DMR Association Interoperability Certificate

Document 10060

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 tests outlined in the DMR Association test specification documents: *Interoperability Testing for DMR Tier 3 Systems V3.1 June 2016* carried out on 19th and 20th April 2018 with the DMR RM-810 product referenced in Table B below with tests undertaken as indicated in the following pages.

TABLE B : DMR EQUIPMENT TESTED		
Manufacturer	Rexon Technology Co., LTD	
Model	DMR RM-810	
Firmware	ID	Version
	N/A	V1.2.01.03

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, V 2.02 of March 2017.*

All products belonging to the same model classes, meaning equipment that
Rexon Technology Co., LTD / 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 Rexon Technology Co., LTD and CALTTA TECHNOLOGIES CO., LTD.
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Issue Date 1st April 2019

Chair of the DMR Association Technical Working Group

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The following summary details which tests have been carried out.

ETSI STANDARD SUPPORTED

ETSI Standard Supported	TS 102 361-4 V1.9.1

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 ❷
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 ❷
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 ❷
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 ❶
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	[1] 6.6.1 and 6.6.2	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	[1] 6.6.1 and 6.6.2	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	[1] 6.6.1 and 6.6.2	PASS
	Call refused by user	[1] 6.6.2.2.5	PASS

Other

Function	Test case	Reference	Verdict ❶
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 ❷
Multisite Group Voice Call ([2] 2.4.1)	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
	Broadcast call		TEST NOT UNDERTAKEN

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 ❷
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 ❷
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	TEST NOT UNDERTAKEN
	Call request queued	[1] 6.6.1	TEST NOT UNDERTAKEN
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	TEST NOT UNDERTAKEN
	Call refused by user	[1] 6.6.2.2.5	TEST NOT UNDERTAKEN

Short Data Multi Site

Function	Test case	Reference	Verdict ❷
Short Data Multi Site ([2] 2.4.5)	Short data	[1] 6.6.4	TEST NOT UNDERTAKEN

Notes

❶ Valid options for this column are either PASS or FAIL

❷ 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 V1.9.2 (2018-04)

[2] DMR Association TIER III INTEROPERABILITY TEST CASES *V3.1 June 2016.*