

# **M\_DMO**

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# **I**

## **Test Suite Overview**

Test Suite Structure			
Suite Name : M_DMO			
Standards Ref :			
PICS Ref :			
PIXIT Ref :			
Test Method(s) :			
Comments :			
Test Group Reference	Selection Ref	Test Group Objective	Page Nr
M_DMO_MSMS_MAC/		To test the managed DMO MS–MS	38
M_DMO_MSMS_MAC/CA/		To test the basic capabilities of the IUT.	38
Detailed Comments :			

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
M_DMO_MSMS_MAC/C A/	M_DMO_MSMS_MAC_ CA_01	Initiate_CM_or_SDS_Cal I	Check that the IUT does not transmit unless authorised.	38
Detailed Comments :				

Test Step Index			
Test Step Group Reference	Test Step Id	Description	Page Nr
Implicit/	IMP_Initiate_CM_or_SDS	Cause IUT to initiate a CM or a SDS call.	40
Detailed Comments :			

Default Index			
Default Group Reference	Default Id	Description	Page Nr
	MAC_OtherwiseFail	Default behaviour.	41
Detailed Comments :			

## **II**

### **Declarations Part**

ASN.1 Type Definition	
<b>Type Name</b>	: AB_Channel_Usage_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.6 (see also ref.: ETS 300 396–3, subclause 9.3.1)
Type Definition	
ENUMERATED	-- Length 2
{ channel_A_normal_mode (0), channel_A_freq_eff_mode (1), channel_B (2) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Address_Information_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
ENUMERATED	-- Length 2
{ true_ssi (0), pseudo_ssi (1), no_address (2) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Addressing_For_URT_0100_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.3
Type Definition	
SEQUENCE { mni_for_ssi1 MNI_Type, ssi_1 SSI_Type, ssi_2 SSI_Type }	
<b>Detailed Comments</b> :	



ASN.1 Type Definition	
<b>Type Name</b>	: Addressing_For_URT_0110_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.4
Type Definition	
SEQUENCE { ssi_1 SSI_Type, ssi_2 SSI_Type, ssi_3 SSI_Type }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: AI_Encryption_State_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.2
Type Definition	
ENUMERATED      -- Length 2 { pdu_and_traffic_not_encrypted (0), pdu_encrypted_and_traffic_ai_encrypted (1), dm_sdu_and_traffic_ai_encrypted (2) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Channel_State_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.5
Type Definition	
ENUMERATED      -- Length 2 { channel_free            (0), channel_in_occupation   (1), channel_in_reservation (2), reserved                (3) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Communication_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.3
Type Definition	
ENUMERATED	-- Length 2
<pre> {   ms_to_ms (0),   via_repeater (1),   via_gateway (2),   via_repeater_gateway (3) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Destination_Address_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.5
Type Definition	
Address_Information_Type	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Device_Address_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.7
Type Definition	
Oto1023_Type -- 10 bits	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Encryption_Key_Number_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.7
Type Definition	
Oto31_Type -- SCK number 1 .. 32	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Fill_Bit_Indication_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.8
Type Definition	
ENUMERATED	-- Length 1
{ no_fill_bits (0), fill_bits (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Fragmentation_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.9
Type Definition	
ENUMERATED	-- Length 1
{ no_fragmentation (0), start_of_fragmentation (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Frame_Countdown_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.10
Type Definition	
INTEGER	-- Length 2
{ final_transmission_frame (0), one_transmission_frame_to_follow (1), two_transmission_frames_to_follow (2), three_transmission_frames_to_follow (3) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Frame_Number_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.11
Type Definition	
Oto31_Type -- 1 = Frame 1, .. 18 = Frame 18, -- Other values reserved	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Gateway_Address_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.12
Type Definition	
Oto1023_Type -- 10 bit address	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Gateway_Master_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.13
Type Definition	
ENUMERATED -- Length 1 { a_dm_ms_is_master (0), gateway_is_master (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: KSG_Number_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.14
Type Definition	
ENUMERATED      -- Length 4 { tetra_standard_algorithm_1 (0), tetra_standard_algorithm_2 (1), tetra_standard_algorithm_3 (2), tetra_standard_algorithm_4 (3), tetra_standard_algorithm_5 (4), tetra_standard_algorithm_6 (5), tetra_standard_algorithm_7 (6), tetra_standard_algorithm_8 (7), proprietary_tetra_algorithm_1 (8), proprietary_tetra_algorithm_2 (9), proprietary_tetra_algorithm_3 (10), proprietary_tetra_algorithm_4 (11), proprietary_tetra_algorithm_5 (12), proprietary_tetra_algorithm_6 (13), proprietary_tetra_algorithm_7 (14), proprietary_tetra_algorithm_8 (15) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Master_Slave_Link_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.17
Type Definition	
ENUMERATED      -- Length 1 { transmission_on_slave_link (0), transmission_on_master_link (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Message_Dependent_Elements_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.18
Type Definition	
Oto2097151_Type	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Message_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.19
Type Definition	
ENUMERATED	-- Length 5
<pre> {   dm_reserved (0),   dm_sds_occupied (1),   dm_timing_request (2),   dm_timing_ack (3),   dm_setup (8),   dm_setup_pres (9),   dm_connect (10),   dm_disconnect (11),   dm_connect_ack (12),   dm_occupied (13),   dm_release (14),   dm_tx_ceased (15),   dm_tx_request (16),   dm_tx_accept (17),   dm_preempt (18),   dm_pre_accept (19),   dm_reject (20),   dm_info (21),   dm_sds_udata (22),   dm_sds_data (23),   dm_sds_ack (24),   gateway_specific_messages (25),   available_for_proprietary_use_30 (30),   available_for_proprietary_use_31 (31) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Number_of_SCH_F_Slots_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.22
Type Definition	
INTEGER (0 .. 15)	
<pre> -- 1 = 1 SCH/F slot .. 9 = 9 SCH/F slots, -- others reserved</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Number_of_Validity_Time_Unit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.10
Type Definition	
Oto63_Type	-- 6 bits
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: M_DMO_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.9
Type Definition	
ENUMERATED      -- Length 1 { not_a_managed_dmo_presence_signal (0), managed_dmo_presence_signal        (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: MCC_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
Oto16383_Type    -- 14 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: MNC_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
Oto1023_Type    -- 10 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: MNI_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
SEQUENCE { mcc MCC_Type, mnc MNC_Type }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
Type Name	: Oto1_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (1)	-- 1 bit
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: Oto3_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (2)	-- 2 bits
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: Oto31_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (5)	-- 5 bits
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: Oto63_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (6)	-- 6 bits
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: Oto1023_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (10)	-- 10 bits
Detailed Comments	:



ASN.1 Type Definition	
Type Name	: Oto2047_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (11)	-- 11 bits
Detailed Comments :	

ASN.1 Type Definition	
Type Name	: Oto16383_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (14)	-- 14 bits
Detailed Comments :	

ASN.1 Type Definition	
Type Name	: Oto65535_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (16)	-- 16 bits
Detailed Comments :	

ASN.1 Type Definition	
Type Name	: Oto2097151_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (21)	-- 21 BITS
Detailed Comments :	

ASN.1 Type Definition	
Type Name	: Oto16777215_Type
Encoding Variation	:
Comments	:
Type Definition	
BIT STRING (24)	-- 24 bits
Detailed Comments :	

ASN.1 Type Definition	
<b>Type Name</b>	: Power_Class_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.8 (See also ref: ETS 300 396–3, subclause 9.6.8 )
Type Definition	
ENUMERATED	-- Length 3
<pre> {   power_not_defined (0),   power_class_1 (1),   power_class_2 (2),   power_class_3 (3),   power_class_4 (4),   power_class_5 (5) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Power_Control_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref: ETS 300 396–3, subclause 9.6.9
Type Definition	
ENUMERATED	-- Length 1
<pre> {   power_control_not_permitted (0),   power_control_permitted (1) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Repeater_Address_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.23
Type Definition	
Oto1023_Type	-- 10 bit address
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Reserved_10_Bit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
BIT STRING (10)	-- 10 bits
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Reserved_24_Bit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
BIT STRING (24) -- 24 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Reserved_39_Bit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
BIT STRING (39) -- 39 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Reserved_48_Bit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
BIT STRING (48) -- 48 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Reserved_72_Bit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
BIT STRING (72) -- 72 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Slot_Number_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396-3, subclause 9.3.25
Type Definition	
Oto3_Type -- 0 = slot1, .. 3 = slot4	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Source_Address_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.27
Type Definition	
Address_Information_Type	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: SSI_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
Oto16777215_Type -- 24 bits	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Sync_PDU_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.28
Type Definition	
ENUMERATED -- Length 2 { dmac_sync (0), dpres_sync (1) }	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: System_Code_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.29
Type Definition	
ENUMERATED -- Length 4 { first_release_of_300_392 (0), first_release_of_300_396 (12) }	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Time_Variant_Parameter_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.30
Type Definition	
SEQUENCE OF Oto1_Type ( 0 .. 28 ) -- 29 bits	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Timestamp_Flag_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.31
Type Definition	
ENUMERATED -- Length 1 { counter (0), real_time_clock_element (1) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: TSI_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
SEQUENCE { mni MNI_Type, ssi SSI_Type }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Usage_Restriction_Type_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.11
Type Definition	
ENUMERATED            -- Length 4 { no_restrictions    (0), restricted_by_prior_arrangement (1), restricted_to_single_mni (2), restricted_to_single_address (3), restricted_to_2_addresses_tsi_ssi_a (4), restricted_to_2_addresses_tsi_tsi_b (5), restricted_to_3_addresses_ssi (6), available_for_proprietary_uses (7) }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Validity_Time_Unit_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.2.12
Type Definition	
ENUMERATED            -- Length 2 { multiframe_1        (0),    -- approx. 1 sec. multiframe_60      (1),    -- approx. 1 min. multiframe_3600    (2)    -- approx. 1 hour }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: DM_SDU_Type
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–3, subclause 9.3.6
Type Definition	
SEQUENCE OF INTEGER	
<b>Detailed Comments</b> :	

Test Suite Operation Definition	
<b>Operation Name</b> : TSO_CONDITIONAL_RETRANSMIT_DPRES_SYNC( cpa_pdu_schs : DPRES_SYNC_PDU_SCH_S_Type; cpa_pdu_schh : DPRES_SYNC_PDU_SCH_H_Type )	
<b>Result Type</b> : BOOLEAN	
<b>Comments</b> :	
Description	
Repeat the transmission of the DPRES–SYNC PDU (SCH/S and SCH/H) in timeslot 1, 6, and 12 until a new DPRES–SYNC is sent by the tester or the IUT starts to transmit on the channel.	
<b>Detailed Comments</b> :	

Test Suite Operation Definition	
<b>Operation Name</b> : TSO_CHECK_RETRANS_SYNC (cpa_pdu : DMAC_SYNC_PDU_SCH_H_Type)	
<b>Result Type</b> : BOOLEAN	
<b>Comments</b> :	
Description	
Receive the retransmission of the DMAC–SYNC PDU indicating as a parameter until the framing count down information element equal 0 and return TRUE. The DMAC–SYNC SCH/S PDU shall be received before each DMAC–SYNC SCH/H PDU.	
<b>Detailed Comments</b> :	

Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
PIC_CALL_SETUP_NO_PRESENCE_CHECK	BOOLEAN	[ETS 300 396-8-1] PICS, Table A.4/1	True if the IUT supports individual call without presence check.
PIC_CALL_SETUP_PRESENCE_CHECK	BOOLEAN	[ETS 300 396-8-1] PICS, Table A.4/2	True if the IUT supports individual call with presence check.
PIC_SEND_U_SDS	BOOLEAN	[ETS 300 396-8-1] PICS, Table A.9/1	True if the IUT supports the sending of unacknowledge SDS.
PIC_SEND_A_SDS	BOOLEAN	[ETS 300 396-8-1] PICS, Table A.9/2	True if the IUT supports the sending of acknowledge SDS without data in the acknowledgement.
IMP_SYNC_SETUP	BOOLEAN	PIXIT, Table B.1/1	True if it is possible to cause the IUT to send a DMAC-SYNC PDU containing a DM-SETUP SDU.
IMP_SYNC_SETUP_PRES	BOOLEAN	PIXIT, Table B.1/2	True if it is possible to cause the IUT to send a DMAC-SYNC PDU containing a DM-SETUP PRES SDU.
IMP_SYNC_SDS_DATA	BOOLEAN	PIXIT, Table B.1/3	True if it is possible to cause the IUT to send a DMAC-SYNC PDU containing a DM-SDS DATA SDU.
IMP_SYNC_SDS_UDATA	BOOLEAN	PIXIT, Table B.1/4	True if it is possible to cause the IUT to send a DMAC-SYNC PDU containing a DM-SDS UDATA SDU.
PIX_MS_TSI	TSI_Type	PIXIT, Table B2/1	TSI of the IUT
PIX_TESTER_SWMI_MNI	MNI_Type	PIXIT, Table B.2/2	MNI of the controlling SwMI of the authorising unit
PIX_TESTER_DEVICE_ADDRESS	Device_Address_Type	PIXIT, Table B.2/3	Address of authorising unit
Detailed Comments :			



Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
Initiate_CM_or_SDS_Call	(PIC_CALL_SETUP_NO_PRESENCE _CHECK AND IMP_SYNC_SETUP) OR (PIC_CALL_SETUP_PRESENCE_CH ECK AND IMP_SYNC_SETUP_PRES ) OR ( ( PIC_SEND_U_SDS OR PIC_SEND_A_SDS) AND ( IMP_SYNC_SDS_DATA OR IMP_SYNC_SDS_UDATA))	True if the IUT supports the initiation of a CM or SDS call.
Detailed Comments :		

Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
TSC_RESERVED_1	Oto1_Type	'0'B	Reserved default value 0--- 1 bits
TSC_RESERVED_10	Reserved_10_Bit_Type	'0000000000'B	Reserved default value 0--- 10 bits
TSC_RESERVED_11	Oto2047_Type	'00000000000'B	Reserved default value 0--- 11 bits
TSC_RESERVED_16	Oto65535_Type	'0000000000000000'B	Reserved default value 0--- 16 bits
TSC_RESERVED_24	Reserved_24_Bit_Type	'00000000000000000000 000'B	Reserved default value 0--- 24 bits
TSC_RESERVED_39	Reserved_39_Bit_Type	'00000000000000000000 0000000000000000'B	Reserved default value 0--- 39 bits
Detailed Comments :			

PCO Type Declarations		
PCO Type	Role	Comments
LMAC_TypeId	LT	
SAP	UT	
Detailed Comments :		

PCO Declarations			
PCO Name	PCO Type	Role	Comments
LMAC O	LMAC_TypeId SAP	LT UT	SAP at the upper tester observing messages displayed on the lower tester's screen and controlling the initiation of test events at the IUT. The upper tester is the test operator.
Detailed Comments :			

Timer Declarations			
Timer Name	Duration	Unit	Comments
T_IUT_Resp	300	s	wait for IUT protocol response when no other timer exists
Detailed Comments :			

ASN.1 PDU Type Definition	
<b>PDU Name</b>	: DMAC_SYNC_PDU_SCH_S_Type
<b>PCO Type</b>	: LMAC_TypeId
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396-3, subclause 9.1.1
Type Definition	
<pre> SEQUENCE {   system_code System_Code_Type,   sync_pdu_type Sync_PDU_Type_Type,   communication_type Communication_Type_Type,   master_slave_link_flag Master_Slave_Link_Flag_Type OPTIONAL,   reserved_1 Oto1_Type OPTIONAL,   gateway_master_flag Gateway_Master_Flag_Type OPTIONAL,   reserved_2 Oto1_Type OPTIONAL,   ab_channel_usage AB_Channel_Usage_Type,   slot_number Slot_Number_Type,   frame_number Frame_Number_Type,   ai_encryption_state AI_Encryption_State_Type,   time_variant_parameter Time_Variant_Parameter_Type OPTIONAL,   timestamp_flag Timestamp_Flag_Type OPTIONAL,   ksg_number KSG_Number_Type OPTIONAL,   encryption_key_number Encryption_Key_Number_Type OPTIONAL,   reserved_3 Reserved_39_Bit_Type OPTIONAL } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Type Definition	
<b>PDU Name</b>	: DMAC_SYNC_PDU_SCH_H_Type
<b>PCO Type</b>	: LMAC_TypeId
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396-3, subclause 9.1.1
Type Definition	
<pre> SEQUENCE {   repeater_address Repeater_Address_Type OPTIONAL,   gateway_address Gateway_Address_Type OPTIONAL,   reserved_1 Reserved_10_Bit_Type OPTIONAL,   fill_bit_indication Fill_Bit_Indication_Type,   fragmentation_flag Fragmentation_Flag_Type,   number_of_sch_f_slots Number_of_SCH_F_Slots_Type OPTIONAL,   frame_countdown Frame_Countdown_Type,   destination_address_type Destination_Address_Type_Type,   destination_address SSI_Type OPTIONAL,   source_address_type Source_Address_Type_Type,   source_address SSI_Type OPTIONAL,   mobile_network_identity MNI_Type OPTIONAL,   message_type Message_Type_Type,   message_dependent_elements Message_Dependent_Elements_Type OPTIONAL,   dm_sdu DM_SDU_Type OPTIONAL } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Type Definition	
<b>PDU Name</b>	: DPRES_SYNC_PDU_SCH_S_Type
<b>PCO Type</b>	: LMAC_TypeId
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.1
Type Definition	
<pre> SEQUENCE {   system_code System_Code_Type,   sync_pdu_type Sync_PDU_Type_Type,   communication_type Communication_Type_Type,   m_dmo_flag M_DMO_Flag_Type,   reserved_1 Oto2047_Type,  -- 11 bits   master_slave_link_flag Master_Slave_Link_Flag_Type,   channel_usage AB_Channel_Usage_Type,   channel_state Channel_State_Type,   slot_number Slot_Number_Type,   frame_number Frame_Number_Type,   power_class Power_Class_Type,   power_control_flag Power_Control_Flag_Type,   reserved_2 Oto1_Type,   frame_countdown Frame_Countdown_Type,   reserved_3 Oto65535_Type,  -- 16 bits   reserved_for_future_expansion Oto31_Type OPTIONAL  -- 5 bits } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Type Definition	
<b>PDU Name</b>	: DPRES_SYNC_PDU_SCH_H_Type
<b>PCO Type</b>	: LMAC_TypeId
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Ref.: ETS 300 396–10, subclause 5.3.1
Type Definition	
<pre> SEQUENCE {   device_address Device_Address_Type,   mni_of_controlling_swmi MNI_Type,   validity_time_unit Validity_Time_Unit_Type,   number_of_validity_time_units Number_of_Validity_Time_Unit_Type OPTIONAL,   reserved_1 Oto63_Type OPTIONAL,  -- 6 bits   maximum_dm_ms_power_class Power_Class_Type,   reserved_2 Oto1_Type,   usage_restriction_type Usage_Restriction_Type_Type,   addressing_for_urt_0010 MNI_Type OPTIONAL,   addressing_for_urt_0011 TSI_Type OPTIONAL,   addressing_for_urt_0100 Addressing_For_URT_0100_Type OPTIONAL,   addressing_for_urt_0110 Addressing_For_URT_0110_Type OPTIONAL,   proprietary Reserved_72_Bit_Type OPTIONAL,   reserved_3 Reserved_72_Bit_Type OPTIONAL,   reserved_4 Reserved_48_Bit_Type OPTIONAL,   reserved_5 Reserved_24_Bit_Type OPTIONAL,   reserved_for_expansion Oto3_Type OPTIONAL } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Type Definition	
<b>PDU Name</b>	: DISPLAY
<b>PCO Type</b>	: SAP
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	:
Type Definition	
SEQUENCE { ACTION GeneralString -- string displayed by the tester }	
<b>Detailed Comments</b>	:



# **III**

## **Constraints Part**

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DMAC_SYNC_SCHS_R
<b>PDU Type</b>	: DMAC_SYNC_PDU_SCH_S_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Received constraint
Constraint Value	
<pre>{   system_code first_release_of_300_396,   sync_pdu_type dmac_sync,   communication_type ms_to_ms,   master_slave_link_flag OMIT,   reserved_1 TSC_RESERVED_1,   gateway_master_flag OMIT,   reserved_2 TSC_RESERVED_1,   ab_channel_usage ?,   slot_number ?,   frame_number ?,   ai_encryption_state pdu_and_traffic_not_encrypted,   time_variant_parameter OMIT,   timestamp_flag OMIT,   ksg_number OMIT,   encryption_key_number OMIT,   reserved_3 TSC_RESERVED_39 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DMAC_SYNC_SDS_DATA_R
<b>PDU Type</b>	: DMAC_SYNC_PDU_SCH_H_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Received constraint. DMAC–SYNC PDU containing a DM–SDS DATA.
Constraint Value	
<pre>{   repeater_address OMIT,   gateway_address OMIT,   reserved_1 TSC_RESERVED_10,   fill_bit_indication ?,   fragmentation_flag no_fragmentation,   number_of_sch_f_slots OMIT,   frame_countdown ?,   destination_address_type ?,   destination_address ?,   source_address_type ?,   source_address ?,   mobile_network_identity ?,   message_type dm_sds_data,   message_dependent_elements ?,   dm_sdu ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DMAC_SYNC_SDS_UDATA_R
<b>PDU Type</b>	: DMAC_SYNC_PDU_SCH_H_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Received constraint. DMAC–SYNC PDU containing a DM–SDS UDATA PDU.
Constraint Value	
<pre> {     repeater_address OMIT,     gateway_address OMIT,     reserved_1 TSC_RESERVED_10,     fill_bit_indication fill_bits,     fragmentation_flag no_fragmentation,     number_of_sch_f_slots OMIT,     frame_countdown ?,     destination_address_type ?,     destination_address ?,     source_address_type ?,     source_address ?,     mobile_network_identity ?,     message_type dm_sds_udata,     message_dependent_elements ?,     dm_sdu ? } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DMAC_SYNC_SETUP_PRES_R
<b>PDU Type</b>	: DMAC_SYNC_PDU_SCH_H_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Received constraint. DMAC–SYNC PDU containing a DM–SETUP PRES PDU.
Constraint Value	
<pre> {     repeater_address OMIT,     gateway_address OMIT,     reserved_1 TSC_RESERVED_10,     fill_bit_indication fill_bits,     fragmentation_flag no_fragmentation,     number_of_sch_f_slots OMIT,     frame_countdown ?,     destination_address_type ?,     destination_address ?,     source_address_type ?,     source_address ?,     mobile_network_identity ?,     message_type dm_setup_pres,     message_dependent_elements ?,     dm_sdu ? } </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DMAC_SYNC_SETUP_R
<b>PDU Type</b>	: DMAC_SYNC_PDU_SCH_H_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Received constraint. DMAC-SYNC PDU containing a DM-SETUP PDU.
Constraint Value	
<pre>{   repeater_address OMIT,   gateway_address OMIT,   reserved_1 TSC_RESERVED_10,   fill_bit_indication fill_bits,   fragmentation_flag no_fragmentation,   number_of_sch_f_slots OMIT,   frame_countdown ?,   destination_address_type ?,   destination_address ?,   source_address_type ?,   source_address ?,   mobile_network_identity ?,   message_type dm_setup,   message_dependent_elements ?,   dm_sdu ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DPRES_SYNC_PDU_SCH_S( cpa_FN : INTEGER )
<b>PDU Type</b>	: DPRES_SYNC_PDU_SCH_S_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint from authorising unit
Constraint Value	
<pre>{   system_code first_release_of_300_396,   sync_pdu_type dpres_sync, -- Indicates together with communication-type field   communication_type ms_to_ms, -- that this is a DMPRES signal.   m_dmo_flag managed_dmo_presence_signal,   reserved_1 TSC_RESERVED_11, -- 11 bits   master_slave_link_flag transmission_on_master_link,   channel_usage channel_A_normal_mode,   channel_state channel_free,   slot_number '00'B,   frame_number INT_TO_BIT(cpa_FN,4),   power_class power_not_defined,   power_control_flag power_control_not_permitted,   reserved_2 TSC_RESERVED_1,   frame_countdown final_transmission_frame,   reserved_3 TSC_RESERVED_16 -- 16 bits }</pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DPRES_SYNC_PDU_SCH_H( cpa_nmb_of_time_units : Number_of_VValidity_Time_Unit_Type )
<b>PDU Type</b>	: DPRES_SYNC_PDU_SCH_H_Type
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint from authorising unit
Constraint Value	
<pre>{   device_address PIX_TESTER_DEVICE_ADDRESS,   mni_of_controlling_swmi PIX_TESTER_SWMI_MNI,   validity_time_unit multiframe_60, -- approx 1 sec.   number_of_validity_time_units cpa_nmb_of_time_units,   maximum_dm_ms_power_class power_not_defined,   reserved_2 TSC_RESERVED_1,   usage_restriction_type restricted_to_single_address, -- Address the permission to the IUT TSI   addressing_for_urt_0011 PIX_MS_TSI,   reserved_5 TSC_RESERVED_24 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: DISPLAY_Initiate_Call
<b>PDU Type</b>	: DISPLAY
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Sent constraint.
Constraint Value	
<pre>{   ACTION "Request the DMAC-SYNC containing the DM-SETUP or DM-SETUP PRES or DM-SDS DATA or DM-SDS   UDATA SDU." -- string displayed by the tester }</pre>	
<b>Detailed Comments</b> :	

# **IV**

## **Dynamic Part**

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : M_DMO_MSMS_MAC_CA_01 <b>Group</b> : M_DMO_MSMS_MAC/CA/ <b>Purpose</b> : Check managed DMO IUT transmission by authorisation <p>The tester issues authorisation signals (DPRES–SYNC) to the IUT and the IUT is activated to initiate transmission. When the tester receives a message from the IUT or the timer T_IUT_Resp expires, the permission to transmit is withdrawn.  Verify that the IUT does not transmit when the DPRES–SYNC is sent indicating no permission to transmit on the channel.</p> <b>Configuration</b> : <b>Default</b> : MAC_OtherwiseFail <b>Comments</b> : Reference: ETS 300 396–10, subclause 5.1 Selection: IUT supports CM or SDS call initiation. Initial state: IDLE					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		LMAC!DPRES_SYNC_PDU_SCH_S_Type	DPRES_SYNC_PDU_SCH_S(0)		(1)
2		LMAC!DPRES_SYNC_PDU_SCH_H_Type	DPRES_SYNC_PDU_SCH_H(INT_TO_BIT(5,6))		
3		[ TSO_CONDITIONAL_RETRANSMIT_DPRES_SYNC(DPRES_SYNC_PDU_SCH_S(0), DPRES_SYNC_PDU_SCH_H(INT_TO_BIT(5,6))) ]			(2)
4		+IMP_Initiate_CM_or_SDS			
5		+Receive_IUT_TX			(3)
6		LMAC!DPRES_SYNC_PDU_SCH_S_Type	DPRES_SYNC_PDU_SCH_S(0)		(4)
7		LMAC!DPRES_SYNC_PDU_SCH_H_Type	DPRES_SYNC_PDU_SCH_H(INT_TO_BIT(0,6))		
8		+IMP_Initiate_CM_or_SDS			(5)
9		?TIMEOUT T_IUT_Resp		(PASS)	(6)
		Receive_IUT_TX			
10		?TIMEOUT T_IUT_Resp		INCONC	
11		LMAC ? DMAC_SYNC_PDU_SCH_S_Type CANCEL T_IUT_Resp	DMAC_SYNC_SCHS_R		
12		LMAC ? DMAC_SYNC_PDU_SCH_H_Type [TSO_CHECK_RETRANS_SYNC ( DMAC_SYNC_SETUP_R ) = TRUE]	DMAC_SYNC_SETUP_R		
13		LMAC ? DMAC_SYNC_PDU_SCH_H_Type [TSO_CHECK_RETRANS_SYNC ( DMAC_SYNC_SETUP_PRES_R ) = TRUE] CANCEL T_IUT_Resp	DMAC_SYNC_SETUP_PRES_R		
14		LMAC ? DMAC_SYNC_PDU_SCH_H_Type [TSO_CHECK_RETRANS_SYNC ( DMAC_SYNC_SDS_UDATA_R ) = TRUE] CANCEL T_IUT_Resp	DMAC_SYNC_SDS_UDATA_R		

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Test Case Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
15		LMAC ? DMAC_SYNC_PDU_SCH_H_Type [TSO_CHECK_RETRANS_SYNC ( DMAC_SYNC_SDS_DATA_R ) = TRUE] CANCEL T_IUT_Resp	DMAC_SYNC_SDS_DATA _R		
<b>Detailed Comments</b> : (1) Initiate the sending of the DPRES–SYNC PDU (2) Initiate the repeated sending of DPRES–SYNC PDU (3) Wait for the IUT to start transmission or the User–response timer to time out (4) Withdraw permission to transmit (5) Try to make IUT transmit (6) If nothing is received from IUT before the IUT–response timer expires the IUT obey the authorisation.					



Test Step Dynamic Behaviour					
<b>Test Step Name</b> : IMP_Initiate_CM_or_SDS					
<b>Group</b> : Implicit/					
<b>Objective</b> :					
<b>Default</b> :					
<b>Comments</b> : Cause IUT to initiate a CM or a SDS call.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DMAC_SYNC_PDU_SCH_S_Type>	DMAC_SYNC_SCHS_R		
2		O!DISPLAY START T_IUT_Resp	DISPLAY_Initiate_Call		
<b>Detailed Comments</b> :					

Default Dynamic Behaviour					
<b>Default Name</b> : MAC_OtherwiseFail					
<b>Group</b> :					
<b>Objective</b> :					
<b>Comments</b> : Default behaviour.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		LMAC ? OTHERWISE		FAIL	
2		? TIMEOUT		FAIL	
<b>Detailed Comments</b> :					