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# Report On

Radio Approval Testing of the McMurdo A Division of Signature Industries Ltd Fastfind PLB 210 in accordance with ETS 300 487: 1996 + A1: 1997

Document 75904389 Report 13 Issue 1

February 2009



#### **Product Service**

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**REPORT ON** Radio Approval Testing of the

McMurdo A Division of Signature Industries Ltd

Fastfind PLB 210

in accordance with ETS 300 487: 1996 + A1: 1997

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**Authorised Signatory** 

**DATED** 5<sup>th</sup> February 2009





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# **REPORT SUMMARY**

Radio Approval Testing of the McMurdo A Division of Signature Industries Ltd Fastfind PLB 210 in accordance with ETS 300 487: 1996 + A1: 1997



#### 1.1 INTRODUCTION

The information contained in this report is intended to show verification of the Radio Approval Testing of the McMurdo A Division of Signature Industries Ltd, Fastfind PLB 210 to the requirements of ETS 300 487: 1996 + A1: 1997.

Objective To perform Radio Approval Testing to determine the

Equipment Under Test's (EUT's) compliance with the Test

Specification, for the series of tests carried out.

Manufacturer McMurdo A Division of Signature Industries Ltd

Model Number(s) Fastfind PLB 210

Number of Samples Tested One

Test Specification/Issue/Date ETS 300 487: 1996 + A1: 1997

Disposal Held Pending Disposal

Reference Number Not Applicable
Date Not Applicable

Order Number PC0003427 Date PC0003427

Start of Test 03 February 2009

Finish of Test 03 February 2009

Name of Engineer(s) R Henley



#### 1.2 TEST HOUSE DECLARATION

We, TÜV Product Service Ltd of Octagon House, Concorde Way, Segensworth North, Fareham, Hampshire PO15 5RL, declare that the product :

Equipment: PLB

Model: Fastfind PLB 210

Serial Number(s): TUV 2

Quantity: One

to which this declaration relates is in conformity with the following standard(s) or other normative document(s):

ETS 300 487: 1996 + A1: 1997

Signature : M Jenkins

**Authorised Signatory** 

Date: 5<sup>th</sup> February 2009



# 1.3 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with ETS 300 487: 1996 + A1: 1997 is shown below.

Configuration: 1					
Section	Spec Clause	Test Description	Result	Comments	
2.1	5	RF Emissions	Pass	Limits amended as per section 2.1.6.	



#### 1.4 PRODUCT INFORMATION

#### 1.4.1 Technical Description

The Equipment Under Test (EUT) was a McMurdo A Division of Signature Industries Ltd Fastfind PLB 210 as shown in the photograph below. A full technical description can be found in the manufacturer's documentation.



**Equipment Under Test** 



# 1.5 DEVIATIONS FROM THE STANDARD

No deviations to the standard were made during testing.

# 1.6 MODIFICATION RECORD

No modifications were made to the test sample during testing.



# **TEST DETAILS**

Radio Approval Testing of the McMurdo A Division of Signature Industries Ltd Fastfind PLB 210 in accordance with ETS 300 487: 1996 + A1: 1997



#### 2.1 RF EMISSIONS

#### 2.1.1 Specification Reference

ETS 300 487: 1996 + A1: 1997, Clause 5

#### 2.1.2 Equipment Under Test

Fastfind PLB 210, S/N: TUV 2

#### 2.1.3 Date of Test and Modification State

03 February 2009 - Modification State 0

#### 2.1.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

#### 2.1.5 Environmental Conditions

03 February 2009

Ambient Temperature 25.2°C Relative Humidity 21.1%

#### 2.1.6 Test Results

Frequency MHz	Results (dBm)
*	
Measurement Uncertainty	± 3.8 dB

<sup>\*</sup>No emissions were detected within 10dB of limit.

Frequency Range MHz (Note 1)	EIRP Limit dBpW (Note 1)	Measurement Bandwidth kHz
30 to 1000	33	100
1000 to 1574 (fL)	43	100
1574 (fL) to 1576 (fH)	17	3
1576 (fH) to 12750	43	100
12750 to 21200	48	100
21200 to 40000 (Note 2)	60	100

#### Notes:

- 1. The lower limits apply at the transition frequencies.
- 2. Although 10x the highest oscillator frequency is 31.5 GHz, the full frequency range of the standard was tested, finishing at 40 GHz.



**TEST EQUIPMENT USED** 



# 3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due	
Section 2.1 Radio (Rx) - Radiated Spurious Emissions						
Turntable Controller	Heinrich Diesel	HD050	22	-	TU	
Antenna (Double Ridge Guide)	EMCO	3115	34	12	18-Jul-2009	
Spectrum Analyser	Rohde & Schwarz	FSEM	37	12	4-Apr-2009	
Screened Room (8)	Rainford	Rainford	1548	-	TU	
Power Supply	Iso-tech	IPS 2010	2439	12	19-Sep-2009	
Hygrometer	Rotronic	I-1000	2882	12	26-Jun-2009	
Cable (1m, sma Type)	Rosenberger	FA210A1010003050	2907	12	16-May-2009	
Antenna (Biconnical)	Schaffner	VBA6106A	3107	12	26-Mar-2009	
Antenna (Log Periodic)	Schaffner	UPA6108	3109	12	27-Mar-2009	
Antenna (DRG Horn)	ETS-LINDGREN	3115	3125	12	23-Apr-2009	
Amplifier (1 - 8GHz)	Phase One	PS06-0060	3175	12	27-Jun-2009	
Amplifier (8 - 18GHz)	Phase One	PS06-0061	3176	12	27-Jun-2009	

TU - Traceability Unscheduled



# **PHOTOGRAPHS**



# 4.1 PHOTOGRAPHS OF EQUIPMENT UNDER TEST (EUT)



Front View



Rear View



ACCREDITATION, DISCLAIMERS AND COPYRIGHT



# 5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).

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