

EMC TEST REPORT

**TFS SATCOM
SDU & SCM**

DOCUMENT NO. 103-101559

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EMC Test Report for TFS Satcom
Job No. 06-013

Document No. 103-101559

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APPROVAL

This document is formally issued or re-issued with the approvals shown below:

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REVISION RECORD

The following table records revisions to this document. The latest issue supersedes the previous issue in total.

Issue Number	Date	Change Request	Change Notice	Detail
1	12/03/07	-	402-504078	New at first Issue

This document is issued in its entirety and is deemed invalid if any sheet becomes detached. Changes since last issue are sidelined.

VOIDS

Section	Description
None	

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REFERENCE DOCUMENTS

- | | | |
|----------------------------|---------------------|--|
| 1. Environmental Test Plan | A111/SDU001/ETS-001 | Issue 2 used from 7/11/06
Issue 3A used from 20/12/06 |
| 2. EUROCAE ED-14E | | |
| 3. Airbus ADB | 0100.1.2 | |
| 4. Airbus ADB | 0100.1.8 | |
| 5. RTCA | DO-160D | |

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GLOSSARY OF ABBREVIATIONS

AC	Alternating Current
AF	Audio Frequency
AM	Amplitude Modulation
Bandw	Bandwidth
BCI	Bulk Current Injection
CW	Continuous Wave
dB	deciBel
DC	Direct Current
ECO	Engineering Change Order
ECR	Engineering Change Request
EMC	ElectroMagnetic Compatibility
ESD	Electrostatic Discharge
ETS	Environmental Test Specification
EUT	Equipment Under Test
GHz	GigaHertz
Hz	Hertz
IF	Intermediate Frequency
kHz	kiloHertz
LISN	Line Impedance Stabilisation Network
m	metres
MHz	MegaHertz
Mod	Modulation
PM	Pulse Modulation
RF	Radio Frequency
SCM	SDU Configuration Module
SDU	Satellite Data Unit
SQ	Square Wave
V/m	Volts per metre

1. INTRODUCTION

The TFS Satcom SDU and SCM were submitted to the Thales Crawley EMC Laboratory for qualification EMC testing to the requirements of RTCA/DO-160D, Airbus ABD0100.1.2, EUROCAE ED-14E & ED14D airborne equipment. The test programme was performed in accordance with the Environmental Test Specification (ETS) for the TFS Satcom, document number A111/SDU001/ETS-001 (see Referenced Documents for specific issue numbers)

2. EXECUTIVE SUMMARY

The following table gives an overall summary of the EMC test requirements and the results obtained for the EUT, comprising the SDU and the SCM tested together as a sub-system. It includes a brief description of each test performed, a pass/fail statement and comments on key aspects of the results where appropriate.

Test	Test Description	Result	Comment	ETS section
ED14E, S21.3, cat L, M & H, ABD0100.1.2, Ch 3.4.5	Conducted RF Emissions – 150kHz to 30MHz	Pass	See section 10.1.1	(Iss. 2) 3.5.1.4
ED14E, S21.4, cat M & H, ABD0100.1.2, Ch 3.4.5	Radiated RF Emissions – 2MHz to 6GHz	Fail	See section 10.1.2	(Iss 2) 3.5.1.5
ED14E, S20, cat R, ABD0100.1.2, Ch 3.3 sec 3.3.2	Conducted RF Susceptibility – All cables, 10kHz to 400MHz	Fail	See section 10.1.3	(Iss 3A) 3.5.2.3.1
ED14E, S20, cat R, ABD0100.1.2, Ch 3.3, sec 3.3.3	Radiated RF Susceptibility – 100MHz to 8GHz	Pass	See section 10.1.4	(Iss 3A) 3.5.2.3.2
ED14E & DO – 160D sec 17 ABD0100.1.2, Ch 3.4, sec 3.4.2	Voltage spike – 1000v AC Bursts at 360Hz & 800Hz	Pass	See section 10.1.5	(Iss 2) 3.4.3
ED14E, S18, cat R(WF) (AC), cat B (DC) ABD0100.1.2, Ch 3.3, sec 3.4.3	AF Susceptibility	Pass	See section 10.1.6	(Iss 3A) 3.5.3
ED14E, S19.4, cat Z W, ABD0100.1.2, Ch 3.4.3	Induced Signal Susceptibility	Pass	See section 10.1.7	(Iss 3A) 3.5.4
ED14E, S25.3, cat A, ABD0100.1.2, Ch 3.5	Electrostatic Discharge	Pass	See section 10.1.8	(Iss 3A) 3.5.5

3. TEST ENVIRONMENT

A screened chamber was used to provide the optimum environment for the measurements required. The screening performance of the chamber was adequate to control coupled RF energy to levels that neither influenced the test results nor constituted a safety hazard. It was verified that ambient interference levels were at least 6dB below the limit lines.

3.1 EMISSIONS AND SUSCEPTIBILITY MEASUREMENTS

These were done in a semi-anechoic chamber, measuring 7m x 4.5m x 4.5m. It contains a copper ground plane measuring 2.4m x 1m. A penetration panel allows for cables to be passed out of the test volume into the control room in order to connect supporting equipment whilst maintaining the screening integrity of the chamber. All power supplies into the test chamber are filtered at the chamber wall.

4. SYSTEM UNDER TEST AND TASK DETAILS

Equipment Under Test (EUT):	TFS Satcom system, comprising: SDU 82155D10B Serial Number 10001 SDU 82155D10D Serial Number 10001 SDU 82155D10D Serial Number 10003 SCM 82158A10A Serial Numbers 0010 & 0008 QSA Test Software 903020 used on SDU from 6/11/06 QSA Test Software APM 903030 used on SDU from 21/12/06 CPM 903040 used on SDU from 21/12/06 (See section 5, "Build Standard" for details)
Equipment definition/build standard	Production Representative
Test Plan References:	A111/SDU001/ETS-001 Iss 2 used from 16/11/06 A111/SDU001/ETS-001 Iss 3A used from 21/12/06
Test Phase:	Qualification
Customer:	Thales Avionics Ltd 86 Bushy Road London SW20 0JW England
Test Standards:	EUROCAE: ED14D & ED14E RTCA: DO-160D Airbus: ABD0100.1.2 ABD0100.1.8
EUT Received:	16/11/06
Work Started:	16/11/06
Work Completed:	15/01/07
Test Engineer:	A Hutley and Richard Kirby

5. BUILD STANDARD

The test programme was completed in two distinct phases between the start and finish dates stated in section 4. During the programme it was necessary to exchange units. The following table shows the specific units used during each of the tests:

Test	Unit	SDU Software	Serial Number
RF conducted emissions	SDU 82155D10B	QSA Test Software 903020	10001
RF radiated emissions	SCM 82158A10A		0010
RF radiated susceptibility	SDU 82155D10D	QSA Test Software APM 903030	10001
RF conducted susceptibility	SCM 82158A10A	CPM 903040	0010
AF conducted susceptibility			
Induced signal susceptibility			
Electro-static discharge			
Voltage spike	SDU 82155D10D	QSA Test Software APM 903030	10003
	SCM 82158A10A	CPM 903040	0008

6. RECORDING AND STORAGE OF TEST DATA

Test data was stored using two methods, according to the type of test being performed. Details are as follows:

6.1 EMISSIONS

An automated, frequency synthesised measuring receiver was used for the measurements; the data being recorded automatically using the proprietary software built into the Receiver.

The Receiver is spectrum analyser based. It incorporates automatic RF front-end pre-selection with a range of eleven fixed, and four tracking filters. This records the uncorrected voltage values measured against frequency at the Receiver input and automatically adds the necessary correction factors for sensors, cable losses and any other quantified system errors, in real-time, as the measurement proceeds. These correction factors are held within the software and are regularly reviewed and updated as part of the calibration and equipment validation process within the Laboratory. The Receiver display shows the developing result against the required limit, in graphical format, as the measurement proceeds. The Receiver settings and sensors used for each measurement are automatically recorded in each graph header. Finally the software generates a hardcopy of the plot with all the header information included.

6.2 SUSCEPTIBILITY

Susceptibility testing is a semi-automatic process. The application of stimulus signals is under automatic control, but monitoring of the test levels applied is done manually by observing appropriate measuring instruments. The EMC engineer records manually in the test notes the test levels applied.

7. EMC TEST EQUIPMENT

Equipment type	Calibration no.	Manufacturer	Type no.	Cal. Due date
AC PSU	SW1750A	Elgar	0637A00358	N/R
Antenna (biconical)	V0 110/13	Ailtech	94455-1	Jan 2007
Antenna (biconical)	V0 110/2	Ailtech	94455-1	Jan 2007
Antenna (double ridged horn)	X0 473/1	EMCO	3115	Jan 2007
Antenna (double ridged horn)	X0 473/2	EMCO	3115	N/R
Antenna (log periodic)	V0 116/1a	EMCO	3148	Jan 2007
Antenna (monopole)	E0134/1	Ailtech	95010-1	Jan 2007
Antenna (Periodic)	V0 116/1a	EMCO	3146	Jan 2007
BCI calibration jig	TG1041	Solar	9125/1	Not req'd
BCI probe	TG 1039	Solar	9144-1N	Not req'd
BCI probe	TG 1040	Solar	9142-1N	Not req'd
Capacitor	TG1065	Belling-Lee	6512-106R	Jan 2007
Capacitor	TG1066	Belling-Lee	6512-106R	Jan 2007
Capacitor	PO135/7	Solar	6512-106R	Jan 2007
Coupler, dual directional	DC7150	AR	1007468	Mar 2007
Coupler, dual directional	C223H-30	ATM	C223H-30	Apr 2007
Coupler, dual directional	X0 381/1	AR	DC2000	Jan 2007
Current probe	J0 575/1	Ailtech	91550/1	Jan 2007
Current probe	J0 574/1	Ailtech	94111-1	Jan 2007
DC Shunt	G0112/3	Avo	125A	Jan 2007
DVM	J0 767/3	Fluke	73111	Jan 2007
DVM	J0272/1	Keithley	175	Jan 2007
Field Sensor / monitor	J0 782/1	A.R.	FM5004	Jan 2007
Function Generator	A0303/1	HP	3314A	Jan 2007
H-field sensor	V0 118/1	Solar	7334-1	Jan 2007
LISN	TG1063	Belling-Lee	TG1063	Jan 2007
LISN	TG1064	Belling-Lee	TG1064	Jan 2007
Micro Ohm Meter	T22268	Black Star	BS405	Jan 2007
Oscilloscope	T22346	LeCroy	LC564DL	Jan 2007
Receiver	V0 120/1	R & S	ESMI	Feb 2007
Receiver	T 22595	R & S	ESIB26	Feb 2007
Resistor load	2X100Ω	Arcol	50Ω	Not req'd
RF Amplifier	TG1028	AR	150L	Not req'd
RF Amplifier	TG1029	AR	25W 1000M7	Not req'd
RF Amplifier	UR630-200	Keltec	1GHz to 2GHz	Not req'd

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Equipment type	Calibration no.	Manufacturer	Type no.	Cal. Due date
RF Amplifier	SR630-200	Keltec	2GHz to 4GHz	Not req'd
RF Amplifier	CR630-200	Keltec	4GHz to 8GHz	Not req'd
Shunt	GO112/3	AVO	50amp	Jan 2007
Signal Generator	TG 1046	R & S	SMT 02	Jan 2007
Signal Generator	TG22097	HP	83620B	Jan 2007
Spike Generator	AO366/1	Solar	7054-1	Not req'd
Transformer	TO400/1	Solar	6220-1A	Not req'd
Transformer	TO406/1	Thales	TO406/1	Not req'd
Relay	245-2419	RS	245-2419	Not req'd
Relay	245-2504	RS	245-2504	Not req'd

All equipment likely to affect measurement results is calibrated to UKAS standards.

8. TEST METHODS - GENERAL

8.1 EMISSIONS

8.1.1 RECEIVER BANDWIDTHS

These were determined in accordance with ETS requirement A111/SDU001/ETS-001 Iss 2 para. 3.5.1.4.2, and were as follows:

Test Frequency Band	IF Bandwidth
150kHz to 30MHz	1kHz
30MHz to 400MHz	10kHz
400MHz to 1GHz	100kHz
1GHz to 8GHz	1MHz

During radiated emission testing, where the corrected noise floor was less than 6dB below the limit line, the Bandwidth was reduced to 10kHz. This is indicated both in the relevant results sections and in the graph headers.

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8.2 SUSCEPTIBILITY

8.2.1 SCAN RATES

The scan requirements were set in accordance ETS requirement A111/SDU001/ETS-001 Iss 3A para. 3.5.2.3, as follows:

Test Frequencies	Sweep Type	Step Size	Sweep time	Dwell
Up to 50kHz	Linear per decade	-	200s/decade	-
50kHz to 1GHz	Logarithmic	1%	-	1s
Above 1GHz	Linear	18MHz	-	1s

8.2.2 MODULATION

Conducted:

Test Frequencies	Modulation Type
10kHz to 400MHz	CW
10kHz to 400MHz	1kHz square wave modulation
9MHz to 11MHz	3.5MHz square wave modulation
100MHz to 120MHz	3.5MHz square wave modulation
100MHz to 120MHz	10MHz square wave modulation

Radiated:

Test Frequencies	Modulation Type
100MHz to 8GHz	CW
100MHz to 8GHz	1kHz AM 90% square wave modulation
400MHz to 8GHz	1kHz AM 90% square wave modulation with 1Hz square wave 50% duty cycle modulation.
100MHz to 8GHz	1kHz pulse modulation with 1Hz pulse modulation, 50% duty cycle

Note: Refer to ETS requirement A111/SDU001/ETS-001 Iss 3A figs. 25 and 26 for modulation requirements.

8.2.3 SUSCEPTIBILITY FAILURE CRITERIA

These were as defined in ETS requirement A111/SDU001/ETS-001 Iss 3A para. 3.5.2.3.2.10.

8.3 EUT LAYOUT

This was in accordance with section 2.9 of A111/SDU001/ETS-001 & figure 1 in test report.

Figures 1 and 2 show the layout in the semi-anechoic chamber and are augmented by photographs 1 to 4.

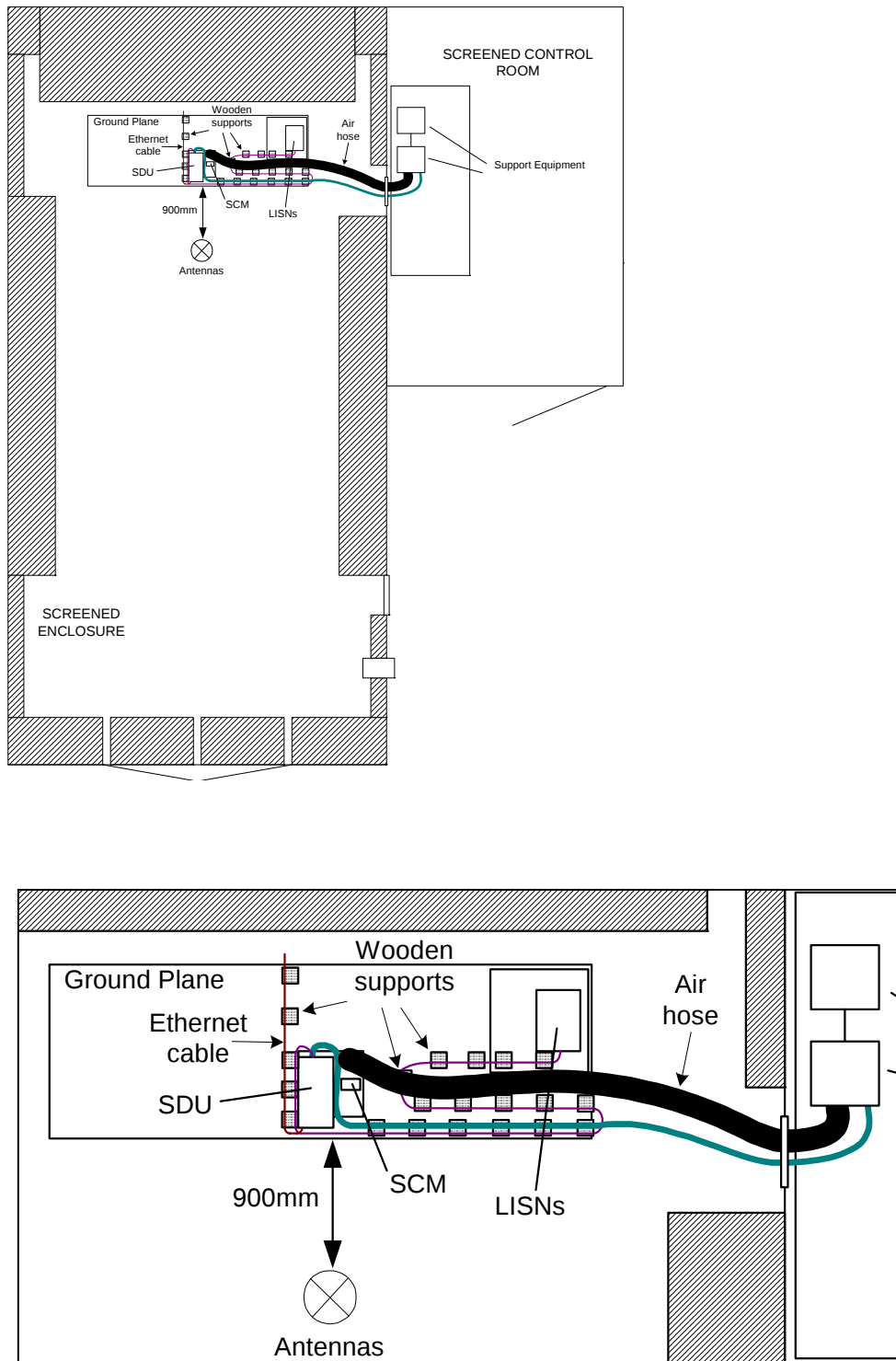
The Components were arranged on the copper ground plane with insulation under EUT. The LISNs were bonded to the ground plane, with the bond resistance measured at 0.02mΩ. The interconnecting harness was the actual customer delivered assembly.

EUT was bonded via its mounting tray and clamps to the ground plane. The tray was screwed to the ground plane. Interconnecting cables were supported 50mm above the ground plane on wooden blocks.

Primary power was from 115VAC 400Hz supply via the LISNs.

In the case of Voltage spike, AF susceptibility and induced signal susceptibility tests, the Elgar PSU was used to power the EUT. For the Voltage spike test only, the Elgar PSU and EUT exercising and monitoring equipment was located inside the test chamber.

Figure 1 EUT Schematic Layout in Semi-Anechoic Chamber (Not to Scale)

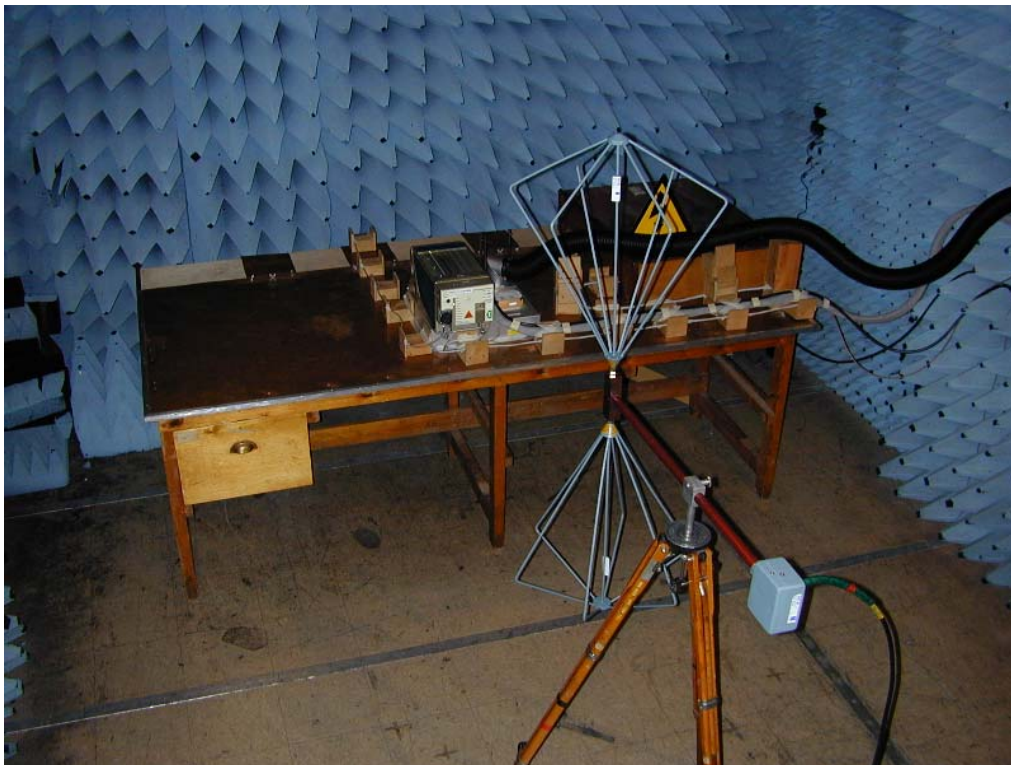


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Photograph 1 Conducted emissions



Photograph 2 Radiated emissions



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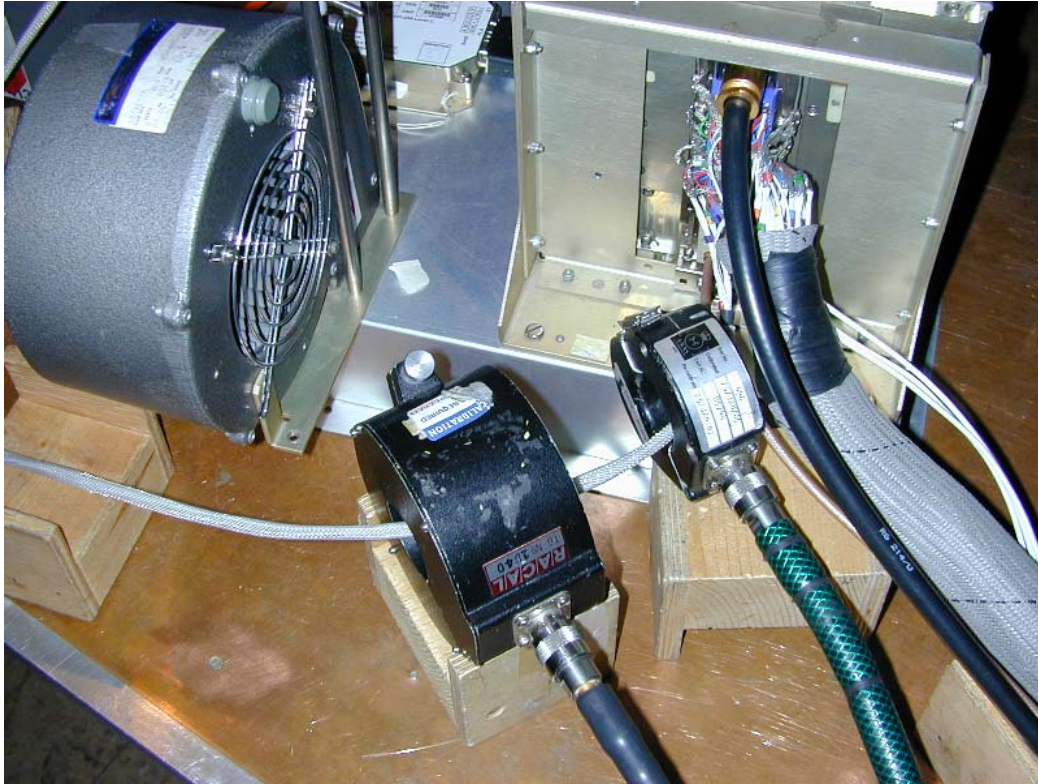
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Photograph 3 Conducted Susceptibility



Photograph 4 Radiated Susceptibility



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Photograph 5 Voltage Spike



Photograph 6 Audio Frequency Susceptibility



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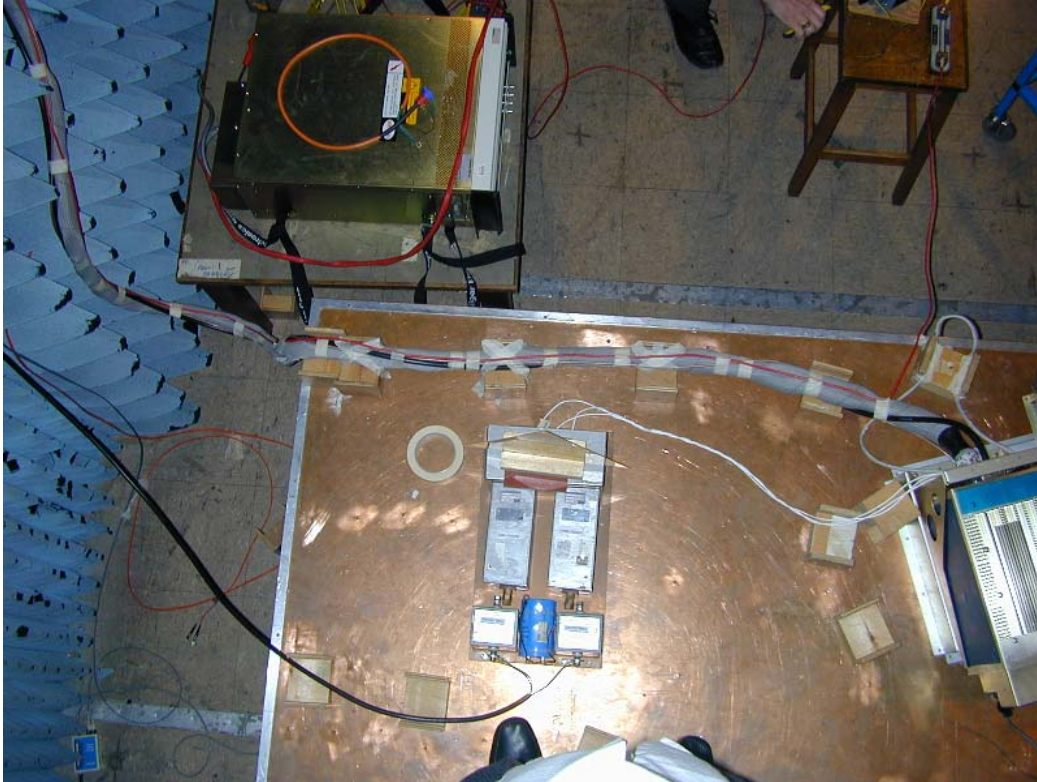
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Photograph 7 Induced Signal Susceptibility



Photograph 8 Electrostatic Discharge



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8.4 POWER SUPPLY REQUIREMENTS

The EUT was powered by a 115VAC 400Hz single-phase supply.

8.5 EUT FUNCTIONAL TESTING

The customer confirmed correct operation of the EUT and support equipment prior to each test.

8.6 EUT MONITORING DURING SUSCEPTIBILITY TESTING

The test equipment of the customers displays was outside the test chamber and observed for any indicated faults or unexpected changes.

8.7 EUT SUSCEPTIBILITY FAILURE CRITERIA

Any indicated faults or unexpected changes in-line with ETS requirement A111/SDU001/ETS-001 Iss 3A para. 3.5.2.3.2.10 constituted a failure.

8.8 CORRECTION FACTORS (EMISSIONS)

These are held in software and are derived from UKAS and internal calibration data. The instrumentation, sensors and accessories used in the measurement set-up are fed into the test instructions held in software. The software then selects and applies the correction factors, in real-time, as the measurement progresses.

Correction factors in software are stored as electronic look-up tables comprising in each case a series of data points of frequency verses correction. The software interpolates between data points so that the correction factor at any intermediate measurement frequency can be determined. Correction factors in dB are arithmetically added for sensors, cable loss, pre-amplifier gain and external attenuators, as appropriate.

8.9 DEVIATIONS

ED14E section 20.5 requires that an isotropic probe be used to calibrate on the maximum Radiated Susceptibility field level for all three orthogonal axes within the test chamber. The probe available was not sensitive above 1GHz and therefore a double ridged receive horn was used for the calibration from 1GHz to 8GHz. Since this would detect the field strength only for angles of arrival within the horn beam-width, which would not necessarily be optimised for maximum pick-up, then the test results would be slightly pessimistic.

9. MEASUREMENT UNCERTAINTIES

The following table defines the expanded uncertainty budgets for each of the tests performed. The values are based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with accreditation standard BS EN ISO 17025, 2000, using methods defined in UKAS document LAB 34, "The Expression of Uncertainty in EMC testing". The method is based on the root of the sum of the squares of the elements comprising each uncertainty budget. The budget takes into account all the elements in the measurement chain, plus a random factor to address set-up repeatability.

Test	Frequency Band	Uncertainty
Conducted RF Emissions	Below 1MHz	+/-3.2dB
Conducted RF Emissions	1MHz to 30MHz	+/-2.9dB
Conducted RF Emissions	30MHz to 100MHz	+/-3.2dB
Radiated E-Field Emissions	Below 30MHz	+/-3.2dB (excluding chamber effects)
Radiated E-Field Emissions	30MHz to 200MHz	+/-3.0dB (excluding chamber effects)
Radiated E-Field Emissions	200MHz to 1GHz	+/-2.9dB (excluding chamber effects)
Radiated E-Field Emissions	Above 1GHz	+/-4.5dB (excluding chamber effects)
Conducted AF Susceptibility	700Hz to 32kHz	+/-3.0dB
Conducted RF Susceptibility	10kHz to 400MHz	+/-3.8dB
Radiated RF Susceptibility	100MHz to 8GHz	+/-6.18dB (excluding chamber effects)
Voltage Spike Susceptibility	N/A	+/-1.2% (amplitude) including probe
Induced Signal Susceptibility	350Hz to 32kHz	200mVAC range +/-0.03mV
		2VAC range +/-0.09mV
		20VAC range +/-1mV
Electro-Static Discharge	N/A	Peak current +/-4%
	N/A	Rise-time +/-1.52%
	N/A	Decay time +/-3.5%

9.1 MARGINAL RESULTS

Any results indicated as "not determined" in the results tables within section 10 are above or below the limit by an amount less than the measurement uncertainty for the test. Therefore, it is not possible to make a compliance statement based on the level of confidence of 95%. However, if the results are within the limit then compliance is more probable than non-compliance, and vice versa.

10. TEST PROGRAMME

10.1 TEST RESULTS

The following sub-sections provide detailed results for each of the tests performed. Each section contains pass/fail statements for the test, together with comments on crucial aspects of the observed results. Emission results data are referenced in each sub-section and presented in graphical form in Appendix A.

Susceptibility results data are referenced in each sub-section and presented in graphical form in Appendix B.

10.1.1 TEST: CONDUCTED RF EMISSIONS				
Description: Conducted RF emissions, 150kHz to 30MHz: ED14E, S21.3, cat L, M & H ABD0100.1.2, Ch 3.4.5				
Note that these measurements were all completed on 16/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence.				
Probe Position	Run No.	Result	Comment	Fig. No.
115v (No 5) live line	002	Pass	-	3
115v (No 1) neutral line	003	Pass	-	4
Large white signal bundle	004	Pass	-	5
SDU to SCM, SDU end	005	Pass	-	6
SDU to SCM, SCM end	006	Pass	-	7
TX black cable, SDU end	007	Pass	-	8
RX brown cable, SDU end	008	Pass	-	9

10.1.2 TEST: RADIATED RF EMISSIONS**Description: Radiated RF Emissions 2MHz to 6GHz, ED14E, S21.4, cat M & H****ABD0100.1.2, Ch 3.4.5**

Notes: Where result is shown as, "Not determined", the measurement uncertainty encompasses the limit. Therefore a pass/fail decision could not be made to a level of confidence of 95%.

These measurements were all completed on between 16/11/2006 and 23/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence

Antenna Height: Monopole base 0.8m above floor & level with ground plane. Other antennas 1.2m from floor. All antennas 1m from EUT

Sensor Polarisation: Monopole vertical only
Other antennas horizontal and vertical

Run No.	Result	Comment	Antenna Polarity	Fig. No.
004	Fail	Front face, all on, 2MHz to 20MHz, Excursions over the limit occurred around 11MHz to 13MHz, levels were up to 10dB over the limit between 11 and 12MHz	Vertical	010
005	Not determined	Front face, all on, 20MHz to 25MHz, Excursions over the limit occurred around 21MHz to 22MHz, levels were 1dB over the limit.	Vertical	011
002	N/A	Front face, EUT off, test equipment on (ambient) 2MHz to 25MHz	Vertical	012
003	N/A	Front face, ambient, all off, 8MHz to 25MHz	Vertical	013
073	Pass	Front face, all on, 25MHz to 30MHz	Vertical	014
074	Pass	Front face, all on, 25MHz to 30MHz	Horizontal	015
006	Pass	Front face, all on, 30MHz to 75MHz	Vertical	016
007	Pass M H not determined	Front face, all on, 75MHz to 200MHz, Excursions over the limit occurred around 112MHz to 126MHz, levels were 2dB over the limit.	Vertical	017
008	Fail H Pass M	Front face, all on, 30MHz to 200MHz, Excursions over the limit occurred around 107MHz to 112MHz, levels were 5dB over the limit.	Horizontal	018
009	N/A	Front face, EUT off with test equipment on, 100MHz to 152MHz across limit line notch.	Horizontal	019
010	N/A	Front face, EUT off with test equipment on, 100MHz to 152MHz across limit line notch.	Vertical	020
011	Pass	Front face, all on, 200MHz to 1GHz	Vertical	021
072	N/A	Front face, EUT off with test equipment on, across limit line notch.	Vertical	022
012	Pass	Front face, all on, 200MHz to 1GHz	Horizontal	023
013	Pass	Front face, all on, 1GHz to 6GHz, carrier signal at 1.626Ghz	Horizontal	024

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10.1.2 TEST: RADIATED RF EMISSIONS

Description: Radiated RF Emissions 2MHz to 6GHz, ED14E, S21.4, cat M & H
ABD0100.1.2, Ch 3.4.5

Notes: Where result is shown as, "Not determined", the measurement uncertainty encompasses the limit. Therefore a pass/fail decision could not be made to a level of confidence of 95%.

These measurements were all completed on between 16/11/2006 and 23/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence

Antenna Height: Monopole base 0.8m above floor & level with ground plane. Other antennas 1.2m from floor. All antennas 1m from EUT

Sensor Polarisation: Monopole vertical only
 Other antennas horizontal and vertical

Run No.	Result	Comment	Antenna Polarity	Fig. No.
015	Pass	Front face, all on, 1GHz to 6GHz, carrier signal at 1.626Ghz	Vertical	025
016	N/A	Front face, EUT off with test equipment on, over limit line notches at 1MHz, carrier signal off.	Vertical	026
017	N/A	Front face, all off, over limit line notches at 1MHz, carrier signal off.	Vertical	027
018	Pass	Front face, all on, 1.020GHz to 1.100GHz over limit line notches at 10kHz.	Vertical	028
070	Pass	Front face, all on, 1.020GHz to 1.100GHz over limit line notches at 10kHz.	Horizontal	029
019	Pass	Front face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal on.	Vertical	030
068	Pass	Front face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal off.	Vertical	031
071	Pass	Front face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal on.	Horizontal	032
069	Pass	Front face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal off.	Horizontal	033
021	Fail	Rear face, all on, 2MHz to 25MHz, Excursions over the limit occurred around 10MHz to 25MHz, levels were up to 9dB over the limit.	Vertical	034
023	N/A	Rear face, EUT off, test equipment on, 2MHz to 25MHz.	Vertical	035
064	Pass	Rear face, all on, 25MHz to 30MHz.	Vertical	036
065	Pass	Rear face, all on, 25MHz to 30MHz.	Horizontal	037
025	Pass M H not determined	Rear face, all on, 30MHz to 200MHz. Excursions over the limit occurred around 111MHz to 125MHz, levels were 2dB over the limit.	Vertical	038

10.1.2 TEST: RADIATED RF EMISSIONS

Description: Radiated RF Emissions 2MHz to 6GHz, ED14E, S21.4, cat M & H
ABD0100.1.2, Ch 3.4.5

Notes: Where result is shown as, "Not determined", the measurement uncertainty encompasses the limit. Therefore a pass/fail decision could not be made to a level of confidence of 95%.

These measurements were all completed on between 16/11/2006 and 23/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence

Antenna Height: Monopole base 0.8m above floor & level with ground plane. Other antennas 1.2m from floor. All antennas 1m from EUT

Sensor Polarisation: Monopole vertical only
 Other antennas horizontal and vertical

Run No.	Result	Comment	Antenna Polarity	Fig. No.
026	Fail	Rear face, all on, 30MHz to 200MHz. Excursions over the limit occurred around 103MHz to 118MHz, levels were up to 5dB over the limit.	Horizontal	039
027	N/A	Rear face, EUT off, test equipment on, 30MHz to 200MHz	Horizontal	040
028	N/A	Rear face, EUT off, test equipment on, 30MHz to 200MHz	Vertical	041
029	N/A	Rear face, all off, 100MHz to 140MHz	Vertical	042
030	Fail H Pass M	Rear face, all on, 200MHz to 1GHz, Excursion over the limit occurred around 324MHz, level was 7dB over the limit.	Horizontal	043
031	N/A	Rear face, EUT off, test equipment on, 300MHz to 340MHz	Horizontal	044
032	Fail H Pass M	Rear face, all on, 200MHz to 1GHz, Excursion over the limit occurred around 324MHz, level was 3dB over the limit.	Vertical	045
033	N/A	Rear face, EUT off, test equipment on, 320MHz to 340MHz	Vertical	046
034	Pass	Rear face, all on, 1GHz to 6GHz,	Horizontal	047
035	Pass	Rear face, all on, 1.020GHz to 1.100GHz over limit line notches at 10kHz.	Horizontal	048
036	Pass	Rear face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal on.	Horizontal	049
067	Pass	Rear face, all on, 1.610GHz to 1.670GHz over limit line notch at 10kHz. Carrier signal off.	Horizontal	050
037	Pass	Rear face, all on, 1GHz to 6GHz,	Vertical	051
038	Pass	Rear face, all on, 1.020GHz to 1.100GHz over limit line notches at 10kHz.	Vertical	052
039	Pass	Rear face, all on, 1.525GHz to 1.680GHz over limit line notch at 10kHz. Carrier signal on.	Vertical	053

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10.1.2 TEST: RADIATED RF EMISSIONS**Description: Radiated RF Emissions 2MHz to 6GHz, ED14E, S21.4, cat M & H****ABD0100.1.2, Ch 3.4.5**

Notes: Where result is shown as, "Not determined", the measurement uncertainty encompasses the limit. Therefore a pass/fail decision could not be made to a level of confidence of 95%.

These measurements were all completed on between 16/11/2006 and 23/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence

Antenna Height: Monopole base 0.8m above floor & level with ground plane. Other antennas 1.2m from floor. All antennas 1m from EUT

Sensor Polarisation: Monopole vertical only
Other antennas horizontal and vertical

Run No.	Result	Comment	Antenna Polarity	Fig. No.
066	Pass	Rear face, all on, 1.610GHz to 1.670GHz over limit line notch at 10kHz. Carrier signal off.	Vertical	054
040	Fail	Left face, all on, 2MHz to 25MHz, Excursions over the limit occurred around 11MHz to 23MHz, levels were up to 5dB over the limit.	Vertical	055
041	N/A	Left face, EUT off, test equipment on, 2MHz to 25MHz.	Vertical	056
063	N/A	Left face, all off, 10MHz to 25MHz.	Vertical	057
060	Pass	Left face, all on, 25MHz to 30MHz.	Vertical	058
061	Pass	Left face, all on, 25MHz to 30MHz.	Horizontal	059
042	Fail H Pass M	Left face, all on, 30MHz to 200MHz, Excursions over the limit occurred around 107MHz to 125MHz, levels were up to 8dB over the limit. Result around 76MHz to 79MHz at 1dB "not determined".	Vertical	060
043	Fail H Pass M	Left face, all on, 30MHz to 200MHz, Excursions over the limit occurred around 103MHz to 118MHz, levels were up to 3dB over the limit.	Horizontal	061
044	N/A	Left face, EUT off, test equipment on, 30MHz to 200MHz	Horizontal	062
045	N/A	Left face, EUT off, test equipment on, 30MHz to 200MHz	Vertical	063
062	N/A	Left face, all off, 100MHz to 150MHz	Vertical	064
046	H not determined Pass M	Left face, all on, 200MHz to 1GHz. Excursion over the limit occurred around 324MHz, level was 0.5dB over the limit.	Vertical	065
047	Fail H Pass M	Left face, all on, 200MHz to 1GHz. Excursions over the limit occurred around 324MHz to 339MHz, levels were 3dB over the limit.	Horizontal	066
048	N/A	Left face, EUT off, test equipment on, 300MHz to 340MHz	Horizontal	067

10.1.2 TEST: RADIATED RF EMISSIONS				
Description: Radiated RF Emissions 2MHz to 6GHz, ED14E, S21.4, cat M & H ABD0100.1.2, Ch 3.4.5				
Notes: Where result is shown as, "Not determined", the measurement uncertainty encompasses the limit. Therefore a pass/fail decision could not be made to a level of confidence of 95%. These measurements were all completed on between 16/11/2006 and 23/11/2006. The run numbers ascend in chronological order, 002 being the first in the sequence				
Antenna Height: Monopole base 0.8m above floor & level with ground plane. Other antennas 1.2m from floor. All antennas 1m from EUT			Sensor Polarisation: Monopole vertical only Other antennas horizontal and vertical	
Run No.	Result	Comment	Antenna Polarity	Fig. No.
049	N/A	Left face, EUT off, test equipment on, 300MHz to 340MHz	Vertical	068
050	Pass	Left face, all on, 1GHz to 6GHz,	Vertical	069
051	Pass	Left face, all on, 1GHz to 6GHz,	Horizontal	070
052	Pass	Left face, all on, 1.020GHz to 1.100GHz, covering limit line notches at 10kHz.	Horizontal	071
055	Pass	Left face, all on, 1.020GHz to 1.100GHz, covering limit line notches at 10kHz.	Vertical	072
053	Pass	Left face, all on, 1.525GHz to 1.680GHz, covering limit line notch at 10kHz. Carrier signal on.	Horizontal	073
054	Pass	Left face, all on, 1.525GHz to 1.680GHz, covering limit line notch at 10kHz. Carrier signal on.	Vertical	074
056	Pass	Left face, all on, 1.525GHz to 1.680GHz, covering limit line notch at 10kHz. Carrier signal off.	Vertical	075
057	Pass	Left face, all on, 1.525GHz to 1.680GHz, covering limit line notch at 10kHz. Carrier signal off.	Horizontal	076
058	N/A	Left face, EUT off, test equipment on, 3.24GHz to 3.26GHz, covering limit line notch at 10kHz. Carrier signal off.	Horizontal	077
059	N/A	Left face, EUT off, test equipment on, 3.24GHz to 3.26GHz, covering limit line notch at 10kHz. Carrier signal off.	Vertical	078

Note: The 115V EUT power was switched off, on the outside chamber wall and not at the unit.

10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
001	Jig	Jig calibration, current induced 10kHz to 1MHz	CW	-	079
002	Jig	Jig calibration, current induced 1MHz to 400MHz	CW	-	080
001a	Jig	Forward power, 10kHz to 400MHz	CW	-	081
003	115V L	Current induced, 10kHz to 400MHz	CW	Pass	082
003a	115V L	Forward power, 10kHz to 400MHz	CW	Pass	083
004	115V L	Current induced, 10kHz to 400MHz	1kHz mod	Pass	084
004a	115V L	Forward power, 10kHz to 400MHz	1kHz mod	Pass	085
004b	115VL	Current induced, 9MHz to 11MHz	3.5MHz mod	Pass	086
005a	115V L	Forward power, 9MHz to 11MHz	3.5MHz mod	Pass	087
006	115V L	Forward power, 100MHz to 120MHz	10MHz mod	Pass	088
007	115V L	Current induced, 100MHz to 120MHz	3.5MHz mod	Pass	089

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10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
008	115V L	Current induced, 100MHz to 120MHz	10MHz mod	Pass	090
008a	115V L	Forward power, 100MHz to 120MHz	3.5MHz mod	Pass	091
009	115V N	Current induced, 10kHz to 400MHz	CW	Pass	092
009a	115V N	Forward power, 10kHz to 400MHz	CW	Pass	093
010	115V N	Current induced, 10kHz to 400MHz	1kHz mod	Pass	094
010a	115V N	Forward power, 10kHz to 400MHz	1kHz mod	Pass	095
011	115V N	Current induced, 100MHz to 120MHz	3.5MHz mod	Pass	096
011a	115V N	Forward power, 100MHz to 120MHz	3.5MHz mod	Pass	097
012	115V N	Current induced, 100MHz to 120MHz	10MHz mod	Pass	098
012a	115V N	Forward power, 100MHz to 120MHz	10MHz mod	Pass	099
013	115V N	Current induced, 9MHz to 11MHz	3.5MHz mod	Pass	100
013a	115V N	Forward power, 9MHz to 11MHz	3.5MHz mod	Pass	101
014	Main loom	Current induced, 10kHz to 10MHz, 10kHz to 50kHz fail.	CW	Fail	102
014a	Main loom	Forward power, 10kHz to 10MHz, 10kHz to 50kHz fail.	CW	Fail	103

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10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
015	Main loom	Current induced, 10MHz to 400MHz	CW	Pass	104
015a	Main loom	Forward power, 10MHz to 400MHz	CW	Pass	105
016	Main loom	Current induced, 10kHz to 400MHz	1kHz mod	Fail	106
016a	Main loom	Forward power, 10kHz to 400MHz	1kHz mod	Fail	107
017	Main loom	Current induced, 100MHz to 120MHz	3.5MHz mod	Fail	108
017a	Main loom	Forward power, 100MHz to 120MHz	3.5MHz mod	Fail	109
018	Main loom	Current induced, 100MHz to 120MHz	10MHz mod	Fail	110
018a	Main loom	Forward power, 100MHz to 120MHz	10MHz mod	Fail	111
019	Main loom	Current induced, 9MHz to 11MHz	3.5MHz mod	Fail	112

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10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
019a	Main loom	Forward power, 9MHz to 11MHz	3.5MHz mod	Fail	113
020	RX, TX & SCM	Current induced, 10kHz to 400MHz	CW	Fail	114
020a	RX, TX & SCM	Forward power, 10kHz to 400MHz	CW	Fail	115
021	RX, TX & SCM	Current induced, 10kHz to 400MHz, fails at 77MHz on limit line, not tested between 100MHz to 200MHz	1kHz mod	Fail	116
021a	RX, TX & SCM	Forward power, 10kHz to 400MHz, fails at 77MHz on limit line, not tested between 100MHz to 200MHz	1kHz mod	Fail	117
022	Main loom	Current induced, 50MHz to 100MHz, limit line tracked very tightly, border line pass	CW	Pass	118
023	RX & TX	Current induced, 10kHz to 400MHz, fails at 70MHz to 100MHz, not tested between 100MHz to 110MHz.	CW	Fail	119
023a	RX & TX	Forward power, 10kHz to 400MHz, fails at 70MHz to 80MHz, not tested between 80MHz to	CW	Fail	120

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10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
		110MHz.			
024	RX & TX	Current induced, 30MHz to 70MHz	CW	Pass	121
024a	RX & TX	Forward power, 30MHz to 70MHz	CW	Pass	122
025	RX & TX	Current induced, 70MHz to 110MHz	CW	Fail	123
025a	RX & TX	Forward power, 70MHz to 110MHz	CW	Fail	124
026	RX & TX	Current induced, 90MHz to 110MHz	CW	Pass	125
026a	RX & TX	Forward power, 90MHz to 110MHz	CW	Pass	126
027	RX & TX	Current induced, 80MHz to 90MHz, fails at 82MHz	CW	Fail	127
027a	RX & TX	Forward power, 80MHz to 90MHz, fails at 82MHz	CW	Fail	128
028	RX & TX	Current induced, 100MHz to 120MHz	3.5MHz mod	Pass	129

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10.1.3 TEST: CONDUCTED RF SUSCEPTIBILITY**DESCRIPTION: RF CONDUCTED SUSCEPTIBILITY POWER, CONTROL AND SIGNAL LINES
10kHz TO 400MHz****Notes**

1. Figures 79 to 81 in Appendix B show the jig calibration induced current and jig forward power levels.
2. The 'comb' appearance of these calibration graphs is due to differences in scan rate between the test signal sweep generator and the spectrum analyser, which was set to max-hold. The more sweeps the calibration is allowed to take, the more the profile fills in. The graph does not indicate gaps in the test frequency coverage.
3. The graphs below show a pass or a fail (except calibration). A pass was only at that direct time with EUT showing no faults. The runs were recorded and analysed back at Raynes Park, after the tests had taken place, not during.
4. Usually the failure threshold profile for the EUT is determined. However, the complexity of the EUT response and the need to perform some response analysis back at the customer's premises precluded this. Therefore testing was limited to identifying those parts of the test frequency band where unexpected responses were observed.
5. These measurements were all completed between 09/01/2007 and 13/01/2007. The run numbers ascend in chronological order, 001 being the first in the sequence
6. On some graphs multiple traces are shown for comparison. The live trace is blue.

Run No.	Cable	Comment	CW / Modulation	Result	Fig No.
	TX				
028a	RX & TX	Forward power, 100MHz to 120MHz	3.5MHz mod	Pass	130
029	RX & TX	Current induced, 100MHz to 120MHz	10MHz mod	Pass	131
029a	RX & TX	Forward power, 100MHz to 120MHz	10MHz mod	Pass	132
030	RX & TX	Current induced, 9MHz to 11MHz	3.5MHz mod	Pass	133
030a	RX & TX	Forward power, 9MHz to 11MHz	3.5MHz mod	Pass	134
031	RX & TX	Current induced, 70MHz to 80MHz, PSM at half power.	CW	Pass	135
031a	RX & TX	Forward power, 70MHz to 80MHz, PSM at half power.	CW	Pass	136

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10.1.4 TEST: RADIATED RF SUSCEPTIBILITY**DESCRIPTION: RADIATED E-FIELD SUSCEPTIBILITY 100MHz TO 8GHz****Notes:**

The EUT was tested on the front, left, and rear face in turn.

These measurements were all completed between 20/12/2006 and 08/01/2007.

TEST STIMULUS:**CW and 1kHz SW modulation**

100MHz to 1.3725GHz and 1.7149GHz to 8GHz	20V/m
---	-------

1.3725GHz and 1.7149GHz	1V/m
-------------------------	------

1kHz SW modulation with 1Hz SW modulation

400MHz to 1.3725GHz and 1.7149GHz to 8GHz	28V/m
---	-------

1.3725GHz and 1.7149GHz	1V/m
-------------------------	------

1kHz pulse modulation with 1Hz pulse modulation

100MHz to 1.3725GHz and 1.7149GHz to 8GHz	150V/m
---	--------

Sensor Polarisation: Horizontal and vertical in turn

Result

All three faces were tested in accordance with the test levels and modulation characteristics defined above. No failures were observed

10.1.5 TEST: VOLTAGE SPIKE

DESCRIPTION: INDUCED VOLTAGE SPIKE SUSCEPTIBILITY ON POWER LINE AT 360Hz and 800Hz

Note:

The customers variable power supply unit, Elgar SW1750A, was used to vary the power conditions in accordance with the ETS.

This measurement was completed on 21/12/2006.

Test Point	Result	Comment
115V AC	Pass	Figure 2 below shows 1kV spike wave form into calibrated load

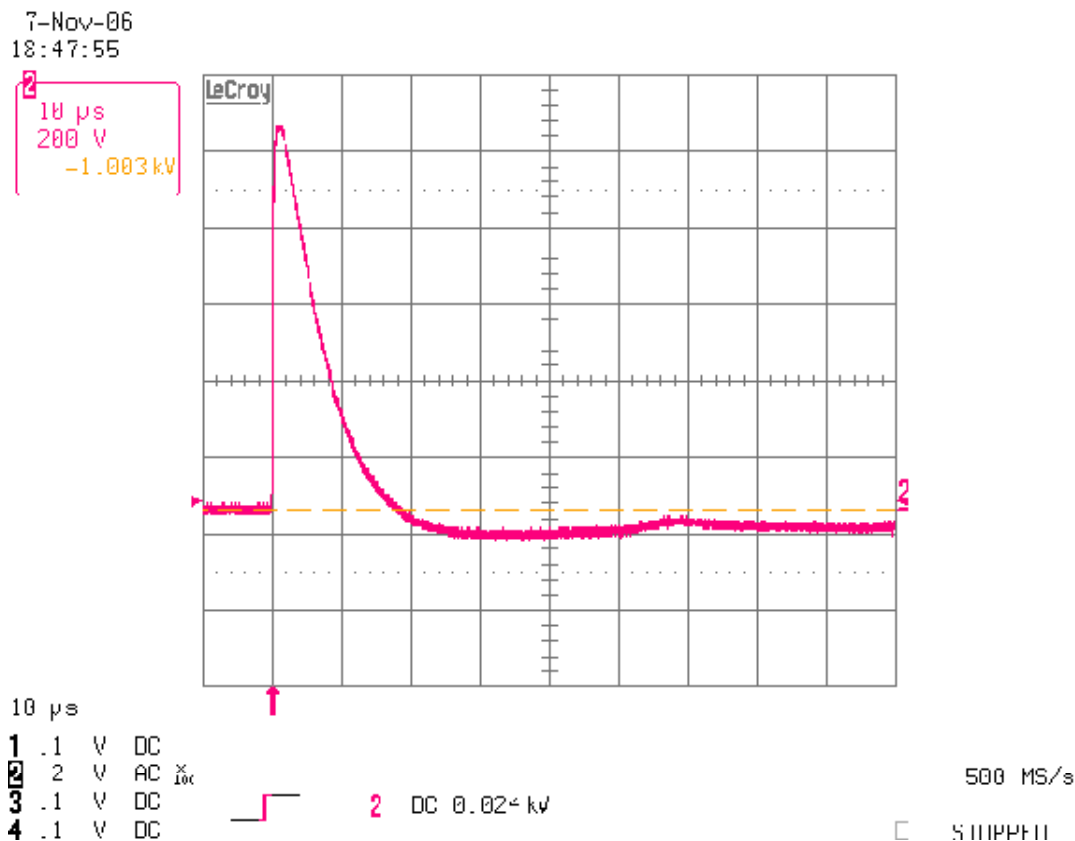


Figure 2

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10.1.6 TEST: AUDIO FREQUENCY SUSCEPTIBILITY**DESCRIPTION: AF CONDUCTED SUSCEPTIBILITY ON POWER LINES, 700Hz to 32kHz****Notes:**

The customers variable power supply unit, Elgar SW1750A, was used to vary the power conditions in accordance with the ETS. The test was done at 360Hz, 400Hz and 800Hz, in accordance with A111/SDU001/ETS-001 issue 3A, section 3.5.3.

A 10uF capacitor was connected across the LISN for this test.

This measurement was completed on 10/01/2007.

Test Point	Result	Comment
115V AC	Pass	Due to the low line impedance it was not possible to achieve the 10% of line voltage, therefore the 100w criteria was applied throughout. The test signal output waveform was monitored with an oscilloscope during calibration and it was verified that there was no visible distortion of the signal.

10.1.7 TEST: INDUCED SIGNAL SUSCEPTIBILITY**DESCRIPTION: INDUCED SIGNAL SUSCEPTIBILITY, THIS COMPRISES OF 4 SEPARATE TESTS AT CATEGORY ZW, AS LISTED BELOW:**

Test 1: Magnetic fields induced into the equipment at 350Hz, 400Hz and 800Hz.

Test 2: Magnetic fields induced into interconnecting cables. 3 metres along cable and swept 350Hz to 32kHz.

Test 3: Electric fields induced into interconnecting cables from 350Hz to 800Hz. 1.8kv with 3 spirals per metre around cable.

Test 4: Spike fields induced into interconnecting cables. Spiralled 3 metres along cables.

Notes:

The customers variable power supply unit, Elgar SW1750A, was used to vary the power conditions in accordance with the ETS for test 3 above.

Tests 1-3 were completed on 11/01/2007; test 4 was completed on 15/01/2007.

Test Point	Result	Comment
Test 1, all sides of box except the underneath	Pass	No access to underneath
Test 2, large main cable bundle and interconnecting to SCM.	Pass	

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10.1.7 TEST: INDUCED SIGNAL SUSCEPTIBILITY

DESCRIPTION: INDUCED SIGNAL SUSCEPTIBILITY, THIS COMPRISES OF 4 SEPARATE TESTS AT CATEGORY ZW, AS LISTED BELOW:

Test 1: Magnetic fields induced into the equipment at 350Hz, 400Hz and 800Hz.

Test 2: Magnetic fields induced into interconnecting cables. 3 metres along cable and swept 350Hz to 32kHz.

Test 3: Electric fields induced into interconnecting cables from 350Hz to 800Hz. 1.8kv with 3 spirals per metre around cable.

Test 4: Spike fields induced into interconnecting cables. Spiralled 3 metres along cables.

Notes:

The customers variable power supply unit, Elgar SW1750A, was used to vary the power conditions in accordance with the ETS for test 3 above.

Tests 1-3 were completed on 11/01/2007; test 4 was completed on 15/01/2007.

Test Point	Result	Comment
Test 3, large main cable bundle and interconnecting to SCM.	Pass	Spot frequency, 350Hz, 400Hz, 500Hz, 600Hz, 700Hz and 800Hz.
Test 4, twisted around all cables as a single bundle excluding SCM cable, this was done separately	Pass	

10.1.8 TEST: ELECTROSTATIC DISCHARGE

DESCRIPTION: ELECTROSTATIC DISCHARGE

Measurement Uncertainty Statement: Any marginal results indicated below are above or below the limit by an amount less than the measurement uncertainty for this test. Therefore, it is not possible to make a compliance statement based on the level of confidence of 95%. However, if the results are within the limit then compliance is more probable than non-compliance, and vice versa.

Note that this measurement was completed on 17/01/2007.

TEST STIMULUS:

Amplitude: 15kV

10 off each of air discharges, +ve and -ve polarity, were applied to each of the following locations:

Test Point	Result	Comment
SDU, handle	Pass	15kV, air discharge, +ve and -ve
SDU, LED indicators	Pass	15kV, air discharge, +ve and -ve

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10.1.8 TEST: ELECTROSTATIC DISCHARGE**DESCRIPTION: ELECTROSTATIC DISCHARGE**

Measurement Uncertainty Statement: Any marginal results indicated below are above or below the limit by an amount less than the measurement uncertainty for this test. Therefore, it is not possible to make a compliance statement based on the level of confidence of 95%. However, if the results are within the limit then compliance is more probable than non-compliance, and vice versa.

Note that this measurement was completed on 17/01/2007.

TEST STIMULUS:

Amplitude: 15kV

10 off each of air discharges, +ve and -ve polarity, were applied to each of the following locations:

Test Point	Result	Comment
SDU, Ethernet port shell	Pass	15kV, air discharge, +ve and -ve
SDU, test button	Pass	15kV, air discharge, +ve and -ve
SDU, SIS connector cover	Pass	15kV, air discharge, +ve and -ve
SDU, HPA screws on top panel	Pass	15kV, air discharge, +ve and -ve
SDU, side plate securing screws	Pass	15kV, air discharge, +ve and -ve
SDU, top of rear panel	Pass	15kV, air discharge, +ve and -ve
SDU, front panel side plate	Pass	15kV, air discharge, +ve and -ve
SCM, top cover	Pass	15kV, air discharge, +ve and -ve
SCM, securing screws	Pass	15kV, air discharge, +ve and -ve
SCM, D connector shell and nuts	Pass	15kV, air discharge, +ve and -ve

APPENDIX A

EMISSION GRAPHS

Note that some of the radiated emission graphs show a large peak around 1.6GHz. This is the intentionally transmitted frequency from the EUT.

Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Conducted Emissions
Power cable No 5 on SDU, SDU end.

SCAN TABLE: "RTCA/DO-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

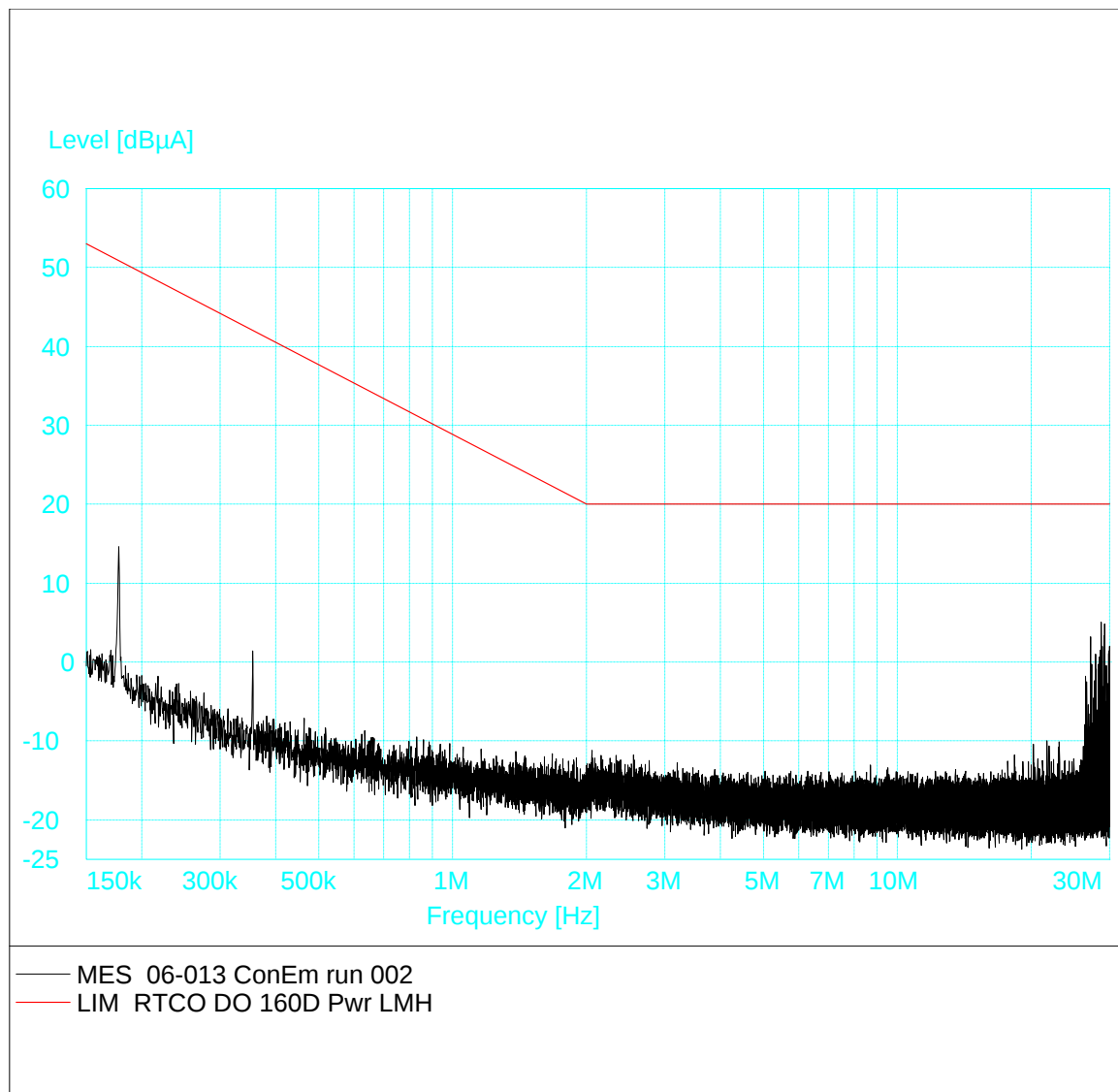


Figure 3

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Conducted Emissions
 Neutral cable No 1 on SDU, SDU end.

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

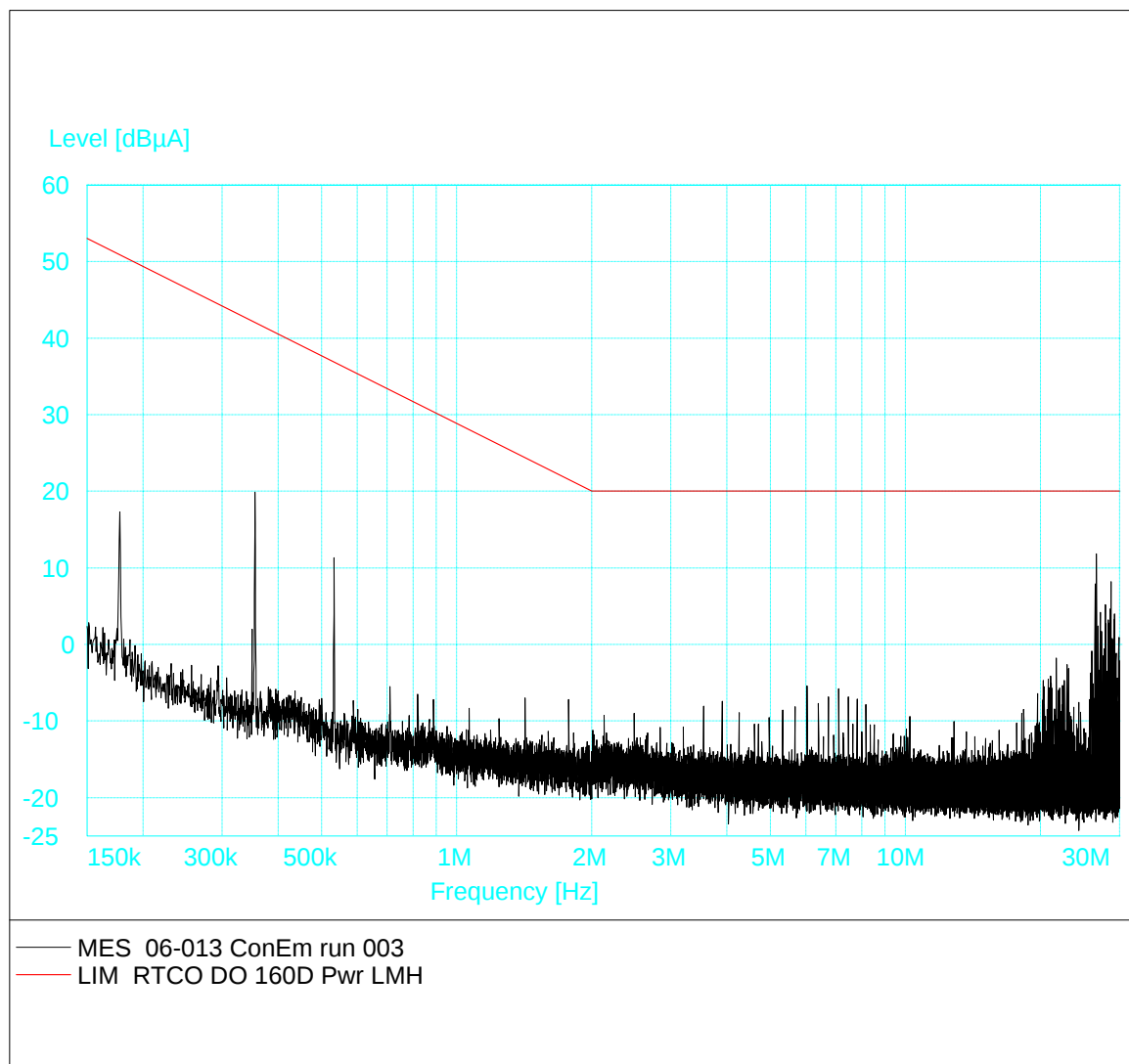


Figure 4

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Conducted Emissions
Large signal cable bundle, SDU end

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

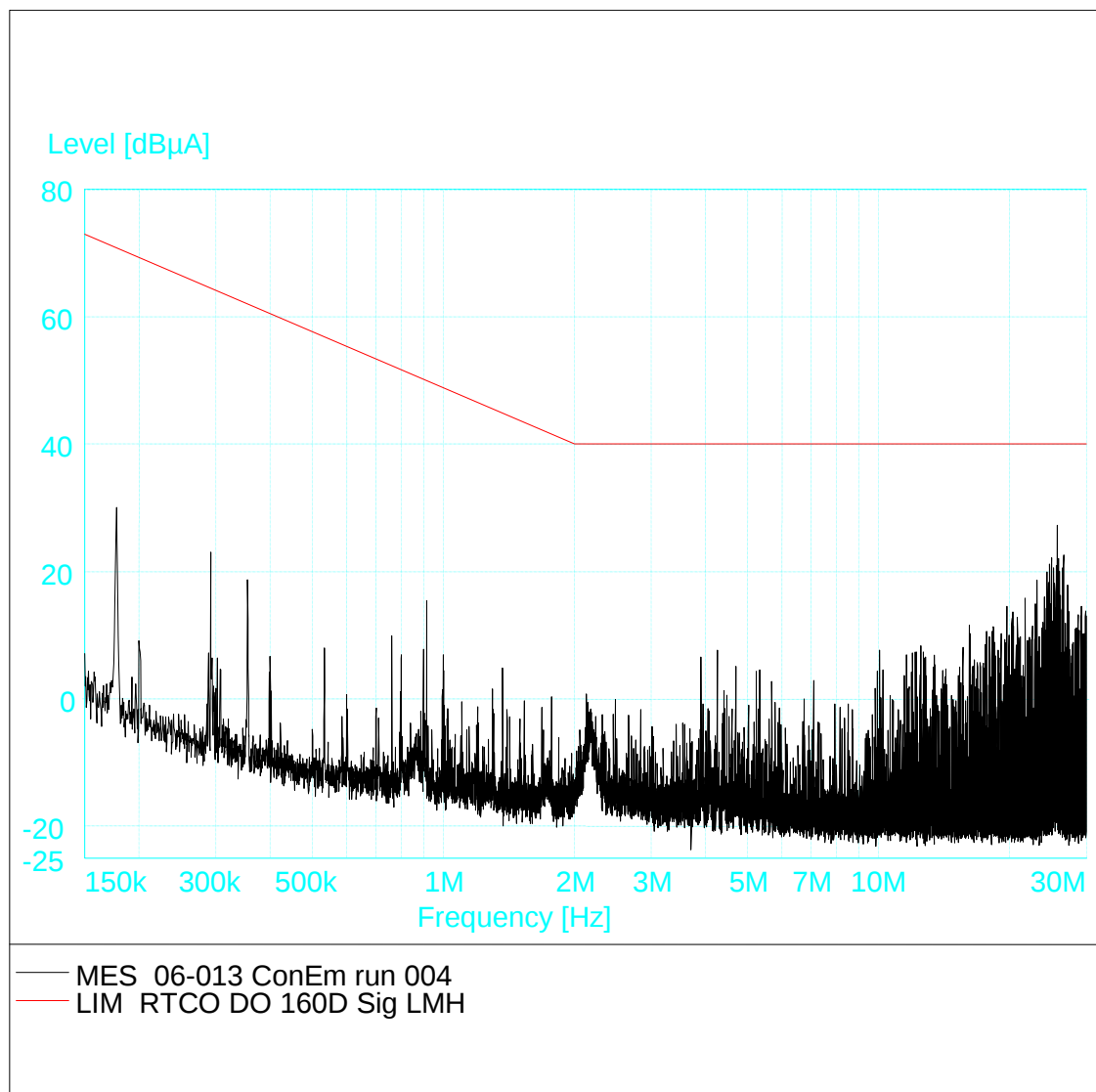


Figure 5

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Conducted Emissions
 Cable from SDU to SCM, SDU end.

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

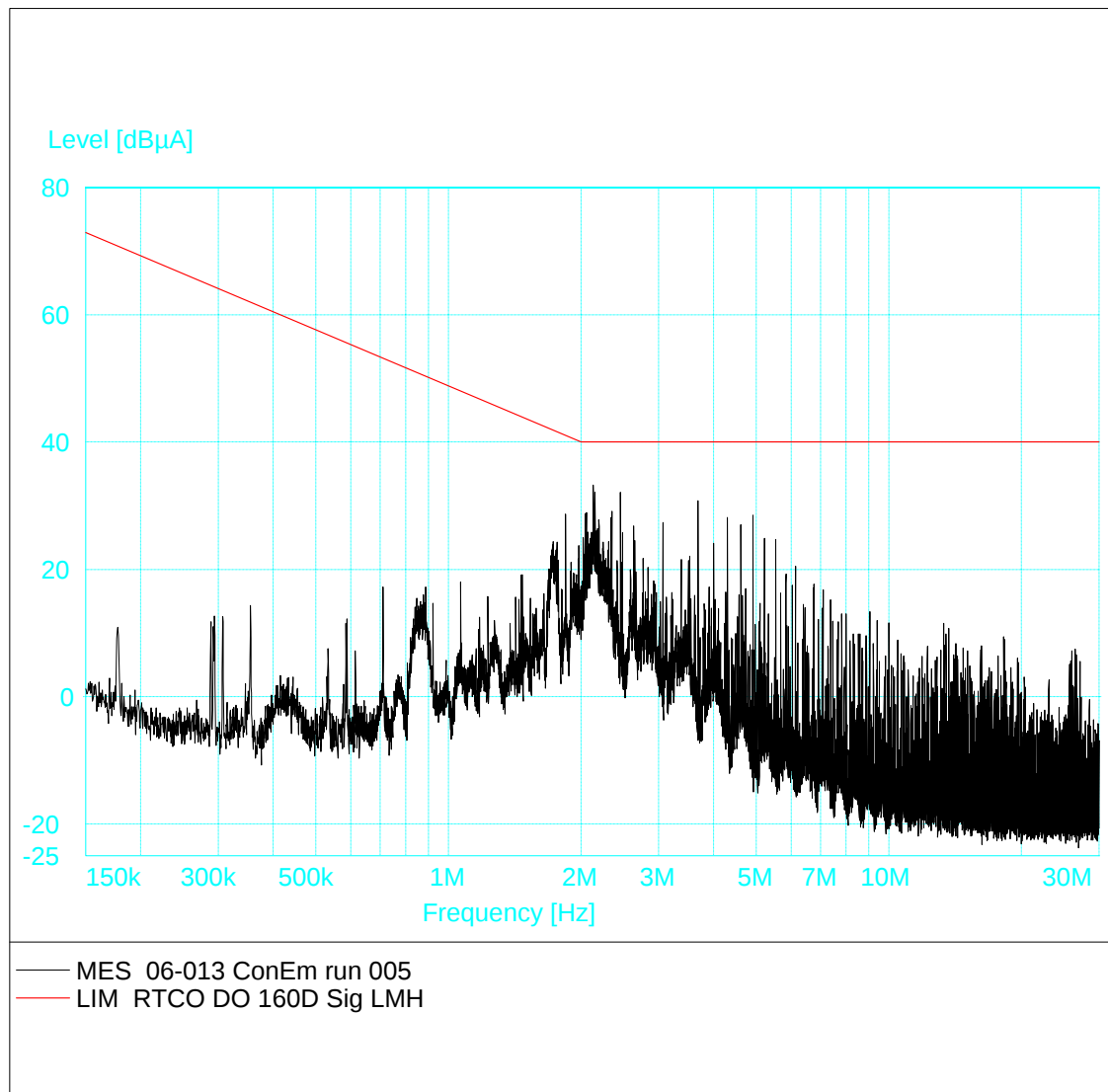


Figure 6

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Conducted Emissions
Cable from SCM to SDU, SCM end.

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

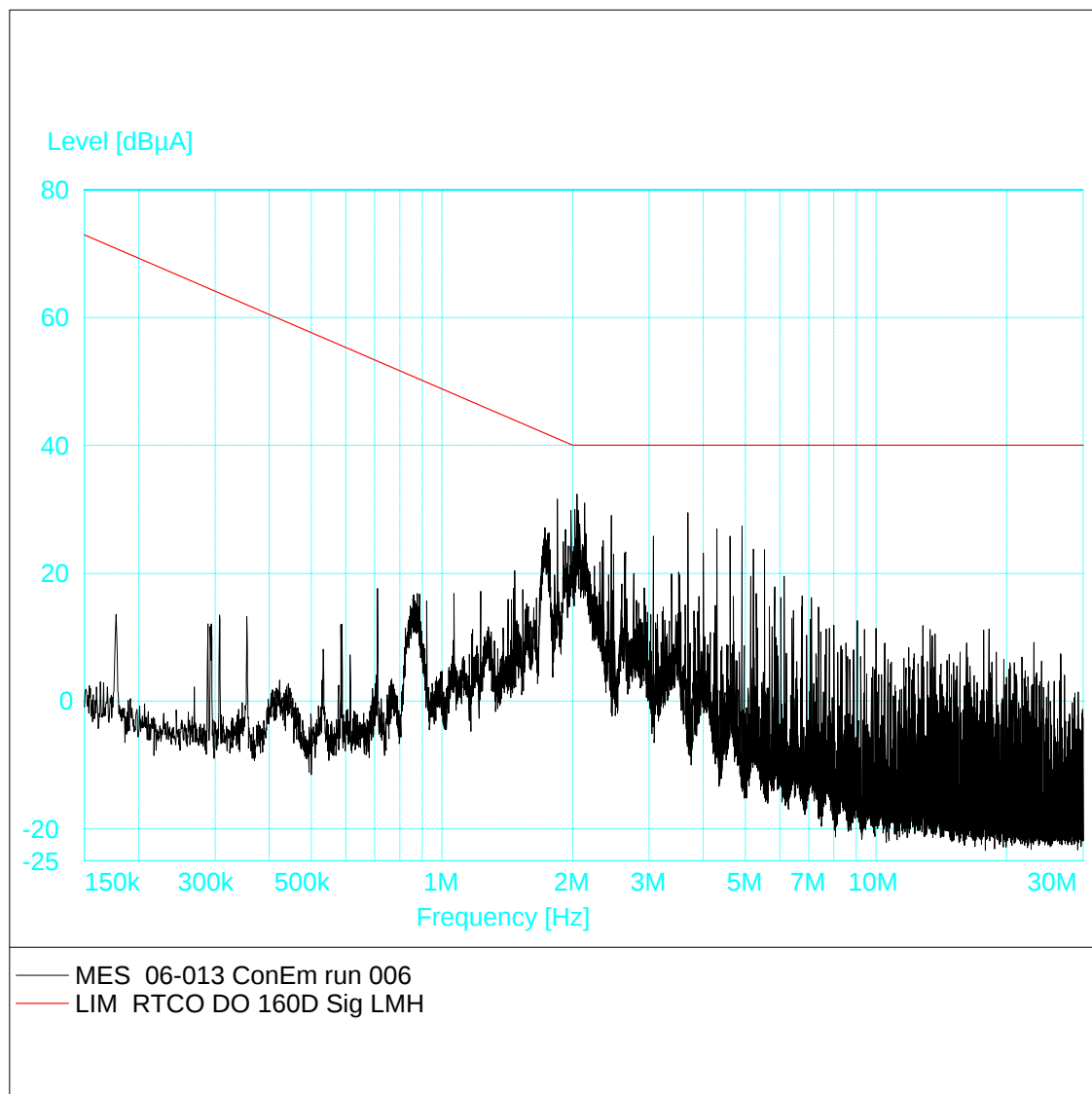


Figure 7

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Conducted Emissions
 TX black cable, SDU end.

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

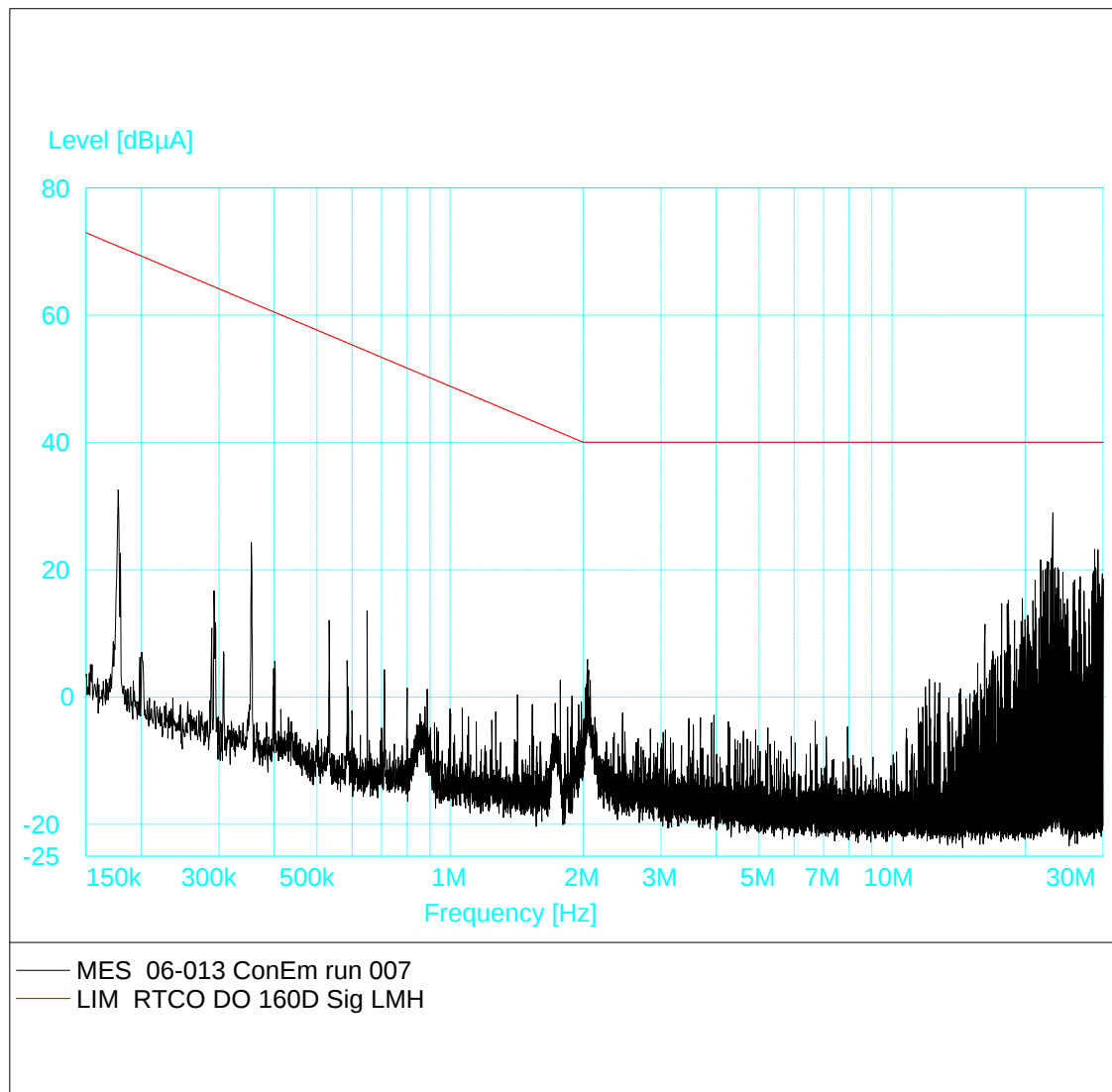


Figure 8

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Conducted Emissions
RX Brown cable, SDU end.

SCAN TABLE: "RTCA/D0-160D Con Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	1.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe
1.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	10.0 ms	1 kHz	1 J0 575/1 I probe

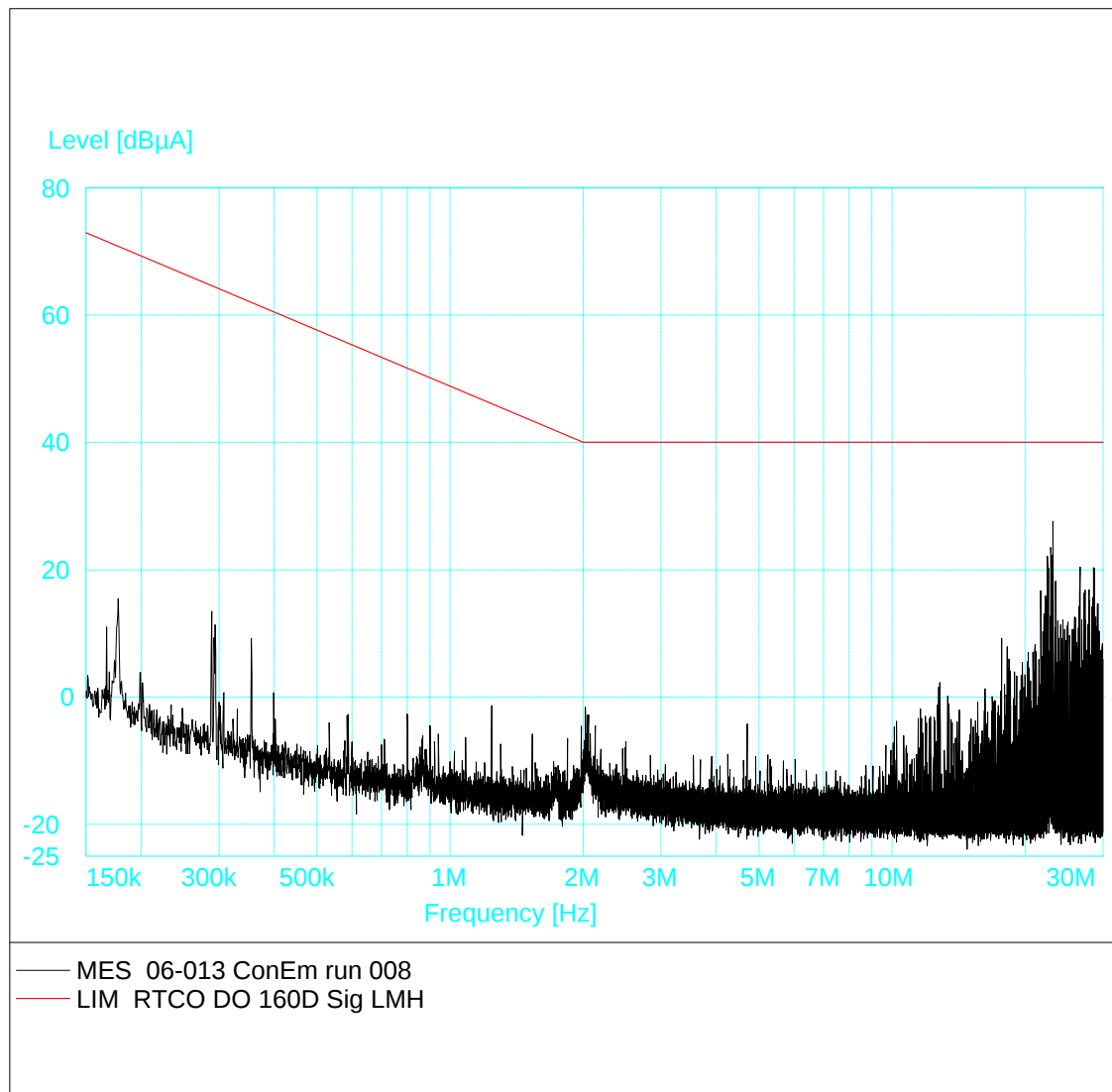


Figure 9

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all on.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

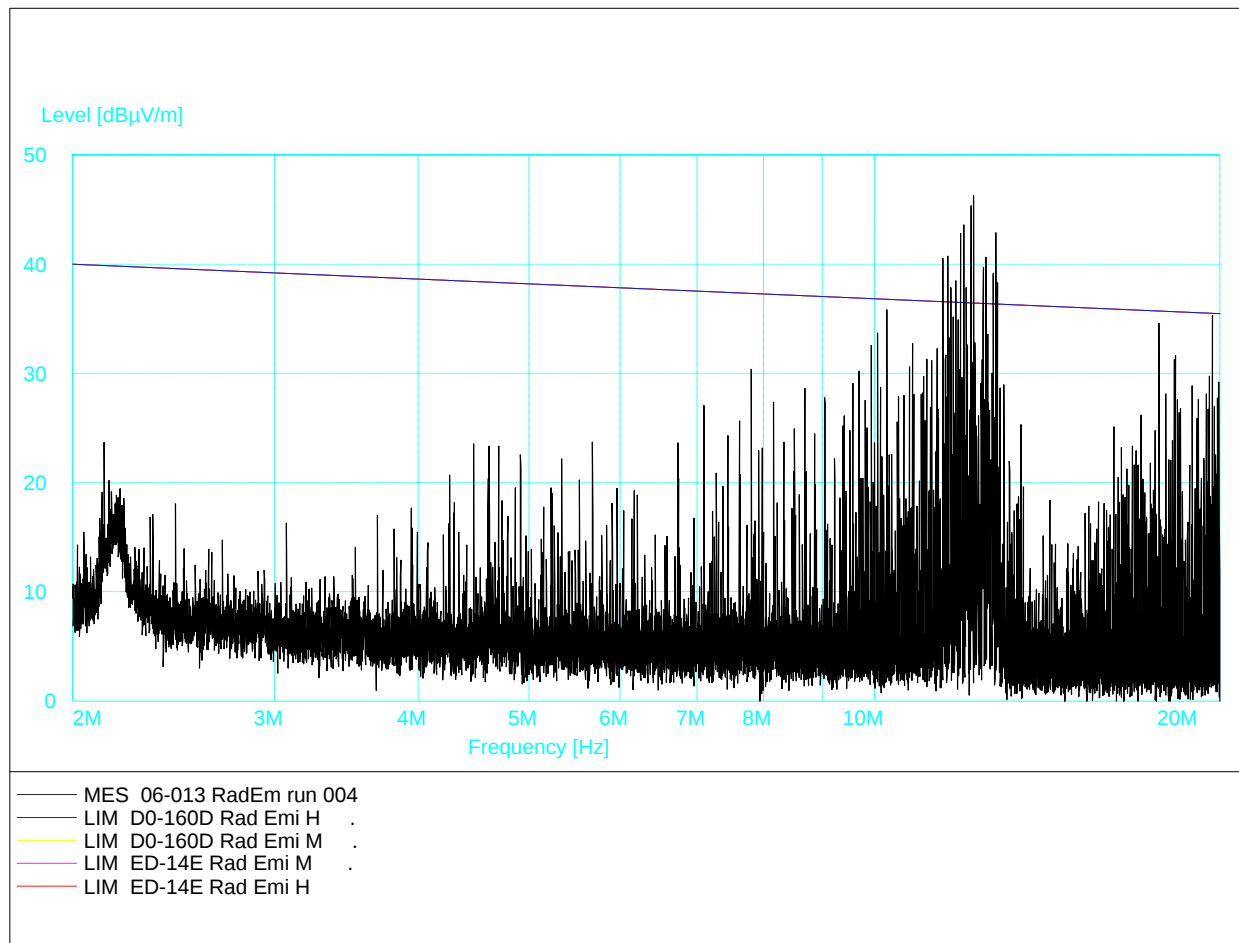


Figure 10

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all on.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

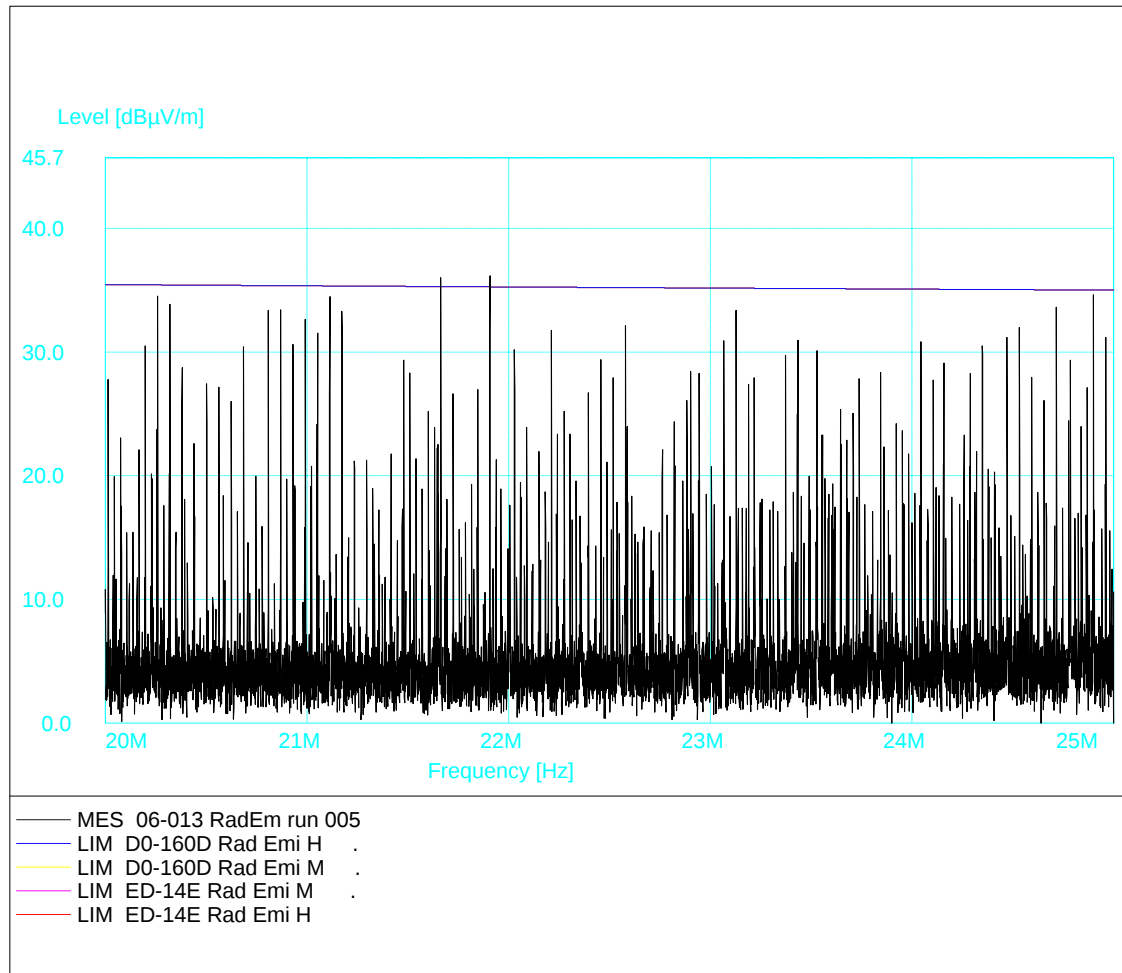


Figure 11

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, ambient, test equipment on, EUT off at wall.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

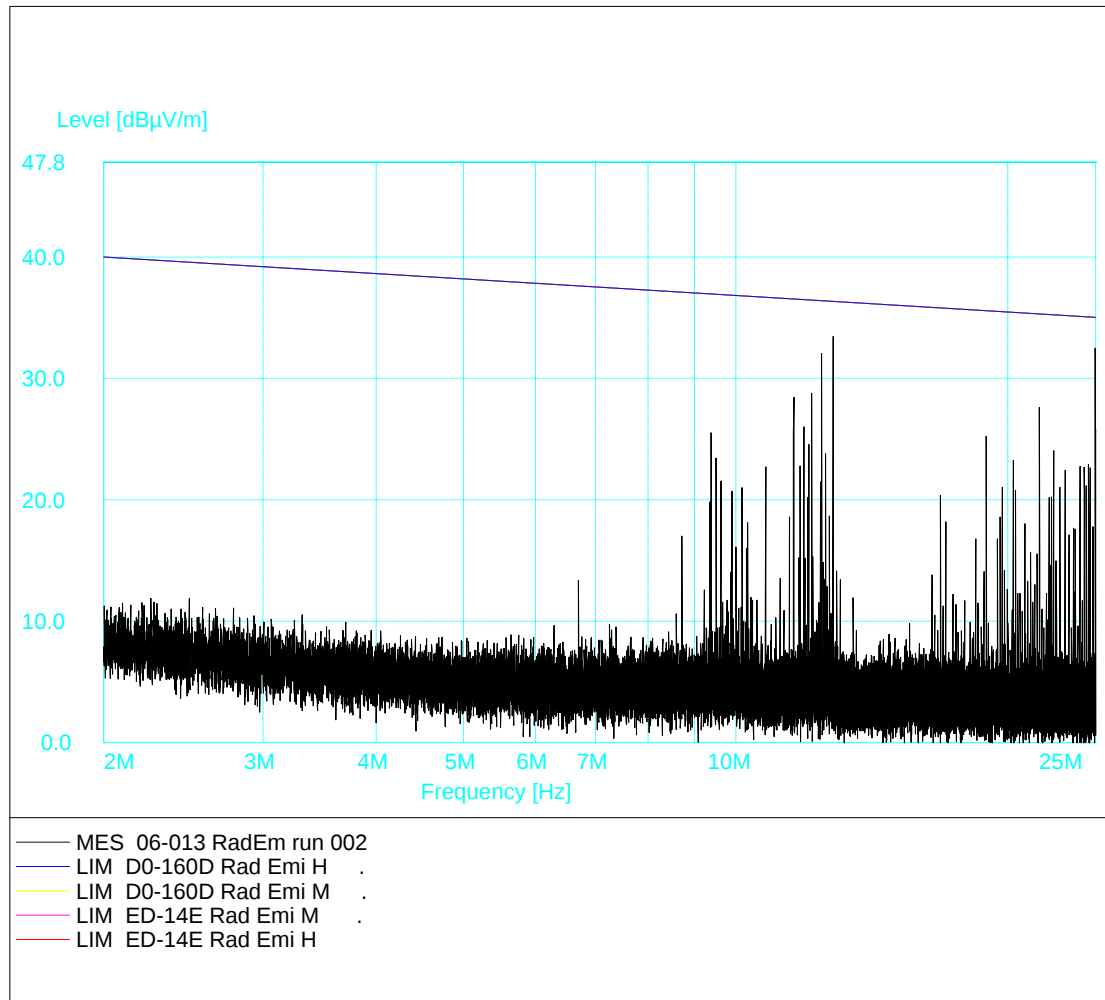


Figure 12

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: RTCA D0-160D & ED14E
Comment: Radiated Emissions
Front face, all off, ambient

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

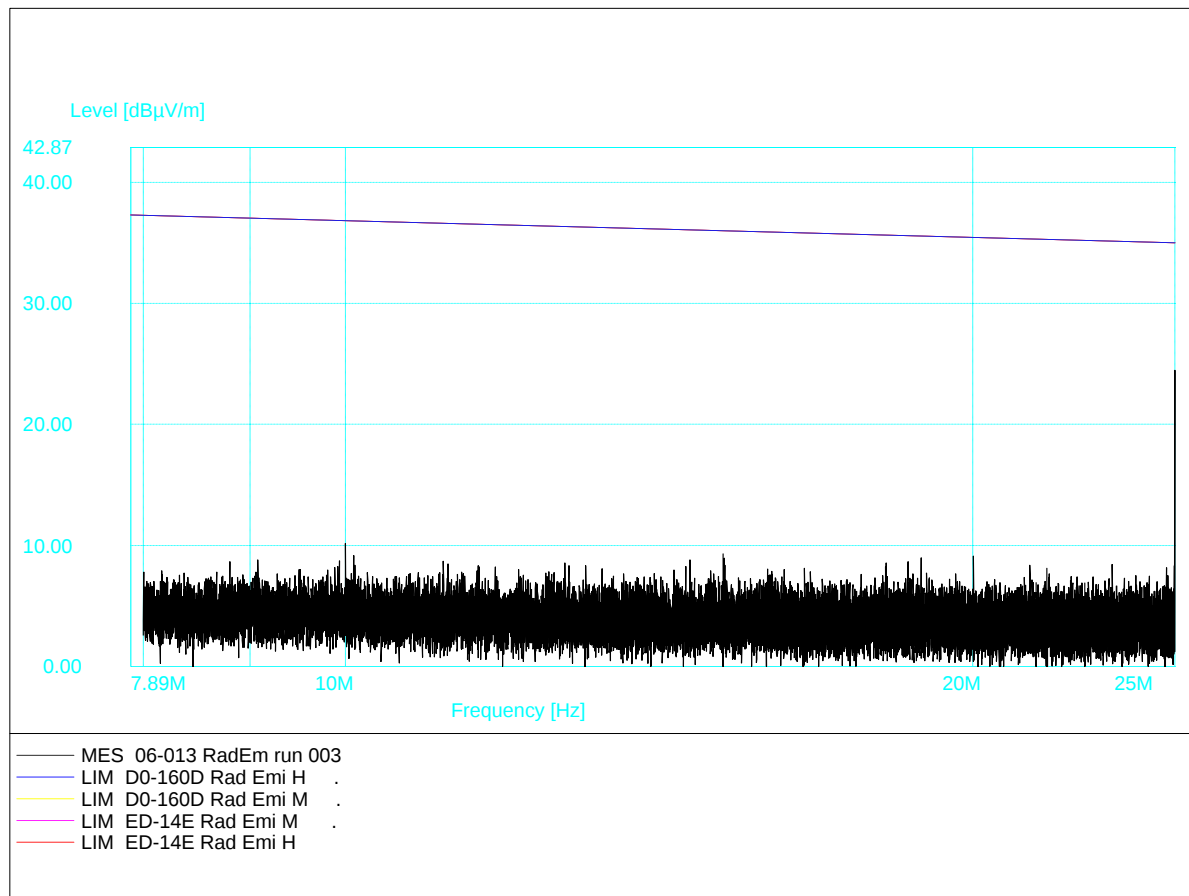


Figure 13

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: Radiated Emissions
 Front face, all on, vertical.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

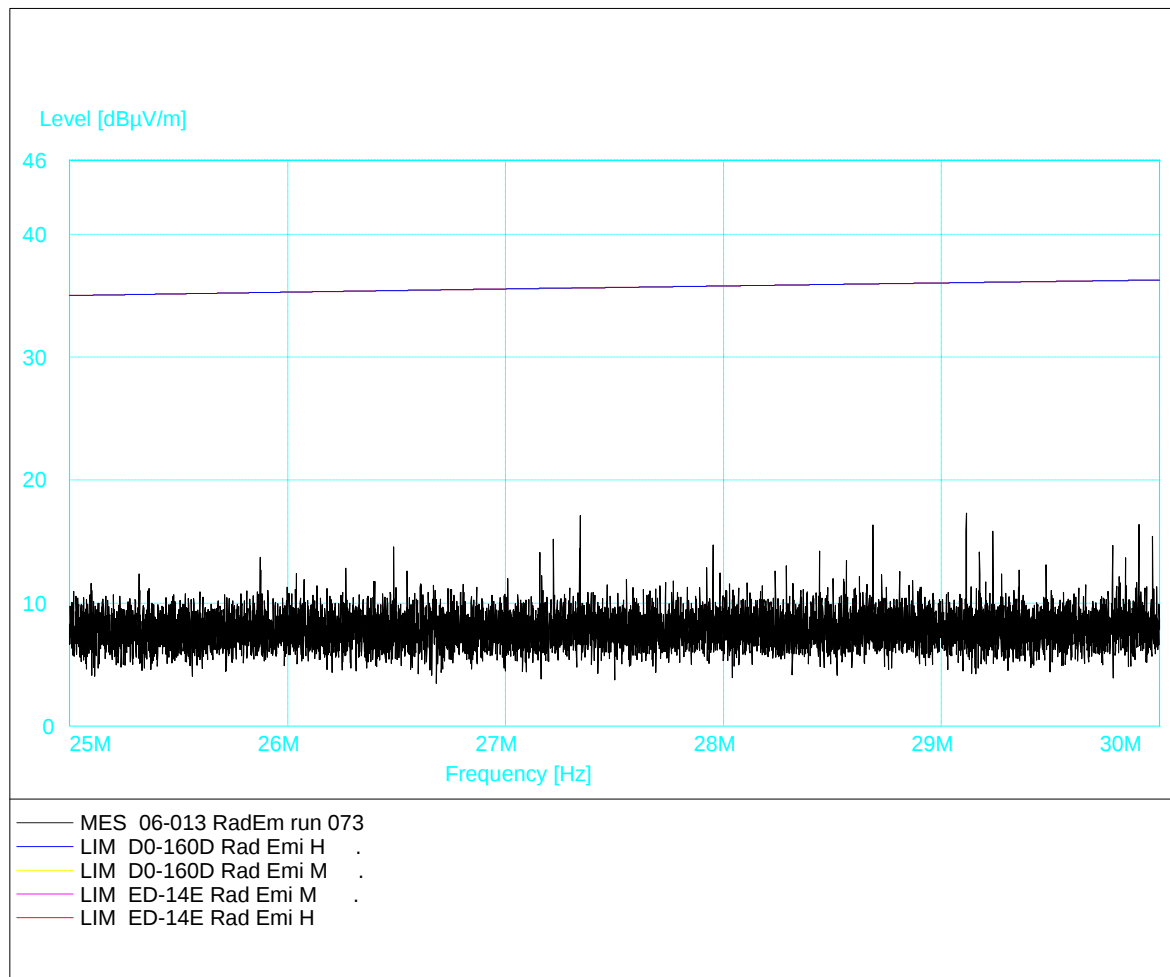


Figure 14

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions
Front face, all on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

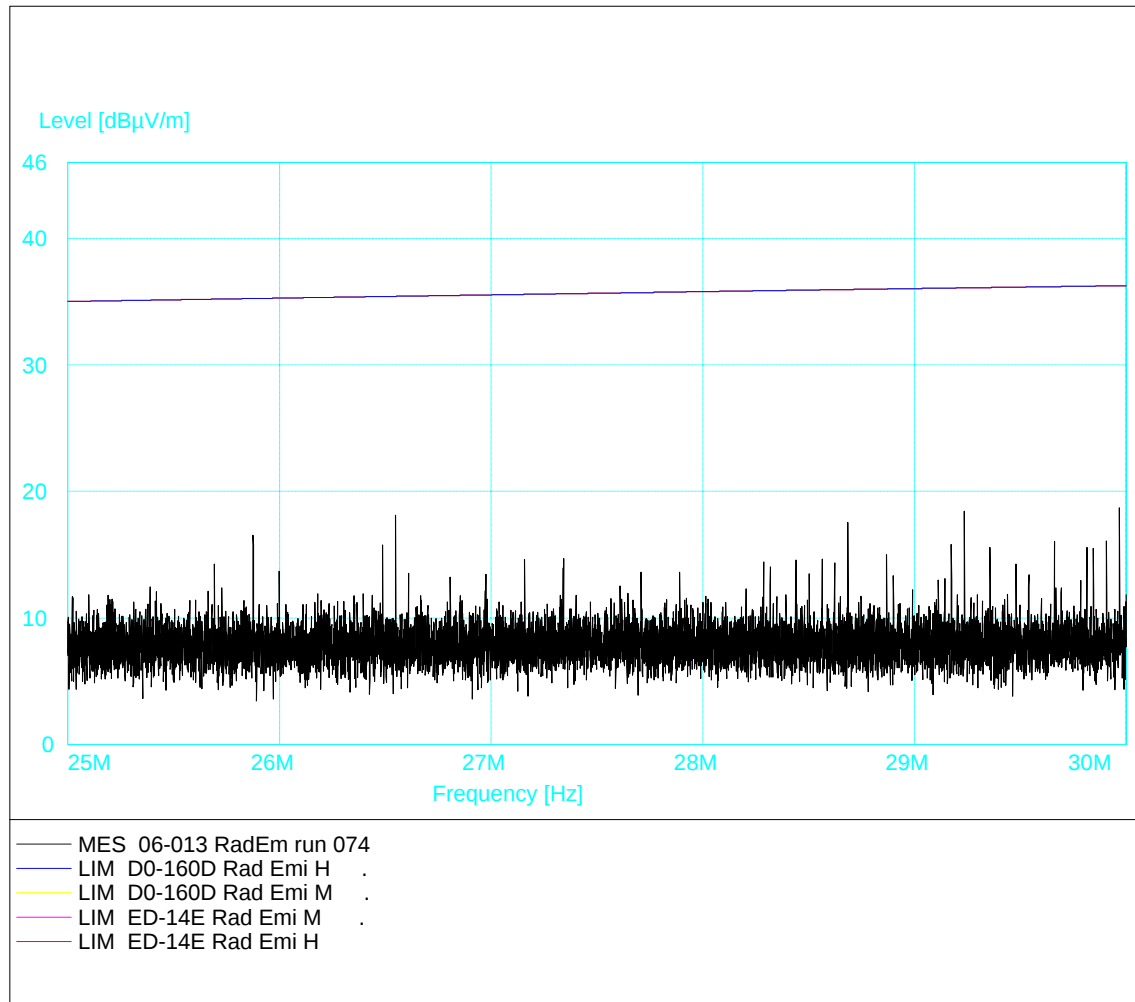


Figure 15

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all on, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

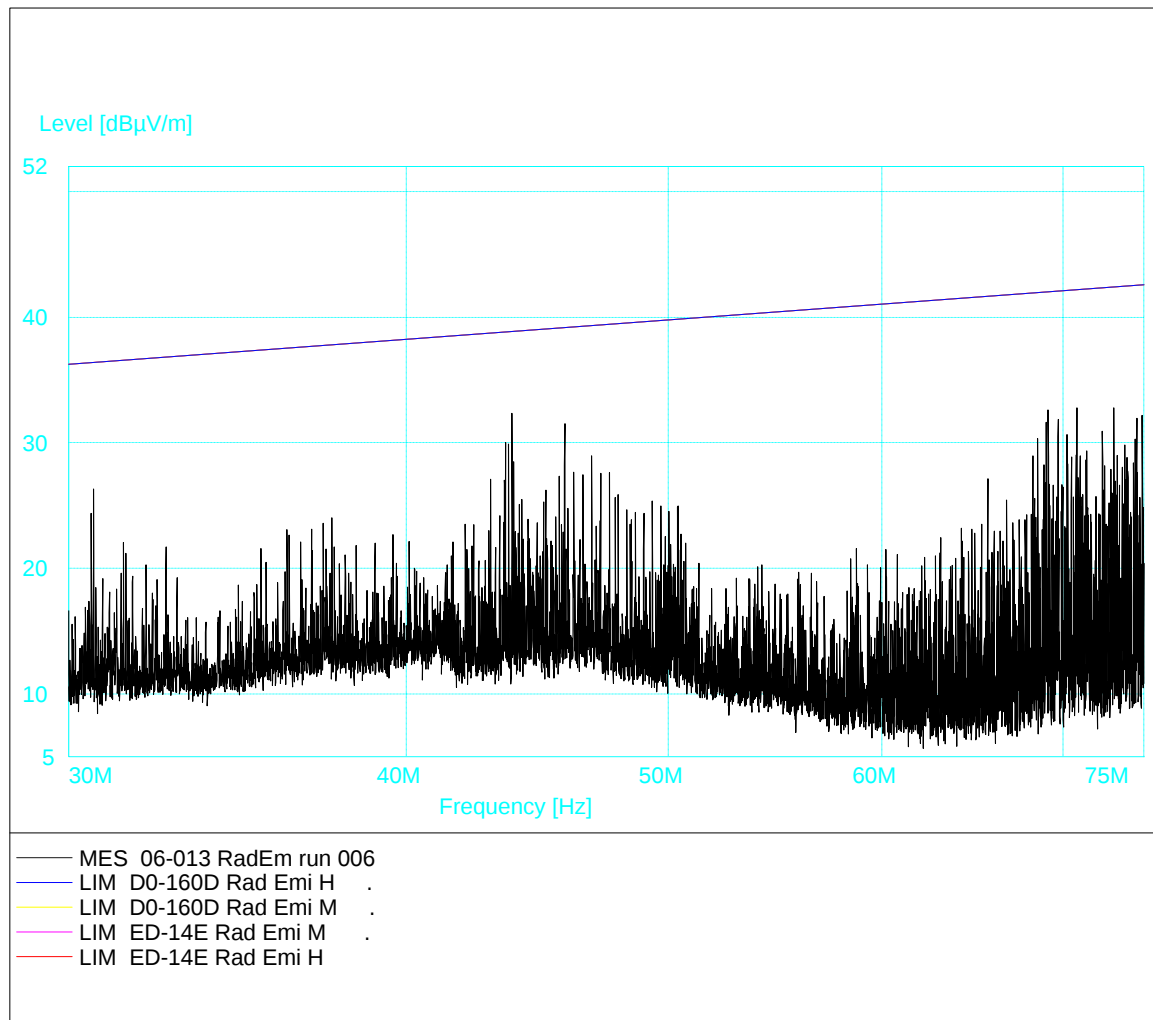


Figure 16

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all on, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

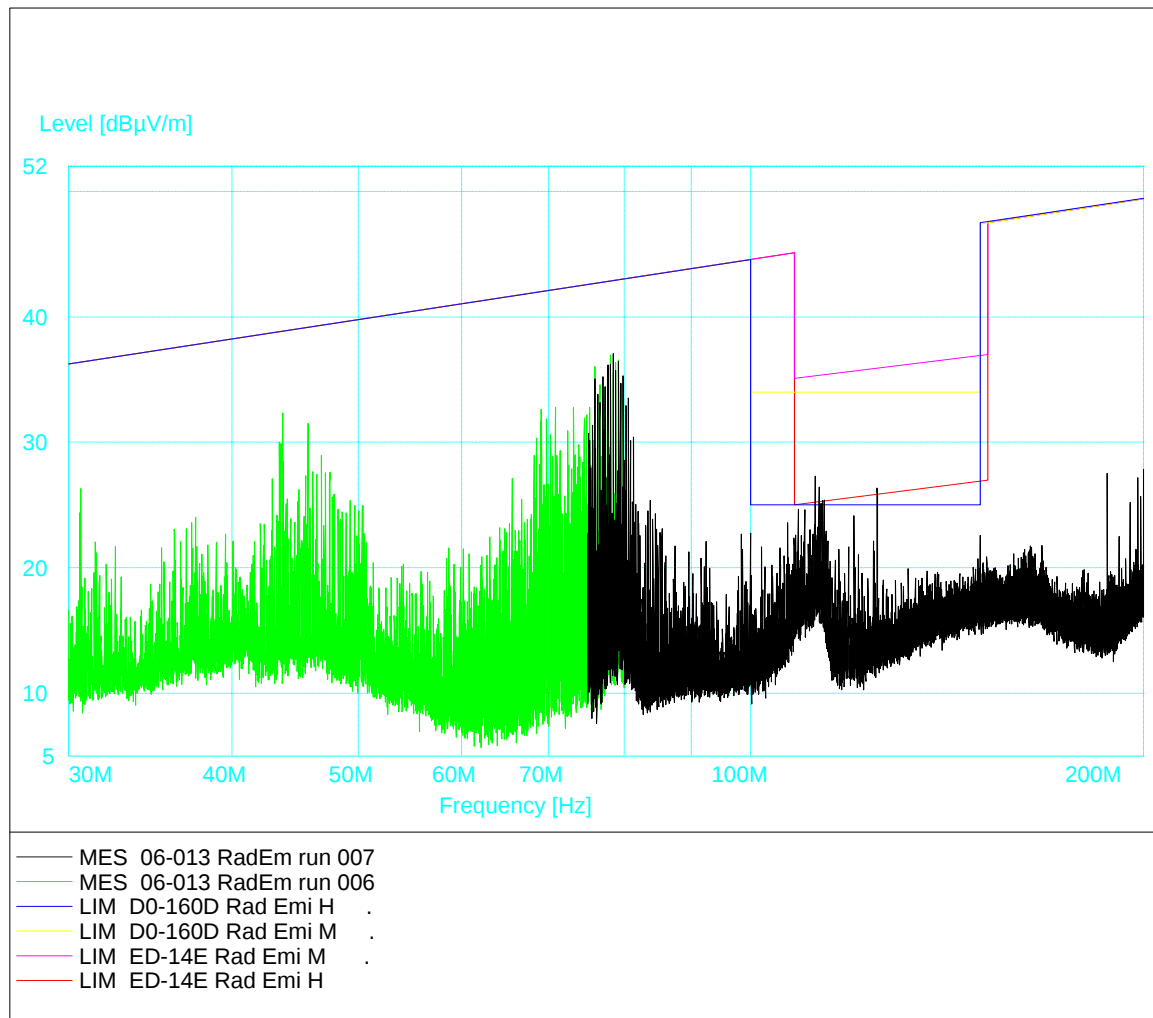


Figure 17

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Front face, all on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

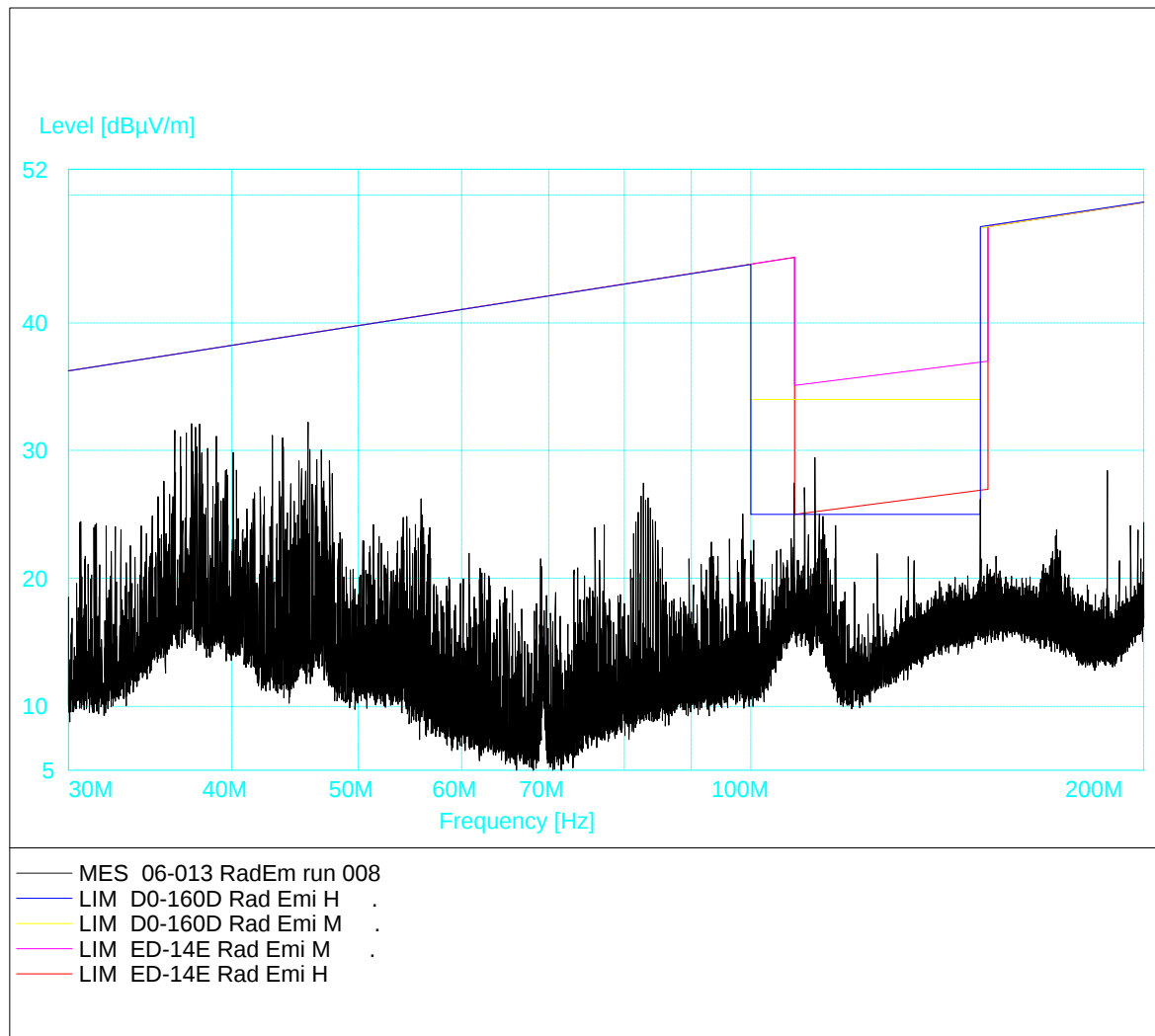


Figure 18

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, test equipment on, EUT off, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

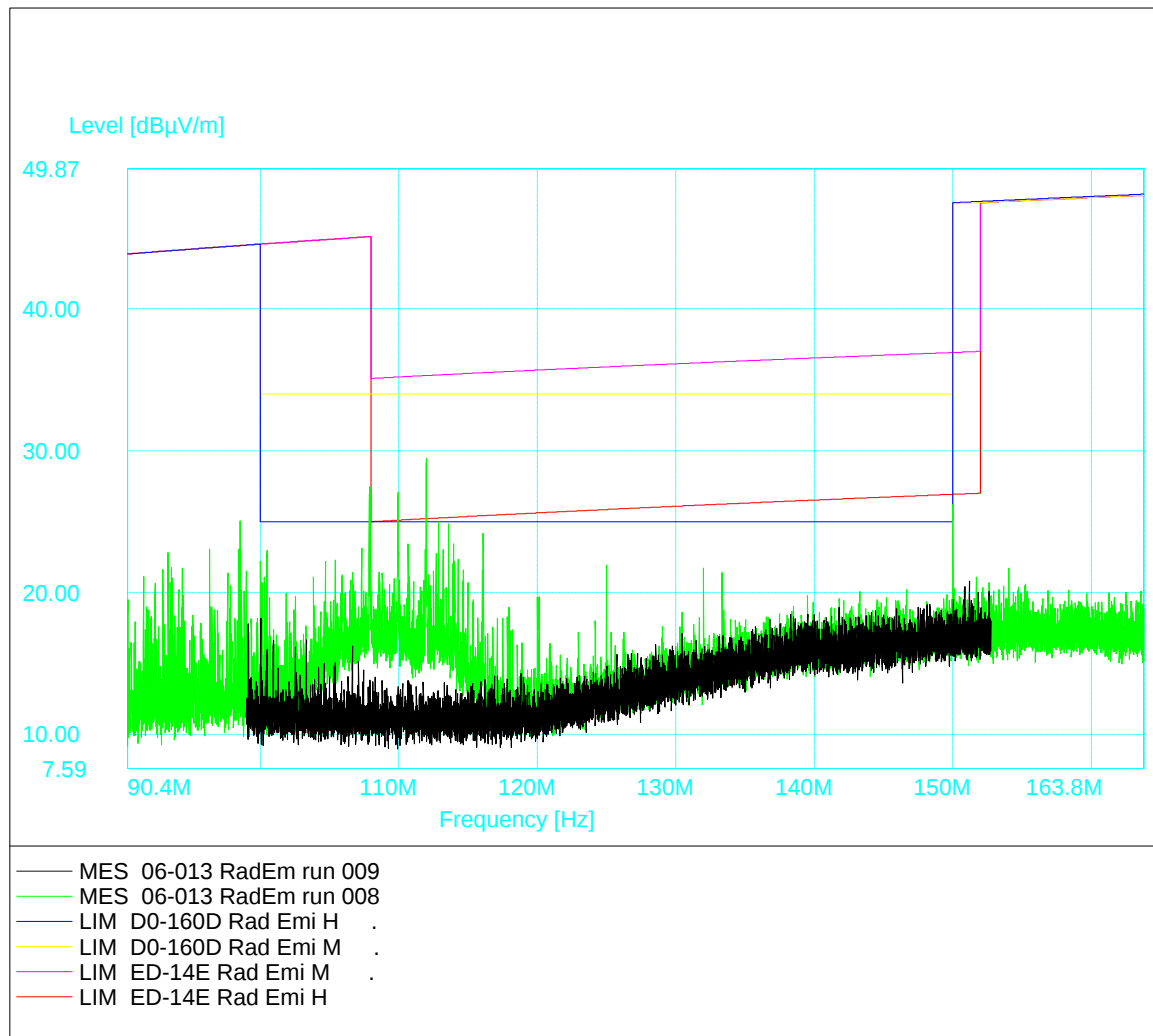


Figure 19

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Front face, test equipment on, EUT off, Vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

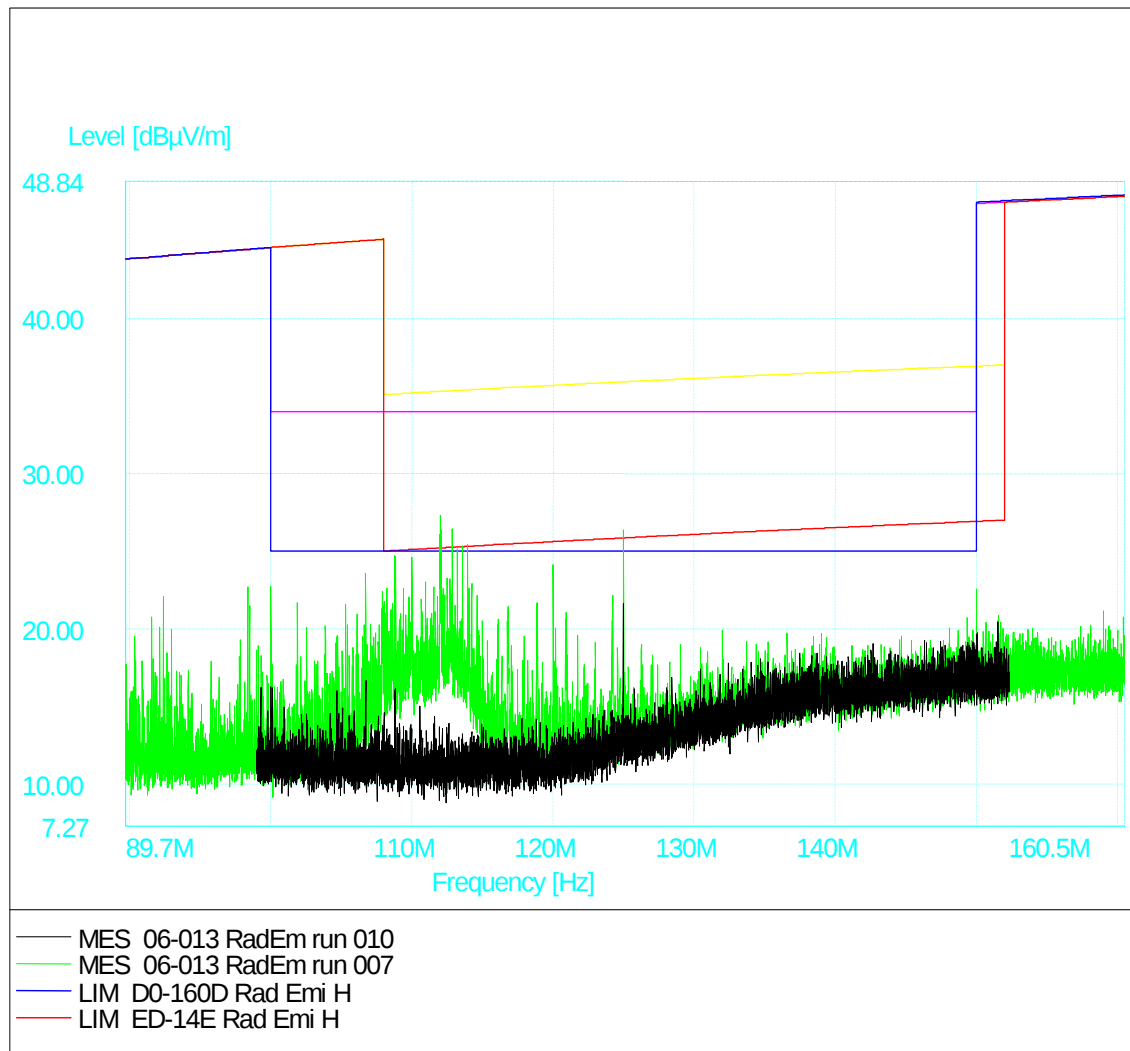


Figure 20

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Front face, all on, vertical.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

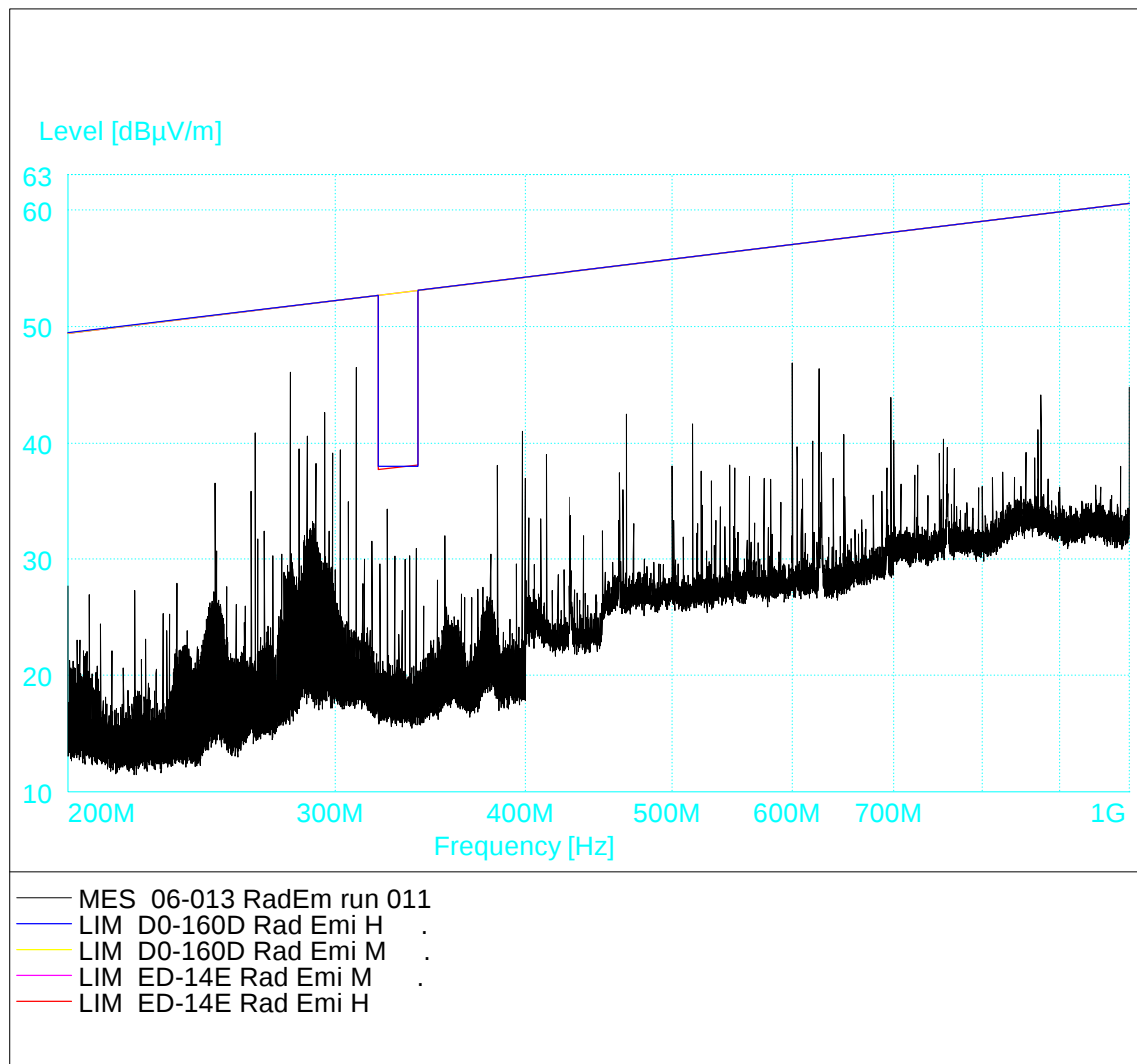


Figure 21

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: Radiated Emissions
 Front face, EUT off, test equipment on, vertical.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

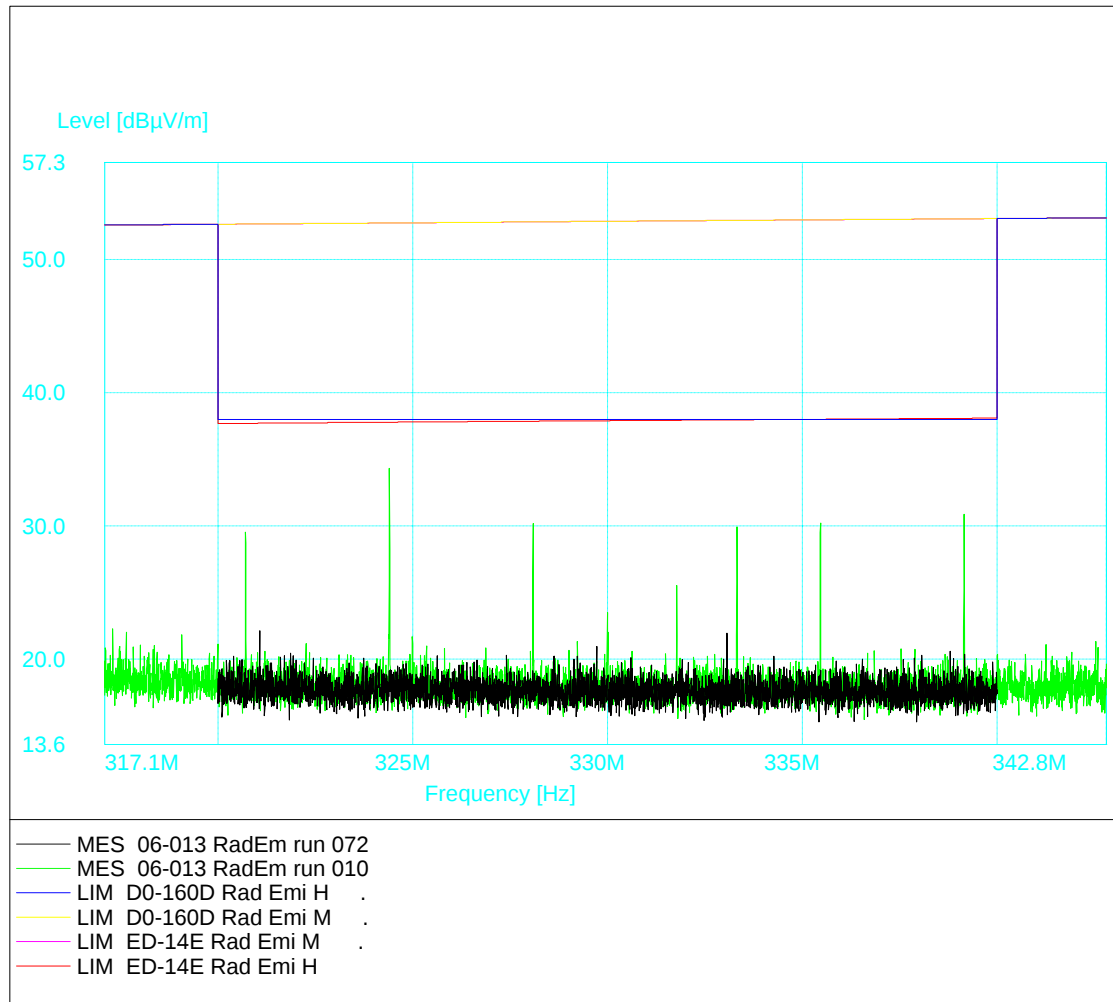


Figure 22

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Front face, all on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

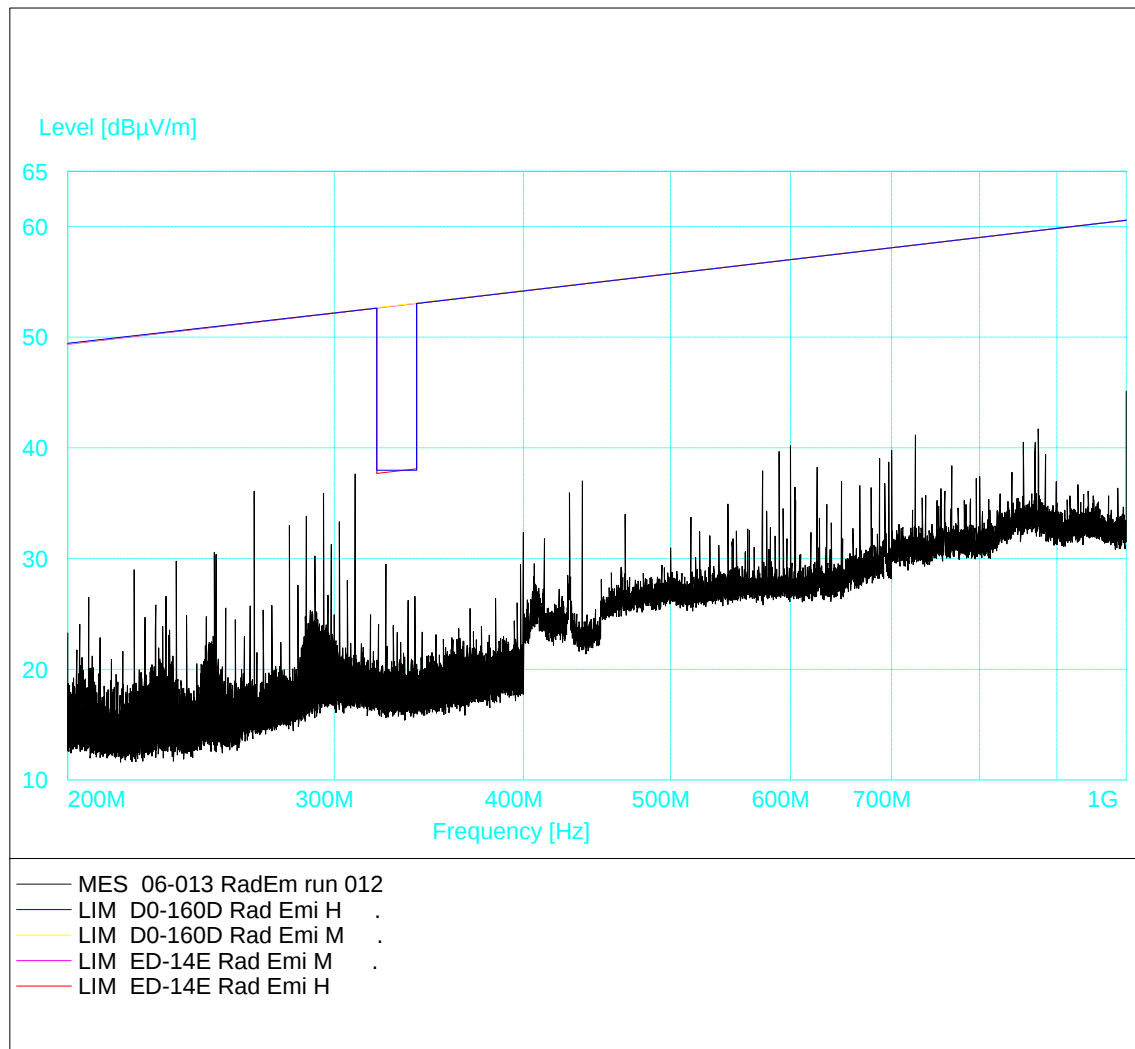


Figure 23

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Front face, all on, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

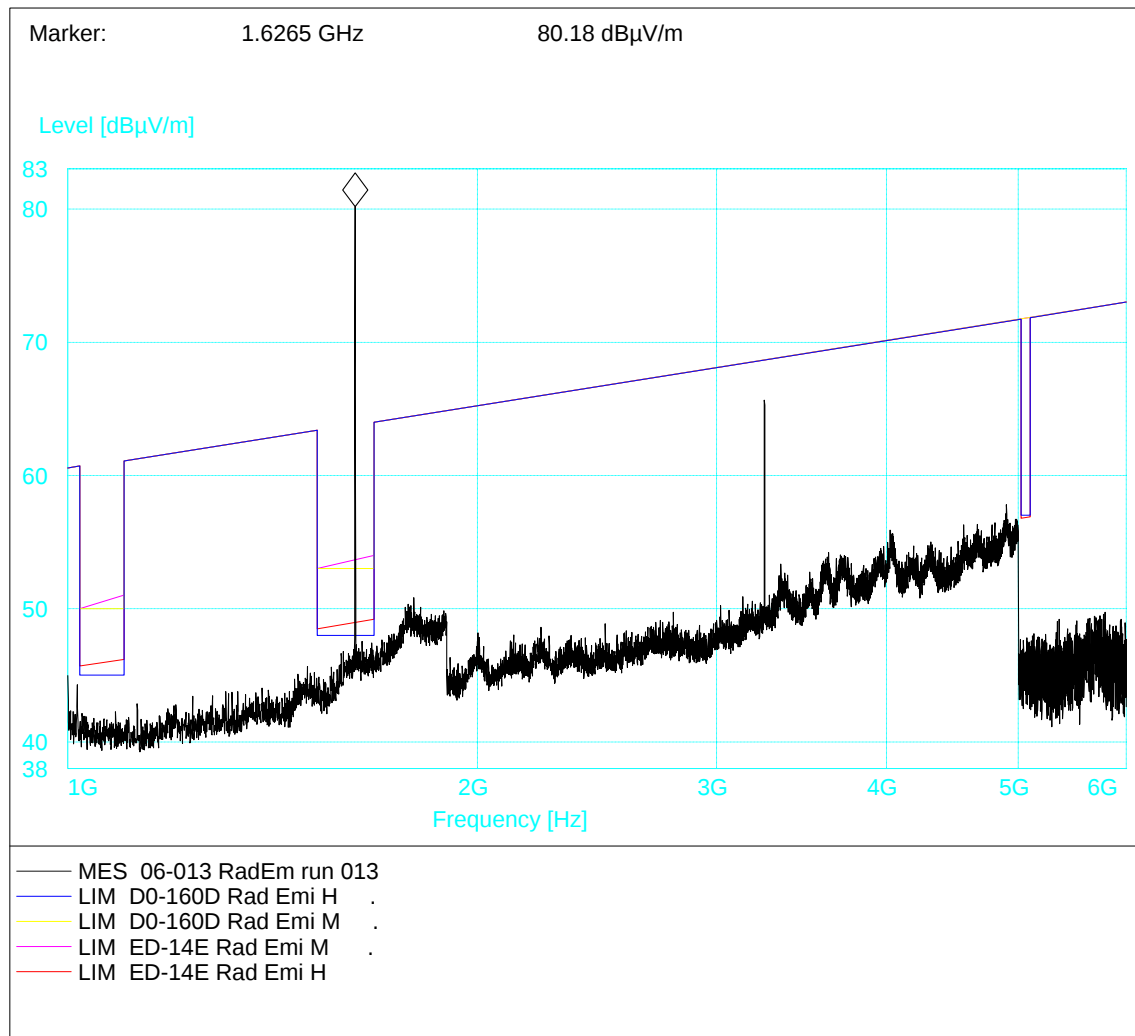


Figure 24

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all on, Vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

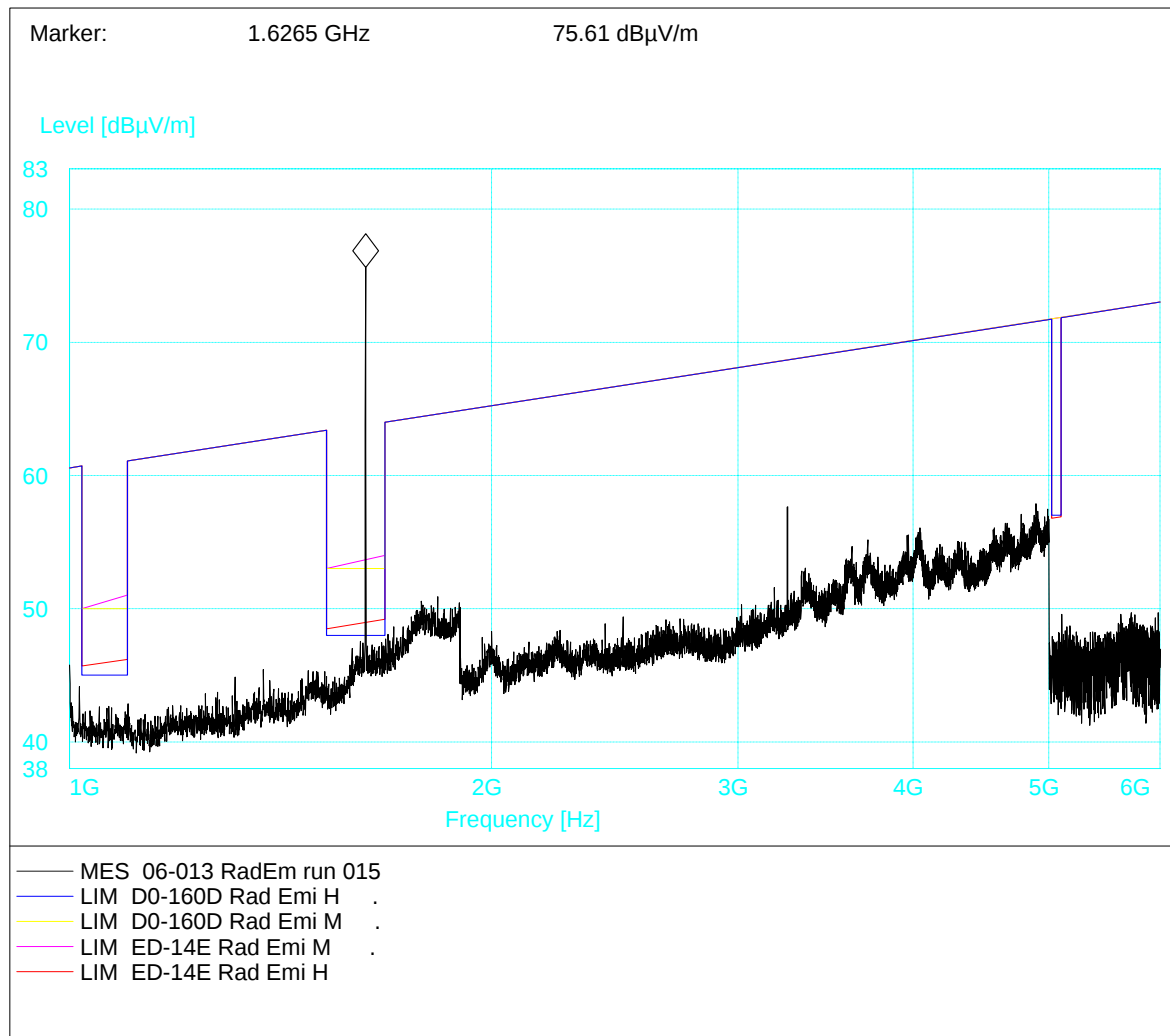


Figure 25

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Front face, test equipment on, EUT off.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

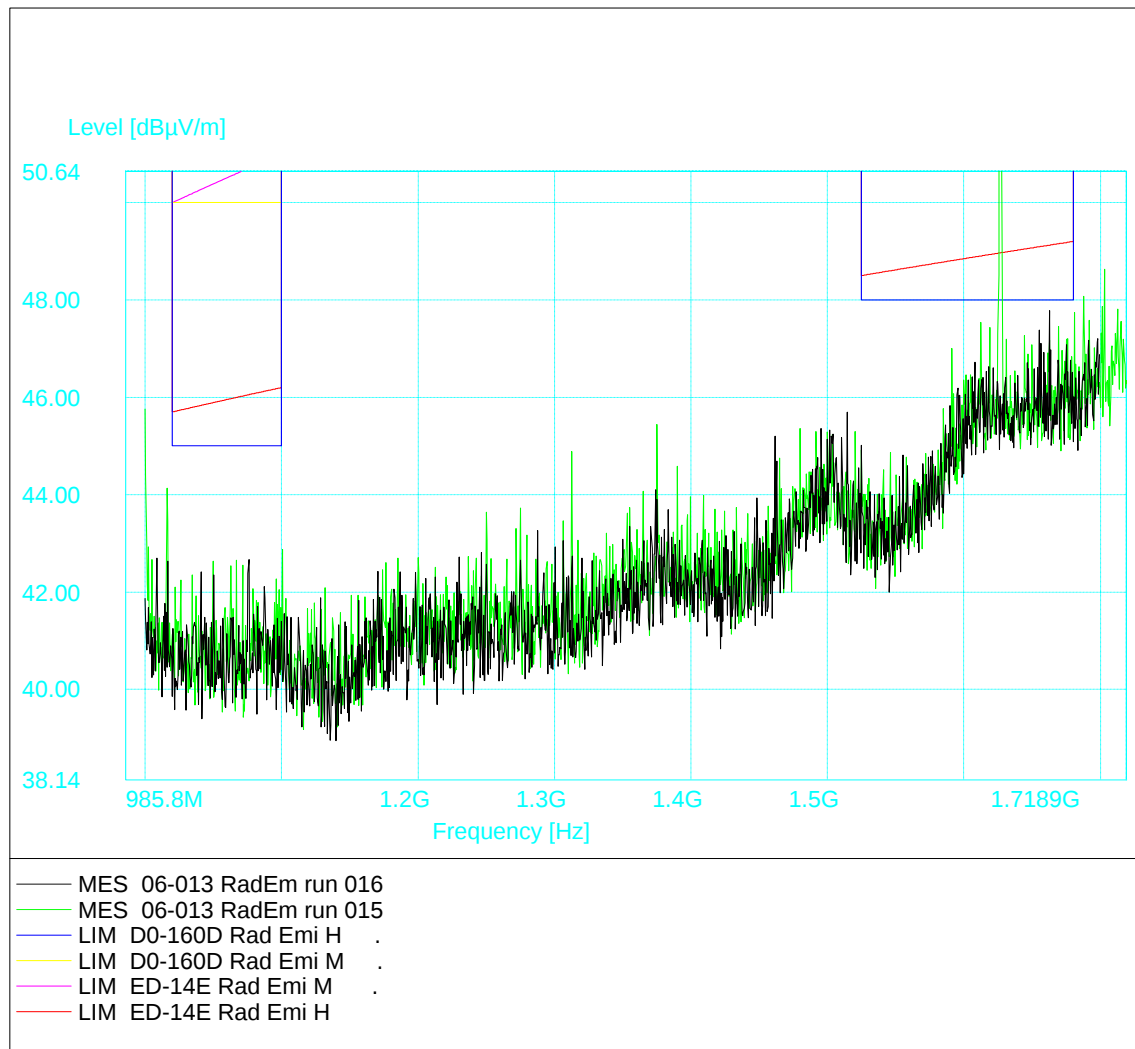


Figure 26

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Front face, all off.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

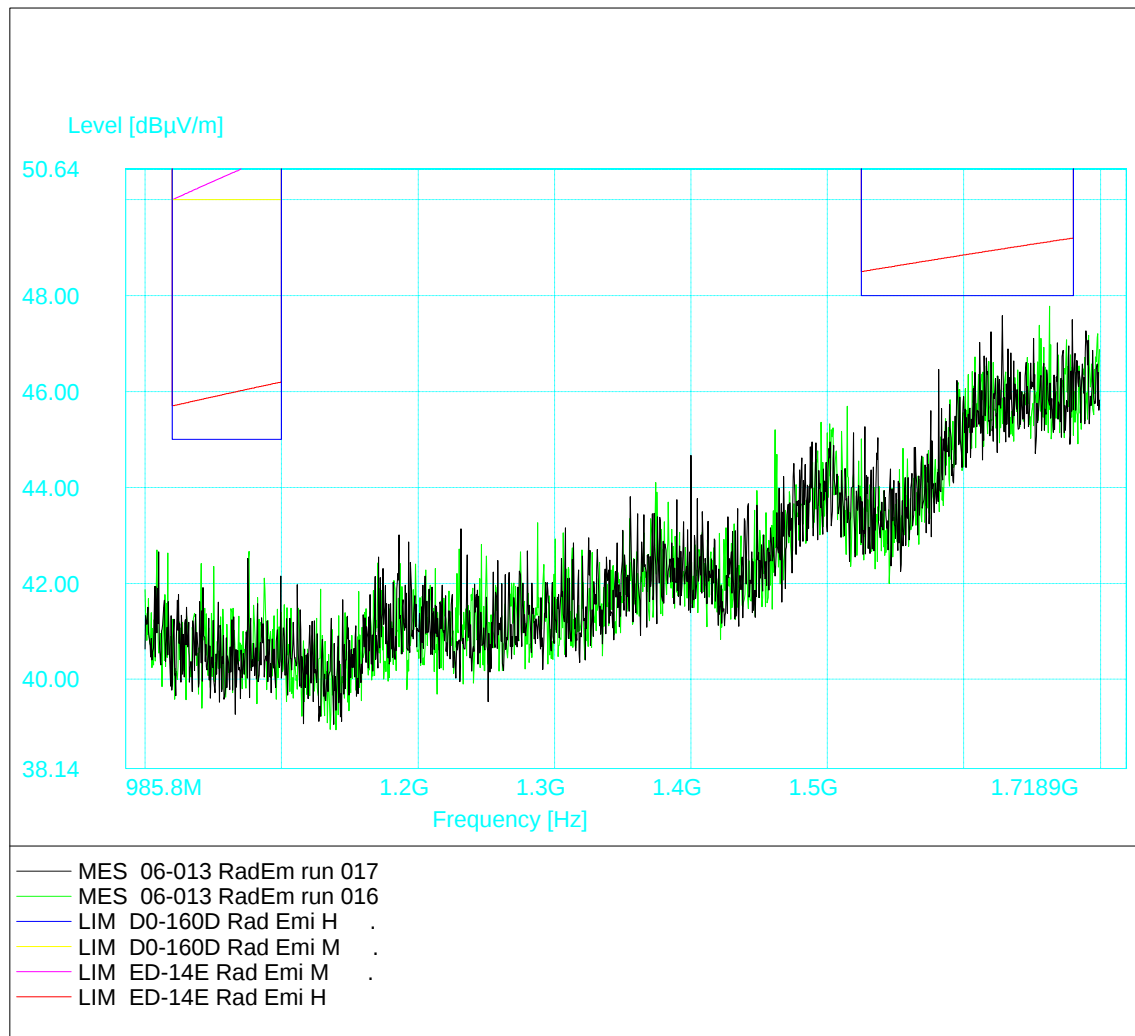


Figure 27

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Front face, all on, 10KHz bandwidth across limit line notch.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

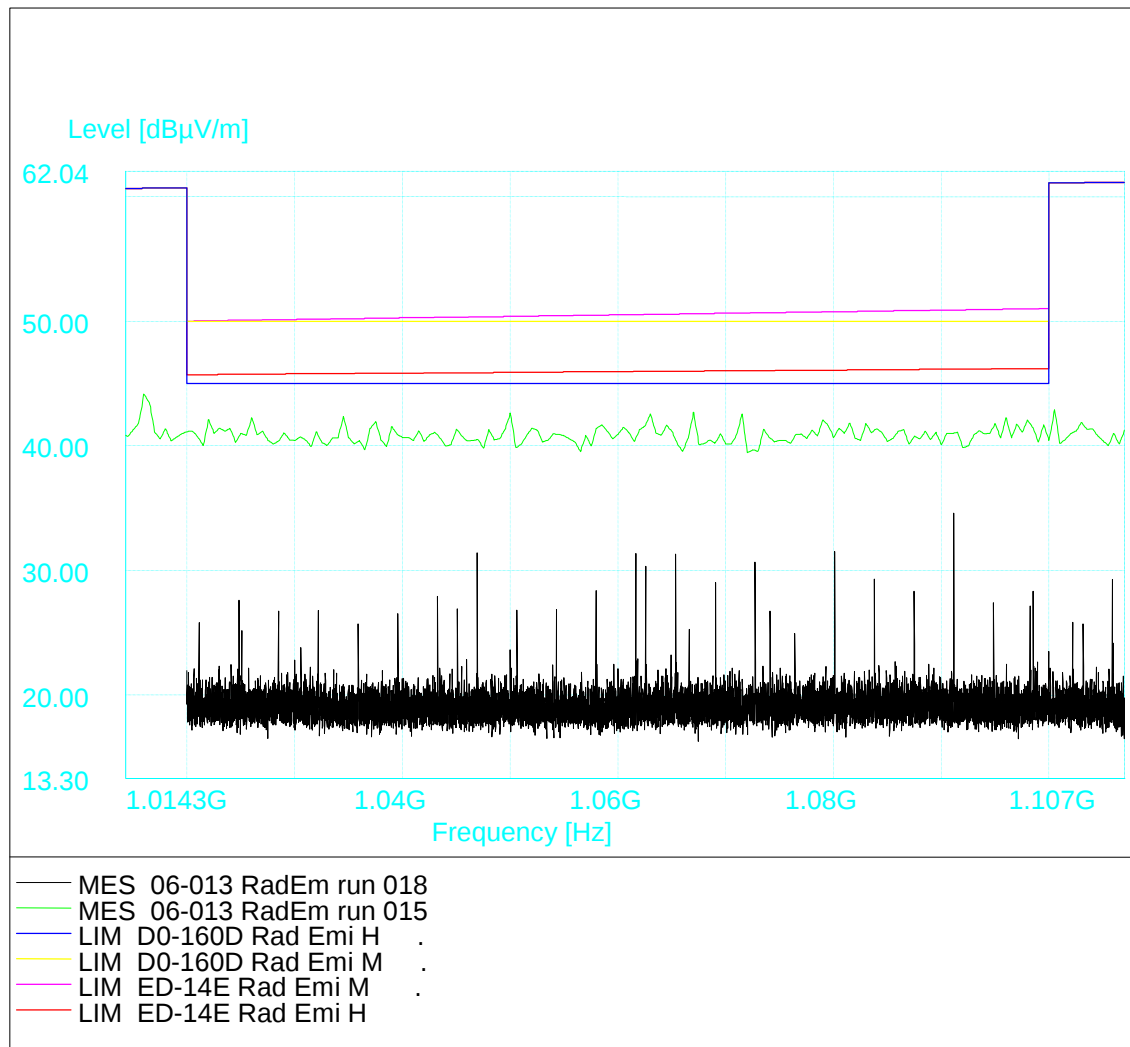


Figure 28

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions
F/t face, all on, horizontal, 10KHz across limit line notch

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

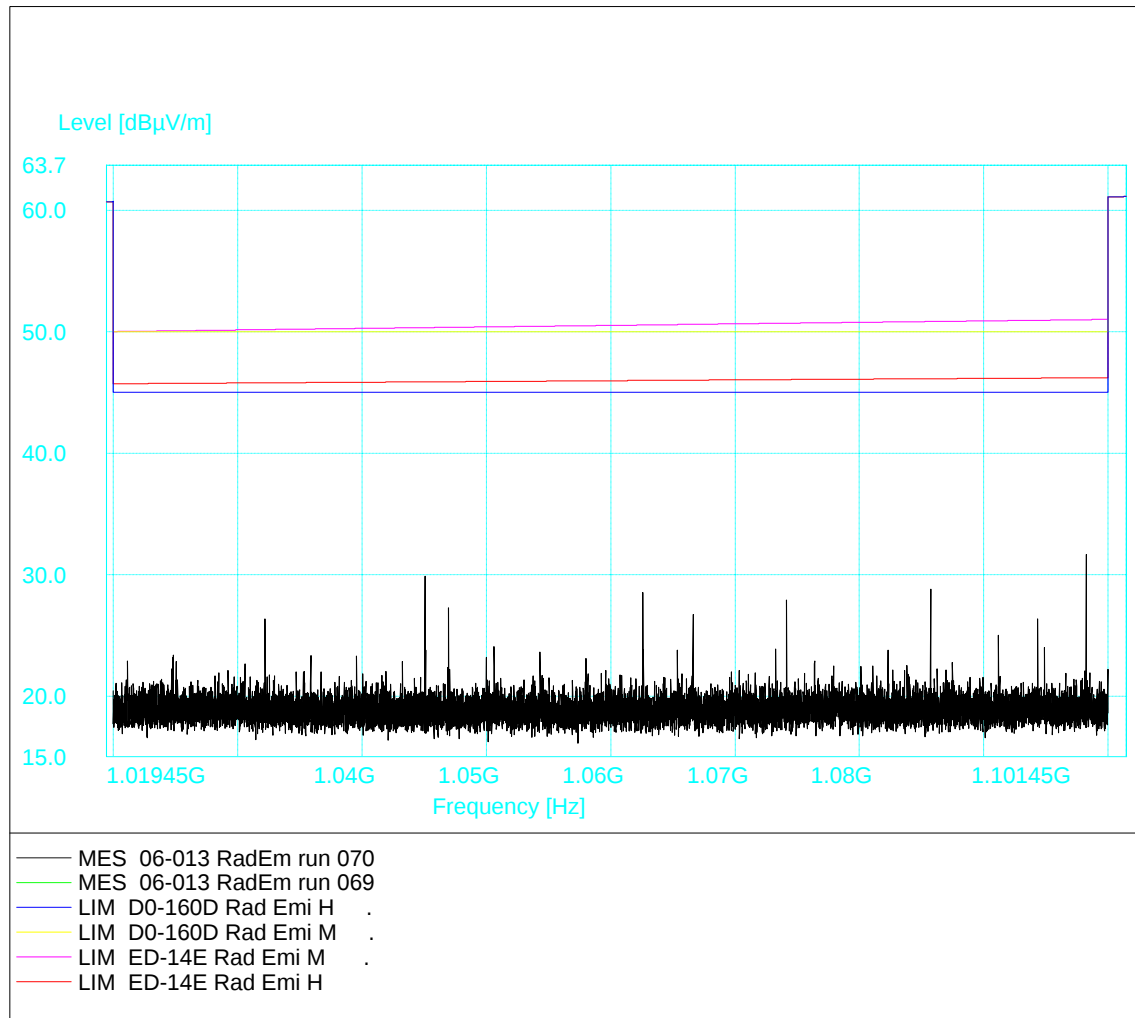


Figure 29

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions, vertical.
Front face, all on, 10KHz bandwidth across limit line notch.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

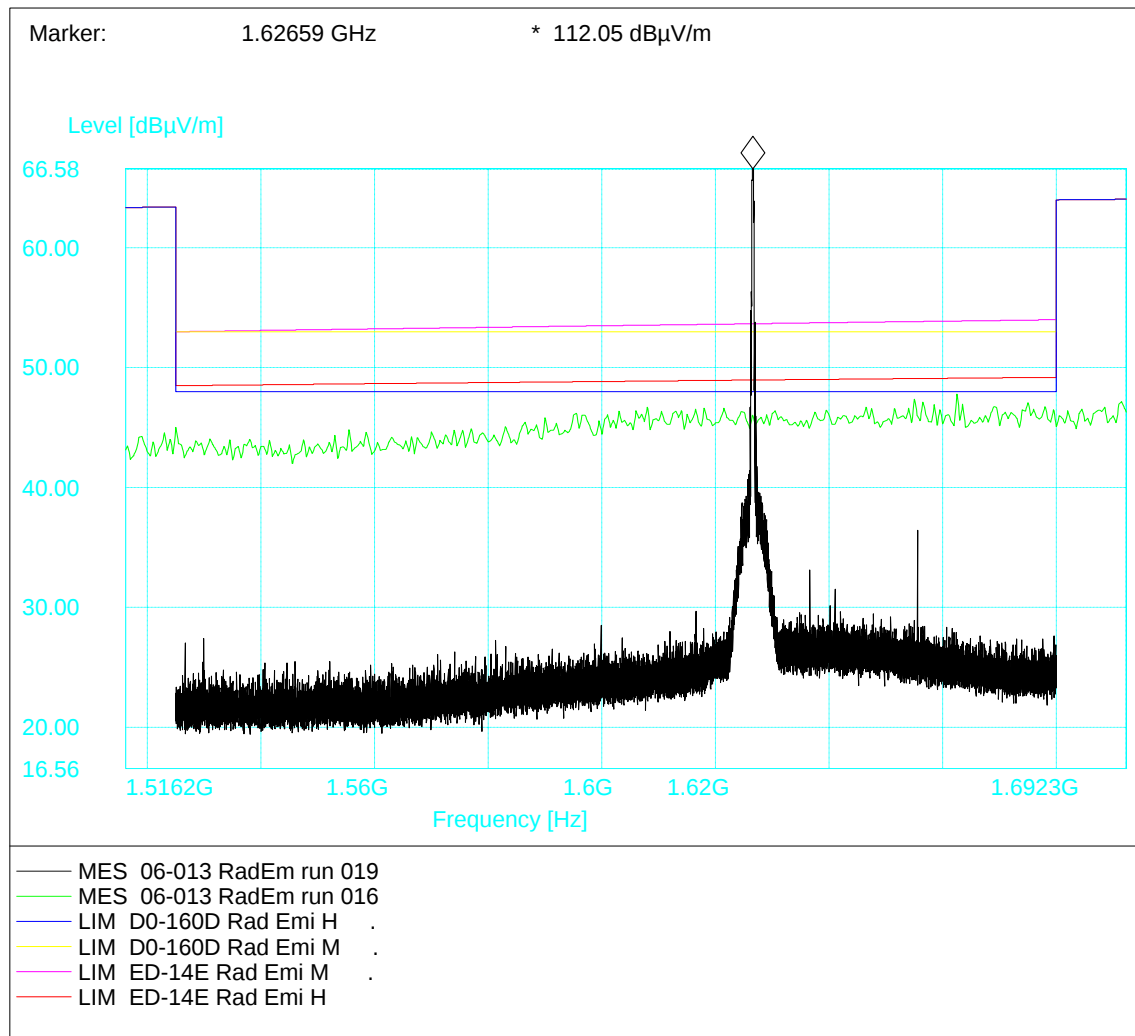


Figure 30

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions, carrier signal turned off
Front face, all on, vertical, 10KHz across limit line notch

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

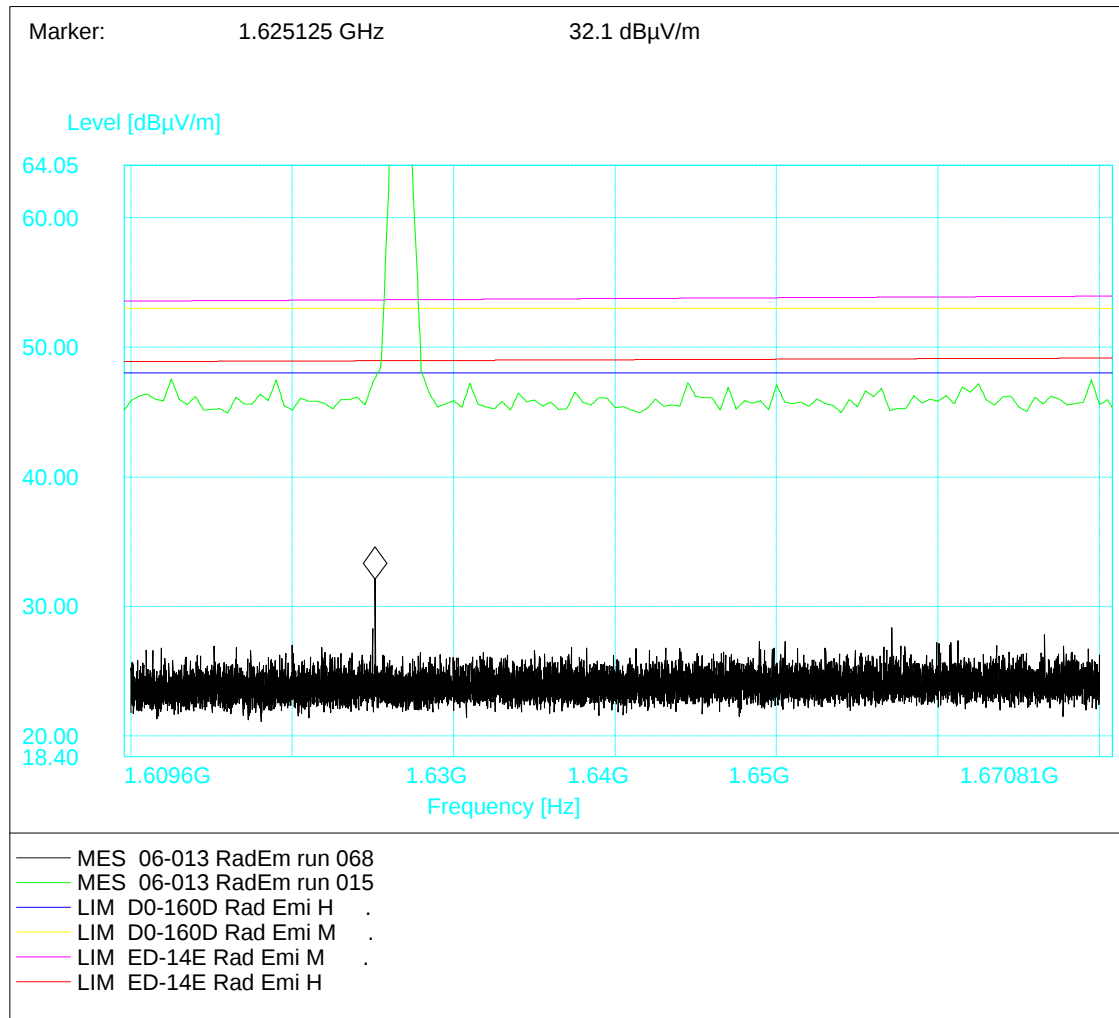


Figure 31

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions
F/t face, all on, horizontal, 10KHz across limit line notch

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

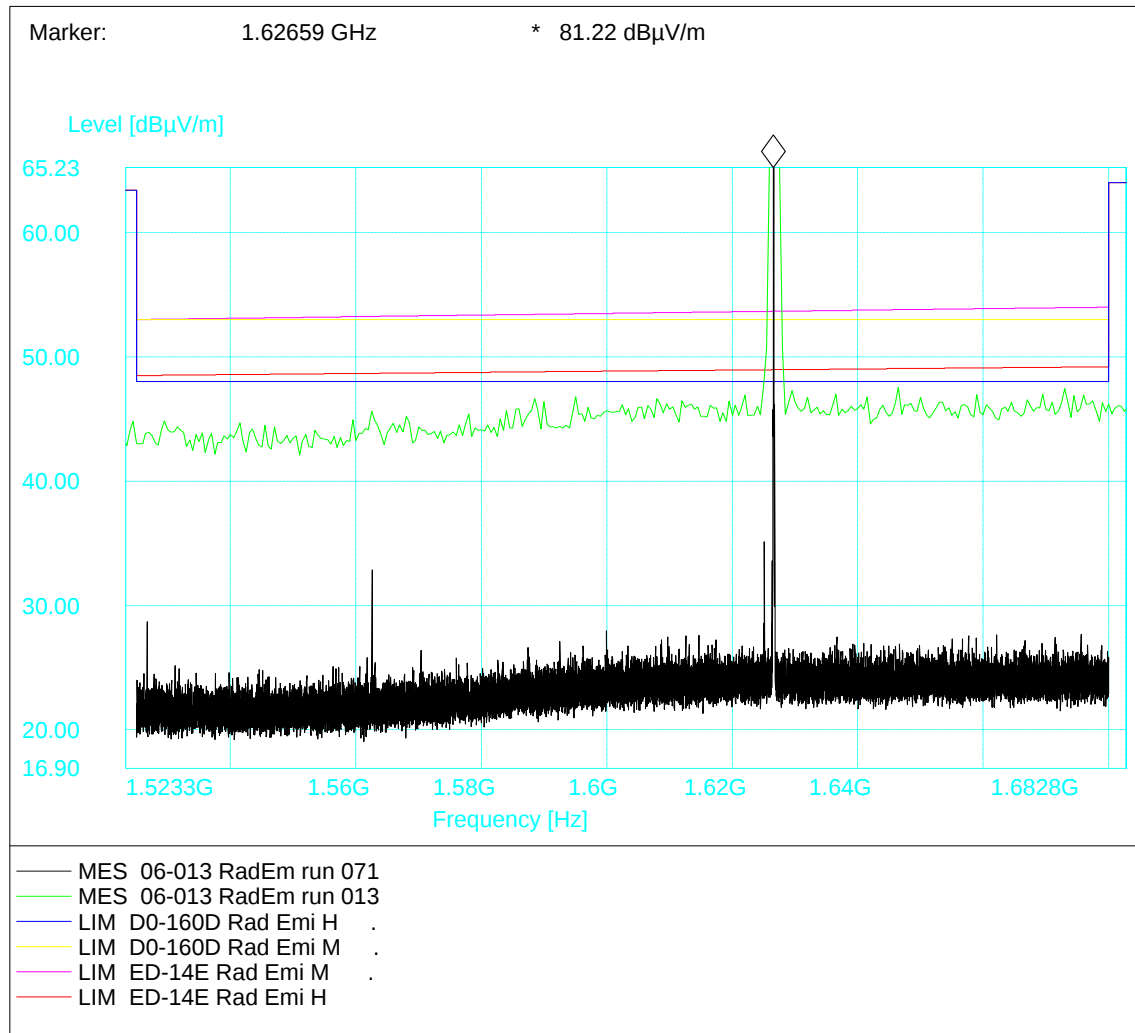


Figure 32

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions, carrier signal turned off
F/t face, all on, horizontal, 10KHz across limit line notch

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

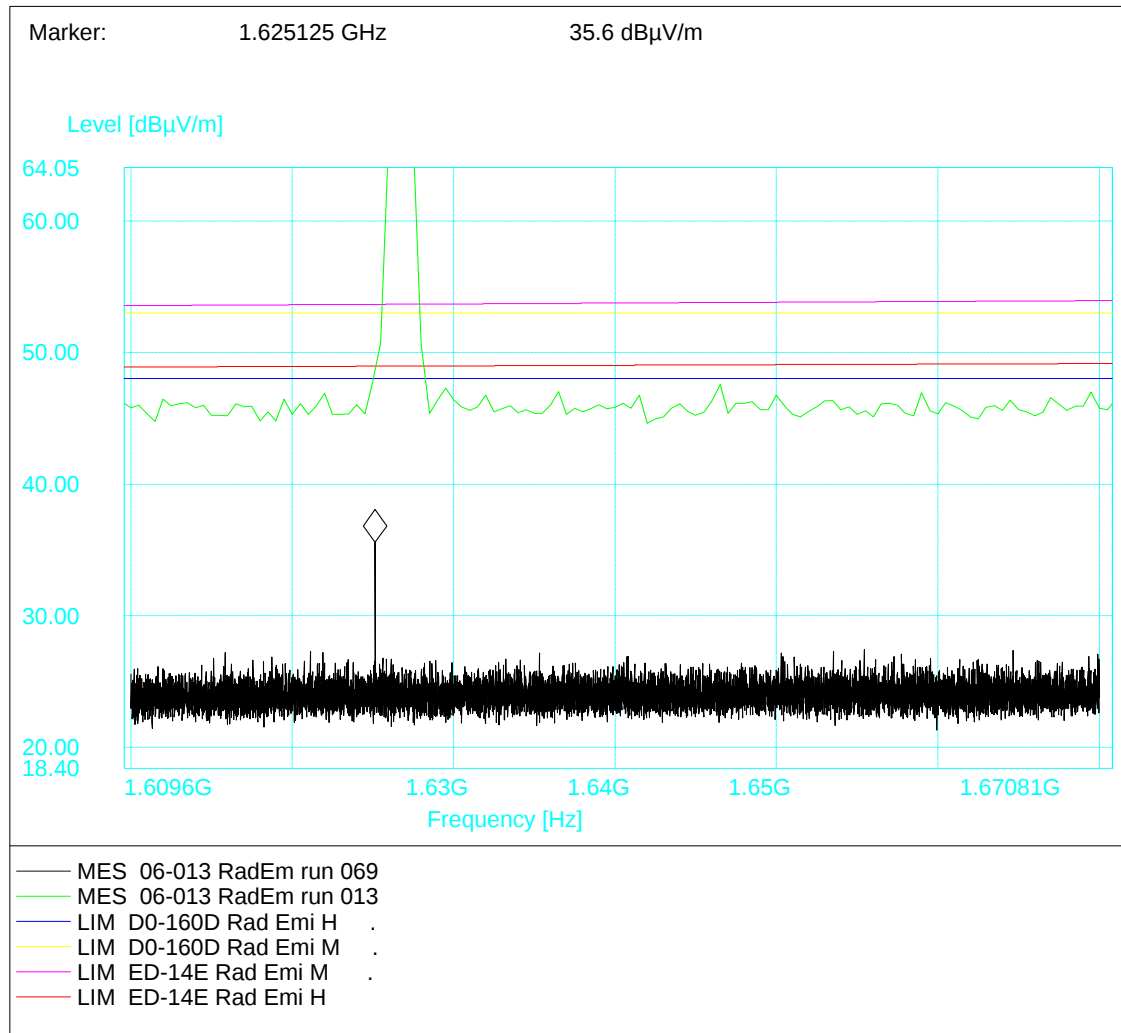


Figure 33

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions
Rear face, all on.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

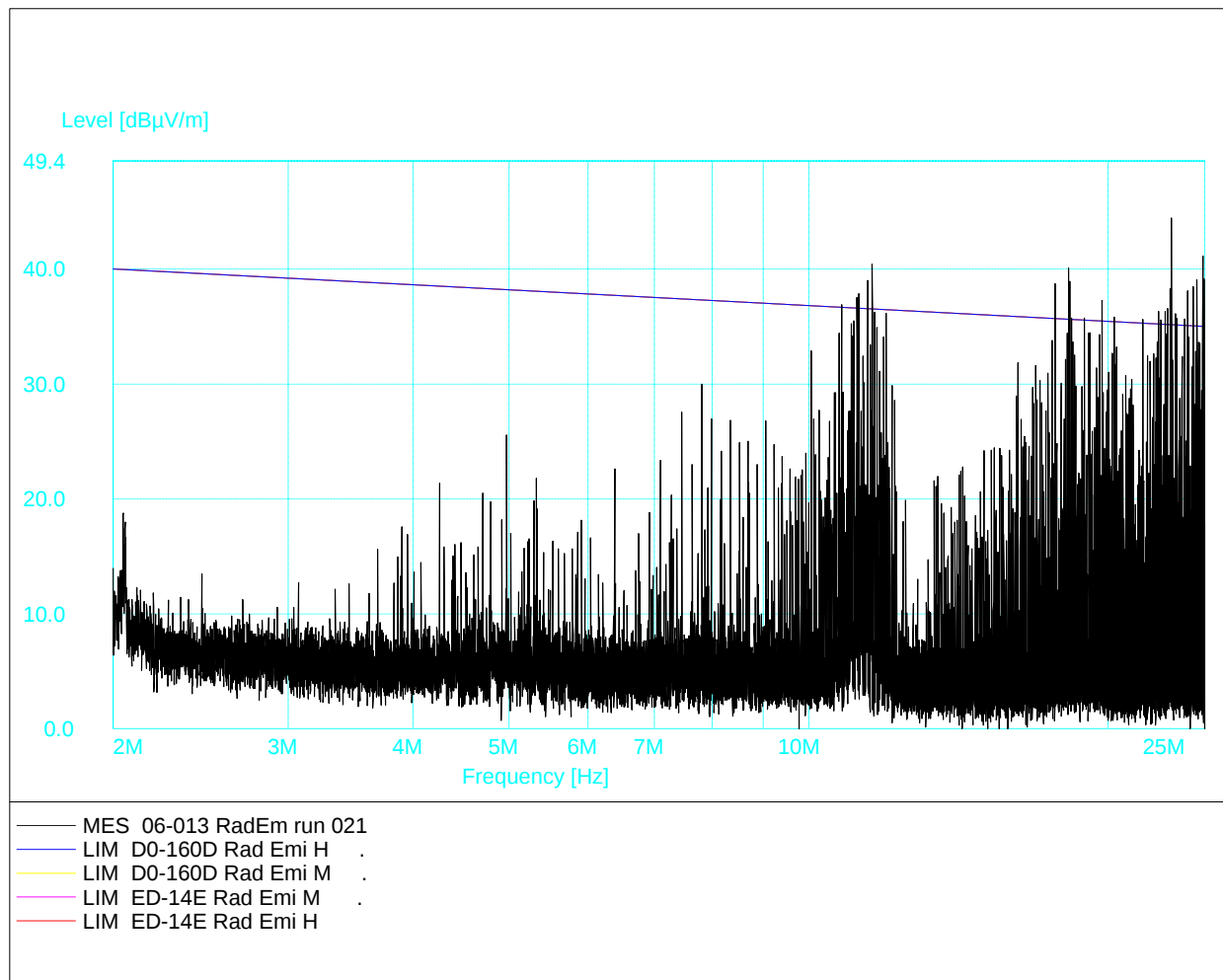


Figure 34

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Rear face, test equipment on, EUT off.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

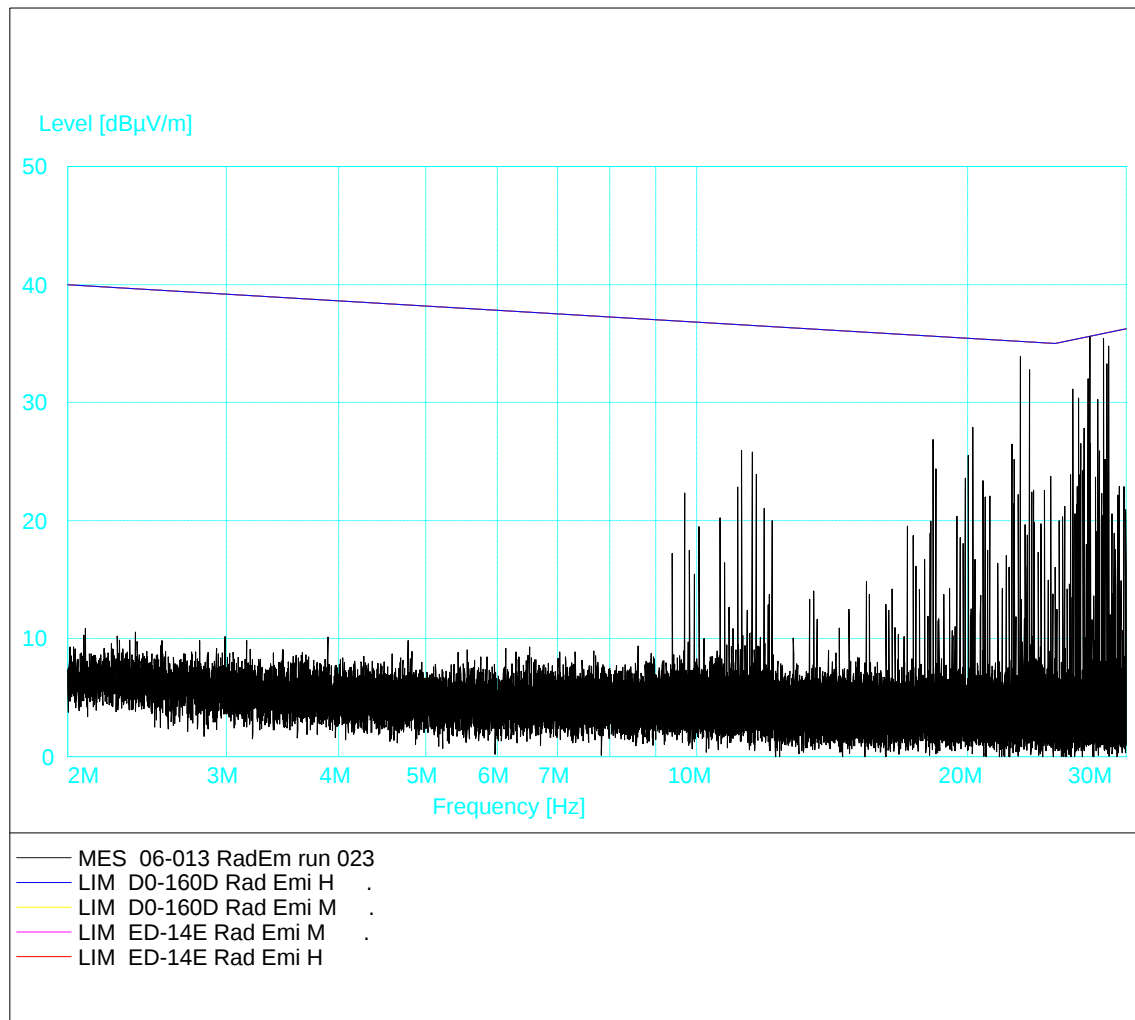


Figure 35

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all on, 25MHz to 30MHz, vertical

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

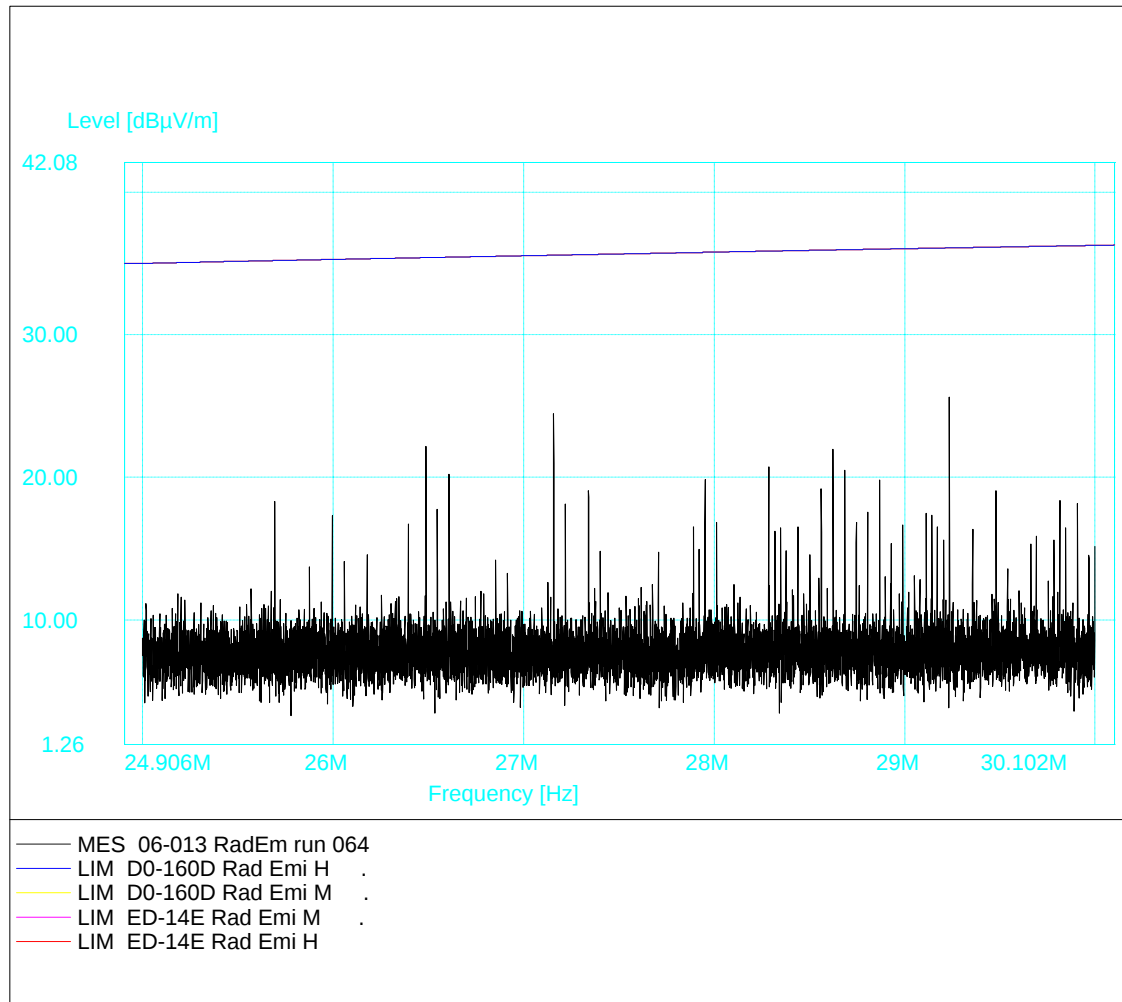


Figure 36

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all on, 25MHz to 30MHz, horizontal

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

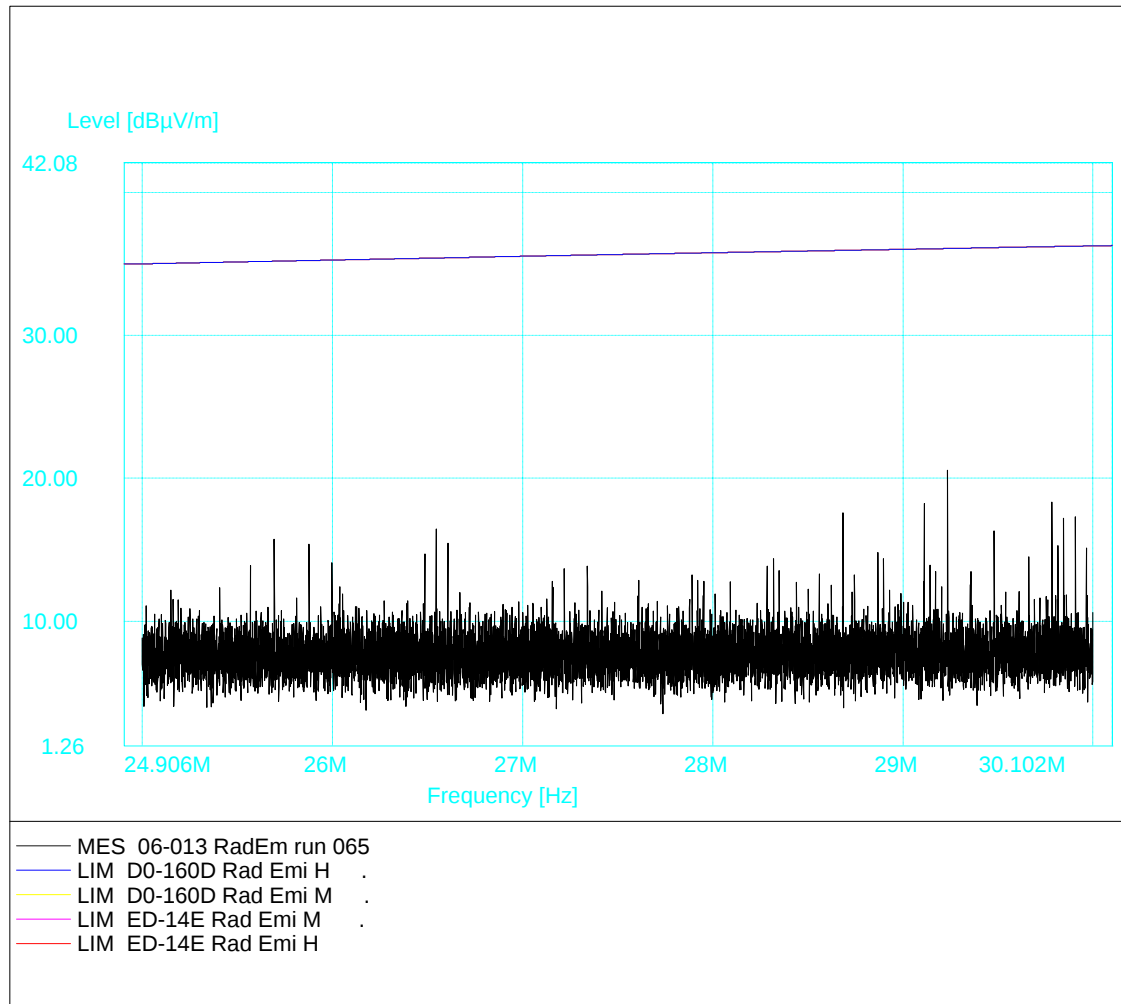


Figure 37

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all on, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

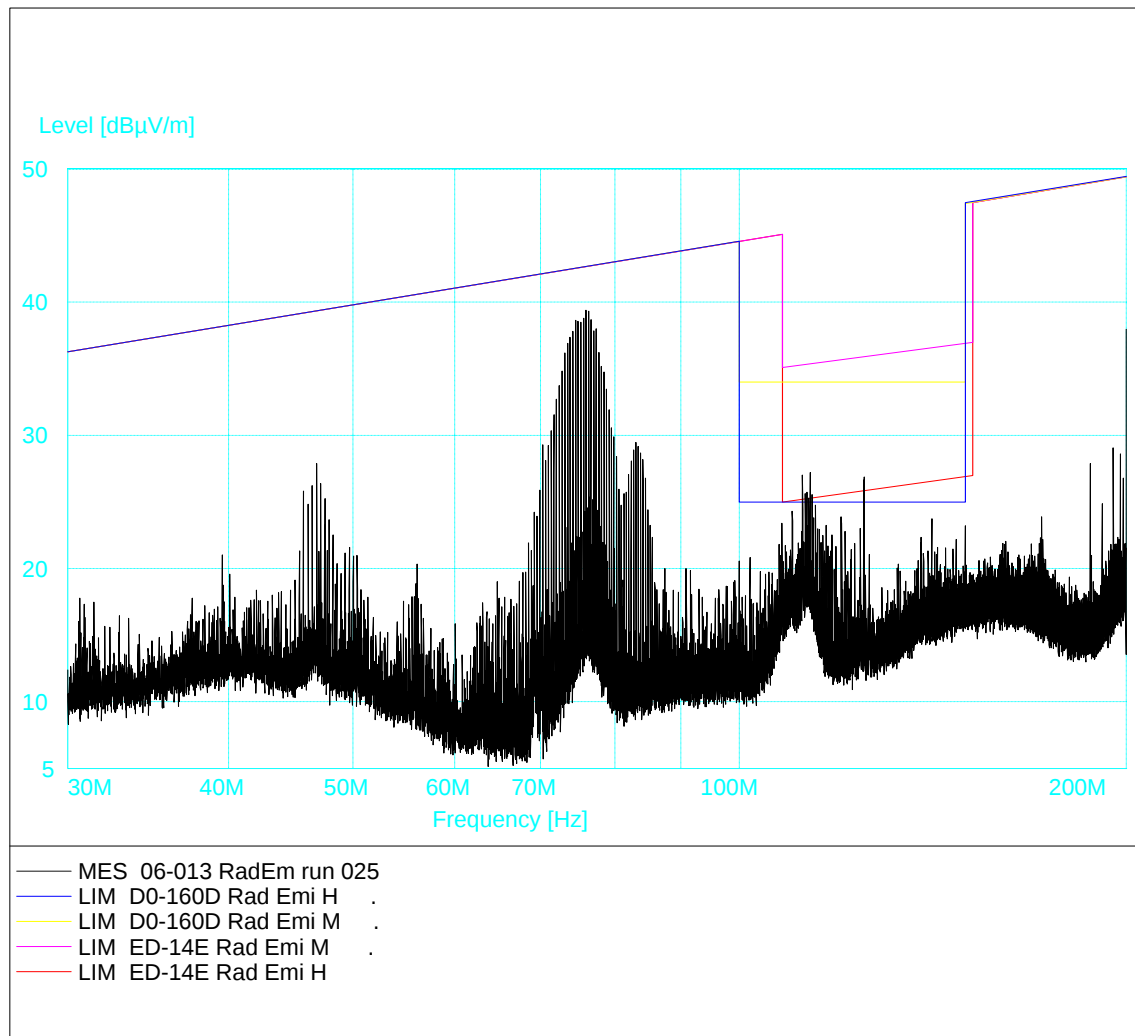


Figure 38

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all on, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

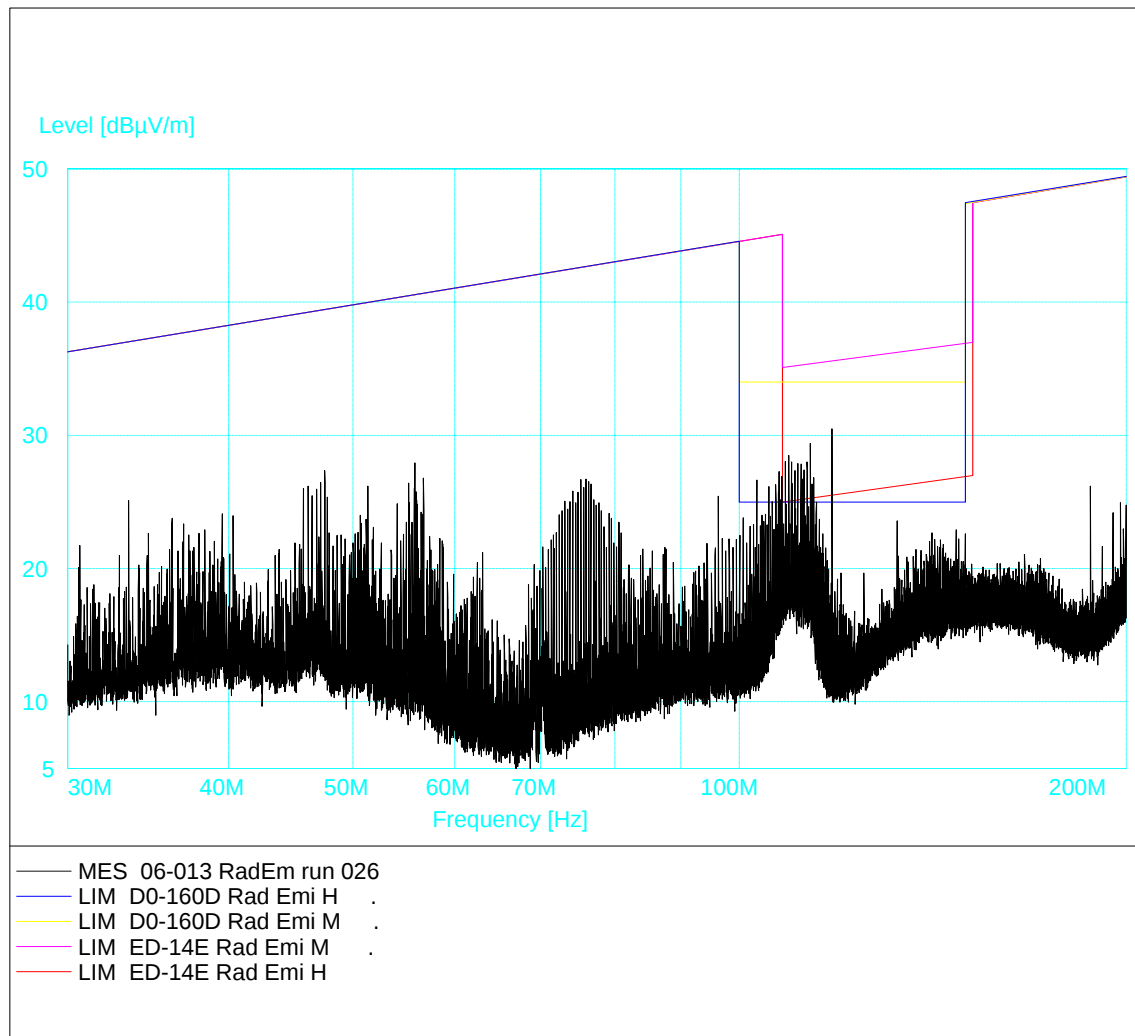


Figure 39

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Rear face, test equipment on, EUT off, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

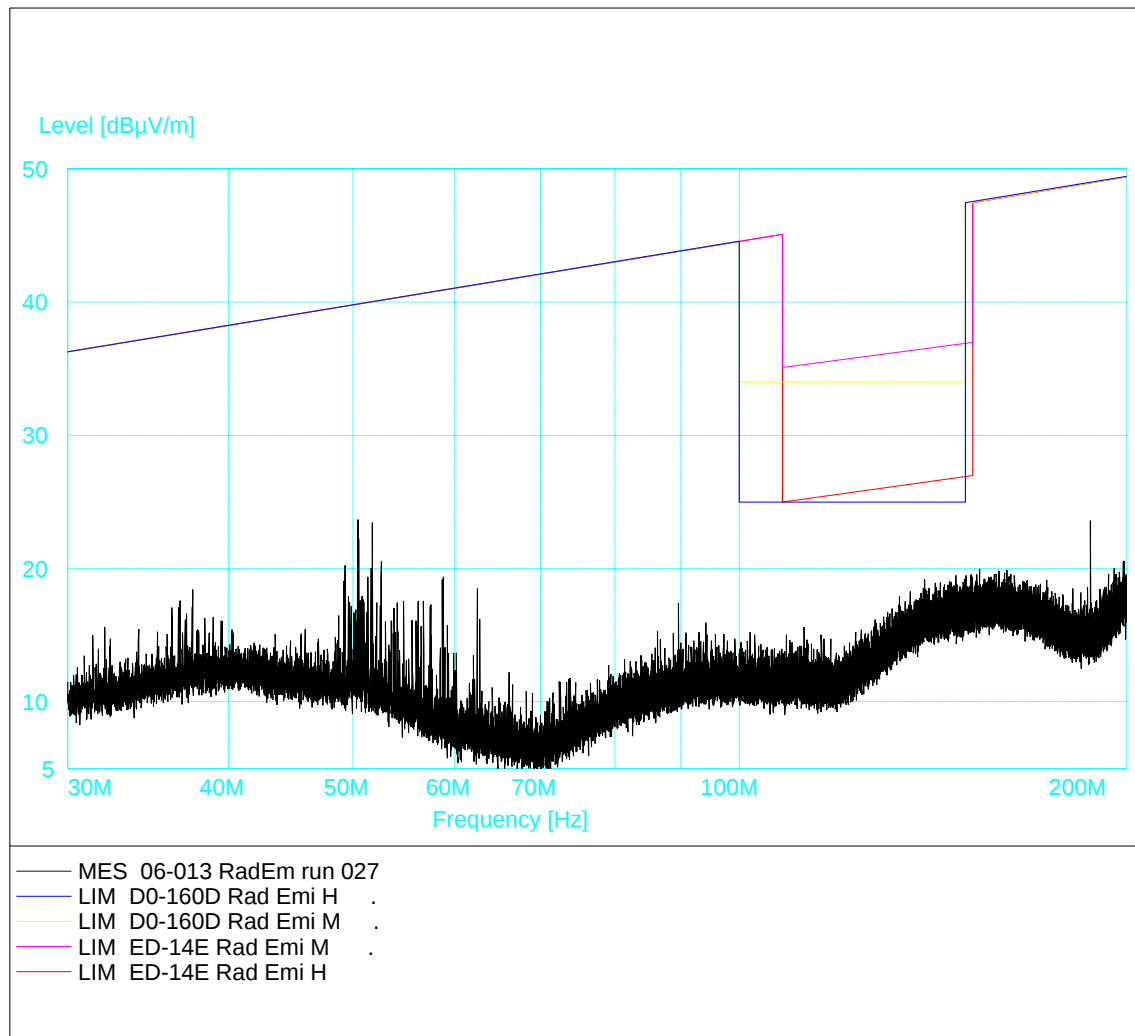


Figure 40

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, test equipment on, EUT off, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

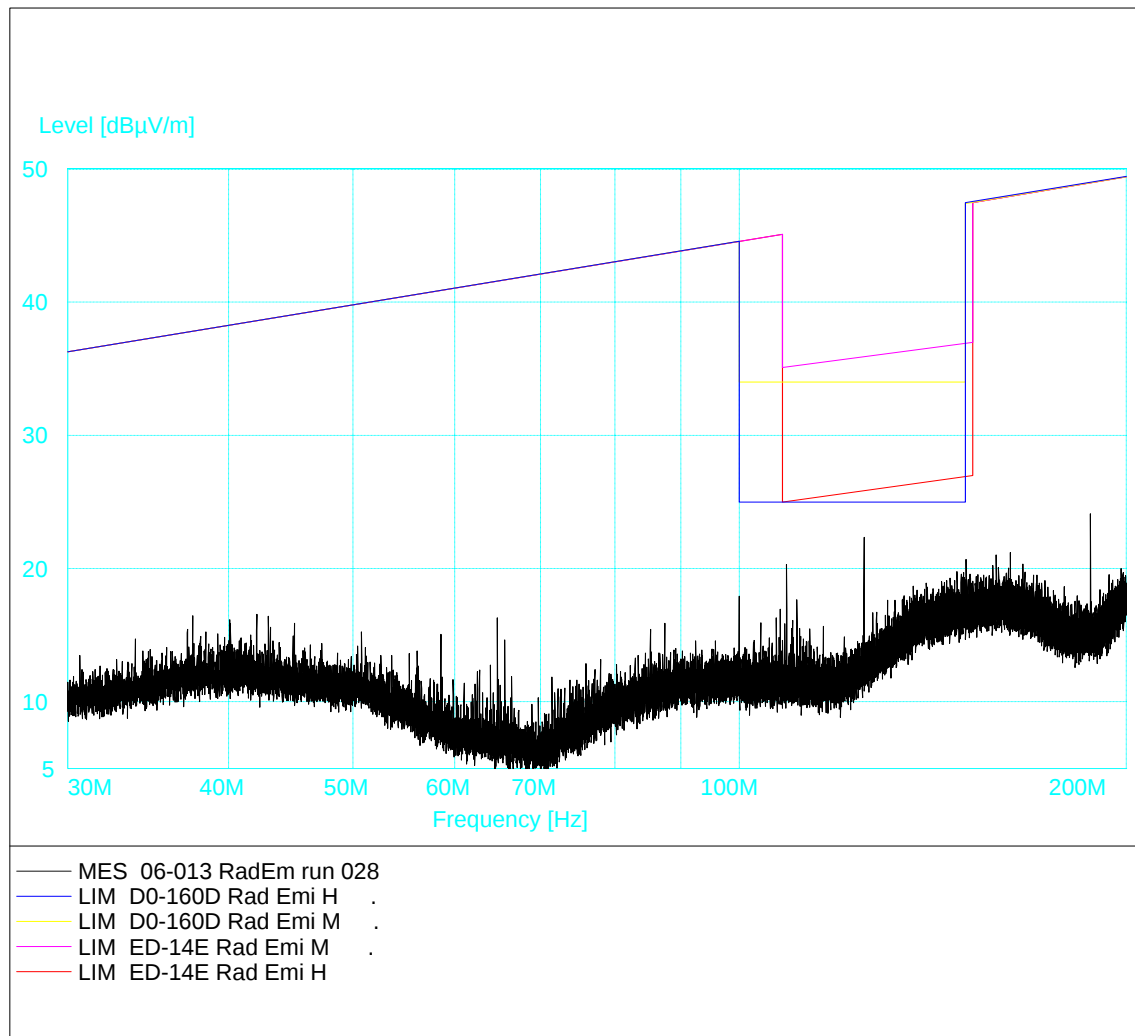


Figure 41

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all off, ambient, vertical. 100 - 140MHz

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

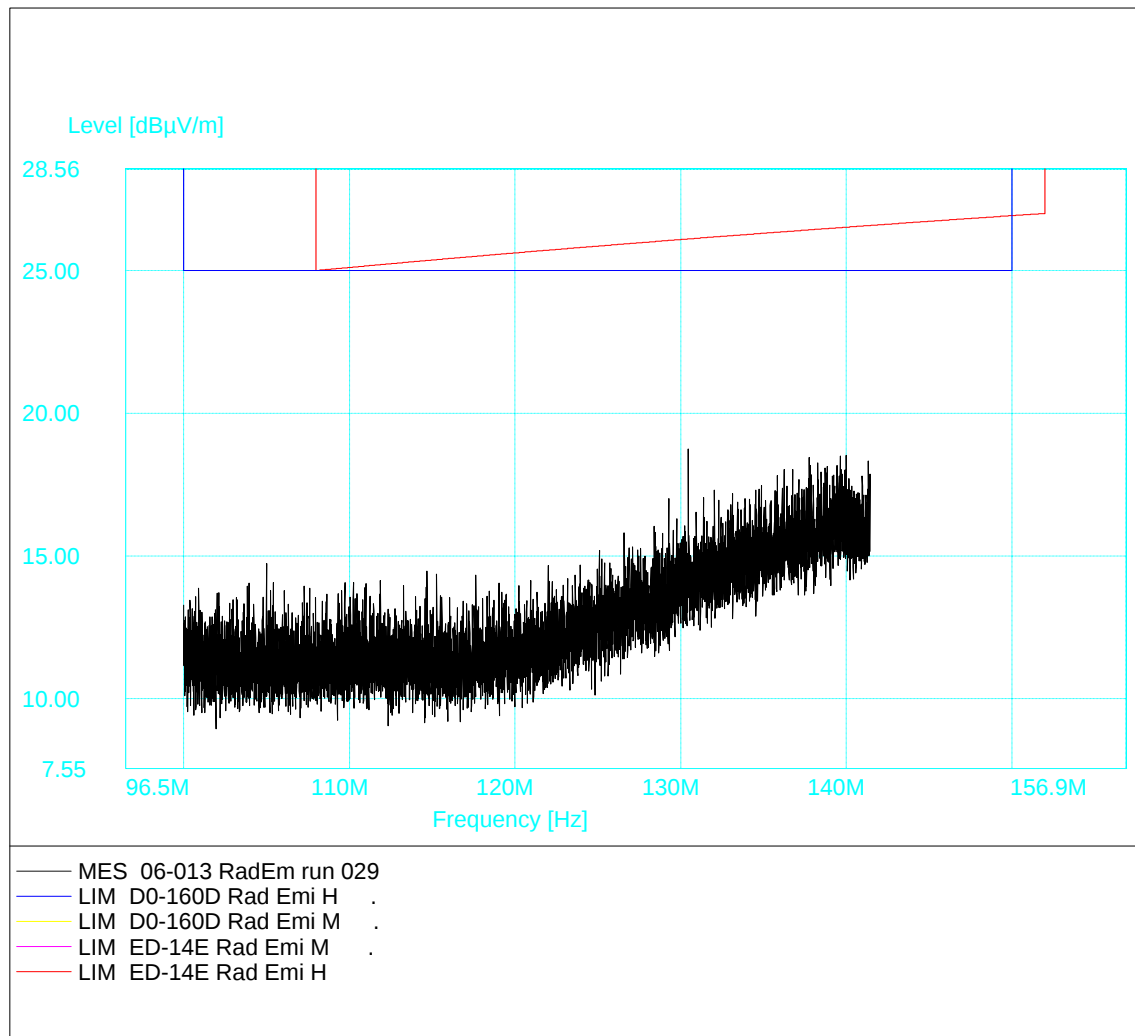


Figure 42

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Rear face, all on, horizontal. 200MHz - 1GHz

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

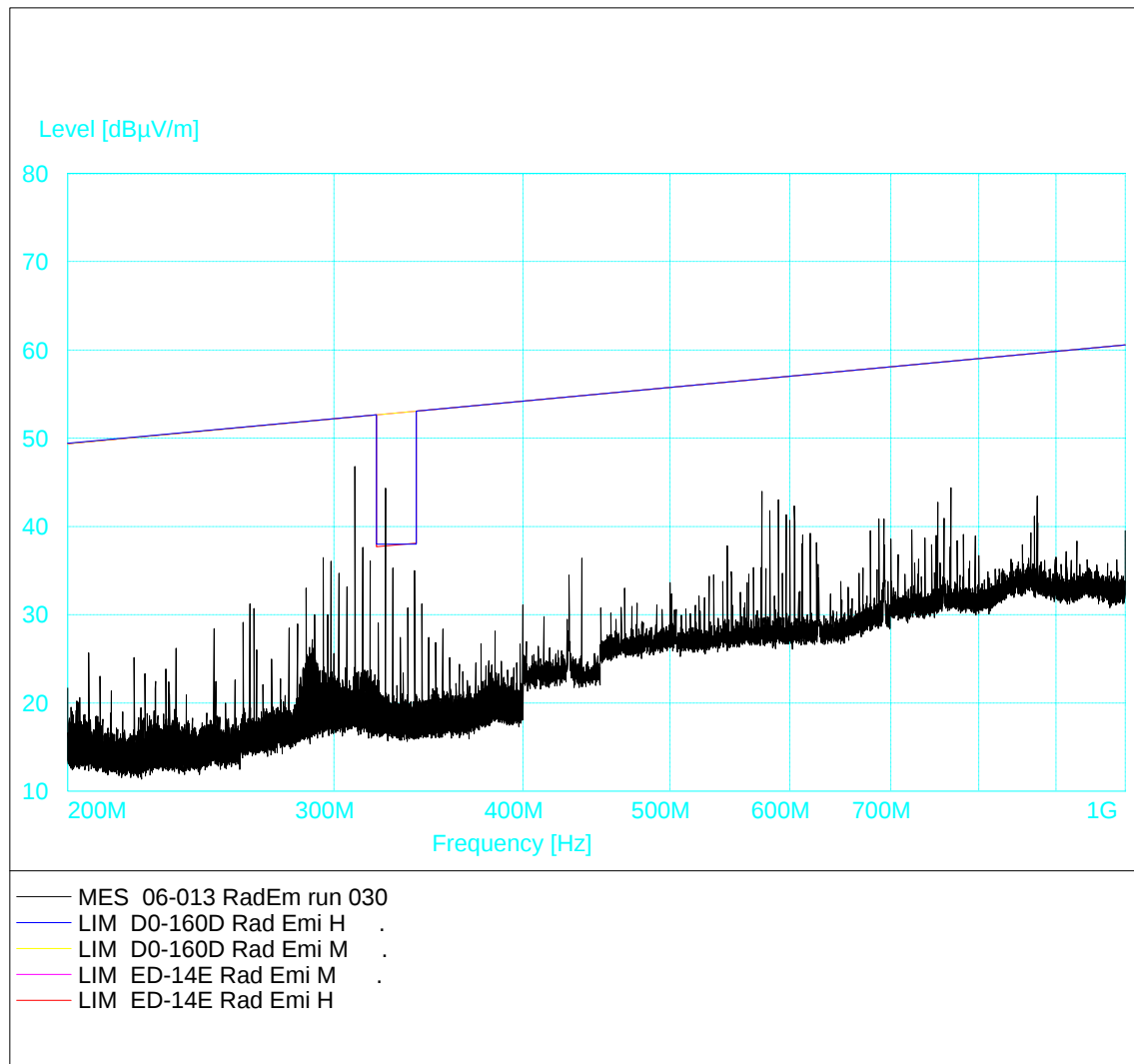


Figure 43

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Rear face, EUT off, test equipment on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

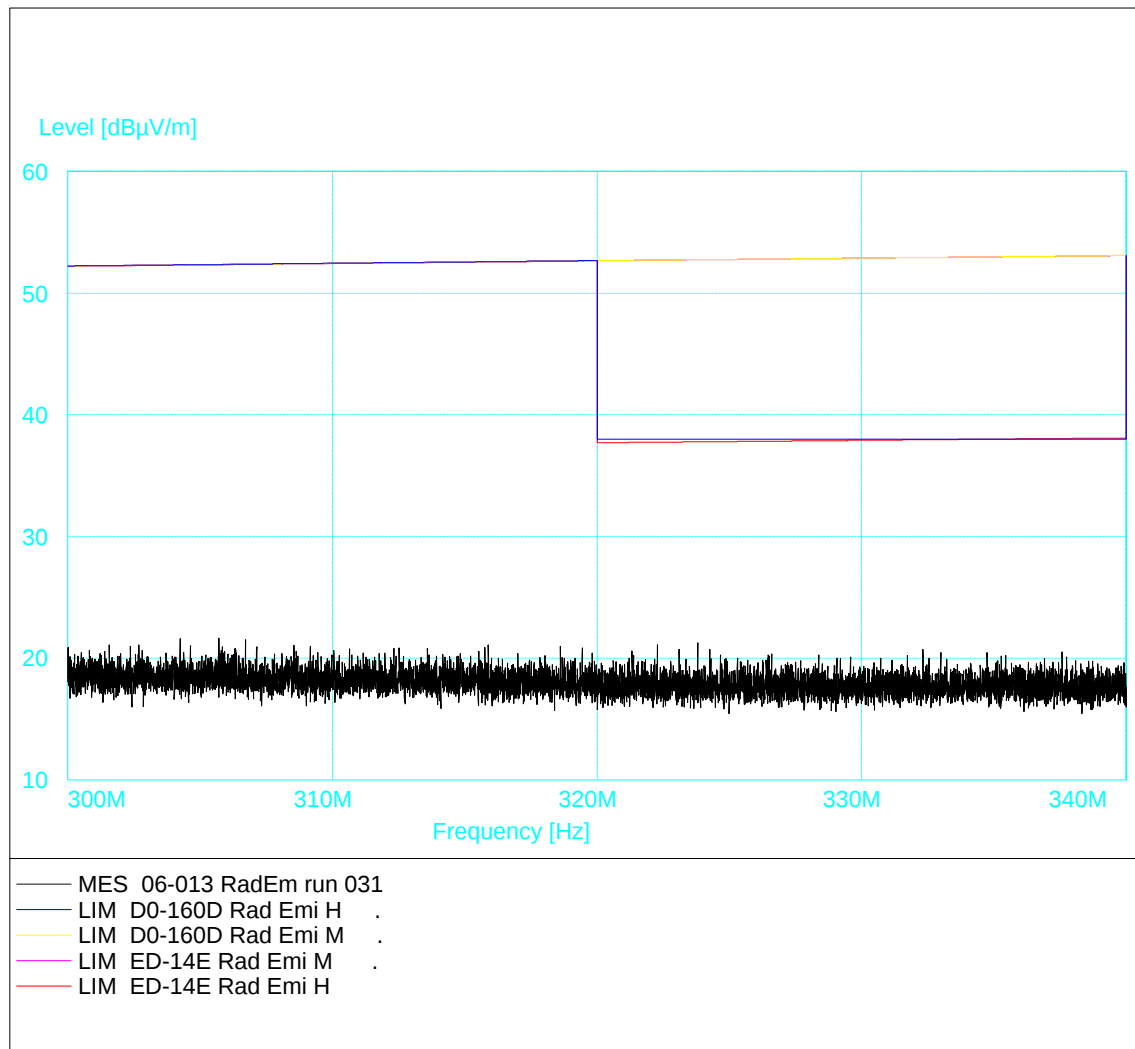


Figure 44

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, all on, vertical

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

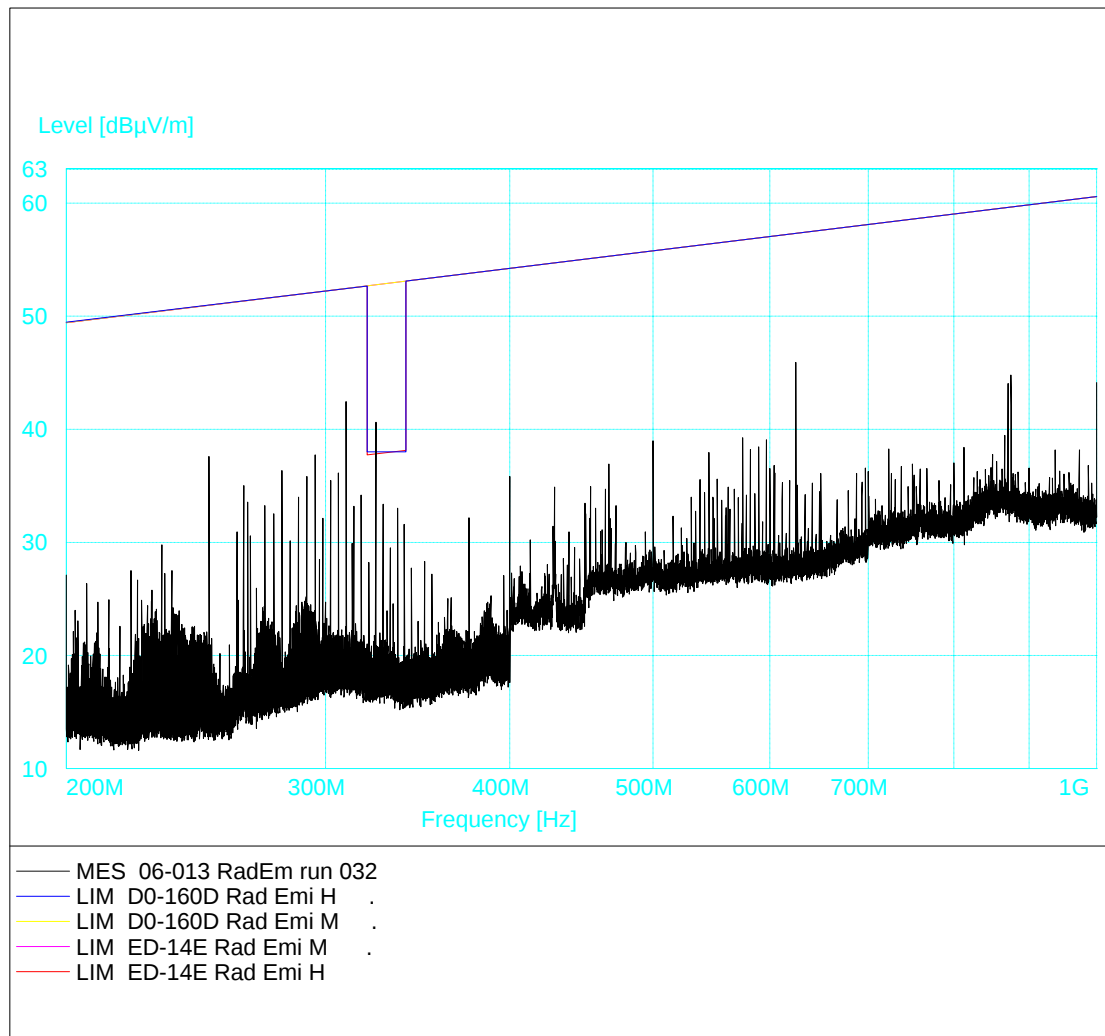


Figure 45

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, vertical, EUT off, test equipment on.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

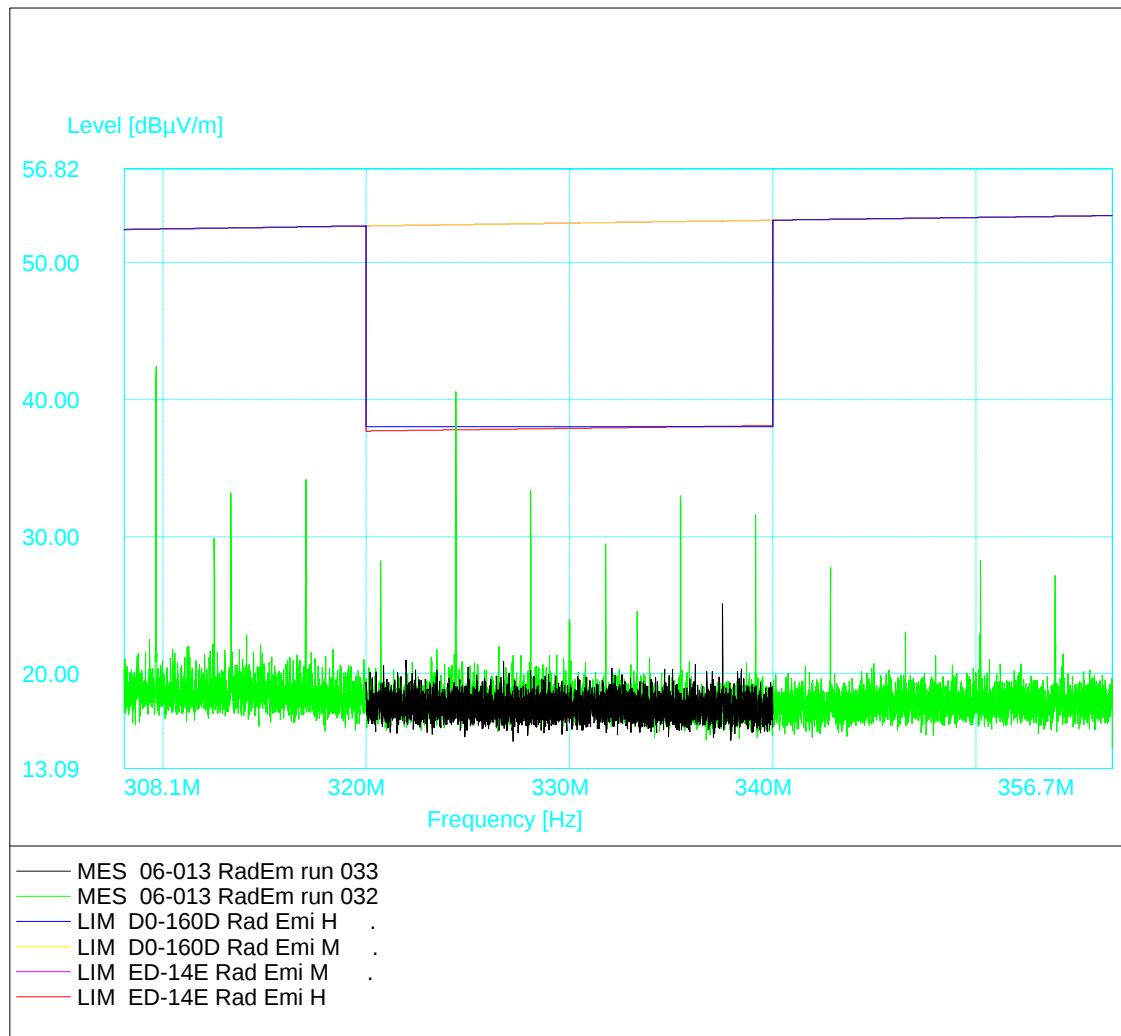


Figure 46

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Rear face, horizontal, all on.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

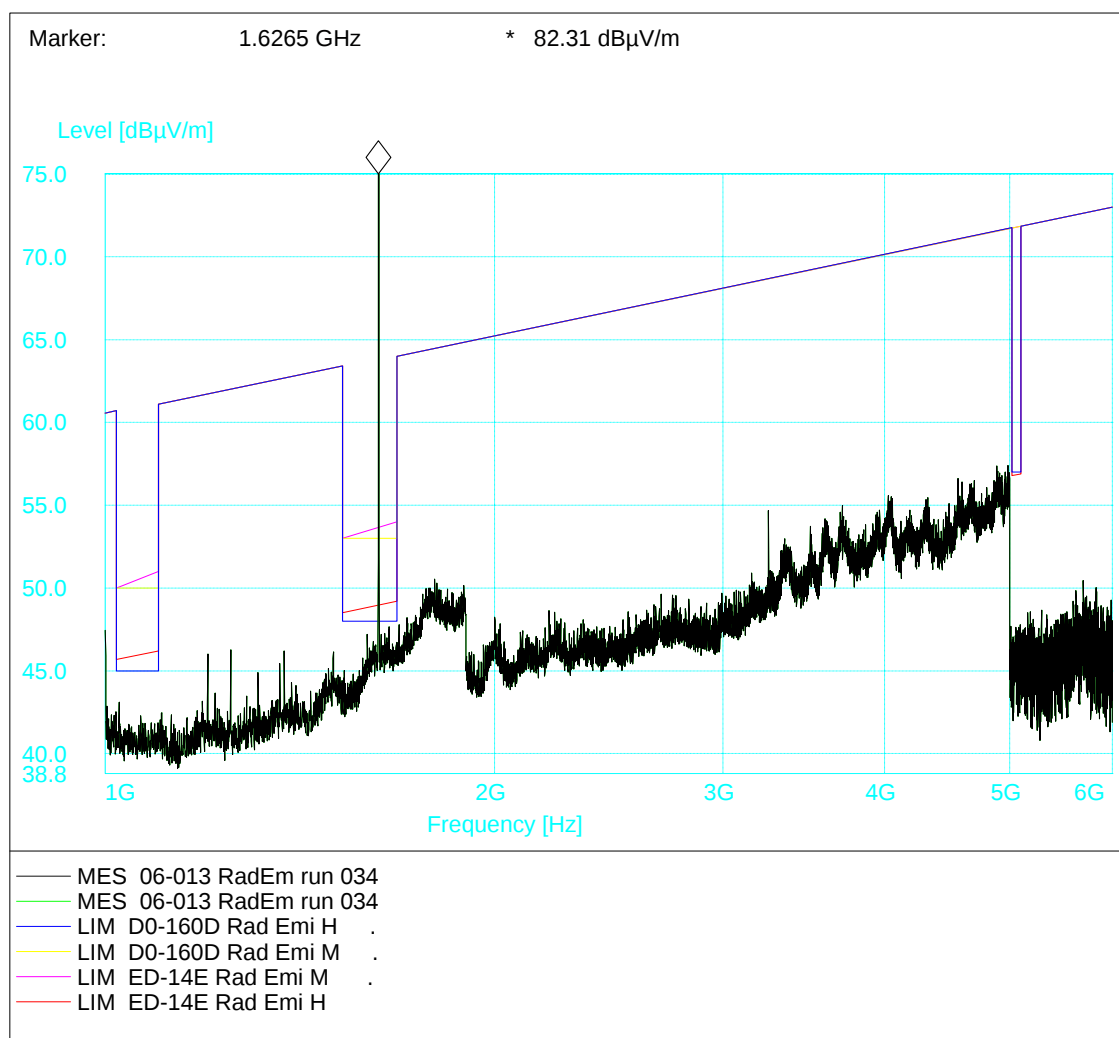


Figure 47

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 R/r face, horizontal, all on, 10KHz across limit line notch.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

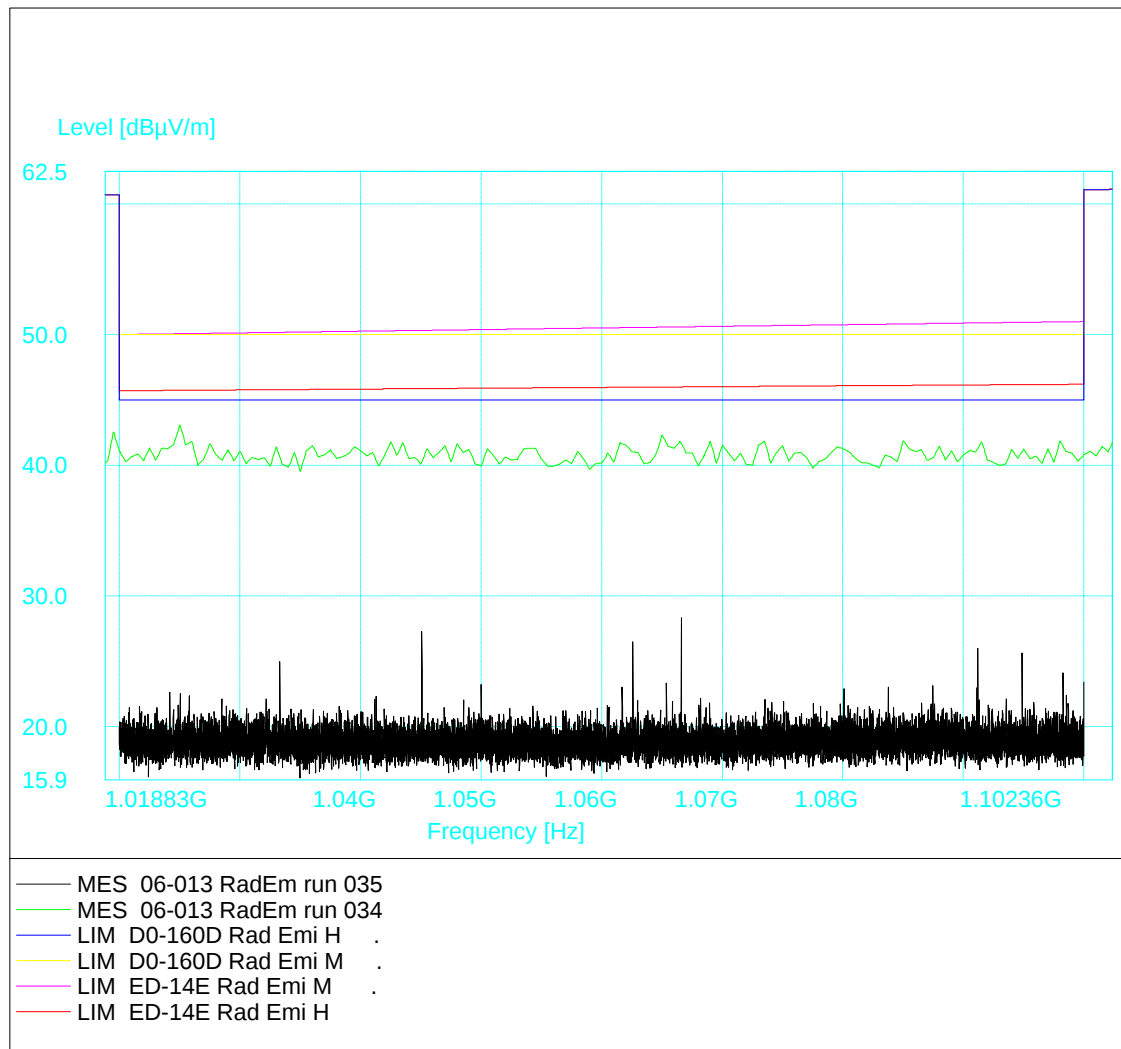


Figure 48

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
R/r face, horizontal, all on, 10KHz across limit line notch.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

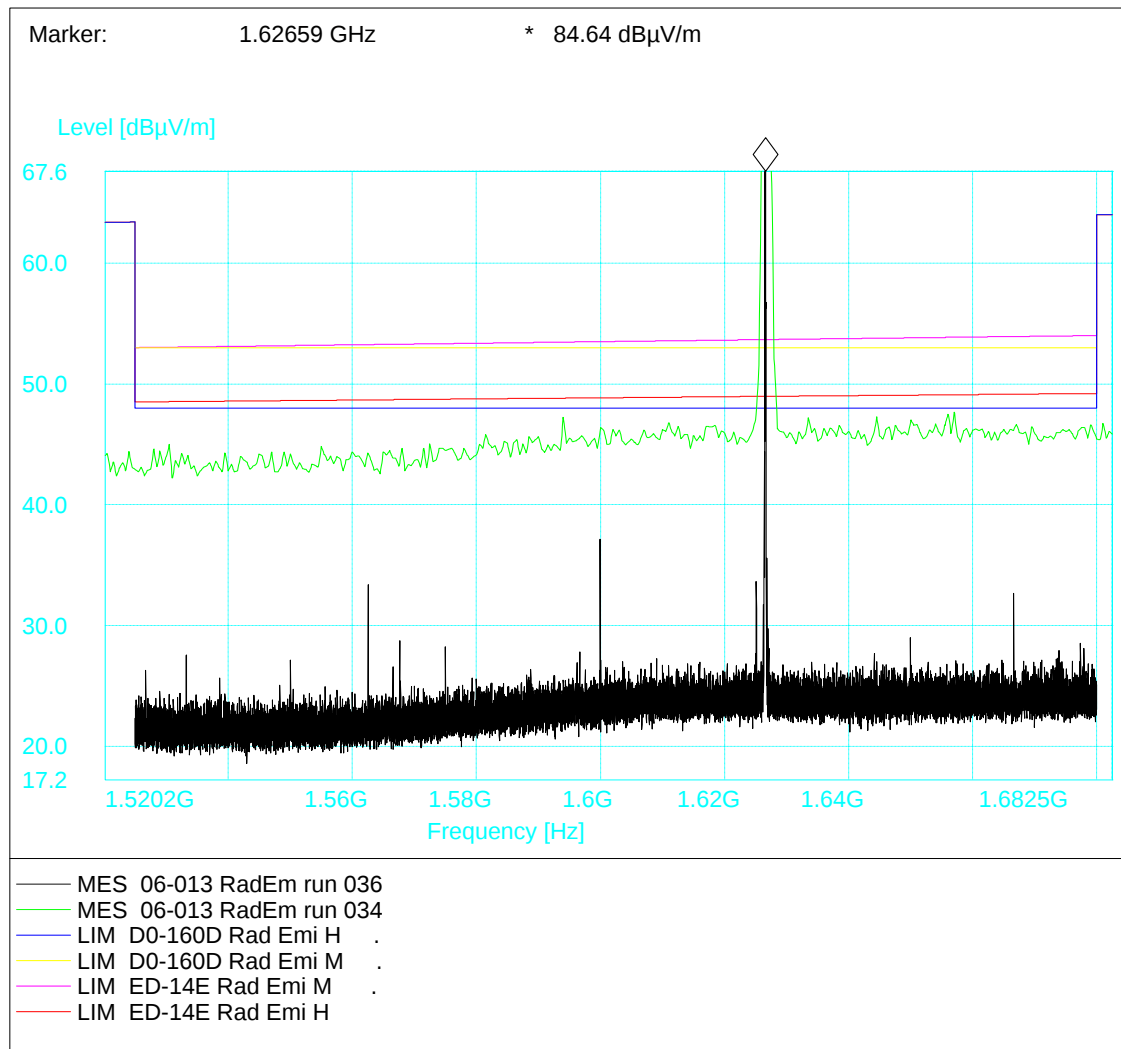


Figure 49

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, RTCA D0-160D & ABD0100.1.2
Comment: Radiated Emissions, carrier signal off.
Rear face, all on, 1610MHz to 1670MHz, horizontal

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

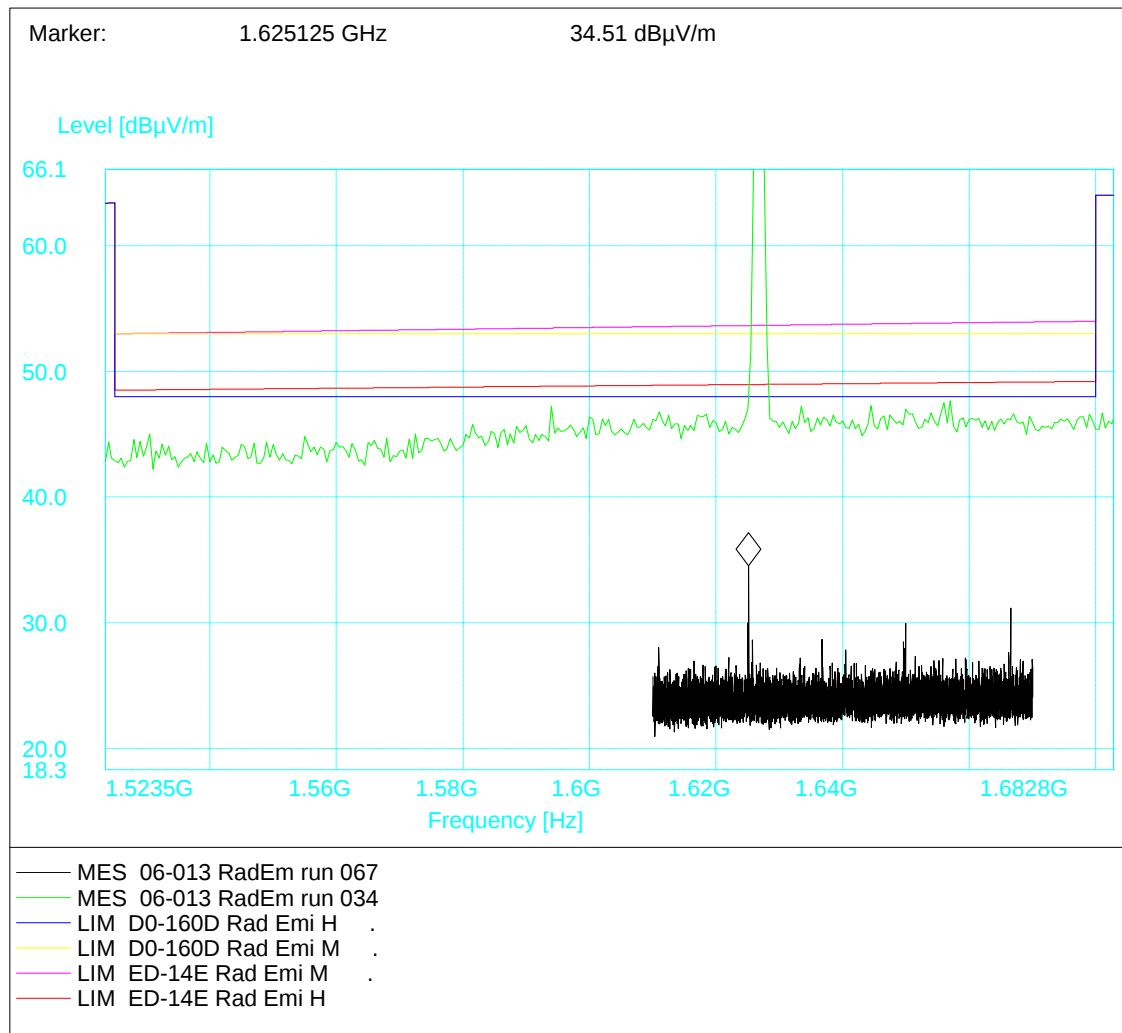


Figure 50

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Rear face, vertical, all on.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

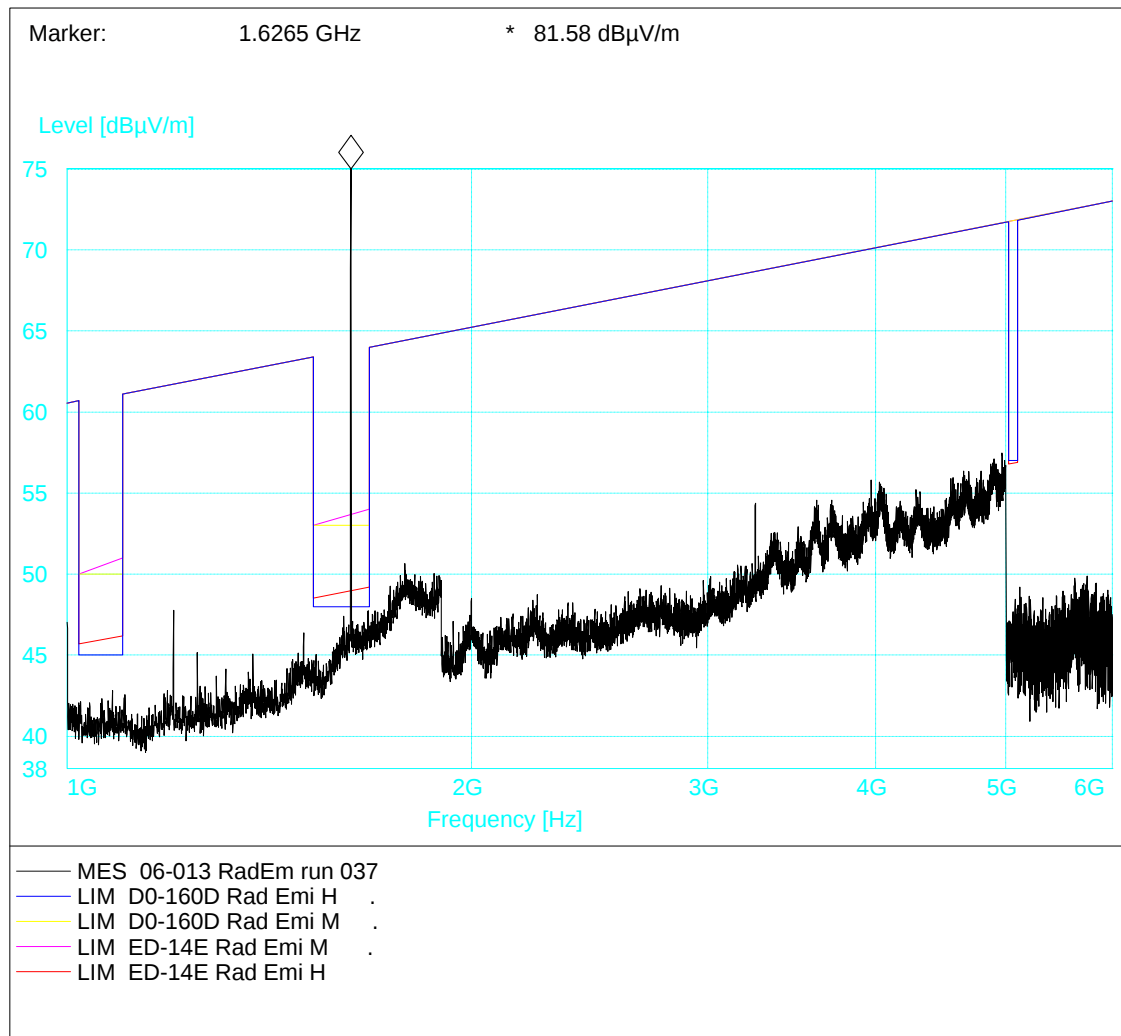


Figure 51

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Rear face, vertical, all on, 10KHz across limit line notch.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

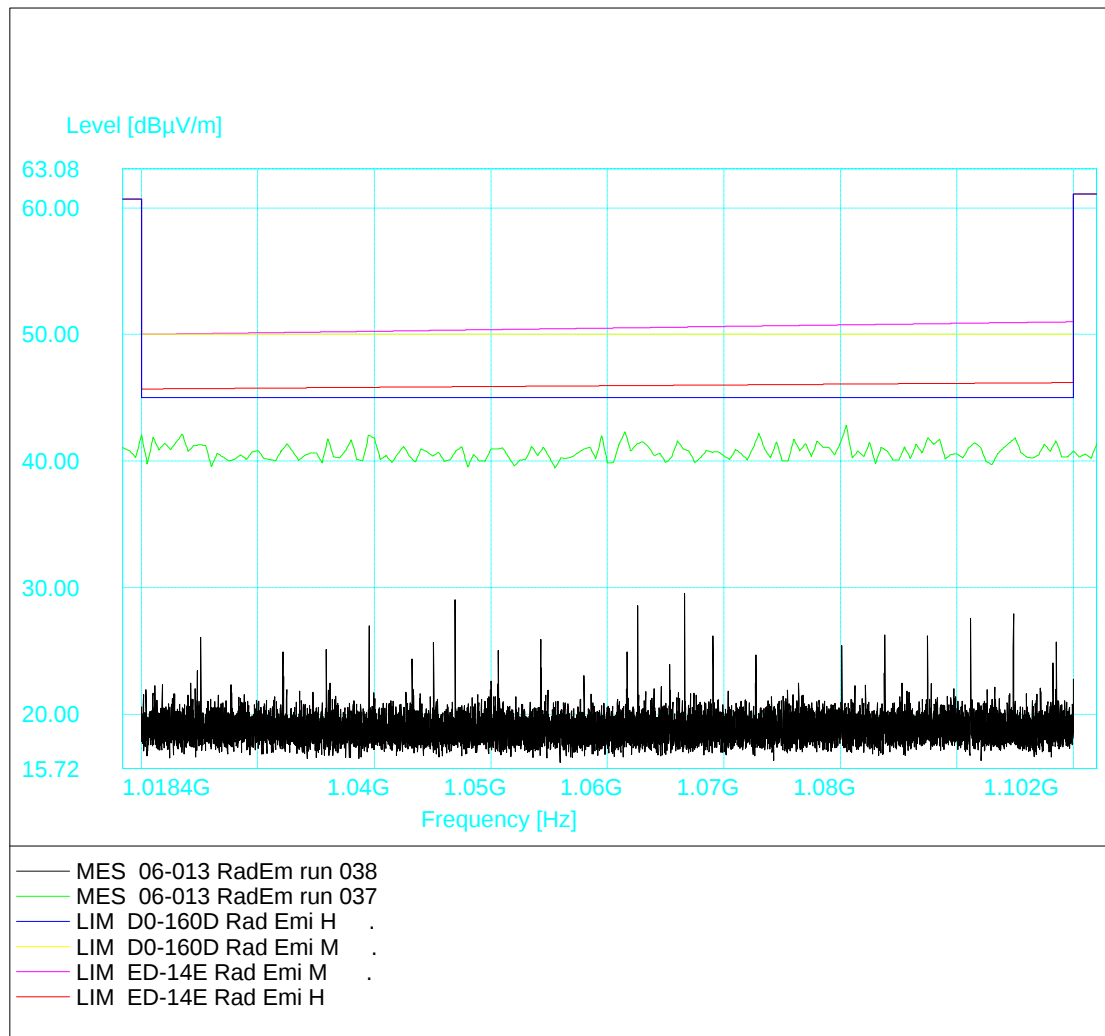


Figure 52

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Rear face, vertical, all on, 10KHz across limit line notch.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

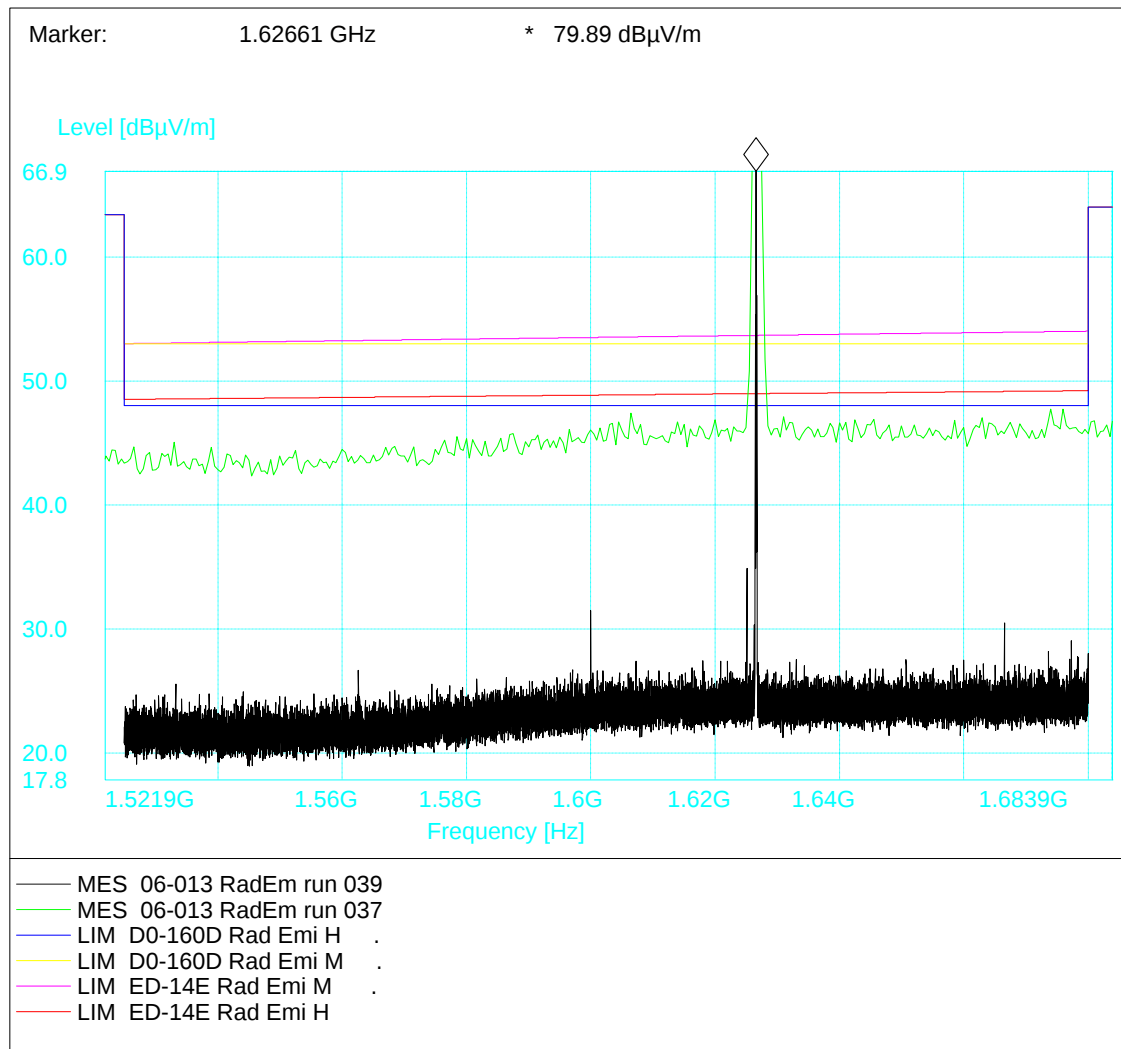


Figure 53

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions, carrier signal off.
Rear face, all on, 1610MHz to 1670MHz, vertical

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

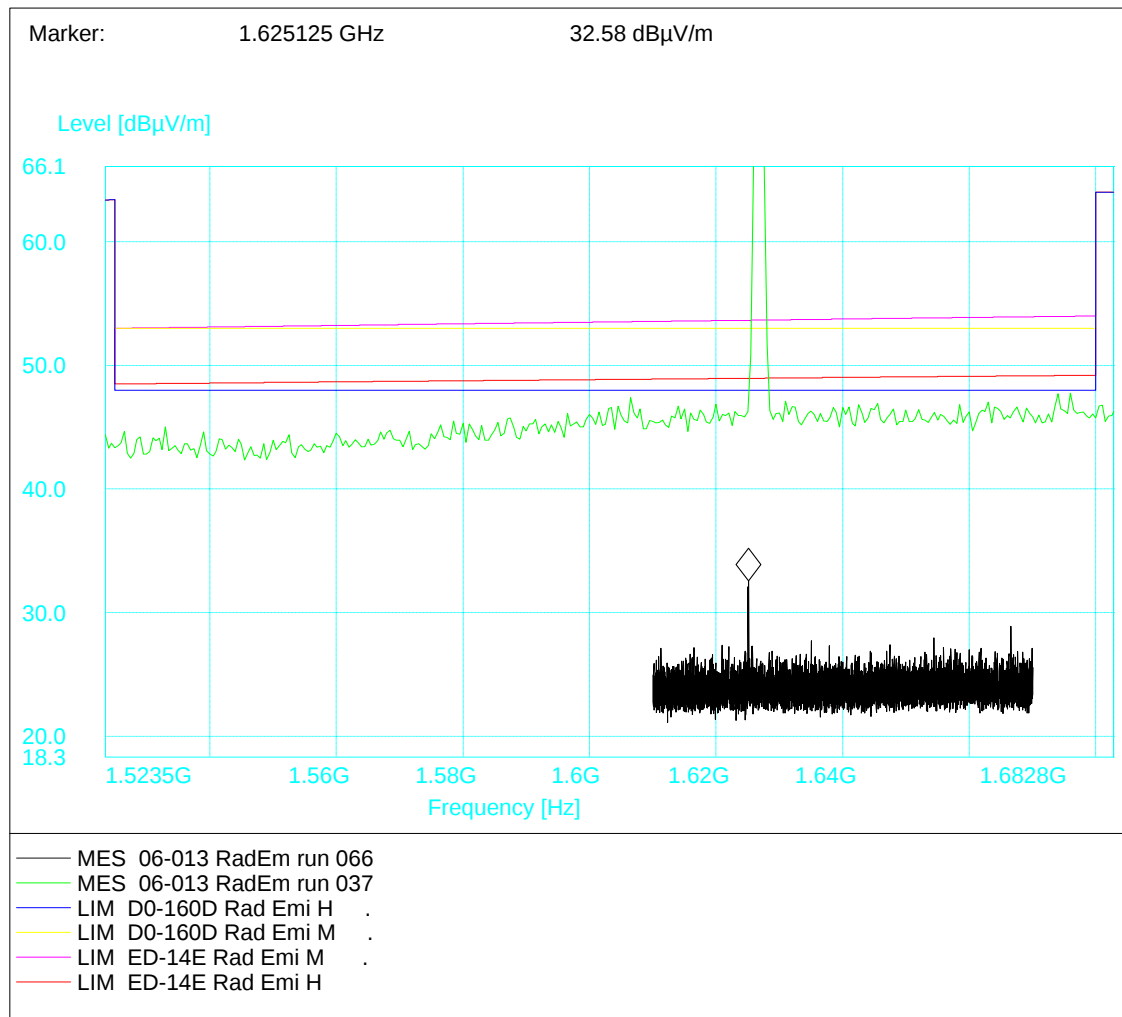


Figure 54

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: Radiated Emissions
Left face, all on.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

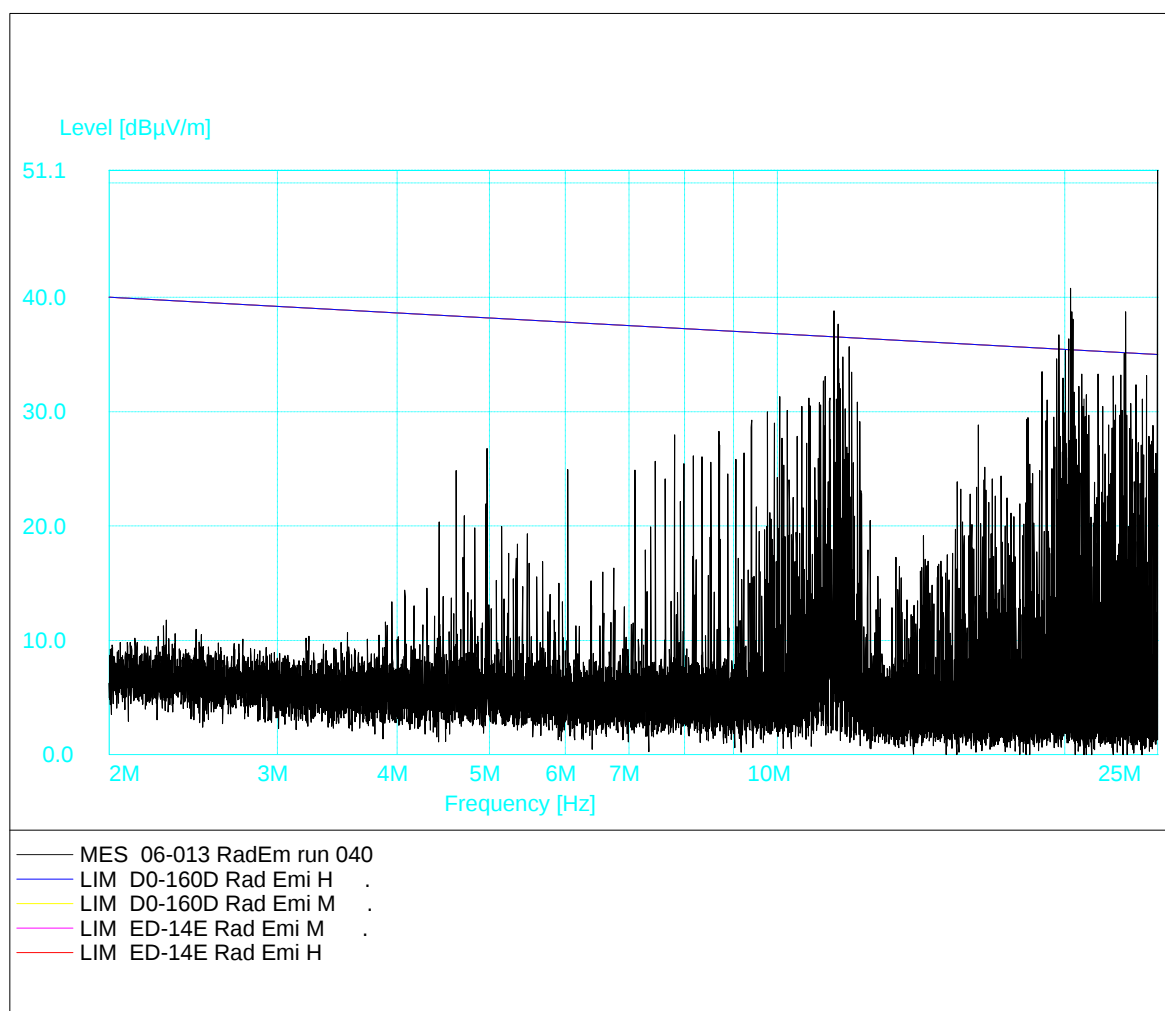


Figure 55

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA D0-160D
 Comment: Radiated Emissions
 Left face, EUT off, test equipment on.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

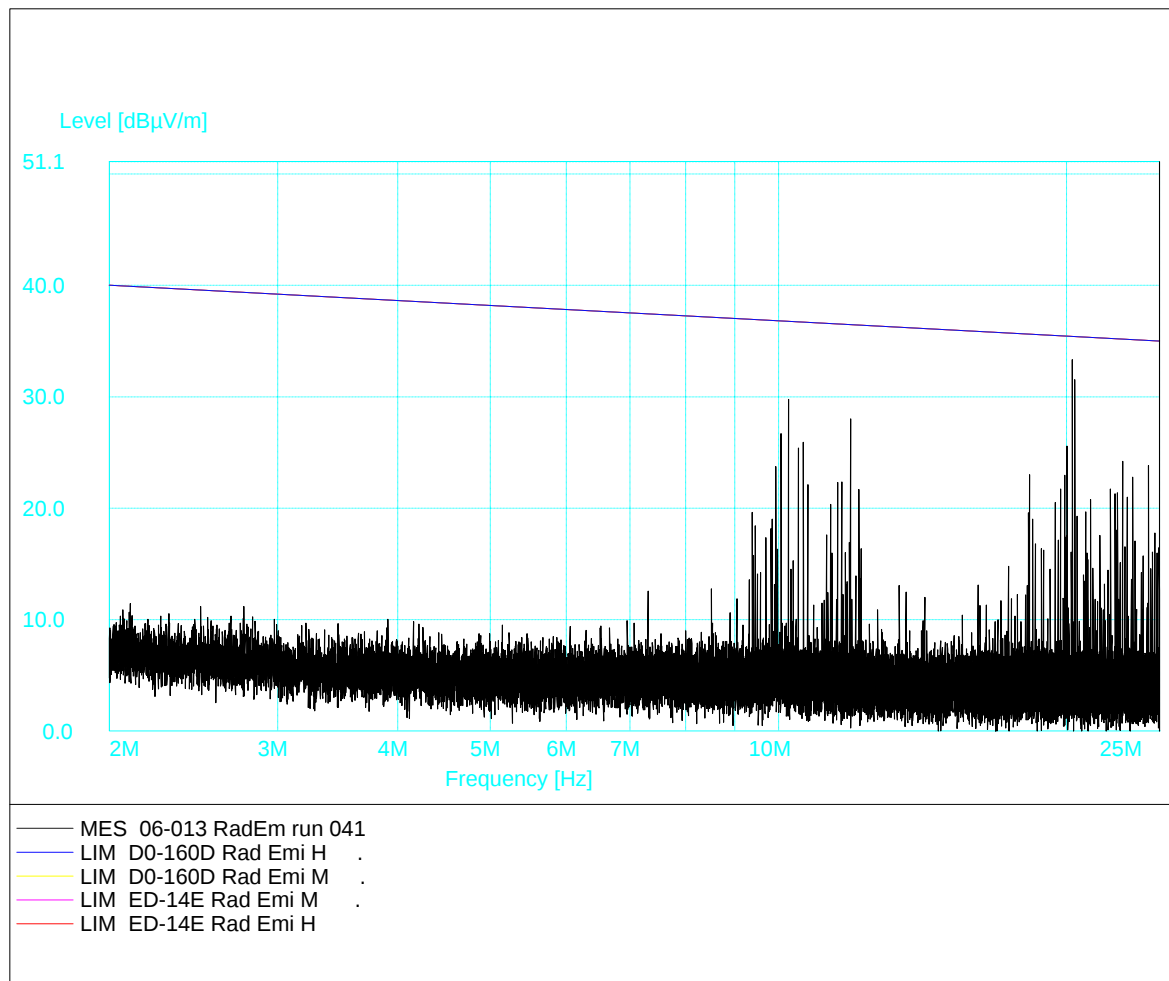


Figure 56

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, all off, 10MHz to 25MHz

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

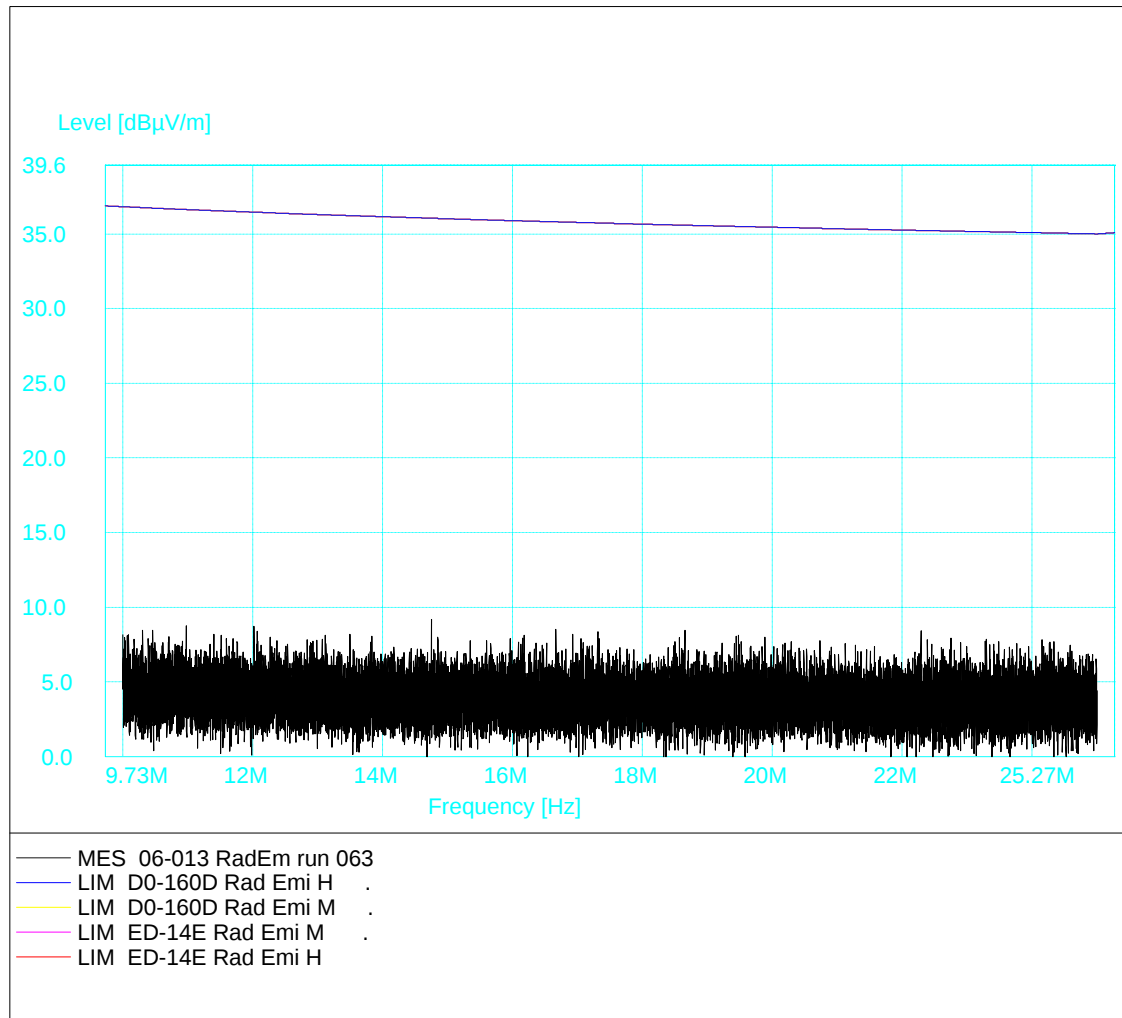


Figure 57

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Left side, all on, 25MHz to 30MHz, vertical

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

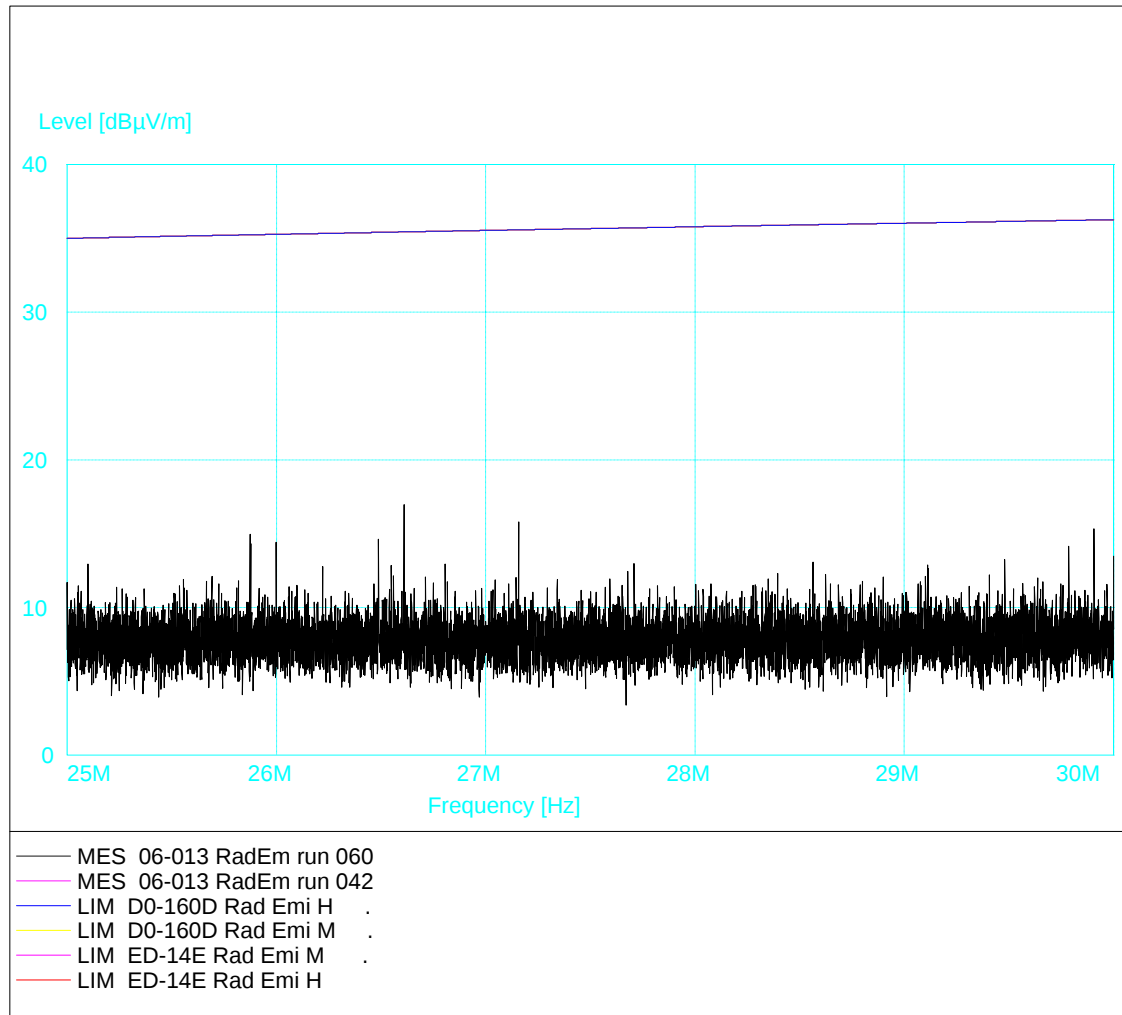


Figure 58

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, all on, 25MHz to 30MHz, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

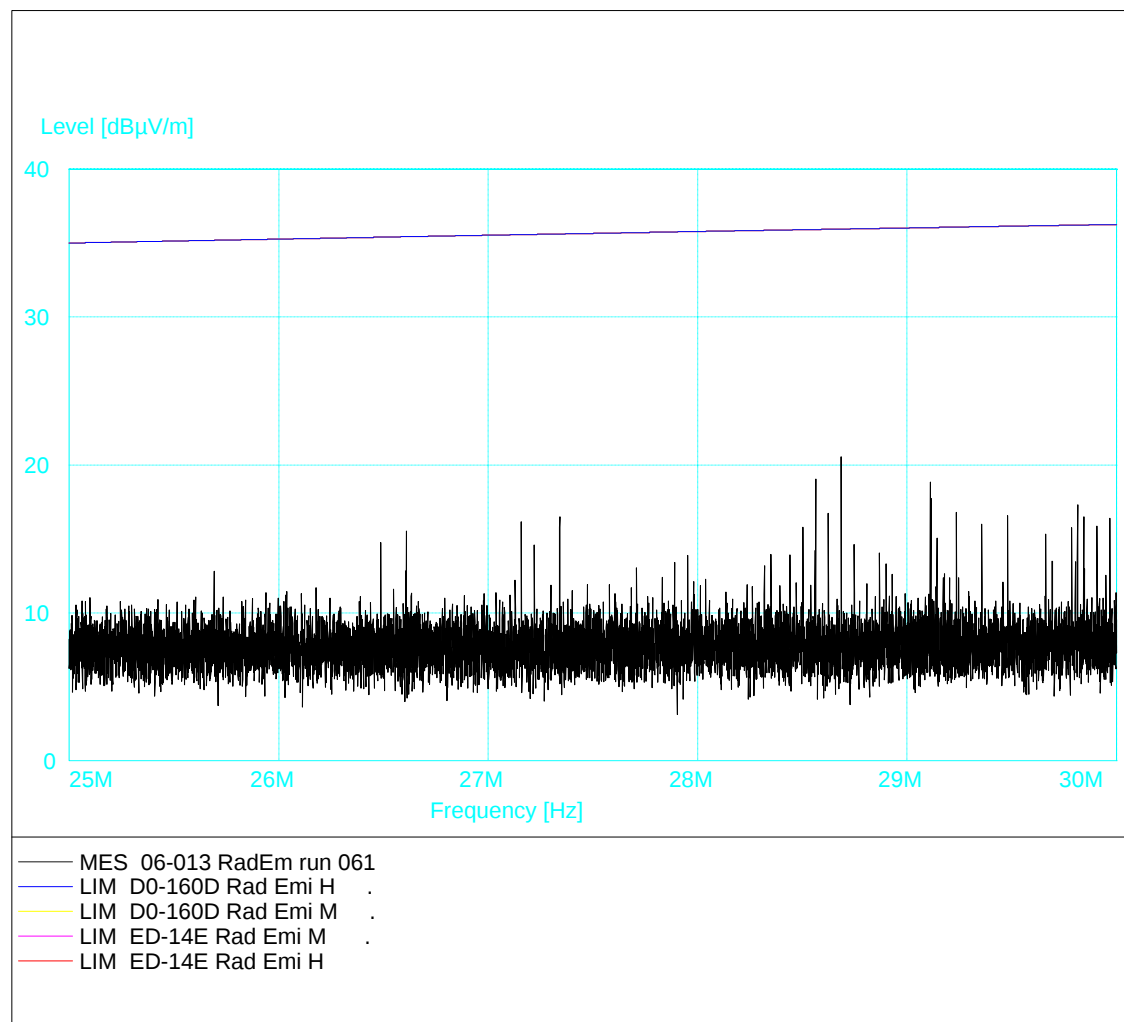


Figure 59

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, all on.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

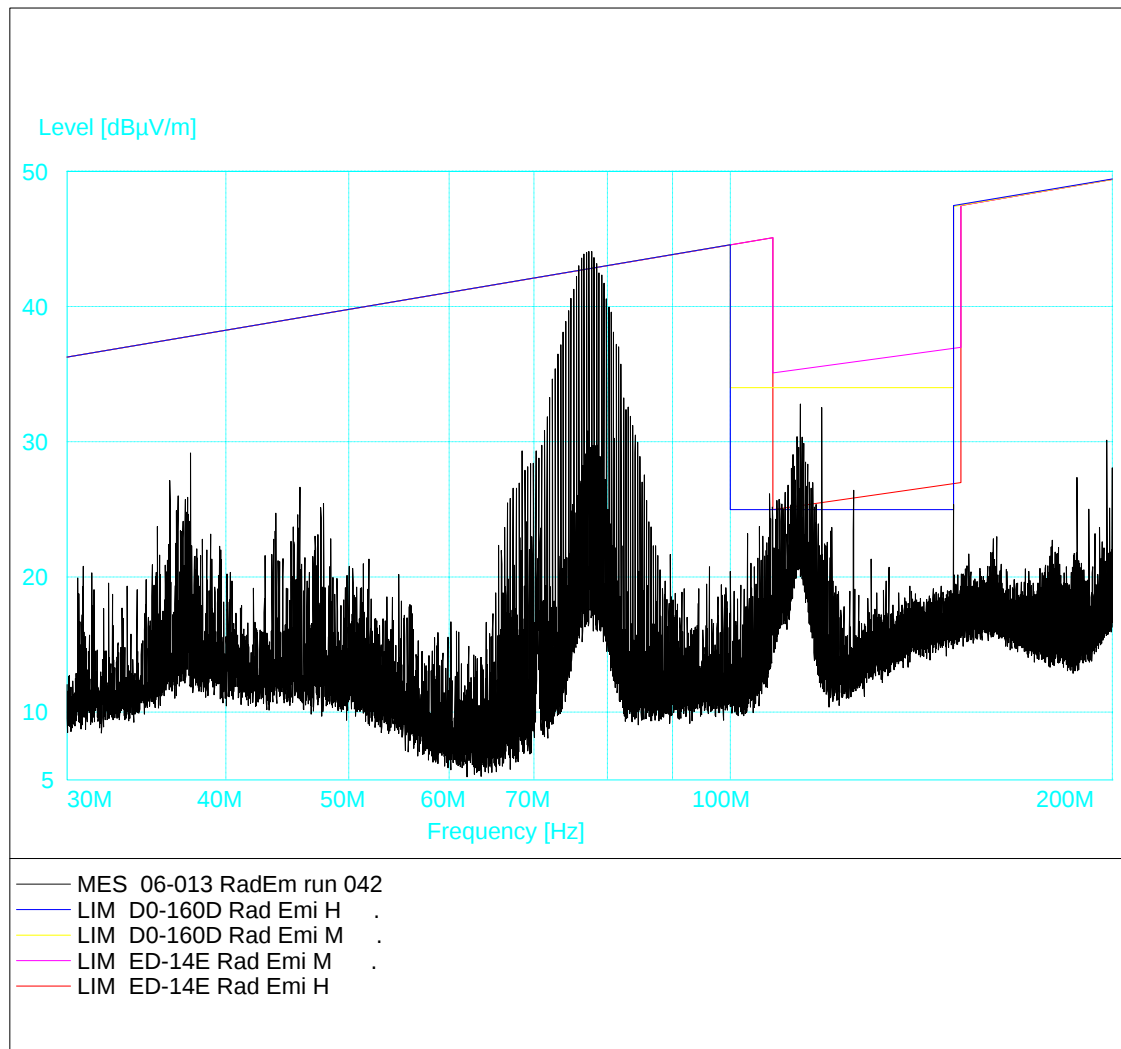


Figure 60

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, all on, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

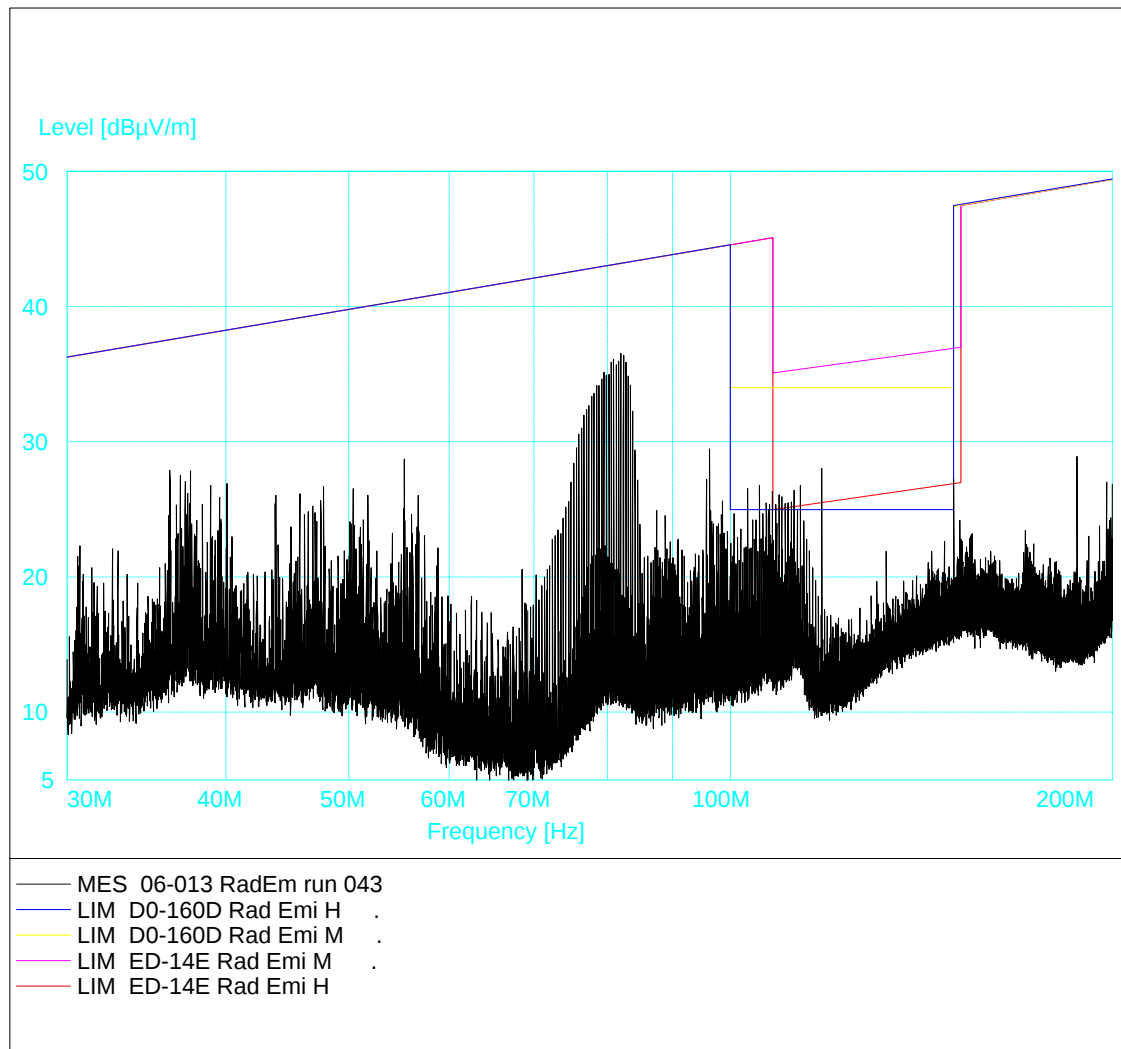


Figure 61

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Left side, EUT off, test equipment on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

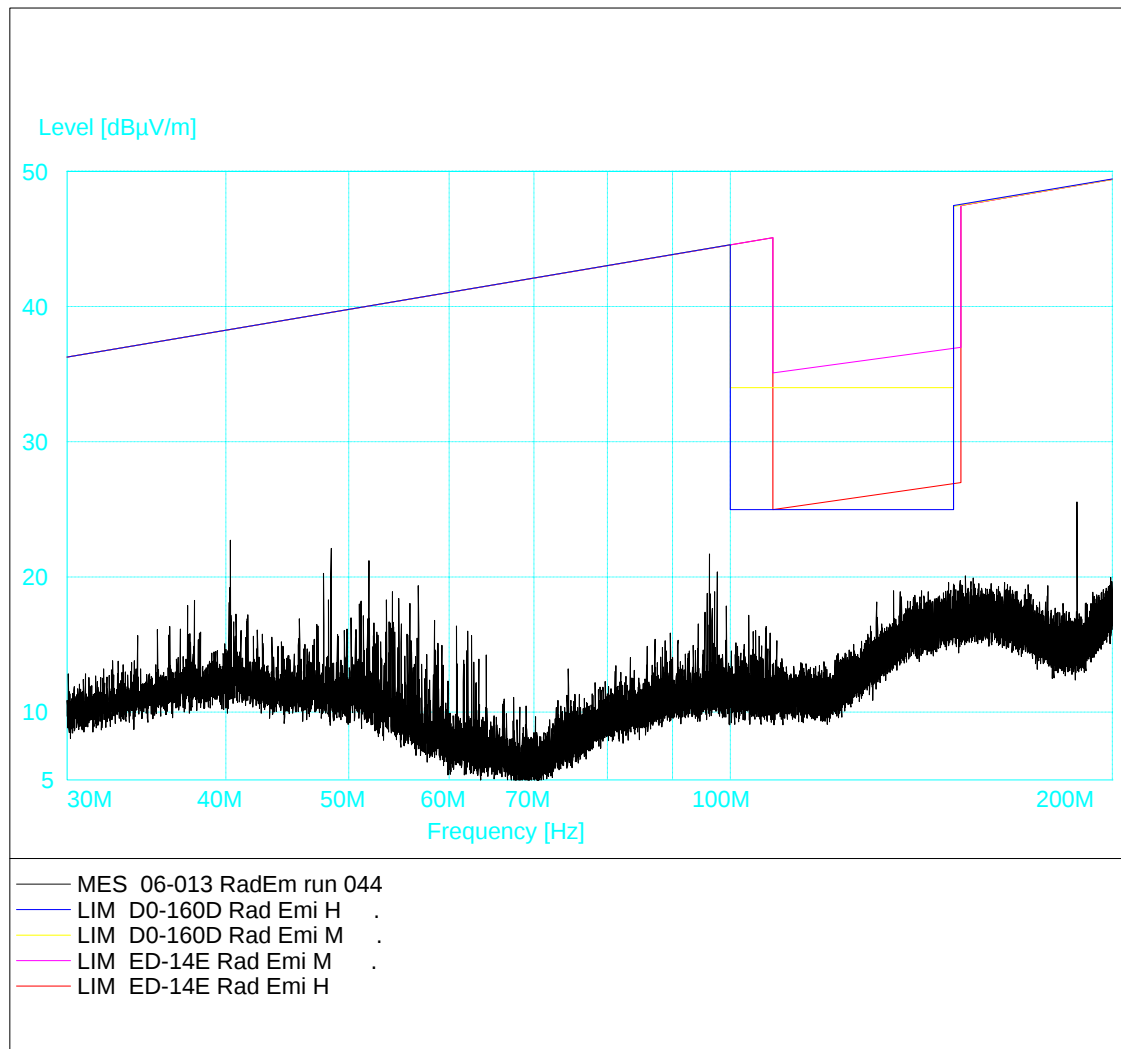


Figure 62

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, EUT off, test equipment on, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

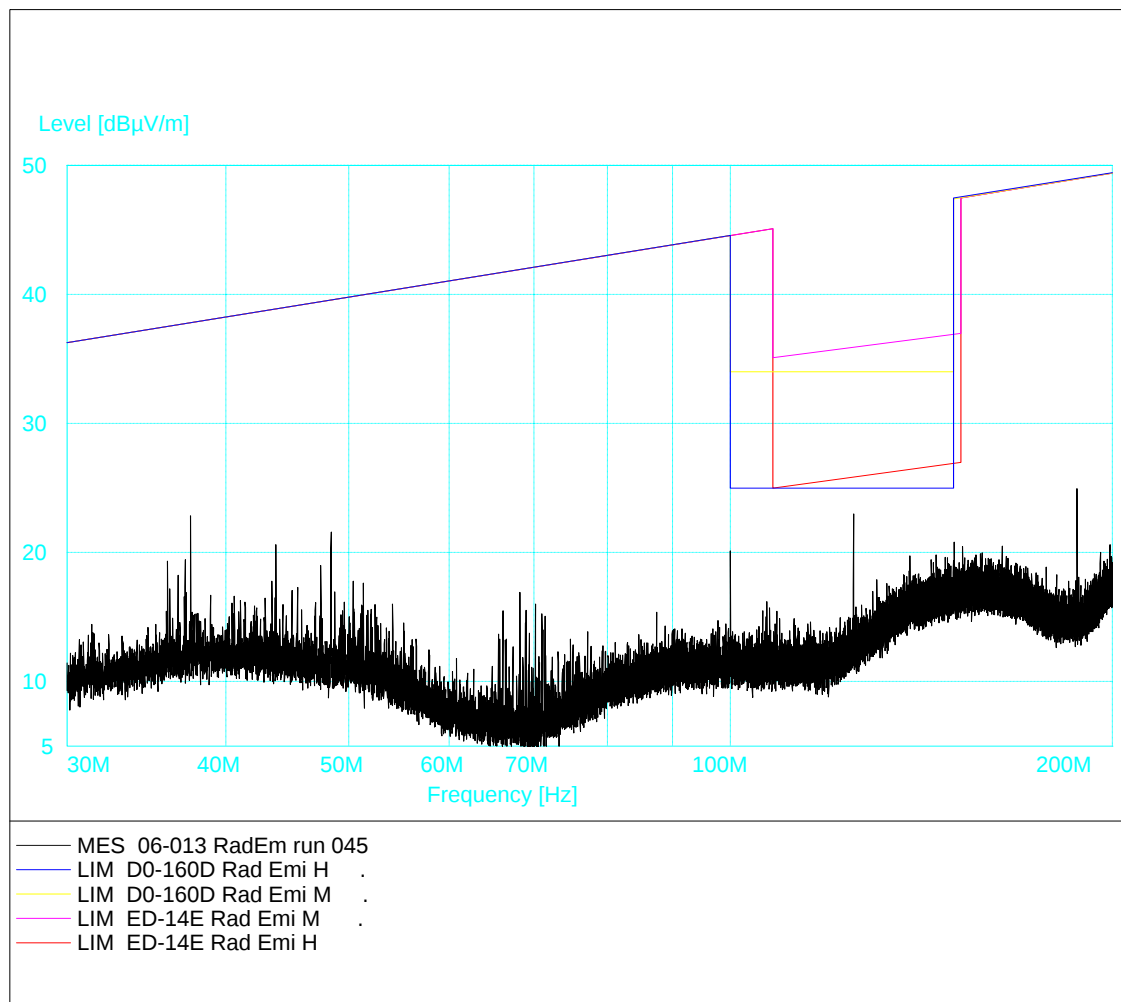


Figure 63

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, all off, 100MHz to 150MHz, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

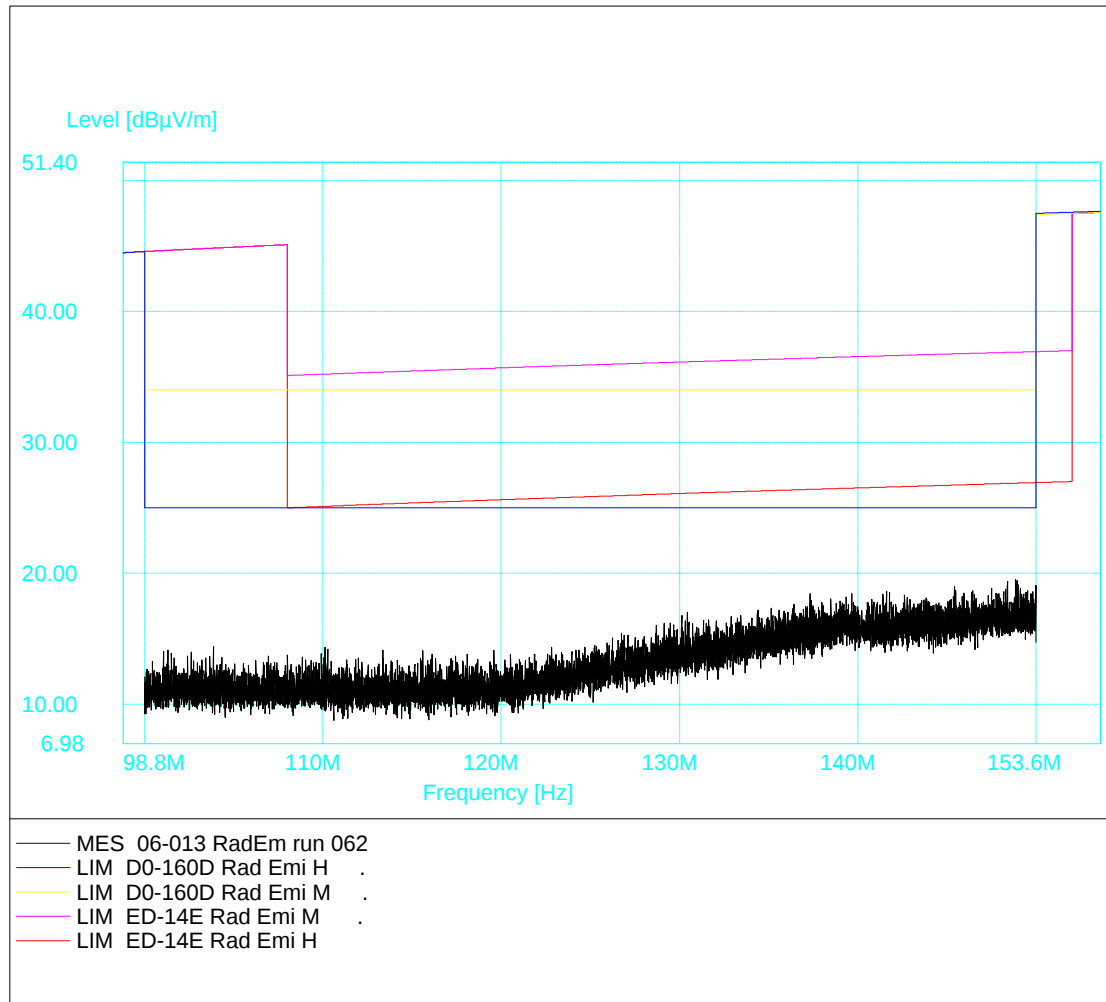


Figure 64

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, all on, vertical.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

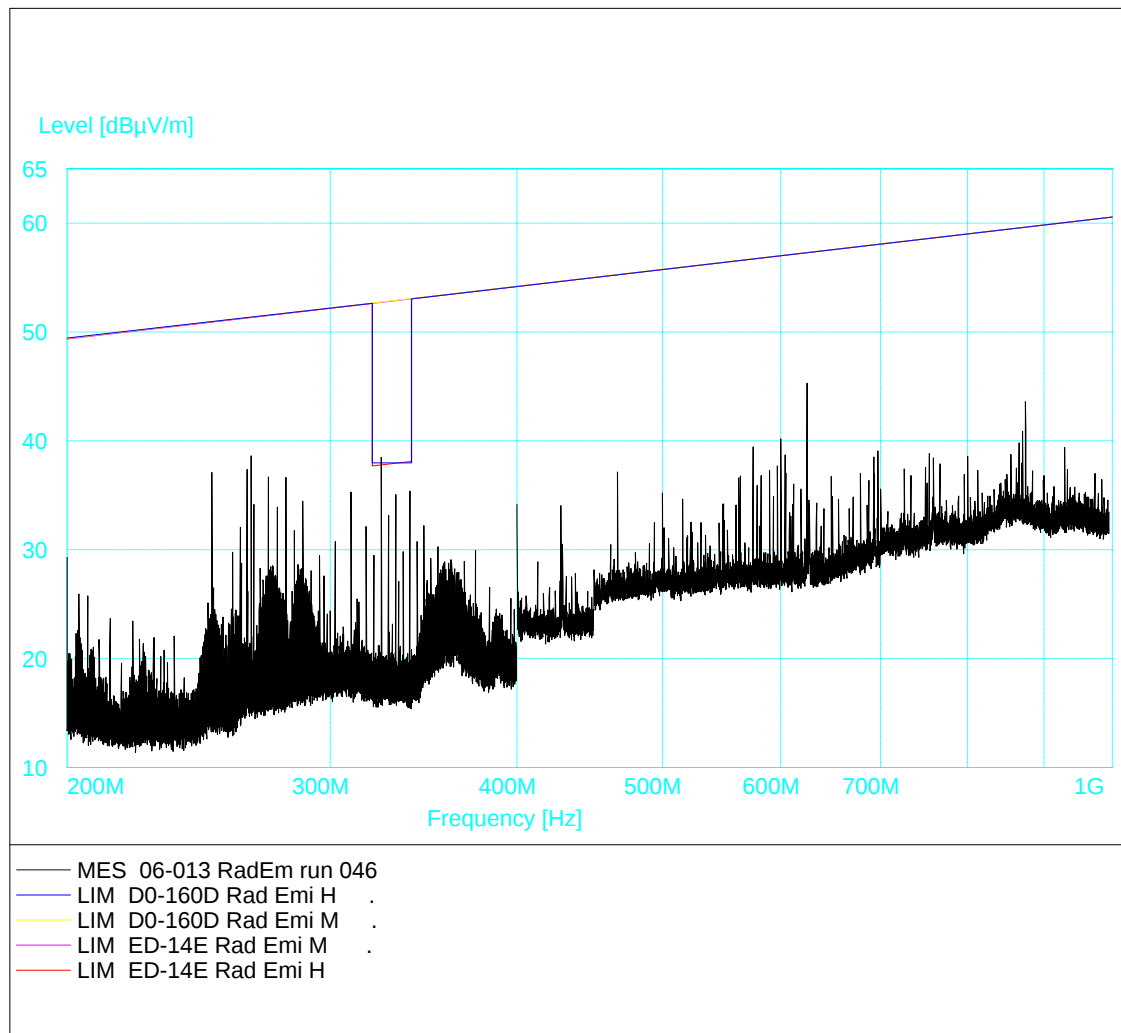


Figure 65

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Left side, all on, horizontal.

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

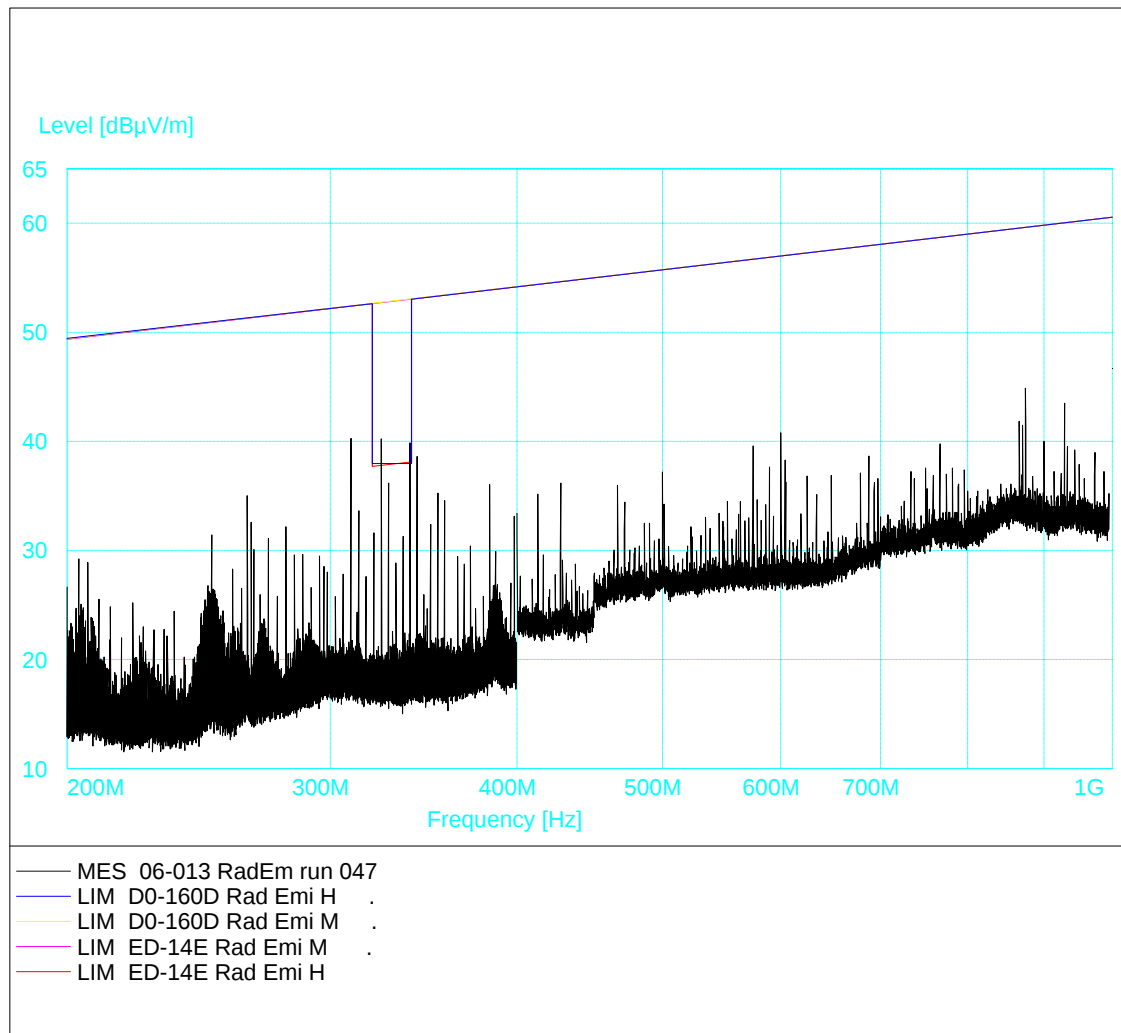


Figure 66

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, ambient - support equipt still on, horizontal.

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

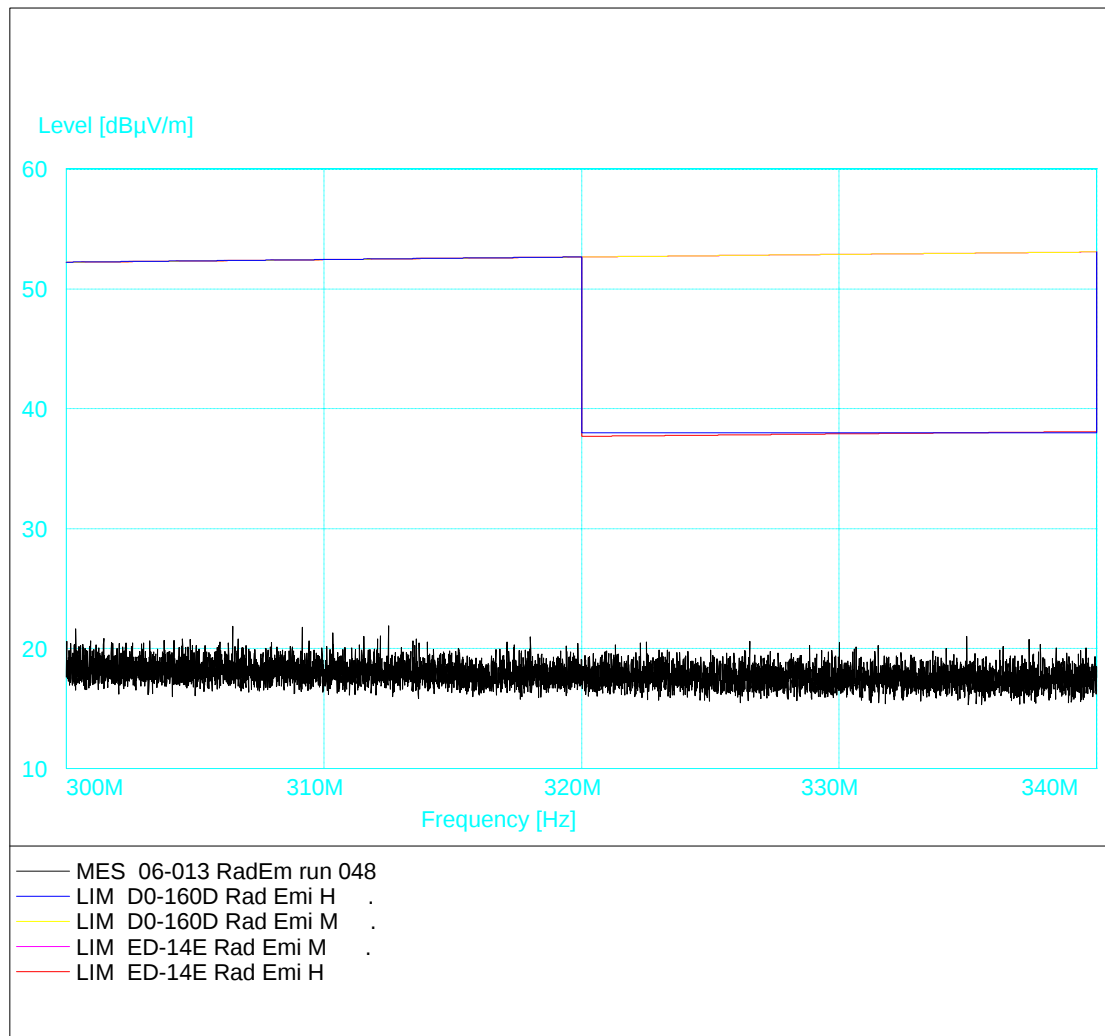


Figure 67

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, ambient - support equipt still on, vertical

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

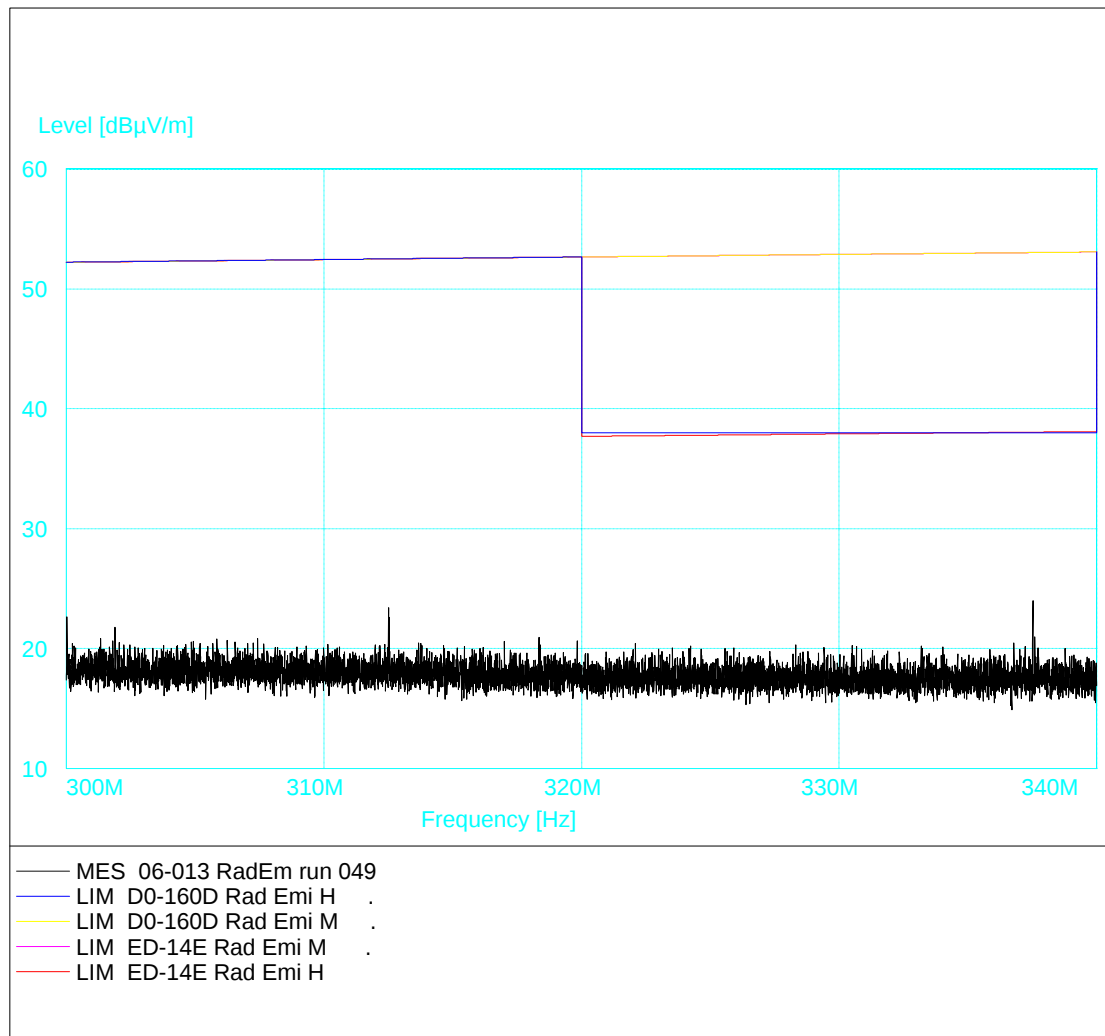


Figure 68

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
 Comment: Radiated Emissions
 Left side, all on, vertical

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

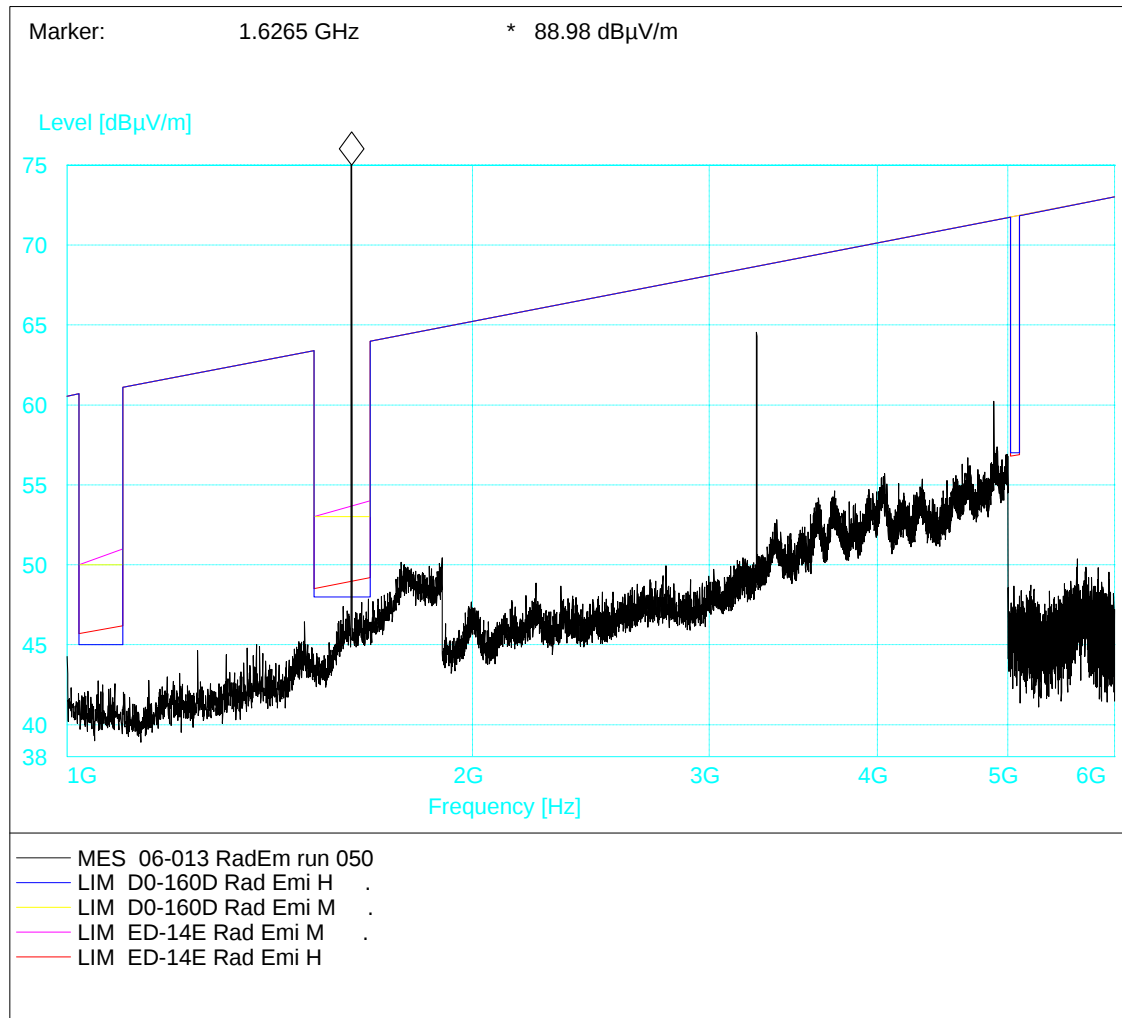


Figure 69

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Left side, all on, horizontal

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

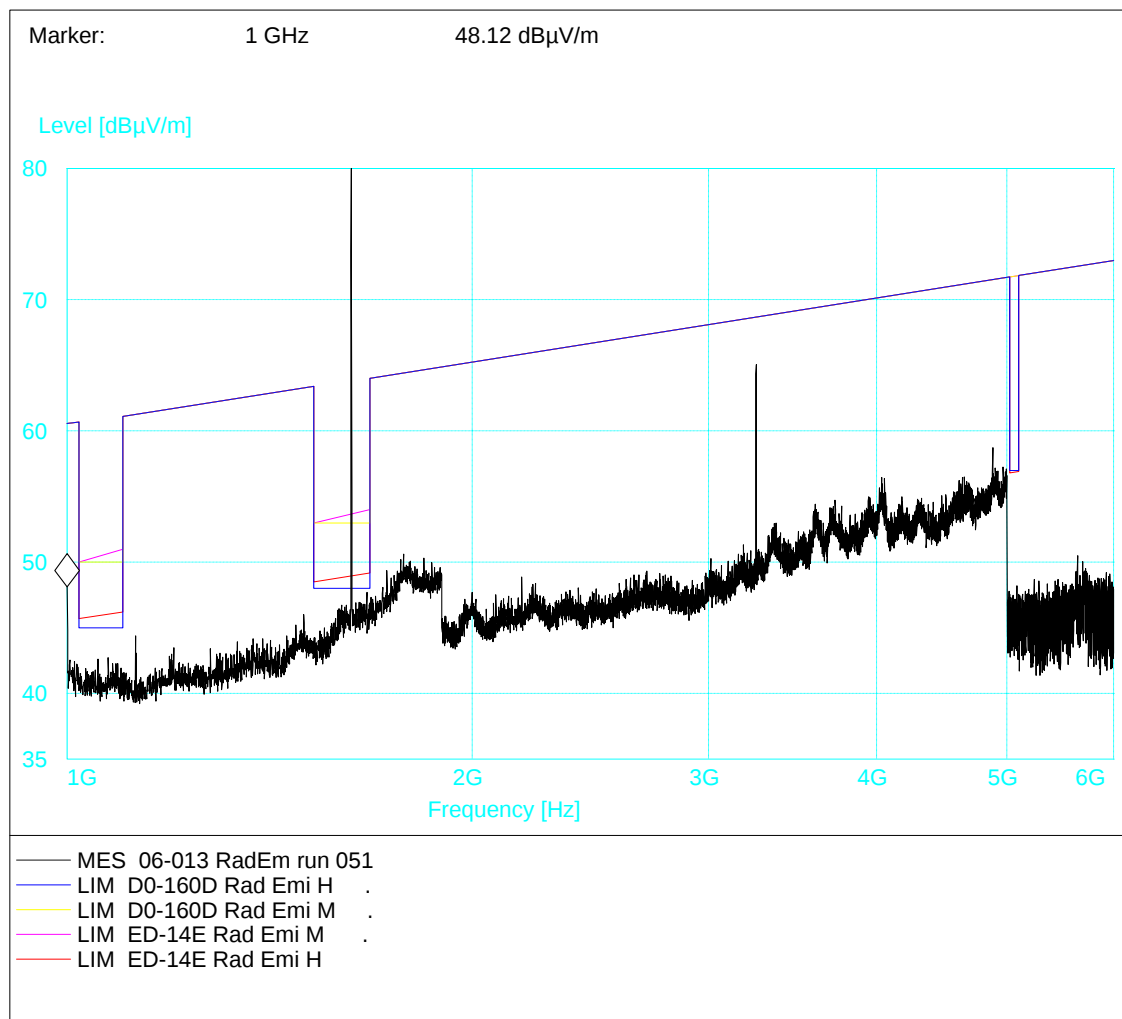


Figure 70

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, all on, horizontal, 10KHz b/width across limit line

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

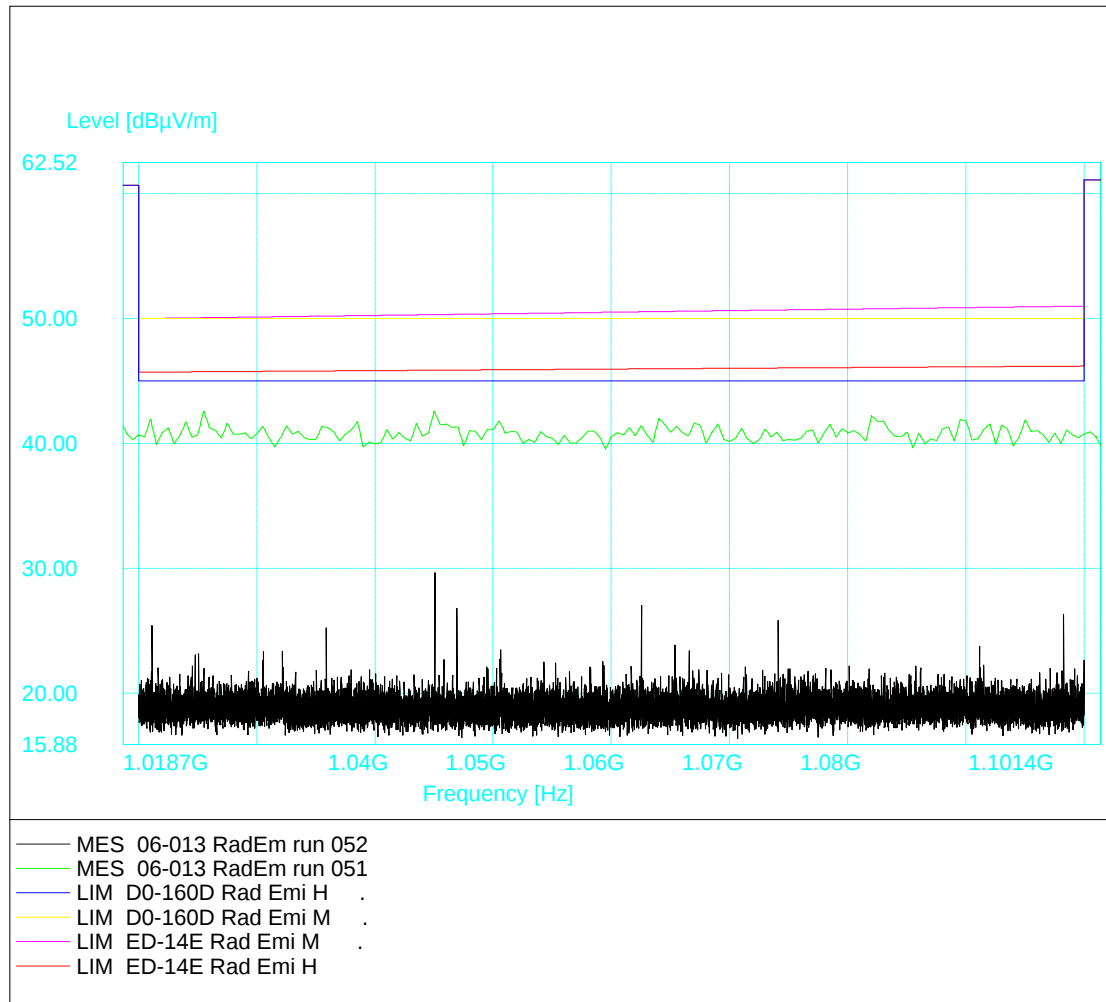


Figure 71

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions
Left side, all on, vertical, 10KHz b/width across limit line

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

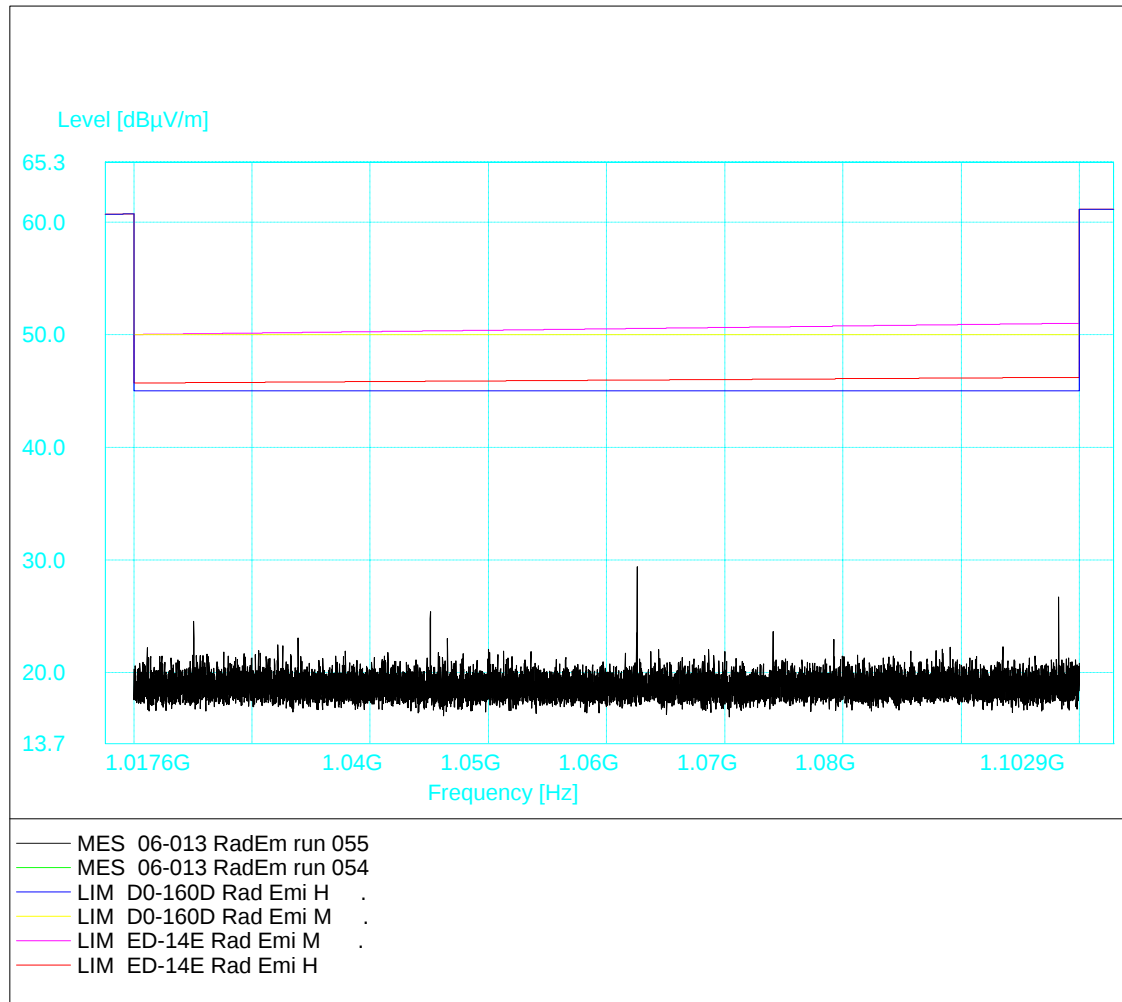


Figure 72

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions
Left side, all on, horizontal, 10KHz b/width across limit line

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

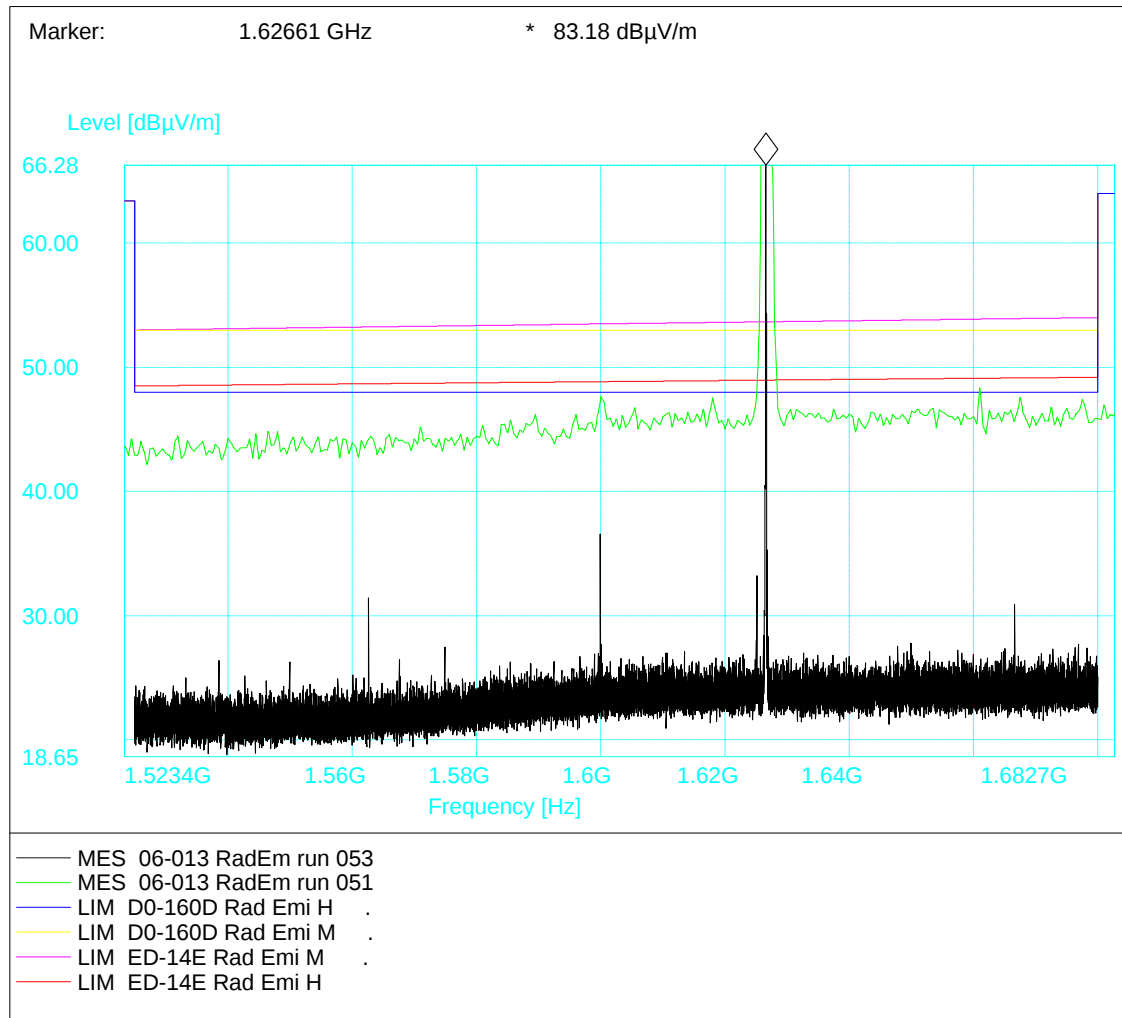


Figure 73

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
 Comment: Radiated Emissions
 Left side, all on, vertical, 10KHz b/width across limit line

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

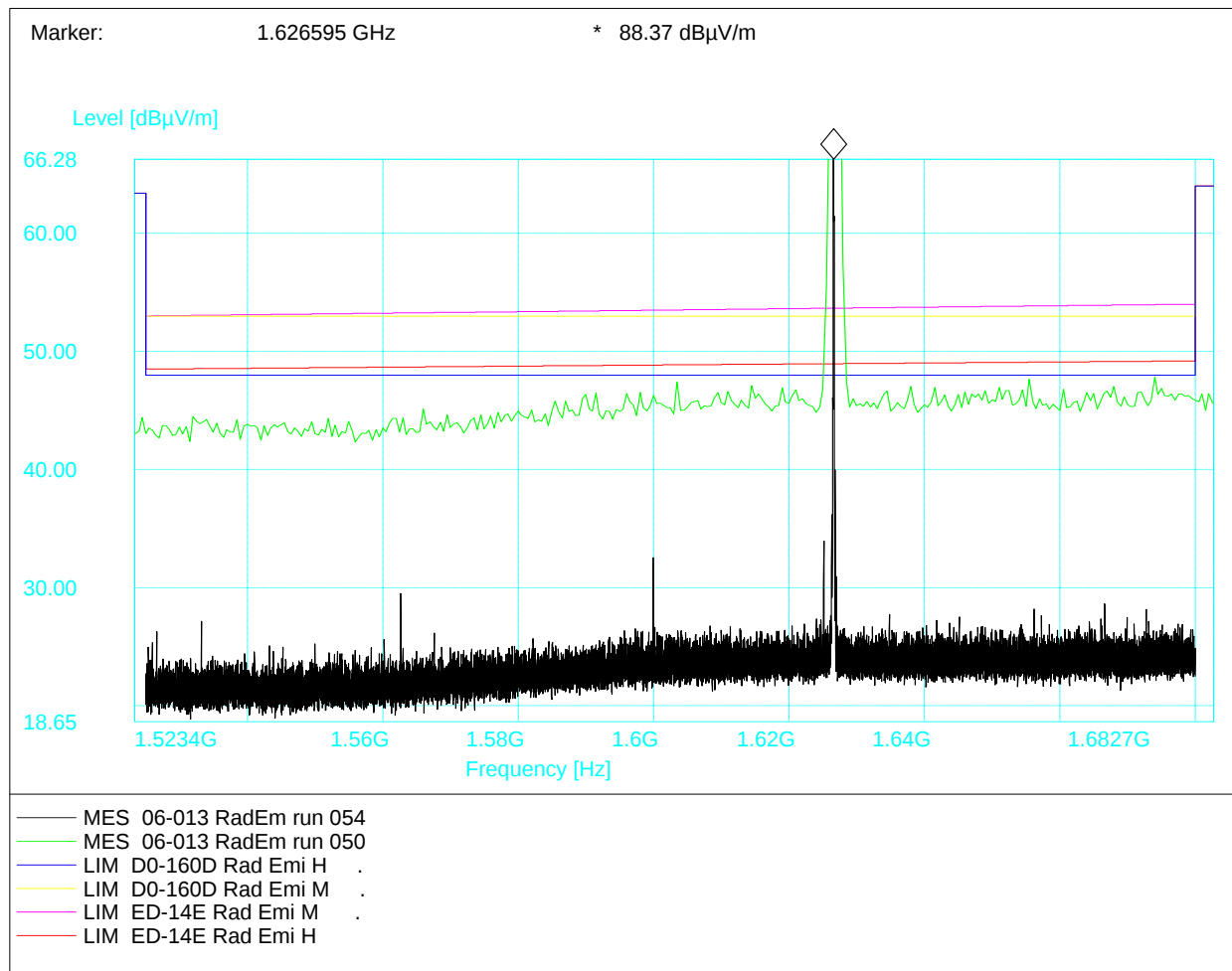


Figure 74

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions, carrier signal turned off.
Left side, all on, vertical, 10KHz b/width across limit line

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

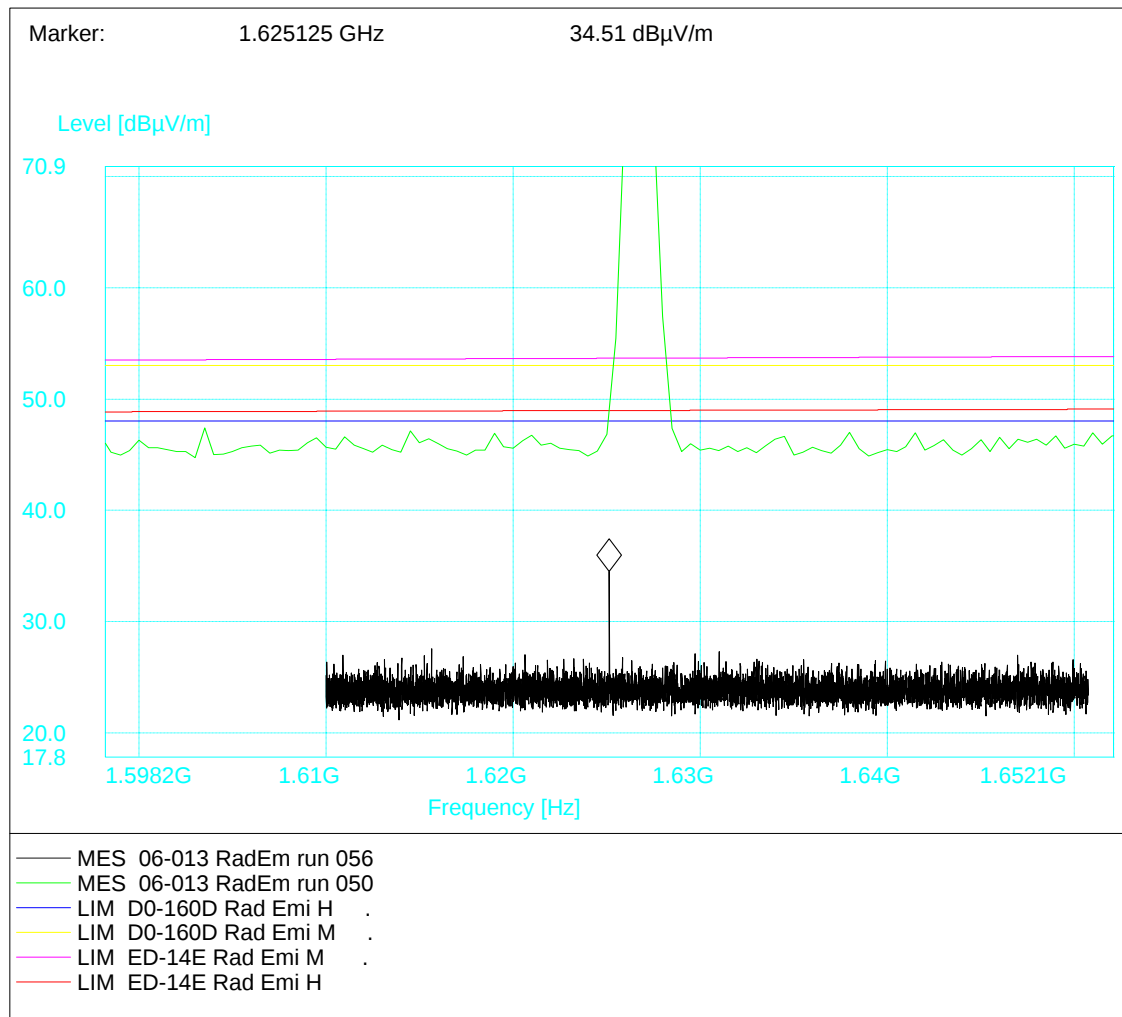


Figure 75

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions, carrier signal turned off.
L/t side, all on, horizontal, 10KHz b/width across limit
line

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 X0 473/1 horn

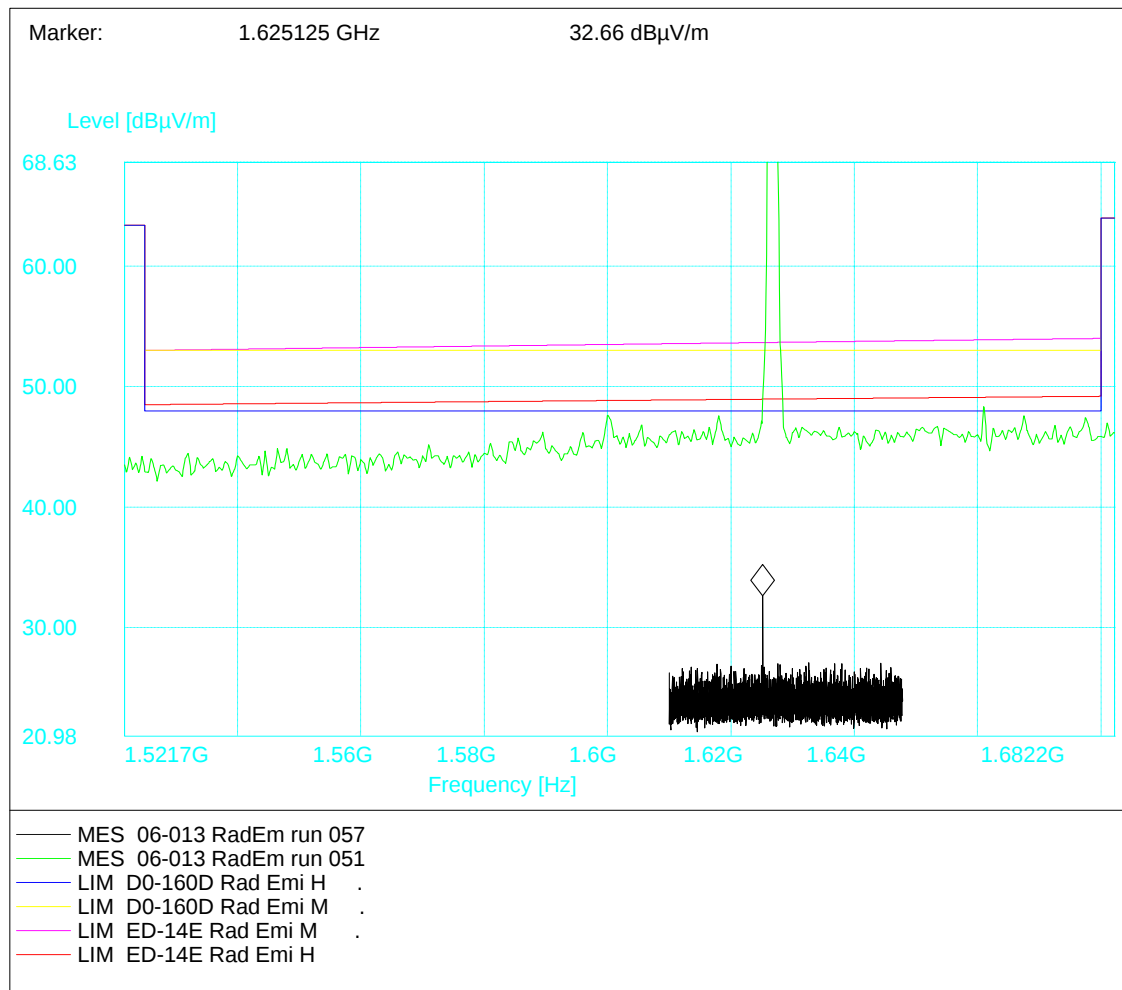


Figure 76

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA D0-160D
Comment: Radiated Emissions,
Left side, EUT off, test equipment on, horizontal

SCAN TABLE: "RTCA/D0-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

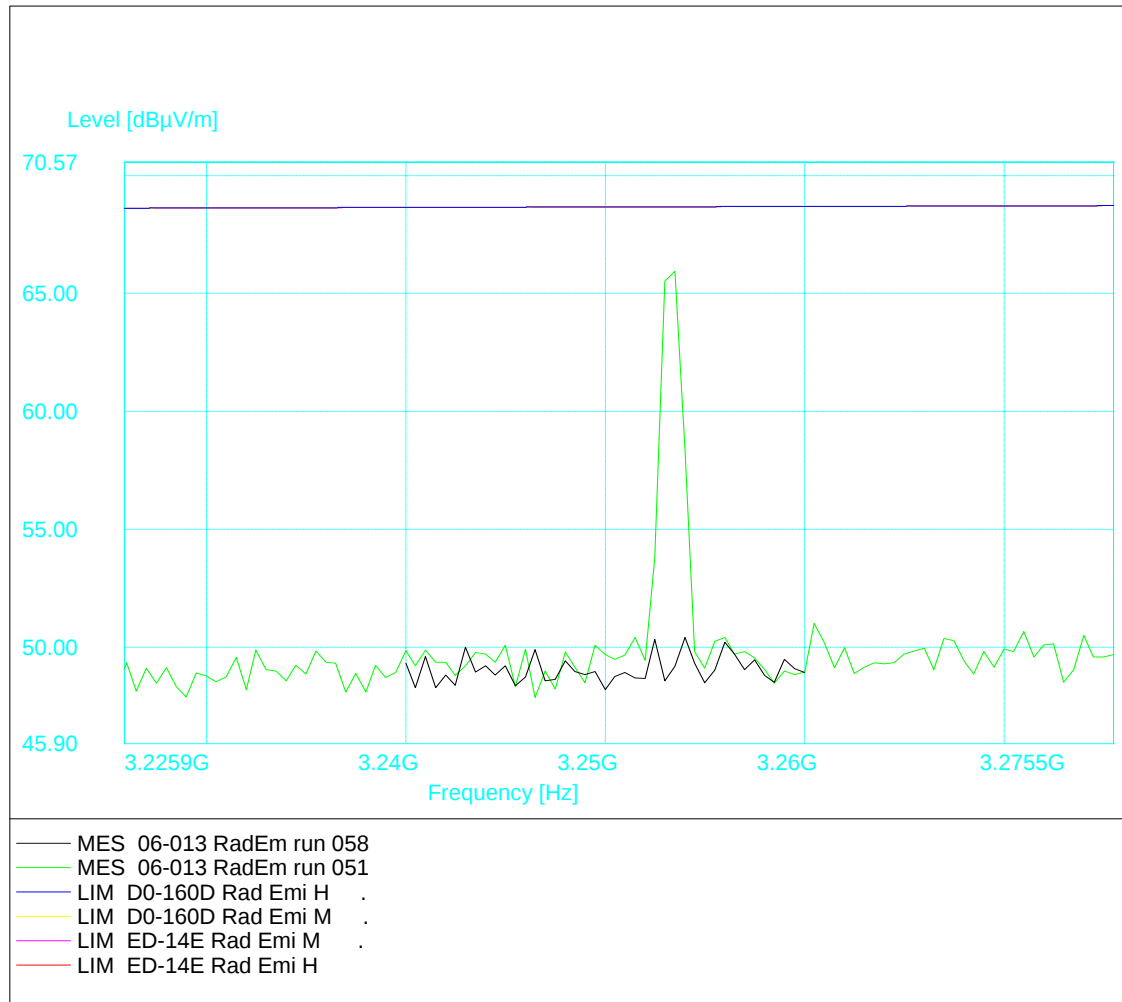


Figure 77

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Thales UK Ltd

EUT: SDU 82155/D10B S/N 10001, SCM 82158/A10A S/N 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ABD0100.1.2 & RTCA DO-160D
Comment: Radiated Emissions,
Left side, EUT off, test equipment on, vertical

SCAN TABLE: "RTCA/DO-160D Rad Emi"

Short Description:

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
2.0 MHz	25.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 E0134/1 Mpole 41
25.0 MHz	30.0 MHz	500.0 Hz	MaxPeak	15.0 ms	1 kHz	1 V0 110/13 Bicone1m
30.0 MHz	200.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 110/13 Bicone1m
200.0 MHz	400.0 MHz	5.0 kHz	MaxPeak	15.0 ms	10 kHz	1 V0 116/1A Log P 1m
400.0 MHz	1.0 GHz	50.0 kHz	MaxPeak	15.0 ms	100 kHz	1 V0 116/1A Log P 1m
1.0 GHz	6.0 GHz	500.0 kHz	MaxPeak	15.0 ms	1 MHz	1 X0 473/1 horn

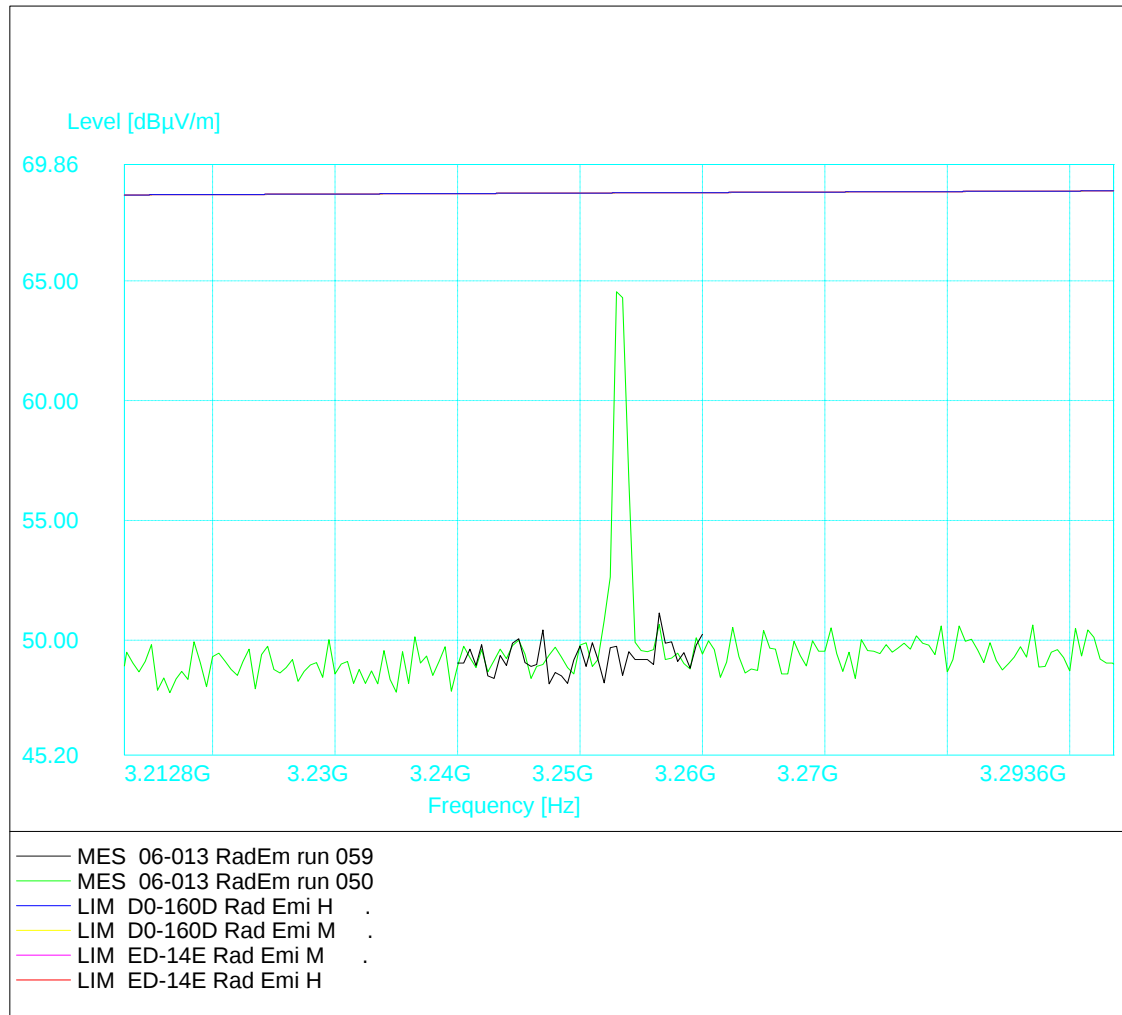


Figure 78

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APPENDIX B

SUSCEPTIBILITY GRAPHS

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility Jig Calibration.
 10kHz to 1MHz

SWEEP TABLE: "ED14E Con Sus Jig Cal"

Short Description:

Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	100.0 kHz	MaxPeak	1.0 s	1 kHz	Convert to dBuA
100.0 kHz	500.0 kHz	MaxPeak	1.0 s	1 kHz	Convert to dBuA
500.0 kHz	5.0 MHz	MaxPeak	1.0 s	10 kHz	Convert to dBuA
5.0 MHz	10.0 MHz	MaxPeak	1.0 s	10 kHz	Convert to dBuA
10.0 MHz	100.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA
100.0 MHz	200.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA
200.0 MHz	400.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA

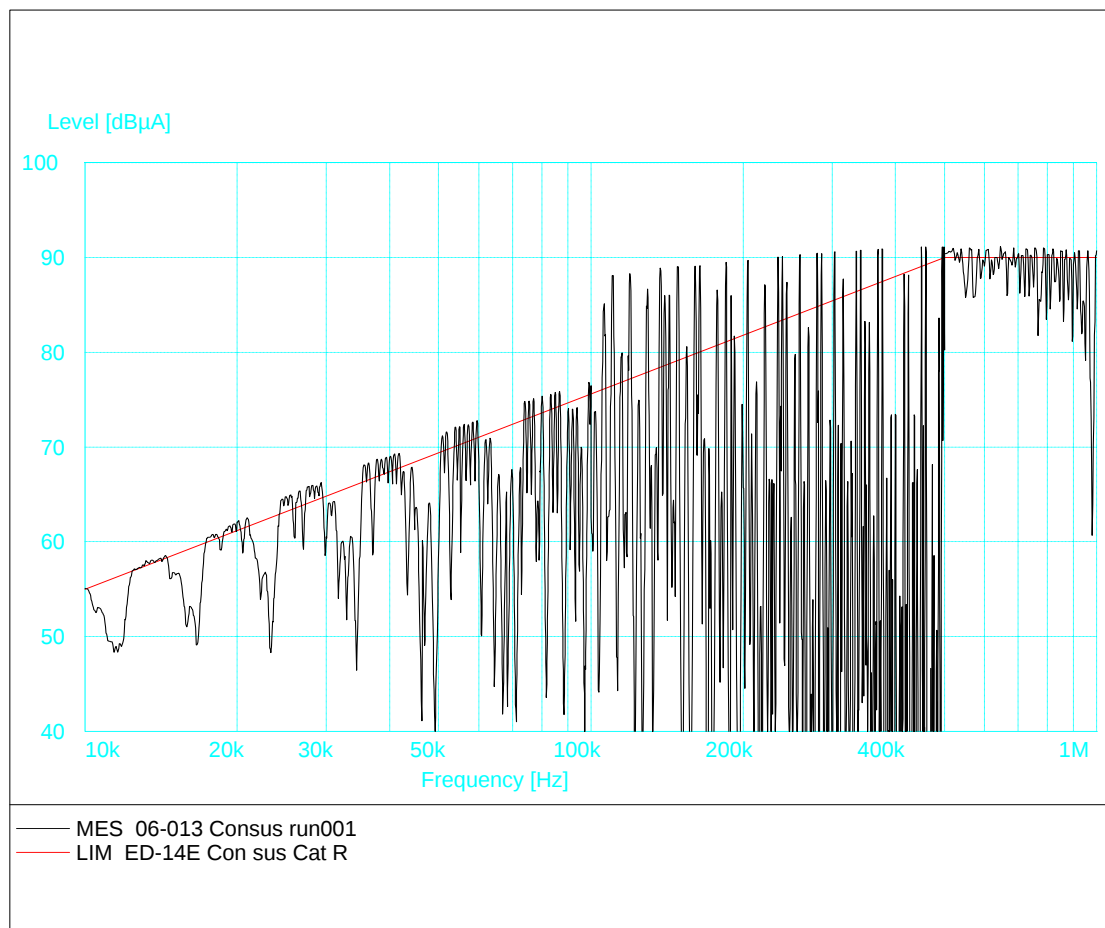


Figure 79

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: RF Conducted Susc Jig Calibration.
1-400MHz

SWEEP TABLE: "ED14E Con Sus Jig Cal"

Short Description:

Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	100.0 kHz	MaxPeak	1.0 s	1 kHz	Convert to dBuA
100.0 kHz	500.0 kHz	MaxPeak	1.0 s	1 kHz	Convert to dBuA
500.0 kHz	5.0 MHz	MaxPeak	1.0 s	10 kHz	Convert to dBuA
5.0 MHz	10.0 MHz	MaxPeak	1.0 s	10 kHz	Convert to dBuA
10.0 MHz	100.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA
100.0 MHz	200.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA
200.0 MHz	400.0 MHz	MaxPeak	520.0 ms	100 kHz	Convert to dBuA

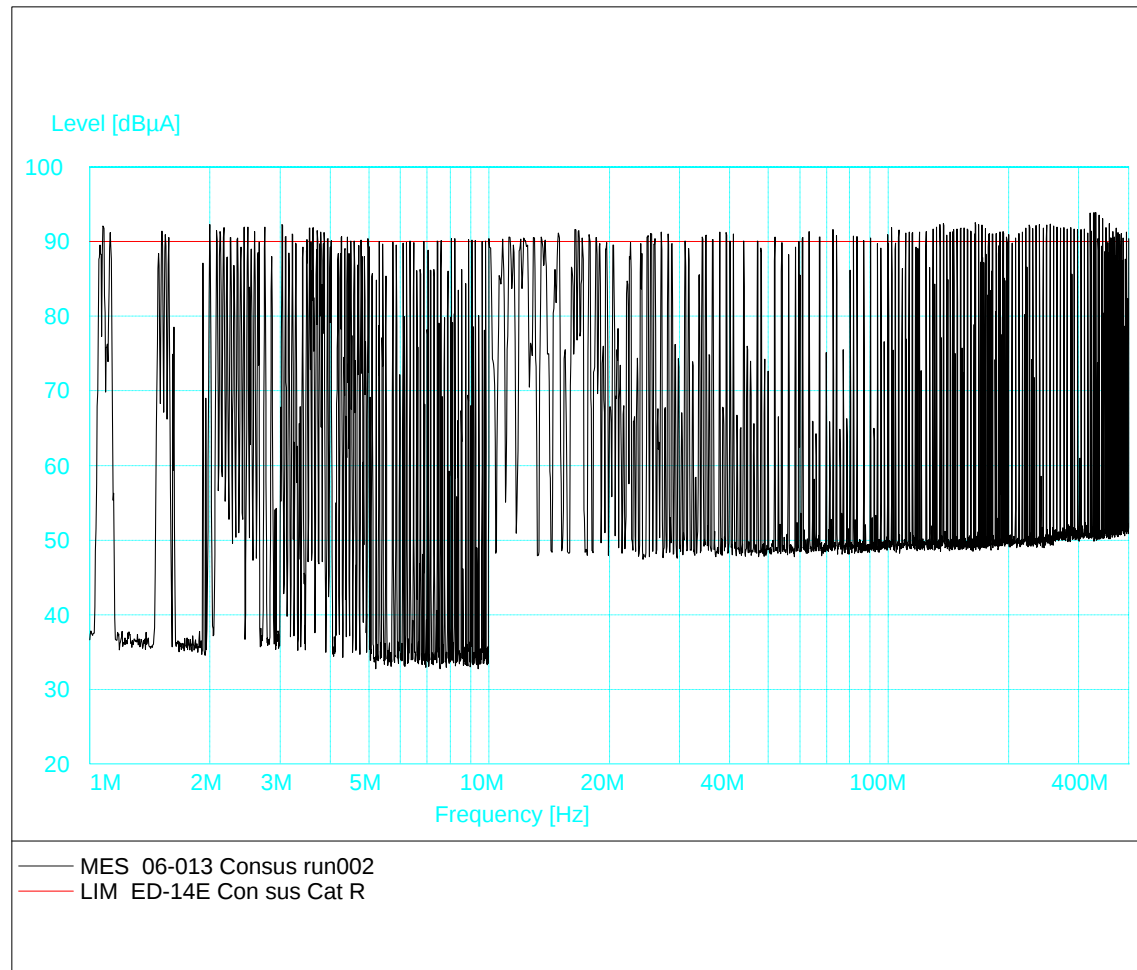


Figure 80

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Calibration for forward power
 Description: 10KHz to 400MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

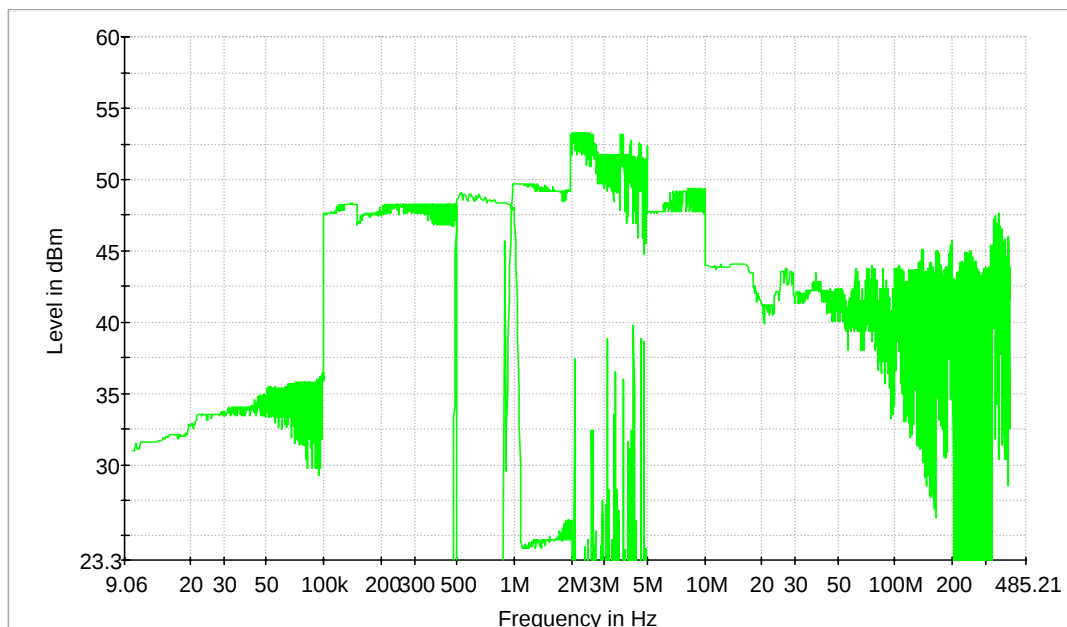
ED14E Cond Susc Fwd Power

Figure 81

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Thales UK Ltd

EUT: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 10KHz to 400MHz, power wire

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

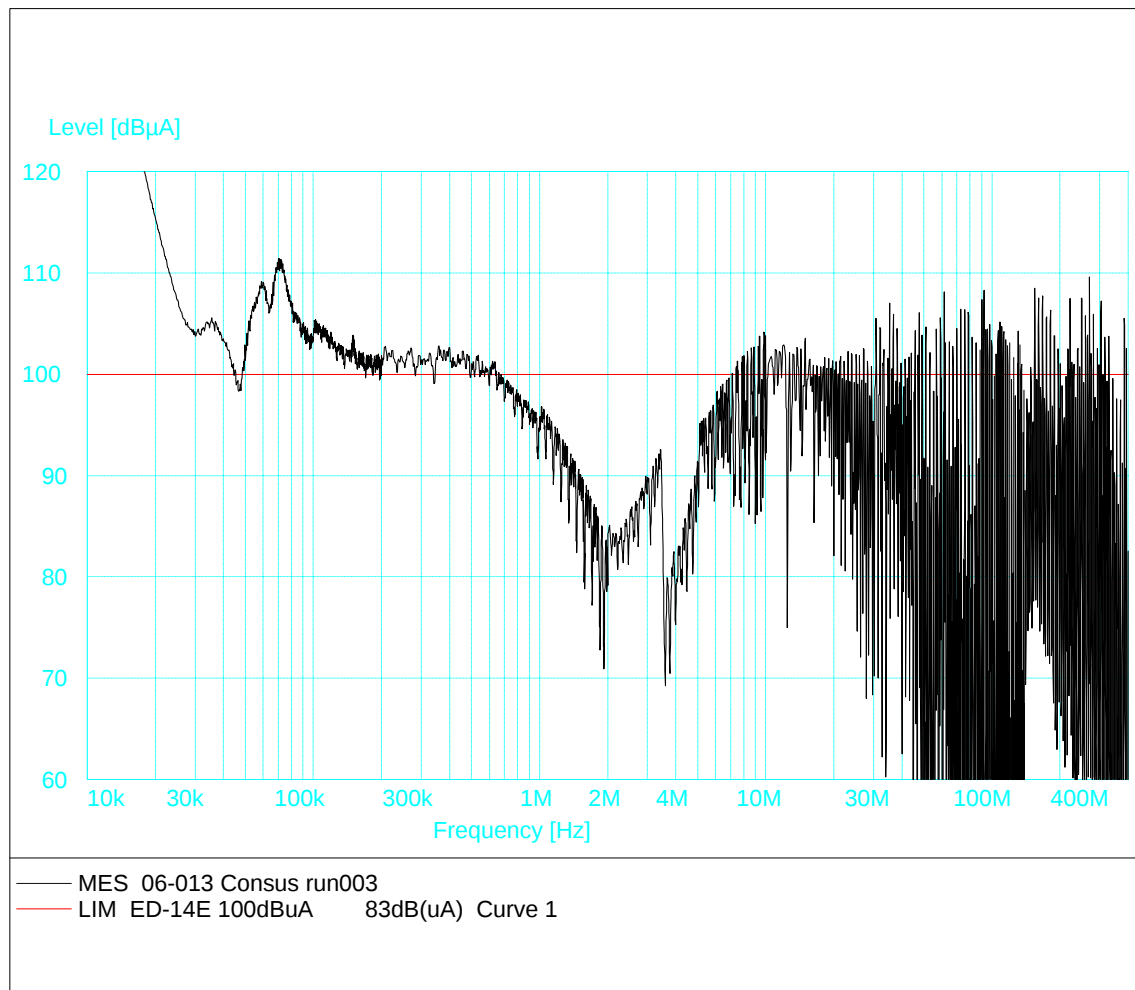


Figure 82

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 5 wire, power
 Description: 10KHz to 400MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

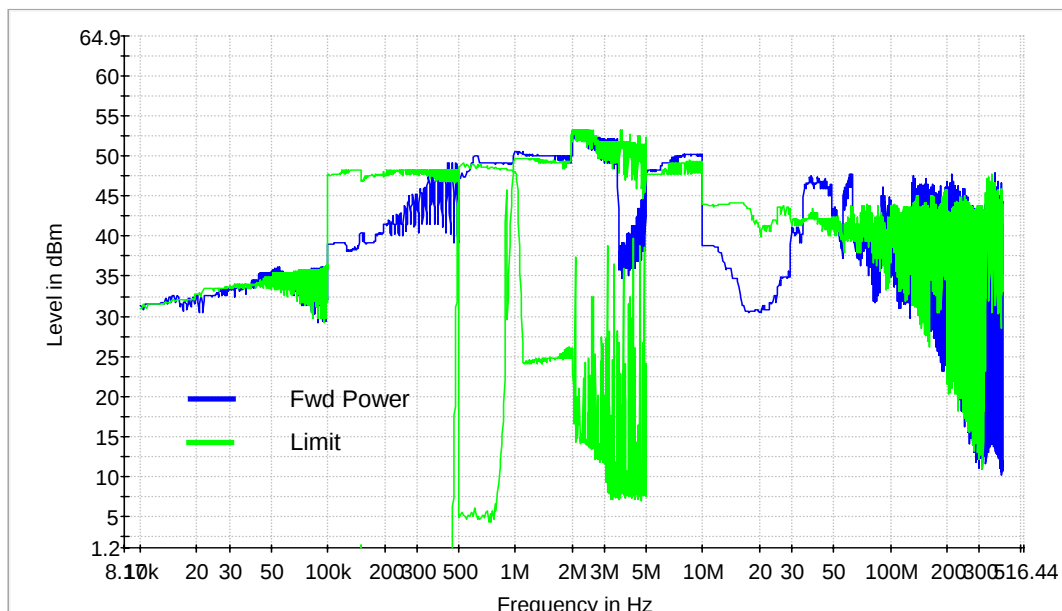
ED14E Cond Susc Fwd Power

Figure 83

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 1KHz
 10KHz to 400MHz, power wire

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

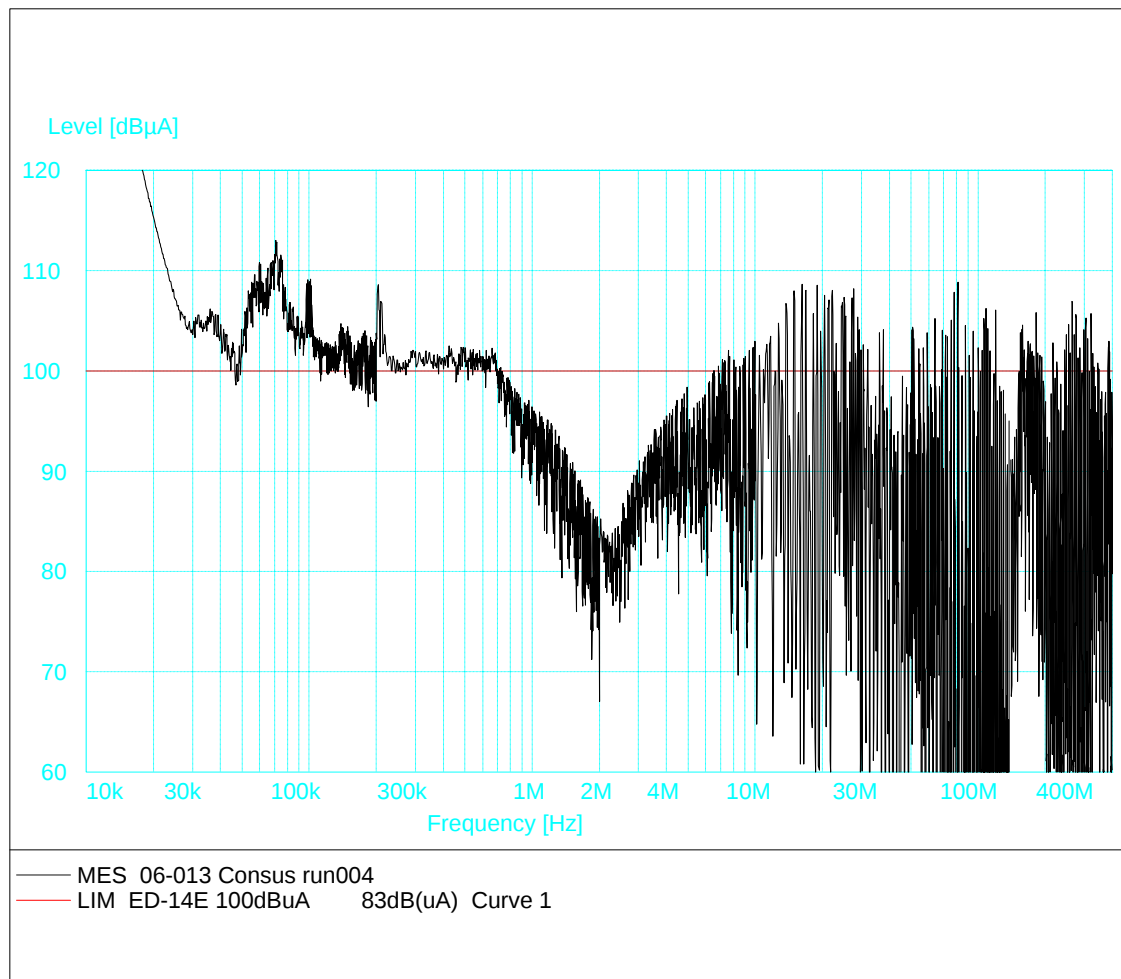


Figure 84

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 5 wire, power
 Description: 10KHz to 400MHz, modulated 1KHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

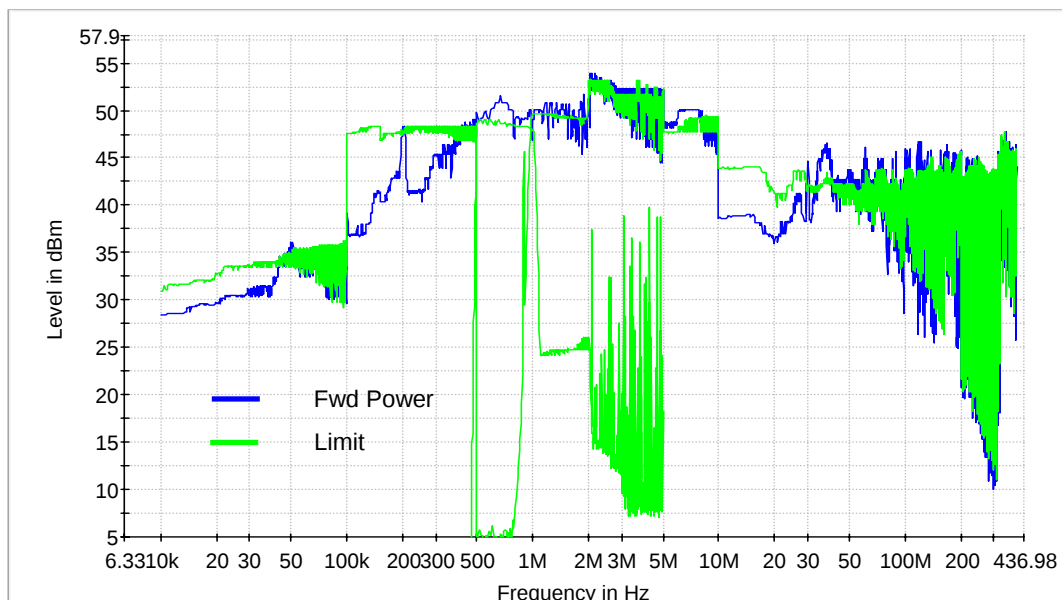
ED14E Cond Susc Fwd Power

Figure 85

THALES

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Thales UK Ltd

Satcon TFS

EUT: SDU 82155D10B S/N 10001, SCM 82158A10A S/N 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 9MHz to 11MHz

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

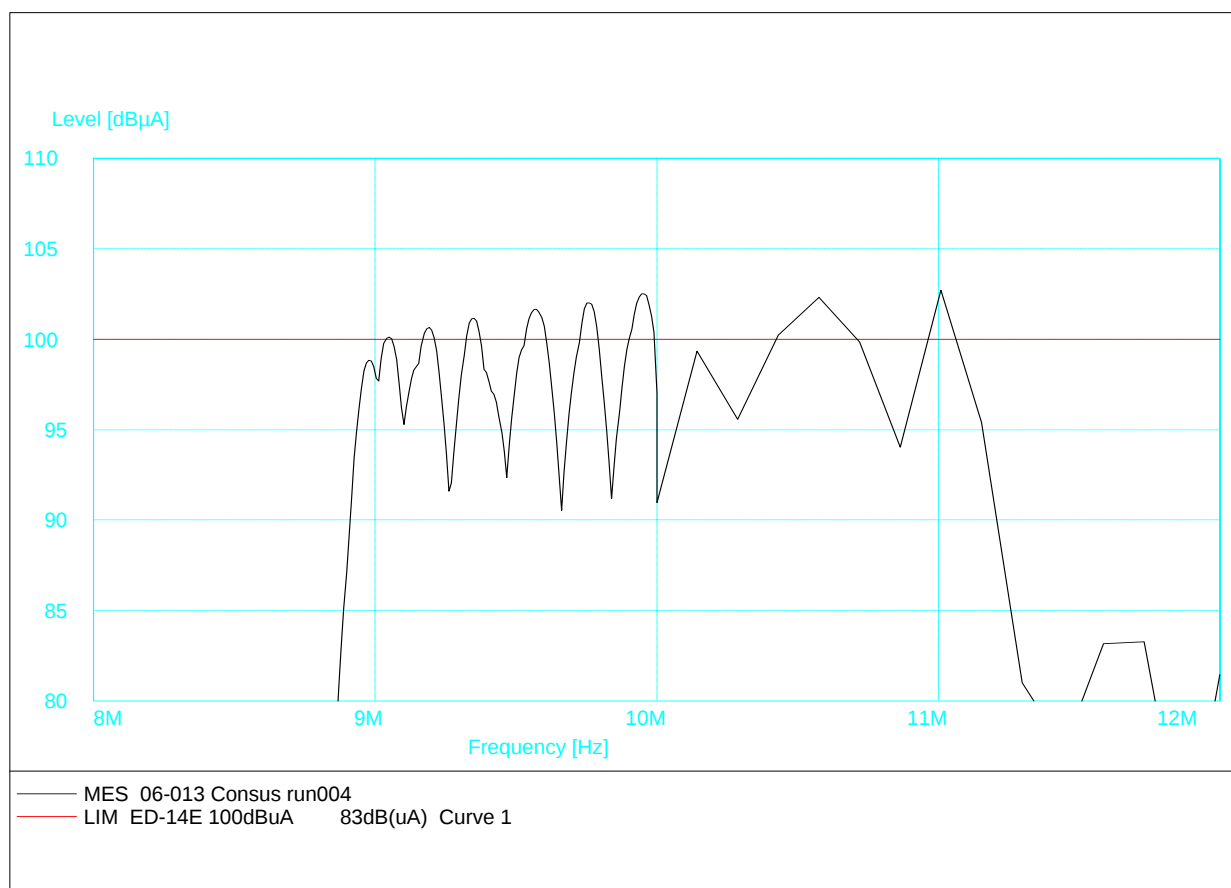


Figure 86

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 5 wire, power
 Description: 9MHz to 11MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

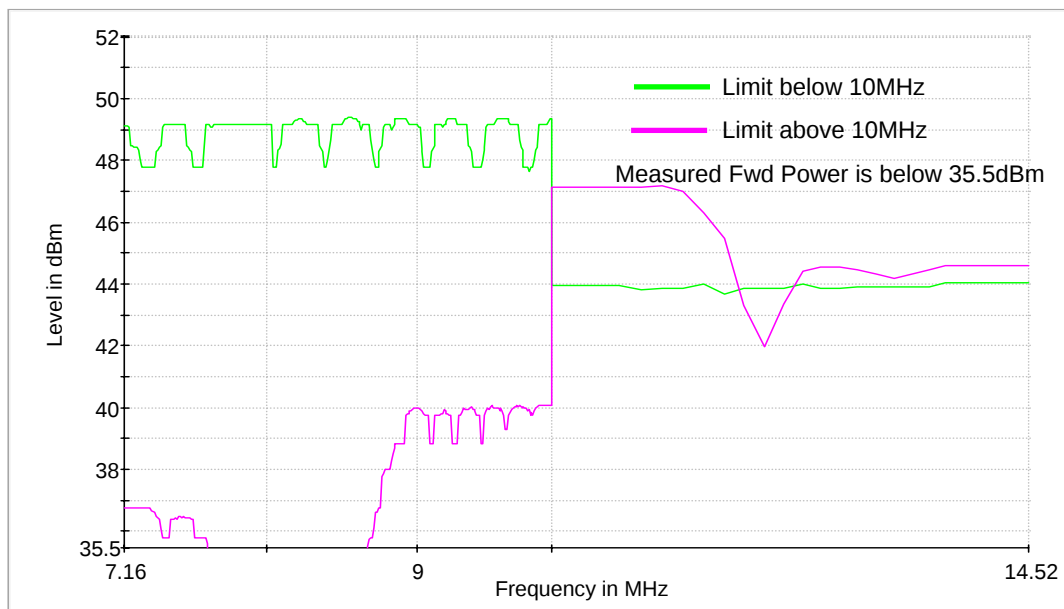
ED14E Cond Susc Fwd Power

Figure 87

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 5 wire, power
 Description: 100MHz to 120MHz, modulated 10MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

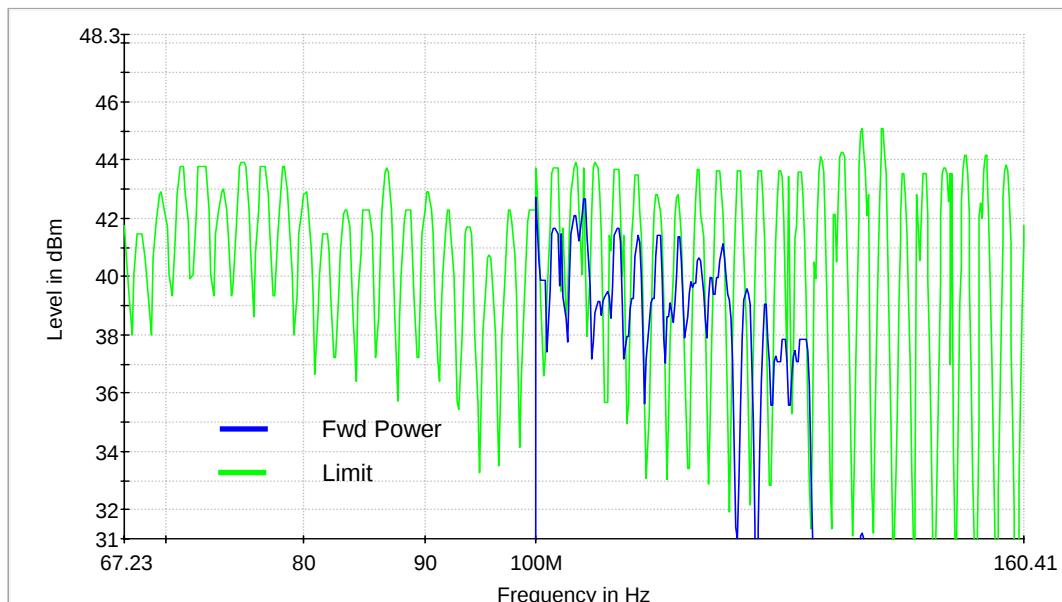
ED14E Cond Susc Fwd Power

Figure 88

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 100MHz to 120MHz power wire

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

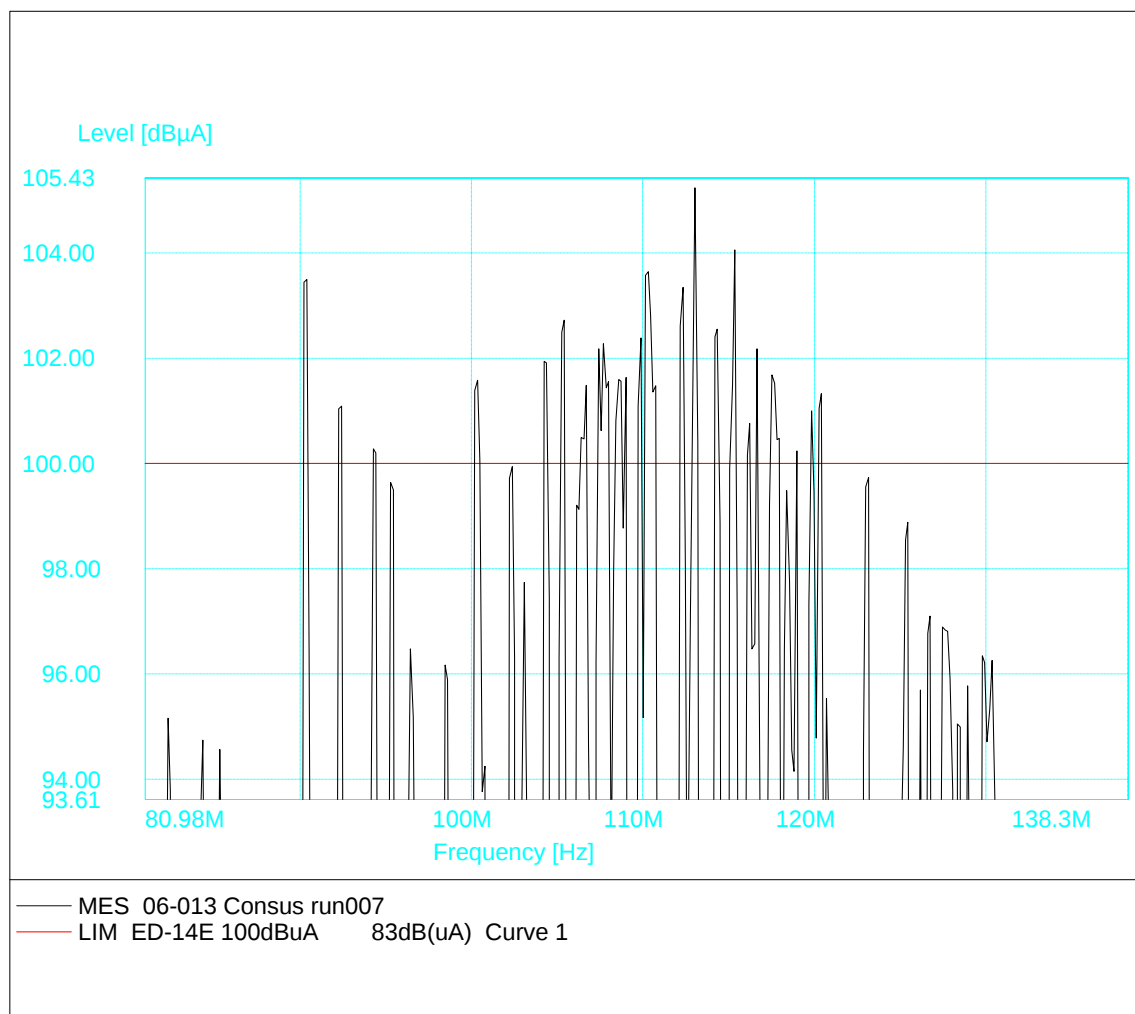


Figure 89

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Angus
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: RF Conducted Susceptibility, modulated 10MHz
100MHz to 120MHz, power wire

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

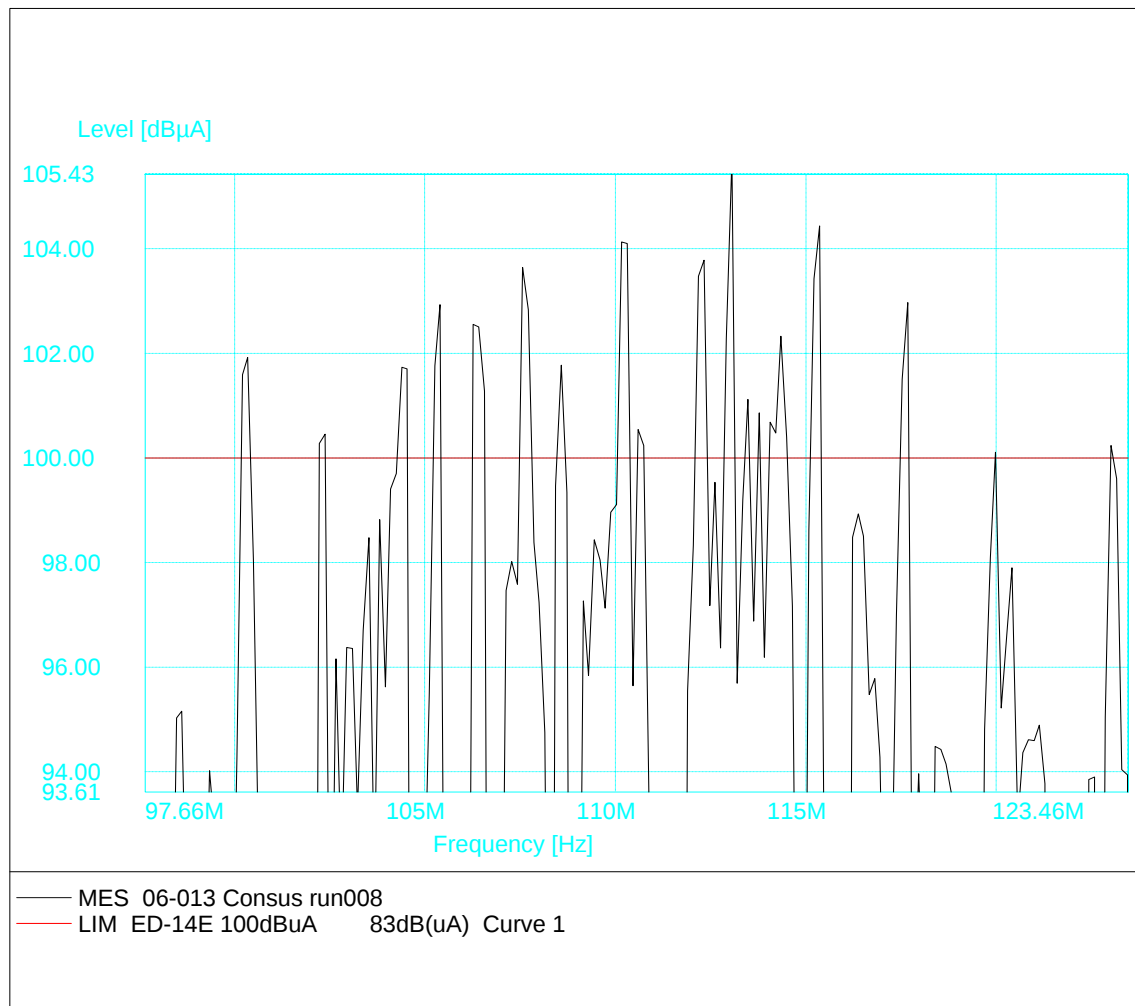


Figure 90

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 5 wire, power
 Description: 100MHz to 120MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power
- [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc
Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

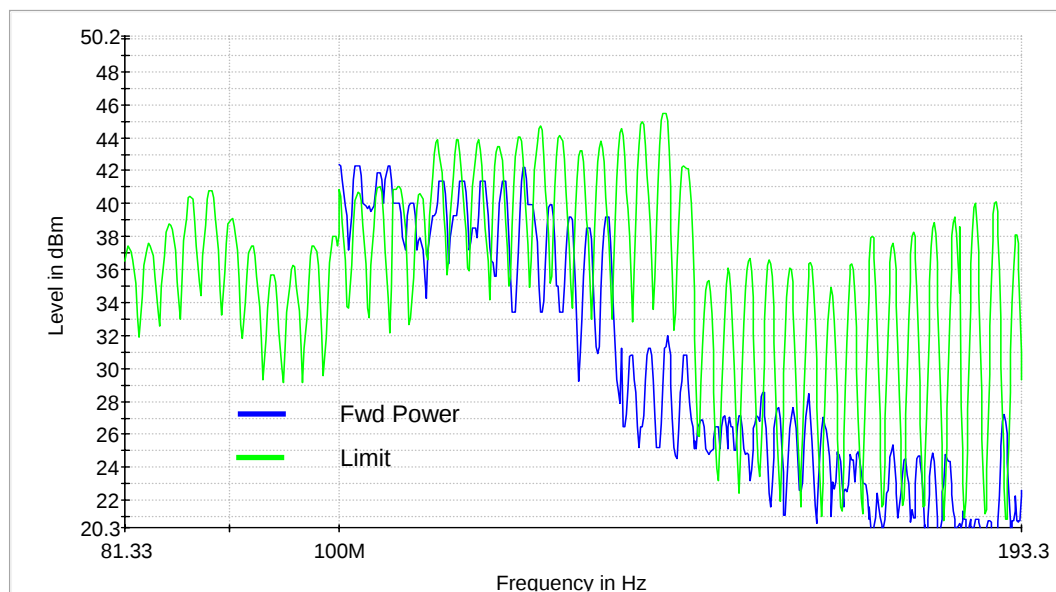
ED14E Cond Susc Fwd Power

Figure 91

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Angus
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 10KHz to 400MHz, neutral wire

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

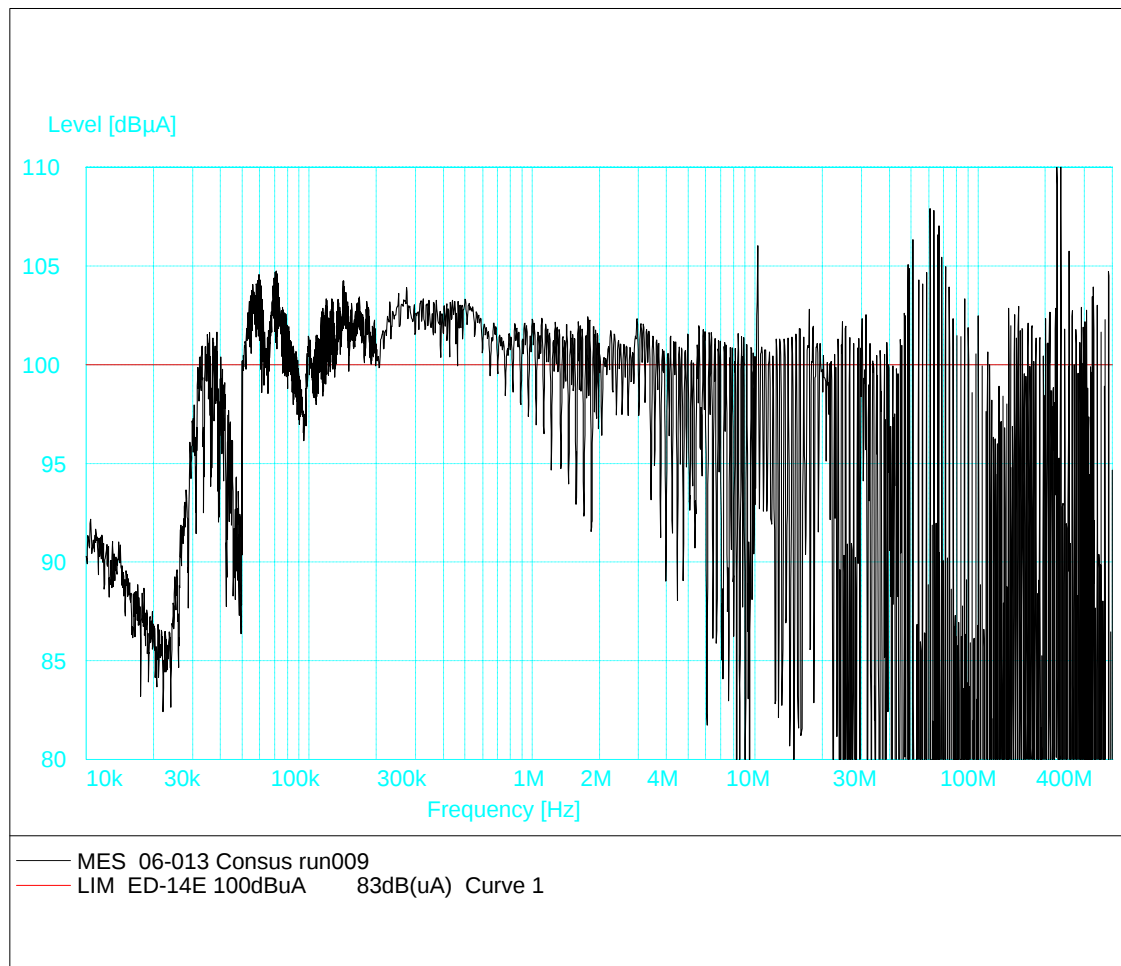


Figure 92

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 1 wire, neutral
 Description: 10KHz to 400MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

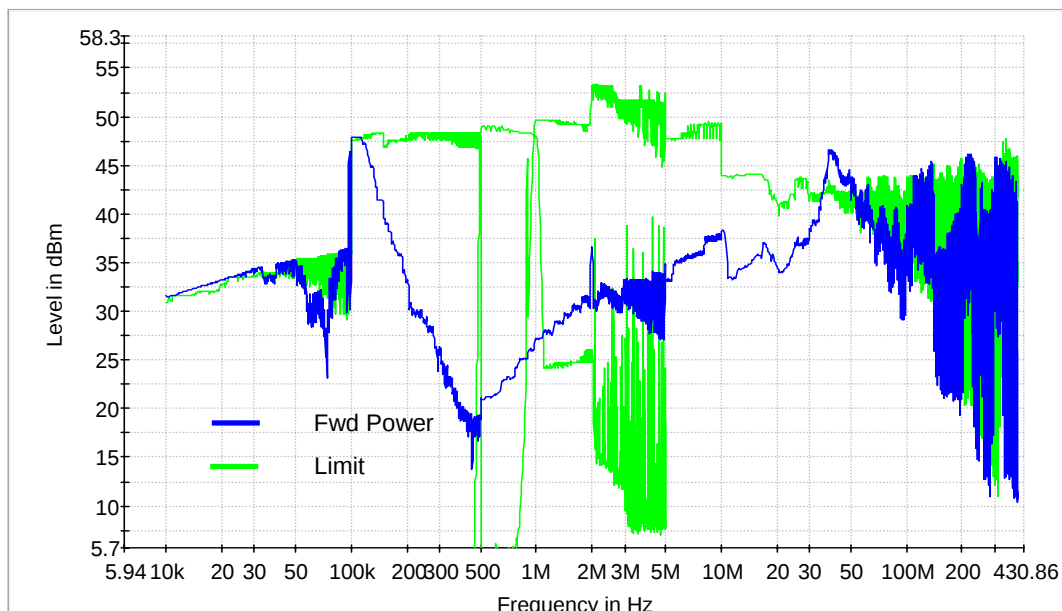
ED14E Cond Susc Fwd Power

Figure 93

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, 1KHz modulation
 10KHz to 400MHz Neutral

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

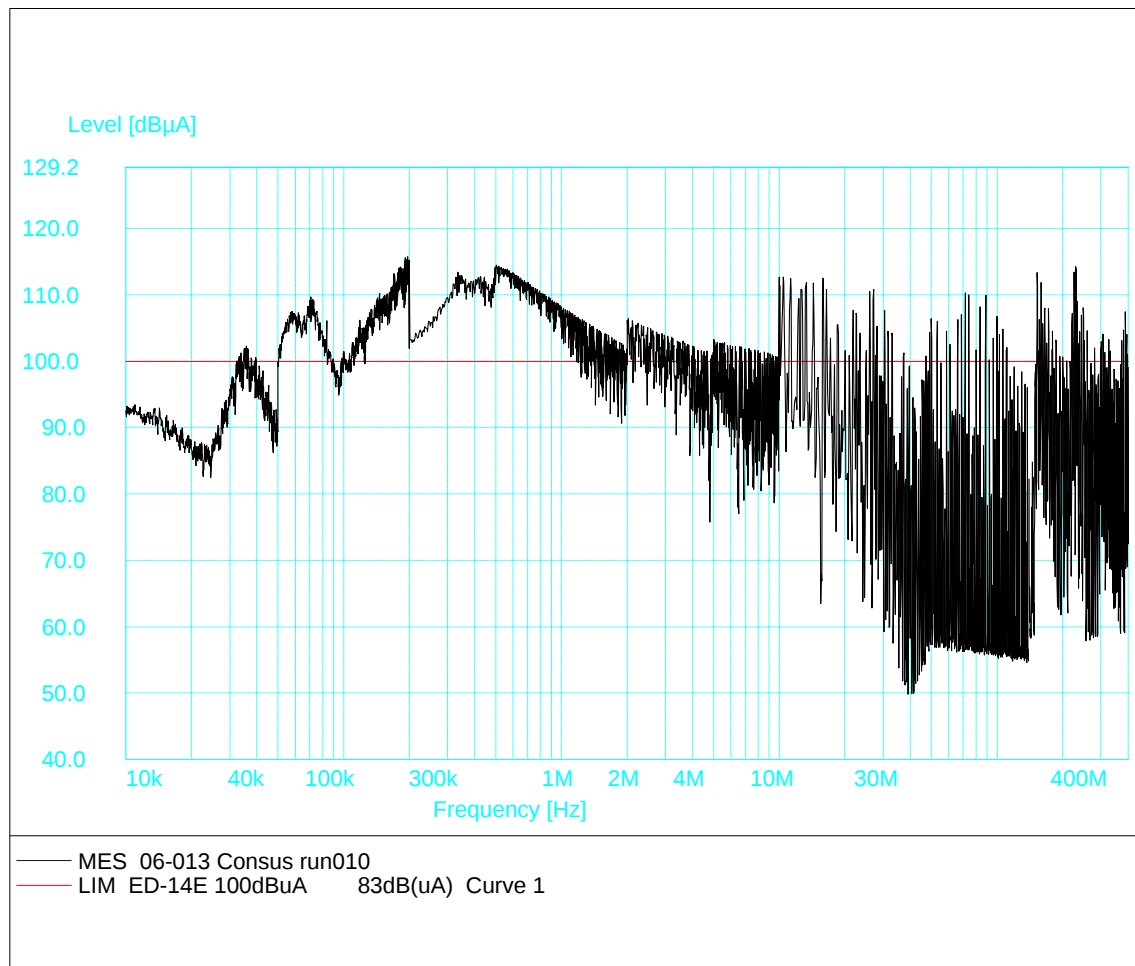


Figure 94

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 1 wire, neutral
 Description: 10KHz to 400MHz, modulated 1KHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

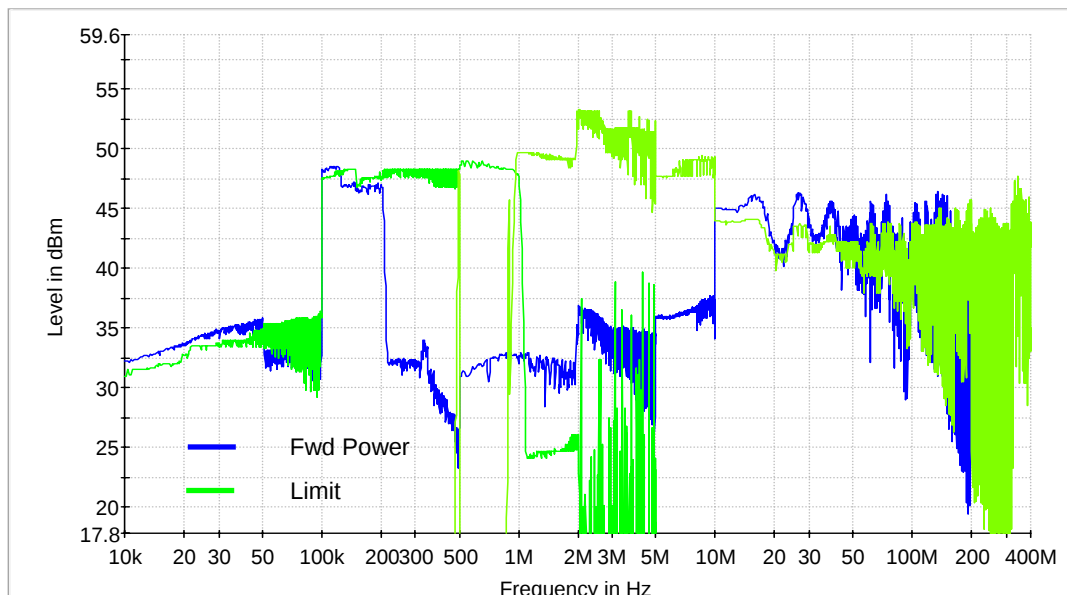
ED14E Cond Susc Fwd Power

Figure 95

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, SW 3.5MHz
 100 to 120MHz Neutral

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

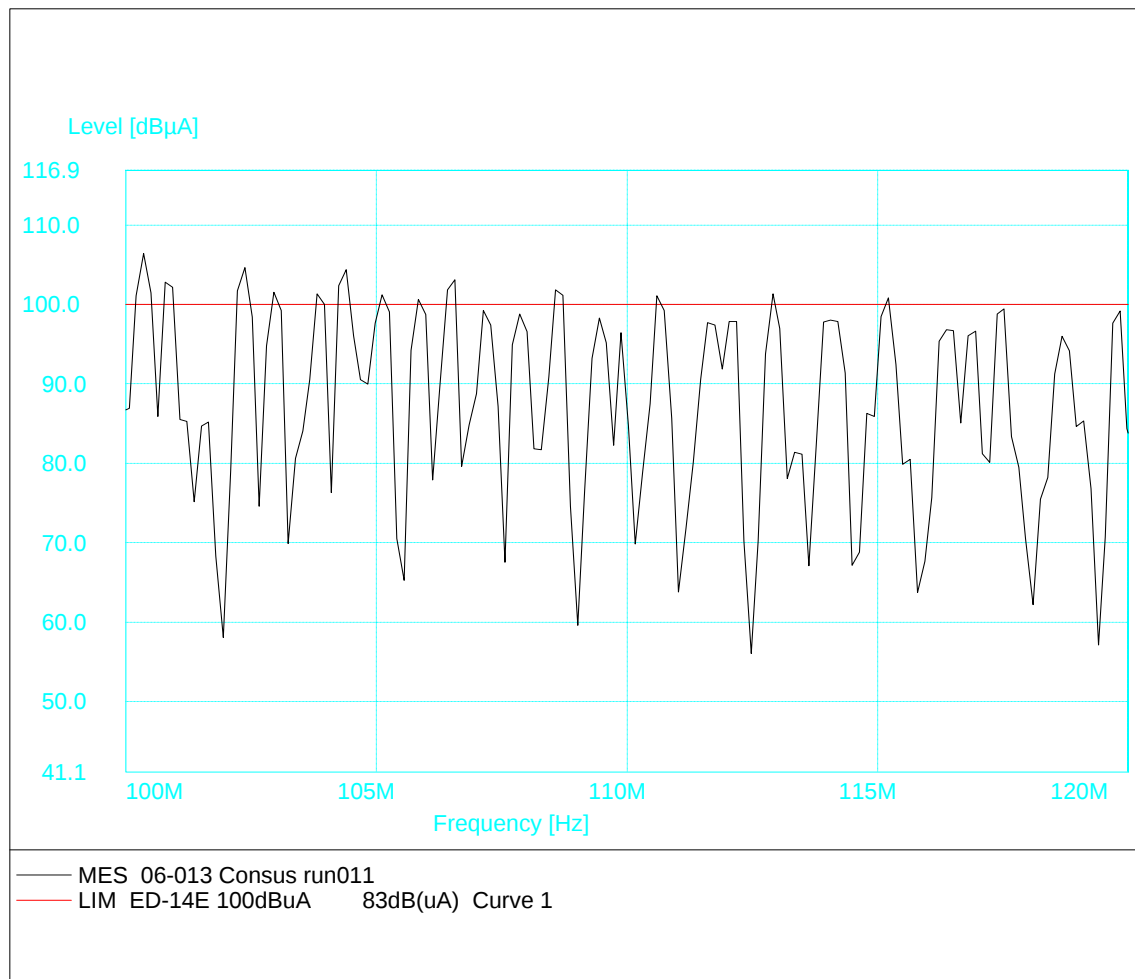


Figure 96

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 1 wire, neutral
 Description: 100MHz to 120MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

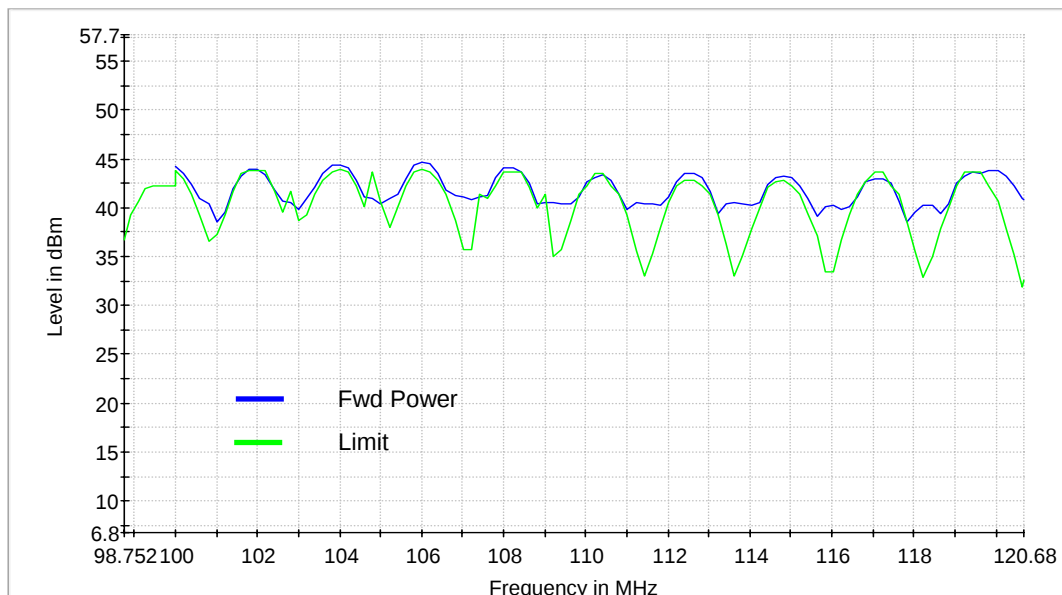
ED14E Cond Susc Fwd Power

Figure 97

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, SW 10MHz
 100 to 120MHz Neutral cable wire No 1

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

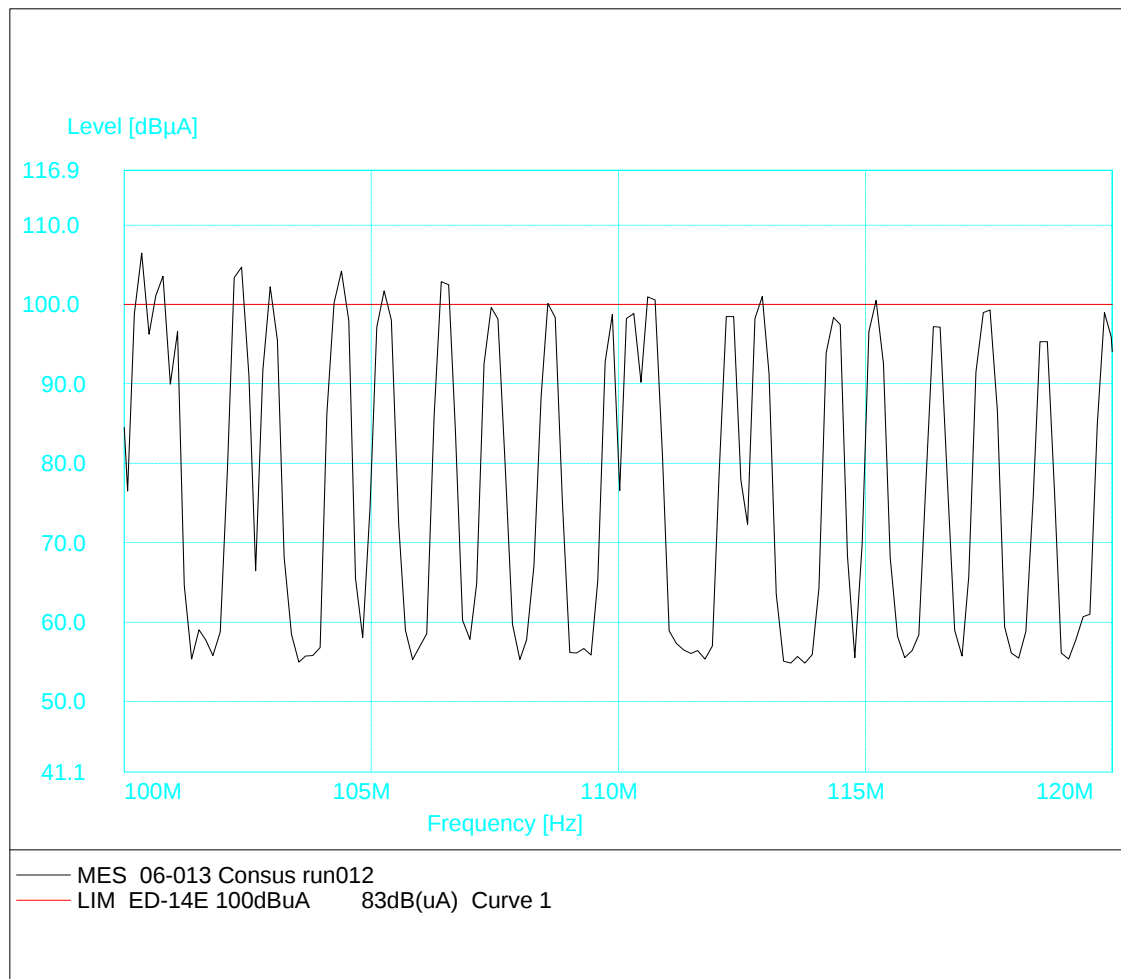


Figure 98

THALES

EMC Test Report for TFS Satcom

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 1 wire, neutral
 Description: 100MHz to 120MHz, modulated 10MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

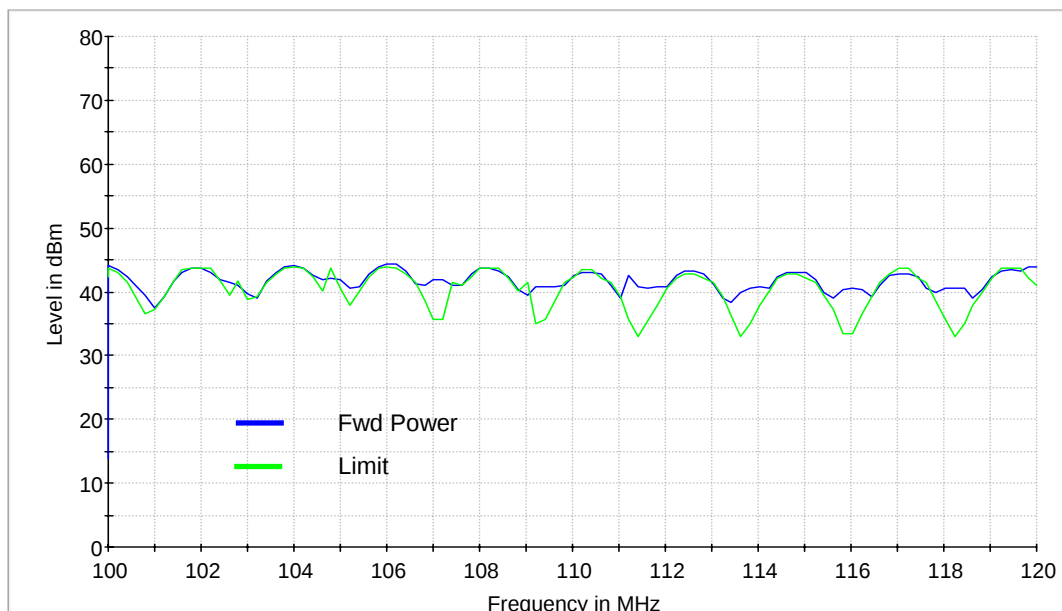
ED14E Cond Susc Fwd Power

Figure 99

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, SW 3.5MHz
 9MHz -11MHz Neutral cable wire No 1

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

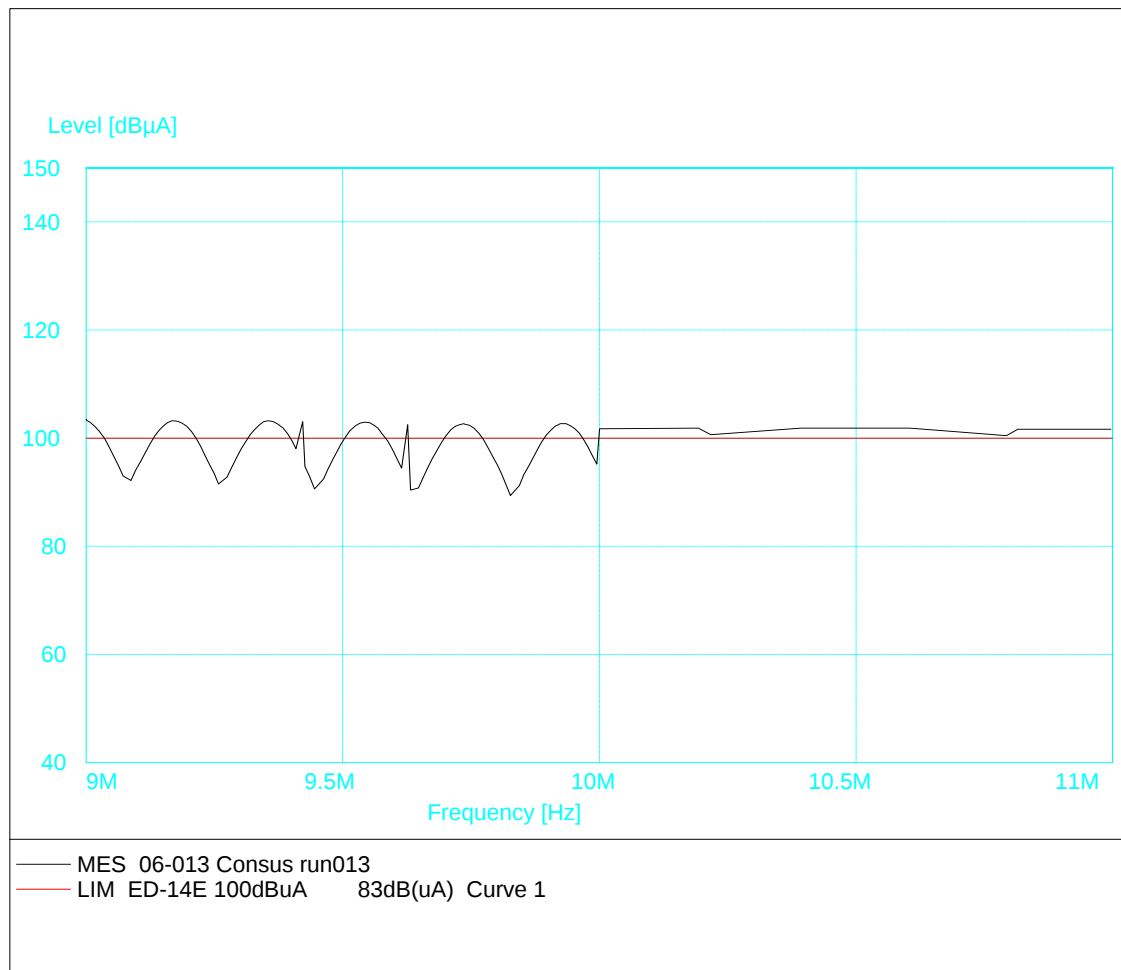


Figure 100

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: No: 1 wire, neutral
 Description: 9MHz to 11MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

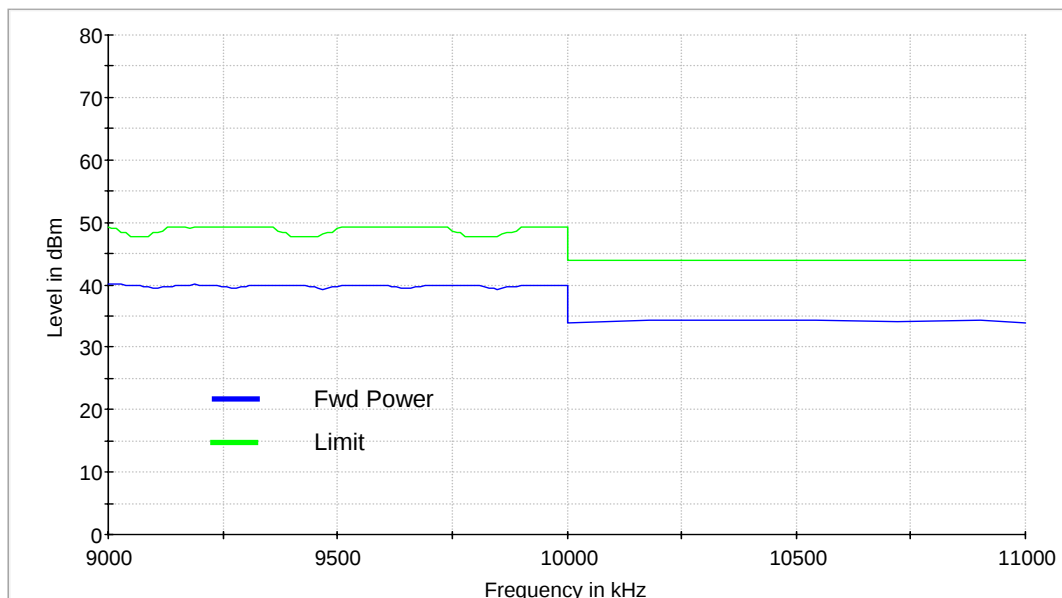
ED14E Cond Susc Fwd Power

Figure 101

THALES

EMC Test Report for TFS Satcom

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 10kHz to 10MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

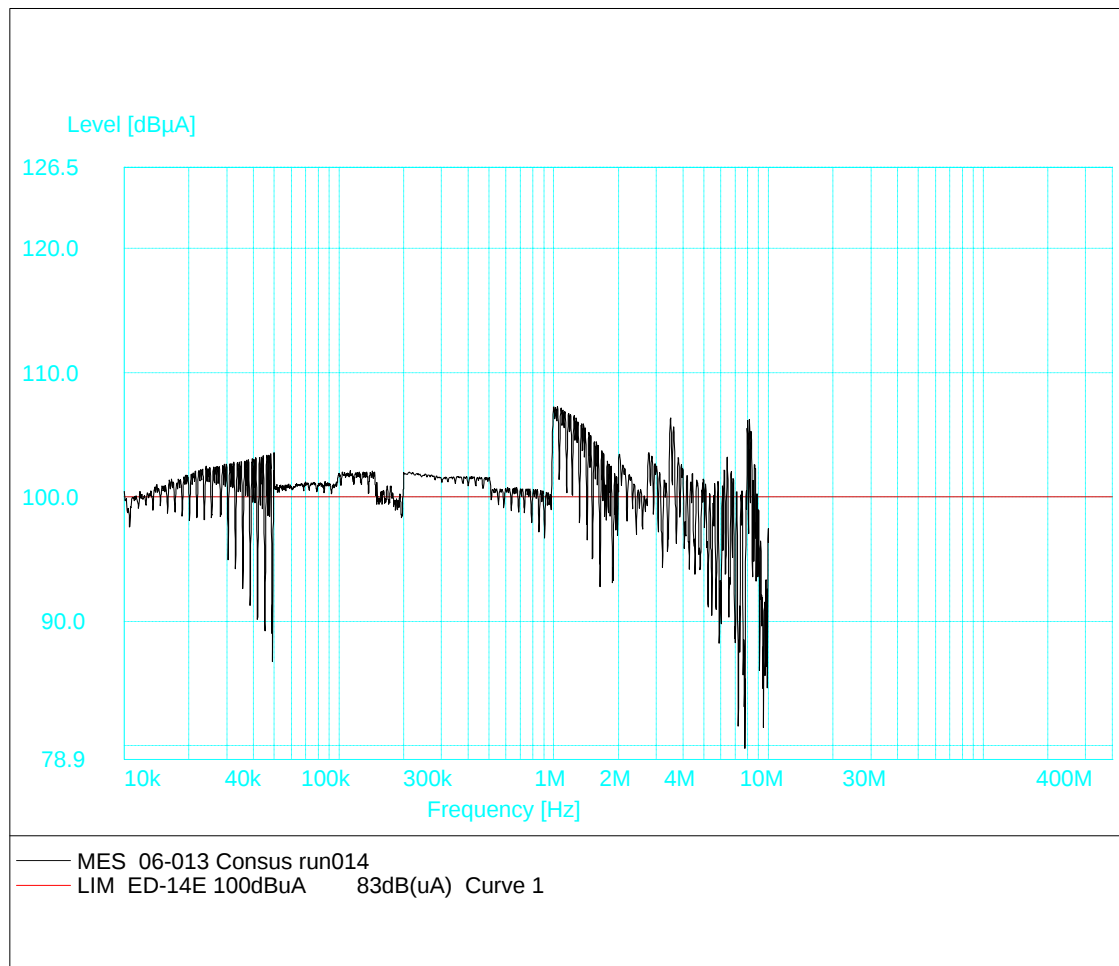


Figure 102

THALES

EMC Test Report for TFS Satcom

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 10KHz to 10MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

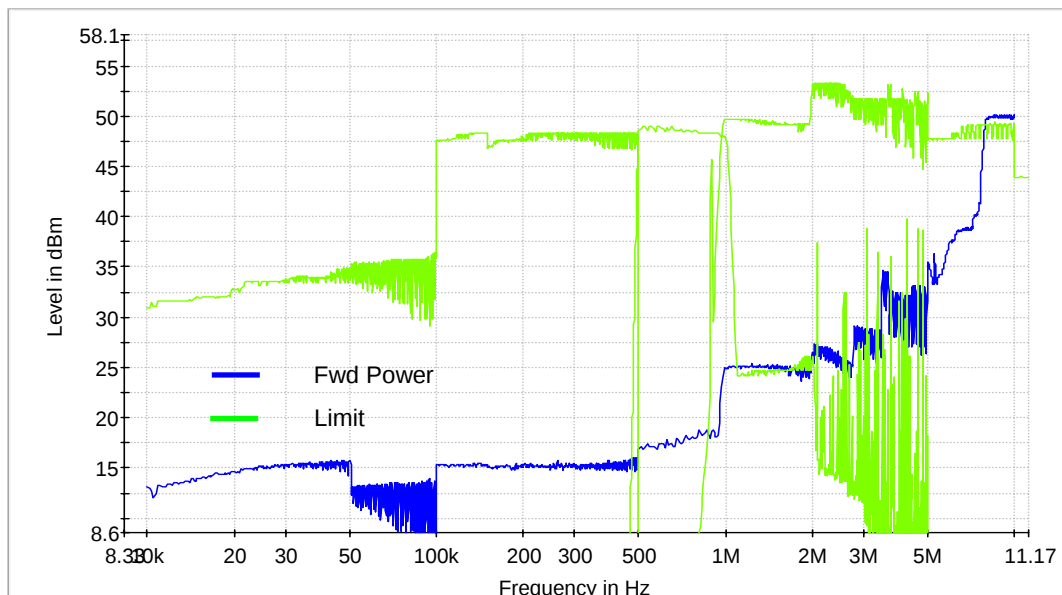
ED14E Cond Susc Fwd Power

Figure 103

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: RF Conducted Susceptibility, CW
10MHz to 400MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

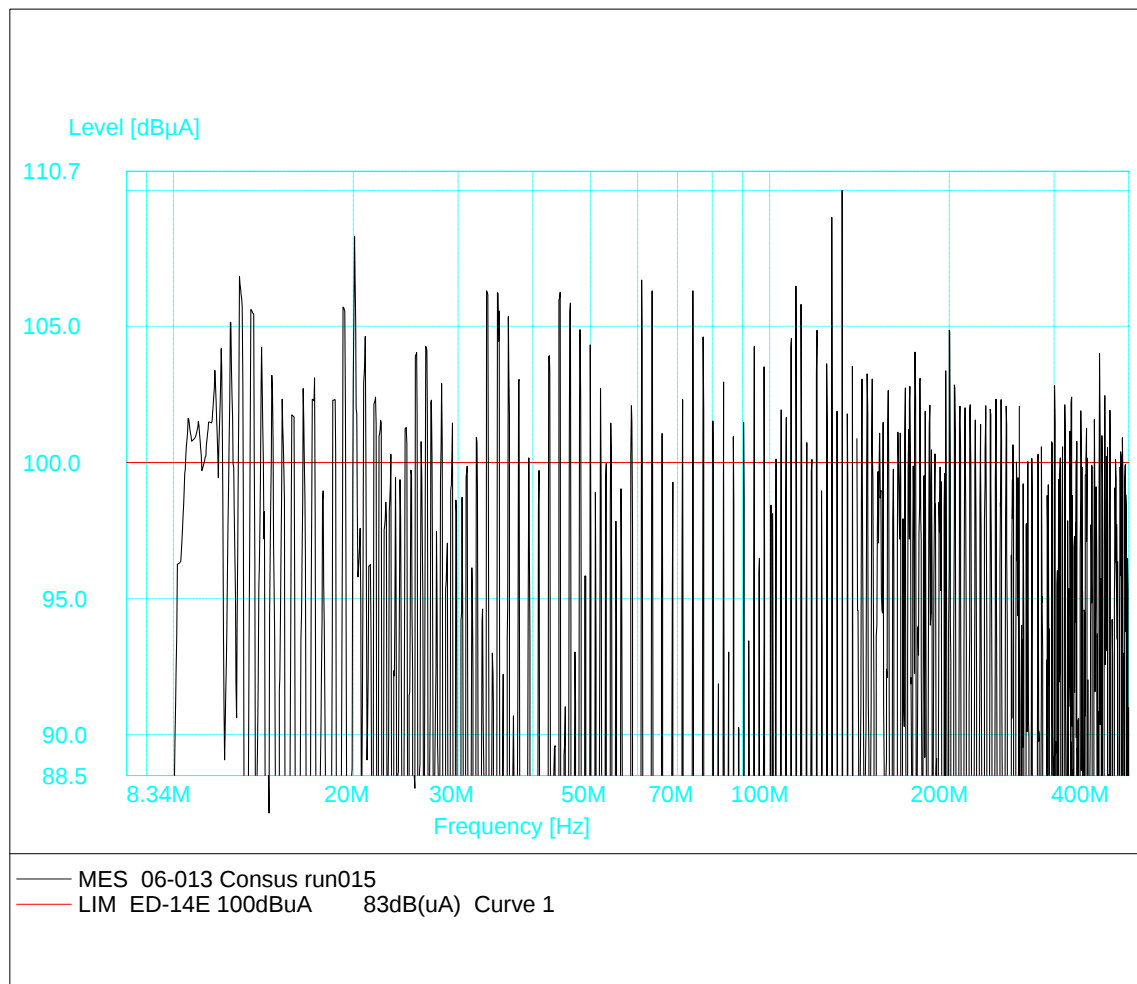


Figure 104

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 10MHz to 400MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

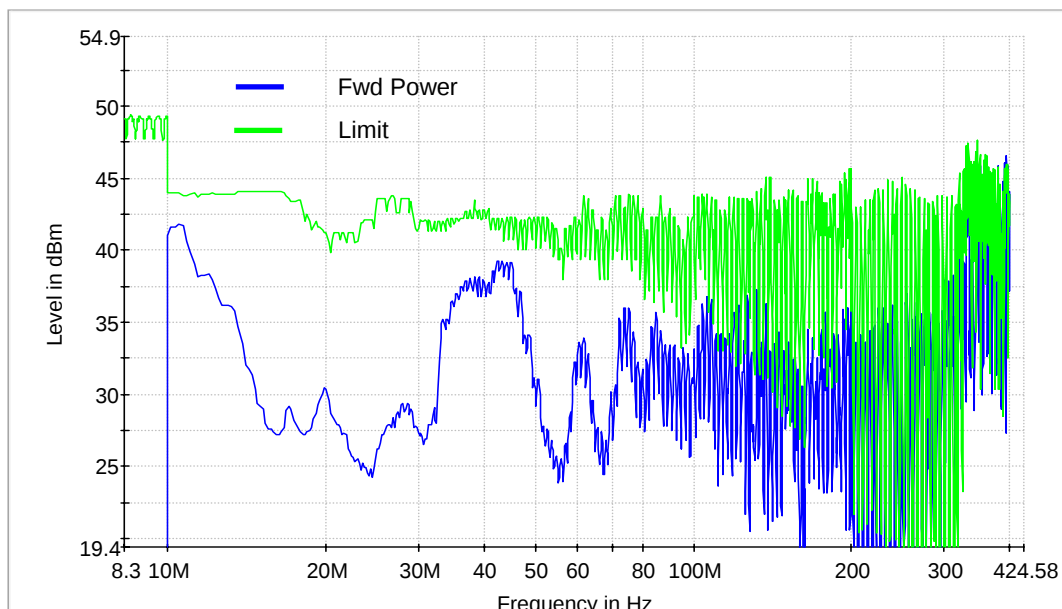
ED14E Cond Susc Fwd Power

Figure 105

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 1KHz
 10MHz to 400MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:			Current monitor during testing		
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

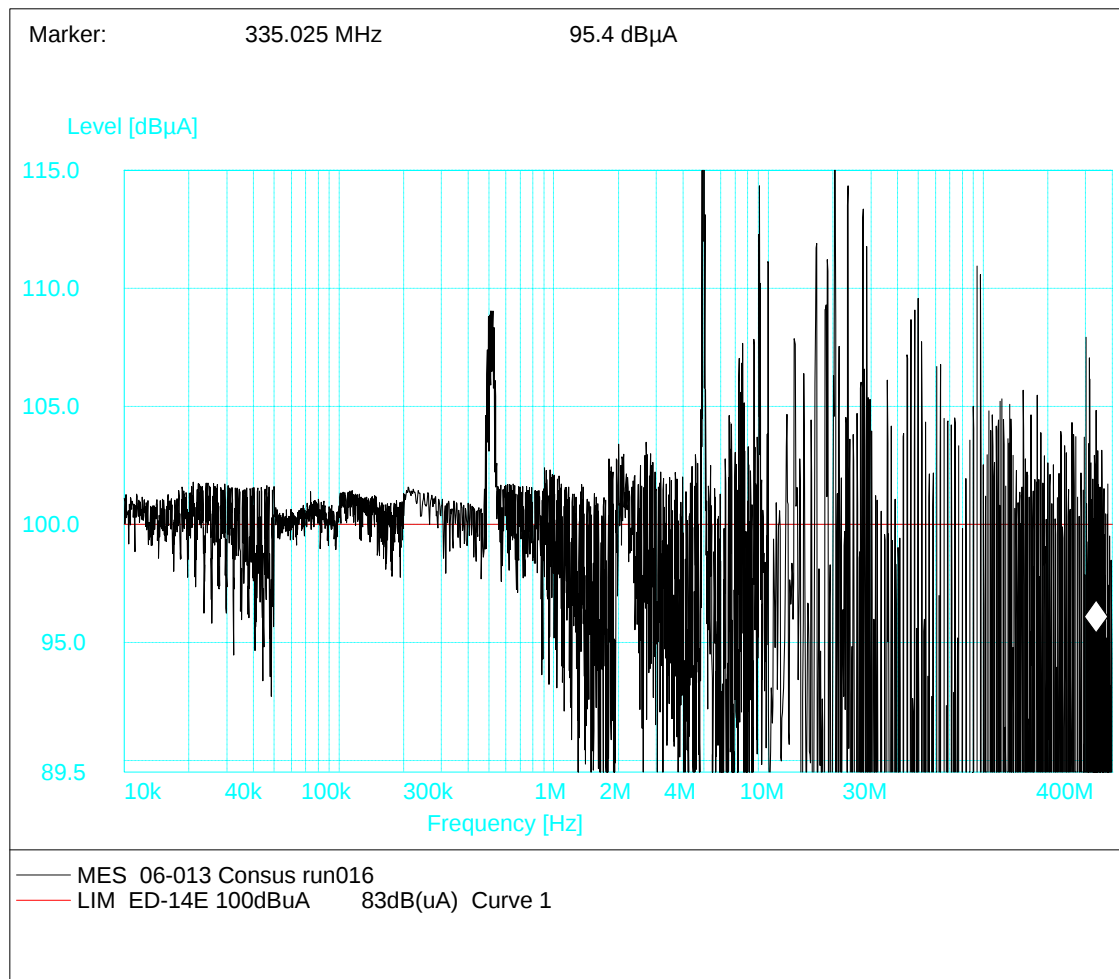


Figure 106

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 10KHz to 400MHz, modulated 1KHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

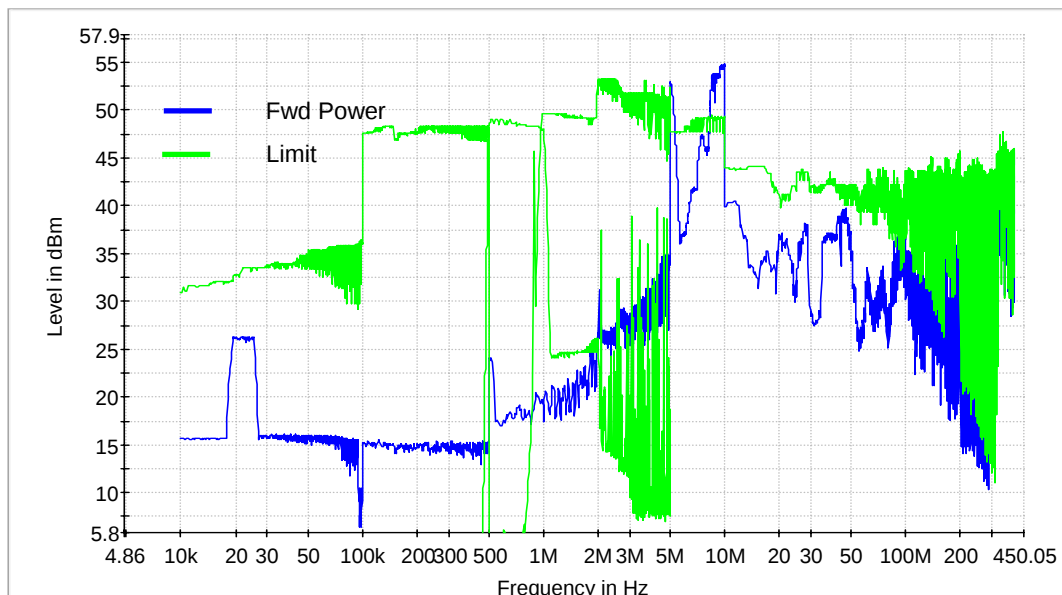
ED14E Cond Susc Fwd Power

Figure 107

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 100MHz to 120MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

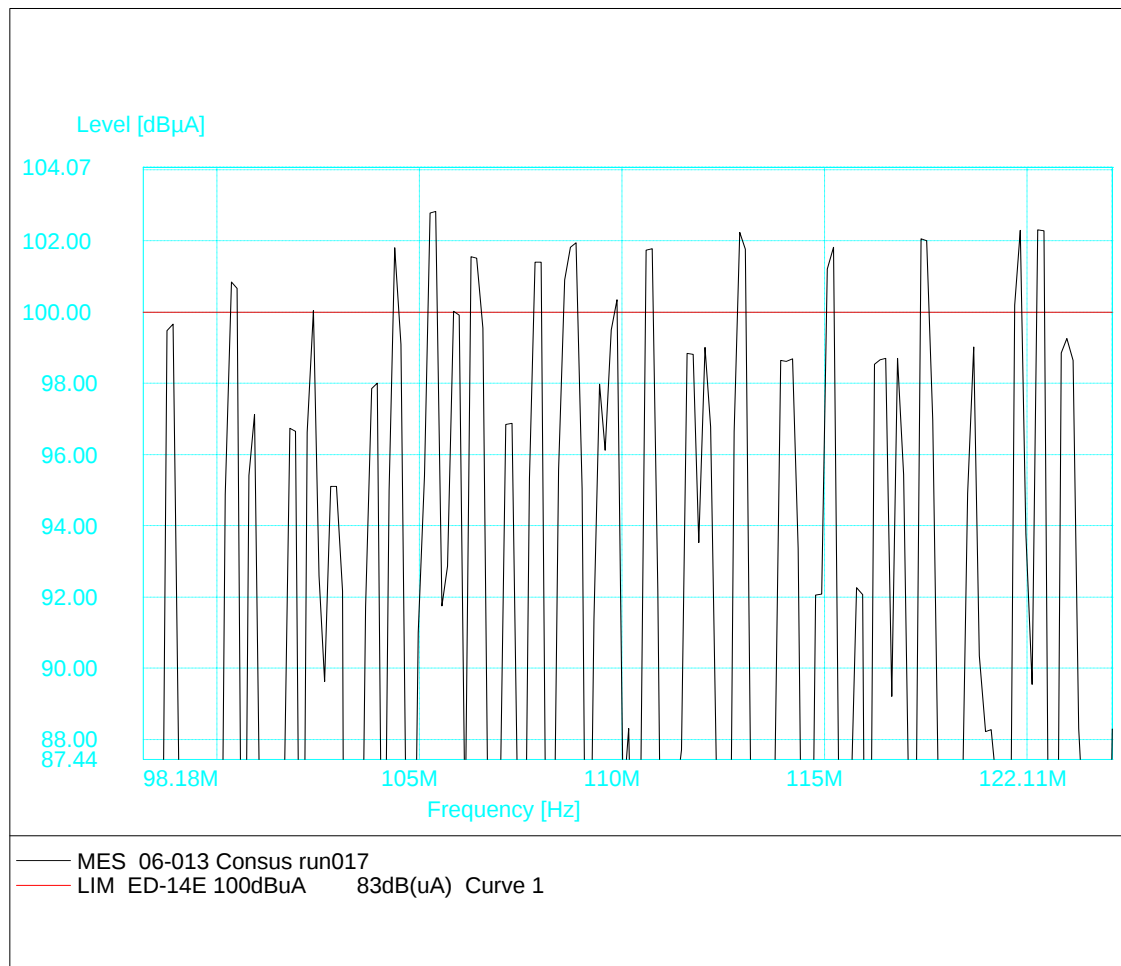


Figure 108

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 100MHz to 120MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

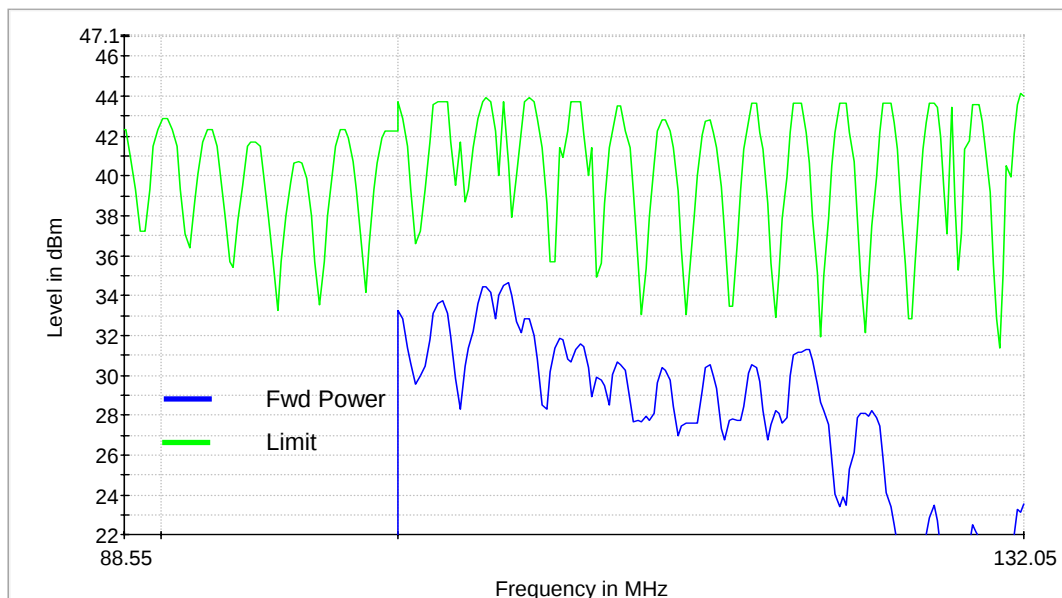
ED14E Cond Susc Fwd Power

Figure 109

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 10MHz
 100MHz to 120MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

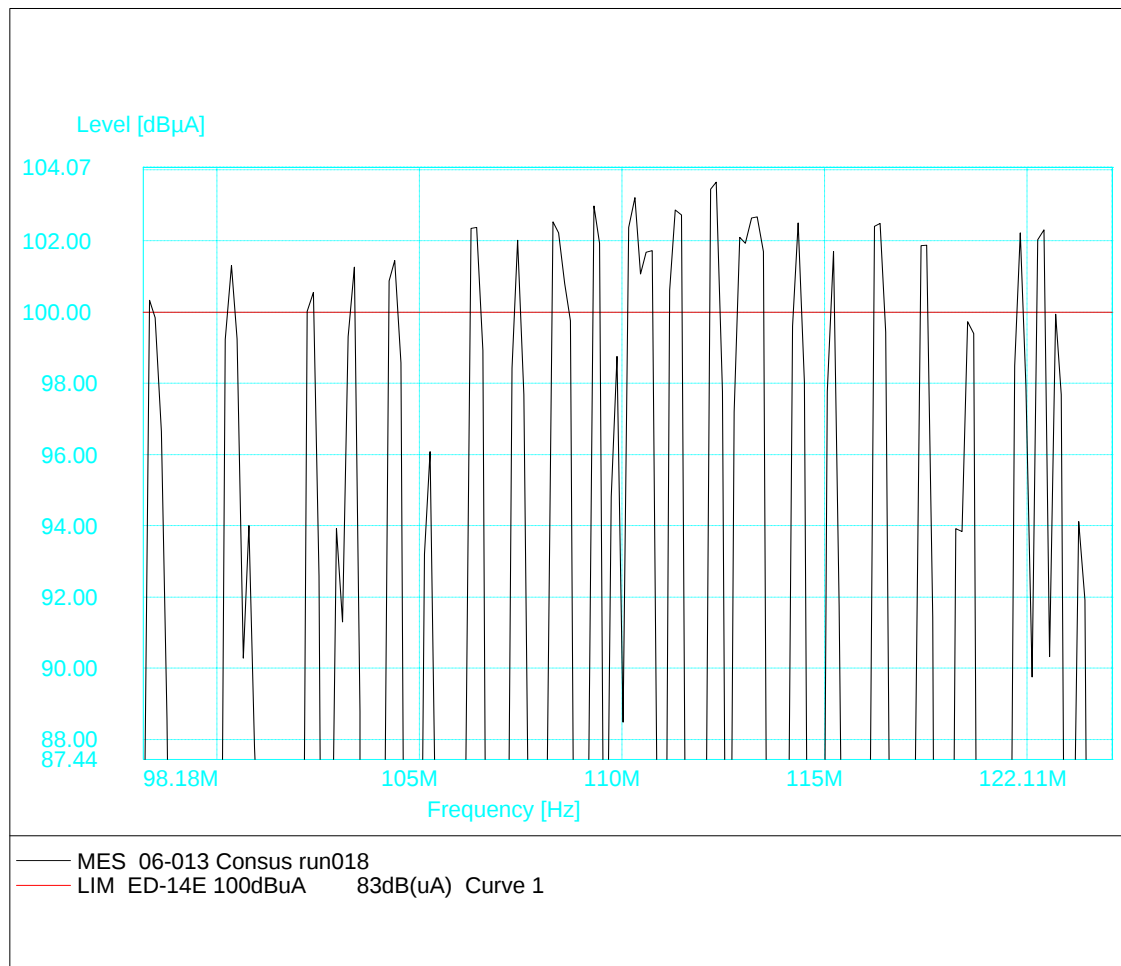


Figure 110

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 100MHz to 120MHz, modulated 10MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

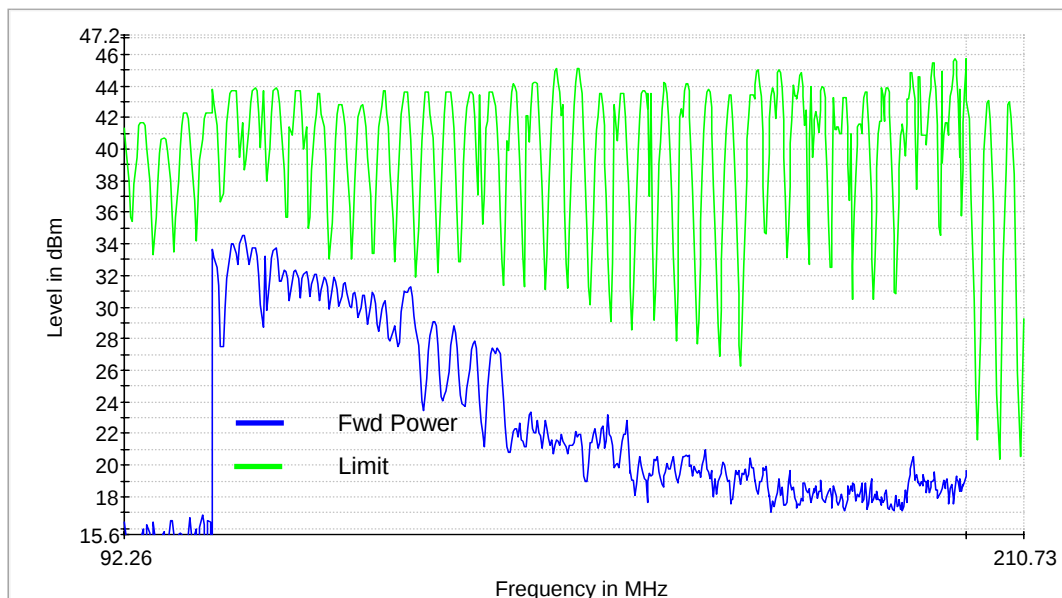
ED14E Cond Susc Fwd Power

Figure 111

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 9MHz to 11MHz Main Cable

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

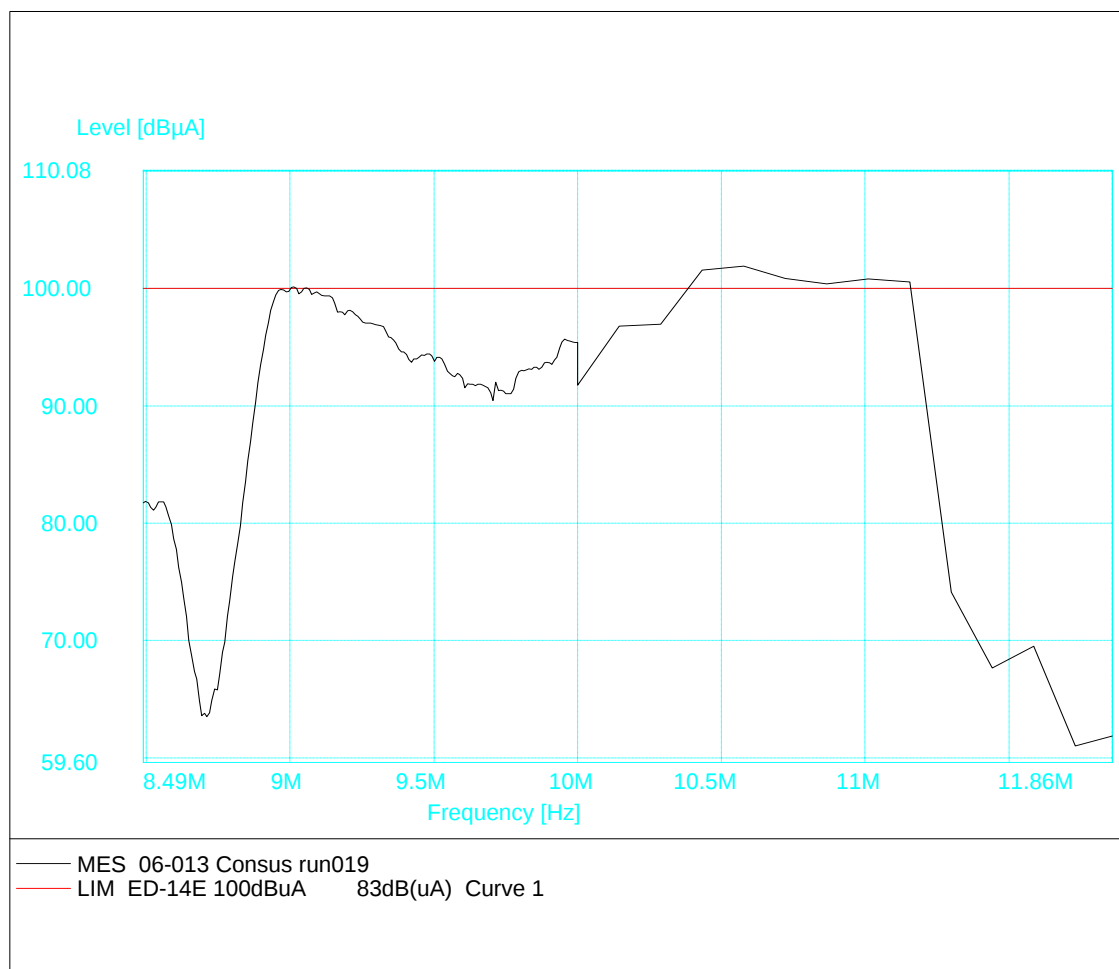


Figure 112

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Main cable loom
 Description: 9MHz to 11MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

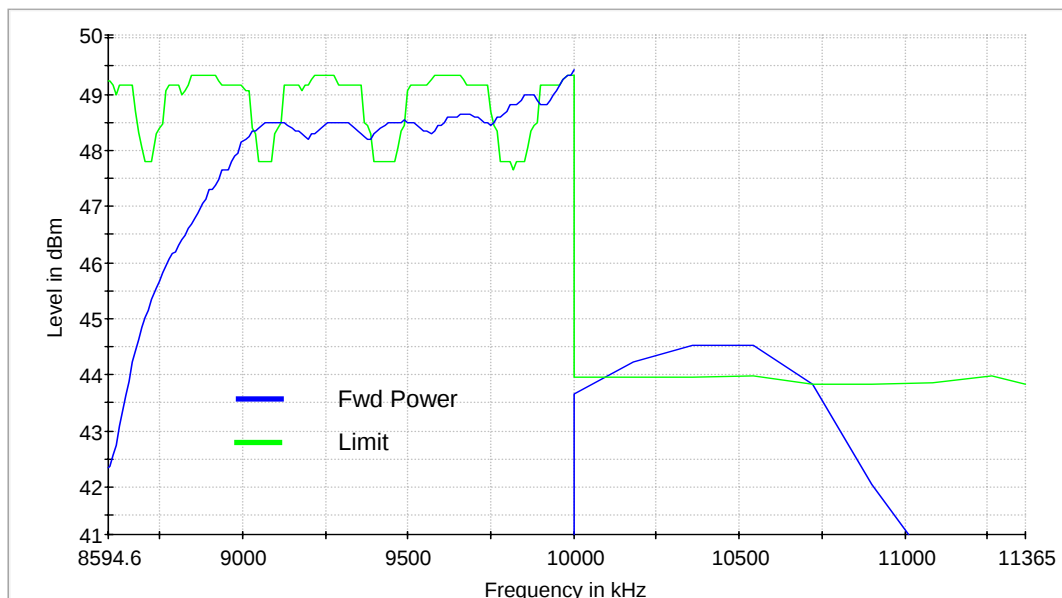
ED14E Cond Susc Fwd Power

Figure 113

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 10KHz to 400MHz TX, RX & SCM inter cable

SWEEP TABLE: "ED14E current mon."

Short Description:			Current monitor during testing		
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

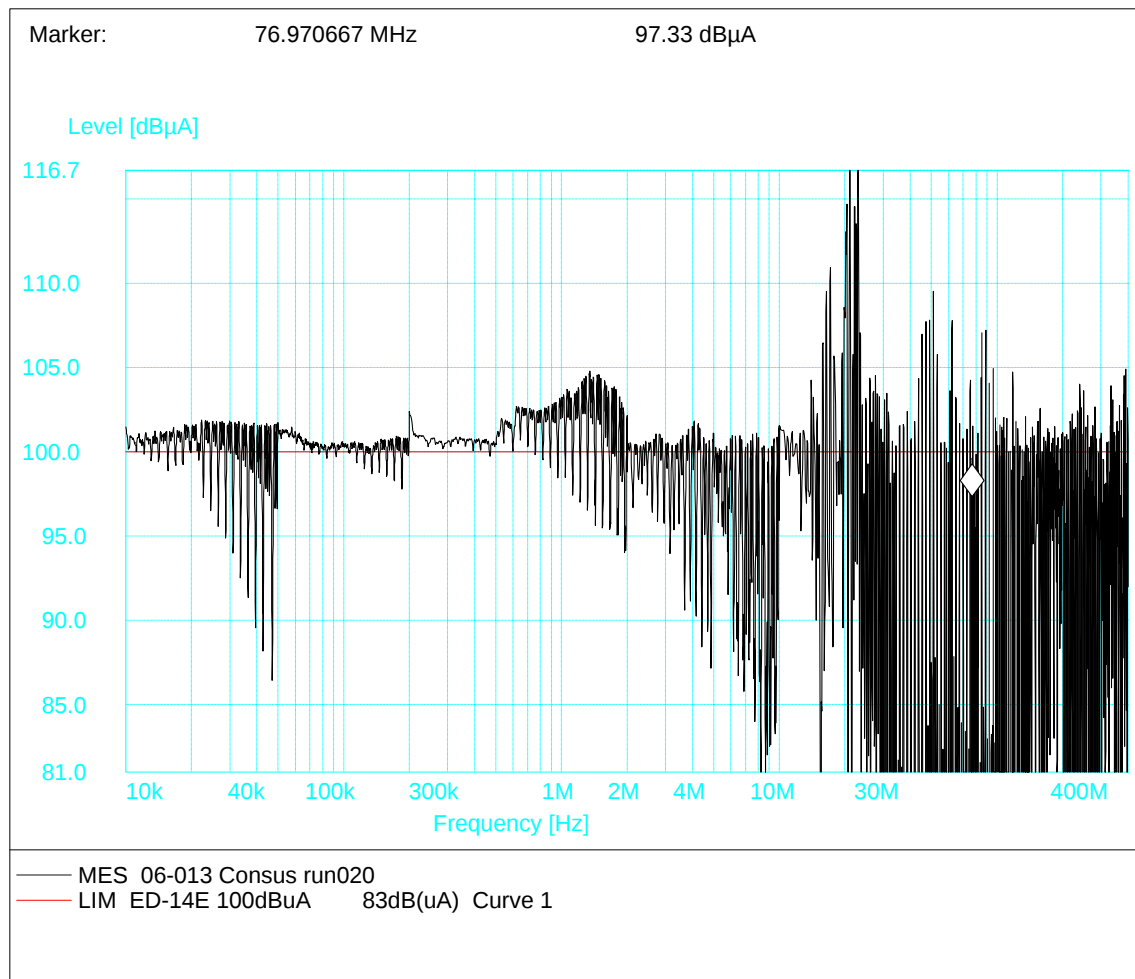


Figure 114

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: RF conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX, RX & SCM
 Description: 10KHz to 400MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

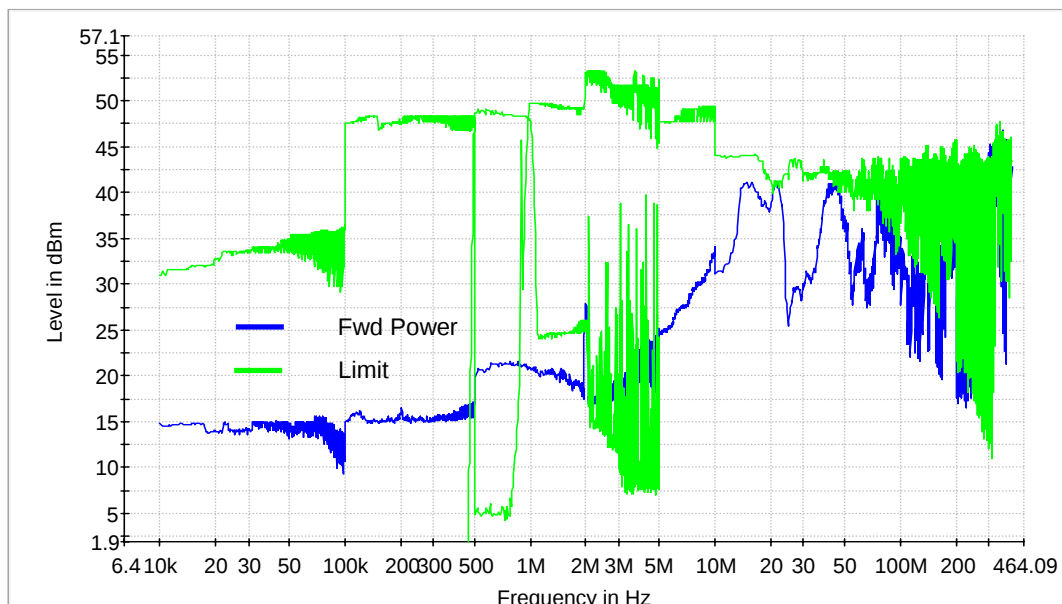
ED14E Cond Susc Fwd Power

Figure 115

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 1KHz
 10KHz to 400MHz TX, RX & SCM inter cable
 Not between 100MHz and 200MHz

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

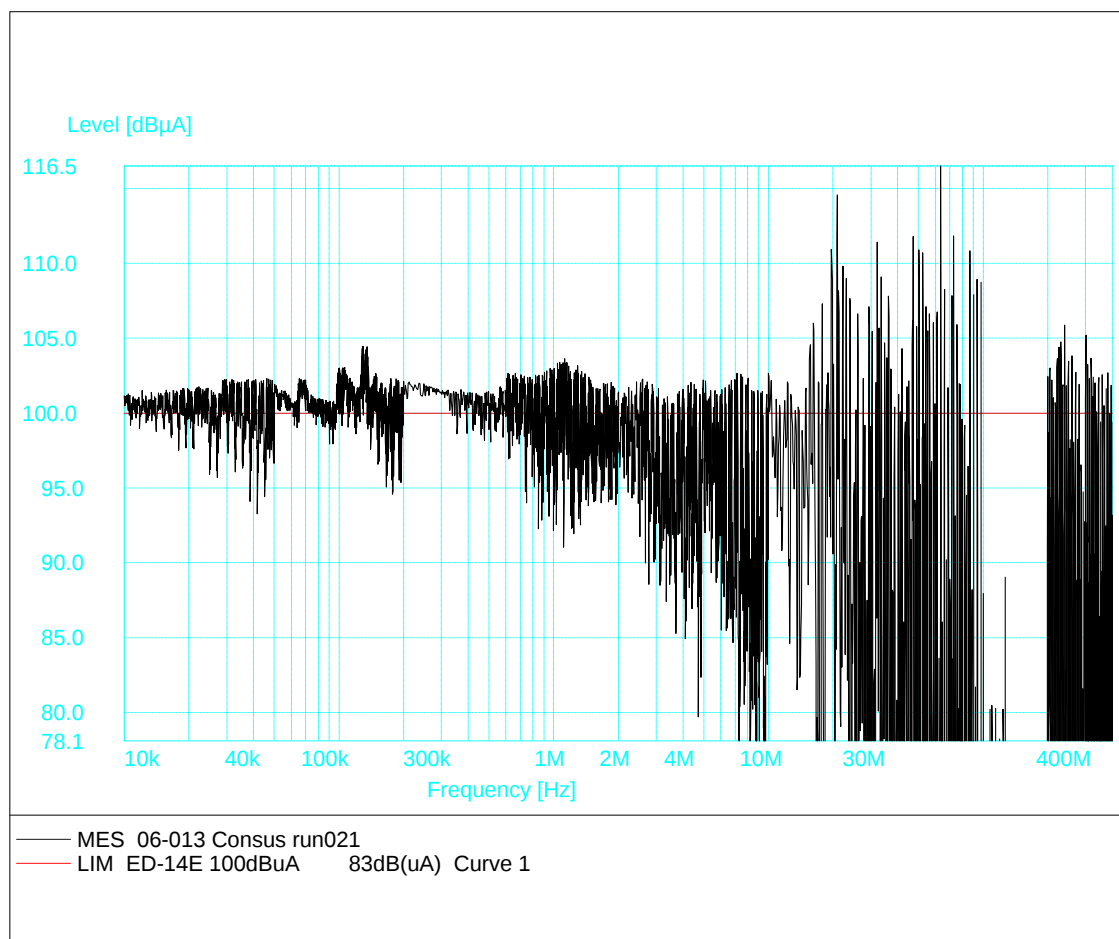


Figure 116

THALES

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX and SCM interconnect
 Description: 10KHz to 400MHz, modulated 1KHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

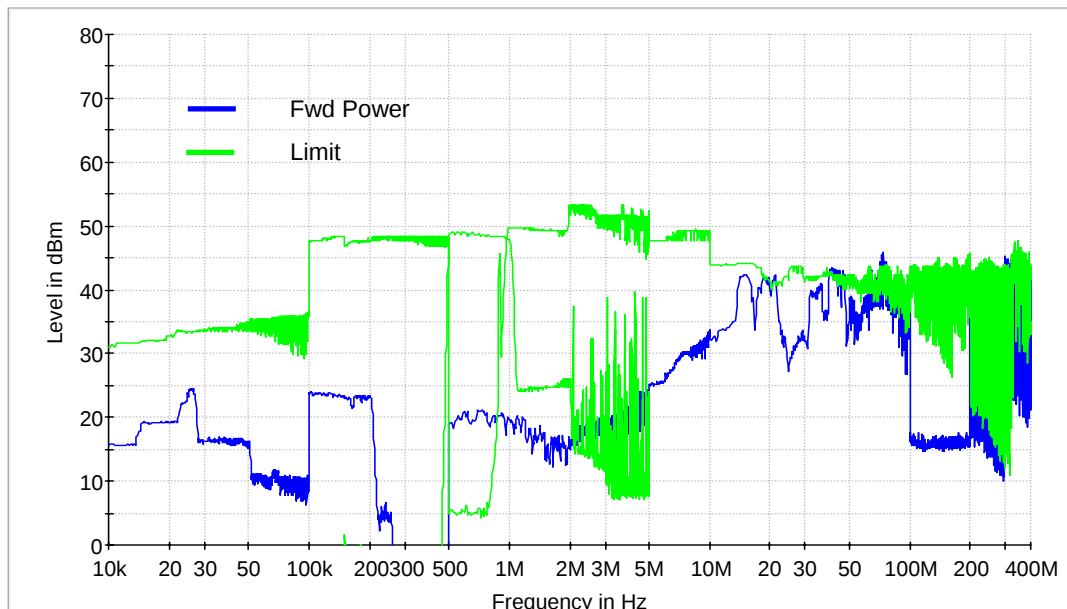
ED14E Cond Susc Fwd Power

Figure 117

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 50MHz to 100MHz main inter cable re-run

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

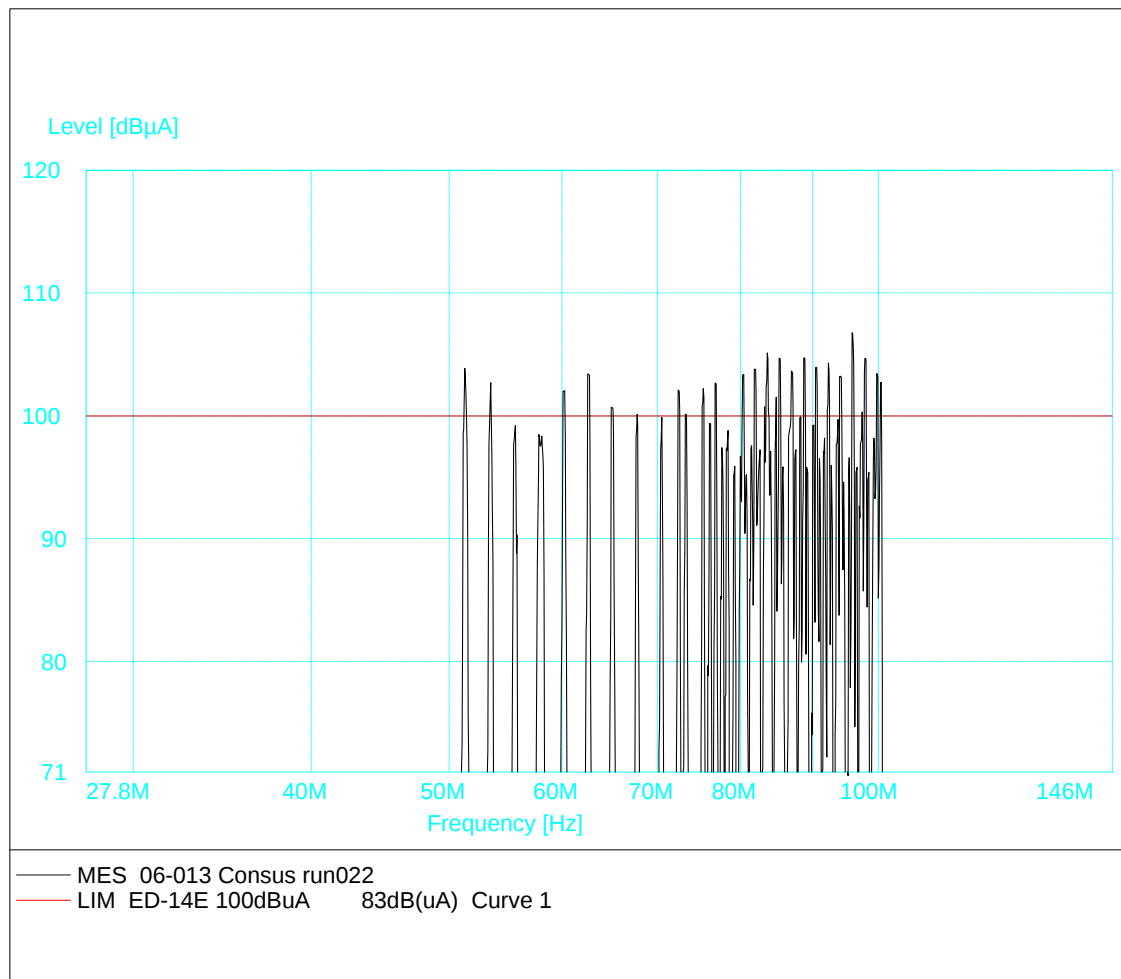


Figure 118

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 10KHz to 400MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:			Current monitor during testing		
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

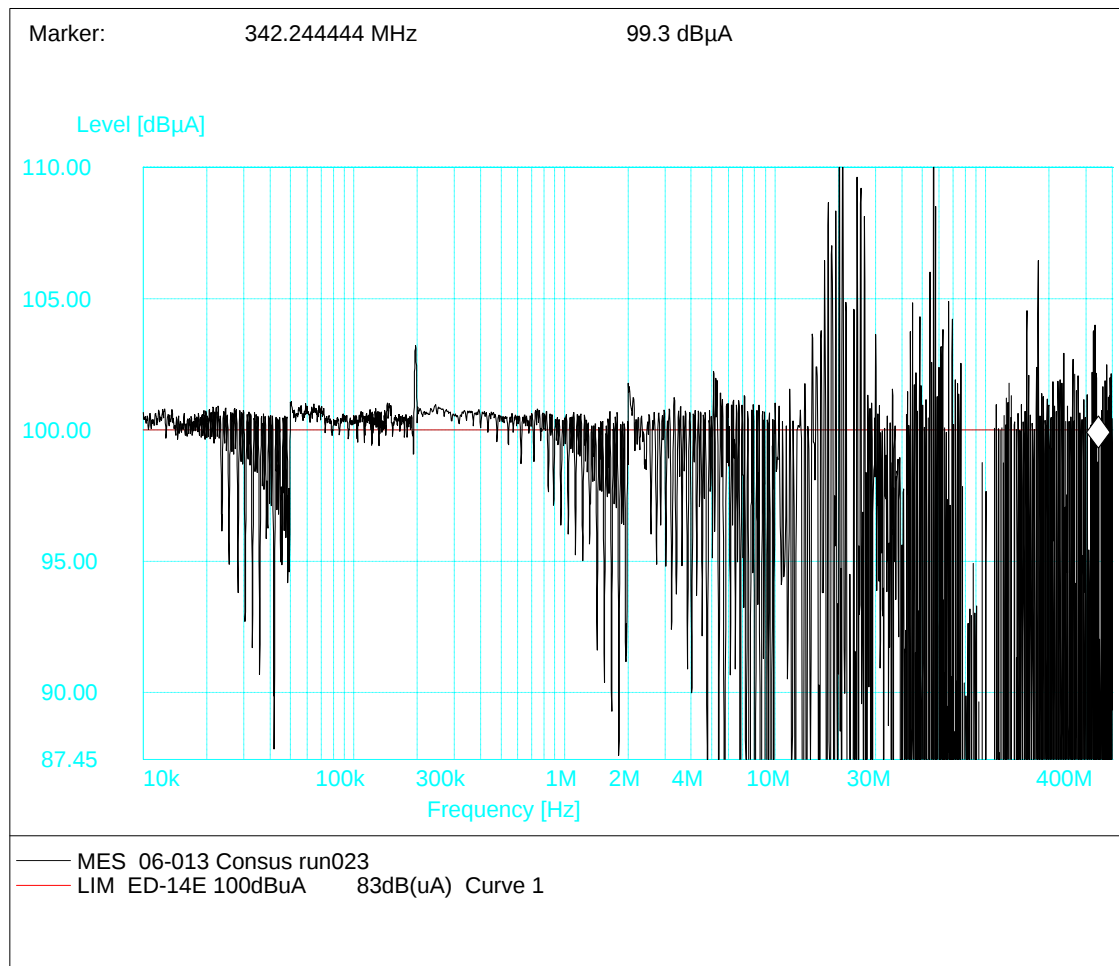


Figure 119

THALES

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 10KHz to 400MHz, CW, 80MHz to 110MHz left out

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

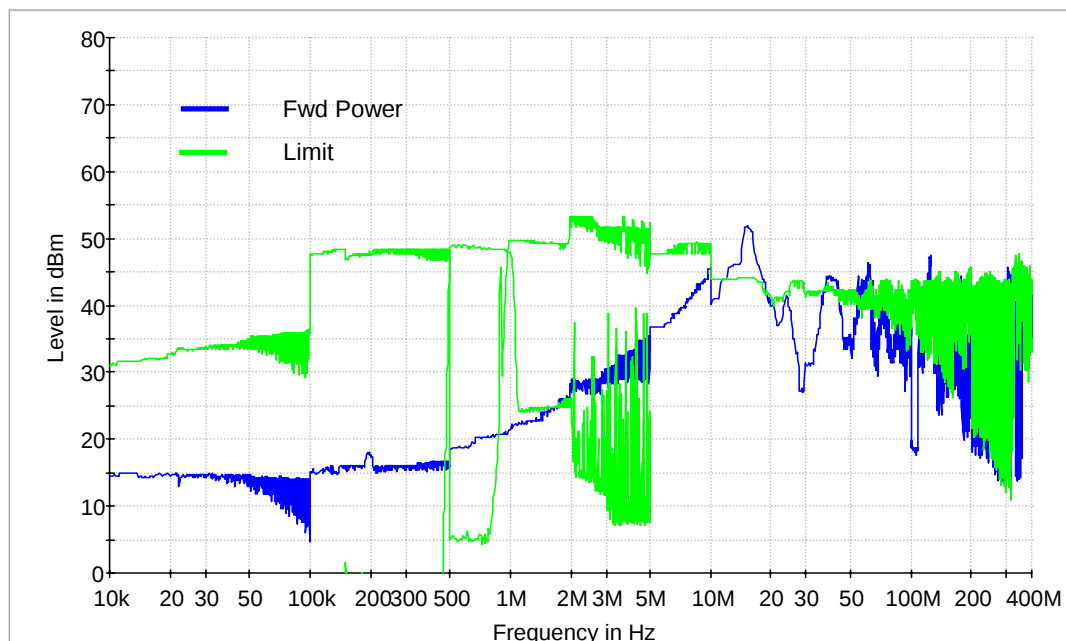
ED14E Cond Susc Fwd Power

Figure 120

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: RF Conducted Susceptibility, CW
30MHz to 70MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

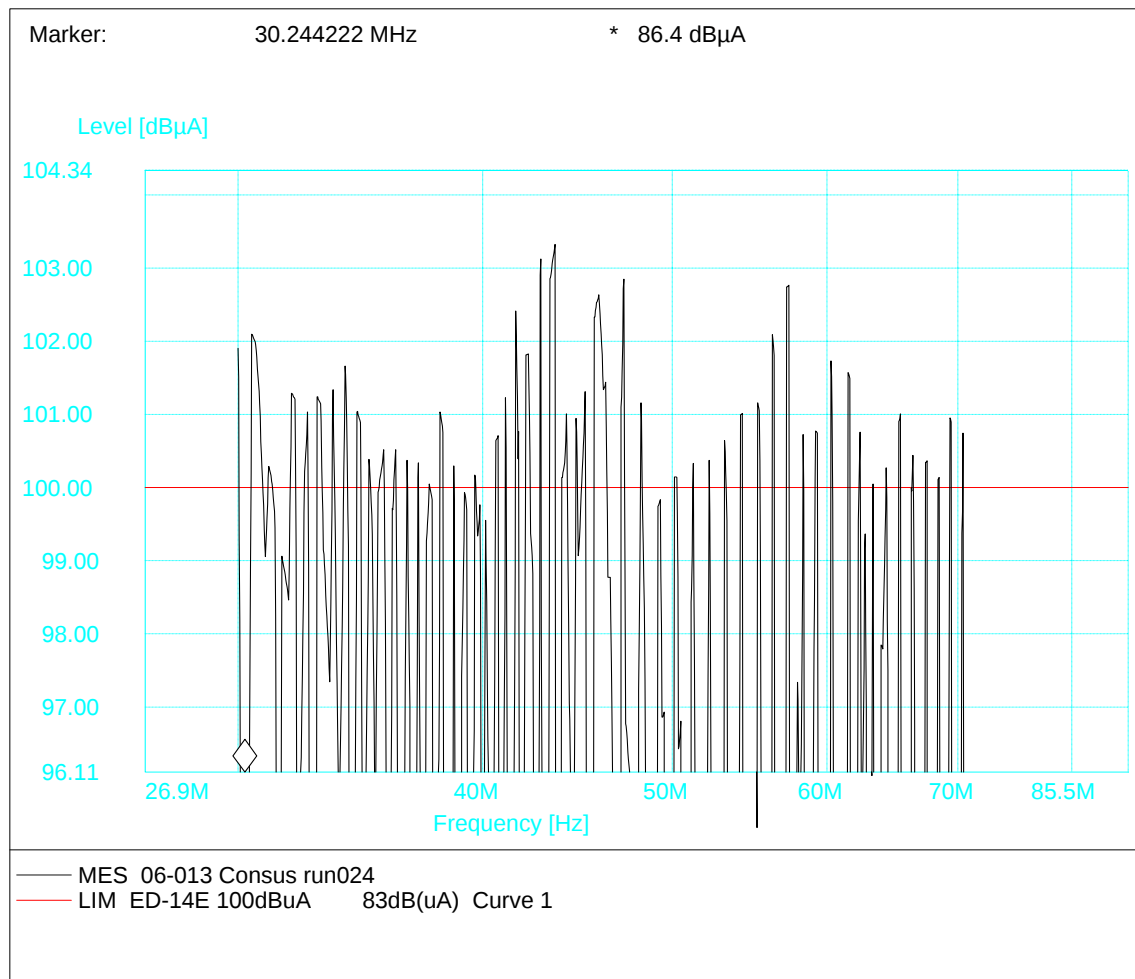


Figure 121

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 30MHz to 70MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

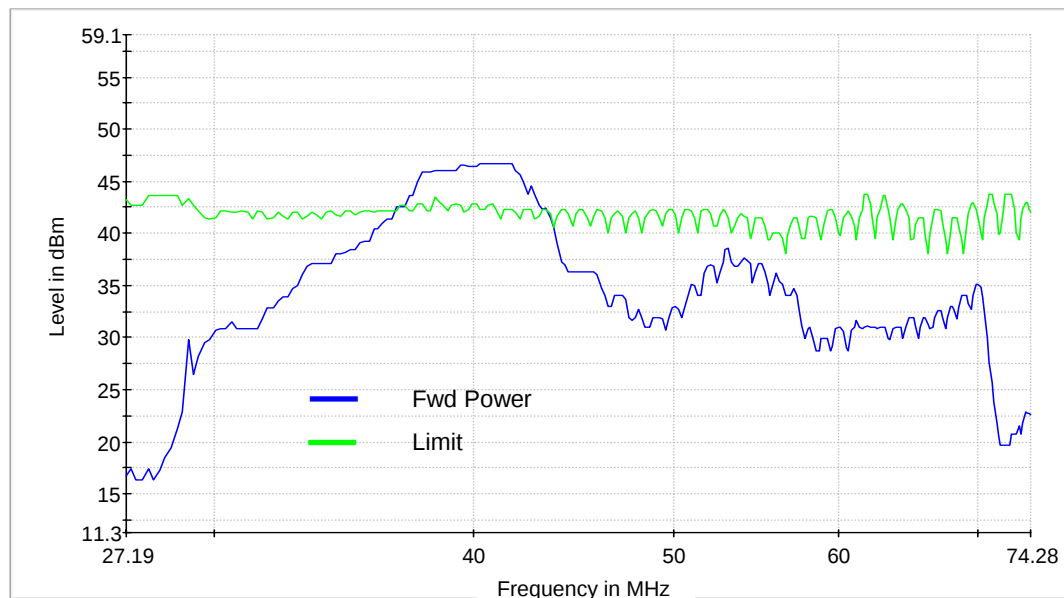
ED14E Cond Susc Fwd Power

Figure 122

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 70MHz to 110MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

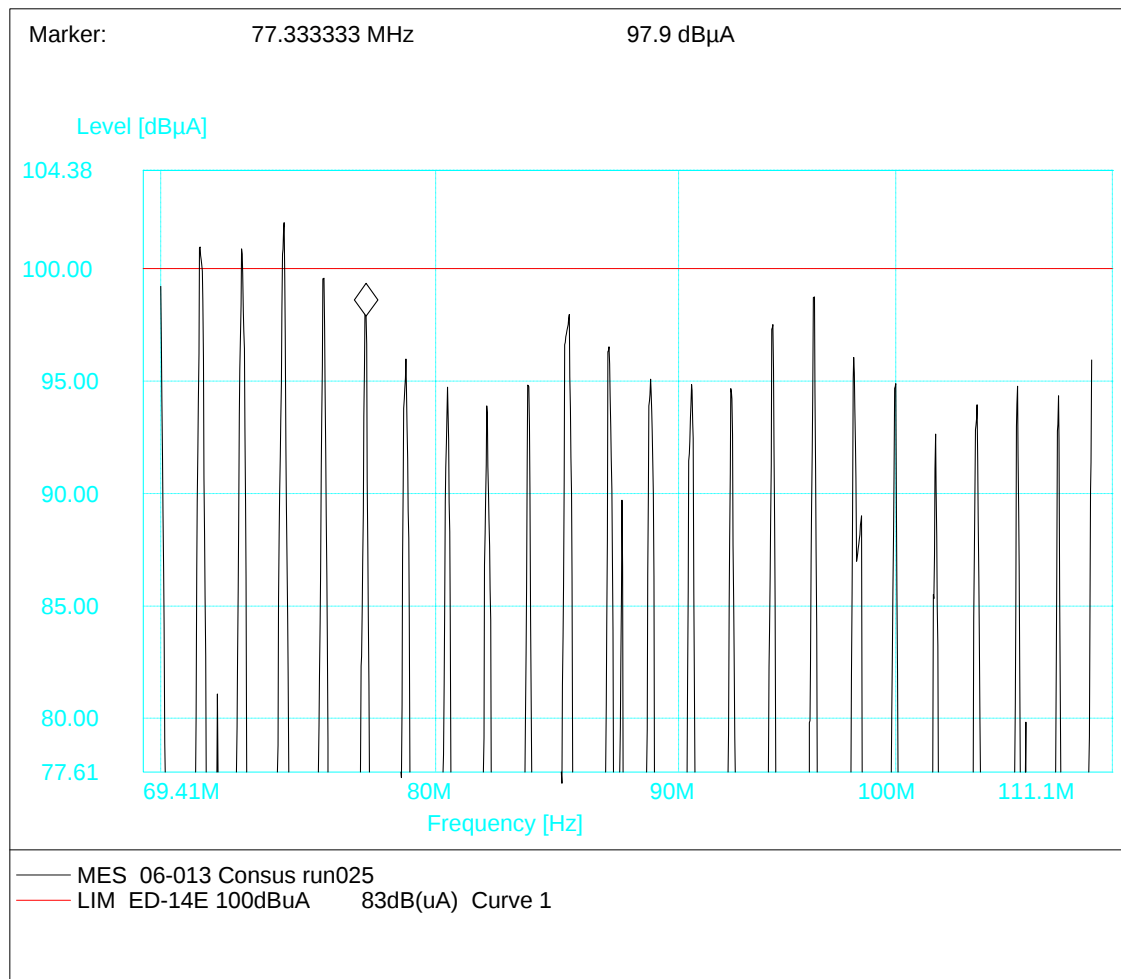


Figure 123

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 70MHz to 110MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

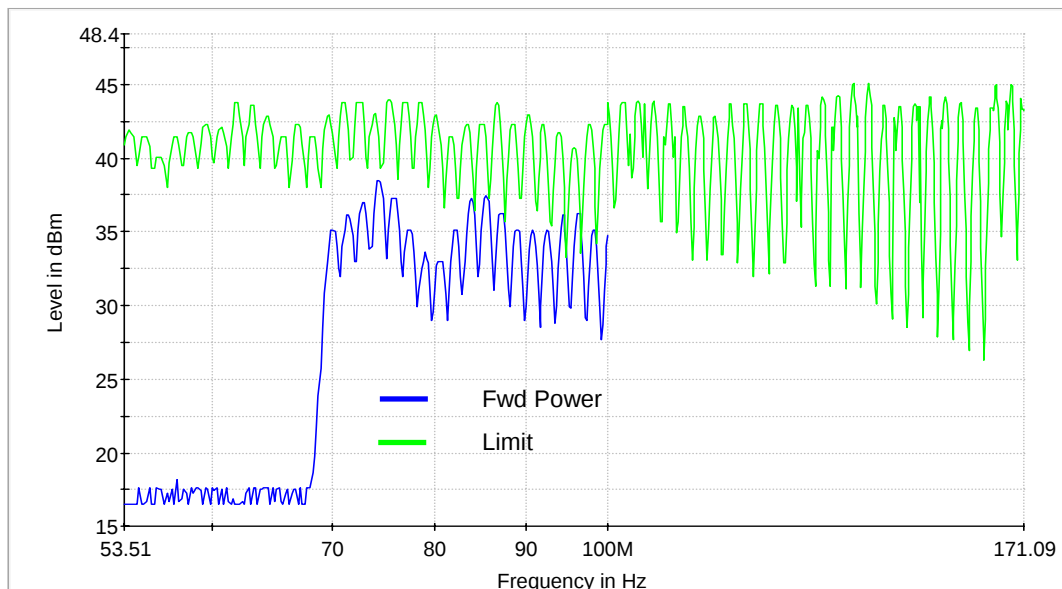
ED14E Cond Susc Fwd Power

Figure 124

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 90MHz to 110MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

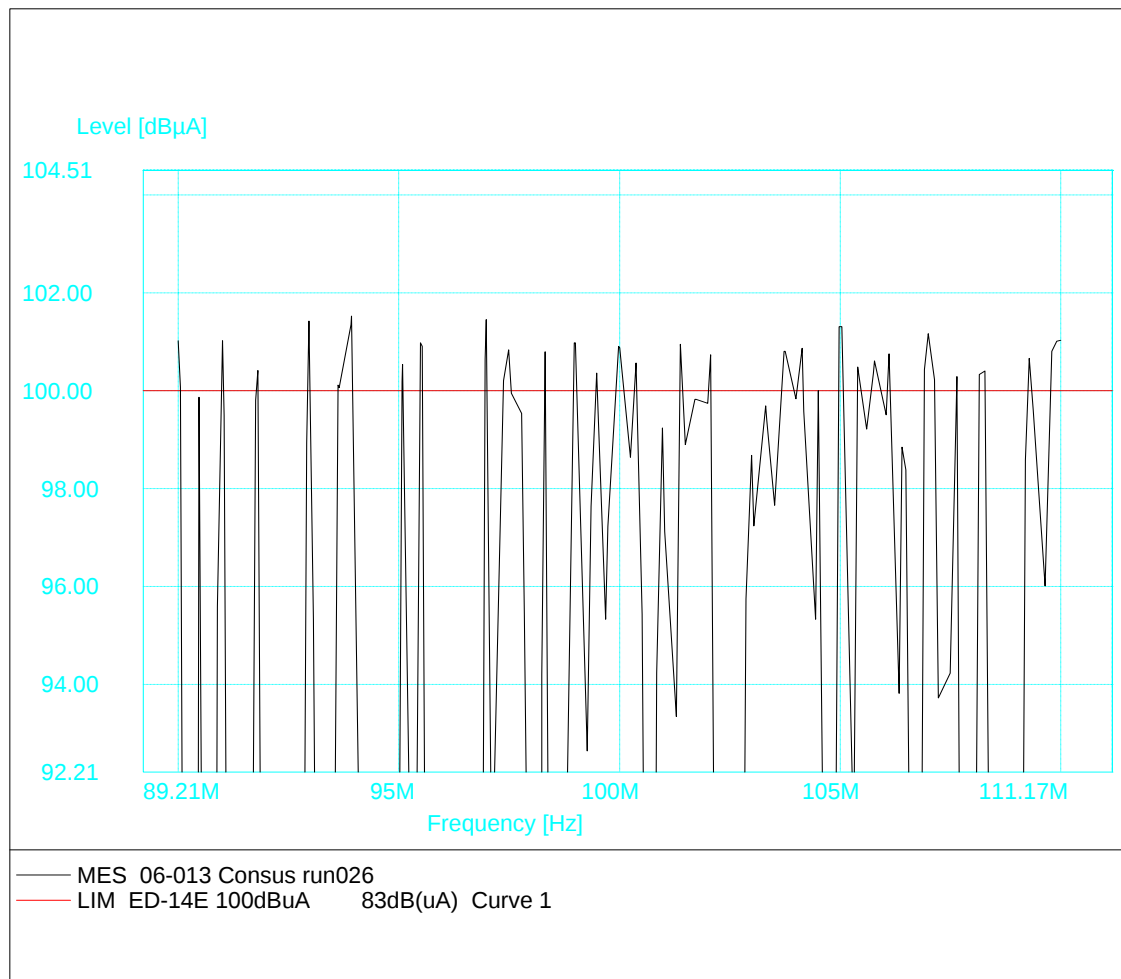


Figure 125

THALES

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 90MHz to 110MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

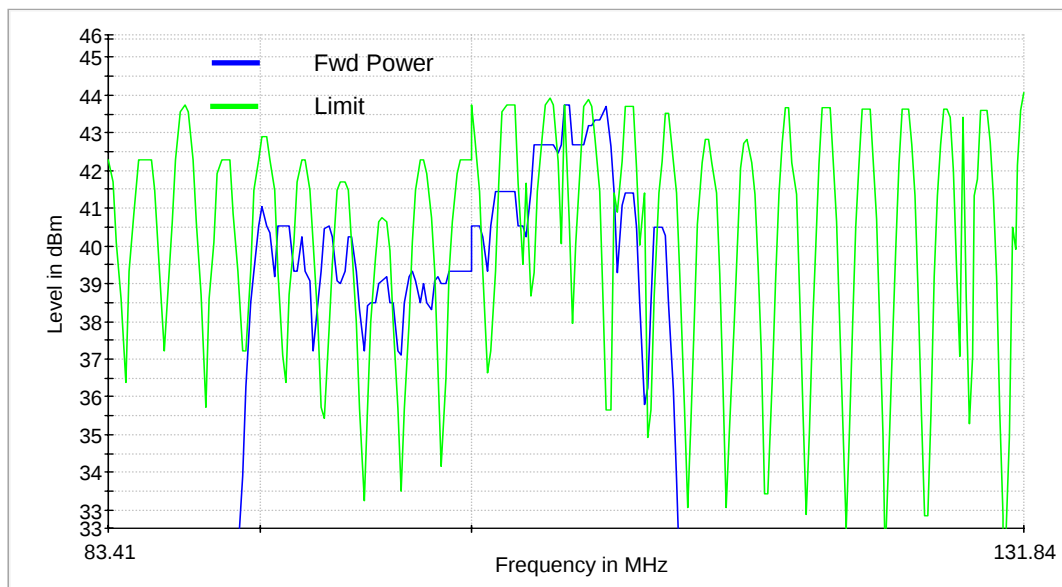
ED14E Cond Susc Fwd Power

Figure 126

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW
 80MHz to 90MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

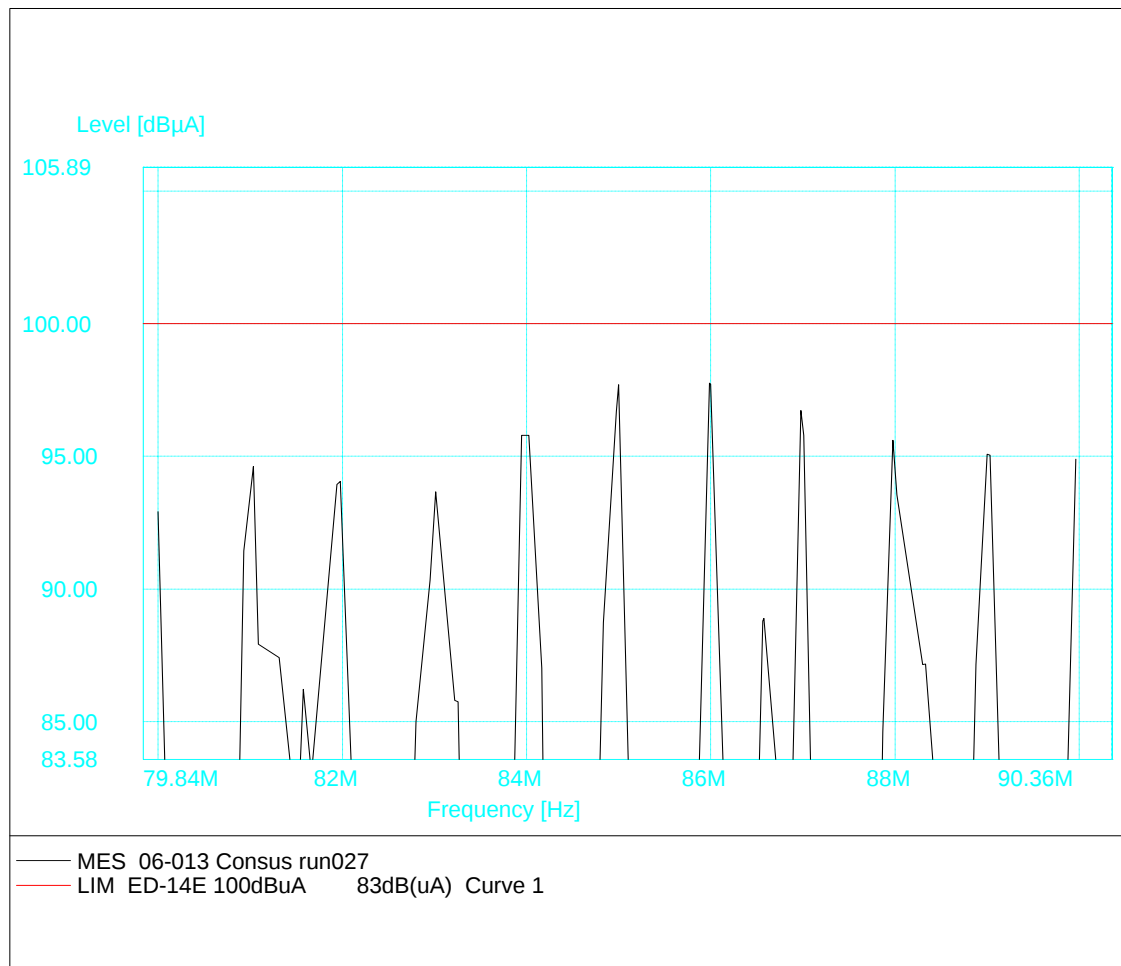


Figure 127

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 80MHz to 90MHz, CW

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

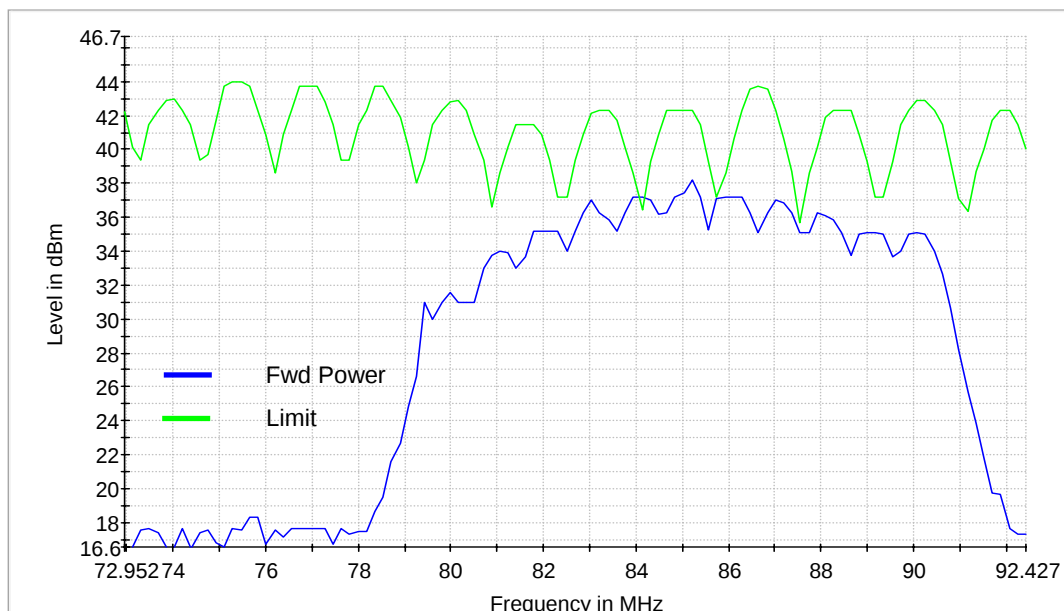
ED14E Cond Susc Fwd Power

Figure 128

THALES

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 100MHz to 120MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

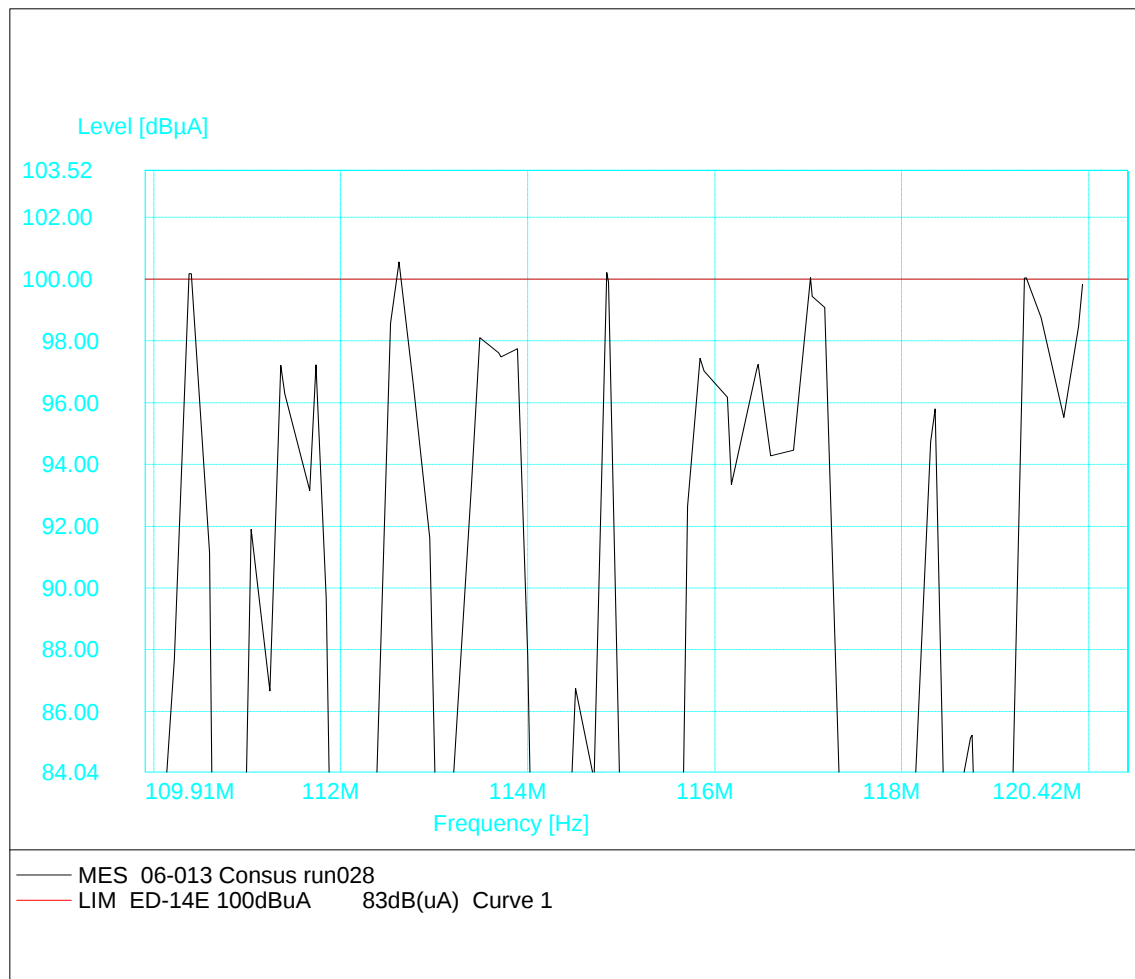


Figure 129

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 100MHz to 120MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

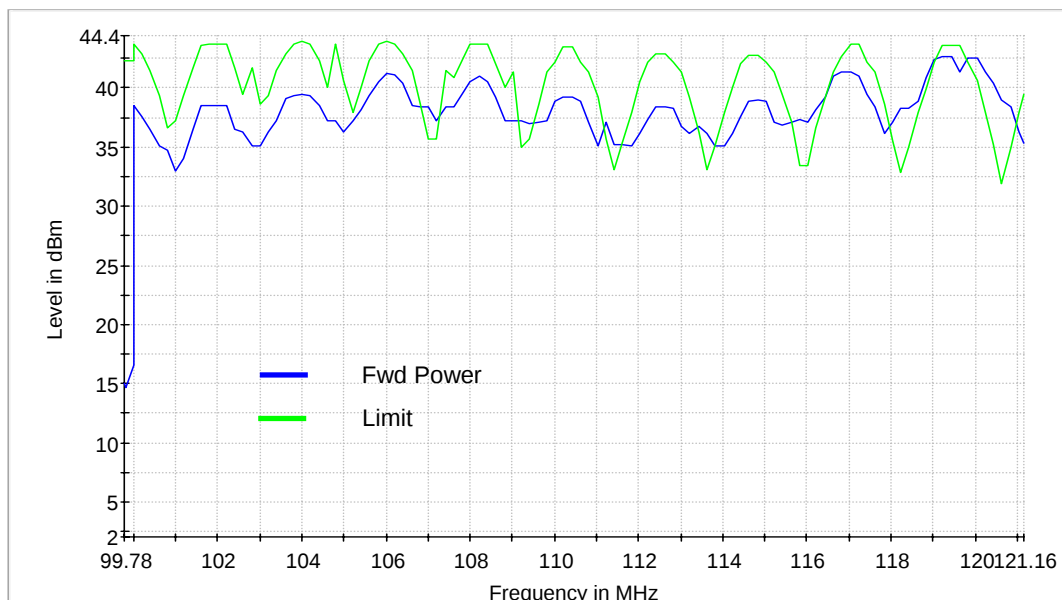
ED14E Cond Susc Fwd Power

Figure 130

THALES

EMC Test Report for TFS Satcom
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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
Manufacturer: Thales, Avionics Ltd
Operating Condition: Chamber 1
Test Site: Crawley
Operator: Richard
Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
Comment: RF Conducted Susceptibility, modulated 10MHz
100MHz to 120MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

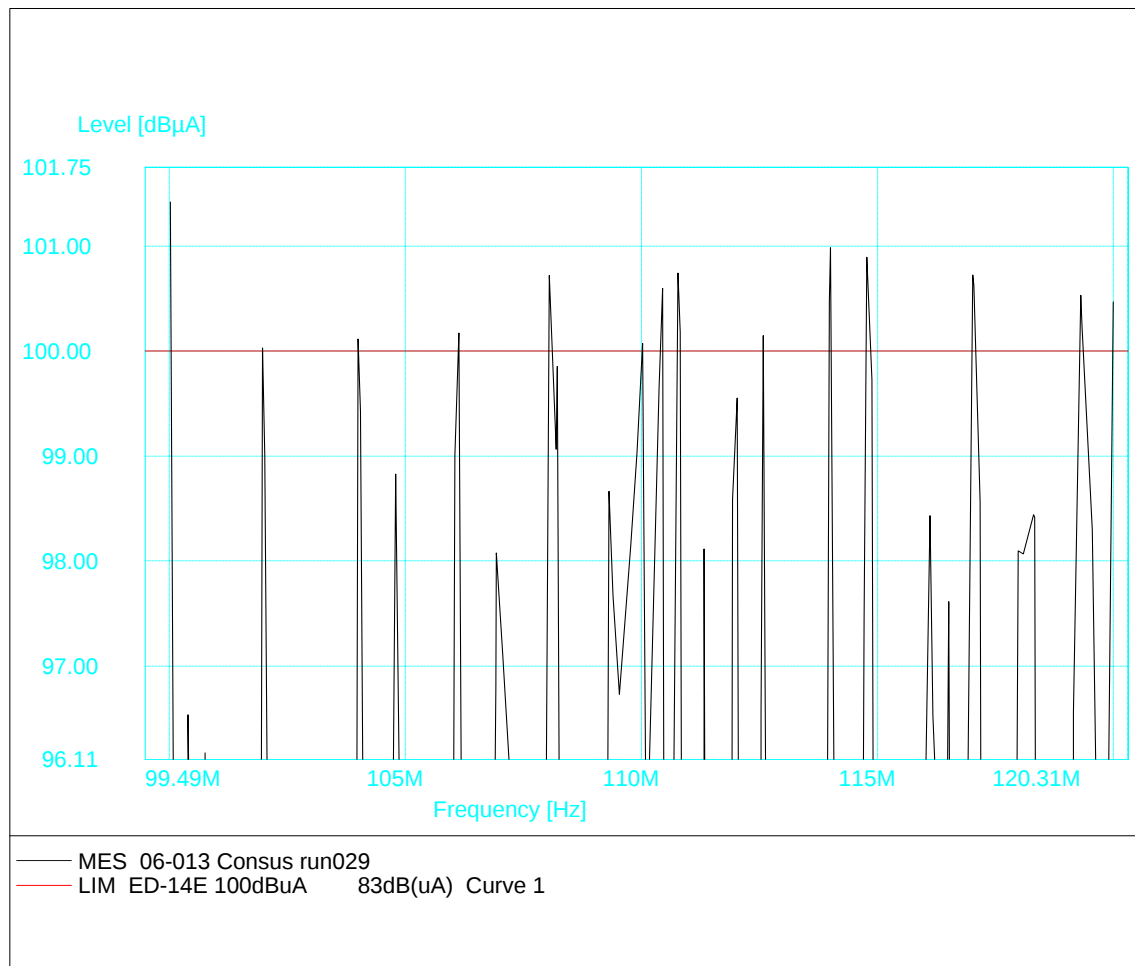


Figure 131

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 100MHz to 120MHz, modulated 10MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

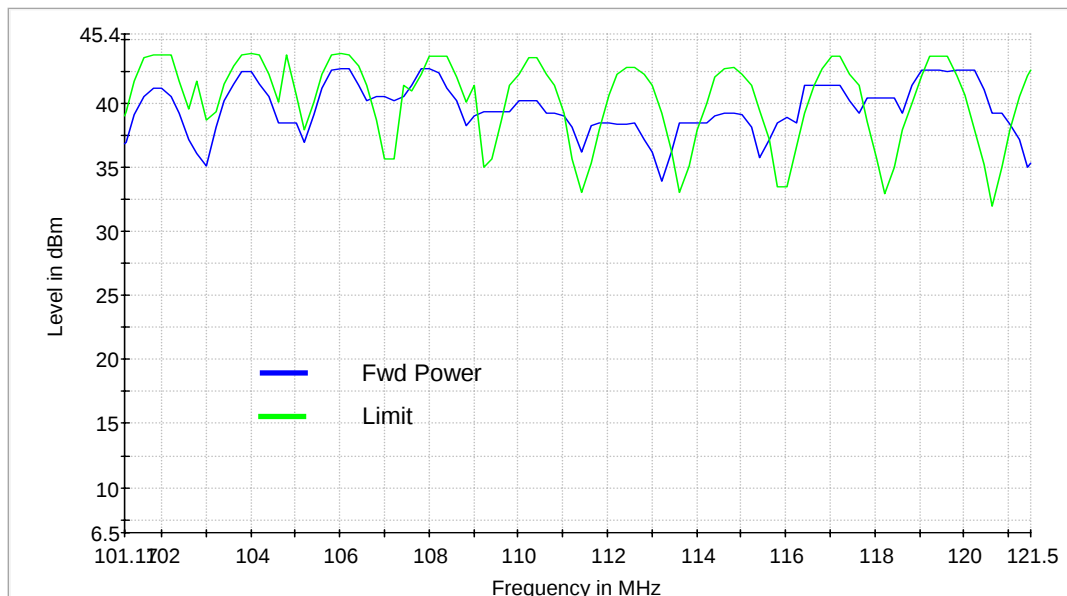
ED14E Cond Susc Fwd Power

Figure 132

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EMC Test Report for TFS Satcom

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, modulated 3.5MHz
 9MHz to 11MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

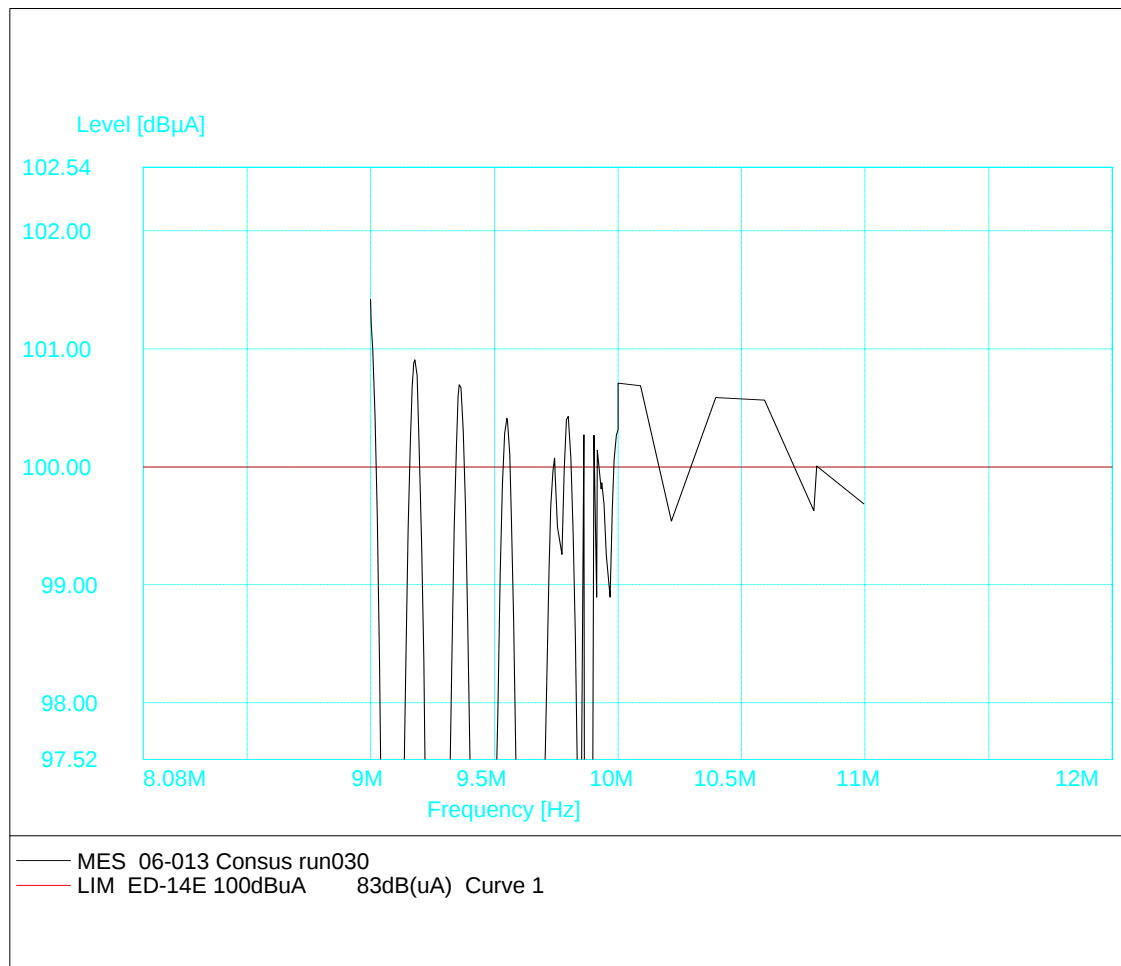


Figure 133

THALES

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Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 9MHz to 11MHz, modulated 3.5MHz

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

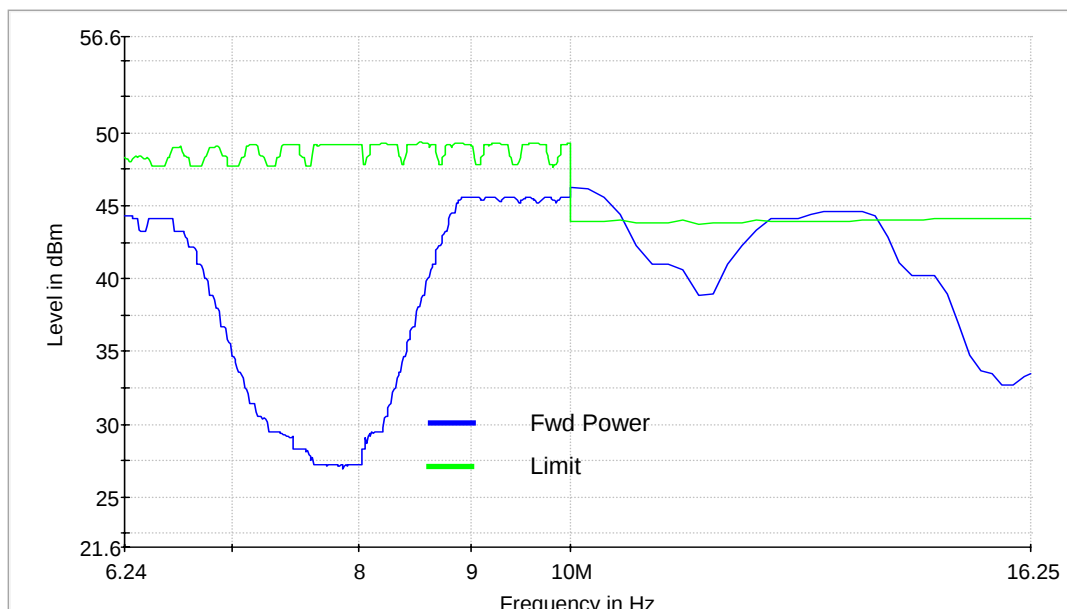
ED14E Cond Susc Fwd Power

Figure 134

THALES

EMC Test Report for TFS Satcom

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Thales UK Ltd

EUT: SDU 82155D10D, Ser No 10001, SCM 82158A10A, Ser No 0010
 Manufacturer: Thales, Avionics Ltd
 Operating Condition: Chamber 1
 Test Site: Crawley
 Operator: Richard
 Test Specification: ED14E, ADB0010.12 & RTCA DO-160D
 Comment: RF Conducted Susceptibility, CW, PSM at half power
 70MHz to 80MHz TX and RX

SWEEP TABLE: "ED14E current mon."

Short Description:		Current monitor during testing			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
10.0 kHz	50.0 kHz	MaxPeak	260.0 ms	1 kHz	1 J0 575/1 I probe
50.0 kHz	200.0 kHz	MaxPeak	260.0 ms	10 kHz	1 J0 575/1 I probe
200.0 kHz	2.0 MHz	MaxPeak	260.0 ms	43.5 kHz	1 J0 575/1 I probe
2.0 MHz	10.0 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 575/1 I probe
10.0 MHz	139.9 MHz	MaxPeak	260.0 ms	116 kHz	1 J0 574/1 I probe
140.1 MHz	400.0 MHz	MaxPeak	260.0 ms	1 MHz	1 J0 574/1 I probe

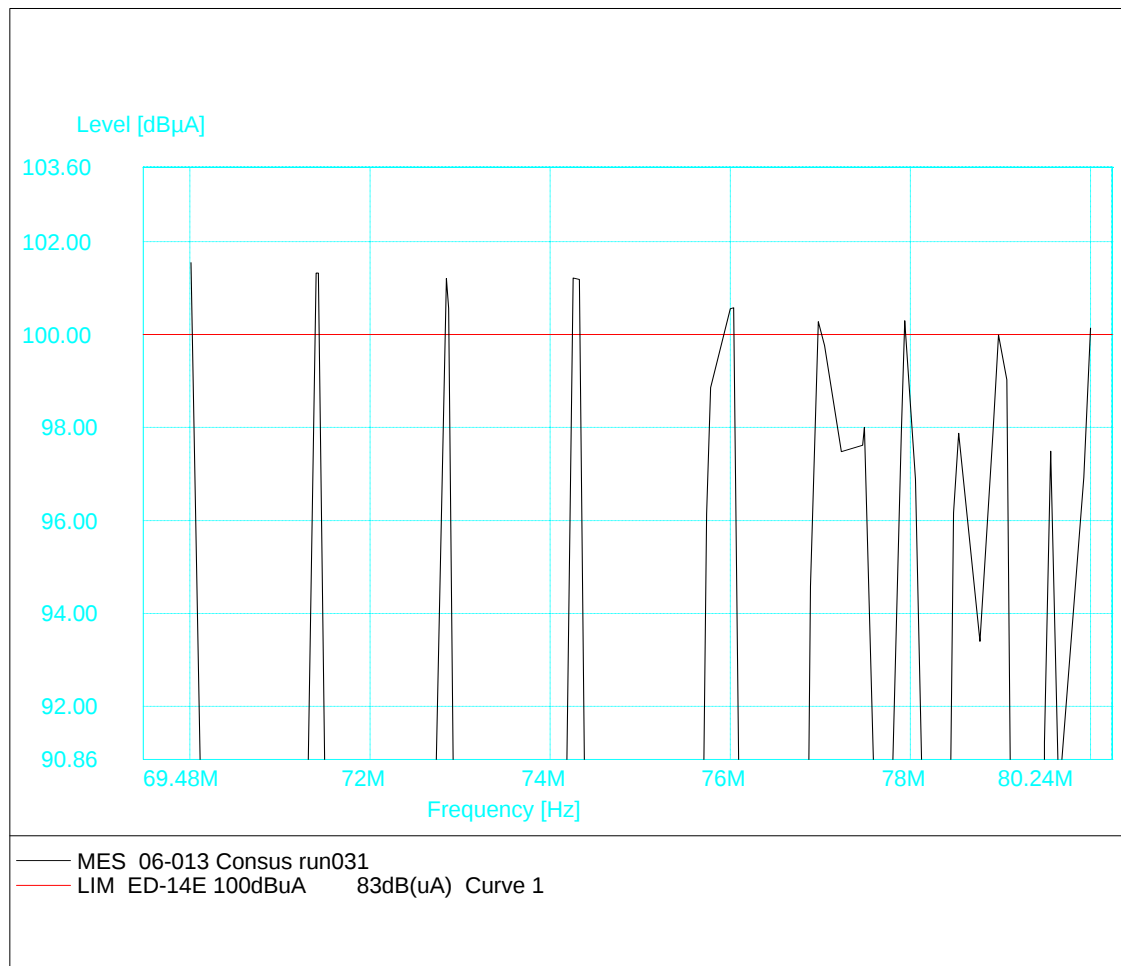


Figure 135

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Thales UK Ltd

Test Information

EUT Name: SAT COM
 Serial Number: SDU 82155D10D SN 10001, SCM 82158A10A, SN 0010
 Test Description: Conducted susceptibility forward power
 Operating Conditions: Chamber 1
 Operator Name: Angus
 Comment: Cables TX and RX
 Description: 70MHz to 80MHz, CW, PSM at half power

Hardware Setup: BCI Fwd Power - [EMI conducted]

Subrange 1
 Frequency Range: 10kHz - 400MHz
 Receiver: ESIB 26
 Transducer: dBm Converter 10kHz-18GHz / X0 381-1 AR Coupler 0.01-400MHz

Sweep Setup: ED14E Cond Susc Fwd Power [EMI conducted]

Hardware Setup: BCI Fwd Power
 Level Unit: dBm

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
10kHz - 100kHz	MaxPeak	1kHz	0.005s	ESIB 26
100kHz - 500kHz	MaxPeak	10kHz	0.005s	ESIB 26
500kHz - 5MHz	MaxPeak	50kHz	0.005s	ESIB 26
5MHz - 10MHz	MaxPeak	500kHz	0.005s	ESIB 26
10MHz - 100MHz	MaxPeak	1MHz	0.005s	ESIB 26
100MHz - 200MHz	MaxPeak	1MHz	0.005s	ESIB 26
200MHz - 400MHz	MaxPeak	1MHz	0.005s	ESIB 26

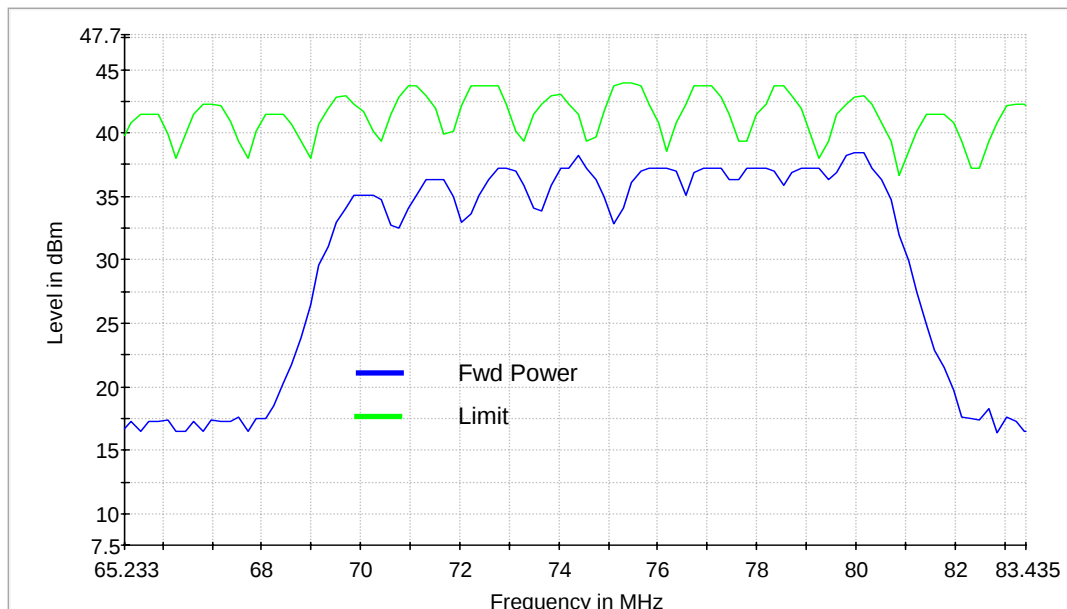
ED14E Cond Susc Fwd Power

Figure 136

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