



The following equipment has been tested for connection to the Airwave network (the "Equipment"). The Equipment has been tested on the Airwave Reference System Rugby.

	<b>Manufacturer</b>	<b>Equipment Versions</b>	<b>Test Date</b>	<b>Certificate Date</b>
Equipment Hardware	Thales	VRM5208B <sup>1</sup> - Airbourne	26/10/2012	30/10/2012
Equipment Software	Thales	V11.1.7	26/10/2012	30/10/2012
<sup>1</sup> Hardware 7-450-3 Incorporating Thales VRM5208B radio controlled by Cobham Controller CH450-3-YX Software (Cobham) V8.0.0.13				

At the time the Equipment was tested the Airwave Network Reference System was configured as follows:

<b>Airwave Network Software Version</b>	<b>D7.1.1</b>
<b>Airwave Radio Test Spec. Version</b>	<b>Version 3.3 (Includes OTAR, C-SCCH &amp; eTetra)</b>

	<b>Mandatory Tests</b>	<b>Optional Tests</b>	<b>Drive Test</b>	<b>Additional Tests (See Notes)</b>
Test Results	<b>Pass</b>	<b>Pass</b>	<b>N/A</b>	<b>N/A</b>

The testing conducted on the Equipment suggests that it will not adversely impact the Airwave Network (as it had been configured in accordance with the above specifications).



# Terminal Conformance Test Exit Report

## **Description: Disclaimer:**

1. This conformance certificate does not indicate any security approval with respects to the operation of this hardware / software on the Airwave network. It is the responsibility of the supplier and their customer (whether Airwave Ltd or 3rd party customer) to ensure the Airwave Accreditor's security requirements have been met before this hardware / software is deployed on the Airwave operational network. If this solution is deployed within the customer's security domain then the customers Accreditor / Senior officer responsible for security must give their approval inline with the Airwave Service Code of Connection.
2. The issuing of this Connection Certificate is for information purposes only and Airwave makes no warranty or guarantee whatsoever as to the fitness for purpose of the Equipment or its ability to operate correctly when connected to the Airwave Network or any other network or equipment. Your use of the Equipment, connection of the Equipment to the Airwave Network and reliance on the contents of this Connection Certificate (for whatever purpose) is at your sole risk. Airwave shall not be liable for loss or damages of any kind (whether due to negligence or otherwise) arising in relation to the Equipment, its connection to the Airwave Network and/or your reliance on the content of this Connection Certificate.

Issued by: Rugby Reference Centre.

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## Table of Contents

Terminal Conformance Test Exit Report .....	2
Chapter 1. Test Results .....	4
1.1. Root.....	4
1.1.1.1.1.1. Root\Thales\V11.1.7\V11.1.7 VRM5208B Aircraft\E2EE Additional Tests .....	4
1.1.1.1.1.1.1. Test Set : E2EE tests.....	4
1.1.1.1.1.1.2. Root\Thales\V11.1.7\V11.1.7 VRM5208B Aircraft\Use as a Repeater - Additional Tests .....	5
1.1.1.1.1.2.1. Test Set : 6.8 - Use as a Repeater .....	5
1.1.1.1.1.1.3. Root\Thales\V11.1.7\V11.1.7 VRM5208B Aircraft\Vehicle Terminal Full Conformance .....	6
1.1.1.1.1.3.1. Test Set : 5.1 - Security .....	6
1.1.1.1.1.3.2. Test Set : 5.2 - Basic Call Handling .....	7
1.1.1.1.1.3.3. Test Set : 5.3 - General Mobility .....	8
1.1.1.1.1.3.4. Test Set : 5.4 - Special MobilitySubscriber Class.....	9
1.1.1.1.1.3.5. Test Set : 5.5 - Denial of access to resources.....	10
1.1.1.1.1.3.6. Test Set : 5.7 - Short Data (SDS) .....	10
1.1.1.1.1.3.7. Test Set : 5.8 - Security Based Functionality SC3G.....	10
1.1.1.1.1.3.8. Test Set : 6.1 - Group Functionality.....	13
1.1.1.1.1.3.9. Test Set : 6.2 - Radio Terminal Operating Through A Gateway..	14
1.1.1.1.1.3.10. Test Set : 6.5 - PNC Tests.....	17
1.1.1.1.1.3.11. Test Set : 6.6 - Miscellaneous Tests .....	17
1.1.1.1.1.3.12. Test Set : 6.7 - Radio Terminal Operating through a repeater..	18
1.1.1.1.1.3.13. Test Set : 6.9 - Pure DMO .....	19
1.1.1.1.1.3.14. Test Set : 7.1 - Common Secondary Control Channel .....	20
1.1.1.1.1.3.15. Test Set : 8.1 - eTetra Compatibility .....	21



## Chapter 1. Test Results

### 1.1. Root

1.1.1.1.1.1. Root\Thales\V11.1.7\V11.1.7 VRM5208B  
Aircraft\E2EE Additional Tests

**Test Sets:**

#### 1.1.1.1.1.1.1. Test Set : E2EE tests

**Status :** Open

**Open Date :** 04/04/2011

**Tests :**

<b>Plan: Test Name</b>	<b>Execution Date</b>	<b>Status</b>
1 Successful Call between Two E2E Configured Radio Terminals	26/10/2012	Passed
2 Monitoring Radio Terminal Non E2E Capable or Using Different E2E Key	26/10/2012	Passed
3 Radio Terminal Non E2E Capable or Using Different E2E Key Attempts Call	26/10/2012	Passed

### 1.1.1.1.1.2.



## Root\Thales\V11.1.7\V11.1.7 VRM5208B Aircraft\Use as a Repeater - Additional Tests

**Test Sets:**

### 1.1.1.1.2.1. Test Set : 6.8 - Use as a Repeater

**Status :** Open

**Open Date :** 04/04/2011

**Tests :**

<b>Plan: Test Name</b>	<b>Execution Date</b>	<b>Status</b>
Repeater Initiation And Acquisition By DMO Radio Terminal	26/10/2012	Passed
1 Normal Priority Call Originated By Radio Terminal B	26/10/2012	Passed
2 Emergency Priority Call Originated By Radio Terminal B	26/10/2012	Passed
Short Data Messaging	26/10/2012	Passed
Repeater Initiation With 2nd Repeater Already Active	26/10/2012	Passed

### 1.1.1.1.1.3.



Root\Thales\V11.1.7\V11.1.7 VRM5208B Aircraft\Vehicle Terminal  
Full Conformance

Test Sets:

**1.1.1.1.3.1. Test Set : 5.1 - Security**

Status : Open

Open Date : 04/04/2011

Tests :

Plan: Test Name	Execution Date	Status
Scan For 390MHz Network Followed By Successful Basic Registration	26/10/2012	Passed
De-Registration	26/10/2012	Passed
Attempted Registration At Denied EBTS	26/10/2012	Passed
1 Basic Transmit Inhibit	26/10/2012	N/A
2 Transmit Inhibit In Operation With Cell Handover	26/10/2012	N/A
1 Basic Ambient Call	26/10/2012	N/A
2 Radio Terminal In Ambient Call Ignores Normal Group Call	26/10/2012	N/A
3 Radio Terminal in Ambient Call Initiates Normal Group Call	26/10/2012	N/A
4 Radio Terminal in Ambient Call Initiates Emergency Group Call	26/10/2012	N/A
5 Radio Terminal in Ambient Call Initiates Private Call	26/10/2012	N/A
6 Radio Terminal In Ambient Call Initiates Telephony Call	26/10/2012	N/A
Radio Check	26/10/2012	Passed
Scan For 420MHz Network Followed By Successful Basic Registration	26/10/2012	N/A
De-Registration	26/10/2012	N/A



### 1.1.1.1.3.2. Test Set : 5.2 - Basic Call Handling

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
1 Change Of Attached Talk Group	26/10/2012	Passed
2 Normal Priority Group Call	26/10/2012	Passed
3 Normal Priority Group Call With Clashing PTT Request	26/10/2012	Passed
4 Normal Priority Group Call With Priority Interrupt During Transmission Grant	26/10/2012	Passed
1 Call Answered	26/10/2012	Passed
2 Call Missed	26/10/2012	Passed
1 Full ISSI Dialling	26/10/2012	Passed
2 Short ISSI Dialling	26/10/2012	N/A
Outgoing Telephony Call	26/10/2012	Passed
Incoming Telephony Call	26/10/2012	Passed
Status Call From Radio Terminal To Attached Group	26/10/2012	Passed
1 Emergency Status	26/10/2012	Passed
2 Follow Up Emergency Group Call	26/10/2012	Passed



### 1.1.1.1.3.3. Test Set : 5.3 - General Mobility

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
Sampling & Measurement Of Serving & Neighbour Cells	26/10/2012	Passed
Undeclared Handover	26/10/2012	Passed
Unannounced Handover In Normal Group Call	26/10/2012	Passed
Announced Type 3 Handover In Normal Group Call	26/10/2012	Passed
Announced Type 3 Handover In Full Duplex Telephony Call	26/10/2012	Passed
1 Unannounced Group Call	26/10/2012	Passed
2 Announced Type 3 Group Call	26/10/2012	Passed
Successful Queuing During Telephony Call Restoration	26/10/2012	Passed
Pre-emption During Group Call Restoration	26/10/2012	Passed
Manual MNC Management	26/10/2012	N/A
Manual MCC Management	26/10/2012	N/A
1 Group Call (Receiving)	26/10/2012	Passed
2 Group Call (Transmitting)	26/10/2012	Passed
3 Full Duplex Telephony Call	26/10/2012	Passed





### 1.1.1.1.3.4. Test Set : 5.4 - Special MobilitySubscriber Class

Status : Open

Open Date : 04/04/2011

**Tests :**

Plan: Test Name	Execution Date	Status
1 Invalid SC At Adjacent HP & P EBTS Sites with N EBTS Site Available	26/10/2012	Passed
2 Subscriber Class Not Valid At Sole Adjacent HP EBTS Site	26/10/2012	Passed
3 Radio Terminal Moves From Non Valid HP EBTS Site To Valid N EBTS Site	26/10/2012	Passed
4 Subscriber Class Not Valid At Sole Adjacent P EBTS Site	26/10/2012	Passed
5 Radio Terminal Moves From Non Valid P EBTS Site To Valid N EBTS Site	26/10/2012	Passed
1 Invalid SC At Adjacent HP & N EBTS Site with P EBTS Site Available	26/10/2012	Passed
2 Subscriber Class Not Valid At Sole Adjacent HP EBTS Site	26/10/2012	Passed
3 Radio Terminal Moves From Non Valid HP To Valid P EBTS Site	26/10/2012	Passed
4 Subscriber Class Not Valid At Sole Adjacent N EBTS Site	26/10/2012	Passed
5 Radio Terminal Moves From Non Valid N To Valid P EBTS Site	26/10/2012	Passed
Terrestrial Future Proof Configuration	26/10/2012	Passed
1 Highly Preferred Subscriber Class with Normal EBTS Site Available	26/10/2012	Passed
2 Sole Adjacent EBTS Site Not Highly Preferred EBTS Site	26/10/2012	Passed
3 Radio Terminal Moves From Normal To Highly Preferred EBTS Site	26/10/2012	Passed
4 AGA Future Proof Configuration	26/10/2012	Passed



### 1.1.1.1.3.5. Test Set : 5.5 - Denial of access to resources

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
Private Call To Engaged Radio Terminal	26/10/2012	Passed
Private Call To De-Registered Radio Terminal	26/10/2012	Passed
Attempted Group Call To Non Enabled Group	26/10/2012	Passed
1 Normal Priority Group Call	26/10/2012	Passed
2 Emergency Priority Group Call	26/10/2012	Passed
Telephony Call Barred By System	26/10/2012	Passed
Incoming Private Call To Radio Active in Group Call	26/10/2012	Passed
Incoming Telephony Call To Radio Active in Group Call	26/10/2012	Passed
Incoming Private Call To Radio Active in Telephony Call	26/10/2012	Passed

### 1.1.1.1.3.6. Test Set : 5.7 - Short Data (SDS)

Status : Open

Open Date : 04/04/2011

### 1.1.1.1.3.7. Test Set : 5.8 - Security Based Functionality SC3G

Status : Open

Open Date : 04/04/2011



**Tests :**

<b>Plan: Test Name</b>	<b>Execution Date</b>	<b>Status</b>
1 Successful System Authentication With Class 2 Encryption	26/10/2012	Passed
2 Un-successful System Authentication With Class 2 Encryption	26/10/2012	Passed
3 Successful System Authentication With Class 2 Encryption including Mutual Authentication	26/10/2012	Passed
4 Authenticated Registration With Class 3 Encryption Enabled	26/10/2012	Passed
Announced Cell Reselection With Call restoration - Security class 2	26/10/2012	Passed
Change of Class of Encryption	26/10/2012	Passed
BS entering Fallback Mode and returning to normal mode	26/10/2012	Passed
Change to Security Class 2 for radio terminal registered on BS.	26/10/2012	Passed
EBTS enters and leaves Fallback mode while operating in Security Class 3G	26/10/2012	Passed
Change to Security Class 2 in Fallback mode from Security Class 3G	26/10/2012	Passed
Radio Terminal registration on site at Security Class 3G fallback and reversion to Wide site trunking	26/10/2012	Passed
Static Disable	26/10/2012	Passed
Static Enable	26/10/2012	Passed
Registration When Disabled	26/10/2012	Passed
Handover To New EBTS In Disabled State	26/10/2012	Passed
Static Disable Followed By Loss & Restoration Of Power	26/10/2012	Passed
Permanent Subscriber Disable (Kill)	26/10/2012	Passed
Key association setting for GCK during location updating with group attachment.	26/10/2012	Passed
Key association at Terminal initiated group attachment	26/10/2012	Passed



Plan: Test Name	Execution Date	Status
Key association by using DGNA	26/10/2012	Passed
Encrypted group call using Security Class 3G Terminal to a Security Class 3 Group	26/10/2012	Passed
SwMI Initiated change of GCK on Serving Cell when Radio terminal is in idle state	26/10/2012	Passed
SwMI Initiated change of GCK on Serving Cell when Radio terminal is in active call	26/10/2012	Passed
SwMI requested GCK Key status from Radio Terminal	26/10/2012	Passed
SwMI initiated change of TM-SCK - terminal in idle state. Future TM-SCK unknown to Terminal	26/10/2012	Passed
SwMI Initiated change of TM-SCK - Radio Terminal is in an active call	26/10/2012	Passed
Location updating to a cell using Past TM-SCK	26/10/2012	Passed
SwMI initiated OTAR of TM-SCK - In idle state	26/10/2012	Passed
SwMI initiated Change of TM-SCK - In active call	26/10/2012	Passed
SwMI initiated OTAR of and change of DM-SCK	26/10/2012	Passed
Change Security Class - 3G to 3	26/10/2012	Passed
Change Security Class - 3 to 3G	26/10/2012	Passed
Change Security Class - 3G to 2	26/10/2012	Passed
Change Security Class - 3 to 2	26/10/2012	Passed
Change Security Class - 2 to 3	26/10/2012	Passed



### 1.1.1.1.3.8. Test Set : 6.1 - Group Functionality

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
1 Basic Scan	26/10/2012	Passed
2 User Modified Scan List	26/10/2012	N/A
DGNA	26/10/2012	Passed
Basic Patch (Using Re-Group Facility)	26/10/2012	Passed
Multiselect Patch (Using Re-Group Facility)	26/10/2012	Passed
1 Radio Previously Turned Off	26/10/2012	Passed
2 Radio Previously In Private Call	26/10/2012	Passed
Change Of Group During Call	26/10/2012	Passed
Talking Party Identification At Radio Terminal	26/10/2012	Passed



### 1.1.1.1.3.9. Test Set : 6.2 - Radio Terminal Operating Through A Gateway

Status : Open

Open Date : 04/04/2011



**Tests :**

<b>Plan: Test Name</b>	<b>Execution Date</b>	<b>Status</b>
1 Normal Priority Call Originated By TMO User	26/10/2012	Passed
Gateway Detection And Acquisition	26/10/2012	Passed
Gateway Enabled With Direct Mode Radio Terminal Already Active	26/10/2012	Passed
2 Normal Priority Call Originated By DMO User	26/10/2012	Passed
3 Emergency Priority Call Originated By TMO User (From Idle)	26/10/2012	Passed
4 Emergency Priority Call Originated By DMO User (From Idle)	26/10/2012	Passed
5 Emergency Priority Call Originated By DMO User (During Call)	26/10/2012	N/A
Late Entry Of DMO Terminal to Ongoing Gateway Call	26/10/2012	Passed
Call Queued at TMO Radio	26/10/2012	Passed
Status Message From DMO Radio	26/10/2012	N/A
1 Message from DMO Radio Terminal to TMO Radio Terminal (No Del or Con)	26/10/2012	N/A
2 Message from DMO Radio Terminal to TMO Radio Terminal (Del ACK)	26/10/2012	N/A
3 Message from DMO Radio Terminal to TMO Radio Terminal (Con ACK)	26/10/2012	N/A
4 Message from TMO Radio Terminal to DMO Radio Terminal (No Del or Con)	26/10/2012	N/A
5 Message from TMO Radio Terminal to DMO Radio Terminal (Del ACK)	26/10/2012	N/A
6 Message from TMO Radio Terminal to DMO Radio Terminal (Con ACK)	26/10/2012	N/A
1 Gateway 2 on same RF channel and using different GSSI to 1st Gateway	26/10/2012	N/A
2 Normal Priority Call Originated By TMO User	26/10/2012	N/A
3 Normal Priority Call Originated By DMO	26/10/2012	N/A



<b>Plan: Test Name</b>	<b>Execution Date</b>	<b>Status</b>
User		
4 Emergency Priority Call Originated By TMO User (From Idle)	26/10/2012	N/A
5 Emergency Priority Call Originated By DMO User (From Idle)	26/10/2012	N/A





### 1.1.1.1.3.10. Test Set : 6.5 - PNC Tests

Status : Open

Open Date : 04/04/2011

### 1.1.1.1.3.11. Test Set : 6.6 - Miscellaneous Tests

Status : Open

Open Date : 04/04/2011

Tests :

Plan: Test Name	Execution Date	Status
1 Outgoing Call	26/10/2012	N/A
2 Incoming Call	26/10/2012	N/A
Engineering Pages & Air Interface Logging Output	26/10/2012	Passed
1 Selection of Talkgroup using either Radio Head	26/10/2012	N/A
2 Normal Group Call Initiation from Radio Head 1	26/10/2012	N/A
3 Normal Group Call Initiation from Radio Head 2	26/10/2012	N/A
4 Emergency Group Call Initiation from Radio Head 1	26/10/2012	N/A
5 Emergency Group Call Initiation from Radio Head 2	26/10/2012	N/A
6 Private Call Initiation from Radio Head 1	26/10/2012	N/A
7 Private Call Initiation from Radio Head 2	26/10/2012	N/A
8 Incoming Short Data Message	26/10/2012	N/A



### 1.1.1.1.3.12. Test Set : 6.7 - Radio Terminal Operating through a repeater

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
Repeater Detection And Acquisition	26/10/2012	Passed
Repeater Enabled With Direct Mode Radio Terminal Already Active	26/10/2012	Passed
1 Normal Priority Call Originated By Radio Terminal T	26/10/2012	Passed
2 Normal Priority Call Originated By Radio Terminal B	26/10/2012	Passed
3 Emergency Priority Call Originated By Radio Terminal T	26/10/2012	Passed
4 Emergency Priority Call Originated By Radio Terminal B	26/10/2012	Passed
Short Data Messaging	26/10/2012	Passed



### 1.1.1.1.3.13. Test Set : 6.9 - Pure DMO

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
Normal Priority Group Call Initiated From Radio Terminal T	26/10/2012	Passed
Normal Priority Group Call Initiated From Radio Terminal B	26/10/2012	Passed
Emergency Priority Group Call Initiated From Radio Terminal T	26/10/2012	Passed
Emergency Priority Group Call Initiated From Radio Terminal B	26/10/2012	Passed



### 1.1.1.1.3.14. Test Set : 7.1 - Common Secondary Control Channel

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
Registration - C-SCCH Support	26/10/2012	Passed
Non-Supporting MS Behaviours	26/10/2012	Passed
Registration with multiple C-SCCH	26/10/2012	N/A
Calls using C-SCCH	26/10/2012	N/A
Use of SDS and C-SCCH	26/10/2012	N/A
Use of Packet Data and C-SCCH	26/10/2012	N/A
C-SCCH Mobility	26/10/2012	N/A
eTetra Channel Allocation with C-SCCH	26/10/2012	N/A
DGNA with C-SCCH	26/10/2012	N/A
Change in number of C-SCCH	26/10/2012	N/A
LST Functionality with C-SCCH	26/10/2012	N/A



### 1.1.1.1.3.15. Test Set : 8.1 - eTetra Compatibility

Status : Open

Open Date : 04/04/2011

#### Tests :

Plan: Test Name	Execution Date	Status
1 Semi-Duplex Individual Call	26/10/2012	Passed
2 Full Duplex Individual Call	26/10/2012	N/A
3 PSTN and Console Calls	26/10/2012	Passed
4 Group Calls - eT Group	26/10/2012	Passed
5 Emergency Group Call	26/10/2012	Passed
6 Listening	26/10/2012	N/A
1 Semi-Duplex Individual call - Mobility	26/10/2012	Passed
2 Full Duplex Individual Call - Mobility	26/10/2012	N/A