

:
: TTA-V-N-03-010-CC12
:

5.8 GHz DSRC TTA Verified

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(Network Testing Team)

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00	2003.11.13.		•
01	2005.06.09.		• ISO 15628 L7 가
02	2006.07.25.		•

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1.

5.8GHz DSRC OBU(On Board Unit) RSU(Road Side Unit)
L2 L7 '5.8GHz (TTAS.KO-06.0025,
2000. 10. 31)' 'Intelligent transport systems - Dedicated Short-Range Communication (DSRC) - DSRC
application layer (ISO/DIS 15628, 2003. 10. 21)' 가 L2
L7 TTA Verified .

2.

- [1] 5.8GHz (TTAS.KO-06.0025, 2000. 10. 31)
- [2] Intelligent transport systems - Dedicated Short-Range Communication (DSRC)-DSRC application layer
(ISO/DIS 15628, 2003. 10. 21)
- [3] 5.8GHz DSRC L2 (TTAS.KO-06.0052, 2003. 10.24)
- [4] 5.8GHz DSRC L7 (TTAS.KO-06.0053, 2003. 10.24)

3.

3.1 L2 (TTAS.KO-06.0052)

■ OBU

	MIB	Pass/Fail
	MIB	Pass/Fail
Multicasting	Broadcasting	Pass/Fail
	Groupcasting	Pass/Fail
SCAN	SCAN	Pass/Fail
	ACTC	Pass/Fail
	RLT	Pass/Fail
	(associate)	Pass/Fail

	/ Case 3	Pass/Fail
	/ Case 4	Pass/Fail
	/ Case 3	Pass/Fail
	/ Case 4	Pass/Fail
	/ Case 2	Pass/Fail

■ RSU

		Pass/Fail
	MIB	Pass/Fail
	MIB	Pass/Fail
	FCMC	Pass/Fail
	ACTS	Pass/Fail
	가	‘FCMC ,
Multicasting	Broadcasting	Pass/Fail
	Groupcasting	Pass/Fail
	ACTC Case 1	Pass/Fail
	ACTC Case 2	Pass/Fail
	/ Case 1	Pass/Fail
	/ Case 2	Pass/Fail
	/ Case 1	Pass/Fail
	/ Case 2	Pass/Fail
	/ Case 1	Pass/Fail

		‘ / ’ ; ‘ / ’
Type I		Pass/Fail
		Pass/Fail
		Pass/Fail
Type III	DL_DATA_ACK	Pass/Fail
	DL_REPLY	Pass/Fail
OBU	Holding Link	Pass/Fail

3.2 L7 (TTAS.KO-06.0053, ISO 15628 가)

■ OBU

(Initialisation Kernel)	Register Application OBU	Pass/Fail
	Notify Application OBU	Pass/Fail
	Deregister Application	Pass/Fail
	Release	Pass/Fail
	BST-VST	‘Register Application OBU’
(Transfer Kernel)	GET	Pass/Fail
	SET	Pass/Fail
	ACTION	Pass/Fail
	EVENT-REPORT	‘End Application’
	INITIALISATION	‘Register Application OBU’
	OBU Fragmentation/Defragmentation	Pass/Fail
	OBU Concatenation/Deconcatenation	Pass/Fail
	OBU Concatenation with chaining	Pass/Fail

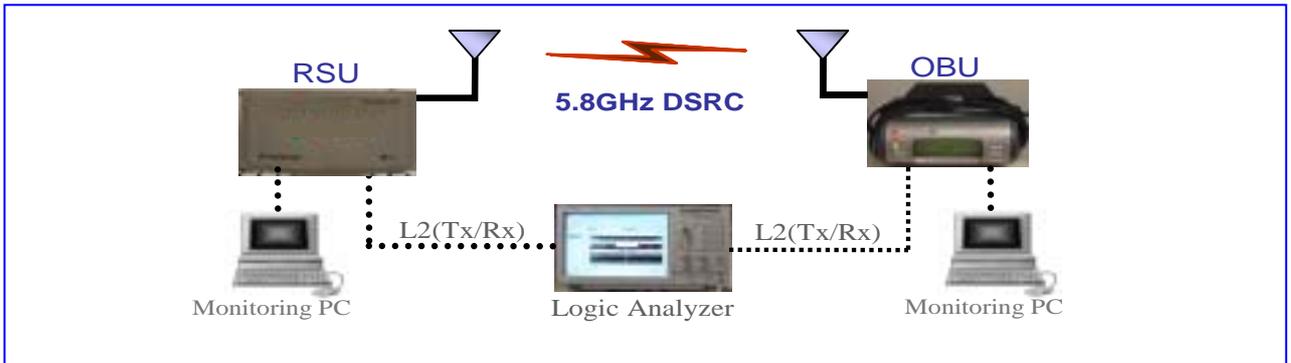
(Broadcast Kernel)	GetBroadcastData	Pass/Fail
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■ **RSU**

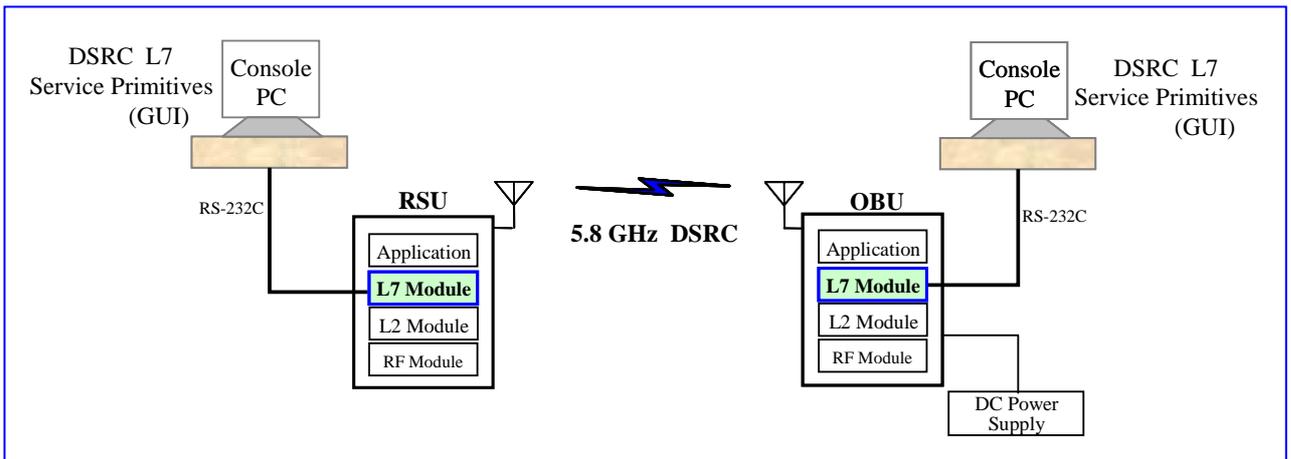
(Initialisation Kernel)	Register Application RSU	Pass/Fail
	Notify Application RSU	Pass/Fail
	Deregister Application	Pass/Fail
	End Application	Pass/Fail
	BST-VST	'Register Application RSU'
(Transfer Kernel)	GET	Pass/Fail
	SET	Pass/Fail
	ACTION	Pass/Fail
	EVENT-REPORT	'End Application'
	INITIALISATION	'Register Application RSU'
	RSU Fragmentation/Defragmentaion	Pass/Fail
	RSU Concatenation/Deconcatenation	Pass/Fail
	RSU Concatenation with chaining	Pass/Fail
(Broadcast Kernel)	BroadcastData	Pass/Fail

4.

[4-1] [4-2] 5.8 GHz DSRC L2 L7



[4-1] 5.8 GHz DSRC L2



[4-2] 5.8 GHz DSRC L7

5.

5.1 L2

■ OBU

MIB	<ul style="list-style-type: none"> PVI, FTI, IMI, M_Rcmax, M_Wtmax, LRCmax MLME_GET.confirm status 가 PVI, FTI, IMI, M_Rcmax, M_Wtmax, LRCmax MIB_attribute_value
MIB	<ul style="list-style-type: none"> PVI, FTI, IMI, LRCmax MLME_SET.confirm MLME_SET.request MIB-attribute , status 가 PVI, FTI, IMI, LRCmax MLME_GET.confirm MLME_SET.request MIB-attribute-value , status가
Broadcasting	<ul style="list-style-type: none"> DL_UNITDATA.indication link_address 0xFF DL_UNITDATA.indication 가 64
Groupcasting	<ul style="list-style-type: none"> DL_UNITDATA.indication LID 0x81 , 64
SCAN	<ul style="list-style-type: none"> FCMC MLME_SCAN.confirm
ACTC	<ul style="list-style-type: none"> OBU ACTC LRI ASI '0000' FCMC_FID ACTC_FID가
ACTC	<ul style="list-style-type: none"> LRCmax MLME_ASSOCIATE.confirm status가 0
ACTC	<ul style="list-style-type: none"> RSU 가 AP '000' FCMC , OBU ACTC
ACTC	<ul style="list-style-type: none"> RSU MDC , OBU ACKC , FCMC ACTC
RLT	<ul style="list-style-type: none"> OBU FCMC.RLT가 '1111111' FCMC , MLME_ RLT.confirm Release-Time '1111111'
(associate)	<ul style="list-style-type: none"> OBU LID가 MLME_ASSOCIATE.request MLME_ ASSOCIATE.confirm
/ Case 3	<ul style="list-style-type: none"> RSU (64) OBU 가

/ Case 4	• RSU (1039) OBU 가
/ Case 3	• OBU (64) RSU 가
/ Case 4	• OBU (1039) RSU 가
Case 2 /	• M_RCmax LID 가 MDC
	• OBU RSU 가

■ RSU

	<ul style="list-style-type: none"> • RSU FCMC Slot number • RSU가 MDC MDC • RSU가 ACKC
MIB	<ul style="list-style-type: none"> • PVI, FTI, CCZ, TRI, TDI, ATI, FID, IMI, F_DRCmax, F_URCmax MLME_GET.confirm status 가 • PVI, FTI, CCZ, TRI, TDI, ATI, FID, IMI, F_DRCmax, F_URCmax MIB_attribute_value
MIB	<ul style="list-style-type: none"> • FID, F_DRCmax, F_URCmax MLME_SET.confirm MLME_SET.request MIB-attribute , status 가 • FID, F_DRCmax, F_URCmax MLME_GET.confirm MLME_SET.request MIB-attribute-value , status 가
FCMC	<ul style="list-style-type: none"> • RSU Slot number RSU 가 FCMC.SLN • RSU 가 MLME-SET.request Slot number RSU FCMC.SLN • RSU가 DL-UNIT MDC , RSU가 FCMC SCI CI.SI가 '00' SCI가 , LID ACTC LID
ACTS	<ul style="list-style-type: none"> • FCMC Slot number max_ACTS • FCMC CI.SI가 '11'
가	<ul style="list-style-type: none"> • FCMC Slot number max_ACTS • FCMC CI.SI가 '11'

5.8 GHz DSRC L7
TTA Verified

: TTA-V-N-03-010-CC12

: 2006. 07. 25. : 02

: 2003. 11. 13. : 11/16

Broadcasting	<ul style="list-style-type: none"> FCMC CI.SI 가 '00' LID 0xFF RSU Broadcast MDC 가 64
Groupcasting	<ul style="list-style-type: none"> FCMC CI.GPR '1', LID 0x81838590 MDC 가 64
ACTC Case 1	<ul style="list-style-type: none"> LID 가 ACTC MLME-ASSOCIATE.indication
ACTC Case 2	<ul style="list-style-type: none"> LID 가 ACTC MLME-ASSOCIATE.indication LID 가 ACTC MLME-ASSOCIATE.indication
/ Case 1	<ul style="list-style-type: none"> RSU (64) OBU 가
/ Case 2	<ul style="list-style-type: none"> RSU (1039) OBU 가
/ Case 1	<ul style="list-style-type: none"> OBU (64) RSU 가
/ Case 2	<ul style="list-style-type: none"> OBU (1039) RSU 가
/ Case 1	<ul style="list-style-type: none"> F_DRCmax LID 가 MDC(MPDU) FCMC SCL.SI가 '00'
	<ul style="list-style-type: none"> OBU RSU 가
	<ul style="list-style-type: none"> 가 OBU , MDS MDC LLC Type 1
	<ul style="list-style-type: none"> 가 OBU , MDS MDC LLC Type 1
	<ul style="list-style-type: none"> MDS 가 , MDS LLC 가 Type 1
DL_DATA_ACK	<ul style="list-style-type: none"> 가 OBU , MDS RSU MDC.LLC Type3 DL_DATA_ACK_STATUS.indication status '1'

DL_REPLY	<ul style="list-style-type: none"> 가 OBU , MDS RSU MDC.LLC Type 3 DL_REPLY_STATUS.indication status '1' , OBU RSU가
	<ul style="list-style-type: none">
Holding Link	<ul style="list-style-type: none"> 8 LID 가 8 OBU RSU

5.2 L7

■ OBU

Register Application OBU	<ul style="list-style-type: none"> VST AID, Priority, EID, Profiles, Parameter RegisterApplicationOBU
Notify Application OBU	<ul style="list-style-type: none"> NotifyApplication OBU RSU, Priority, EID, Parameter 가 BST
Deregister Application	<ul style="list-style-type: none"> Case 1(OBU가 Application) - Deregister Application OBU Application VST가 Case 2(OBU가 Application) - Deregister Application OBU Application Application 가 VST Notify Application OBU
Release	<ul style="list-style-type: none"> OBU Release , LID VST
BST-VST	<ul style="list-style-type: none"> OBU RSU BST VST가
GET	<ul style="list-style-type: none"> RSU T-APDU(Get.request) OBU GET.indicate 가 OBU GET.response RSU T-APDU(Get.response) 가
SET	<ul style="list-style-type: none"> RSU T-APDU(Set.request) SET.indcate 가 OBU SET.response RSU T-APDU(Set.response) 가
ACTION	<ul style="list-style-type: none"> RSU T-APDU(Action.request) ACTION.indicate 가 OBU ACTION.response RSU T-APDU(Action.response) 가

EVENT-REPORT	<ul style="list-style-type: none"> • RSU T-APDU(Event-Report.request) Event-Report.indicate 가 • OBU Event-Report.response RSU T-APDU(Event-Report.response) 가
INITIALISATION	<ul style="list-style-type: none"> • OBU INITIALISATION.response VST
OBU Fragmentation/ Defragmentaion	<ul style="list-style-type: none"> • OBU T-Kernal (response) T-Kernal T-APDU PDU 가 fragmentation peer(RSU) • Peer(RSU) (request) T-APDU fragment T-Kernal defragmentation
OBU Concatenation/ Deconcatenation	<ul style="list-style-type: none"> • OBU 가 fragment (response) T-APDU fragment , T-Kernal (consective) PDU LLC frame peer(RSU) (request) concatenation T-APDU fragment OBU T-Kernal deconcatenation 가 (, no error가 Ret),
OBU Concatenation with chaining	<ul style="list-style-type: none"> • OBU chain (response) , T-Kernal PDU 가 “concatenation with chaining” (request) 가 (no error가 Ret), “chaining Error”
GetBroadcastData	<ul style="list-style-type: none"> • RSU BroadcastPool File , T-APDU(BroadPool) File 가 OBU GetBroadcastData.confirm

■ RSU

Register Application RSU	<ul style="list-style-type: none"> • BST AID, MandatoryApplication, Priority, EID, Profiles, Parameter RegisterApplication RSU
Notify Application RSU	<ul style="list-style-type: none"> • NotifyApplication RSU Priority, EID, Parameter, ObeConfiguration 가 VST
Deregister Application	<ul style="list-style-type: none"> • Case 1(RSU가 Application) - MLME_SCAN.confirm RSU Application 가 • Case 2(RSU가 Application) - MLME_SCAN.confirm RSU Application 가
End Application	<ul style="list-style-type: none"> • Release EID EndApplication EID가
BST-VST	<ul style="list-style-type: none"> • OBU RSU BST VST가
GET	<ul style="list-style-type: none"> • RSU GET.request OBU T-APDU(Get.request) 가 • OBU T-APDU(Get.response) RSU GET.confirm 가
SET	<ul style="list-style-type: none"> • RSU SET.request OBU T-APDU(Set.request) 가 • OBU T-APDU(Set.response) RSU SET.confirm 가
ACTION	<ul style="list-style-type: none"> • RSU ACTION.request OBU T-APDU(Action.request) 가 • OBU T-APDU(Action.response) RSU ACTION.confirm 가
EVENT-REPORT	<ul style="list-style-type: none"> • RSU Event-Report.request OBU T-APDU(Event-Report.request) 가 • OBU T-APDU(Event-Report.response) RSU Event-Report.confirm 가
INITIALISATION	<ul style="list-style-type: none"> • RSU INITIALISATION.request BST
RSU Fragmentation/ Defragmentaion	<ul style="list-style-type: none"> • RSU T-Kernel (request) T-Kernel T-APDU PDU 가 fragmentation peer(OBU) • Peer(OBU) (response) T-APDU fragment T-Kernel defragmentation

<p>RSU Concatenation/ Deconcatenation</p>	<ul style="list-style-type: none"> RSU 가 fragment (request) T-APDU fragment T-Kernel (consecutive) PDU LLC frame peer(OBU) (response) concatenation T-APDU fragment RSU T-Kernel deconcatenation 가 (no error가 Ret),
<p>RSU Concatenation with chaining</p>	<ul style="list-style-type: none"> RSU chain (request) , T-Kernel PDU “concatenation with chaining” 가 가 (response) no error가 Ret),
<p>BroadcastData</p>	<ul style="list-style-type: none"> RSU BroadcastPool File B-Kernerl , BroadcastData T-APDU(BroadPool) 가

6.

