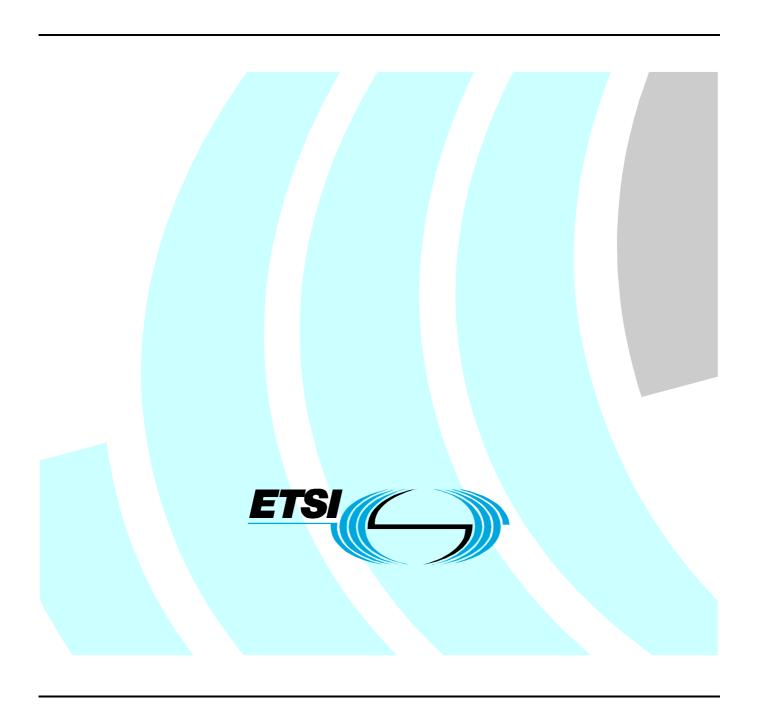
ETSITS 102 587-2 V1.1.1 (2007-04)

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

DTS/ERM-TGDMR-066-2

Keywords

digital, 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

Important notice

Individual copies of the present document can be downloaded from: <u>http://www.etsi.org</u>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

http://portal.etsi.org/tb/status/status.asp

If you find errors in the present document, please send your comment to one of the following services: http://portal.etsi.org/chaircor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2007. All rights reserved.

DECTTM, **PLUGTESTS**TM and **UMTS**TM are Trade Marks of ETSI registered for the benefit of its Members. **TIPHON**TM and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members. **3GPP**TM is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights			
Forew	ord		4
1	Scope		5
2	References		5
3	Abbreviations		5
4	Test Suite Structure (TSS)		
5	Test Purposes (TP)		6
5.1	Group ISF CSF Common		
5.1.1			
5.1.2		iccess	
5.1.3	-		
5.1.3.1		rame	
5.1.3.2	-	r frames	
5.1.3.2		ll information field	
5.1.3.3	-	t data frame	
5.1.3.4		frame	
5.1.3.4	1 1	pe 1 data	
5.1.3.4.2 Group type 2 data			
5.1.3.4		rice	
5.1.4		·	
5.1.5			
5.1.6			
5.2			
5.2.1		t call	
5.2.2		olan	
5.2.3		l short data message	
5.2.3.1		I free text message	
5.2.3.2	-	I precoded message	
5.2.3.3		I short file transfer	
5.2.3.4		I status message	
5.2.4			
5.2.5		ended data	
5.2.6		· data	
5.2.7		ta	
5.3			
Annex A (normative): dPMR conformance test configurations		44	
Annex B (normative):		dPMR TPLan conformance testing user definitions	46
Annex C(informative):		Bibliography	49
Histor	y		50

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

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".

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. 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 9646-2 [3].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

- [1] ETSI TS 102 490: "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: "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".

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 [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 Group ISF CSF Common

```
Group 1 'ISF CSF Common'
```

5.1.1 Group All Call

```
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' }
TP id : TP PMR 0824 02
summary : 'ISF All Call'
RQ ref : RQ_001_0824
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
       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' \}
TP id : TP_PMR_0824_03
summary : 'ISF All Call'
RQ ref : RQ_001_0824
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      IUT in standby and using a Common_ID of 255
with {
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' }
End group 1.1
           Group channel access
5.1.2
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TD ref : TBD
        IUT in standby and configured_for_polite_to_own_CC
with {
ensure that {
 when { TESTER sends a continuous Voice_Transmission using an invalid colour_code and 'a signal
level of >-102 \text{ dBm'} and
        IUT is requested to make a Voice_Transmission }
 then { IUT sends the Voice_Transmission }
TP id : TP_PMR_1005_01
summary : 'Tx WAIT Time'
RQ ref : RQ_001_1005
TP type : conformance
     : ISF, CSF
Role
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
```

TD ref : TBD

```
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 }
TP id : TP PMR 1007 01
summary : 'Acknowledgement response time'
RQ ref : RQ_001_1007
TP type : conformance
     : CSF
Role
config : CF_dPMR_CSF_03_C -- CSF IUT, TESTER 2 CSF & User
TD ref : TBD
      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 }
}
: TP_PMR_1007_02
TP id
summary : 'Acknowledgement response time'
RQ ref : RQ_001_1007
TP type : conformance
     : CSF
Role
config : CF_dPMR_CSF_03_C -- CSF IUT, TESTER 2 CSF & User
TD ref : TBD
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 within T_Ack seconds or
            after the TESTER terminates the continuous Voice_Transmission}
}
TP id : TP_PMR_1008_01
summary : 'Party to call'
RQ ref : RQ_001_1008
TP type : conformance
Role
      : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TD ref : TBD
      IUT in standby
with {
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}
TP id : TP_PMR_1009_01
summary : 'Polite to CC'
RQ ref : RQ_001_1009
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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}
}
: TP_PMR_1010_01
summary : 'Polite to CC
RQ ref : RQ_001_1010
TP type : conformance
Role
      : ISF
config
       : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      IUT in standby and configured_for_impolite_channel_access
with {
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}
TP id : TP_PMR_1011_01
summary : 'Polite to own group'
RQ ref : RQ_001_1011
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT in standby and configured_for_polite_to_own_group
with {
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}
}
TP id : TP_PMR_1012_01
summary : 'Multiple acknowledgements'
RQ ref : RQ_001_1012
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_03_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
        IUT in standby and configured_for_impolite_channel_access
with {
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 }
}
TP id : TP_PMR_1012_02
summary : 'Acknowledgement response time'
RQ ref : RQ_001_1012
TP type : conformance
Role
     : CSF
config : CF_dPMR_CSF_03_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       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 up to 4 Ack_Frames within T_Ack seconds or after the TESTER terminates the continuous Voice_Transmission} }
End group 1.2
```

5.1.3 Group framing

```
Group 1.3 'Framing'
: 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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to start a Voice_Transmission }
 then { IUT sends Voice_Transmission containing 384 bit Payload_Frames }
TP id : TP_PMR_0401_02
summary : 'Payload frame length with Type 1 data'
RQ ref : RQ_001_0401
TP type : conformance
      : ISF, CSF
Role
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to start a T1_Transmission }
 then { IUT sends T1_Transmission containing 384 bit Payload_Frames }
TP id : TP_PMR_0401_03
{f summary} : 'Payload frame length with Type 2 data'
RQ ref : RQ_001_0401
TP type : conformance
      : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
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 }
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to start a Voice_Transmission }
then { IUT sends a Voice_Transmission
               containing Superframes (each containing 4 Payload_Frames) }
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to start a T1_Transmission }
then { IUT sends a T1_Transmission
          containing Superframes (each containing 4 Payload_Frames) }
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
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) }
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
     : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
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 }
}
: TP_PMR_0404_02
TP id
summary: 'A Type 1 data transmission is composed of header frame, integral superframes, end frame'
RQ ref : RQ_001_0404
TP type : conformance
     : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when \{\ \mbox{IUT}\ \mbox{is requested to start a Tl_Transmission }\}
 then { IUT sends a T1_Transmission containing a Header_Frame
                   followed by an integral_number of Superframes
                   followed by an End_Frame }
}
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
      : ISF, CSF
Role
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
       IUT in standby
with {
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 }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send Connection_Request }
 then { IUT sends a Connection_Request }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 }
TP id : TP_PMR_0406_01
summary : 'Header frame is used to acknowledge connect request'
RQ ref : RQ_001_0406
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_01_C -- CSF IUT, TESTER CSF
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT receives a Connection_Request }
then { IUT sends a Ack_Frame }
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
      : CSF
config : CF_dPMR_CSF_01_C -- CSF IUT, TESTER CSF
TC ref : TBD
      IUT 'receiving a Tl_Transmission'
with {
ensure that {
 when { IUT receives End_Frame indicating Ack_Request }
 then { IUT sends a Ack_Frame }
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_CSF_01_C -- CSF IUT, TESTER CSF
TC ref : TBD
ensure that {
 when { IUT receives End_Frame indicating Ack_Request }
then { IUT sends a Ack_Frame }
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
      : CSF
Role
config : CF_dPMR_CSF_01_C -- CSF IUT, TESTER CSF
TC ref : TBD
with {
      IUT 'is receiving T3_Transmission'
ensure that {
 when { IUT receives End_Frame indicating Ack_Request }
 then { IUT sends a Ack_Frame }
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
with {
      IUT in standby
ensure that {
 when { IUT is requested to send Disconnection_Request }
 then { IUT sends a Disconnection_Request }
TP id : TP_PMR_0407_02
summary: 'Header and end frame pairs in automatic disconnection request'
RQ ref : RQ_001_0407
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT is 'sending T1_Transmission' to TESTER
with {
ensure that {
 when { IUT completes T1_Transmission }
 then { IUT sends a Disconnection_Request }
TP id
     : TP PMR 0407 03
summary : 'Header and end frame pairs in automatic disconnection request'
RQ ref : RQ_001_0407
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
with {
      IUT is 'sending T2_Transmission' to TESTER
ensure that {
 when { IUT completes T2_Transmission }
 then { IUT sends a Disconnection_Request }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT is 'sending T3_Transmission' to TESTER
with {
ensure that {
 when { IUT completes T3_Transmission }
 then { IUT sends a Disconnection_Request }
: 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_CSF_01_C -- CSF IUT, TESTER CSF
TC ref : TBD
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 }
}
TP id : TP_PMR_0811_01
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
     : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,103125 MHz'
with {
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' }
TP id : TP_PMR_0811_02
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,109375 MHz'
with {
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' }
TP id : TP_PMR_0811_03
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT in standby and 'using channel 446,115625 MHz'
with {
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' }
```

```
TP id : TP_PMR_0811_04
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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' }
TP id
     : TP_PMR_0811_05
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT in standby and 'using channel 446,128125 MHz'
with {
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' }
TP id : TP_PMR_0811_06
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
       IUT in standby and 'using channel 446,134375 MHz'
with {
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' }
TP id
      : TP_PMR_0811_07
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
     : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,140625 MHz'
with {
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' }
TP id
     : TP_PMR_0811_08
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
     : CSF
      : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
config
TD ref : TBD
      IUT in standby and 'using channel 446,146875 MHz'
with {
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' }
```

}

```
: TP_PMR_0811_09
TP id
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,153125 MHz'
with {
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' }
TP id : TP_PMR_0811_10
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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' }
TP id : TP_PMR_0811_11
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT in standby and 'using channel 446,165625 MHz'
with {
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' }
TP id : TP_PMR_0811_12
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,171875 MHz'
with {
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' }
TP id : TP_PMR_0811_13
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
     : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,178125 MHz'
with {
ensure that {
```

```
when { IUT is requested to send a Voice_Transmission }
      { IUT sends a Voice_Transmission with colour_code set to 'FD 55 75h' }
TP id : TP_PMR_0811_14
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      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' }
TP id : TP_PMR_0811_15
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby and 'using channel 446,190625 MHz'
with {
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' }
TP id : TP_PMR_0811_16
summary : 'CSF Colour Codes'
RQ ref : RQ_001_0811
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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' }
TP id : TP_PMR_0812_01
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' }
TP id
     : TP_PMR_0812_02
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
        IUT in standby and 'using channel 446,109375 MHz'
with {
```

```
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' }
TP id : TP_PMR_0812_03
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : TSF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref
      : TBD
      IUT in standby and 'using channel 446,115625 MHz'
with {
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' }
: TP PMR 0812 04
TP id
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
     : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      IUT in standby and 'using channel 446,121875 MHz'
with {
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' }
TP id
     : TP_PMR_0812_05
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
     : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' }
TP id : TP_PMR_0812_06
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      IUT in standby and 'using channel 446,134375 MHz'
with {
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' }
TP id : TP_PMR_0812_07
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
      : ISF
Role
```

```
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref
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' }
TP id : TP PMR 0812 08
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      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' }
TP id : TP_PMR_0812_09
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
     : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' }
TP id : TP_PMR_0812_10
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
      IUT in standby and 'using channel 446,159375 MHz'
with {
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' }
TP id : TP PMR 0812 11
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
       IUT in standby and 'using channel 446,165625 MHz'
with {
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' }
TP id : TP_PMR_0812_12
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
```

```
TP type : conformance
     : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' }
TP id
     : TP_PMR_0812_13
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
Role
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref
      : TBD
       IUT in standby and 'using channel 446,178125 MHz'
with {
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' \}
TP id : TP_PMR_0812_14
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
     : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' }
TP id : TP PMR 0812 15
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
       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' }
TP id : TP_PMR_0812_16
summary : 'ISF Colour Codes'
RQ ref : RQ_001_0812
TP type : conformance
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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' \}
```

5.1.3.1 Group end frame

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

5.1.3.2

```
Group header frames
Group 1.3.2 'Header frames'
TP id
      : TP_PMR_0816_01
summary : 'Type 3 Data Frame Sync'
RQ ref : RQ_001_0816
TP type : conformance
       : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
        IUT in standby
with {
ensure that {
  when { IUT requested to send a T3_Transmission }
       { IUT sends a T3_Transmission
           containing Header_Frame
              containing Frame_Sync
                 set to 'FD 55 F5 DF 7F DDh' }
}
5.1.3.2.1
                 Group 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
              Group packet data frame
Group 1.3.3 'Packet data frame'
 -- No TP specified
End group 1.3.3
5.1.3.4
              Group superframe
Group 1.3.4 'Superframe'
5.1.3.4.1
                 Group 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
      : ISF, CSF
       : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
config
TD ref : TBD
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'}

```
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_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
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 format_coding set to '0000b' }
}
TP id : TP_PMR_0831_02
summary : 'Group status message using T1 Data'
RQ ref : RQ_001_0831
TP type : conformance
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD 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 format_coding set to '0000b' }
}
: TP_PMR_0832_01
TP id
summary : 'Group precoded message using T1 Data'
RQ ref : RQ_001_0832
TP type : conformance
     : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send a T1_Precoded_Data_Message }
 then { IUT sends T1_Transmission
                 containing a Header_Frame
                    containing format_coding set to '0001b' }
TP id : TP_PMR_0832_02
summary : 'Group precoded message using T1 Data'
RQ ref : RQ_001_0832
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
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
                 {\tt containing \ a \ Header\_Frame}
                    containing format_coding set to '0001b' }
}
: TP_PMR_0833_01
summary : 'Group free text message using T1 Data'
RQ ref : RQ_001_0833
TP type : conformance
Role
     : ISF
      : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
config
TC ref : TBD
      IUT in standby
{	t with}\ {	t }
ensure that {
 when { IUT is requested to send a T1_Freetext_Data_Message }
 then { IUT sends T1_Transmission
```

```
containing format_coding set to '0010b' }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 format_coding set to '0010b' }
}
TP id : TP_PMR_0834_01
summary : 'Group short file transfer using T1 Data'
RQ ref : RQ_001_0834
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER CSF & User
TC ref : TBD
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 format_coding set to '0011b' }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
when { IUT is requested to make a Tl_Short_File_Transfer
               to a wildcard_group_address or numeric_group_address }
 then { IUT sends T1_Transmission
                 containing a Header_Frame
                   containing format_coding set to '0011b' }
End group 1.3.4.1
               Group type 2 data
5.1.3.4.2
Group 1.3.4.2 'Type 2 data'
TP id : TP_PMR_0806_01
summary : 'T2 data transmission'
RQ ref : RQ_001_0806
TP type : conformance
Role
      : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TD ref : TBD
       IUT in standby
with {
ensure that
 when { IUT is requested to send a T2_Transmission }
```

containing a Header_Frame

```
then { IUT sends T2_Transmission
                  containing a Header_Frame
                    containing Communications_Mode
                        set to '011b' }
TP id
     : TP_PMR_0825_01
summary : 'Group status message using T2 Data'
RQ ref : RQ_001_0825
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send a T2_Status_Message }
 then { IUT sends T2_Transmission
                containing a Header_Frame
                   containing the format_coding set to '0000b' }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
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 format_coding set to '0000b' }
TP id
      : TP_PMR_0827_01
summary : 'Group precoded message using T2 Data'
RQ ref : RQ_001_0827
TP type : conformance
     : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
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 format_coding set to '0001b' }
}
TP id : TP_PMR_0827_02
summary : 'Group precoded message using T2 Data'
RQ ref : RQ_001_0827
TP type : conformance
     : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
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 format_coding set to '0001b'}
```

```
}
: TP_PMR_0829_01
summary : 'Group free text message using T2 Data'
RQ ref : RQ_001_0829
TP type : conformance
      : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send a T2_Freetext_Data_Message }
 then { IUT sends T2_Transmission
                 containing a Header_Frame
                    containing format_coding set to '0010b' }
}
TP id : TP_PMR_0829_02
summary : 'Group free text message using T2 Data'
RQ ref : RO 001 0829
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
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 format_coding set to '0010b' }
}
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_ISF_02_C -- ISF IUT, TESTER ISF & User
TC ref : TBD
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 format_coding set to '0011b' }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 format_coding set to '0011b' }
End group 1.3.4.2
```

5.1.3.4.3 Group voice

```
Group 1.3.4.3 'Voice'
: TP_PMR_0801_01
summary : 'PTT Call'
RQ ref : RQ_001_0801
TP type : conformance
      : ISF,CSF
      : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
config
TC ref : TBD
with {
      IUT in standby
ensure that {
 when \{\ \mbox{IUT}\ \mbox{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 }
End group 1.3.4.3
End group 1.3.4
End group 1.3
5.1.4
          Group late entry
Group 1.4 'Late Entry'
: TP_PMR_0802_01
summary : 'Late Entry - Transmit Called Station Id'
RQ ref : RQ_001_0802
TP type : conformance
       : ISF,CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD 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 the Called_Station_ID
                                      specified in Header_Frame' and
              with each second Payload_Frame
                 containing ID2
                  set to lower 12 bits 'of the Called_Station_ID
                                      specified in Header_Frame'
: TP_PMR_0802_02
summary : 'Late Entry - Transmit Own ID'
RQ ref : RQ_001_0802
TP type : conformance
Role
      : ISF,CSF
config
      : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
       IUT in standby
with {
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
        }
```

```
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_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
      IUT in standby
with {
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'
      }
 TP id
      : TP_PMR_0802_04
summary : 'Late Entry - Receive'
RQ ref : RQ_001_0802
TP type : conformance
      : ISF,CSF
config
      : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TC ref : TBD
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' }
End group 1.4
          Group powersave
5.1.5
Group 1.5 'Powersave'
TP id
      : TP_PMR_1101_01
summary : 'Powersave preamble'
RQ ref : RQ_001_1101
TP type : conformance
      : ISF, CSF
Role
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TD ref
      : TBD
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' }
TP id : TP_PMR_1102_01
summary : 'Powersave preamble'
RQ ref : RQ_001_1102
TP type : conformance
Role
      : ISF, CSF
config : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
TD ref : TBD
       IUT in standby and powersave_enabled
with {
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'
```

containing CI_type not set to '111b' }

except for the last Header_Frame

}

```
TP id : TP_PMR_1103_01
summary : 'Powersave preamble'
RQ ref : RQ_001_1103
TP type : conformance
Role
       : ISF, CSF
      : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
config
TD ref
       : TBD
        IUT in standby and powersave_enabled using '15 Extended Headers'
with {
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' }
}
End group 1.5
```

5.1.6 Group talking party ID

```
Group 1.6 'Talking Party ID'
       : TP PMR 0803 01
TP id
summary : 'Talking Party ID'
RQ ref : RQ_001_0803
TP type : conformance
Role
      : ISF, CSF
       : CF_dPMR_ISF/CSF_02_C -- ISF/CSF IUT, TESTER ISF/CSF & User
config
TD ref
       : TBD
         IUT in standby and TPID_is_enabled
with {
ensure that {
  when { IUT receives a Voice_Transmission from TESTER
  then { IUT notifies the Own_Station_ID of the TESTER
 -- No TP specified for RQ_001_0845
End group 1.6
End group 1
```

5.2 Group CSF

Group 2 'CSF'

5.2.1 Group broadcast call

End group 2.1

5.2.2 Group dialling plan

```
Group 2.2 'Dialling Plan'
TP id : TP_PMR_1310_01
summary : 'Transmitting individual call'
RQ ref : RO 001 1310
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT configured_for_Standard_User_Interface and in standby
with {
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
       }
}
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
TP id : TP_PMR_1310_02
summary : 'Receiving individual call'
RQ ref : RQ_001_1310
TP type : conformance
Role
       : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       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' }
}
TP id : TP_PMR_1310_03
summary : 'Transmitting group call with wildcards '
RQ ref : RQ_001_1310
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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 }
}
TP id : TP_PMR_1310_04
summary : 'Receiving group call with wildcards'
RQ ref : RQ_001_1310
TP type : conformance
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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' }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
       IUT configured_for_Standard_User_Interface and in standby
with {
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' }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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 }
}
TP id : TP PMR 1317 03
summary : 'Standard user interface Receiving All Call'
RQ ref : RQ_001_1317
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT configured_for_Standard_User_Interface
with {
            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' }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
       IUT configured_for_Standard_User_Interface
\verb|with| \{
            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'
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
       IUT configured_for_Standard_User_Interface and in standby
with {
ensure that {
 when { IUT has 7_digit_address entered or selected }
 then { IUT does not transmit }
: TP PMR 1403 02
TP id
summary : 'Call initiated when using hash or send key'
RQ ref : RQ_001_1403
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT configured_for_Standard_User_Interface
with {
           and in standby
ensure that {
 when { IUT has a 7_digit_address entered or selected
          before the hash_key or dedicated_send_key pressed }
 then { IUT sends a Voice_Transmission }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT configured_for_Standard_User_Interface
with {
            and in standby
ensure that {
 when { IUT has a 7_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 7_digit_address }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
and in standby and
            {\bf and}\ {\tt configured\_for\_abbreviated\_dialling}
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' }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
        IUT configured_for_Standard_User_Interface
with {
           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' }
}
 TP id : TP_PMR_1418_01
summary : 'Masked dialling works for individual calls'
RQ ref : RQ_001_1418
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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' }
}
: TP_PMR_1418_02
TP id
summary : 'Masked dialling for group'
RQ ref : RQ_001_1418
TP type : conformance
Role
      : CSF
      : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
config
TD ref
      : TBD
         IUT configured_for_Standard_User_Interface
with {
            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' }
}
TP id : TP_PMR_1418_03
{\bf summary} : 'Abbreviated masked dialling works for individual calls' {\bf RQ} \ {\bf ref} \ : \ {\bf RQ}\_001\_1418
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
         IUT configured_for_Standard_User_Interface
with {
             and in standby
             and 'a dialling string input mask enabled'
             and configured_for_abbreviated_dialling
ensure that {
       { IUT has a valid abbreviated_masked_dialling_string entered or selected
  when
           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 {\tt 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' }
-- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
TP id : TP_PMR_1418_04
summary : 'Abbreviated masked dialling for group'
RQ ref : RQ_001_1418
TP type : conformance
       : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       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' }
}
: TP_PMR_1420_01
summary : 'Broadcast with wildcard group address'
RQ ref : RQ_001_1420
TP type : conformance
      : CSF
config
       : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
```

```
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' }
}
TP id
       : TP_PMR_1420_02
summary : 'Broadcast with abbreviated wildcard group address'
RQ ref : RQ_001_1420
TP type : conformance
Role
config
       : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
      : TBD
TD ref
with {
         {\tt 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' \}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
        IUT configured_for_Standard_User_Interface
with {
             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' {\bf and}
                     containing Communications_Format set to '0000b' }
```

```
TP id : TP_PMR_1420_04
summary : 'Broadcast with invalid numeric group address'
RQ ref : RQ_001_1420
TP type : conformance
       : CSF
config
       : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
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 7_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 }
: TP_PMR_1420_05
summary : 'Broadcast with abbreviated numeric group address'
RQ ref : RO 001 1420
TP type : conformance
       : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
         IUT configured_for_Standard_User_Interface and
with {
             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' }
}
: TP_PMR_1420_06
TP id
summary : 'Broadcast with abbreviated masked numeric group address'
RQ ref : RQ_001_1420
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
         IUT configured_for_Standard_User_Interface
with {
             and in standby and
             programmed_with_a_numeric_group_address and
             {\tt configured\_for\_abbreviated\_dialling} \ \ {\tt 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
                     \textbf{containing} \texttt{ Communications\_Format } \textbf{set to } \texttt{'0000b'} \ \}
```

```
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref
      : TBD
       IUT configured_for_Standard_User_Interface and
with {
             in standby
ensure that {
 when { IUT has a talkgroup_command and
                a valid 7_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
7_digit_address }
TP id : TP_PMR_1423_01
summary : 'Forced talkgroup call with specific address'
RQ ref : RO 001 1423
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT configured_for_Standard_User_Interface and
with {
             not_programmed_with_a_numeric_group_address and
             in standby
    }
ensure that {
 when
       { IUT has a talkgroup_command and a 7_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 7_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' }
}
: TP_PMR_1424_01
TP id
summary : 'Call cancel'
RQ ref : RQ_001_1424
TP type : conformance
Role
      : CSF
config
      : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
        IUT configured_for_Standard_User_Interface and
with {
             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 }
       { IUT hash_key is pressed twice -- call only cancelled here!
         before the TESTER terminates the continuous Voice_Transmission }
 then { IUT does not transmit }
End group 2.2
```

5.2.3 Group individual short data message

Group 2.3 'Individual Short Data Message'

5.2.3.1 Group ISDM free text message

```
Group 2.3.1 'ISDM Free Text Message'
: TP PMR 0852 01
TP id
summary : 'Individual free text message using T2 Data'
RQ ref : RQ_001_0852
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send a T2_Freetext_Data_Message to an individual_address }
 then { IUT sends T2_Transmission
                  containing a Header Frame
                    containing format_coding set to '0010b' }
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to send a T1_Freetext_Data_Message
                          to an individual_address }
 then { IUT sends T1_Transmission
                  containing a Header_Frame
                    containing format_coding set to '0010b' }
End group 2.3.1
             Group ISDM precoded message
5.2.3.2
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 a Header_Frame
                    containing format_coding set to '0001b'}
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 a Header_Frame
                    containing format_coding set to '0001b'}
}
End group 2.3.2
            Group ISDM short file transfer
5.2.3.3
Group 2.3.3 'ISDM Short File Transfer'
: TP_PMR_0855_01
summary : 'Short file transfer using T3 Data'
RQ ref : RO 001 0855
TP type : conformance
Role
       : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 }
TP id : TP_PMR_0856_01
summary : 'Individual short file transfer using T2 Data'
RQ ref : RQ_001_0856
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to make a T2_Short_File_Transfer
                         to an individual_address }
 then { IUT sends T2_Transmission
               with Header_Frame
                  containing format_coding set to '0011b' }
}
: 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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with {
ensure that {
 when { IUT is requested to make a T1_Short_File_Transfer
                         to an individual_address }
 then { IUT sends T1_Transmission with Header_Frame
                  containing format_coding set to '0011b' }
End group 2.3.3
            Group ISDM status message
5.2.3.4
Group 2.3.4 'ISDM Status Message'
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 a Header_Frame
                    containing format_coding set to '0000b'}
}
: TP_PMR_0847_01
summary : 'Individual status message using T1 Data'
RQ ref : RQ_001_0847
TP type : conformance
Role
      : CSF
config
      : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
      IUT in standby
with { }
ensure that {
 when { IUT is requested to send a T1_Status_Message to an individual_address }
 then { IUT sends T1_Transmission
                 containing a Header_Frame
                    containing format_coding set to '0000b'}
}
End group 2.3.4
End group 2.3
        Group OACSU
5.2.4
Group 2.4 'OACSU'
TP id : TP_PMR_0840_01
summary : 'CSF OACSU'
RQ ref : RQ_001_0840
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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' }
TP id : TP_PMR_0840_02
summary : 'CSF OACSU'
RQ ref : RQ_001_0840
TP type : conformance
Role
      : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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' }
TP id : TP_PMR_0840_03
summary : 'CSF OACSU'
RQ ref : RQ_001_0840
TP type : conformance
     : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
```

5.2.5 Group short appended data

```
Group 2.5 'Short Appended Data'
      : TP_PMR_0837_01
summary : 'CSF Appended Data group calls'
RQ ref : RQ_001_0837
TP type : conformance
      : CSF
Role
config
      : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 }
  then { IUT sends 'AD_test_data in penultimate and last Payload_Frames'}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 }
  then { IUT sends 'AD_test_data in penultimate and last Payload_Frames'}
End group 2.5
```

5.2.6 Group slow user data

```
Group 2.6 '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_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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 }
}
TP id : TP_PMR_0843_01
summary : 'CSF Slow User Data individual calls'
RQ ref : RQ_001_0843
TP type : conformance
       : CSF
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TC ref : TBD
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
                      \textbf{containing} \ \texttt{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 }
End group 2.6
           Group type 3 data
5.2.7
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
       IUT in standby
with {
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' }
}
TP id : TP_PMR_0817_01
summary : 'Type 3 Data positive acknowledgement'
RQ ref : RQ_001_0817
TP type : conformance
       : CSF
Role
config : CF_dPMR_CSF_01_C -- CSF IUT, TESTER CSF
TD ref : TBD
         IUT in standby
ensure that {
 when { IUT receives a T3_Transmission }
  then { IUT sends a Ack_Frame containing Ack_type set to '001b'}
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
TD ref : TBD
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
                  containing CI_information set to
                     the number of the packet data frame before the one
                     containing the invalid_CRC'}
}
TP id : TP_PMR_0819_01
summary : 'Type 3 Data call completion'
RQ ref : RQ_001_0819
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT is 'sending a T3 Transmission'
with {
ensure that {
 when { IUT receives a Ack_Frame containing Ack_type set to '001b' }
 then { IUT sends a Disconnection_Request}
TP id : TP_PMR_0820_01
summary : 'Type 3 Data negative acknowledgement'
RQ ref : RQ_001_0820
TP type : conformance
      : CSF
Role
config : CF_dPMR_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
with {
       IUT is 'sending a T3_Transmission'
ensure that {
when { IUT receives a Ack_Frame
                   containing Ack_type set to '010b' and
                   containing 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' }
}
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_CSF_02_C -- CSF IUT, TESTER CSF & User
TD ref : TBD
      IUT in standby
with {
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' }
}
TP id : TP_PMR_0822_01
summary : 'Type 3 Data CRC'
RQ ref : RQ_001_0822
TP type : conformance
      : CSF
Role
```

5.3 Group ISF

```
Group 3 'ISF'
TP id
      : TP_PMR_0804_01
summary : 'Selectable Common_IDs'
RQ ref : RQ_001_0804
TP type : conformance
      : ISF
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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 }
TP id : TP_PMR_0805_01
summary : 'Fixed ISF address bits'
RQ ref : RQ_001_0805
TP type : conformance
       : ISF
Role
config : CF_dPMR_ISF_02_C -- ISF IUT, TESTER ISF & User
TD ref : TBD
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 }
End group 3
```

Annex A (normative): dPMR conformance test configurations



Figure A.1: Configuration CF_dPMR_ISF_01_C

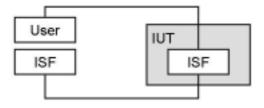


Figure A.2: Configuration CF_dPMR_ISF_02_C



Figure A.3: Configuration CF_dPMR_CSF_01_C

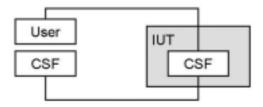


Figure A.4: Configuration CF_dPMR_CSF_02_C

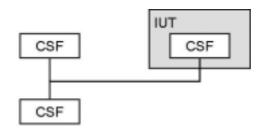


Figure A.5: Configuration CF_dPMR_CSF_03_C



Figure A.6: Configuration CF_dPMR_ISF/CSF_01_C

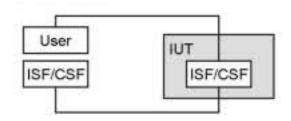


Figure A.7: Configuration CF_dPMR_ISF/CSF_02_C

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
                         {dPMR_CF_Configurations.ppt} -- ISF IUT, TESTER ISF {dPMR_CF_Configurations.ppt} -- ISF IUT, TESTER ISF & User
xref CF_dPMR_ISF_01_C
xref CF_dPMR_ISF_02_C
                          {dPMR_CF_Configurations.ppt} -- CSF IUT, TESTER CSF
xref CF dPMR CSF 01 C
xref CF_dPMR_ISF/CSF_02_C {dPMR_CF_Configurations.ppt} -- ISF/CSF IUT, TESTER ISF/CSF & User
xref CF_dPMR_ISF/CSF_01_C {dPMR_CF_Configurations.ppt} -- ISF/CSF IUT, TESTER 2 ISF/CSF
--***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
                             -- directly following sequence of HF, 8 PDFs, EF with Type 3 data in
def event T3_Transmission
def event Connection Request { HeaderFrame, EndFrame } -- Manually initiated, e.g., PTT double
                                                       -- 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 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 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 7_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 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
```

Annex C (informative): Bibliography

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

History

Document history		
V1.1.1	April 2007	Publication