ANT>	double	Power to Antenna
<ETX_POW_ANT_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_AVERAGE>	double	Average radiated power (in all directions)
<ETX_POW_AVERAGE_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_FREQ_SWEEP_MAX>	double	Maximum freq. sweep (Hz)
<ETX_FREQ_SWEEP_MAX_DUNIT>	string (3)	<i>display unit (cf text lookups)</i>
<ETX_POW_CTRL> power? 1=yes;0=no;	long	is transmitter capable of increasing transmitting
<ETX_ATPC>	double	Automatic Transmitter Power Control [db]
<ETX_COMMENT>	string (511)	comment
<ETX_ACTIVITY>	double	activity factor
<ETX_UPDATE_STATUS>	string (3)	update status
<ETX_PULS_WIDTH_MAX>	double	max pulse width [s]
<ETX_PULS_REP_FREQ_MAX>	double	pulse repetition frequency [Hz]
<ANTENNACONFIGgroup>	ANTENNACONFIGgroup	see ANTENNACONFIGgroup description
<ANTENNAgroup>	ANTENNAgroup	see ANTENNAgroup description
<FILTERS>	FILTERSType	see FILTERSType description
<FREQUENCY> {0 ... n}	FREQUENCYType	see FREQUENCYType description
<INSTALLED_EQUIPMENTS> INSTALLED_EQUIPMENTSType	INSTALLED_EQUIPMENTSType	see

</TRANSMITTER>

2.1.67 VECTOR TYPE

<VECTOR>		
<VEC_GEO_CODE>	string (255)	vector code
<VEC_GEO_NAME>	string (255)	vector name
<VEC_COMMENT>	string (511)	vector comment
<VEC_APPL_TYPE>	int	type of vector

</VECTOR>

2.1.68 VECTORS TYPE

<VECTORS>		
<VECTOR> {0...n}	VECTORType	see VECTORType description

</VECTORS>

2.1.69 VEHICLE TYPE

<VEHICLE>		
<VH_TYPE>	string (63)	Vehicule type
<VH_MODEL>	string (63)	Vehicule model
<VH_REGIS_NUMBER>	string (63)	Registration number
<VH_COMMENT>	string (511)	Comment
<VH_NUMBER_PLATE>	string (31)	plate number

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Hiba! A(z) Heading 2 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

< VH_CHASSIS_NUMBER>	string (63)	chassis number
< VH_COLOUR>	string (31)	color of vehicle

</VEHICLE>

Legend

<FieldName>	DataType	Description
DataType declaration:		
double	real, 8 bytes	
long	integer, 4 bytes	
string (number of characters)	String with number of characters	
Date	yyyy-mm-dd	

2.2 XML SCHEMA

There is a W3C XML Schema file (SPECTRAexchange.xsd), which describes the structure of the xml format in detail:



SPECTRAexchange.xsd

For more information about XML Schema see: <http://www.w3c.org/XML/Schema>

3 KINDS OF LINKS

Each frequency of a transmitter station from one application can be linked to a receiver station from the same or another application.

Therefore there are three kinds of links:

- Classic Link
- Shared Link Complete
- Shared Link Without Station B

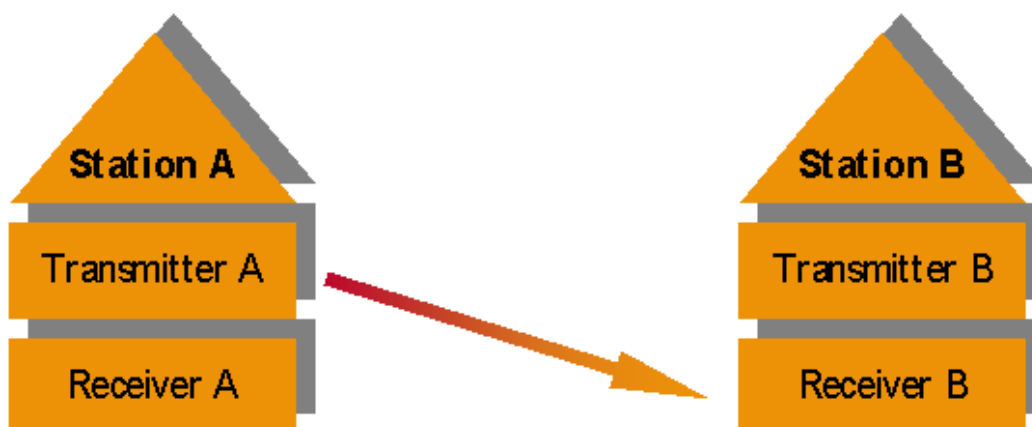
Each kind of link can be uni-directional or bi-directional.

3.1 CLASSIC LINK

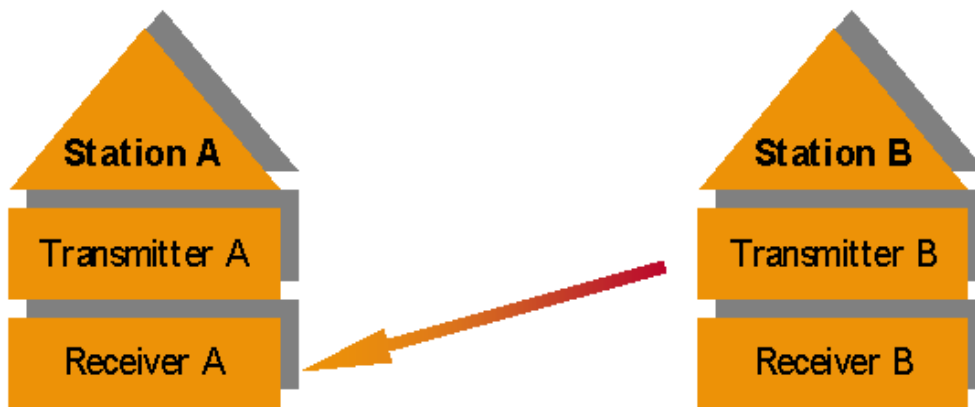
In this case the stations are stored behind the same application.

Uni-directional:

The link between transmitter A and receiver B is a uni-directional link. It is possible to assign the frequency of transmitter A.

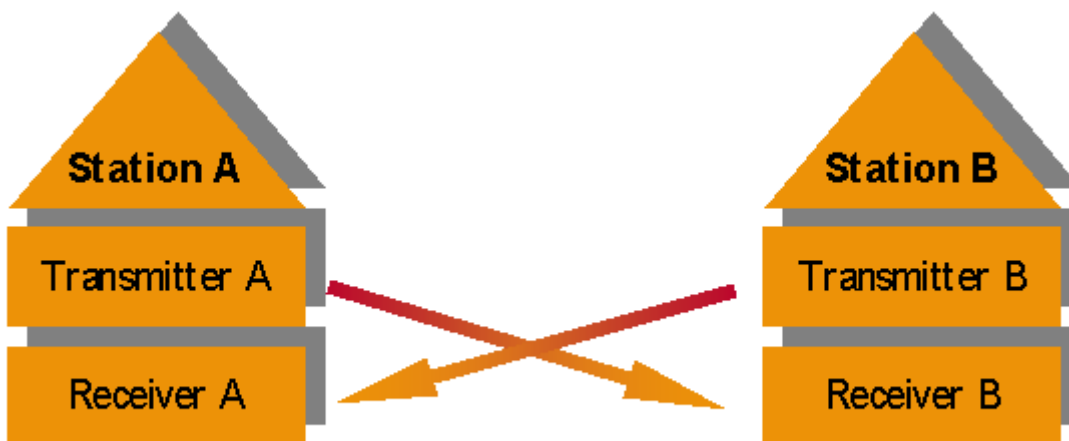


The link between transmitter B and receiver A is a uni-directional link. It is possible to assign the frequency of transmitter B.



Bi-directional:

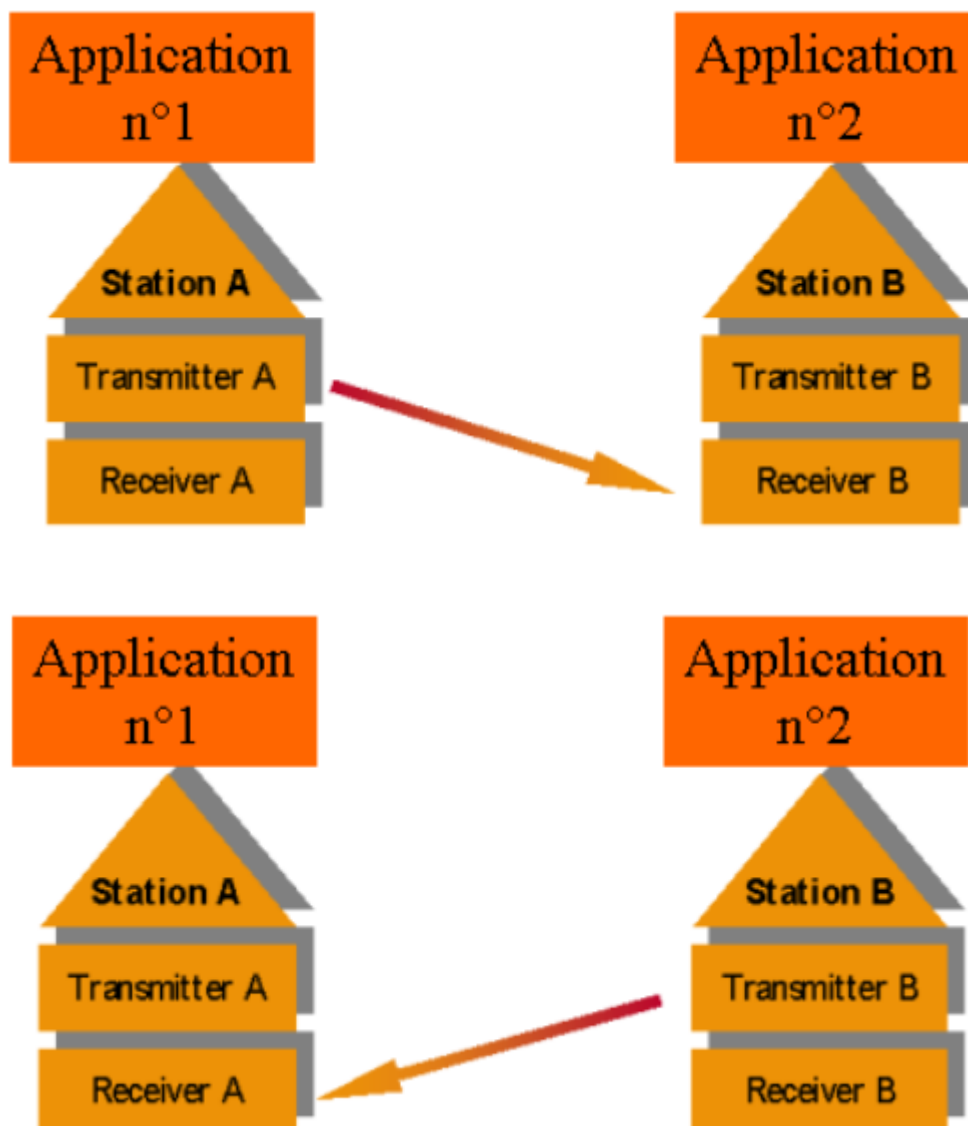
The combination showed below results in a bi-directional link, the frequencies of transmitter A and transmitter B can be assigned to this link.



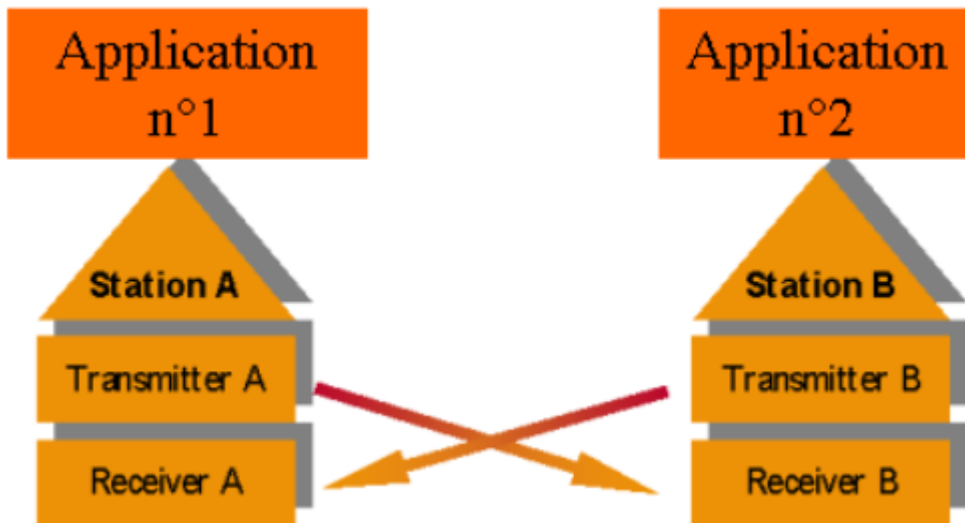
3.2 SHARED LINK COMPLETE

In this case the stations are both in two different applications.

Uni-directional:



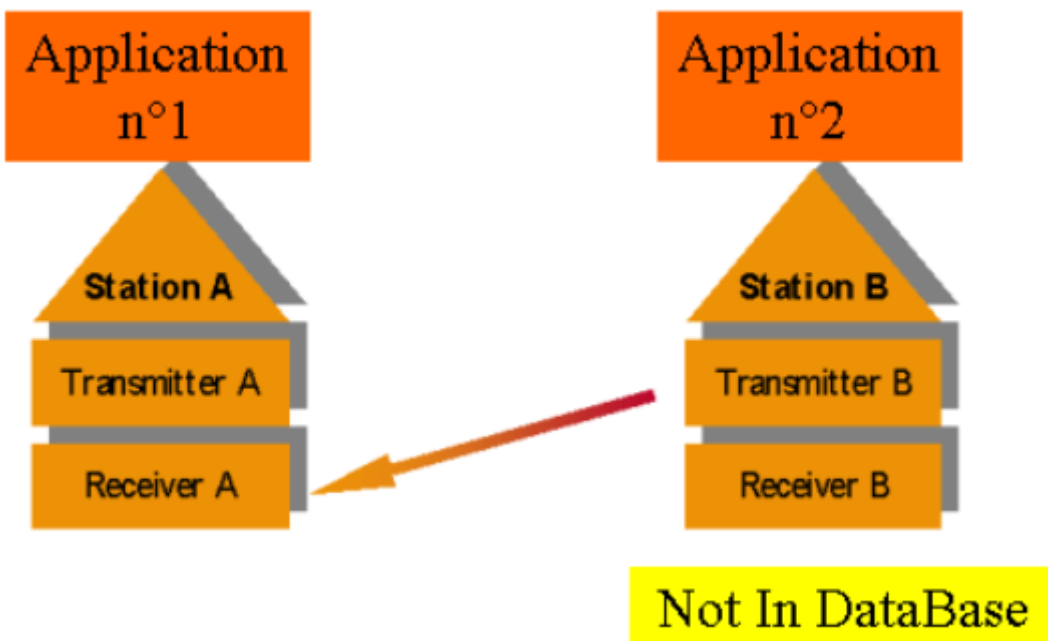
Bi-directional:

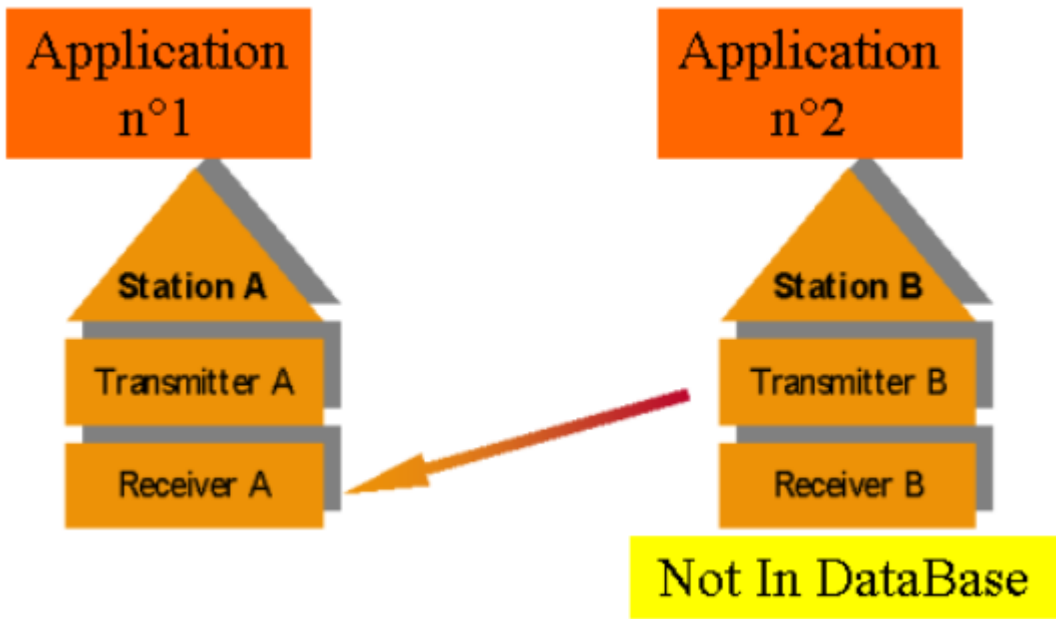


3.3 SHARED LINK WITHOUT STATION B

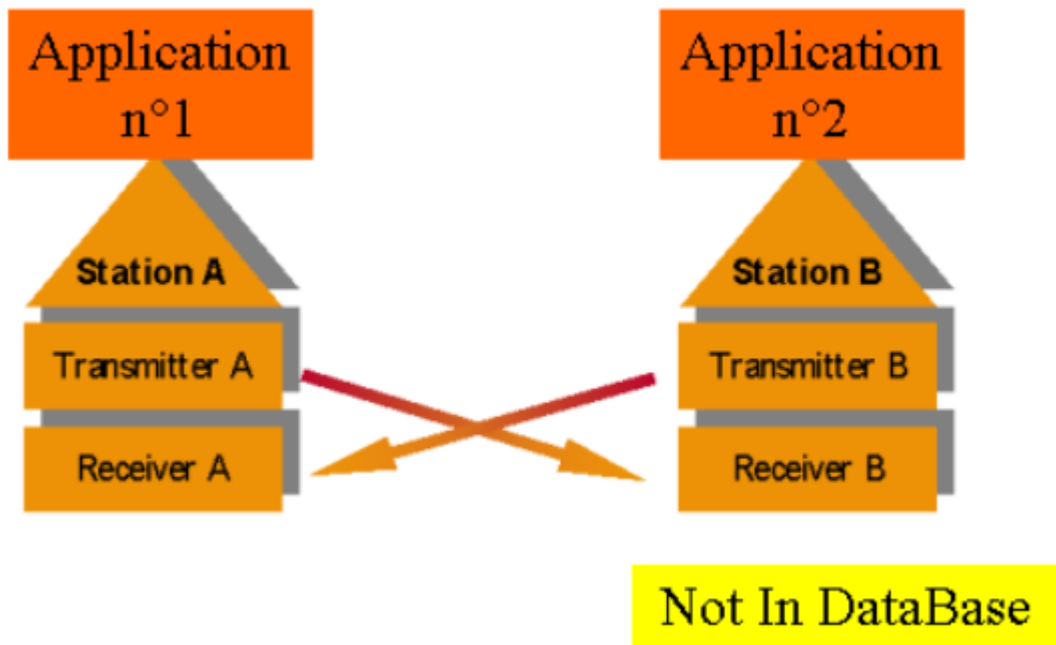
As for the shared link complete, the stations are both in two different applications, but the application 2 is not in the same database.

Uni-directional:





Bi-directional:



3.4 SAMPLE

3.4.1 CLASSIC LINK + RELATED FREQUENCIES

```
<APPLICATION>
<STATION>
<TCS_NAME>station A</TCS_NAME>
-----
<TRANSMITTER>
<FREQUENCY>
  <Link>2</Link>
  <EFL_FREQ>6100000</EFL_FREQ>
-----
</TRANSMITTER>
</STATION>

<STATION>
<TCS_NAME>station B</TCS_NAME>
-----
</RECEIVER>
<FREQUENCY>
  <Link>2</Link>
  <EFL_FREQ>6100000</EFL_FREQ>
-----
</RECEIVER>
</STATION>
</APPLICATION>
```

This means that the station A is linked with station B, the link resulting would be a unidirectional link. Be careful that the frequency is the same for the transmitter and the receiver.

For a bi-directional link the same identification should be assigned to the transmitter and receiver from station A and station B.

→ Related frequencies is based on the same principle, the difference is the name of the tag who should be <Related> instead of <Link>.

3.4.2 SHARED LINK

```
<APPLICATION>
<AP_REF_NUMBER>Application1</AP_REF_NUMBER>
<TCC_SAT_NETID>56</TCC_SAT_NETID>
<AD_MAN_NUMBER>1234</AD_MAN_NUMBER>
  <STATION>
    <TCS_NAME>station A</TCS_NAME>
    <TCS_STATION_IDENT>78</TCS_STATION_IDENT>
    -----
  <TRANSMITTER>
    <FREQUENCY>
      <SHAREDLINK>
        <ID>6</ID>
        <FORMERREFNUMBER>Application2</FORMERREFNUMBER>
        <LICENSEECODE>4106</LICENSEECODE>
        <NETWORKCODE>71</NETWORKCODE>
        <STATIONCODE>002</STATIONCODE>
      </SHAREDLINK>
      <EFL_FREQ>6100000</EFL_FREQ>
    </FREQUENCY>
    -----
  </TRANSMITTER>
</STATION>
</APPLICATION>
```

```
<APPLICATION>
<AP_REF_NUMBER>Application2</AP_REF_NUMBER>
<TCC_SAT_NETID>71</TCC_SAT_NETID>
<AD_MAN_NUMBER>4106</AD_MAN_NUMBER>
  <STATION>
    <TCS_NAME>station B</TCS_NAME>
    <TCS_STATION_IDENT>002</TCS_STATION_IDENT>
    -----
  <RECEIVER>
    <FREQUENCY>
      <SHAREDLINK>
        <ID>6</ID>
        <FORMERREFNUMBER>Application1</FORMERREFNUMBER>
        <LICENSEECODE>1234</LICENSEECODE>
        <NETWORKCODE>56</NETWORKCODE>
        <STATIONCODE>78</STATIONCODE>
      </SHAREDLINK>
      <EFL_FREQ>6100000</EFL_FREQ>
    -----
  </RECEIVER>
</STATION>
</APPLICATION>
```

This sample represents a complete shared link (uni-directional), where the transmitter from application1 is linked with the receiver of application2.

The values written in bold letters represent the most significant fields representing a shared link. A special section is dedicated to the construction of a shared link - either complete or without station B (differences between both links are explained above).

In case of a **complete shared link**, the values of five fields are required (ID, FORMERREFNUMBER, LICENSEECODE, NETWORKCODE, STATIONCODE).

The value of the ID field has to be the same for all frequencies included in the link. The other fields are necessary to find the linked station.

In case of a **shared link without station B**, the values of four fields are required (FORMERREFNUMBER, LICENSEECODE, NETWORKCODE, STATIONCODE). The four fields are used to find the linked station.

4 TEXT LOOKUPS



If you need to know the different service and sub service Ids, please ask your LS contact person to provide the list.

All the following fields should have only the associated values:

AD_TYPE : ADDRESS TYPE

A – Administrative Organizations

C – Contact

E – Inspectorate

F – Prefecture

I – Importer

L – Licensees

M – Manufacturer

N – Planner

O – Operators

P – Payment Office

R – Promoter

S – Sites

T – Approval Applicants

U – Submitter

V – Program Provider

W – Owners

Y – Municipality

TCSC_NAT_S : NATURE OF SERVICE

CO - Station open to official correspondence exclusively

- CP** - Station open to public correspondence
- CR** - Station open to limited public correspondence
- CV** - Station open exclusively to correspondence of a private agency
- OT** - Station open exclusively to operational traffic of the service concerned

TCSC NAT U : NATURE OF FREQUENCY USAGE

- A** - Airport services
- B** - Railways (excluding mountain railways)
- C** - Diplomatic corps
- D** - Mountain railways
- E** - Production, transport and distribute. of energy (el., gas, water)
- F** - Fire services
- G** - Military (mainly for internal use)
- H** - Radio relay networks
- HH** - Local call
- I** - Demonstration
- K** - Public transport
- L** - Subscriber installations, public mobile services, stand-by links
- M** - Navigation (in ports, on the Rhine, etc.)
- N** - Tests and research
- O** - Not allocated
- P** - Public security services (Police, customs, etc.)
- Q** - Entries not falling with in other categories on the list
- R** - Ancillary broadcasting services (studio, news reporting)
- S** - Rescue services (ambul., doctors, water and mountain rescue)
- T** - Other serv. provided by telecommunications administrations
- U** - Industrial operators
- V** - Road traffic service
- W** - Taxi and car hire firms
- X** - Other private services
- Y** - Reserved specific applications, not allocated
- Z** - Other private multiple-use networks

TCSC S CAT : CLASS OF STATION

- BC** - Broadcast Station, Sound

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Hiba! A(z) Heading 7 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

BT - Broadcast Station, Television

FB - Base station

FC - Coast station

FL - Land station

FP - Port station

FS - Land station established solely for safety of life

FW - Mobile station (service area 0 km; eff. anthgt. Annex 5 2.5)

FX - Fixed station

ML - Land mobile station

MR - Radiolocation mobile station

MS - Ship station

TCC NETWORK TYPE : NETWORK TYPE

1 - Synchronized

TCC USAGE TYPE : USAGE TYPE

11

110

1101

1102

1103

1104

1105

1106

1107

1108

1109

111

1110

1111

1112

1113

1114

1115

1116

1117
1118
1119
112
113
114
115
116
12
1200
13
14
15
16
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22
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3201
3202
3204
3206
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4-4

Hiba! A(z) Heading 7 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

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K
NA
SNG
SAT

SID LOC : SITE LOCATION

A - Airport
C - Community
H - Hill
P - Port
R - River or canal
S - Space station

EQP EQUIP TYPE : EQUIPMENT TYPE

A - A
B - Back to Back
C - C
O - Other

P - Passive

RF – Reflector (use EQP_EQUIP_TYPE in TRANSMITTERType)

RP - Repeater

S - S

VM - Mounted

WT – Handheld

EQ_CHAN_O : CHANNEL OCCUPATION

0 - Non Continuous Wave

1 - Continuous Wave

ETX_POW_UNIT : POWER UNIT

W - W

d - dBW

k - kW

m – mW

ETX_POW_TYPE : POWER TYPE

E - ERP

I – EIRP

EAC_AN_POL : ANTENNA POLARIZATION

CL - Left-hand circular or indirect

CR - Right-hand circular or direct

D - Dual

H - Horizontal linear

L - Linear

M - Mixed

SL - Left-hand slant

SR - Right-hand slant

V - Vertical linear

EAP_TYPE : ANTENNA PATTERN TYPE

HH – Azimuth Co-polar

HV – Azimuth Cross-Polar

4-6

Hiba! A(z) Heading 7 itt megjelenítendő szövegre történő alkalmazásához használja a Kezdőlap lapot.

VV – Elevation Co-Polar

VH – Elevation Cross-Polar

Starting with version 2.32.0:

AZHH - Azimuth Cut; Co-Pol (H)

AZHV - Azimuth Cut; Cross-Pol(H)

ELHH - Elevation Cut; Co-Pol (H)

ELHV - Elevation Cut; Cross-Pol(H)

AZVV - Azimuth Cut; Co-Pol (V)

AZVH - Azimuth Cut; Cross-Pol(V)

ELVV - Elevation Cut; Co-Pol (V)

ELVH - Elevation Cut; Cross-Pol(V)

EFL GSM SYS : GSM SYSTEM

GSM1800

GSM1900

GSM900

GSM900EXT

EFL USE TYPE : USAGE TYPE

-1 All (incl. empty)

-2 Other (excl. empty)

-3 All (excl. empty)

0 Other (incl. empty)

1 Shared

2 Joint

3 Exclusive

4 Exclus. BP

Shared BP

COF STATUS : COORDINATION STATUS

A - not submitted to a coord procedure and any protect. requirement

B - Request for agreement

C - Agreed without reservation

D - Agreed subject to operat. tests, show that coexistence is possible

E - Agreement on a non-interference basis (NIB)

F - Agreed, subject to reqmt. identc. or analog. to the reqmt of RR342
G - Agreed, without any reservation as to interference
H - E + G
M - Request for agrm. foll. a modified coord. after answer E,G,H,Y,Z
P - Preferential frequency (4.3 Vienna Agreement, 1993)
R - Deletion of coordination
W - Withdrawal of the coordination request
Y - Request for agreement refused (alternative suggestion is in 13Z)
Z - Request for agreement refused

AP ACTION TYPE

<NULL>	new application
'N'	new application
'M'	modify application
'R'	application to be renewed
'C'	application to be cancelled
'U'	update (modify) application

LI VALIDITY UNIT

1	days
2	weeks
3	months
4	quarter of year
5	half a year
6	year

TCS SAT STATION TYPE

S – specific
T – typical