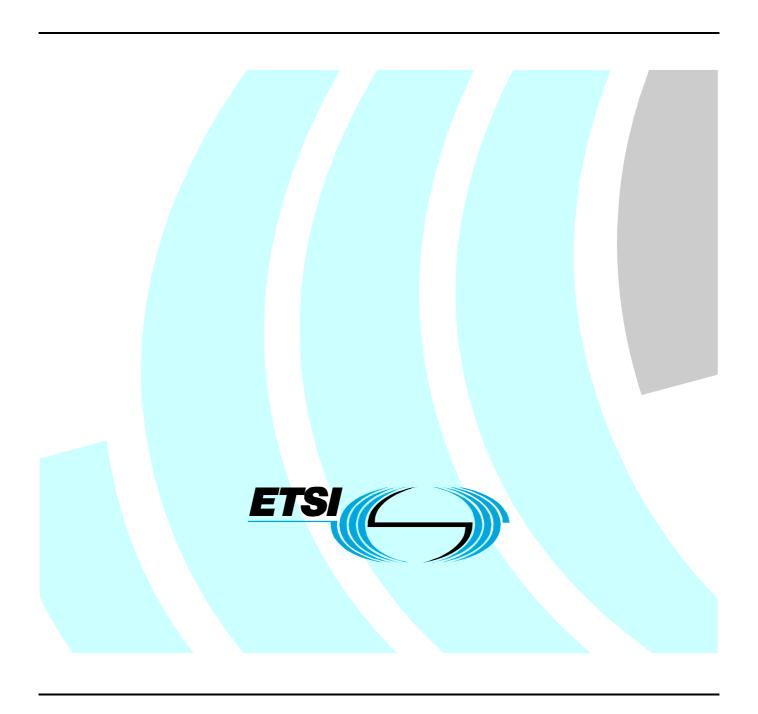# ETSI TS 102 587-5 V1.3.1 (2010-09)

Technical Specification

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Peer-to-Peer Digital Private Mobile Radio;
Part 5: Interoperability testing; Interoperability Test Suite
Structure and Test Purposes (TSS&TP) specification**

Reference

RTS/ERM-TGDMR-297-5

Keywords

digital, interoperability, mobile, radio, testing, TSS&TP

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

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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 5 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Peer-to-Peer Digital Private Mobile Radio, as identified below:

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

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

Part 3:   "Requirements catalogue";

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

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

Part 6:   "Interoperability testing; Test Descriptions (TD)".

1   Scope

The present document specifies the interoperability 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

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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2.1   Normative references

The following referenced documents are necessary for the application of the present document.

[1]   ETSI TS 102 490 (V1.6.1): "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 necessary for the application of the present document but they assist the user with regard to a particular subject area.

[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
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 [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 : 'Support of all call with any specific callee ID'
RQ ref  : RQ_001_0824
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {   QE1 and EUT in standby and
                      using_compatible_vocoders
     }
ensure that {
  when  { QE1 uses Common_ID 255 and
          EUT uses another Common_ID and
          QE1_User makes a Call to EUT  }
  then  { EUT_User receives the Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0824_02
summary : 'All call with all call callee ID'
RQ ref  : RQ_001_0824
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {   QE1 and EUT in standby and
                      using_compatible_vocoders
     }
ensure that {
  when  { QE1 and EUT using Common_ID 255 and
          QE1_User makes a Call to EUT  }
  then  { EUT_User receives the Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0858_01
summary : 'All call with all call callee ID'
RQ ref  : RQ_001_0858
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {   QE1 and EUT in standby and
                      using_compatible_vocoders

     }
ensure that {
  when  { EUT uses Common_ID 255 and
          QE1 uses another Common_ID and
          QE1_User makes a Call  }
  then  { EUT_User does not receive the Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0858_02
summary : 'All call with all call callee ID'
RQ ref  : RQ_001_0858
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {   QE1 and EUT in standby and
                      using_compatible_vocoders

     }
ensure that {
  when  { EUT uses Common_ID 255 and
          QE1 uses Common_ID 255 and
          QE1_User makes a Call  }
  then  { EUT_User does receive the Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.1
```

5.1.2 channel access

Group 1.2 'Channel Access'

```
TP id    : TP_PMR_1006_01
summary : 'Automatic call termination within 180 seconds '
RQ ref  : RQ_001_1006
TP type : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
             QE1 and EUT in standby
     }
ensure that {
  when  { EUT_User makes a PTT_Call and
          PTT_Key is not released }
  then  { QE1_User receives PTT_Call and
          EUT terminates the PTT_Call after 180 seconds}
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1006_02
summary : 'Automatic call termination within 180 seconds '
RQ ref  : RQ_001_1006
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 powersave_disabled and
                        using_compatible_vocoders)
           QE1 in standby
     }
ensure that {
  when  { EUT_User makes a Voice_Transmission addressed to QE1 and
          PTT_Key is not released }
  then  { QE1_User receives Voice_Transmission and
          EUT terminates the Voice_Transmission after 180 seconds }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1006_03
summary : 'Automatic call termination within 180 seconds and call resume'
RQ ref  : RQ_001_1006
TP type : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
           EUT in call_timeout_terminated
     }
ensure that {
  when  { EUT_User releases and presses PTT_Key again }
  then  { QE1_User receives PTT_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1006_04
summary : 'Automatic call termination within 180 seconds and call resume'
RQ ref  : RQ_001_1006
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in call_timeout_terminated
     }
ensure that {
  when  { EUT_User releases and presses the PTT_Key again }
  then  { QE1_User receives Voice_Transmission }
}
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1008_01
summary : 'Channel access in own call '
RQ ref  : RQ_001_1008
TP type : interoperability
Role    : ISF
config ref: CF_ISF_02_I -- ISF QE1, QE2 and EUT
TD ref  : TBD
with {    ((EUT and QE1 and QE2) using the same Common_ID and
                                using_compatible_vocoders) and
           QE1 is transmitting
      }
ensure that {
  when  { EUT_User makes PTT_Call }
  then  { QE2_User receives the PTT_Call from EUT}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1008_02
summary : 'Channel access in own call '
RQ ref  : RQ_001_1008
TP type : interoperability
Role    : CSF
config ref: CF_CSF_02_I -- CSF QE1, QE2 and EUT
TD ref  : TBD
with {    ((EUT and QE1 and QE2) using the same call_group and
                                using_compatible_vocoders) and
           QE1 is transmitting Voice_Transmission to EUT
      }
ensure that {
  when  { EUT_User makes a Voice_Transmission to QE2}
  then  { QE2_User receives the Voice_Transmission from EUT}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1009_01
summary : 'Channel access when ISF polite to own colour code'
RQ ref  : RQ_001_1009
TP type : interoperability
Role    : ISF
config ref: CF_ISF_02_I -- ISF QE1, QE2 and EUT
TD ref  : TBD
with {    ((EUT and QE1 and QE2) using same Common_ID and
                                using_compatible_vocoders) and
                                and using same colour_code ) and
            EUT is polite_to_own_CC and
            QE1 is transmitting to QE2
      }
ensure that {
  when  { EUT_User makes PTT_Call }
  then  { QE2_User does not receive PTT_Call from EUT }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1010_01
summary : 'Channel access when ISF impolite'
RQ ref  : RQ_001_1010
TP type : interoperability
Role    : ISF
config ref: CF_ISF_02_I -- ISF QE1, QE2 and EUT
TD ref  : TBD
with {    ((EUT and QE1 and QE2) using_compatible_vocoders) and
            (EUT and QE2 using the same Common_ID) and
            (EUT and QE1 not using the same Common_ID) and
            EUT is impolite  and
            QE1 is transmitting
      }
ensure that {
  when  { EUT_User makes PTT_Call }
  then  { QE2_User receives PTT_Call from EUT }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_1011_01
summary : 'Channel access when polite to own group and channel occupied by members of own group'
RQ ref  : RQ_001_1011
TP type : interoperability
Role    : CSF
config ref: CF_CSF_02_I -- CSF QE1, QE2 and EUT
TD ref  : TBD
with {     ((EUT and QE1 and QE2) using same colour_code ) and
           ((EUT and QE1 and QE2) are 'member of same talkgroup') and
             EUT is polite_to_own_group and
             QE1 is transmitting to QE2
     }
ensure that {
  when  { EUT_User makes a Voice_Transmission to QE2}
  then  { QE2_User receives Voice_Transmission from QE1}    -- Indicating EUT does NOT transmit
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1012_01
summary : 'Repeated acknowledgements when RF channel is busy'
RQ ref  : RQ_001_1012
TP type : interoperability
Role    : CSF
config ref: CF_CSF_02_I -- CSF QE1, QE2 and EUT
TD ref  : TBD
with {     ((EUT and QE1 and QE2) using same colour_code ) and
           ((EUT and QE2) are 'member of same talkgroup') and
             QE1 is transmitting
     }
ensure that {
  when  { QE2_User makes a connect_request to EUT}
  then  { QE2_User receives 'no more than four' acknowledgement from EUT}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1013_01
summary : 'Channel access when CSF polite to own colour code'
RQ ref  : RQ_001_1013
TP type : interoperability
Role    : CSF
config ref: CF_CSF_02_I -- CSF QE1, QE2 and EUT
TD ref  : TBD
with {     ((EUT and QE1 and QE2) using the same colour_code and
                              using_compatible_vocoders) and
             QE1 is transmitting Voice_Transmission to QE2
             EUT is polite_to_own_CC
     }
ensure that {
  when  { EUT_User makes Voice_Transmission addressed to QE2}
  then  { QE2_User does not receive Voice_Transmission from EUT }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1014_01
summary : 'Channel access when CSF impolite'
RQ ref  : RQ_001_1014
TP type : interoperability
Role    : CSF
config ref: CF_CSF_02_I -- CSF QE1, QE2 and EUT
TD ref  : TBD
with {     ((EUT and QE1 and QE2) using_compatible_vocoders) and
             QE1 is transmitting Voice_Transmission to QE2 and
             EUT is impolite
     }
ensure that {
  when  { EUT_User makes Voice_Transmission addressed to QE2}
  then  { QE2_User receives Voice_Transmission from EUT }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.2
```

5.1.3   framing

Group 1.3 'Framing'
-- No TP specified

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'
-- No TP specified

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 : 'Support receiving of type 1 ISF group short data messages'
RQ ref : RQ_001_0807
TP type : interoperability
Role   : **ISF**
config ref: CF_ISF_01_I -- **ISF QE1 and EUT**
TD ref : TBD
with {   (**EUT and QE1 using same Common_ID and**
                     powersave_disabled) **and**
          EUT in standby
     }
ensure that {
  when { QE1_User sends a **T1_Transmission** to EUT }
  then { **EUT_User receives the T1_Transmission** }
}

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

TP id   : TP_PMR_0807_02
summary : 'Support sending of type 1 ISF group short data messages'
RQ ref : RQ_001_0807
TP type : interoperability
Role   : **ISF**
config ref: CF_ISF_01_I -- **ISF QE1 and EUT**
TD ref : TBD
with {   (**EUT and QE1 using same Common_ID and**
                     powersave_disabled) **and**
          QE1 in standby
     }
ensure that {
  when { **EUT_User sends a T1_Transmission to QE1** }
  then { **QE1_User receives the T1_Transmission** }
}

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0807_03
summary  : 'Support receiving of type 1 CSF group short data messages'
RQ ref   : RQ_001_0807
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                       powersave_disabled) and
             EUT in standby
     }
ensure that {
   when  { QE1_User sends a T1_Transmission to EUT }
   then  { EUT_User receives the T1_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0807_04
summary  : 'Support sending of type 1 CSF group short data messages'
RQ ref   : RQ_001_0807
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                       powersave_disabled) and
             QE1 in standby
     }
ensure that {
   when  { EUT_User sends a T1_Transmission to QE1 }
   then  { QE1_User receives the T1_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0831_01
summary  : 'Support receiving of type 1 ISF group data status messages'
RQ ref   : RQ_001_0831
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                       powersave_disabled) and
             EUT in standby
     }
ensure that {
   when  { QE1_User sends a T1_Status_Message to EUT }
   then  { EUT_User receives the T1_Status_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0831_02
summary  : 'Support sending of type 1 ISF group data status messages'
RQ ref   : RQ_001_0831
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                       powersave_disabled) and
             QE1 in standby
     }
ensure that {
   when  { EUT_User sends a T1_Status_Message to QE1 }
   then  { QE1_User receives the T1_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0831_03
summary  : 'Support receiving of type 1 CSF group data status messages'
RQ ref   : RQ_001_0831
TP type  : interoperability
```

```
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {     (EUT and QE1 using same Group_ID and
                         powersave_disabled) and
             EUT in standby
       }
ensure that {
  when  { QE1_User sends a T1_Status_Message to EUT }
  then  { EUT_User receives the T1_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0831_04
summary : 'Support sending of type 1 CSF group data status messages'
RQ ref  : RQ_001_0831
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {     (EUT and QE1 using same Group_ID and
                         powersave_disabled) and
             QE1 in standby
       }
ensure that {
  when  { EUT_User sends a T1_Status_Message to QE1 }
  then  { QE1_User receives the T1_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0832_01
summary : 'Support receiving of type 1 ISF group data precoded messages'
RQ ref  : RQ_001_0832
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {     (EUT and QE1 using same Common_ID and
                         powersave_disabled) and
             EUT in standby
       }
ensure that {
  when  { QE1_User sends a T1_Precoded_Data_Message to EUT }
  then  { EUT_User receives the T1_Precoded_Data_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0832_02
summary : 'Support sending of type 1 ISF group data precoded messages'
RQ ref  : RQ_001_0832
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {     (EUT and QE1 using same Common_ID and
                         powersave_disabled) and
             QE1 in standby
       }
ensure that {
  when  { EUT_User sends a T1_Precoded_Data_Message to QE1 }
  then  { QE1_User receives the T1_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0832_03
summary : 'Support receiving of type 1 CSF group data precoded messages'
RQ ref  : RQ_001_0832
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {     (EUT and QE1 using same Group_ID and
                         powersave_disabled) and
             EUT in standby
```

```
      }
  ensure that {
    when  { QE1_User sends a T1_Precoded_Data_Message to EUT }
    then  { EUT_User receives the T1_Precoded_Data_Message }
  }


  -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

  TP id   : TP_PMR_0832_04
  summary : 'Support sending of type 1 CSF group data precoded messages'
  RQ ref  : RQ_001_0832
  TP type : interoperability
  Role    : CSF
  config ref: CF_CSF_01_I -- CSF QE1 and EUT
  TD ref  : TBD
  with {    (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              QE1 in standby
       }
  ensure that {
    when  { EUT_User sends a T1_Precoded_Data_Message to QE1 }
    then  { QE1_User receives the T1_Precoded_Data_Message }
  }


  -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

  TP id   : TP_PMR_0833_01
  summary : 'Support receiving of type 1 ISF group data free text messages'
  RQ ref  : RQ_001_0833
  TP type : interoperability
  Role    : ISF
  config ref: CF_ISF_01_I -- ISF QE1 and EUT
  TD ref  : TBD
  with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              EUT in standby
       }
  ensure that {
    when  { QE1_User sends a T1_Freetext_Data_Message to EUT }
    then  { EUT_User receives the T1_Freetext_Data_Message }
  }


  -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

  TP id   : TP_PMR_0833_02
  summary : 'Support sending of type 1 ISF group data free text messages'
  RQ ref  : RQ_001_0833
  TP type : interoperability
  Role    : ISF
  config ref: CF_ISF_01_I -- ISF QE1 and EUT
  TD ref  : TBD
  with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              QE1 in standby
       }
  ensure that {
    when  { EUT_User sends a T1_Freetext_Data_Message to QE1 }
    then  { QE1_User receives the T1_Freetext_Data_Message }
  }


  -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

  TP id   : TP_PMR_0833_03
  summary : 'Support receiving of type 1 CSF group data free text messages'
  RQ ref  : RQ_001_0833
  TP type : interoperability
  Role    : CSF
  config ref: CF_CSF_01_I -- CSF QE1 and EUT
  TD ref  : TBD
  with {    (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              EUT in standby
       }
  ensure that {
    when  { QE1_User sends a T1_Freetext_Data_Message to EUT }
    then  { EUT_User receives the T1_Freetext_Data_Message }
  }
```

```
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0833_04
summary : 'Support sending of type 1 CSF group data free text messages'
RQ ref  : RQ_001_0833
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
             QE1 in standby
      }
ensure that {
  when  { EUT_User sends a T1_Freetext_Data_Message to QE1 }
  then  { QE1_User receives the T1_Freetext_Data_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0834_01
summary : 'Support receiving of type 1 ISF group data short file transfer'
RQ ref  : RQ_001_0834
TP type : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
             EUT in standby
      }
ensure that {
  when  { QE1_User makes a T1_Short_File_Transfer to EUT }
  then  { EUT_User receives the T1_Short_File_Transfer }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0834_02
summary : 'Support sending of type 1 ISF group data short file transfer'
RQ ref  : RQ_001_0834
TP type : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
             QE1 in standby
      }
ensure that {
  when  { EUT_User makes a T1_Short_File_Transfer to QE1 }
  then  { QE1_User receives the T1_Short_File_Transfer }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0834_03
summary : 'Support receiving of type 1 CSF group data short file transfer'
RQ ref  : RQ_001_0834
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
             EUT in standby
      }
ensure that {
  when  { QE1_User makes a T1_Short_File_Transfer to EUT }
  then  { EUT_User receives the T1_Short_File_Transfer }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0834_04
summary : 'Support sending of type 1 CSF group data short file transfer'
RQ ref  : RQ_001_0834
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using same Group_ID and
                     powersave_disabled) and
             QE1 in standby
      }
ensure that {
  when  { EUT_User makes a T1_Short_File_Transfer to QE1 }
  then  { QE1_User receives the T1_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.3.4.1
```

5.1.3.4.2   type 2 data

```
Group 1.3.4.2 'Type 2 data'

TP id   : TP_PMR_0806_01
summary : 'Support receiving of type 2 group short data messages'
RQ ref  : RQ_001_0806
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using same Common_ID and
                     powersave_disabled) and
             EUT in standby
      }
ensure that {
  when  { QE1_User sends a T2_Transmission to EUT }
  then  { EUT_User receives the T2_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0806_02
summary : 'Support sending of type 2 group short data messages'
RQ ref  : RQ_001_0806
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using same Common_ID and
                     powersave_disabled) and
             QE1 in standby
      }
ensure that {
  when  { EUT_User sends a T2_Transmission to QE1 }
  then  { QE1_User receives the T2_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0806_03
summary : 'Support receiving of type 2 CSF group short data messages'
RQ ref  : RQ_001_0806
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using same Group_ID and
                     powersave_disabled) and
             EUT in standby
      }
ensure that {
  when  { QE1_User sends a T2_Transmission to EUT }
  then  { EUT_User receives the T2_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0806_04
summary  : 'Support sending of type 2 CSF group short data messages'
RQ ref   : RQ_001_0806
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
             QE1 in standby
     }
ensure that {
  when   { EUT_User sends a T2_Transmission to QE1 }
  then   { QE1_User receives the T2_Transmission }
}


     -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0825_01
summary  : 'Support receiving of type 2 ISF group data status messages'
RQ ref   : RQ_001_0825
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
             powersave_disabled) and
             EUT in standby
     }
ensure that {
  when   { QE1_User sends a T2_Status_Message to EUT }
  then   { EUT_User receives the T2_Status_Message }
}

     -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0825_02
summary  : 'Support sending of type 2 ISF group data status messages'
RQ ref   : RQ_001_0825
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
           powersave_disabled) and
             QE1 in standby
     }
ensure that {
  when   { EUT_User sends a T2_Status_Message to QE1 }
  then   { QE1_User receives the T2_Status_Message }
}

     -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0825_03
summary  : 'Support receiving of type 2 CSF group data status messages'
RQ ref   : RQ_001_0825
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
             powersave_disabled) and
             EUT in standby
     }
ensure that {
  when   { QE1_User sends a T2_Status_Message to EUT }
  then   { EUT_User receives the T2_Status_Message }
}

     -- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0825_04
summary  : 'Support sending of type 2 CSF group data status messages'
RQ ref   : RQ_001_0825
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
            powersave_disabled) and
            QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T2_Status_Message to QE1 }
  then  { QE1_User receives the T2_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0827_01
summary  : 'Support receiving of type 2 ISF group data precoded messages'
RQ ref   : RQ_001_0827
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
            powersave_disabled) and
            EUT in standby
     }
ensure that {
  when  { QE1_User sends a T2_Precoded_Data_Message to EUT }
  then  { EUT_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0827_02
summary  : 'Support sending of type 2 ISF group data precoded messages'
RQ ref   : RQ_001_0827
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
            powersave_disabled) and
            QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T2_Precoded_Data_Message to QE1 }
  then  { QE1_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0827_03
summary  : 'Support receiving of type 2 CSF group data precoded messages'
RQ ref   : RQ_001_0827
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                   powersave_disabled) and
            EUT in standby
     }
ensure that {
  when  { QE1_User sends a T2_Precoded_Data_Message to EUT }
  then  { EUT_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0827_04
summary  : 'Support sending of type 2 CSF group data precoded messages'
RQ ref   : RQ_001_0827
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              QE1 in standby
       }
ensure that {
   when  { EUT_User sends a T2_Precoded_Data_Message to QE1 }
   then  { QE1_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0829_01
summary  : 'Support receiving of type 2 ISF group data free text messages'
RQ ref   : RQ_001_0829
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              EUT in standby
       }
ensure that {
   when  { QE1_User sends a T2_Freetext_Data_Message to EUT }
   then  { EUT_User receives the T2_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0829_02
summary  : 'Support sending of type ISF 2 group data free text messages'
RQ ref   : RQ_001_0829
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              QE1 in standby
       }
ensure that {
   when  { EUT_User sends a T2_Freetext_Data_Message to QE1 }
   then  { QE1_User receives the T2_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0829_03
summary  : 'Support receiving of type 2 CSF group data free text messages'
RQ ref   : RQ_001_0829
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              EUT in standby
       }
ensure that {
   when  { QE1_User sends a T2_Freetext_Data_Message to EUT }
   then  { EUT_User receives the T2_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0829_04
summary : 'Support sending of type 2 CSF group data free text messages'
RQ ref  : RQ_001_0829
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              QE1 in standby
       }
ensure that {
   when  { EUT_User sends a T2_Freetext_Data_Message to QE1 }
   then  { QE1_User receives the T2_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0830_01
summary : 'Support receiving of type 2 ISF group data short file transfer'
RQ ref  : RQ_001_0830
TP type : interoperability
Role     : ISF
Role     : Callee
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              EUT in standby
       }
ensure that {
   when  { QE1_User makes a T2_Short_File_Transfer to EUT }
   then  { EUT_User receives the T2_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0830_02
summary : 'Support sending of type 2 ISF group data short file transfer'
RQ ref  : RQ_001_0830
TP type : interoperability
Role     : ISF
Role     : Caller
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
                        powersave_disabled) and
              QE1 in standby
       }
ensure that {
   when  { EUT_User makes a T2_Short_File_Transfer to QE1 }
   then  { QE1_User receives the T2_Short_File_Transfer }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0830_03
summary : 'Support receiving of type 2 CSF group data short file transfer'
RQ ref  : RQ_001_0830
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
              EUT in standby
       }
ensure that {
   when  { QE1_User makes a T2_Short_File_Transfer to EUT }
   then  { EUT_User receives the T2_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0830_04
summary  : 'Support sending of type 2 CSF group data short file transfer'
RQ ref   : RQ_001_0830
TP type  : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Group_ID and
                        powersave_disabled) and
             QE1 in standby
      }
ensure that {
   when  { EUT_User makes a T2_Short_File_Transfer to QE1 }
   then  { QE1_User receives the T2_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.3.4.2
```

5.1.3.4.3   voice

```
Group 1.3.4.3 'Voice'

TP id    : TP_PMR_0801_01
summary  : 'A radio can be called by another'
RQ ref   : RQ_001_0801
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    ( EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
             EUT in standby
      }
ensure that {
   when  { QE1_User makes a PTT_Call to EUT }
   then  { EUT_User receives the PTT_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0801_02
summary  : 'A radio can call another'
RQ ref   : RQ_001_0801
TP type  : interoperability
Role     : ISF
config ref: CF_ISF_02_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
             EUT in standby
      }
ensure that {
   when  { EUT_User makes a PTT_Call }
   then  { QE1_User receives the PTT_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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'

```
TP id   : TP_PMR_0802_01
summary : 'Support of Late Entry for ISF'
RQ ref  : RQ_001_0802
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using the same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
           EUT switched_off and
           QE1 is transmitting a PTT_Call addressed to the EUT
      }
ensure that {
  when  { EUT is switched_on }
  then  { EUT_User receives the remainder of the PTT_Call after a 'short delay' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0802_02
summary : 'Support of Late Entry by CSF with individual address'
RQ ref  : RQ_001_0802
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled and
                        using_compatible_vocoders) and
           EUT switched_off and
           QE1 is transmitting an Individual_Call addressed to the EUT
      }
ensure that {
  when  { EUT is switched_on }
  then  { EUT_User receives the remainder of the Individual_Call after a 'short delay' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0802_03
summary : 'Support of Late Entry by CSF with wildcard address'
RQ ref  : RQ_001_0802
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled and
                        using_compatible_vocoders) and
           EUT switched_off and
           QE1 is transmitting a Group_Call addressed to the EUT
      }
ensure that {
  when  { EUT is switched_on }
  then  { EUT_User receives the remainder of the Group_Call after a 'short delay' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0802_04
summary : 'Support of Late Entry by CSF with Talk Group address'
RQ ref  : RQ_001_0802
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 with powersave_disabled and
                       using_compatible_vocoders) and
           EUT switched_off and
           QE1 is transmitting a TalkGroup_Call addressed to the EUT
     }
ensure that {
  when  { EUT is switched_on }
  then  { EUT_User receives the remainder of the TalkGroup_Call after a 'short delay' }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 1.4
```

5.1.5   powersave

```
Group 1.5 'Powersave'
-- No TP specified
End group 1.5
```

5.1.6   talking party ID

```
Group 1.6 'Talking Party ID'

TP id    : TP_PMR_0803_01
summary : 'Support of Talking Party ID'
RQ ref  : RQ_001_0803
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 with powersave_disabled) and
           EUT in standby
     }
ensure that {
  when  { QE1_User makes an Individual_Call to EUT }
  then  { EUT indicates the address of QE1 }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0803_02
summary : 'Support of Talking Party ID'
RQ ref  : RQ_001_0803
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 with powersave_disabled) and
           EUT in standby
     }
ensure that {
  when  { QE1_User makes a Group_Call to EUT }
  then  { EUT indicates the address of QE1 }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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 : 'Support receiving of CSF slow user data'
RQ ref  : RQ_001_0836
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
           QE1 preset_with_SLD_test_data and
           EUT in standby
      }
ensure that {
  when   { QE1_User makes a Group_SLD_Call to EUT }
  then   { EUT_User receives the Group_Call and the SLD_test_data }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0836_02
summary : 'Support sending of CSF slow user data'
RQ ref  : RQ_001_0836
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
            EUT preset_with_SLD_test_data and
            QE1 in standby
      }
ensure that {
  when   { EUT_User makes a Group_SLD_Call to QE1 }
  then   { QE1_User receives the Group_Call and the SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
TP id    : TP_PMR_0836_03
summary : 'Support receiving of ISF slow user data'
RQ ref  : RQ_001_0836
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
           QE1 preset_with_SLD_test_data and
           EUT in standby
      }
ensure that {
  when   { QE1_User makes a PTT_Call to EUT }
  then   { EUT_User receives the PTT_Call and the SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0836_04
summary : 'Support sending of ISF slow user data'
RQ ref   : RQ_001_0836
TP type : interoperability
Role     : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 using same Common_ID and
                        powersave_disabled and
                        using_compatible_vocoders) and
            EUT preset_with_SLD_test_data and
            QE1 in standby
       }
ensure that {
  when  { EUT_User makes a PTT_Call to QE1 }
  then  { QE1_User receives the PTT_Call and the SLD_test_data }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

5.2   CSF

```
Group 2 'CSF'
```

5.2.1   broadcast call

```
Group 2.1 'Broadcast Call'
-- No TP specified
End group 2.1
```

5.2.2   dialling plan

```
Group 2.2 'Dialling Plan'
```

```
TP id    : TP_PMR_1403_01
summary : 'The user should enter or select a string of digits and then press a button to initiate
the call'
RQ ref   : RQ_001_1403
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
        QE1 and EUT in standby and
        EUT Complies_with_Standard_User_Interface
     }
ensure that {
  when  { EUT_User enters or selects an address of QE1 }
  then  { QE1_User does not receive the Call }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1403_02
summary : 'The user should enter a string of digits and then press a button to initiate the call'
RQ ref   : RQ_001_1403
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
        QE1 and EUT in standby and
        EUT Complies_with_Standard_User_Interface
     }
ensure that {
  when  { EUT_User enters or selects an address of QE1 before EUT_User
                presses the hash_key or dedicated_send_key }
  then  { QE1_User receives the Call }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1412_01
summary : 'Some numeric address are not permitted'
RQ ref  : RQ_001_1409
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {     EUT Complies_with_Standard_User_Interface and
           QE1 and EUT in standby
      }
ensure that {
  when  { EUT_User enters or selects a non_dialable_address and
                   presses dedicated_send_key }
  then  { EUT indicates an error} -- audible or visible prompt
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1415_01
summary : 'Radio receiving a talkgroup call - using wildcard'
RQ ref  : RQ_001_1415
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
          QE1 and EUT in standby and
          QE1 Complies_with_Standard_User_Interface
      }
ensure that {
  when  { QE1_User enters or selects an EUT address
                        containing an asterisk_symbol 'in one of the last four digits' and
                   presses the hash_key or dedicated_send_key  }
  then  { EUT_User receives a TalkGroup_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1415_02
summary : 'Radio receiving a talkgroup call'
RQ ref  : RQ_001_1415
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
          (EUT 'programmed with a talkgroup address') and
          QE1 Complies_with_Standard_User_Interface and
          QE1 and EUT in standby
      }
ensure that {
  when  { QE1_User enters or selects the talkgroup_address of the EUT and
                   presses the hash_key or dedicated_send_key }
  then  { EUT_User receives the TalkGroup_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1417_01
summary : 'Abbreviated dialled digit to address mapping'
RQ ref  : RQ_001_1417
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
          (EUT Complies_with_Standard_User_Interface and
              abbreviated_dialling_available) and
          QE1 in standby
      }
ensure that {
  when  { EUT_User enters or selects an abbreviated_dialling_string of QE1 and
                   presses the hash_key or dedicated_send_key  }
  then  { QE1_User receives the Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1417_02
summary : 'Abbreviated dialling string with wildcard and no match'
RQ ref  : RQ_001_1417
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
         (EUT Complies_with_Standard_User_Interface and
            abbreviated_dialling_available)
         EUT and QE1 'addresses are same except for last two or more digits'
         EUT and QE1 in standby
    }
ensure that {
  when  { EUT_User enters or selects the asterisk_symbol and
                   presses the hash_key or dedicated_send_key }
  then  { QE1_User does not receive the Call }
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id    : TP_PMR_1417_03
summary : 'Abbreviated dialling string with wildcard'
RQ ref  : RQ_001_1417
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
         (EUT Complies_with_Standard_User_Interface and abbreviated_dialling_available)
         EUT and QE1 'addresses are same except for the last digit'
         EUT and QE1 in standby
    }
ensure that {
  when  { EUT_User enters or selects the asterisk_symbol and
                   presses the dedicated_send_key}
  then  { QE1_User receives the Call }
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id    : TP_PMR_1418_01
summary : 'Talkgroup call'
RQ ref  : RQ_001_1418
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I
TD ref   : TBD
with {
         (EUT Complies_with_Standard_User_Interface and
            'an address input mask enabled covering at least one of the last four digits') and
         (EUT and QE1 'addresses having the same digits outside of the mask' and
                     in standby)
    }
ensure that {
  when  { EUT_User enters or selects a masked_dialling_string of QE1
                    containing an asterisk_symbol 'as the last digit' and
                   presses the hash_key or dedicated_send_key  }
  then  { QE1_User receives the TalkGroup_Call }
}
```

-- **xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx**

```
TP id   : TP_PMR_1418_02
summary : 'Talkgroup call'
RQ ref  : RQ_001_1418
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        (EUT Complies_with_Standard_User_Interface and
            abbreviated_dialling_available and
            'an address input mask is enabled covering at least one of the last four digits') and
          (EUT and QE1 'addresses having the same digits outside of the mask' and
                    in standby)
    }
ensure that {
  when  { EUT_User enters or selects an abbreviated_masked_dialling_string of QE1
                    containing an asterisk_symbol 'as the last digit' and
                    presses the hash_key or dedicated_send_key }
  then  { QE1_User receives the TalkGroup_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1420_01
summary : 'Broadcast plan'
RQ ref  : RQ_001_1420
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        EUT Complies_with_Standard_User_Interface and
        QE1 'programmed with a talkgroup address'
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a broadcast_command
                    containing a talkgroup_address of QE1 and
                    presses dedicated_send_key}
  then  { QE1_User receives the Broadcast_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_1420_02
summary : 'Broadcast call - abbreviated dialling'
RQ ref  : RQ_001_1420
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        (EUT Complies_with_Standard_User_Interface and
            abbreviated_dialling_available) and
        EUT and QE1 'addresses differing in one or more of the last digits'
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a broadcast_command
                    containing a valid abbreviated_dialling_string of QE1
                        containing  'one or more asterisk symbols' and
                    presses the hash_key or dedicated_send_key }
  then  { QE1_User receives the Broadcast_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_1421_01
summary : 'Status call'
RQ ref  : RQ_001_1421
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        EUT Complies_with_Standard_User_Interface and
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a status_command
                        containing a code between 0 and 31 and
                        containing the address of QE1 and
                  presses the hash_key or dedicated_send_key }
  then  { QE1_User receives the Status_Call indicating the selected code }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1421_02
summary : 'Status call - wrong status code entered'
RQ ref  : RQ_001_1421
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        EUT Complies_with_Standard_User_Interface
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a status_command
                        containing a code 'greater than' 31 and
                        containing the address of QE1 and
                  presses the dedicated_send_key }
  then  { EUT indicates an error}
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_1423_01
summary : 'Force talkgroup service'
RQ ref  : RQ_001_1423
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        EUT Complies_with_Standard_User_Interface and
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a talkgroup_command
                        containing the address of QE1 and
                  presses the dedicated_send_key}
  then  { QE1_User receives the TalkGroup_Call }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_1423_02
summary : 'Force talkgroup service - abbreviated dialling'
RQ ref  : RQ_001_1423
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I
TD ref  : TBD
with {
        (EUT Complies_with_Standard_User_Interface and
            abbreviated_dialling_available) and
        EUT and QE1 'addresses differing in one or more of the last digits'
        QE1 and EUT in standby
    }
ensure that {
  when  { EUT_User enters a talkgroup_command
                          containing a valid abbreviated_dialling_string of QE1 and
                  presses hash_key or dedicated_send_key }
  then  { QE1_User receives the TalkGroup_Call }
}
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.2
```

5.2.3   individual short data message

```
Group 2.3 'Individual Short Data Message'

TP id   : TP_PMR_0809_01
summary : 'Support receiving of type 2 CSF individual short data messages'
RQ ref  : RQ_001_0809
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 with powersave_disabled) and
           EUT in standby
    }
ensure that {
  when  { QE1_User sends a T2_Transmission addressed to EUT }
  then  { EUT_User receives the T2_Transmission }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0809_02
summary : 'Support sending of type 2 CSF individual short data messages'
RQ ref  : RQ_001_0809
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 with powersave_disabled) and
           QE1 in standby
    }
ensure that {
  when  { EUT_User sends a T2_Transmission addressed to QE1 }
  then  { QE1_User receives the T2_Transmission }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0810_01
summary : 'Support of type 1 individual short data messages'
RQ ref  : RQ_001_0810
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
    }
ensure that {
  when  { QE1_User sends a T1_Transmission addressed to EUT }
  then  { EUT_User receives the T1_Transmission }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0810_02
summary : 'Support sending of type 1 CSF individual short data messages'
RQ ref  : RQ_001_0810
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 with powersave_disabled) and
           QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T1_Transmission addressed to QE1 }
  then  { QE1_User receives the T1_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

5.2.3.1   ISDM free text message

```
Group 2.3.1 'ISDM Free Text Message'

TP id    : TP_PMR_0852_01
summary : 'Support receiving of type 2 CSF individual data free text messages'
RQ ref  : RQ_001_0852
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
     }
ensure that {
  when  { QE1_User sends a T2_Freetext_Data_Message addressed to EUT }
  then  { EUT_User receives the T2_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0852_02
summary : 'Support sending of type 2 CSF individual data free text messages'
RQ ref  : RQ_001_0852
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T2_Freetext_Data_Message addressed to QE1 }
  then  { QE1_User receives the T2_Freetext_Data_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0853_01
summary : 'Support receiving of type 1 CSF individual data free text messages'
RQ ref  : RQ_001_0853
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {   (EUT and QE1 powersave_disabled) and
          EUT in standby
     }
ensure that {
  when  { QE1_User sends a T1_Freetext_Data_Message addressed to EUT }
  then  { EUT_User receives the T1_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0853_02
summary : 'Support sending of type 1 CSF individual data free text messages'
RQ ref  : RQ_001_0853
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T1_Freetext_Data_Message addressed to QE1 }
  then  { QE1_User receives the T1_Freetext_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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 : 'Support receiving of type 1 CSF individual data precoded messages'
RQ ref  : RQ_001_0850
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
     }
ensure that {
  when  { QE1_User sends a T1_Precoded_Data_Message addressed to EUT }
  then  { EUT_User receives the T1_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0850_02
summary : 'Support sending of type 1 CSF individual data precoded messages'
RQ ref  : RQ_001_0850
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T1_Precoded_Data_Message addressed to QE1 }
  then  { QE1_User receives the T1_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0851_01
summary : 'Support receiving of type 2 CSF individual data precoded messages'
RQ ref  : RQ_001_0851
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
     }
ensure that {
  when  { QE1_User sends a T2_Precoded_Data_Message addressed to EUT }
  then  { EUT_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0851_02
summary : 'Support sending of type 2 CSF individual data precoded messages'
RQ ref  : RQ_001_0851
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
            QE1 in standby
     }
ensure that {
  when  { EUT_User sends a T2_Precoded_Data_Message addressed to QE1 }
  then  { QE1_User receives the T2_Precoded_Data_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.2
```

5.2.3.3   ISDM short file transfer

```
Group 2.3.3 'ISDM Short File Transfer'

TP id    : TP_PMR_0855_01
summary : 'Support receiving of type 3 CSF individual data short file transfer'
RQ ref  : RQ_001_0855
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
            EUT in standby
     }
ensure that {
  when  { QE1_User makes a T3_Transmission addressed to EUT }
  then  { EUT_User receives the T3_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0855_02
summary : 'Support sending of type 3 CSF individual data short file transfer'
RQ ref  : RQ_001_0855
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
            QE1 in standby
     }
ensure that {
  when  { EUT_User makes a T3_Transmission addressed to QE1 }
  then  { QE1_User receives the T3_Transmission }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0856_01
summary : 'Support receiving of type 2 CSF individual data short file transfer'
RQ ref  : RQ_001_0856
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
            EUT in standby
     }
ensure that {
  when  { QE1_User makes a T2_Short_File_Transfer addressed to EUT }
  then  { EUT_User receives the T2_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0856_02
summary : 'Support sending of type 2 CSF individual data short file transfer'
RQ ref  : RQ_001_0856
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
       }
ensure that {
   when  { EUT_User makes a T2_Short_File_Transfer addressed to QE1 }
   then  { QE1_User receives the T2_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0857_01
summary : 'Support receiving of type 1 CSF individual data short file transfer'
RQ ref  : RQ_001_0857
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
       }
ensure that {
   when  { QE1_User makes a T1_Short_File_Transfer addressed to EUT }
   then  { EUT_User receives the T1_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0857_02
summary : 'Support sending of type 1 CSF individual data short file transfer'
RQ ref  : RQ_001_0857
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
       }
ensure that {
   when  { EUT_User makes a T1_Short_File_Transfer addressed to QE1 }
   then  { QE1_User receives the T1_Short_File_Transfer }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.3
```

5.2.3.4   ISDM status message

```
Group 2.3.4 'ISDM Status Message'

TP id    : TP_PMR_0846_01
summary : 'Support receiving of type 2 CSF individual data status messages'
RQ ref  : RQ_001_0846
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
       }
ensure that {
   when  { QE1_User sends a T2_Status_Message addressed to EUT }
   then  { EUT_User receives the T2_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0846_02
summary : 'Support sending of type 2 CSF individual data status messages'
RQ ref  : RQ_001_0846
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
      }
ensure that {
  when  { EUT_User sends a T2_Status_Message addressed to QE1 }
  then  { QE1_User receives the T2_Status_Message }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0847_01
summary : 'Support receiving of type 1 CSF individual data status messages'
RQ ref  : RQ_001_0847
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           EUT in standby
      }
ensure that {
  when  { QE1_User sends a T1_Status_Message addressed to EUT }
  then  { EUT_User receives the T1_Status_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0847_02
summary : 'Support sending of type 1 CSF individual data status messages'
RQ ref  : RQ_001_0847
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled) and
           QE1 in standby
      }
ensure that {
  when  { EUT_User sends a T1_Status_Message addressed to QE1 }
  then  { QE1_User receives the T1_Status_Message }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.3.4
End group 2.3
```

5.2.4   OACSU

```
Group 2.4 'OACSU'

TP id   : TP_PMR_0840_01
summary : 'Support receiving of OACSU call'
RQ ref  : RQ_001_0840
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled and
                     using_compatible_vocoders and
                     OACSU_enabled) and
           EUT in standby
      }
ensure that {
  when  { QE1_User makes an OACSU_Call addressed to the EUT }
  then  { EUT_User receives the OACSU_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id   : TP_PMR_0840_02
summary : 'Support sending of OACSU call'
RQ ref  : RQ_001_0840
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 powersave_disabled and
                       using_compatible_vocoders and
                       OACSU_enabled) and
             QE1 in standby
      }
ensure that {
  when  { EUT_User makes an OACSU_Call addressed to QE1 }
  then  { QE1_User receives the OACSU_Call }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0841_01
summary : 'Support of cancel call set-up'
RQ ref  : RQ_001_0841
TP type : interoperability
Role    : CSF
config ref: CF_ISF_02_I -- ISF QE1, QE2 and EUT
TD ref  : TBD
with {    (EUT OACSU_enabled and
              powersave_disabled and
              polite_to_own_CC) and
             QE1 is transmitting to QE2
      }
ensure that {
  when  { QE1 stops transmitting after EUT_User cancels an OACSU_Call addressed to QE2 }
  then  { QE2_User does not receive the OACSU_Call }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.4
```

5.2.5   short appended data

```
Group 2.5 'Short Appended Data'

TP id   : TP_PMR_0837_01
summary : 'Support receiving of CSF appended data'
RQ ref  : RQ_001_0837
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 using same Group_ID and
                       powersave_disabled and
                       using_compatible_vocoders) and
             QE1 preset_with_AD_test_data and
             EUT in standby
      }
ensure that {
  when  { QE1_User makes a Group_AD_Call to EUT }
  then  { EUT_User receives the Group_Call and the AD_test_data }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
TP id    : TP_PMR_0837_02
summary : 'Support sending of CSF appended data'
RQ ref  : RQ_001_0837
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 using same Group_ID and
                         powersave_disabled and
                         using_compatible_vocoders) and
           EUT preset_with_AD_test_data and
           QE1 in standby
      }
ensure that {
  when  { EUT_User makes a Group_AD_Call to QE1 }
  then  { QE1_User receives the Group_Call and the AD_test_data }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0844_01
summary : 'Support receiving of appended data'
RQ ref  : RQ_001_0844
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 powersave_disabled and
                       using_compatible_vocoders) and
            QE1 preset_with_AD_test_data and
            EUT in standby
      }
ensure that {
  when  { QE1_User sends a Individual_AD_Call addressed to EUT }
  then  { EUT_User receives the Individual_Call and the AD_test_data }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id    : TP_PMR_0844_02
summary : 'Support sending of appended data'
RQ ref  : RQ_001_0844
TP type : interoperability
Role     : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref   : TBD
with {     (EUT and QE1 powersave_disabled and
                       using_compatible_vocoders) and
            EUT preset_with_AD_test_data and
            QE1 in standby
      }
ensure that {
  when  { EUT_User sends a Individual_AD_Call addressed to QE1 }
  then  { QE1_User receives the Individual_Call and the AD_test_data }
}


-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.5
```

5.2.6   slow user data

Group 2.6 'Slow User Data'

TP id   : TP_PMR_0843_01
summary : 'Support receiving of CSF slow user data'
RQ ref : RQ_001_0843
TP type : interoperability
Role   : **CSF**
config ref: CF_CSF_01_I **-- CSF QE1 and EUT**
TD ref : TBD
with {   (**EUT and QE1 powersave_disabled and
                         using_compatible_vocoders**) **and**
             QE1 preset_with_SLD_test_data and
             EUT in standby
       }
ensure that {
  when { **QE1_User sends an Individual_SLD_Call addressed to EUT** }
  then { **EUT_User receives the Individual_Call and the SLD_test_data** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

TP id   : TP_PMR_0843_02
summary : 'Support sending of slow user data'
RQ ref : RQ_001_0843
TP type : interoperability
Role   : **CSF**
config ref: CF_CSF_01_I **-- CSF QE1 and EUT**
TD ref : TBD
with {   (**EUT and QE1 powersave_disabled and
                         using_compatible_vocoders**) **and**
             EUT preset_with_SLD_test_data and
             QE1 in standby
       }
ensure that {
  when { **EUT_User sends an Individual_SLD_Call addressed to QE1** }
  then { **QE1_User receives the Individual_Call and the SLD_test_data** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 2.6

5.2.7   type 3 data

Group 2.7 'Type 3 data'

TP id   : TP_PMR_0808_01
summary : 'Support receiving of type 3 CSF short data messages'
RQ ref : RQ_001_0808
TP type : interoperability
Role   : **CSF**
config ref: CF_CSF_01_I **-- CSF QE1 and EUT**
TD ref : TBD
with {   (**EUT and QE1 with powersave_disabled**) **and**
             EUT in standby
       }
ensure that {
  when { **QE1_User sends a T3_Transmission addressed to EUT** }
  then { **EUT_User receives the T3_Transmission** }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
TP id   : TP_PMR_0808_02
summary : 'Support sending of type 3 CSF short data messages'
RQ ref  : RQ_001_0808
TP type : interoperability
Role    : CSF
config ref: CF_CSF_01_I -- CSF QE1 and EUT
TD ref  : TBD
with {    (EUT and QE1 with powersave_disabled) and
           QE1 in standby
       }
ensure that {
  when  { EUT_User sends a T3_Transmission addressed to QE1 }
  then  { QE1_User receives the T3_Transmission }
}

End group 2.7
End group 2
```

5.3   ISF

```
Group 3 'ISF'

TP id   : TP_PMR_0804_01
summary : 'Support of 255 Common IDs'
RQ ref  : RQ_001_0804
TP type : interoperability
Role    : ISF
config ref: CF_ISF_01_I -- ISF QE1 and EUT
TD ref  : TBD
with {   QE1 and EUT in standby and
                     using_compatible_vocoders
       }
ensure that {
  when  { QE1 uses a Common_ID between 1 and 254 and
          EUT uses same Common_ID and
          QE1_User makes a Call to EUT  }
  then  { EUT_User receives the Call }
}

-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

End group 3
```

Annex A (normative):
dPMR interoperability test configurations

Void.

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

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

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

-- Configurations
xref CF_ISF_01_I {dPMR_IOT_Configurations.ppt} -- ISF QE1, EUT
xref CF_ISF_02_I {dPMR_IOT_Configurations.ppt} -- ISF QE1, QE2, EUT
xref CF_CSF_01_I {dPMR_IOT_Configurations.ppt} -- CSF QE1, EUT
xref CF_CSF_02_I {dPMR_IOT_Configurations.ppt} -- CSF QE1, QE2, EUT


--***Definitions***

def header type  -- TP type


-- Entities
def entity EUT
def entity QE1
def entity QE2
-- Note: user could be a human user, machine, or program
def entity QE1_User -- the user operating QE1
def entity QE2_User -- the user operating QE2
def entity EUT_User -- the user operating EUT


-- Messages or signals
def event PTT_Call -- user presses PTT button and payload transmission starts immediately  ONLY ISF
def event Individual_Call
def event Group_Call        -- call with wildcard(s)
def event TalkGroup_Call    -- call with only numeric address
def event Call              -- any dialled call
def event Voice_Transmission      -- Group or individual call   ONLY CSF
def event PTT_Key
def event T1_Transmission         -- Type 1 data message call
def event T2_Transmission         -- Type 2 data message call
def event T3_Transmission         -- Type 3 data message call
def event T1_Status_Message  -- Type 1 data status message call
def event T2_Status_Message  -- Type 2 data status message call
def event T1_Precoded_Data_Message  -- Type 1 data precoded text message call
def event T2_Precoded_Data_Message  -- Type 2 data precoded text message call
def event T1_Freetext_Data_Message     -- Type 1 data free text message call
def event T2_Freetext_Data_Message     -- Type 2 data free text message call
def event T1_Short_File_Transfer    -- Type 1 data short file transfer
def event T2_Short_File_Transfer    -- Type 2 data short file transfer
def event Individual_SLD_Call       -- Individual call including slow user data
def event Group_SLD_Call            -- Group call including slow user data
def event Individual_AD_Call        -- Individual call including appended data
def event Group_AD_Call             -- Group call including appended data
def event Broadcast_Call
def event OACSU_Call                -- Individual call using off air call set up
def event acknowledgement
def event connect_request           -- call set up request
def event Status_Call
def event dedicated_send_key
def event hash_key
def event broadcast_command         -- same as #1*
def event status_command { code  } -- same as #0ss*
def event talkgroup_command         -- same as #6*
def event error


-- Values
def value Common_ID
def value Group_ID
def value RF_Channel
def value channel
def value remainder
def value colour_code
def value call_group          -- "call group" means "group" in dPMR sense but needed since "group"
is already predefined TPLan keyword
def value SLD_test_data
def value AD_test_data
def value asterisk_symbol
def value dialling_string       -- keypad entry
```

```
def value addresses { address }
def value non_dialable_address -- '0000000', '1000000', '2000000', '3000000', '4000000', '5000000',
'6000000', '7000000', '8000000', '9000000'
def value abbreviated_dialling_string        -- address where some of the most signifact digits are
omitted
def value talkgroup_address                  -- Group or Talk group address
def value masked_dialling_string             -- digits of an address that are covered by an input
mask
def value abbreviated_masked_dialling_string -- digits of an address that are covered by an input
mask where some of the most significant digits have been omitted

def unit seconds

def condition standby
def condition switched_on
def condition switched_off
def condition powersave_enabled
def condition powersave_disabled
def condition call_timeout_terminated        -- State if radio is that call got terminated by timeout
(after 180 sec)
def condition polite_to_own_CC               -- Channel access policy is "Polite to own Colour Code"
def condition polite_to_own_group            -- Channel access policy is "Polite to own group or
talkgroup"
def condition impolite                       -- Channel access policy is "Impolite"
def condition abbreviated_dialling_available
def condition Complies_with_Standard_User_Interface
def condition OACSU_enabled                  -- radio configured for Off Air Call Set-up
def condition preset_with_SLD_test_data      -- buffering of slow data etc in the radio
def condition preset_with_AD_test_data       -- buffering of appended data etc in the radio
def condition using_compatible_vocoders

-- Keywords - (Pre)conditions
def word addressed
def word using
def word transmitting

-- Keywords - Stimuli
def word uses
def word makes
def word requested
def context {is ~requested to}
def word selects
def word terminates
def word releases
def word released
def context {is ~released}
def word presses
def word enters
def word cancels
def word stops

-- Keywords - Responses
def word receive
def word indicates

-- Keywords - Glue
def word on
def word for
def word both
def word between
def word same
def word being
def word are
def word another
def word valid
def word selected
def word does
def word again
```

History

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