



DMR Association Interoperability Certificate

Document 10063

Note to readers: This DMR Association Interoperability Certificate documents that the BS8700 product as detailed in Table A below:

TABLE A : DMR EQUIPMENT TESTED		
Manufacturer	CALTTA TECHNOLOGIES CO., LTD.	
Model	DMR ZXSDR BS8700	
Firmware	ID	Version
	N/A	V6.30.10

has successfully passed the DMR Association Tier 3 mandatory and optional tests outlined in the DMR Association test specification documents: *Interoperability Testing for DMR Tier 3 Systems V3.2 July 2018* carried out on 2nd – 6th July 2019 with the 4700/KALE product referenced in Table B below with tests undertaken as indicated in the following pages.

TABLE B : DMR EQUIPMENT TESTED		
Manufacturer	ASELSAN A.Ş	
Model	4700/KALE	
Firmware	ID	Version
	N/A	DMR 4.10.4172.07

The DMR Association hereby declares that the product in Table A when tested with the product in Table B passed interoperability Test Cases as set out in the test list below.

The DMR Association hereby declares that the testing took place according to the procedures and in a laboratory meeting the criteria set out in the DMR Association



document: *Interoperability Laboratory Recognition Process and Test Session Procedures, V2.02 of March 2017.*

All products belonging to the same model classes, meaning equipment that ASELSAN A.Ş / CALTTA TECHNOLOGIES CO., LTD. have determined, through engineering analysis or internal functional testing, to be functionally equivalent to the products in Table A and Table B, may be declared interoperable by ASELSAN A.Ş and CALTTA TECHNOLOGIES CO., LTD.

Issue Date 28th August 2019

Chair of the DMR Association Technical Working Group

The following summary details which tests have been carried out.

ETSI STANDARD SUPPORTED

ETSI Standard Supported	TS 102 361-4 V1.9.1
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Mandatory Tests

Registration

(Note: Vendors may elect to select either the Registration Refused or Registration Denied test case)

Function (Test Case)	Test case	Reference	Verdict ②
Registration ([2] 2.3.1)	Registration accepted	[1] 6.4.4.1.2	PASS
	Registration MS refused	[1] 6.4.4.1.3	TEST NOT UNDERTAKEN
	Registration MS denied	[1] 6.4.4.1.4	PASS
	De-registration	[1] 6.4.6	PASS

Talkgroup voice call services: Message Trunking

(Note: Vendors may elect to select either Message Trunking mode or Transmission Trunking mode or optionally both modes)

Function (Test Case)	Test case	Reference	Verdict ②
Talkgroup voice call services single site message trunking ([2] 2.3.2)	Call granted	[1] 6.6.1 and 6.6.2	PASS
	Call refused		PASS
	Call request queued		PASS
	Broadcast call		PASS

Talkgroup voice call services: Transmission Trunking

(Note: Vendors may elect to select either Message Trunking mode or Transmission Trunking mode or optionally both modes)

Function (Test Case)	Test case	Reference	Verdict ②
Talkgroup voice call services single site transmission trunking ([2] 2.3.3)	Call granted	[1] 6.6.1 and 6.6.2	TEST NOT UNDERTAKEN
	Call refused		TEST NOT UNDERTAKEN
	Call request queued		TEST NOT UNDERTAKEN

Individual voice call services

Function (Test Case)	Test case	Reference	Verdict ①
Individual voice call services single site single frequency pair using OACSU ([2] 2.3.4)	See below	[1] 4.6.2.1.1 and 4.9.1.1	
	Call Granted : Calling party end		PASS
	Call Granted: Called party end		PASS
Individual voice call services single site using OACSU ([2] 2.3.5)	See below	[1] 4.6.2.1.1 and 4.9.1.1	
	Call granted		PASS
	Call refused		PASS
	Call request queued		PASS
Individual voice call services single site using FOACSU ([2] 2.3.6)	See below	[1] 4.6.2.1.2 and 4.9.1.2	
	Call accepted		PASS
	Call refused by user		PASS

Other

Function	Test case	Reference	Verdict ①
Hunting ([2] 2.3.7)	Site Change	[1] 6.3, 6.4.4	PASS
Short Data Single Site ([2] 2.3.8)	Short data	[1] 6.6.4	PASS

Optional Tests

Talkgroup voice call services: Message Trunking

(Note: Vendors may elect to select either Message Trunking mode or Transmission Trunking mode or optionally both modes)

Function	Test case	Reference	Verdict ②
Multisite Group Voice Call ([2] 2.4.1)	Call granted	[1] 6.6.1 and 6.6.2	PASS
	Call request queued, origin site busy		PASS
	Call request when all or some destination sites are busy		PASS
	Broadcast call		PASS

Talkgroup voice call services: Transmission Trunking

(Note: Vendors may elect to select either Message Trunking mode or Transmission Trunking mode or optionally both modes)

Function	Test case	Reference	Verdict ②
Multisite Group Voice Call ([2] 2.4.2)	Call granted	[1] 6.6.1 and 6.6.2	TEST NOT UNDERTAKEN
	Call request queued, origin site busy		TEST NOT UNDERTAKEN
	Call request when all or some destination sites are busy		TEST NOT UNDERTAKEN

Individual voice call services

Function	Test case	Reference	Verdict ②
Multisite using OACSU ([2] 2.4.3)	See below	[1] 4.6.2.1.1 and 4.9.1.1	
	Call granted	[1] 6.6.1 and 6.6.2	PASS
	Call request queued	[1] 6.6.1	PASS
Multisite using FOACSU ([2] 2.4.4)	See below	[1] 4.6.2.1.2 and 4.9.1.2	
	Call accepted	[1] 6.6.1 and 6.6.2	PASS
	Call refused by user	[1] 6.6.2.2.5	PASS

Short Data Multi Site

Function	Test case	Reference	Verdict ②
Short Data Multi Site ([2] 2.4.5)	Short data	[1] 6.6.4	PASS

Notes

- ① Valid options for this column are either PASS or FAIL
- ② Valid options for this column are either PASS, FAIL or TEST NOT UNDERTAKEN

LIABILITY DISCLAIMER

The DMR Association declares that the IOP validation process has been carried out with the best possible endeavour in order to ensure the most reliable Verdicts. Nevertheless, the DMR Association takes no responsibility for, and shall have no liability as a Verdict of damages, losses, or injuries of any kind that may be caused by non-coherence to the functions listed in the certificates of products that are awarded a DMR Interoperability Certificate.

Individual manufacturers are responsible for ensuring that the behaviour of any equipment for which Interoperability is claimed is identical to that of the equipment that passed the DMR Association interoperability certification process.

References

[1] ETSI TS 102 361-4 : Digital Mobile Radio (DMR) Systems: Part 4 DMR Trunking Protocol V1.9.1 (2017-10)

[2] DMR Association TIER III INTEROPERABILITY TEST CASES V3.2 July 2018