# ETSI TS 102 587-2 V1.2.1 (2008-07)

Technical Specification

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Conformance testing for the Peer-to-Peer
Digital Private Mobile Radio;
Part 2: Test Suite Structure and
Test Purposes (TSS&TP) specification**

Reference

RTS/ERM-TGDMR-269-2

Keywords

digital, mobile, radio, testing, TSS&TP

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document is part 2 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Conformance testing for the Peer-to-Peer Digital Private Mobile Radio, as identified below:

Part 1:   "Protocol Implementation Conformance Statement (PICS) proforma";

Part 2:   "Test Suite Structure and Test Purposes (TSS&TP) specification";

Part 3:   "Requirements catalogue";

Part 4:   "Abstract Test Suite (ATS)";

Part 5:   "Interoperability Test Suite Structure and Test Purposes (TSS&TP) specification";

Part 6:   "Test descriptions (TD)".

1 Scope

The present document specifies the conformance Test Purposes (TPs) for the Peer-to-Peer Digital Private Mobile Radio (dPMR) standard, TS 102 490 [1]. TPs are defined using the TPLan notation described in ES 202 553 [i.1]. Test purposes have been written based on the test specification framework described in TS 102 351 [2] and based on the methodology defined in ISO/IEC 9646-2 [3].

2 References

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2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1] ETSI TS 102 490 (V1.3.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Peer-to-Peer Digital Private Mobile Radio using FDMA with a channel spacing of 6,25 kHz with e.r.p. of up to 500 mW".

[2] ETSI TS 102 351 (V2.1.1): "Methods for Testing and Specification (MTS); Internet Protocol Testing (IPT); IPv6 Testing: Methodology and Framework".

[3] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".

[4] ETSI TS 102 587-3: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Peer-to-Peer Digital Private Mobile Radio; Part 3: Requirements catalogue".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area. For non-specific references, the latest version of the referenced document (including any amendments) applies.

[i.1] ETSI ES 202 553: "Methods for testing and Specification (MTS); TPLan: A notation for expressing test Purposes".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CF	(Test) ConFiguration
CSF	Configured Services and Facilities
dPMR	digital Private Mobile Radio
ISDM	Individual Short Data Message
ISF	Initial Services and Facilities
IUT	Implementation Under Test
MS	Mobile Station
OACSU	Off Air Call Set-Up
PTT	Push To Talk
RC	Requirements Catalogue
RQ	ReQuirement
TP	Test Purpose
TSS	Test Suite Structure

4 Test Suite Structure (TSS)

The Test Suite Structure is based on the dPMR Requirements Catalogue (TS 102 587-3 [4]). It is defined by the groups within the following TPLan specification of test purposes. The numbering is not contiguous so that new TPs can be added at a later date without the need to completely renumber the TSS groups.

The test purposes have been divided into three groups:

Group 1: Common requirements.

Group 2: CSF requirements.

Group 3: ISF requirements.

The sub-grouping of these three group follows the structure of the RC. Some of the sub-groups of the RC contained no testable requirement. Headings for those sub-groups are in this test purpose document in the node group to give a full view on the relation between RQ and TSS&TP.

```
Group 1 "ISF CSF Common"
Group 1.1 "All Call"
Group 1.2 "Channel Access"
Group 1.3 "Framing"
Group 1.3.1 "End frame"
Group 1.3.2 "Header frames"
Group 1.3.2.1 "Call information field"
Group 1.3.3 "Packet data frame"
Group 1.3.4 "Superframe"
Group 1.3.4.1 "Type 1 data"
Group 1.3.4.2 "Type 2 data"
Group 1.3.4.3 "Voice"
Group 1.4 "Late Entry"
Group 1.5 "Powersave"
Group 1.6 "Talking Party ID"
Group 2 "CSF"
Group 2.1 "Broadcast Call"
Group 2.2 "Dialling Plan"
```

```
Group 2.3 "Individual Short Data Message"
Group 2.3.1 "ISDM Free Text Message"
Group 2.3.2 "ISDM Precoded Message"
Group 2.3.3 "ISDM Short File Transfer"
Group 2.3.4 "ISDM Status Message"
Group 2.4 "OACSU"
Group 2.5 "Short Appended Data"
Group 2.6 "Slow User Data"
Group 2.7 "Type 3 data"
Group 3 "ISF"
```

5   Test Purposes (TP)

The test purposes have been written in the formal notation TPlan. Configurations that are referenced by test purposes are shown in annex A. TPLan user definitions are listed in annex B.

5.1   ISF CSF Common

Group 1 'ISF CSF Common'

5.1.1   All Call

Group 1.1 'All Call'

```
TP id   : TP_PMR_0824_01
summary : 'ISF All Call'
RQ ref  : RQ_001_0824
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0824_01
with {    IUT in standby and using a Common_ID between 1 and 254
       }
ensure that {
  when  { IUT receives a Voice_Transmission
                    containing Call_Data
                       containing Common_ID set to 255 and
                    containing 'audible test tone as payload' }
  then  { IUT outputs the 'audible test tone' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx


TP id   : TP_PMR_0858_01
summary : 'ISF All Call'
RQ ref  : RQ_001_0858
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0858_01
with {    IUT in standby and using a Common_ID of 255
       }
ensure that {
  when  { IUT receives a Voice_Transmission
                    containing Call_Data
                       containing Common_ID set to 255 and
                    containing 'audible test tone as payload'}
  then  { IUT outputs the 'audible test tone' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0858_02
summary : 'ISF All Call'
RQ ref  : RQ_001_0858
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0858_02
with {    IUT in standby and using a Common_ID of 255
      }
ensure that {
  when  { IUT receives a Voice_Transmission
                    containing Call_Data
                        containing Common_ID between 1 and 254 and
                    containing 'audible test tone as payload'}
  then  { IUT does not output the 'audible test tone' }
}
```

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```
TP id   : TP_PMR_1317_01
summary : 'Standard user interface transmitting All Call'
RQ ref  : RQ_001_1317
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1317_01
with {    IUT configured_for_Standard_User_Interface and in standby
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to all_call_address }
  then  { IUT sends a Voice_Transmission
                    with Header_Frame
                        containing Called_Station_ID set to 'F8 33 A6h' }
}
```

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```
TP id   : TP_PMR_1317_02
summary : 'Standard user interface All Call within prefix'
RQ ref  : RQ_001_1317
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1317_02
with {    IUT configured_for_Standard_User_Interface and in standby
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to all_call_within_a_prefix_address }
  then  { IUT sends a Voice_Transmission with Header_Frame
                containing Called_Station_ID set to the Tx_B2_conversion of the
all_call_within_a_prefix_address }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1317_03
summary : 'Standard user interface Receiving All Call'
RQ ref  : RQ_001_1317
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1317_03
with {    IUT configured_for_Standard_User_Interface
            and in standby
      }
ensure that {
  when  { IUT receives a Voice_Transmission containing Called_Station_ID
                set to 'F8 33 A6h' and
                containing 'audible test tone as payload'}
  then  { IUT outputs 'the audible test tone' }
}
```

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```
TP id    : TP_PMR_1317_04
summary  : 'Standard user interface receiving All Call within a prefix'
RQ ref   : RQ_001_1317
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1317_04
with {     IUT configured_for_Standard_User_Interface
             and in standby
       }
ensure that {
  when  { IUT receives a Voice_Transmission containing Called_Station_ID
                set to the Tx_B2_conversion of an all_call_within_a_prefix_address valid for the
individual_address of the IUT and
              containing 'audible test tone as payload'}
  then  { IUT outputs 'the audible test tone' }
}
```

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End group 1.1

5.1.2   channel access

Group 1.2 'Channel Access'

```
TP id    : TP_PMR_1004_01
summary  : 'Interference on channel'
RQ ref   : RQ_001_1004
TP type  : conformance
Role     : ISF, CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1004_01
with {     IUT in standby and configured_for_polite_to_own_CC
       }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using an invalid colour_code and 'a signal
level of >-102 dBm' and
          IUT is requested to make a Voice_Transmission }
  then  { IUT sends the Voice_Transmission  }
}
```

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```
TP id    : TP_PMR_1005_01
summary  : 'Tx WAIT Time'
RQ ref   : RQ_001_1005
TP type  : conformance
Role     : ISF, CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1005_01
with {     IUT in standby
       }
ensure that {
  when  { TESTER sends a Voice_Transmission with an End_Frame containing Tx_WAIT set to a non_zero
value and
          IUT is requested to send a PTT_Call during the Tx_WAIT time }
  then  { IUT does not transmit during the Tx_WAIT time }
}
```

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```
TP id   : TP_PMR_1007_01
summary : 'Acknowledgement response time'
RQ ref  : RQ_001_1007
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1007_01
with {     IUT in standby and configured_for_impolite_channel_access
      }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using 'a signal level of >-102 dBm' and
                sends a Voice_Transmission using 'a signal level of >-82 dBm'
                        with an End_Frame containing ARQ set to '01b' }
   then  { IUT sends an Ack_Frame   }
}
```

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```
TP id   : TP_PMR_1007_02
summary : 'Acknowledgement response time'
RQ ref  : RQ_001_1007
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1007_02
with {     IUT in standby and configured_for_polite_to_own_CC and configured_to_use_Tack
      }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using 'a signal level of >-102 dBm' and
                sends a Voice_Transmission using 'a signal level of >-82 dBm'
                        with an End_Frame containing ARQ set to '01b' }
   then  { IUT sends an Ack_Frame within T_Ack seconds }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1007_03
summary : 'Acknowledgement response time'
RQ ref  : RQ_001_1007
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1007_03
with {     IUT in standby and configured_for_polite_to_own_CC
      }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using 'a signal level of >-102 dBm' and
                sends a Voice_Transmission using 'a signal level of >-82 dBm'
                        with an End_Frame containing ARQ set to '01b' }
   then  { IUT sends an Ack_Frame after the TESTER terminates the continuous Voice_Transmission}
}
```

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```
TP id   : TP_PMR_1008_01
summary : 'Party to call'
RQ ref  : RQ_001_1008
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1008_01
with {     IUT in standby
      }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using a wildcard_group_address or
numeric_group_address of the IUT and
         IUT is requested to send a PTT_Call to the same wildcard_group_address or
numeric_group_address
                  }
   then  { IUT sends the PTT_Call}
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1009_01
summary : 'Polite to CC'
RQ ref  : RQ_001_1009
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_1009_01
with {    IUT in standby and configured_for_polite_to_own_CC
      }
ensure that {
   when  { TESTER sends a continuous Voice_Transmission 'not addressed to the IUT' and
           IUT is requested to send a Voice_Transmission      }
   then  { IUT does not transmit}
}

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TP id   : TP_PMR_1010_01
summary : 'Polite to CC'
RQ ref  : RQ_001_1010
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_1010_01
with {    IUT in standby and configured_for_impolite_channel_access
      }
ensure that {
   when  { TESTER sends a continuous Voice_Transmission 'not addressed to the IUT' and
           IUT is requested to send a Voice_Transmission      }
   then  { IUT sends that Voice_Transmission}
}

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TP id   : TP_PMR_1011_01
summary : 'Polite to own group'
RQ ref  : RQ_001_1011
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1011_01
with {    IUT in standby and configured_for_polite_to_own_group
      }
ensure that {
   when  { TESTER sends a continuous Voice_Transmission to an individual_address
                   that is 'also a member of a group configured in the IUT' and
           IUT is requested to send a Voice_Transmission      }
   then  { IUT does not transmit}
}
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1012_01
summary : 'Multiple acknowledgements'
RQ ref  : RQ_001_1012
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1012_01
with {    IUT in standby and configured_for_impolite_channel_access and configured_for_multiple_acks
      }
ensure that {
   when  { TESTER sends a continuous Voice_Transmission using 'a signal level of >-102 dBm' and
                   sends a Voice_Transmission using 'a signal level of >-82 dBm'
                        with an End_Frame containing ARQ set to '01b' }
   then  { IUT sends up to 4 Ack_Frames }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

TP id   : TP_PMR_1012_02
summary : 'Acknowledgement response time'
RQ ref : RQ_001_1012
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : **TC_PMR_1012_02**
with {   **IUT in standby and configured_for_polite_to_own_CC and configured_for_multiple_acks and
configured_to_use_Tack**
      }
ensure that {
  when { **TESTER sends a continuous Voice_Transmission using** 'a signal level of >-102 dBm' **and
            sends a Voice_Transmission using** 'a signal level of >-82 dBm'
                    with an End_Frame containing ARQ set to '01b' }
  then { **IUT sends up to** 4 **Ack_Frames within T_Ack seconds** }
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_1012_03
summary : 'Acknowledgement response time'
RQ ref : RQ_001_1012
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : **TC_PMR_1012_03**
with {   **IUT in standby and configured_for_polite_to_own_CC and configured_for_multiple_acks**
      }
ensure that {
  when { **TESTER sends a continuous Voice_Transmission using** 'a signal level of >-102 dBm' **and
            sends a Voice_Transmission using** 'a signal level of >-82 dBm'
                    with an End_Frame containing ARQ set to '01b' }
  then { **IUT sends up to** 4 **Ack_Frames after the TESTER terminates the continuous
Voice_Transmission**}
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

End group 1.2

5.1.3   framing

Group 1.3 'Framing'
-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0401_01
summary : 'Payload frame length with voice data'
RQ ref : RQ_001_0401
TP type : conformance
Role   : **ISF**, **CSF**
config : **CF_dPMR_01**
TC ref : **TC_PMR_0401_01**
with {   **IUT in standby**
      }
ensure that {
  when { **IUT is requested to start a Voice_Transmission** }
  then { **IUT sends Voice_Transmission containing** 384 **bit Payload_Frames** }
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0401_02
summary : 'Payload frame length with Type 1 data'
RQ ref : RQ_001_0401
TP type : conformance
Role   : **ISF**, **CSF**
config : **CF_dPMR_01**
TC ref : **TC_PMR_0401_02**
with {   **IUT in standby**
      }
ensure that {
  when { **IUT is requested to start a T1_Transmission** }
  then { **IUT sends T1_Transmission containing** 384 **bit Payload_Frames** }
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id   : TP_PMR_0401_03
summary : 'Payload frame length with Type 2 data'
RQ ref  : RQ_001_0401
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0401_03
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to start a T2_Transmission }
  then  { IUT sends T2_Transmission containing 384 bit Payload_Frames }
}


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TP id   : TP_PMR_0403_01
summary : 'There are four payload frames in a superframe in a voice transmission'
RQ ref  : RQ_001_0403
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0403_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to start a Voice_Transmission }
  then  { IUT sends a Voice_Transmission containing Superframes (each containing 4 Payload_Frames) }
}


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TP id   : TP_PMR_0403_02
summary : 'There are four payload frames in a superframe in a Type 1 data transmission'
RQ ref  : RQ_001_0403
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0403_02
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to start a T1_Transmission }
  then  { IUT sends a T1_Transmission containing Superframes (each containing 4 Payload_Frames) }
}


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TP id   : TP_PMR_0403_03
summary : 'There are four payload frames in a superframe in a Type 2 data transmission'
RQ ref  : RQ_001_0403
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0403_03
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to start a T2_Transmission }
  then  { IUT sends a T2_Transmission containing Superframes (each containing 4 Payload_Frames) }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0404_01
summary : 'A voice transmission is composed of header frame, integral superframes, end frame'
RQ ref  : RQ_001_0404
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0404_01
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to start a Voice_Transmission }
  then  { IUT sends a Voice_Transmission containing a Header_Frame
                     followed by an integral_number of Superframes
                     followed by an End_Frame }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0404_02
summary : 'A Type 1 data transmission is composed of header frame, integral superframes, end frame'
RQ ref  : RQ_001_0404
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0404_02
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to start a T1_Transmission }
  then  { IUT sends a T1_Transmission containing a Header_Frame
                     followed by an integral_number of Superframes
                     followed by an End_Frame }
}

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TP id   : TP_PMR_0404_03
summary : 'A Type 2 data transmission is composed of header frame, integral superframes, end frame'
RQ ref  : RQ_001_0404
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0404_03
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to start a T2_Transmission }
  then  { IUT sends a T2_Transmission containing a Header_Frame
                     followed by an integral_number of Superframes
                     followed by an End_Frame }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0405_01
summary : 'Header and end frame in manual connection request'
RQ ref  : RQ_001_0405
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0405_01
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to send Connection_Request }
  then  { IUT sends a Connection_Request }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0405_02
summary : 'Header and end frame in automatic connection request'
RQ ref   : RQ_001_0405
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0405_02
with {   IUT in standby and
              OACSU_enabled
       }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to an individual_address }
  then  { IUT sends a Connection_Request }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx


TP id    : TP_PMR_0406_01
summary : 'Header frame is used to acknowledge connect request'
RQ ref   : RQ_001_0406
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0406_01
with {   IUT in standby
       }
ensure that {
  when  { IUT receives a Connection_Request }
  then  { IUT sends a Ack_Frame   }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0406_02
summary : 'Acknowledge frame is used to acknowledge type 1 data transmission'
RQ ref   : RQ_001_0406
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0406_02
with {   IUT 'receiving a T1_Transmission'
       }
ensure that {
  when  { IUT receives End_Frame indicating Ack_Request }
  then  { IUT sends a Ack_Frame   }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0406_03
summary : 'Acknowledge frame is used to acknowledge Type 2 data transmission'
RQ ref   : RQ_001_0406
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0406_03
with {   IUT 'is receiving T2_Transmission'
       }
ensure that {
  when  { IUT receives End_Frame indicating Ack_Request }
  then  { IUT sends a Ack_Frame   }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0406_04
summary : 'Acknowledge frame is used to acknowledge Type 3 data transmission'
RQ ref  : RQ_001_0406
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0406_04
with {   IUT 'is receiving T3_Transmission'
     }
ensure that {
  when  { IUT receives End_Frame indicating Ack_Request }
  then  { IUT sends a Ack_Frame  }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0407_01
summary : 'Header and end frame pairs in manual disconnection request'
RQ ref  : RQ_001_0407
TP type : conformance
Role     : ISF,CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0407_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to send Disconnection_Request }
  then  { IUT sends a Disconnection_Request }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0407_02
summary : 'Header and end frame pairs in automatic disconnection request'
RQ ref  : RQ_001_0407
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0407_02
with {   IUT is 'sending T1_Transmission' to TESTER
     }
ensure that {
  when  { IUT completes T1_Transmission }
  then  { IUT sends a Disconnection_Request }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0407_03
summary : 'Header and end frame pairs in automatic disconnection request'
RQ ref  : RQ_001_0407
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0407_03
with {   IUT is 'sending T2_Transmission' to TESTER
     }
ensure that {
  when  { IUT completes T2_Transmission }
  then  { IUT sends a Disconnection_Request }
}


   -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0407_04
summary : 'Header and end frame pairs in automatic disconnection request'
RQ ref  : RQ_001_0407
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0407_04
with {   IUT is 'sending T3_Transmission' to TESTER
     }
ensure that {
  when  { IUT completes T3_Transmission }
  then  { IUT sends a Disconnection_Request }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0408_01
summary : 'Header frame and End frame pair is used to respond to a status request'
RQ ref  : RQ_001_0408
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0408_01
with {   IUT in standby
     }
ensure that {
  when  { IUT receives a Header_Frame
                        containing a Header_Type indicating Status_Request
                  followed by an End_Frame}
  then  { IUT sends a Status_Response  }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0811_01
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_01
with {   IUT in standby and 'using channel 446,103125 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F7 57 57h' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0811_02
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_02
with {   IUT in standby and 'using channel 446,109375 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F7 7D 57h' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0811_03
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_03
with {     IUT in standby and 'using channel 446,115625 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F7 D5 55h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_04
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_04
with {     IUT in standby and 'using channel 446,121875 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F7 FF 55h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_05
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_05
with {     IUT in standby and 'using channel 446,128125 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F5 5F 5Dh'  }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_06
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_06
with {     IUT in standby and 'using channel 446,134375 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F5 75 5Dh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0811_07
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_07
with {    IUT in standby and 'using channel 446,140625 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F5 DD 5Fh'  }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_08
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_08
with {    IUT in standby and 'using channel 446,146875 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'F5 F7 5Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_09
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_09
with {    IUT in standby and 'using channel 446,153125 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'FF 5D 7Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_10
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_10
with {    IUT in standby and 'using channel 446,159375 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to 'FF 77 7Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0811_11
summary  : 'CSF Colour Codes'
RQ ref   : RQ_001_0811
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0811_11
with {      IUT in standby and 'using  channel 446,165625 MHz'
        }
ensure that {
   when { IUT is requested to send a Voice_Transmission }
   then { IUT sends a Voice_Transmission with colour_code set to 'FF DF 7Dh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0811_12
summary  : 'CSF Colour Codes'
RQ ref   : RQ_001_0811
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0811_12
with {      IUT in standby and 'using channel 446,171875 MHz'
        }
ensure that {
   when { IUT is requested to send a Voice_Transmission }
   then { IUT sends a Voice_Transmission with colour_code set to 'FF F5 7Dh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0811_13
summary  : 'CSF Colour Codes'
RQ ref   : RQ_001_0811
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0811_13
with {      IUT in standby and 'using channel 446,178125 MHz'
        }
ensure that {
   when { IUT is requested to send a Voice_Transmission }
   then { IUT sends a Voice_Transmission with colour_code set to 'FD 55 75h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0811_14
summary  : 'CSF Colour Codes'
RQ ref   : RQ_001_0811
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0811_14
with {      IUT in standby and 'using channel 446,184375 MHz'
        }
ensure that {
   when { IUT is requested to send a Voice_Transmission }
   then { IUT sends a Voice_Transmission with colour_code set to 'FD 7F 75h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0811_15
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_15
with {    IUT in standby and 'using channel 446,190625 MHz'
     }
ensure that {
  when { IUT is requested to send a Voice_Transmission }
  then { IUT sends a Voice_Transmission with colour_code set to 'FD D7 77h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0811_16
summary : 'CSF Colour Codes'
RQ ref  : RQ_001_0811
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0811_16
with {    IUT in standby and 'using channel 446,196875 MHz'
     }
ensure that {
  when { IUT is requested to send a Voice_Transmission }
  then { IUT sends a Voice_Transmission with colour_code set to 'FD FD 77h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_01
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_01
with {    IUT in standby and 'using channel 446,103125 MHz'
     }
ensure that {
  when { IUT is requested to send a Voice_Transmission }
  then { IUT sends a Voice_Transmission with colour_code set to '57 75 77h' }
}

  -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_02
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_02
with {    IUT in standby and 'using channel 446,109375 MHz'
     }
ensure that {
  when { IUT is requested to send a Voice_Transmission }
  then { IUT sends a Voice_Transmission with colour_code set to '57 DD 75h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0812_03
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_03
with {     IUT in standby and 'using channel 446,115625 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '57 F7 75h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_04
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_04
with {     IUT in standby and 'using channel 446,121875 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '55 57 7Dh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_05
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_05
with {     IUT in standby and 'using channel 446,128125 MHz'
      }
ensure that {

  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '55 7D 7Dh' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_06
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_06
with {     IUT in standby and 'using channel 446,134375 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '55 D5 7Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0812_07
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_07
with {    IUT in standby and 'using channel 446,140625 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '55 FF 7Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_08
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_08
with {    IUT in standby and 'using channel 446,146875 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5F 55 5Fh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_09
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_09
with {    IUT in standby and 'using channel 446,153125 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5F 7F 5Fh' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_10
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_10
with {    IUT in standby and 'using channel 446,159375 MHz'
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5F D7 5Dh' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0812_11
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_11
with {    IUT in standby and 'using channel 446,165625 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5F FD 5Dh' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_12
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_12
with {    IUT in standby and 'using channel 446,171875 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5D 5D 55h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_13
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_13
with {    IUT in standby and 'using channel 446,178125 MHz'
     }
ensure that {

  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5D 77 55h' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0812_14
summary  : 'ISF Colour Codes'
RQ ref   : RQ_001_0812
TP type  : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0812_14
with {    IUT in standby and 'using channel 446,184375 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5D DF 57h' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0812_15
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_15
with {    IUT in standby and 'using channel 446,190625 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '5D F5 57h' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0812_16
summary : 'ISF Colour Codes'
RQ ref  : RQ_001_0812
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0812_16
with {    IUT in standby and 'using channel 446,196875 MHz'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission }
  then  { IUT sends a Voice_Transmission with colour_code set to '77 5D D7h' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

5.1.3.1   end frame

```
Group 1.3.1 'End frame'
 -- No TP specified
End group 1.3.1
```

5.1.3.2   header frames

```
Group 1.3.2 'Header frames'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0816_01
summary : 'Type 3 Data Frame Sync'
RQ ref  : RQ_001_0816
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0816_01
with {    IUT in standby
     }
ensure that {
  when  { IUT requested to send a T3_Transmission }
  then  { IUT sends a T3_Transmission
            containing Header_Frame
              containing Frame_Sync
                 set to 'FD 55 F5 DF 7F DDh'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

5.1.3.2.1   call information field

```
Group 1.3.2.1 'Call information field'
 -- No TP specified
End group 1.3.2.1
End group 1.3.2
```

5.1.3.3   packet data frame

```
Group 1.3.3 'Packet data frame'
 -- No TP specified
End group 1.3.3
```

5.1.3.4 superframe

Group 1.3.4 'Superframe'

5.1.3.4.1 type 1 data

Group 1.3.4.1 'Type 1 data'

```
TP id   : TP_PMR_0807_01
summary : 'T1 data transmission'
RQ ref  : RQ_001_0807
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0807_01
with {    IUT in standby
       }
ensure that {
  when  { IUT is requested to send a T1_Transmission }
  then  { IUT sends T1_Transmission
                     containing a Header_Frame
                        containing Communications_Mode
                            set to '010b'}
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0831_01
summary : 'Group status message using T1 Data'
RQ ref  : RQ_001_0831
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0831_01
with {    IUT in standby
       }
ensure that {
  when  { IUT is requested to send a T1_Status_Message }
  then  { IUT sends T1_Transmission
                     containing a Header_Frame
                        containing CI_information with the format_coding set to '0000b' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0831_02
summary : 'Group status message using T1 Data'
RQ ref  : RQ_001_0831
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0831_02
with {    IUT in standby
       }
ensure that {
  when  { IUT is requested to send a T1_Status_Message to a wildcard_group_address or
numeric_group_address }
  then  { IUT sends T1_Transmission
                     containing a Header_Frame
                        containing CI_information with the format_coding set to '0000b' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id    : TP_PMR_0832_01
summary : 'Group precoded message using T1 Data'
RQ ref  : RQ_001_0832
TP type : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0832_01
with {    IUT in standby
       }
ensure that {
   when  { IUT is requested to send a T1_Precoded_Data_Message }
   then  { IUT sends T1_Transmission
                      containing a Header_Frame
                         containing CI_information with the format_coding set to '0001b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0832_02
summary : 'Group precoded message using T1 Data'
RQ ref  : RQ_001_0832
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0832_02
with {    IUT in standby
       }
ensure that {
   when  { IUT is requested to send a T1_Precoded_Data_Message to a wildcard_group_address or
numeric_group_address }
   then  { IUT sends T1_Transmission
                      containing a Header_Frame
                         containing CI_information with the format_coding set to '0001b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0833_01
summary : 'Group free text message using T1 Data'
RQ ref  : RQ_001_0833
TP type : conformance
Role     : ISF
config   : CF_dPMR_01
TC ref   : TC_PMR_0833_01
with {    IUT in standby
       }
ensure that {
   when  { IUT is requested to send a T1_Freetext_Data_Message }
   then  { IUT sends T1_Transmission
                      containing a Header_Frame
                         containing CI_information with the format_coding set to '0010b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0833_02
summary : 'Group free text message using T1 Data'
RQ ref  : RQ_001_0833
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0833_02
with {    IUT in standby
       }
ensure that {
   when  { IUT is requested to send a T1_Freetext_Data_Message to a wildcard_group_address or
numeric_group_address }
   then  { IUT sends T1_Transmission
                      containing a Header_Frame
                         containing CI_information with the format_coding set to '0010b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0834_01
summary : 'Group short file transfer using T1 Data'
RQ ref   : RQ_001_0834
TP type : conformance
Role     : ISF
config   : CF_dPMR_ISF_02_C -- ISF IUT, TESTER CSF & User
TC ref   : TC_PMR_0834_01
with {    IUT in standby
     }
ensure that {
  when { IUT is requested to make a T1_Short_File_Transfer }
  then { IUT sends T1_Transmission
                    containing a Header_Frame
                       containing CI_information with the format_coding set to '0011b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0834_02
summary : 'Group short file transfer using T1 Data'
RQ ref   : RQ_001_0834
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0834_02
with {    IUT in standby
     }
ensure that {
  when { IUT is requested to make a T1_Short_File_Transfer to a wildcard_group_address or
numeric_group_address }
  then { IUT sends T1_Transmission
                    containing a Header_Frame
                       containing CI_information with the format_coding set to '0011b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.3.4.1
```

5.1.3.4.2   type 2 data

```
Group 1.3.4.2 'Type 2 data'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0806_01
summary : 'T2 data transmission'
RQ ref   : RQ_001_0806
TP type : conformance
Role     : ISF, CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0806_01
with {    IUT in standby
     }
ensure that {
  when { IUT is requested to send a T2_Transmission }
  then { IUT sends T2_Transmission
                    containing a Header_Frame
                       containing Communications_Mode
                          set to '011b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

TP id   : TP_PMR_0825_01
summary : 'Group status message using T2 Data'
RQ ref : RQ_001_0825
TP type : conformance
Role   : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0825_01
with {   **IUT in standby**
          }
ensure that {
  when { **IUT is requested to send a T2_Status_Message** }
  then { **IUT sends T2_Transmission**
                        containing a Header_Frame
                            containing CI_information with the format_coding set to '0000b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0825_02
summary : 'Group status message using T2 Data'
RQ ref : RQ_001_0825
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0825_02
with {   **IUT in standby**
          }
ensure that {
  when { **IUT is requested to send a T2_Status_Message to a wildcard_group_address or**
numeric_group_address }
  then { **IUT sends T2_Transmission**
                        containing a Header_Frame
                            containing CI_information with the format_coding set to '0000b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0827_01
summary : 'Group precoded message using T2 Data'
RQ ref : RQ_001_0827
TP type : conformance
Role   : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0827_01
with {   **IUT in standby**
          }
ensure that {
  when { **IUT is requested to send a T2_Precoded_Data_Message** }
  then { **IUT sends T2_Transmission**
                        containing a Header_Frame
                            containing CI_information with the format_coding set to '0001b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0827_02
summary : 'Group precoded message using T2 Data'
RQ ref : RQ_001_0827
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0827_02
with {   **IUT in standby**
          }
ensure that {
  when { **IUT is requested to send a T2_Precoded_Data_Message to a wildcard_group_address or**
numeric_group_address }
  then { **IUT sends T2_Transmission**
                        containing a Header_Frame
                            containing CI_information with the format_coding set to '0001b'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0829_01
summary : 'Group free text message using T2 Data'
RQ ref : RQ_001_0829
TP type : conformance
Role   : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0829_01
with {   **IUT in standby**
        }
ensure that {
  when { **IUT is requested to send a T2_Freetext_Data_Message** }
  then { **IUT sends T2_Transmission**
                    containing a Header_Frame
                        containing CI_information with the format_coding set to '0010b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0829_02
summary : 'Group free text message using T2 Data'
RQ ref : RQ_001_0829
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0829_02
with {   **IUT in standby**
        }
ensure that {
  when { **IUT is requested to send a T2_Freetext_Data_Message to a wildcard_group_address or**
numeric_group_address }
  then { **IUT sends T2_Transmission**
                    containing a Header_Frame
                        containing CI_information with the format_coding set to '0010b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0830_01
summary : 'Group short file transfer using T2 Data'
RQ ref : RQ_001_0830
TP type : conformance
Role   : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0830_01
with {   **IUT in standby**
        }
ensure that {
  when { **IUT is requested to make a T2_Short_File_Transfer** }
  then { **IUT sends T2_Transmission**
                    containing a Header_Frame
                        containing CI_information with the format_coding set to '0011b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0830_02
summary : 'Group short file transfer using T2 Data'
RQ ref : RQ_001_0830
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0830_02
with {   **IUT in standby**
        }
ensure that {
  when { **IUT is requested to make a T2_Short_File_Transfer to a wildcard_group_address or**
numeric_group_address }
  then { **IUT sends T2_Transmission**
                    containing a Header_Frame
                        containing CI_information with the format_coding set to '0011b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.3.4.2

5.1.3.4.3   voice

```
Group 1.3.4.3 'Voice'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0801_01
summary : 'PTT Call'
RQ ref  : RQ_001_0801
TP type : conformance
Role    : ISF,CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0801_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to make PTT_Call }
  then  { IUT sends a Voice_Transmission containing a Header_Frame
                    followed by an integral_number of Superframes
                    followed by an End_Frame  }
}
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx


End group 1.3.4.3
End group 1.3.4
End group 1.3
```

5.1.4   late entry

```
Group 1.4 'Late Entry'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0802_01
summary : 'Late Entry - Transmit Called Station Id'
RQ ref  : RQ_001_0802
TP type : conformance
Role    : ISF,CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0802_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to make PTT_Call }
  then  { IUT sends a Voice_Transmission
              with each first Payload_Frame
                containing ID0
                  set to upper 12 bits 'of Called_Station_ID specified in Header_Frame' and
              with each second Payload_Frame
                containing ID2
                  set to lower 12 bits 'of Called_Station_ID specified in Header_Frame'
         }
}

   -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0802_02
summary : 'Late Entry - Transmit Own ID'
RQ ref  : RQ_001_0802
TP type : conformance
Role    : ISF,CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0802_02
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to make PTT_Call }
  then  { IUT sends a Voice_Transmission
              with each third Payload_Frame
                containing ID1
                  set to upper 12 bits 'of Own_Station_ID specified in  Header_Frame' and
              with each third Payload_Frame
                containing ID3
                  set to lower 12 bits 'of Own_Station_ID specified in  Header_Frame' and
         }
}
   -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0802_03
summary  : 'Late Entry - Communications mode and format'
RQ ref   : RQ_001_0802
TP type  : conformance
Role     : ISF,CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0802_03
with {    IUT in standby
      }
ensure that {
   when  { IUT is requested to make PTT_Call }
   then  { IUT sends a Voice_Transmission
              with each Payload_Frame
                 containing same Communications_Mode and Communications_Format 'as specified in
Header_Frame'
         }
}
```

   -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id    : TP_PMR_0802_04
summary  : 'Late Entry - Receive'
RQ ref   : RQ_001_0802
TP type  : conformance
Role     : ISF,CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0802_04
with {    IUT in standby
      }
ensure that {
   when  { IUT receives Voice_Transmission
                        containing no Header_Frame and
                        containing an 'audible test tone as payload' }
   then  { IUT outputs the 'audible test tone' after a 'short delay' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.4

5.1.5   powersave

Group 1.5 'Powersave'

```
TP id    : TP_PMR_1101_01
summary  : 'Powersave preamble'
RQ ref   : RQ_001_1101
TP type  : conformance
Role     : ISF, CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1101_01
with {    IUT in standby and powersave_enabled
      }
ensure that {
   when  { IUT is requested to send a Voice_Transmission to TESTER }
   then  { IUT sends Voice_Transmission
                   with each Header_Frame
                      containing preamble set to '5F 5F 5F 5F 5F 5F 5F 5F 5Fh' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id    : TP_PMR_1102_01
summary  : 'Powersave call information'
RQ ref   : RQ_001_1102
TP type  : conformance
Role     : ISF, CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1102_01
with {    IUT in standby and powersave_enabled
      }
ensure that {
   when  { IUT is requested to send a Voice_Transmission to TESTER }
   then  { IUT sends Voice_Transmission with
              each Header_Frame containing CI_type set to '111b'
              except for the last Header_Frame containing CI_type not set to '111b' }
}
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1103_01
summary : 'Powersave preamble'
RQ ref  : RQ_001_1103
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1103_01
with {    IUT in standby and powersave_enabled using '15 Extended Headers'
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to TESTER }
  then  { IUT sends Voice_Transmission with
             Header_Frame  1 containing CI_information set to '0000 1111b'
             Header_Frame  2 containing CI_information set to '0000 1110b'
             Header_Frame  3 containing CI_information set to '0000 1101b'
             Header_Frame  4 containing CI_information set to '0000 1100b'
             Header_Frame  5 containing CI_information set to '0000 1011b'
             Header_Frame  6 containing CI_information set to '0000 1010b'
             Header_Frame  7 containing CI_information set to '0000 1001b'
             Header_Frame  8 containing CI_information set to '0000 1000b'
             Header_Frame  9 containing CI_information set to '0000 0111b'
             Header_Frame 10 containing CI_information set to '0000 0110b'
             Header_Frame 11 containing CI_information set to '0000 0101b'
             Header_Frame 12 containing CI_information set to '0000 0100b'
             Header_Frame 13 containing CI_information set to '0000 0011b'
             Header_Frame 14 containing CI_information set to '0000 0010b'
             Header_Frame 15 containing CI_information set to '0000 0001b'
             Header_Frame 16 containing CI_information set to '0000 0000b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.5
```

5.1.6   talking party ID

```
Group 1.6 'Talking Party ID'

TP id   : TP_PMR_0803_01
summary : 'Talking Party ID'
RQ ref  : RQ_001_0803
TP type : conformance
Role    : ISF, CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0803_01
with {    IUT in standby and TPID_is_enabled
     }
ensure that {
  when  { IUT receives a Voice_Transmission from TESTER }
  then  { IUT notifies the Own_Station_ID of the TESTER }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx


 -- No TP specified for RQ_001_0845
End group 1.6
End group 1
```

5.1.7   Slow User Data

```
Group 1.7 'Slow User Data'
TP id   : TP_PMR_0836_01
summary : 'CSF Slow User Data group calls'
RQ ref  : RQ_001_0836
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0836_01
with {   IUT in standby and preset_with_SLD_test_data
      }
ensure that {
  when  { IUT is requested to make a Group_SLD_Call }
  then  { IUT sends Voice_Transmission
                    containing a Header_Frame
                       containing the Communications_Mode
                          set to '001b' and
                    containing first Payload_Frame
                       containing CCH_data
                          set to first 2 bytes of SLD_test_data and
                    containing second Payload_Frame
                       containing CCH_data
                        set to second 2 bytes of SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0836_02
summary : 'ISF Slow User Data calls'
RQ ref  : RQ_001_0836
TP type : conformance
Role    : ISF
config  : CF_dPMR_01
TC ref  : TC_PMR_0836_02
with {   IUT in standby and preset_with_SLD_test_data
      }
ensure that {
  when  { IUT is requested to make a PTT_Call }
  then  { IUT sends Voice_Transmission
                    containing a Header_Frame
                       containing the Communications_Mode
                          set to '001b' and
                    containing first Payload_Frame
                       containing CCH_data
                          set to first 2 bytes of SLD_test_data and
                    containing second Payload_Frame
                       containing CCH_data
                        set to second 2 bytes of SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

5.2   CSF

Group 2 'CSF'

5.2.1   broadcast call

Group 2.1 'Broadcast Call'

```
TP id   : TP_PMR_0838_01
summary : 'CSF Broadcast calls'
RQ ref  : RQ_001_0838
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0838_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to make a Broadcast_Call }
  then  { IUT sends Voice_Transmission with Header_Frame
                    containing Communications_Format set to '0000b'}
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

End group 2.1

5.2.2   dialling plan

Group 2.2 'Dialling Plan'

```
TP id   : TP_PMR_1310_01
summary : 'Transmitting individual call'
RQ ref  : RQ_001_1310
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1310_01
with {   IUT configured_for_Standard_User_Interface and in standby
     }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to an individual_address }
  then  { IUT sends a Voice_Transmission
            containing a Header_Frame
              containing Called_Station_ID
                set to the Tx_B2_conversion of the individual_address
        }
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id   : TP_PMR_1310_02
summary : 'Receiving individual call'
RQ ref  : RQ_001_1310
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1310_02
with {   IUT and configured_for_Standard_User_Interface in standby
     }
ensure that {
  when  { IUT receives a Voice_Transmission
            containing Called_Station_ID
              set to Tx_B2_conversion of the IUT individual_address }
  then  { IUT outputs the 'audible test tone' }
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id    : TP_PMR_1310_03
summary  : 'Transmitting group call with wildcards '
RQ ref   : RQ_001_1310
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1310_03
with  {   IUT configured_for_Standard_User_Interface and wildcards
              and in standby
      }
ensure that {
  when  { IUT is requested to send a Voice_Transmission to a wildcard_group_address }
  then  { IUT sends a Voice_Transmission with Header_Frame
              containing Called_Station_ID set to the Tx_B2_conversion of that
wildcard_group_address }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1310_04
summary  : 'Receiving group call with wildcards'
RQ ref   : RQ_001_1310
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1310_04
with  {   IUT configured_for_Standard_User_Interface
              and in standby
      }
ensure that {
  when   { IUT receives a Voice_Transmission with Header_Frame
              containing Called_Station_ID
                 set to the Tx_B2_conversion of a wildcard_group_address valid for the
individual_address of the IUT and
              containing 'audible test tone as payload'}
  then   { IUT outputs 'the audible test tone' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1403_01
summary  : 'Call not initiated without using no hash or send key'
RQ ref   : RQ_001_1403
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1403_01
with  {   IUT configured_for_Standard_User_Interface and in standby
      }
ensure that {
  when  { IUT has seven_digit_address entered or selected  }
  then  { IUT does not transmit  }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1403_02
summary  : 'Call initiated when using hash or send key'
RQ ref   : RQ_001_1403
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1403_02
with  {   IUT configured_for_Standard_User_Interface
              and in standby
      }
ensure that {
  when  { IUT has a seven_digit_address entered or selected
            before the hash_key or dedicated_send_key pressed }
  then  { IUT sends a Voice_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1416_01
summary : 'Call initiated when using 7 digit dialing string'
RQ ref  : RQ_001_1403
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref   : TC_PMR_1416_01
with {     IUT configured_for_Standard_User_Interface
               and in standby
      }
ensure that {
   when  { IUT has a seven_digit_address entered or selected
            before the hash_key or dedicated_send_key pressed }
   then   { IUT sends a Voice_Transmission
                 with Header_Frame
                     containing Called_Station_ID set to the Tx_B2_conversion of the
seven_digit_address }
}
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1417_01
summary : 'Abbreviated dialling for individual calls'
RQ ref  : RQ_001_1417
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref   : TC_PMR_1417_01
with {     IUT configured_for_Standard_User_Interface
               and in standby and
               and configured_for_abbreviated_dialling
      }
ensure that {
   when  { IUT has a valid abbreviated_dialling_string entered or selected  -- valid means here
agreeing with the MS specific abbreviated address configuration
            before IUT hash_key or dedicated_send_key is pressed }
   then   { IUT sends a Voice_Transmission with Header_Frame
                 containing Called_Station_ID set to the Tx_B2_conversion of the
                             'address resulting from substituting the abbreviated_dialling_string for
the least significant digits of the IUT individual address' }
}
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1417_02
summary : 'Abbreviated dialling works for group call'
RQ ref  : RQ_001_1417
TP type : conformance
Role     : CSF
config  : CF_dPMR_01
TC ref   : TC_PMR_1417_02
with {     IUT configured_for_Standard_User_Interface
               and in standby and configured for wildcards
               and configured_for_abbreviated_dialling
      }
ensure that {
   when  { IUT has a valid abbreviated_dialling_string containing a wildcard entered or selected  --
valid means here agreeing with the MS specific abbreviated address configuration
            before the hash_key or dedicated_send_key is pressed }
   then   { IUT sends a Voice_Transmission
                 with Header_Frame
                     containing Called_Station_ID set to the Tx_B2_conversion of the
                         'address resulting from substituting the abbreviated_dialling_string for the
least significant digits of the IUT individual address'  }
}
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1418_01
summary  : 'Masked dialling works for individual calls'
RQ ref   : RQ_001_1418
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1418_01
with {    IUT configured_for_Standard_User_Interface
              and in standby
              and 'a dialling string input mask enabled'
      }
ensure that {
  when  { IUT has a valid masked_dialling_string entered or selected -- valid means the exact number
of digits as in mask
           before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                 with Header_Frame
                    containing Called_Station_ID set to the Tx_B2_conversion of the
                          'address resulting from substituting the masked_dialling_string for
those digits of the IUT individual address that fall within the input mask' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1418_02
summary  : 'Masked dialling for group'
RQ ref   : RQ_001_1418
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1418_02
with {    IUT configured_for_Standard_User_Interface
              and in standby
              and configured for wildcards
              and 'a dialling string input mask enabled'
      }
ensure that {
  when  { IUT has a valid masked_dialling_string containing a wildcard entered or selected   --
valid means the exact number of digits as in mask
           before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                   with Header_Frame
                      containing Called_Station_ID set to the Tx_B2_conversion of the
                          'address resulting from substituting the masked_dialling_string for
those digits of the IUT individual address that fall within the input mask' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1418_03
summary  : 'Abbreviated masked dialling works for individual calls'
RQ ref   : RQ_001_1418
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1418_03
with {    IUT configured_for_Standard_User_Interface
              and in standby
              and 'a dialling string input mask enabled'
              and configured_for_abbreviated_dialling
      }
ensure that {
  when  { IUT has a valid abbreviated_masked_dialling_string entered or selected
           before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                 with Header_Frame
                    containing Called_Station_ID set to the Tx_B2_conversion of the
                          'address resulting from substituting the
abbreviated_masked_dialling_string for those digits of the IUT individual address that fall within
the least significant digits of the input mask' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_1418_04
summary : 'Abbreviated masked dialling for group'
RQ ref  : RQ_001_1418
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1418_04
with {    IUT configured_for_Standard_User_Interface
                and in standby
                and configured for wildcards
                and configured_for_abbreviated_dialling
                and 'a dialling string input mask enabled'
      }
ensure that {
  when  { IUT has a valid abbreviated_masked_dialling_string containing a wildcard entered or
selected
          before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                    with Header_Frame
                      containing Called_Station_ID set to the Tx_B2_conversion of the
        'address resulting from substituting the abbreviated_masked_dialling_string for those
digits of the IUT individual address that fall within the least significant digits of the input
mask' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1420_01
summary : 'Broadcast with wildcard group address'
RQ ref  : RQ_001_1420
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1420_01
with {    IUT configured_for_Standard_User_Interface
                and in standby and
                configured for wildcards
      }
ensure that {

  when  { IUT has a broadcast_command and valid wildcard_group_address entered or selected
         before hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                  with Header_Frame
                    containing Called_Station_ID set to the Tx_B2_conversion of that
wildcard_group_address and
                  containing Communications_Format set to '0000b' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1420_02
summary : 'Broadcast with abbreviated wildcard group address'
RQ ref  : RQ_001_1420
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1420_02
with {    IUT configured_for_Standard_User_Interface
                and in standby and
                configured for wildcards
                and configured_for_abbreviated_dialling
      }
ensure that {
  when  { IUT has a broadcast_command and a valid abbreviated_dialling_string containing a wildcard
entered or selected
      before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                    with Header_Frame
                      containing Called_Station_ID set to the Tx_B2_conversion of the
                      'address resulting from substituting the abbreviated_dialling_string for the
least significant digits of the IUT individual address' and
                      containing Communications_Format set to '0000b' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id    : TP_PMR_1420_03
summary  : 'Broadcast with abbreviated masked wildcard group address'
RQ ref   : RQ_001_1420
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1420_03
with {    IUT configured_for_Standard_User_Interface
               and in standby and
               configured for wildcards
               and configured_for_abbreviated_dialling
               and 'a dialling string input mask enabled'
     }
ensure that {
  when  { IUT has a broadcast_command and a valid abbreviated_masked_dialling_string containing a
wildcard entered or selected
     before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                    with Header_Frame
                       containing Called_Station_ID set the Tx_B2_conversion of the
          'address resulting from substituting the abbreviated_masked_dialling_string for those
digits of the IUT individual address that fall within the least significant digits of the input
mask' and
                       containing Communications_Format set to '0000b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1420_04
summary  : 'Broadcast with numeric group address'
RQ ref   : RQ_001_1420
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1420_04
with {    IUT configured_for_Standard_User_Interface and
               in standby and
               programmed_with_a_numeric_group_address

     }
ensure that {

  when  { IUT has a broadcast_command and the numeric_group_address entered or selected
         before hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                  with Header_Frame
                      containing Called_Station_ID set to the Tx_B2_conversion of that
numeric_group_address and
                      containing Communications_Format set to '0000b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1420_05
summary  : 'Broadcast with abbreviated numeric group address'
RQ ref   : RQ_001_1420
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_1420_05
with {    IUT configured_for_Standard_User_Interface and
               in standby and
               programmed_with_a_numeric_group_address and
               configured_for_abbreviated_dialling
     }
ensure that {
  when  { IUT has a broadcast_command and a valid abbreviated_dialling_string 'for the
numeric_group_address' entered or selected
     before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                    with Header_Frame
                       containing Called_Station_ID set to the Tx_B2_conversion of that
numeric_group_address and
                       containing Communications_Format set to '0000b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

TP id   : TP_PMR_1420_06
summary : 'Broadcast with abbreviated masked numeric group address'
RQ ref : RQ_001_1420
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_1420_06
with {   **IUT configured_for_Standard_User_Interface**
              and in standby and
              programmed_with_a_numeric_group_address and
              configured_for_abbreviated_dialling and
              'a dialling string input mask enabled'
      }
ensure that {
  when { **IUT has a broadcast_command and a valid abbreviated_masked_dialling_string** 'for the
numeric_group_address' **entered or selected**
      before IUT hash_key or dedicated_send_key is pressed }
  then { **IUT sends a Voice_Transmission**
                      with Header_Frame
                        containing Called_Station_ID set to the Tx_B2_conversion of the
numeric_group_address **and**
                        containing Communications_Format set to '0000b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1420_07
summary : 'Broadcast with invalid numeric group address'
RQ ref : RQ_001_1420
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_1420_07
with {   **IUT configured_for_Standard_User_Interface and**
              in standby and
              programmed_with_a_numeric_group_address

      }
ensure that {

  when { **IUT has a broadcast_command and a seven_digit_address different from the**
numeric_group_address **entered or selected**
        before hash_key or dedicated_send_key is pressed }
  then { **IUT notifies Call_Fail** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1421_01
summary : 'Status call with specific address'
RQ ref : RQ_001_1421
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_1421_01
with {   **IUT configured_for_Standard_User_Interface and**
              in standby
      }
ensure that {
  when { **IUT has a status_command, a status_code set to** '09' **and a valid seven_digit_address**
entered or selected
        before IUT hash_key or dedicated_send_key is pressed }
  then { **IUT sends a Status_Call**
              with Header_Frame
                containing Called_Station_ID set to the Tx_B2_conversion of the
seven_digit_address **and**
                containing Header_Type set to '0111b'**and**
              with End_Frame
                containing End_Type set to '01b'**and**
                containing ARQ set to '00b' **and**
                containing STAT set to '01001b'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_1423_01
summary : 'Forced talkgroup call with specific address'
RQ ref  : RQ_001_1423
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1423_01
with {    IUT configured_for_Standard_User_Interface and
             not_programmed_with_a_numeric_group_address and
             in standby
     }
ensure that {
  when  { IUT has a talkgroup_command and a seven_digit_address entered or selected
          before IUT hash_key or dedicated_send_key is pressed }
  then  { IUT sends a Voice_Transmission
                    with a Header_Frame
                       containing Called_Station_ID set to the Tx_B2_conversion of the
seven_digit_address }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1424_01
summary : 'Call cancel'
RQ ref  : RQ_001_1424
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_1424_01
with {    IUT configured_for_Standard_User_Interface and
             in standby and
             configured_for_polite_to_own_CC
     }
ensure that {
  when  { TESTER sends a continuous Voice_Transmission using 'a signal level of >-102 dBm' and
          IUT is requested to make a Voice_Transmission }
  then  { IUT does not transmit }
  when  { IUT hash_key is pressed twice -- call only cancelled here!
          before the TESTER terminates the continuous Voice_Transmission }
  then  { IUT does not transmit }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.2
```

5.2.3   individual short data message

```
Group 2.3 'Individual Short Data Message'
```

5.2.3.1   ISDM free text message

```
Group 2.3.1 'ISDM Free Text Message'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0852_01
summary : 'Individual free text message using T2 Data'
RQ ref  : RQ_001_0852
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0852_01
with {    IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T2_Freetext_Data_Message to an individual_address }
  then  { IUT sends T2_Transmission
                    containing Payload_Frames
                       containing format_coding set to '0010b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0853_01
summary : 'Individual free text message using T1 Data'
RQ ref   : RQ_001_0853
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0853_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T1_Freetext_Data_Message to an individual_address }
  then  { IUT sends T1_Transmission
                    containing Payload_Frames
                      containing format_coding set to '0010b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.1
```

5.2.3.2   ISDM precoded message

```
Group 2.3.2 'ISDM Precoded Message'

TP id    : TP_PMR_0850_01
summary : 'Individual precoded message using T1 Data'
RQ ref   : RQ_001_0850
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0850_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T1_Precoded_Data_Message to an individual_address }
  then  { IUT sends T1_Transmission
                    containing Payload_Frames
                      containing format_coding set to '0001b'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0851_01
summary : 'Individual precoded message using T2 Data'
RQ ref   : RQ_001_0851
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0851_01
with {   IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T2_Precoded_Data_Message to an individual_address }
  then  { IUT sends T2_Transmission
                    containing Payload_Frames
                      containing format_coding set to '0001b'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.2
```

5.2.3.3   ISDM short file transfer

```
Group 2.3.3 'ISDM Short File Transfer'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0855_01
summary  : 'Short file transfer using T3 Data'
RQ ref   : RQ_001_0855
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0855_01
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to send a T3_Transmission to an individual_address }
  then  { IUT sends a T3_Transmission  }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0856_01
summary  : 'Individual short file transfer using T2 Data'
RQ ref   : RQ_001_0856
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0856_01
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to make a T2_Short_File_Transfer to an individual_address }
  then  { IUT sends T2_Transmission
                 with Payload_Frames
                    containing format_coding set to '0011b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0857_01
summary  : 'Individual short file transfer using T1 Data'
RQ ref   : RQ_001_0857
TP type  : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0857_01
with {   IUT in standby
      }
ensure that {
  when  { IUT is requested to make a T1_Short_File_Transfer to an individual_address }
  then  { IUT sends T1_Transmission with Payload_Frames
                    containing format_coding set to '0011b' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.3
```

5.2.3.4 ISDM status message

```
Group 2.3.4 'ISDM Status Message'
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0846_01
summary : 'Individual status message using T2 Data'
RQ ref  : RQ_001_0846
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0846_01
with {    IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T2_Status_Message to an individual_address }
  then  { IUT sends T2_Transmission
                    containing Payload_Frames
                      containing format_coding set to '0000b'}
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0847_01
summary : 'Individual status message using T1 Data'
RQ ref  : RQ_001_0847
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0847_01
with {    IUT in standby
     }
ensure that {
  when  { IUT is requested to send a T1_Status_Message to an individual_address }
  then  { IUT sends T1_Transmission
                    containing Payload_Frames
                      containing format_coding set to '0000b'}
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.4
End group 2.3
```

5.2.4 OACSU

```
Group 2.4 'OACSU'

TP id   : TP_PMR_0840_01
summary : 'CSF OACSU'
RQ ref  : RQ_001_0840
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0840_01
with {    IUT in standby and
            OACSU_enabled
     }
ensure that {
  when  { IUT is requested to send a OACSU_Call }
  then  { IUT sends a Connection_Request
                containing Header_Frame
                  containing Header_Type set to '0001b' and
                containing End_Frame
                  containing End_Type set to '00b' and
                  containing ARQ set to '01b' }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0840_02
summary  : 'CSF OACSU'
RQ ref   : RQ_001_0840
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0840_02
with {    IUT has_sent_OACSU_Connection_Request
        }
ensure that {
   when  { IUT receives an ACK_Frame
                           containing Header_Type set to '0011b' and
                           containing CI_information set to '001b' }
   then  { IUT notifies 'that Voice_Transmission can start' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0840_03
summary  : 'CSF OACSU'
RQ ref   : RQ_001_0840
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0840_03
with {    IUT has_sent_OACSU_Connection_Request
         }
ensure that {
   when  { IUT receives an Ack_Frame
                           containing Header_Type set to '0011b' and
                           containing CI_information not set to '001b' }
   then  { IUT notifies Call_Fail }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.4
```

5.2.5   short appended data

```
Group 2.5 'Short Appended Data'

TP id    : TP_PMR_0837_01
summary  : 'CSF Appended Data group calls'
RQ ref   : RQ_001_0837
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0837_01
with {    IUT in standby and preset_with_AD_test_data
         }
ensure that {
   when  { IUT is requested to make a Group_AD_Call }
   then  { IUT sends Voice_Transmission
                      with Header_Frame
                         containing Communications_Mode set to '101b' }

   when  { IUT is requested to terminate the Group_AD_Call during the first Payload_Frame of a
Superframe }
   then  { IUT sends 'AD_test_data in penultimate and last Payload_Frames'}

}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0844_01
summary : 'CSF Appended Data individual calls'
RQ ref   : RQ_001_0844
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0844_01
with {    IUT is preset_with_AD_test_data
       }
ensure that {
   when  { IUT is requested to send a Individual_AD_Call }
   then  { IUT sends Voice_Transmission
                        containing Header_Frame
                           containing Communications_Mode set to '101b'}
   when  { IUT is requested to terminate the Individual_AD_Call during the first Payload_Frame of a
Superframe}
   then  { IUT sends 'AD_test_data in penultimate and last Payload_Frames'}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.5
```

5.2.6   slow user data

```
Group 2.6 'Slow User Data'

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0843_01
summary : 'CSF Slow User Data individual calls'
RQ ref   : RQ_001_0843
TP type : conformance
Role     : CSF
config   : CF_dPMR_01
TC ref   : TC_PMR_0843_01
with {    IUT in standby and preset_with_SLD_test_data
       }
ensure that {
   when  { IUT is requested to make a Individual_SLD_Call }
   then  { IUT sends Voice_Transmission
                        containing a Header_Frame
                           containing Communications_Mode set to '001b' and
                     containing first Payload_Frame
                        containing CCH_data
                           set to first 2 bytes of SLD_test_data and
                     containing second Payload_Frame
                        containing CCH_data
                           set to second 2 bytes of SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.6
```

5.2.7   type 3 data

Group 2.7 'Type 3 data'

TP id   : TP_PMR_0808_01
summary : 'T3 data transmission'
RQ ref : RQ_001_0808
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0808_01
with {   **IUT in standby**
        }
ensure that {

  when { **IUT is requested to send a T3_Transmission** }
  then { **IUT sends T3_Transmission**
                        containing a Header_Frame
                          containing Communications_Mode
                            set to '100b' }
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0817_01
summary : 'Type 3 Data positive acknowledgement'
RQ ref : RQ_001_0817
TP type : conformance
Role   : **CSF**
config : CF_dPMR_CSF_01_C **-- CSF IUT, TESTER CSF**
TC ref : TC_PMR_0817_01
with {   **IUT in standby**
        }
ensure that {
  when { **IUT receives a T3_Transmission** }
  then { **IUT sends a Ack_Frame containing Ack_type set to** '001b'}
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0818_01
summary : 'Type 3 Data negative acknowledgement'
RQ ref : RQ_001_0818
TP type : conformance
Role   : **CSF**
config : CF_dPMR_CSF_01_C **-- CSF IUT, TESTER CSF**
TC ref : TC_PMR_0818_01
with {   **IUT in standby**
        }
ensure that {
  when { **IUT receives a T3_Transmission with a packet_data_frame containing a data_checksum set to
an invalid CRC_D value**}
  then { **IUT sends a Ack_Frame containing Ack_type set to** '010b' **and**
                                CI_information set to 'the number of the packet data
frame before the one containing the invalid_CRC'}
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0819_01
summary : 'Type 3 Data call completion'
RQ ref : RQ_001_0819
TP type : conformance
Role   : **CSF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0819_01
with {   **IUT is** 'sending a T3_Transmission'
        }
ensure that {
  when { **IUT receives a Ack_Frame containing Ack_type set to** '001b' }
  then { **IUT sends a Disconnection_Request**}
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id   : TP_PMR_0820_01
summary : 'Type 3 Data negative acknowledgement'
RQ ref  : RQ_001_0820
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0820_01
with {    IUT is 'sending a T3_Transmission'
      }
ensure that {
   when { IUT receives a Ack_Frame containing Ack_type set to '010b' and CI_information set to a
packet_data_frame number}
   then { IUT sends 'the previous T3_Transmission starting with the packet_data_frame following that
packet_data_frame number' }
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0821_01
summary : 'Type 3 Data unused bytes'
RQ ref  : RQ_001_0821
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0821_01
with {    IUT in standby
      }
ensure that {
   when  { IUT is requested to send a T3_Transmission 'with a payload of 1400 bytes' }
   then  { IUT sends T3_Transmission
                  with the eighth packet_data_frame
                       containing data_length set to 140 and
                       last 40 data_bytes set to '00h'}
}
```

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0822_01
summary : 'Type 3 Data CRC'
RQ ref  : RQ_001_0822
TP type : conformance
Role    : CSF
config  : CF_dPMR_01
TC ref  : TC_PMR_0822_01
with {    IUT in standby
      }
ensure that {

   when  { IUT is requested to send a T3_Transmission }
   then  { IUT sends a T3_Transmission
                     with every packet_data_frame
                        containing data_checksum set to the valid CRC_D value  }
   }
```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
End group 2.7
End group 2
```

5.3 ISF

Group 3 'ISF'

TP id : TP_PMR_0804_01
summary : 'Selectable Common_IDs'
RQ ref : RQ_001_0804
TP type : conformance
Role : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0804_01
with { **IUT in standby**
    }
ensure that {
  when { **IUT is requested to send a Voice_Transmission using a Common_ID between** 1 **and** 255 }
  then { **IUT sends a Voice_Transmission**
            containing a Header_Frame
              containing Own_Station_ID and Called_Station_ID
                set to the Common_ID in their upper 8 **bits** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id : TP_PMR_0805_01
summary : 'Fixed ISF address bits'
RQ ref : RQ_001_0805
TP type : conformance
Role : **ISF**
config : **CF_dPMR_01**
TC ref : TC_PMR_0805_01
with { **IUT in standby**
    }
ensure that {
  when { **IUT is requested to send a Voice_Transmission using a Common_ID between** 1 **and** 255 }
  then { **IUT sends a Voice_Transmission**
             containing a Header_Frame
               containing a Own_Station_ID and Called_Station_ID
                 set to 'FFFFh' **in their lower** 16 **bits** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 3

Annex A (normative):
dPMR conformance test configurations
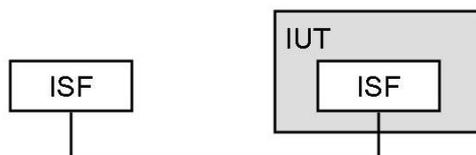
Figure A.1: Configuration CF_dPMR_ISF_01_C
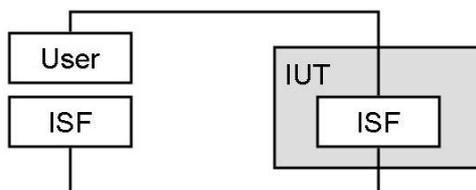
Figure A.2: Configuration CF_dPMR_ISF_02_C
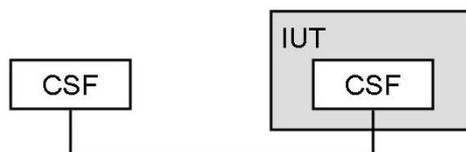
Figure A.3: Configuration CF_dPMR_CSF_01_C
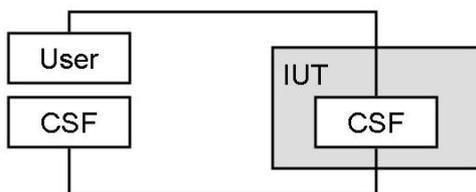
Figure A.4: Configuration CF_dPMR_CSF_02_C
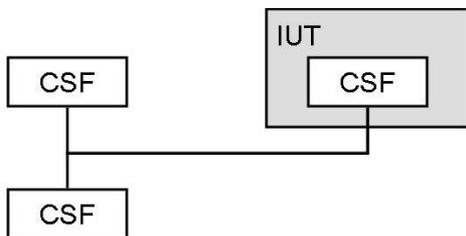

Figure A.5: Configuration CF_dPMR_CSF_03_C
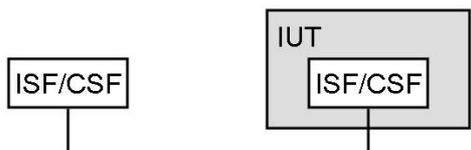

Figure A.6: Configuration CF_dPMR_ISF/CSF_01_C
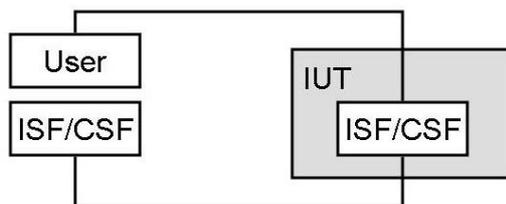
Figure A.7: Configuration CF_dPMR_ISF/CSF_02_C

In the configuration CF_dPMR_ISF/CSF_01_C and CF_dPMR_ISF/CSF_01_C either all entities are ISF or all are CSF.

Annex B (normative):
dPMR TPLan conformance testing user definitions

```
--***Cross references***

xref PICS_doc          {DTS/ERM-TGDMR-066-1}

-- Configurations
xref CF_dPMR_01        {DTS-ERM-TGDMR-066-3}


--***Definitions***

def header type   -- as in "TP type"

-- Entities

-- Messages or signals
def event PTT_Call    -- voice transmission directly initiated by the PTT switch
def event Header_Frame {header_type, format_coding } -- alias HF
def event End_Frame   {Ack_Request, ARQ, End_Type}  -- alias EF
def event Ack_Frame   {Ack_type}
def event Ack_Frames -- Up to 4 Ack frames repeated with 300-500ms intervals
def event Payload_Frame { CCH_data, ID0, ID1, ID2, ID3 }
def event Payload_Frames
def event Superframe  { Payload_Frames }
def event Superframes { Payload_Frames }
def event Voice_Transmission -- directly following sequence of HF, SFs, EF with audible tone as
payload
def event T1_Transmission    -- directly following sequence of HF, SFs, EF with Type 1 data in
payload
def event T2_Transmission    -- directly following sequence of HF, SFs, EF with Type 2 data in
payload
def event T3_Transmission    -- directly following sequence of HF, 8 PDFs, EF with Type 3 data in
payload
def event Connection_Request { HeaderFrame, EndFrame } -- Manually initiated, e.g., PTT double
click,
                                         -- Status request, etc
def event Disconnection_Request { HeaderFrame1, EndFrame1, HeaderFrame2, EndFrame2 }
def event Status_Response   { HeaderFrame, EndFrame }
def event T2_Status_Message
def event T2_Precoded_Data_Message
def event T2_Freetext_Data_Message
def event T2_Short_File_Transfer
def event T1_Status_Message
def event T1_Precoded_Data_Message
def event T1_Freetext_Data_Message
def event T1_Short_File_Transfer
def event Individual_SLD_Call
def event Group_SLD_Call
def event Broadcast_Call
def event Individual_AD_Call
def event Group_AD_Call
def event OACSU_Call
def event Status_Call  { HeaderFrame, EndFrame}
def event Call_Fail   -- non-specified kind of user notification in case of a call failure
def event hash_key
def event dedicated_send_key
def event broadcast_command
def event talkgroup_command


-- Values
def value bit
def value integral_number
def value individual_address
def value Call_Data   -- Comms Mode, Comms Format, Caller, Callee IDs, Common_ID
                      -- ... appearing in header well as payload frames of CCH
def value Header_Type { Status_Request }
def value Own_Station_ID
def value Called_Station_ID
def value Communications_Mode
def value Communications_Format
def value format_coding
def value Common_ID
```

```
def value CRC_D
def value colour_code
def value ISF_colour_code
def value CSF_colour_code
def value Frame_Sync
def value Status_Request
def value status_code              -- a value from 0 to 31
def value Ack_Request
def value error
def value packet_data_frame { data_bytes, data_length, data_checksum }
def value CI_type
def value CI_information           -- only the information part of CI (=call information)
def value wildcard_group_address  -- a 7 digit group address containing a wildcard in the last four
digits
def value numeric_group_address   -- a 7 digit talkgroup address
def value SLD_test_data           -- 4 bytes of data to be buffered in the IUT
def value AD_test_data            -- 40 bytes of data to be buffered in the IUT
def value wildcards
def value STAT
def value preamble
def value Tx_WAIT
def value T_Ack
def value all_call_address                  -- ****** (7 wildcard symbols)
def value all_call_within_a_prefix_address -- n****** (6 wildcard symbols)
def value seven_digit_address
def value abbreviated_dialling_string
def value number
def value wildcard
def value masked_dialling_string
def value dialling_string
def value abbreviated_masked_dialling_string

def unit bits
def unit bytes
def unit MHz
def unit seconds

-- Conditions
def condition standby
def condition transmit
def condition OACSU_enabled  -- radio configured for Off Air Call Set-up
def condition has_received_an_End_Frame_with_Acknowledge_Request
def condition TPID_is_enabled
def condition has_sent_OACSU_Connection_Request
def condition configured_for_abbreviated_dialling
def condition masked_dialling
def condition configured_for_Standard_User_Interface
def condition preset_with_SLD_test_data
def condition preset_with_AD_test_data
def condition invalid_CRC
def condition configured_for_impolite_channel_access
def condition configured_for_polite_to_own_CC
def condition configured_for_polite_to_own_group
def condition configured_for_multiple_acks
def condition configured_to_use_Tack
def condition powersave_enabled
def condition programmed_with_a_numeric_group_address
def condition not_programmed_with_a_numeric_group_address

-- Keywords - (Pre)conditions

-- Keywords - (Pre)conditions
def word configured
def word entered
def word selected
def word Tx_B2_conversion   -- B2 Algorythm forward conversion
def word Rx_B2_conversion   -- B2 Algorythm reverse conversion

-- Keywords - Stimuli
def word start
def word make
def word requested
def context {is ~requested to}
def word completes
def word cancel
def word terminate
def word terminates
def word pressed
```

```
-- Keywords - Responses
def word outputs
def word output
def word notifies
def word returns
def word send

-- Keywords - other
def word set
def context {~set to}
def word up
def context {~up to}
def word same
def word their
def word upper
def word lower
def word each
def word every
def word first
def word second
def word third
def word fourth
def word eighth
def word last
def word except
def word for
def word followed
def word by
def context {~followed by}
def word using
def word part
def word between
def word twice
def word does
def word has
def word non_zero
def word time
def word during
def word continuous
def word valid
def word invalid
def word different
```

History

Document history		
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