Class II Permissive Change Test Report

Prepared in accordance with

FCC Part 15

On

DRX Radio

DRX1 and DRX1-4

Prepared for:

Carestream Health Inc.

150 Verona St

Rochester NY, 14608

Prepared by:

TUV Rheinland of North America, Inc.

Auftraggeber: *Client:*	Carestream Health Inc. 150 Verona St Rochester NY, 14608	Ronald Cain 585-627-8321 / 585-477-2718 ronald.cain@carestreamhealth.com	
Bezeichnung: *Identification:*	DRX Radio	**Serien-Nr.:** *Serial No.*	00403
Gegenstand der Prüfung: *Test item:*	DRX1 and DRX1-4	**Prüfdatum:** *Date tested:*	03/12/2010
Prüfort: *Testing location:*	TUV Rheinland of North America 336 Initiative Drive Rochester, NY 14624 U.S.A.		
Prüfgrundlage: *Test specification:*	Emissions: FCC Part 15.407 Subpart E FCC Part 15.209(a) FCC part 15.407(a)(3), FCC Part 15.407(a)(5) RSS-210 Issue 8, FCC Part 15.407(a)(6), FCC Part 15.407(b)(8), FCC Part 15.205, FCC Part 15.407(c), FCC Part 15.407(g), FCC Part 15.203, RSS-210		
Prüfergebnis: *Test Result*	**Der vorstehend beschriebene Prüfgegenstand wurde geprüft und entspricht oben genannter Prüfgrundlage. The above product was found to be Compliant to the above test standard(s)**		

geprüft / *tested by:* Randall Masline	***reviewed by:*** Cecil Gittens
Randall E Masline 19 January 2012 *Date* *Name* *Signature*	Cecil Gittens 19 January 2012 ***Date*** ***Name*** ***Signature***
Sonstiges : *Other Aspects:*	**None**
Abkürzungen: OK, Pass, Compliant, Complies = entspricht Prüfgrundlage Fail, Not Compliant, Does not Comply = entspricht nicht Prüfgrundlage N/A = nicht anwendbar	Abbreviations: OK, Pass, Compliant, Complies = passed Fail, Not Compliant, Does Not Comply = failed N/A = not applicable

FC	NVLAP	**Industry Canada**	**BSMI**
US5253	NVLAP CODE 200313-0	**3466C-1**	**SL2-IN-E-050R**

TABLE OF CONTENTS

1 General Information

1.1 Scope

This report is intended to document the status of conformance with the requirements of the FCC Part 15, based on the results of testing performed on 03/12/2010 on the DRX Radio, Model No. DRX1 and DRX1-4, manufactured by Carestream Health Inc.. This report only applies to the specific samples tested under the stated test conditions. It is the responsibility of the manufacturer to assure that additional production units of this model are manufactured with identical or EMI equivalent electrical and mechanical components. This report is further intended to document changes and modifications to the EUT throughout its life cycle. All documentation will be included as a supplement.

1.2 Purpose

Testing was performed to evaluate the EMC performance of the EUT (Equipment Under Test) in accordance with the applicable requirements, procedures, and criteria defined in the application of regulations and application of standards listed in this report.

1.3 *Summary of Test Results*

Applicant	Carestream Health Inc. 150 Verona St Rochester NY, 14608	**Tel**	585-627-8321	**Contact**	Ronald Cain
		Fax	585-477-2718	**e-mail**	ronald.cain@carestreamhealth.com

Description	DRX Radio	**Model Number**	DRX1 and DRX1-4
Serial Number	00403	**Test Voltage/Freq.**	Battery 12VDC
Test Date Completed:	03/12/2010	**Test Engineer**	Randall Masline

Standards	Description	Severity Level or Limit	Measurement	Test Result
RSS-210 Issue 8	Industry Canada - Low-power License-exempt Radiocommunication Devices	See called out basic standards below	See Below	**Complies**
FCC Part 15.407 Subpart E 5.725-5.825 GHz	Unlicensed National Information Infrastructure Devices	See called out basic standards below	See Below	**Complies**
FCC Part 15.209(a)	Radiated Emissions	Class B, 30 - 1000 MHz		**Complies**
FCC Part 15.207(c)	Conducted Emissions	Class B, 0.15 - 30 MHz	Not Required Battery Powered	**Complies**
FCC Part 15.407(a) (3)	Conducted Output Power	1Watt Maximum	15.9 dBm	**Complies**
FCC part 15.407(a)(3)	-26 dB Bandwidth			**Complies**
FCC Part 15.407(a)(5)	Peak Power Spectral Density			**Complies**
FCC Part 15.407(a)(6)	Peak Power Excursion			**Complies**
FCC Part 15.407(b)(8)	Band Edge			**Complies**
FCC Part 15.205	Restricted Bands			**Complies**
FCC Part 15.407(c)	Discontinuance Of Transmission			**Complies**
FCC Part 15.407(g)	Frequency Stability			**Complies**
FCC Part 15.203	Antenna Requirements			**Complies**
RSS-210	99% Bandwidth			**Complies**

2 Laboratory Information

2.1 Accreditations & Endorsements

2.1.1 US Federal Communications Commission

TUV Rheinland of North America located at 336 Initiative Dr, Rochester NY is accredited by the commission for performing testing services for the general public on a fee basis. This laboratory test facilities have been fully described in reports submitted to and accepted by the FCC (Registration No US90575). The laboratory scope of accreditation includes: Title 47 CFR Part 15, and 18. The accreditation is updated every 3 years.

2.1.2 NIST / NVLAP

Program, which is administered under the auspices of the National Institute of Standards and Technology. The laboratory has been assessed and accredited in accordance with ISO Standard 17025:2005 (Lab code:200313-0). The scope of laboratory accreditation includes emission and immunity testing. The accreditation is updated annually.

2.1.3 VCCI

VCCI Accredited test lab. Registration numbers R-1065, C-1120, C-1121

2.1.4 Industry Canada

Registration No.: 3466C-1. The OATS has been accepted by Industry Canada to perform testing to 3 and to 10m, based on the test procedures described in ANSI C63.4-2003.

2.1.5 BSMI

Registration No.: SL2-IN-E-050R. The BSMI accreditation was obtained by NIST MRA with the BSMI.

2.2 Measurement Uncertainty

General

☐	The estimated combined standard uncertainty for ESD immunity measurements is ± 0.43%.
☐	The estimated combined standard uncertainty for radiated immunity measurements is ± 2.0dB.
☐	The estimated combined standard uncertainty for EFT fast transient immunity measurements is ± 6.0%.
☐	The estimated combined standard uncertainty for surge immunity measurements is ± 5.0%.
☐	The estimated combined standard uncertainty for conducted immunity measurements is ± 2.0 dB.
☐	The estimated combined standard uncertainty for power frequency magnetic field immunity measurements is ± 2.57%.
☐	The estimated combined standard uncertainty for voltage variation and interruption measurements is ± 4.89%.
☒	The estimated combined standard uncertainty for radiated emissions measurements is ± 4.6 dB.
☐	The estimated combined standard uncertainty for conducted emissions measurements is ± 2.6 dB.
☐	The estimated combined standard uncertainty for harmonic current ± 7.27% and flicker measurements is ± 3.87%.

2.3 Calibration Traceability

All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Measurement method complies with ANSI/NCSL Z540-1-1994 and ISO Standard 17025:2005. Equipment calibration records are kept on file at the test facility.

2.4 Measurement Equipment Used

Equipment	Manufacturer	Model #	Ref.	Serial #	Last Cal dd/mm/yy	Next Cal dd/mm/yy	Test
Biconical Antenna	EMCO	3110	C004	1502	13 Feb 10	13 Feb 12	RE
Log Periodic Antenna	EMCO	3147	C023	1369	13 Feb 10	13 Feb 12	RE
Horn	EMCO	3115	C025	9812-4630	30-Jun 09	30-Jun-11	RE
BiLog	Chase	CBL6111	C017	1169	9-Jul-09	9-Jul-10	RE
EMI Receiver	Rohde & Schwarz	ESVS 30	C310	826006/015	17-Dec-09	17-Dec-10	RE
Analyzer w RF Filter Section 85460A	HP	8546A	C311	3325A00127	30-Jul-09	30-Jul-10	RE, CE
Receiver (20Hz-40GHz)	Rohde & Schwarz	ESI 40	C320	839283/005	29-Jul-09	29-Jul-10	RE,CE
EMI Receiver	Rohde & Schwarz	ESHS 30	C323	831954/012	17-Dec-09	17-Dec-10	CE
Amplifier (18-26.5GHz)	Rohde & Schwarz	TS-PR26	C443	100005	30-Jul-09	30-Jul-11	RE
Digital Pressure/Temp/RH	Davis	Perception II	C444	40917	09-Feb10	09-Feb-12	All tests
Horn	EMCO	3160-09	C447	03-0338-018	16-Sep-08	16-Sep-10	RE
BiLog	Chase	CBL6111B	C448	2081	21-Nov-09	21-Nov-10	RE
Multimeter	Fluke	8062A	C452	4715199	17-Dec-09	17-Dec-10	All tests
Analyzer w RF Filter Section 85460A	HP	8546A	D004	3625A00356	29-Jul-09	29-Jul-10	RE, CE

Note: CE = Conducted Emissions, CI= Conducted Immunity, DP=Disturbance Power, EFT=Electrical Fast Transients, ESD = Electrostatic Discharge, FLI=Flicker, HAR=Harmonics, MF=Magnetic Field Immunity, RE=Radiated Emissions, RI=Radiated Immunity, SI=Surge Immunity, VDSI=Voltage Dips and Short Interruptions

3 Product Information

3.1 Product Description

See Appendix A

Channel	Operating Frequency (MHz)	Rated Power (dBm)
149	5.745	+30
153	5.765	+30
157	5.785	+30
161	5.805	+30

3.2 Equipment Modifications

No modifications were needed to bring product into compliance.

3.3 Test Plan

The EUT product information, test configuration, mode of operation, test types, test procedures, test levels, pass/failure criteria, in this report were carried out per the product test plan located in appendix A of this report.

There were no deviations, adaptations or exclusions made to the standards shown on page 2 during the testing of the DRX1-4 radio.

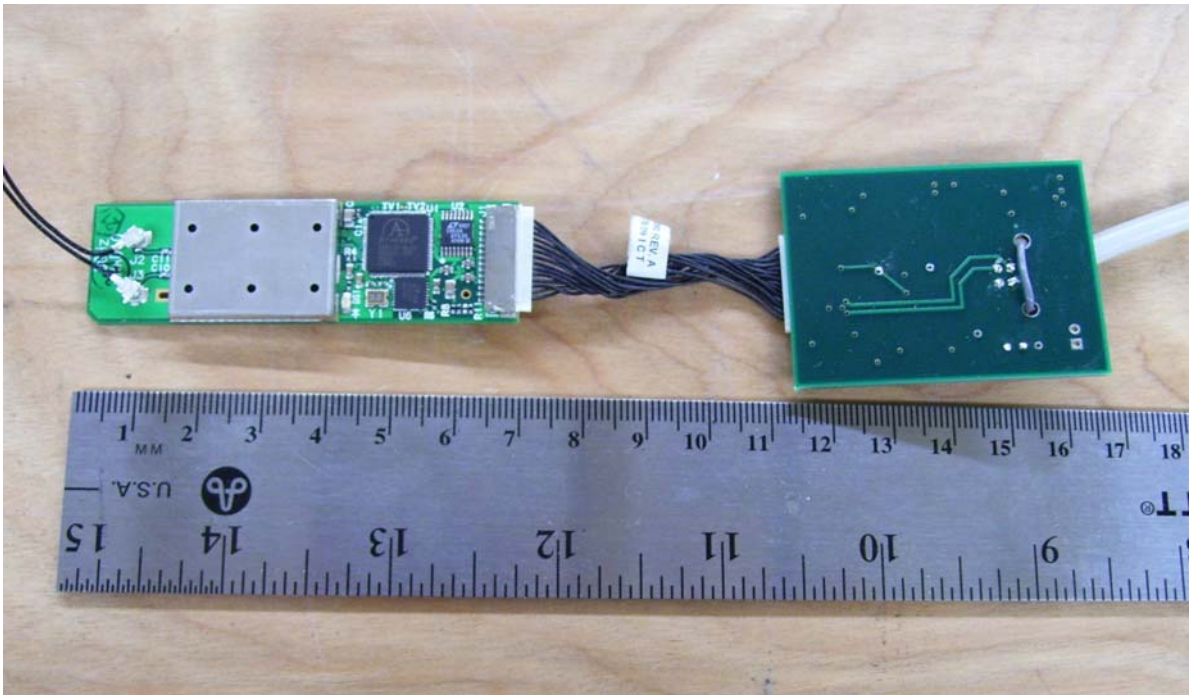


Figure 1 – External Photo of EUT

4 Emissions

4.1 Radiated Emissions

This test measures the electromagnetic levels of spurious signals generated by the EUT that radiated from the EUT and may affect the performance of other nearby electronic equipment.

4.1.1 Over View of Test

Results	**Complies** (as tested per this report)				**Date**	03/11/2010	
Standard	FCC Part 15.209(a)						
Product Model	DRX1 and DRX1-4			**Serial#**	00403		
Configuration	See test plan for details						
Test Set-up	Tested on 10m O.A.T.S. placed on turn-table, see test plans for details						
EUT Powered By	Battery 12VDC	**Temp**	24ºC	**Humidity**	54%	**Pressure**	1013mbar
Frequency Range	30 - 1000 MHz @ 10m						
Criteria	Class B. (Below Limit)		**Perf. Verification**		Readings Under Limit		
Mod. to EUT	None		**Test Performed By**		Randall Masline		

4.1.2 Test Procedure(s)

Radiated and FCC emissions tests were performed using the procedures of ANSI C63.4 including methods for signal maximizations and EUT configuration. The photos included with the report show the EUT in its maximized configuration.

The frequency range from 30 - 1000 MHz was investigated for radiated emissions.

Radiated emission testing was first performed at a distance of 3 meters in the semi-anechoic chamber in order to identify the specific frequencies for which these measurements will be made on the 10 m OATS.

In accordance with FCC Public Notice DA 02-2138 Measurement Procedure updated for Peak Transmit Power in the Unlicensed National Information Infrastructure (U-NII) Bands.

The transmitter was transmitting continuously at maximum power for all tests. Therefore; method 1 was used to measure peak power.

4.1.3 Deviations

There were no deviations from the test methodology listed in the test plan for the radiated emission test.

4.1.4 Final Test

All final radiated emissions measurements were below (in compliance) the limits.

4.1.5 Final Tabulated Data

Radiated Emissions Measurements									
Standard:	47 CFR 15.209(a), Class B				Final		***Date:***	3/11/2010	
Device Tested:	DRX1-4 Radio				3.0m		***File:***		
	Measured Level								
Meas #	Freq (MHz)	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Δ	Result	Polarization	Angle (degrees)	Antenna Height (meters)	Comment
1	33.4680	32.10	40.00	-7.90	**Complied**	Vertical	0	1.00	
2	80.0640	29.70	40.00	-10.30	**Complied**	Vertical	0	1.00	
3	133.0200	31.50	43.50	-12.00	**Complied**	Vertical	0	1.00	
4	163.1280	28.60	43.50	-14.90	**Complied**	Vertical	0	1.00	
5	672.0000	37.30	46.00	-8.70	**Complied**	Vertical	0	1.00	
6	242.0000	37.40	46.00	-8.60	**Complied**	Horizontal	0	1.00	
7	472.0000	41.10	46.00	-4.90	**Complied**	Horizontal	0	1.00	
8	484.0000	42.30	46.00	-3.70	**Complied**	Horizontal	0	1.00	

4.2 Spurious Emissions

Spurious emissions were investigated to the 10th harmonic or in this case to 40 GHz, measurements were taken on the highest channel, channel 161 at 24 Mbits/s.

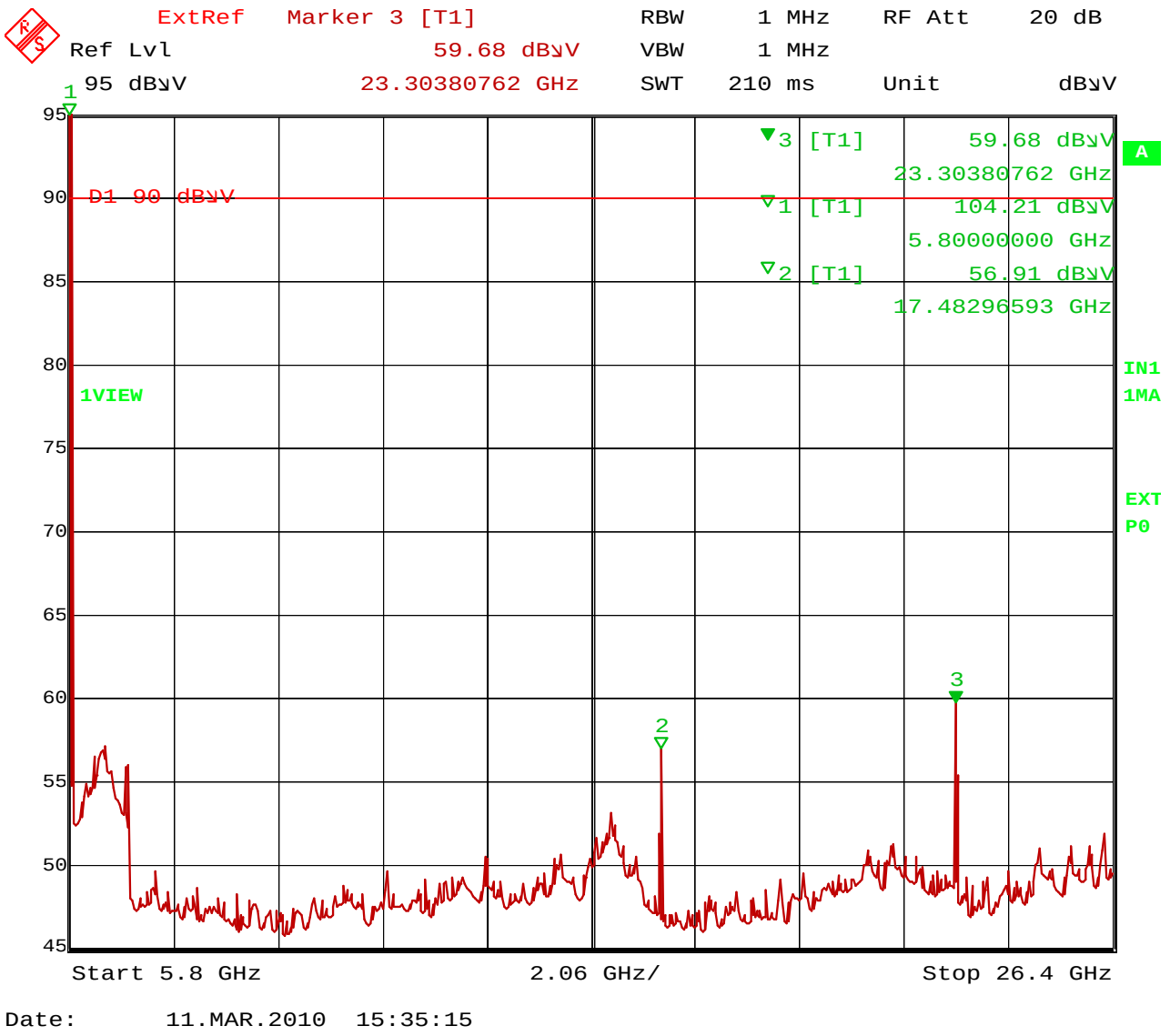


Figure 2 – Spurious Emissions from 5.35 GHz to 26.4 GHz

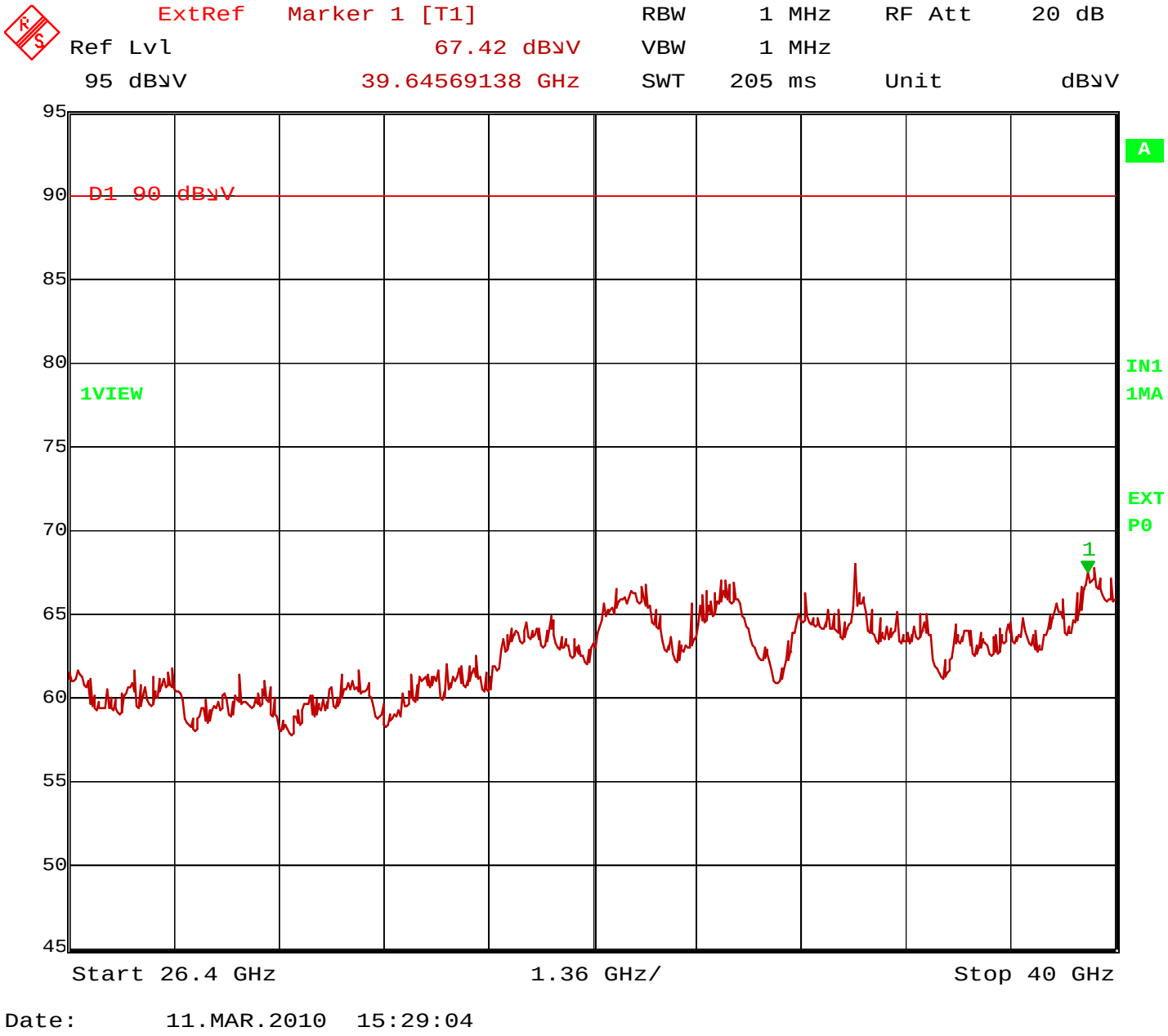


Figure 3 – Spurious Emissions from 25.4 GHz to 40 GHz

4.3 Conducted Emissions

This test measures the electromagnet levels of spurious signals generated by the EUT on the AC power line that may affect the performance of other near by electronic equipment.

The EUT operated on 12VDC battery only, therefore testing was not performed.

4.4 Conducted Output Power Limits

Testing has been carried out on the EUT in accordance with 47 CFR Part 15.407(a)(3) in order to determine the -26 dB emission bandwidth of the transmitted signal. It has been determined that the -26 emission bandwidth is 26 MHz.

The peak transmit power limit based on the -26dB emission bandwidth in the frequency band of 5725 – 5825 MHz can be calculated as follows:

+17 dBm + 10 log B where B is the -26 dB emission Bandwidth in MHz

+17 dBm + 10 log 26 = +17 dBm + 14.14 = 31.14 dBm (1.3W)

In accordance with 47 CFR Part 15.404(a)(3) the peak transmit power in the frequency band of 5725 – 58250 MHz shall not exceed the lesser of 1W or +17 dBm + 10log B, where B is the -26 dB emission bandwidth in MHz.

In accordance with 47 CFR Part 15.407(a)(3), the peak transmit power limit, in the frequency band of 5725 – 5825 MHz, has been determined at +30 dBm (1W)

4.4.1 Maximum Peak Transmit Power Test Results

Transmission Bitrate (Mbits/s)	Maximum Peak Transmit Power (dBm)				Limit (dBm) Antena gain < 6 dBi
	Ch 149 5745 MHz	Ch 153 5765 MHz	Ch 157 5785 MHz	Ch 161 5805 MHz	
6	15.9	15.8	15.6	15.7	+30
12	15.8	15.8	15.6	15.6	+30
24	15.7	15.7	15.5	15.6	+30
54	15.7	15.7	15.6	15.5	+30

Table 1 – Maximum Peak transmit power at 20MHz Bandwidth

4.5 Peak Power Spectral Density

The results of the testing on the EUT, carried out in accordance with 47 CFR Part 15.407(a)(5), are depicted in the table 2 below. The limits have been derived from 47 CFR Part 15.407(a)(3)

In accordance with FCC Public Notice DA 02-2138 Measurement Procedure updated for Peak Transmit Power in the Unlicensed National Information Infrastructure (U-NII) Bands. Method #2 was used

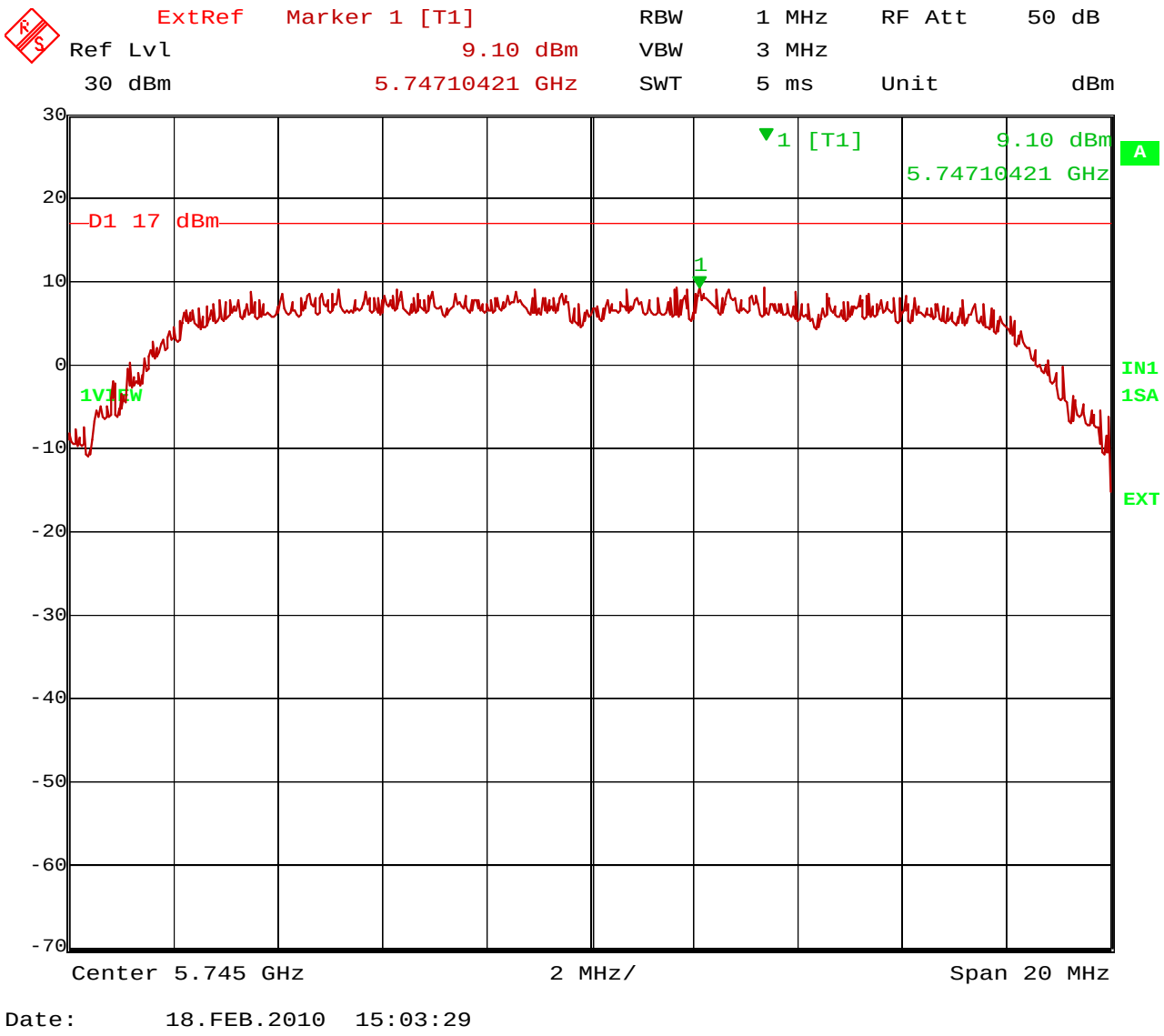
4.5.1 Test Results

Transmission Bitrate (Mbits/s)	Peak power Spectral Density (dBm) Conducted in any 1 MHz band				Limit (dBm)
	Ch 149 5745 MHz	Ch 153 5765 MHz	Ch 157 5785 MHz	Ch 161 5805 MHz	
6	9.10	10.04	9.41	9.62	+17
12	9.63	9.09	9.64	8.92	+17
24	8.87	9.86	9.20	10.17	+17
54	9.41	8.95	9.74	9.41	+17

Table 2 – Peak Power Spectral Density at 20MHz Bandwidth

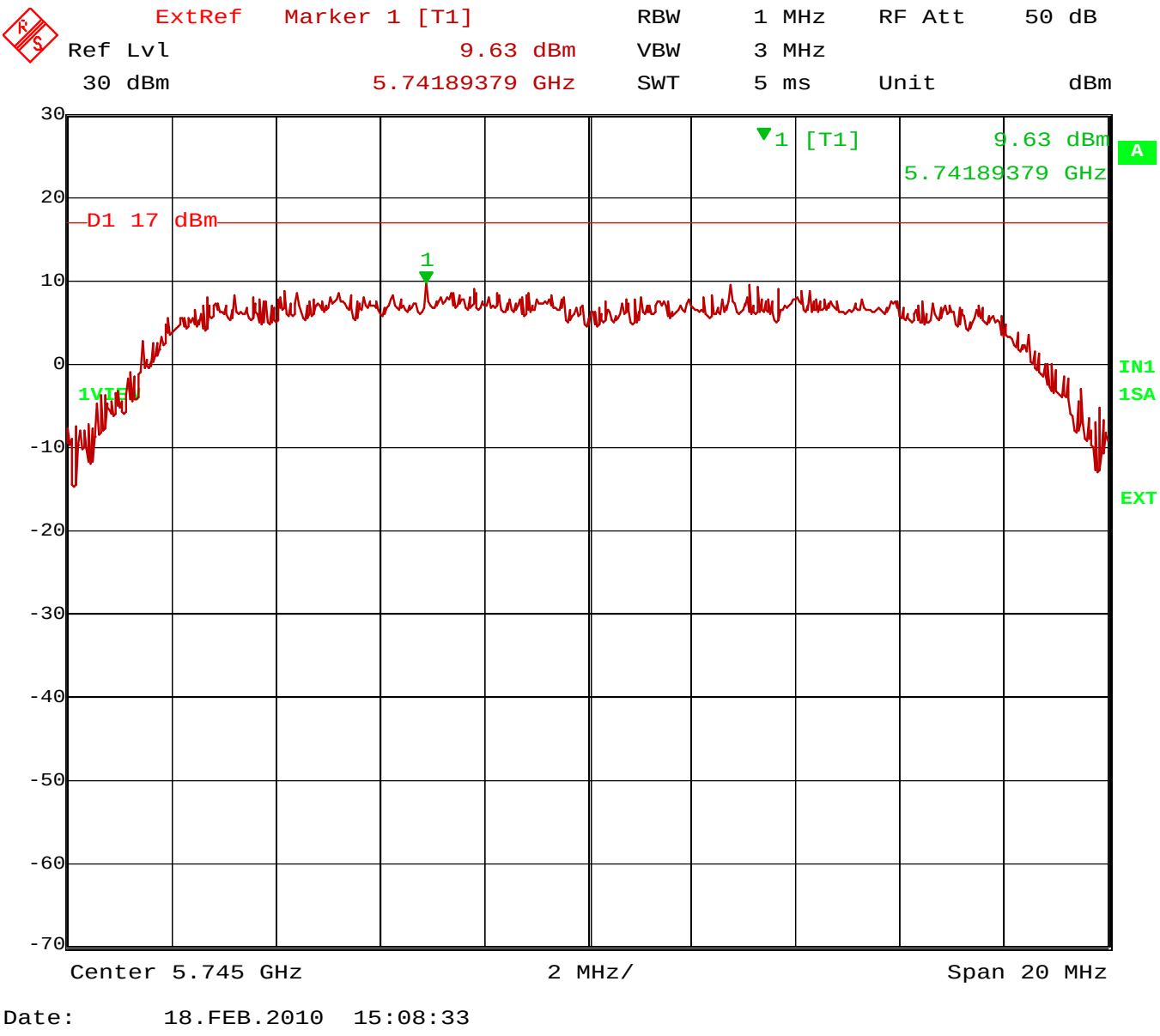
4.5.2 Final Test

The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.



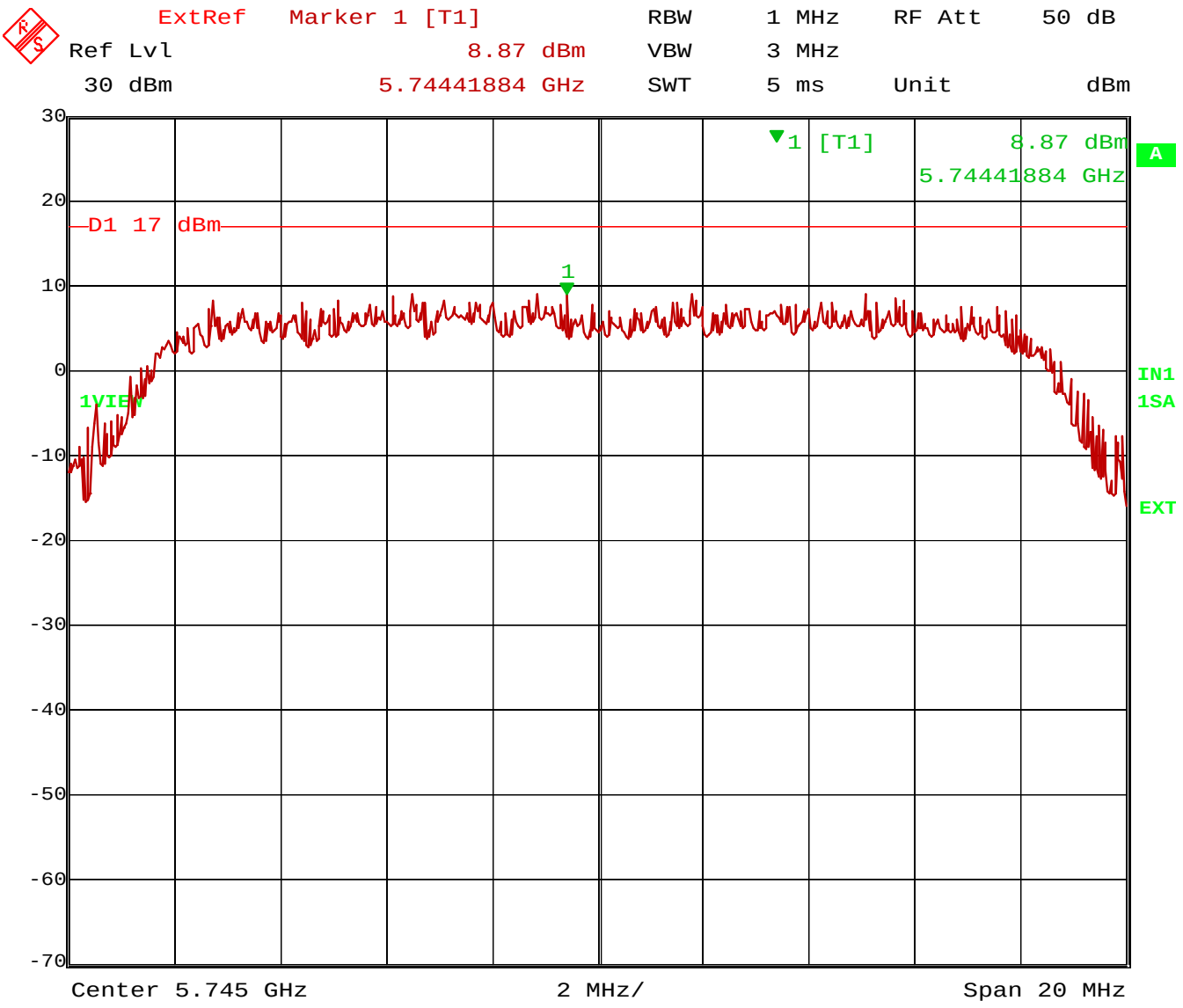
Plot 1– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 6 Mbits/s



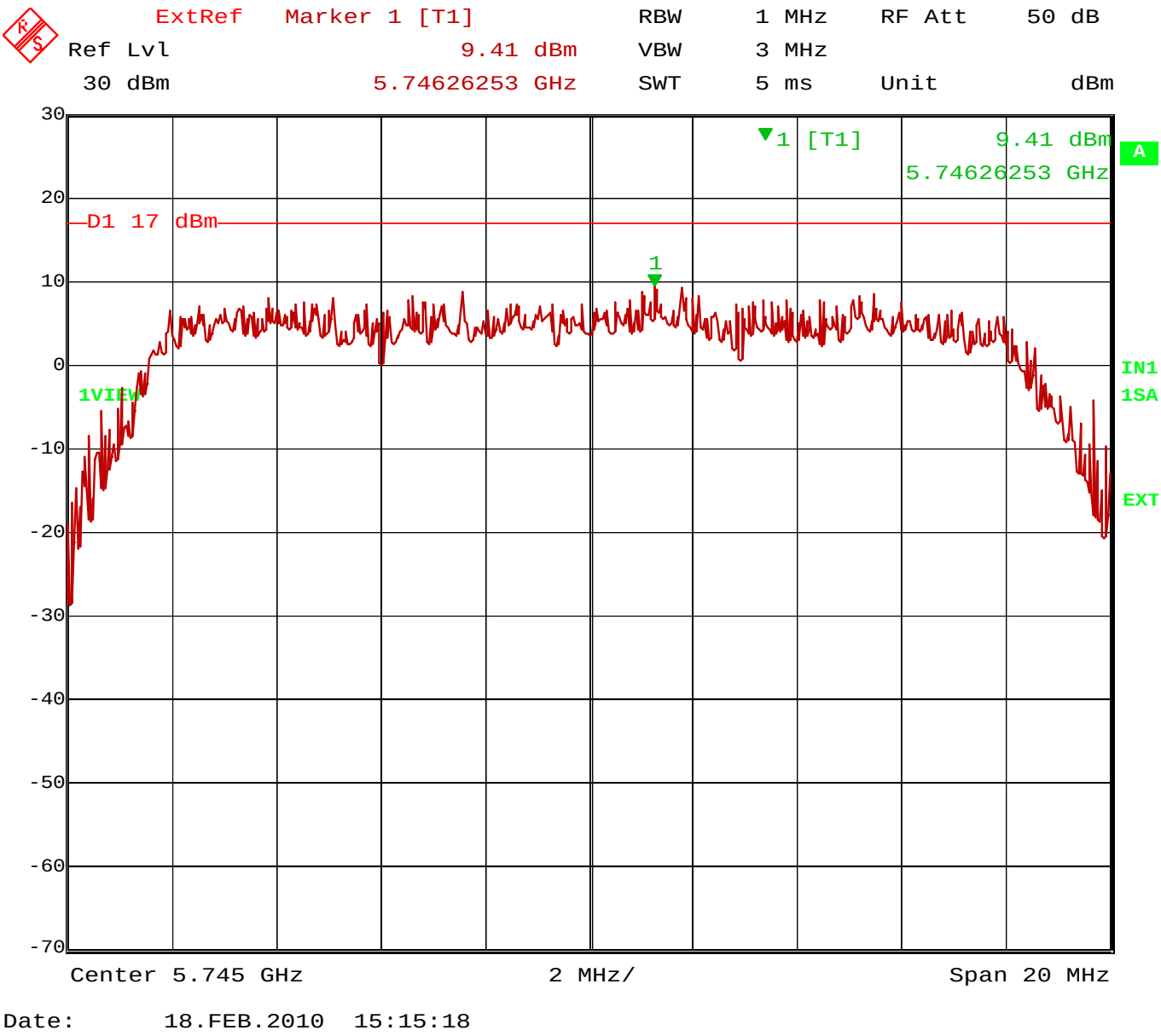
Plot 2– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 12 Mbits/s



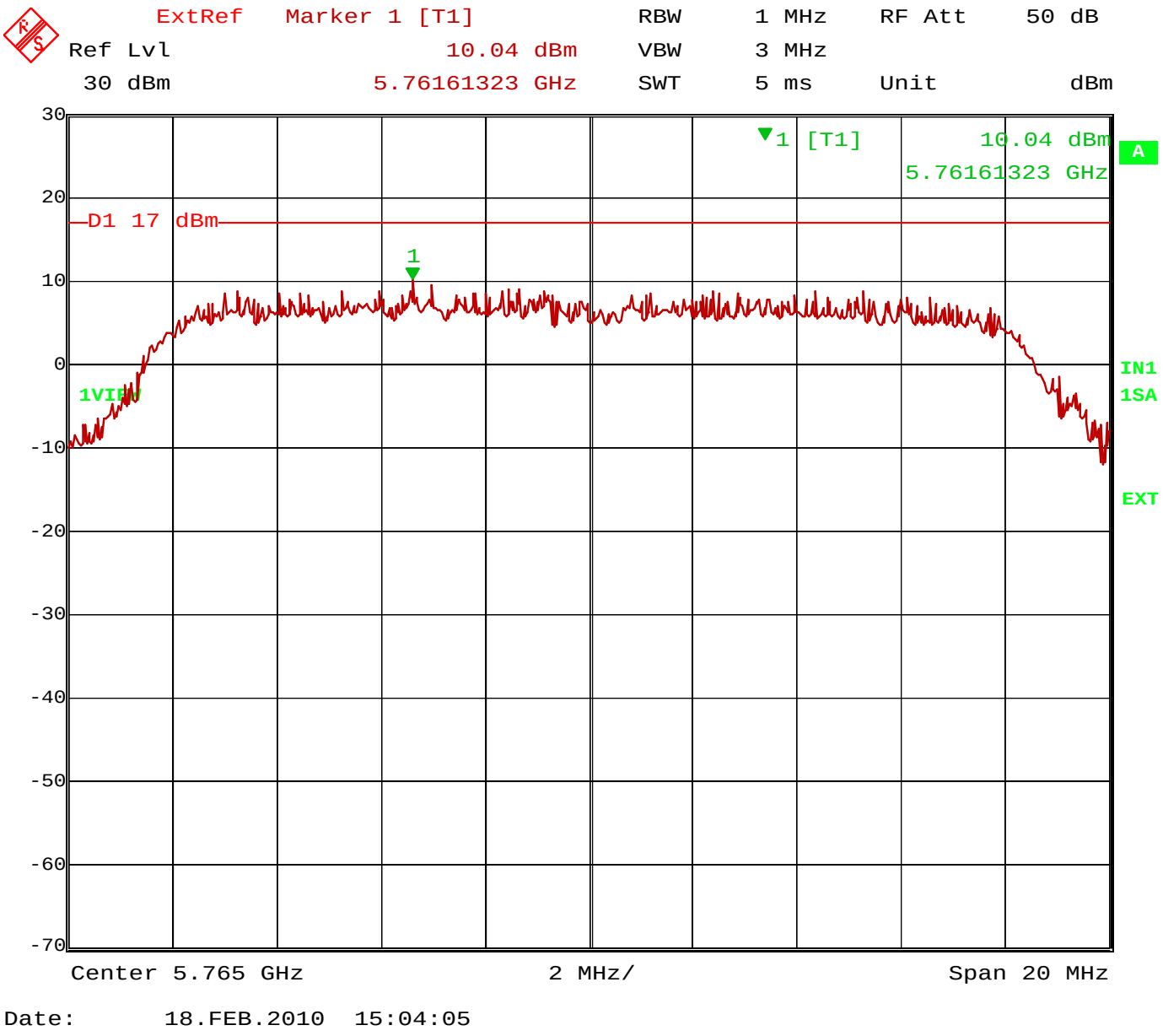
Plot 3– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 24 Mbits/s



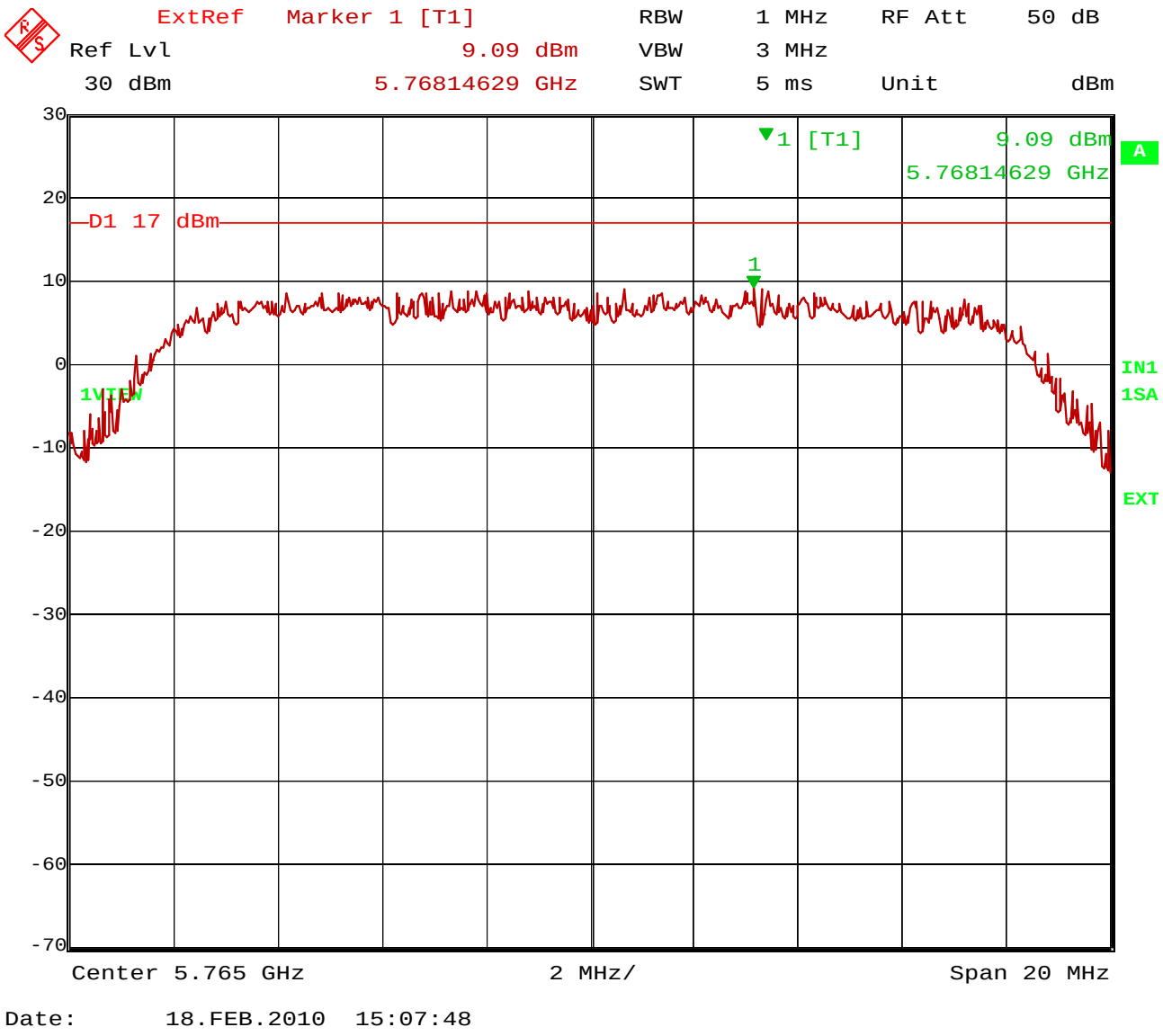
Plot 4– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 54 Mbits/s



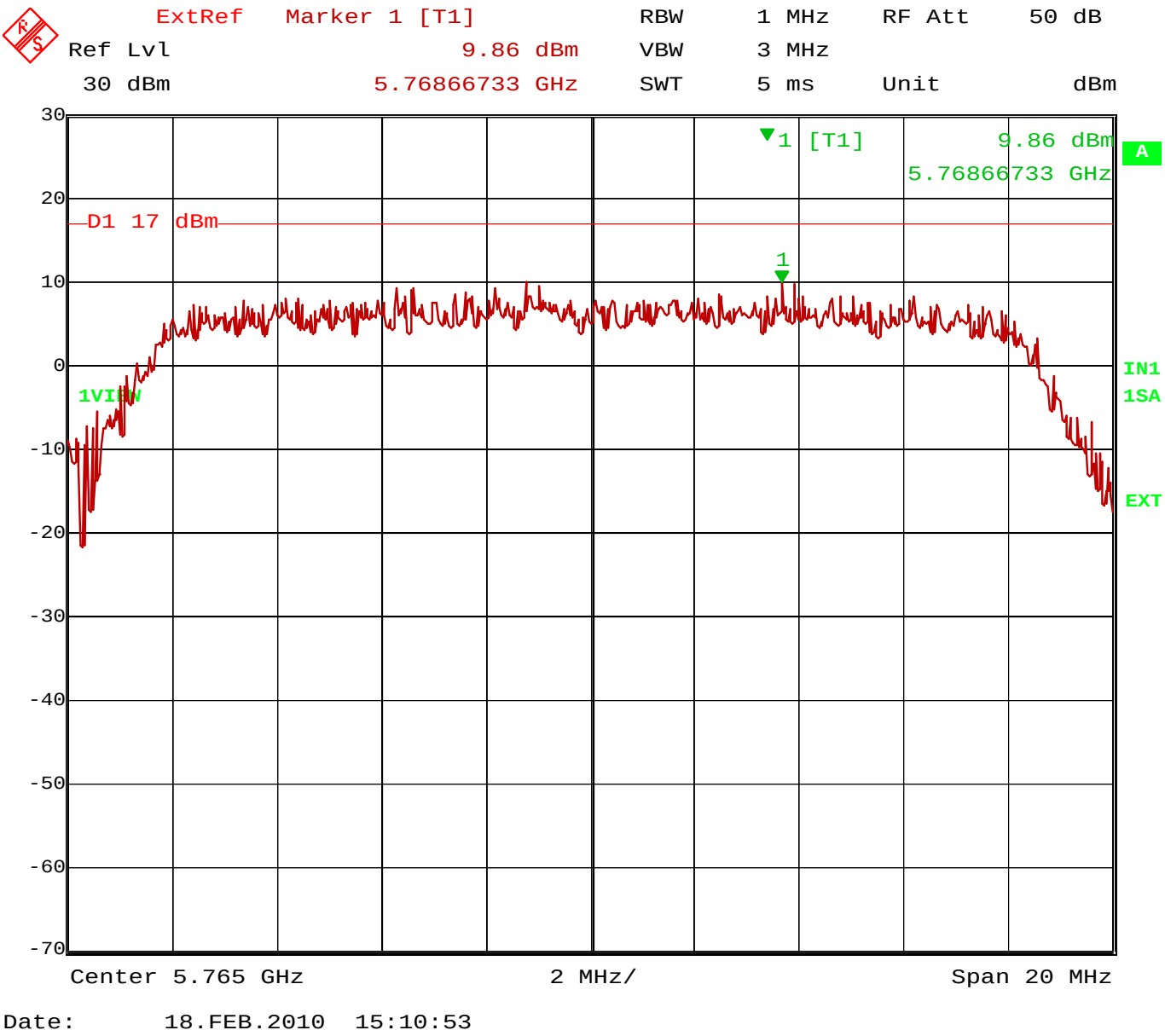
Plot 5– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 6 Mbits/s



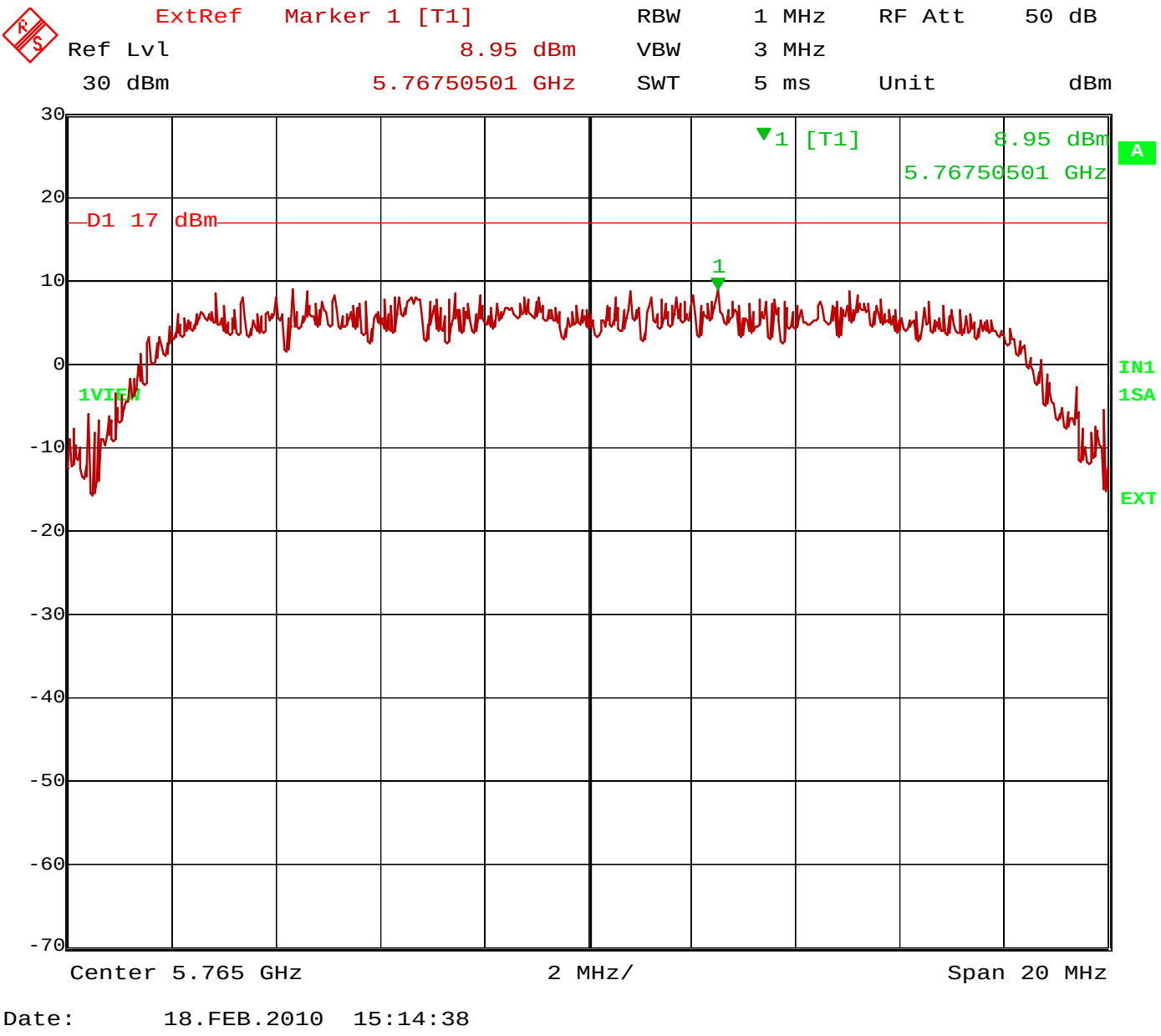
Plot 6– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 12 Mbits/s



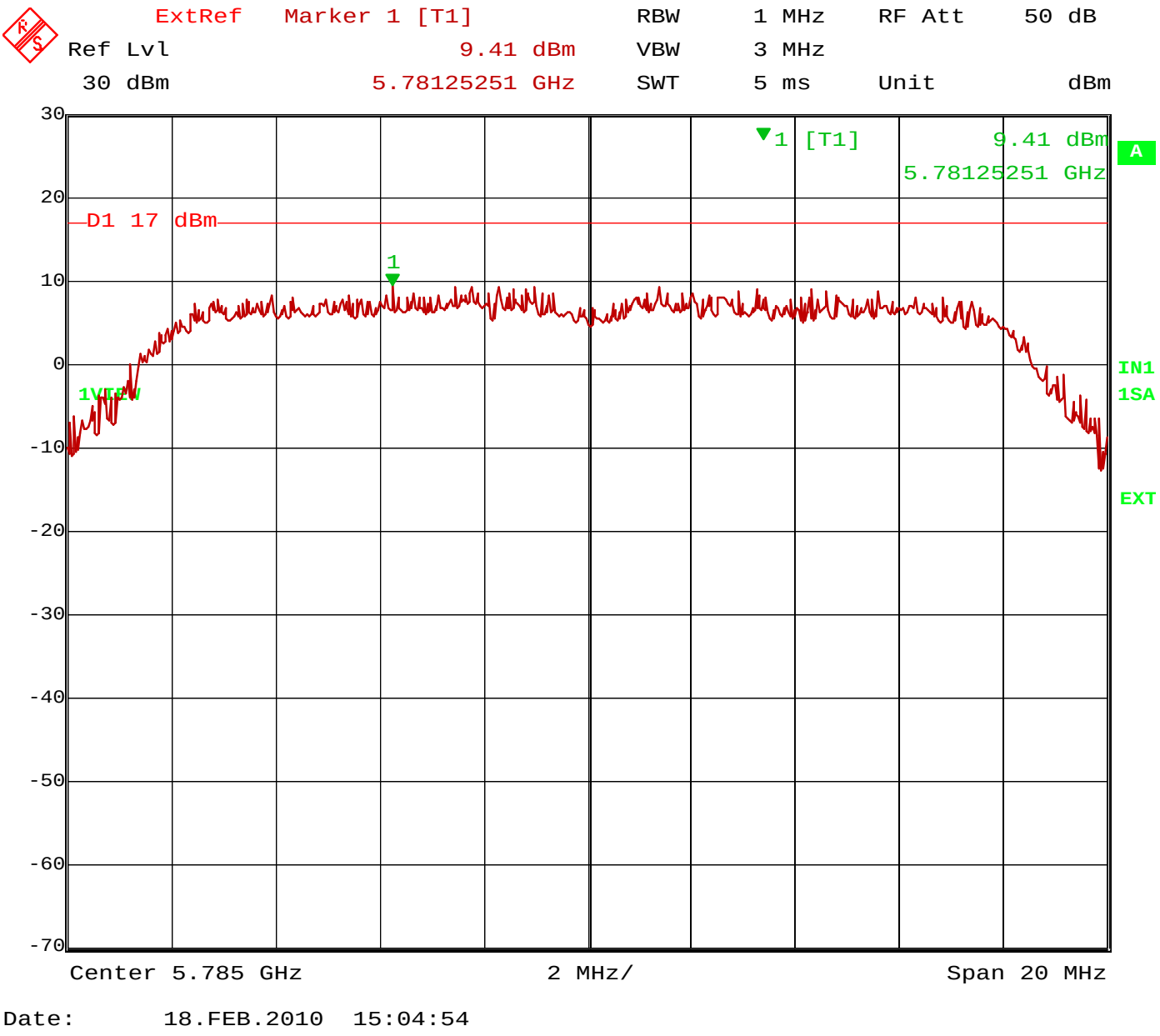
Plot 7– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 24 Mbits/s



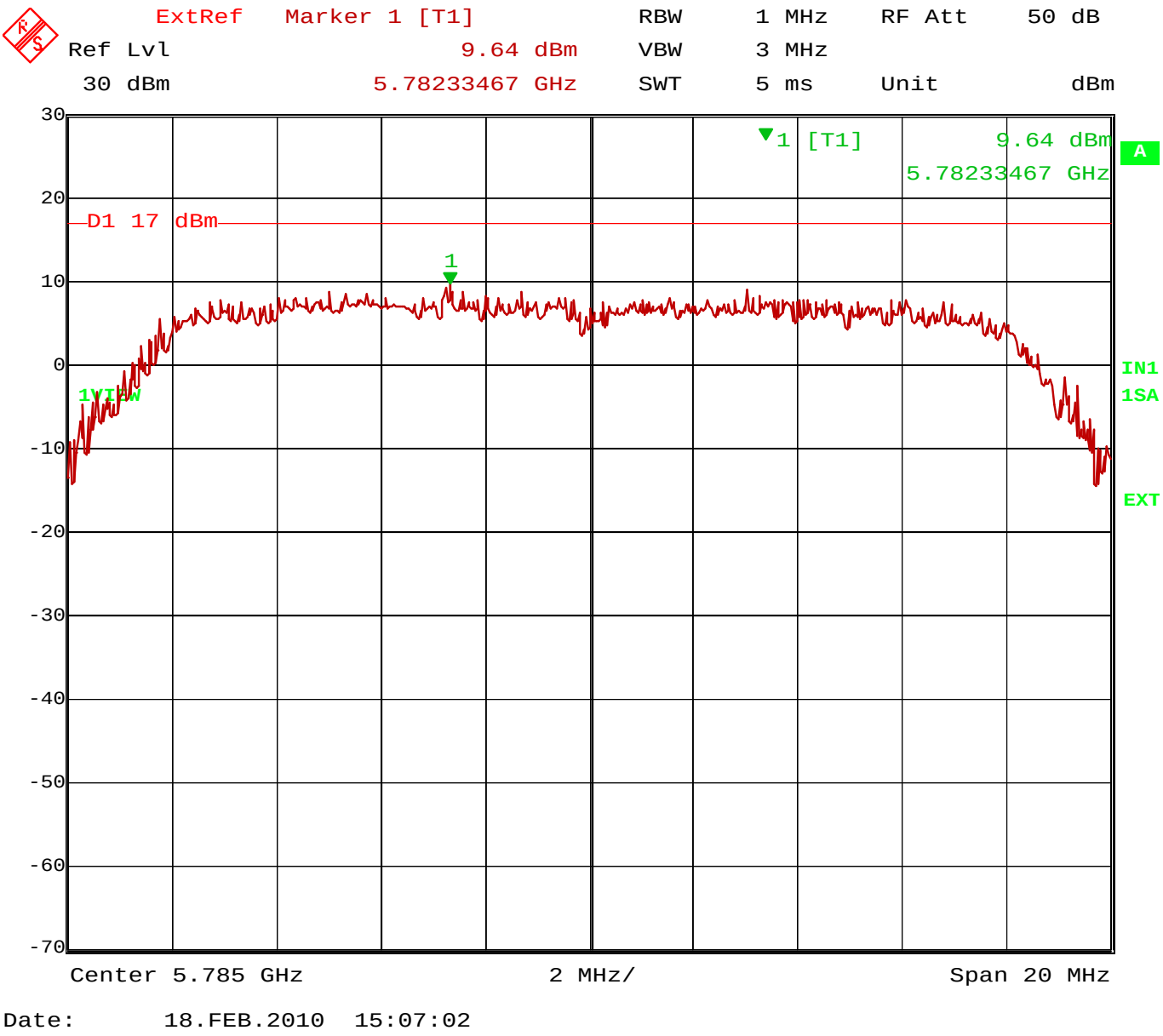
Plot 8– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 54 Mbits/s



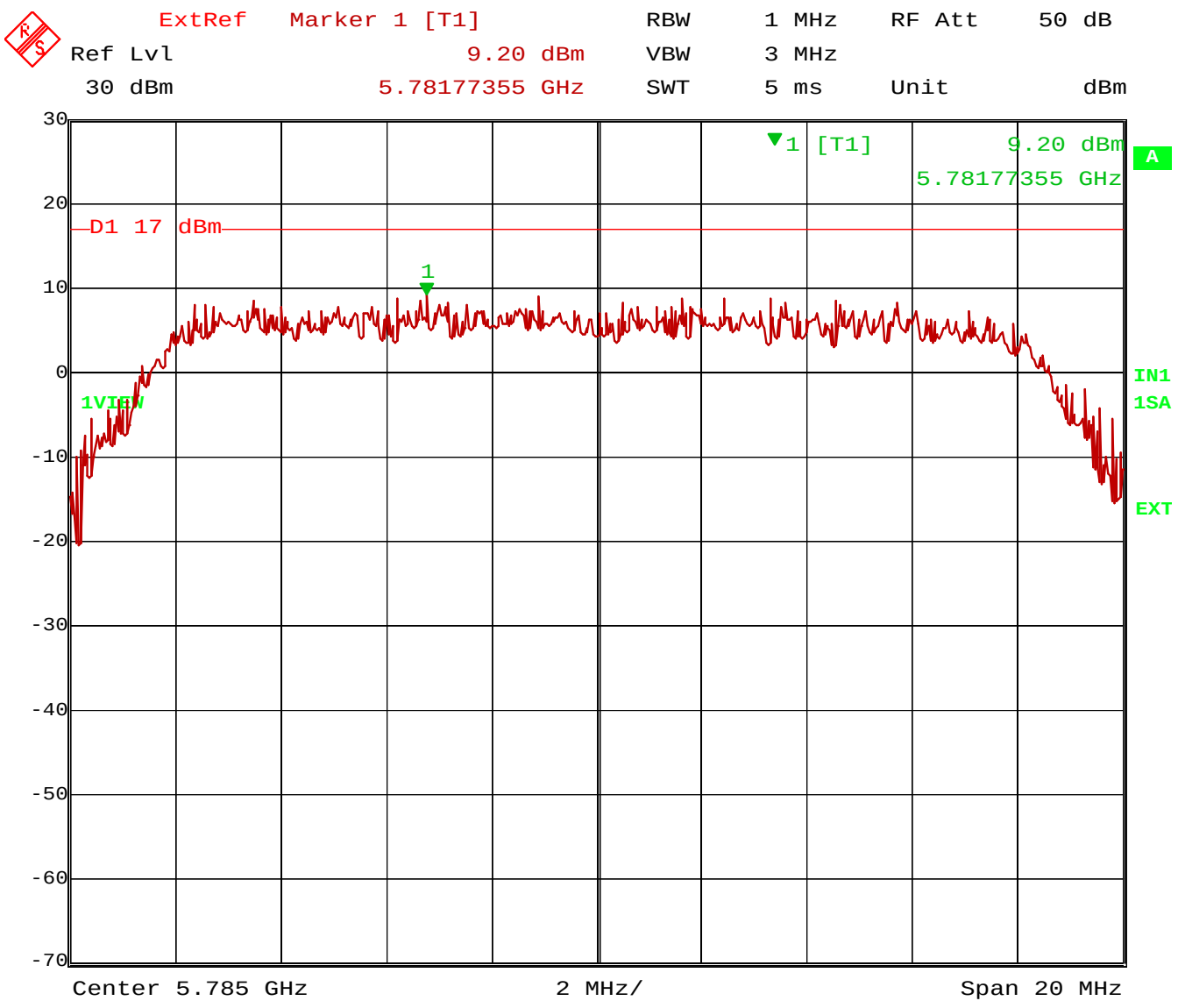
Plot 9– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 6 Mbits/s



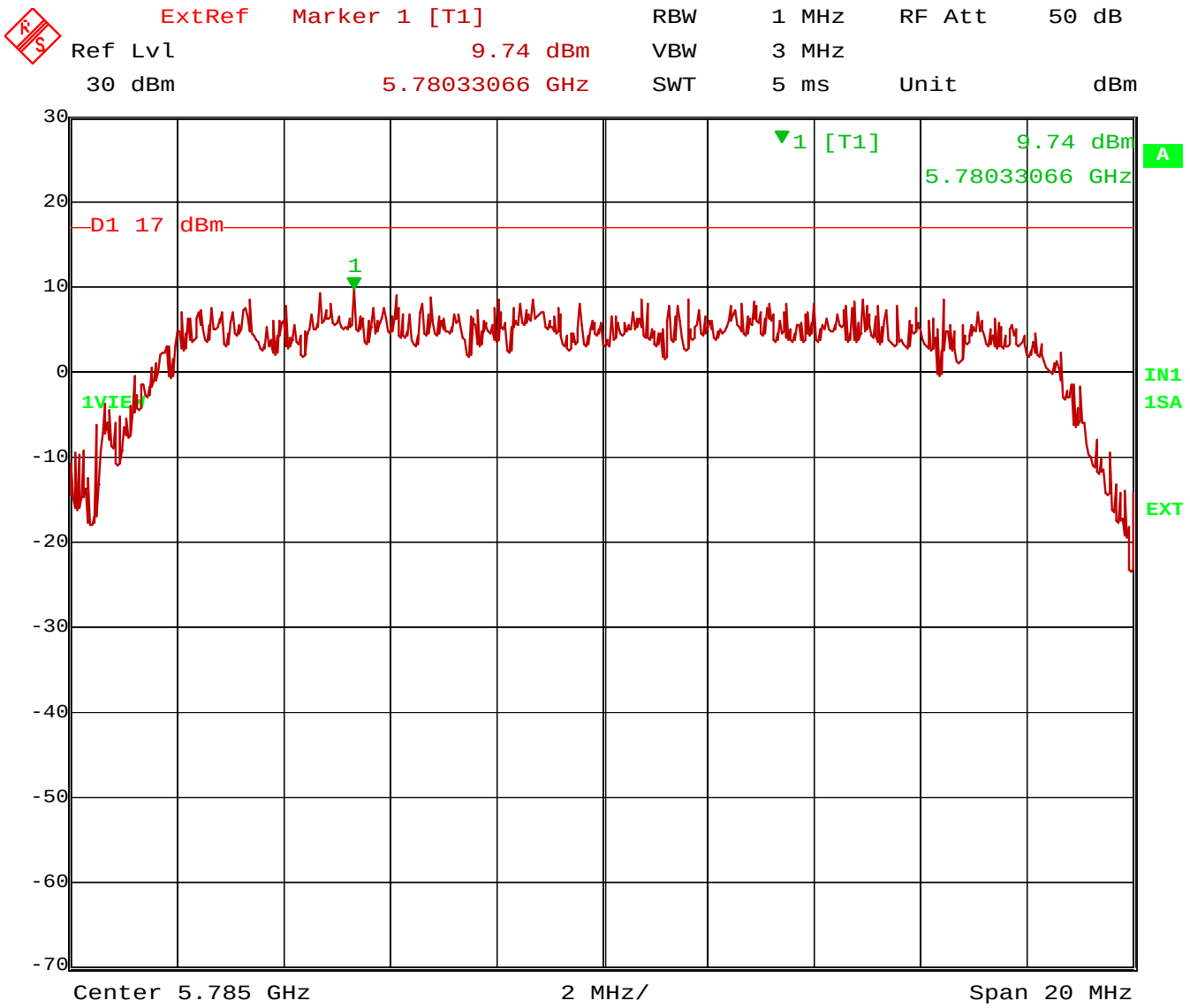
Plot 10– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 12 Mbits/s



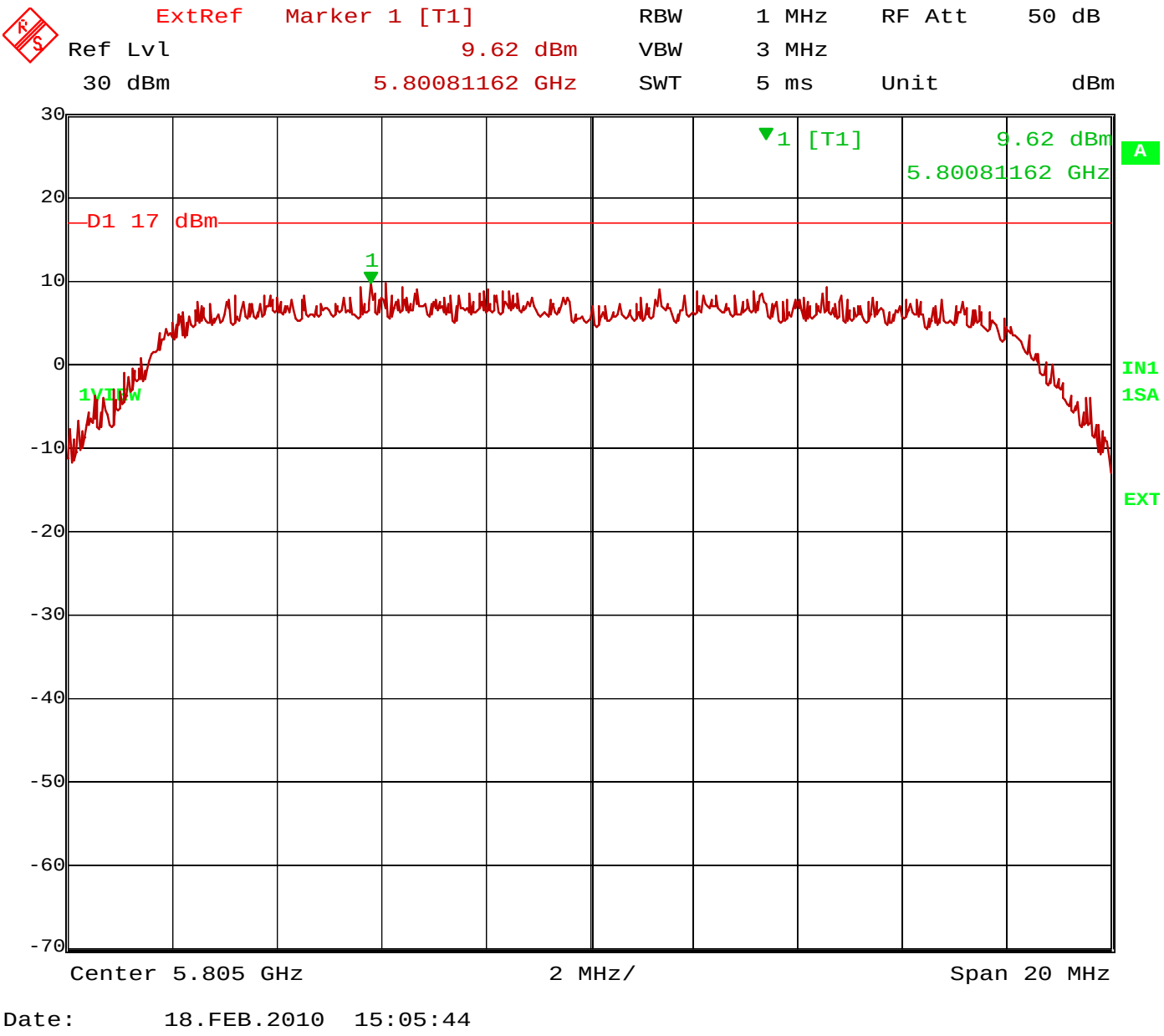
Plot 11– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 24 Mbits/s



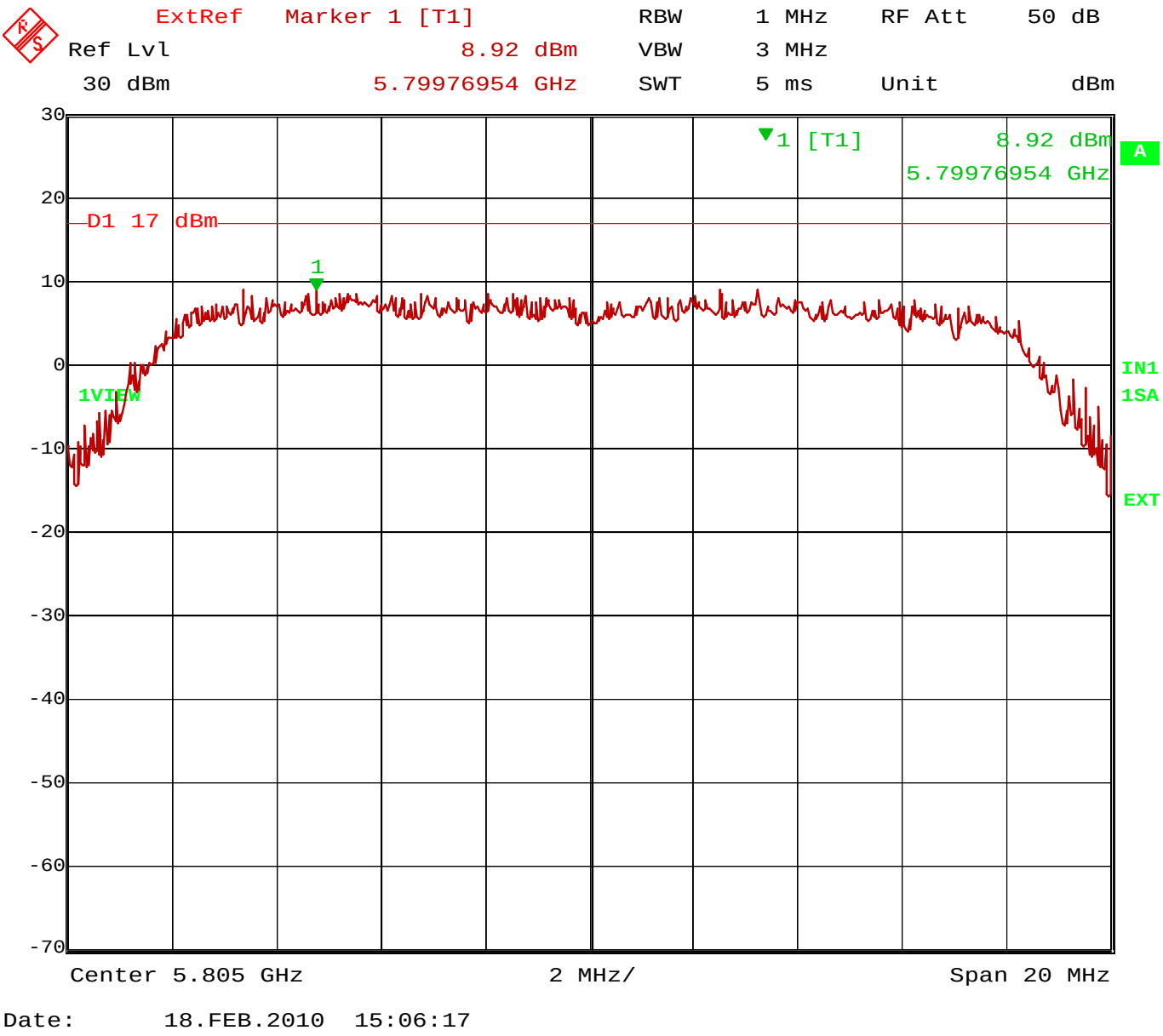
Plot 12– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 54 Mbits/s



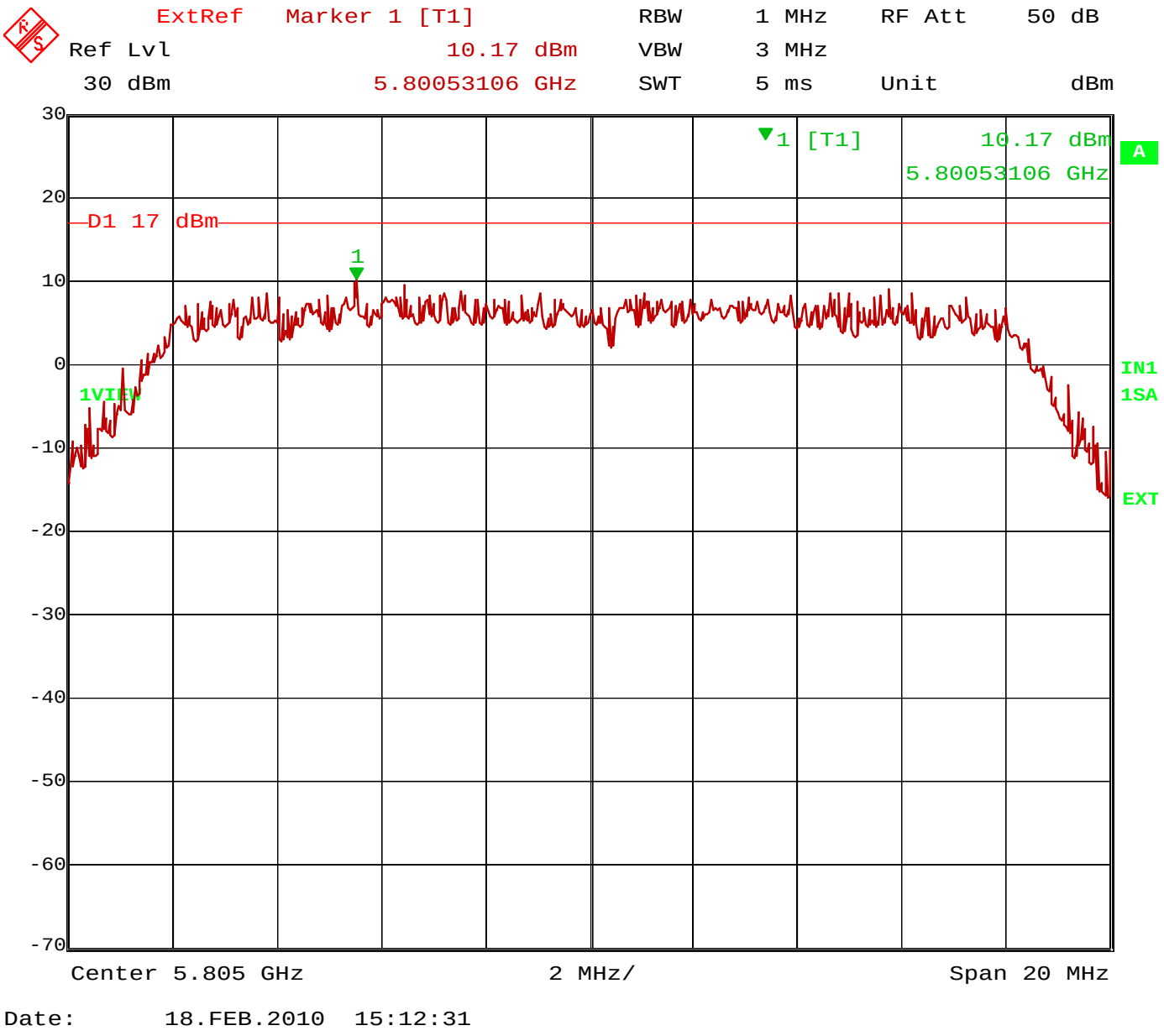
Plot 13– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 6 Mbits/s



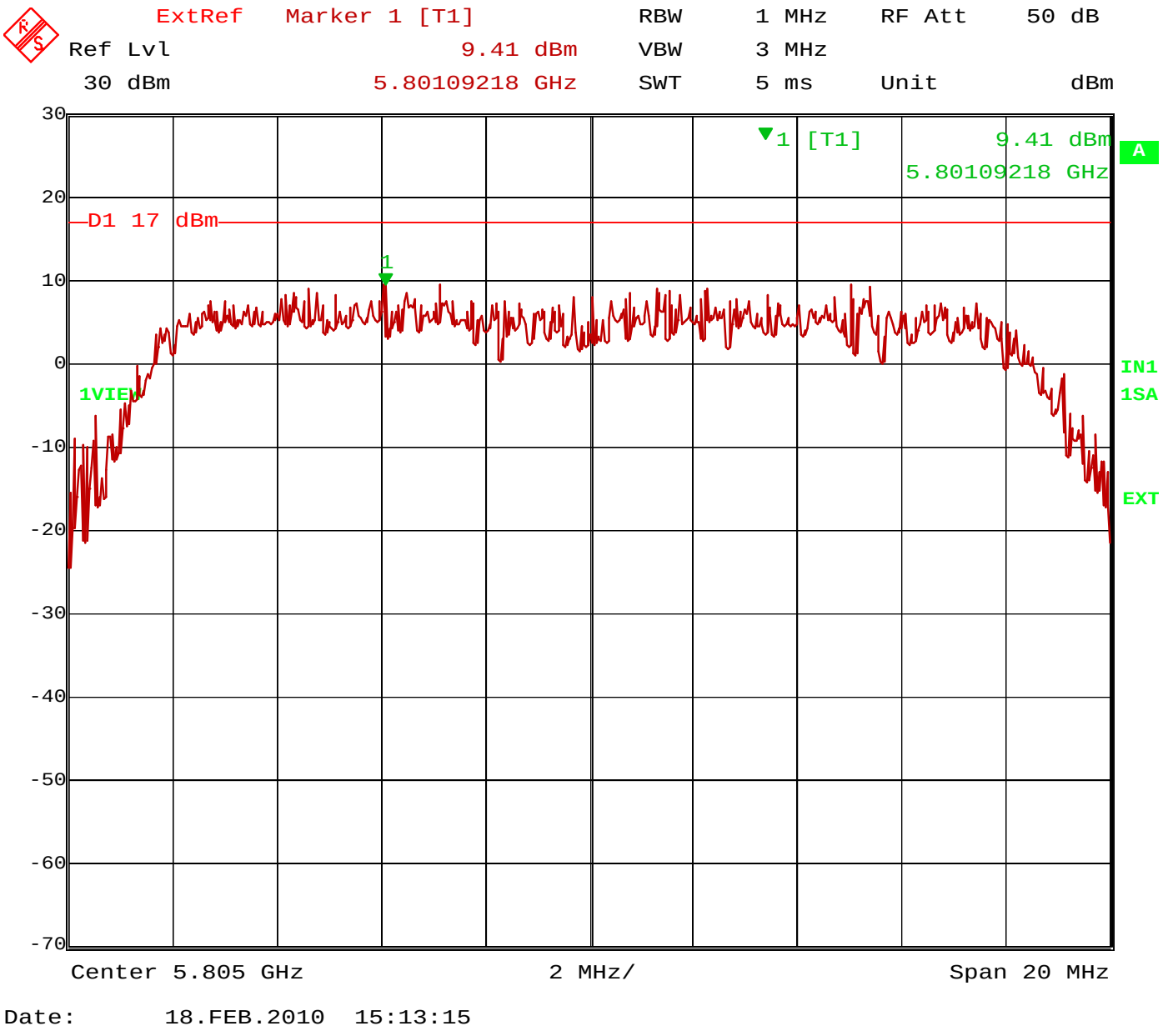
Plot 14 – Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 12 Mbits/s



Plot 15 – Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 24 Mbits/s



Plot 16– Peak Power Spectral Density (conducted) in any 1 MHz band

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 54 Mbits/s

4.6 Peak Power Excursion

The results of the testing on the EUT, carried out in accordance with 47 CFR Part 15.407(a)(6), are depicted in table 3 below.

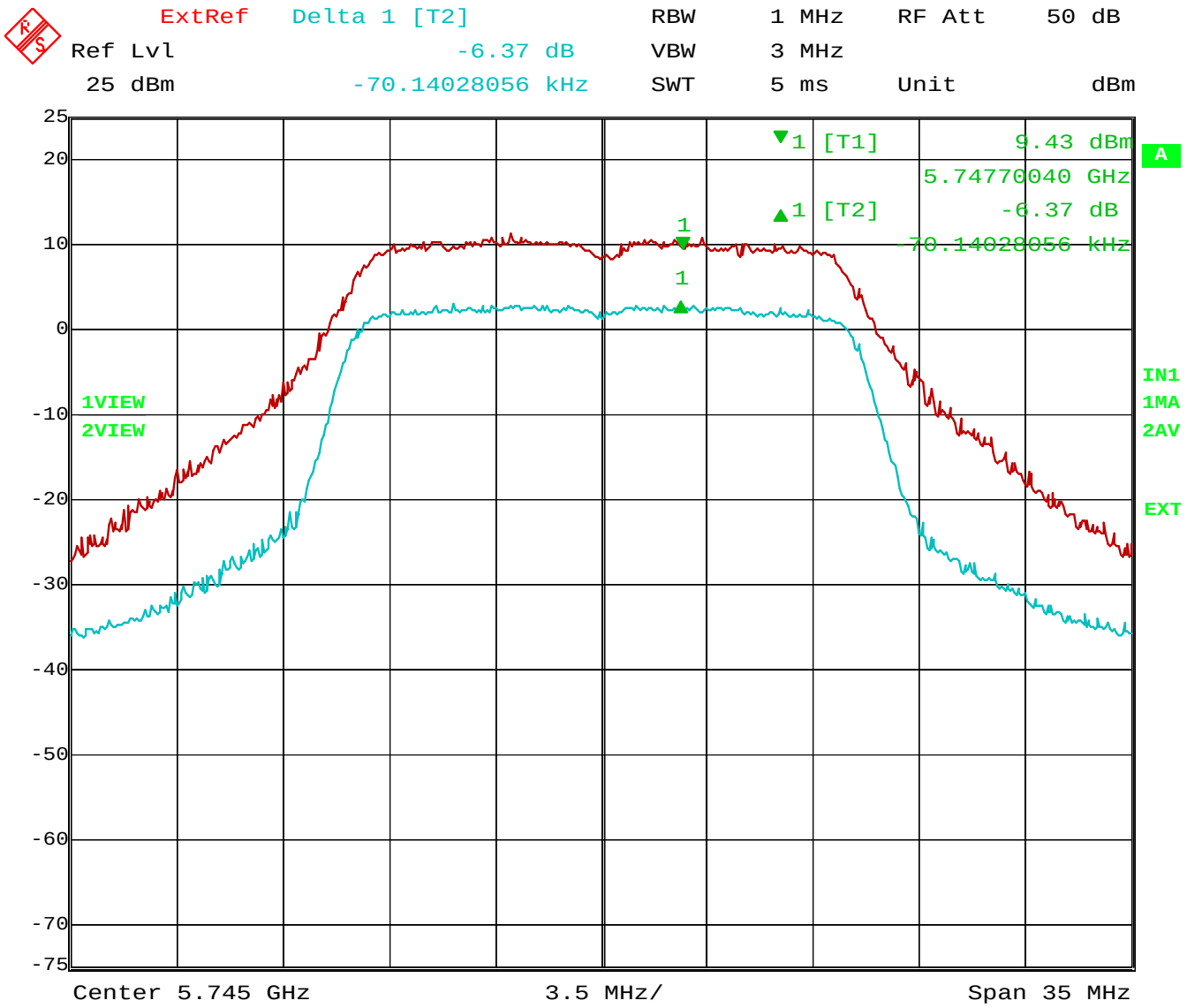
4.6.1 Test Results

Transmission Bitrate (Mbits/s)	Ratio of Peak Excursion of the Modulation Envelope				Limit (dB)
	Ch 149 5745 MHz	Ch 153 5765 MHz	Ch 157 5785 MHz	Ch 161 5805 MHz	
6	-6.37	-8.91	-8.39	-8.04	≤13.0
12	-8.39	-7.80	-8.30	-7.33	≤13.0
24	-8.21	-8.17	-8.75	-8.87	≤13.0
54	-7.97	-7.40	-9.90	-8.13	≤13.0

Table 3 – Ratio of the peak excursion of the modulation envelope

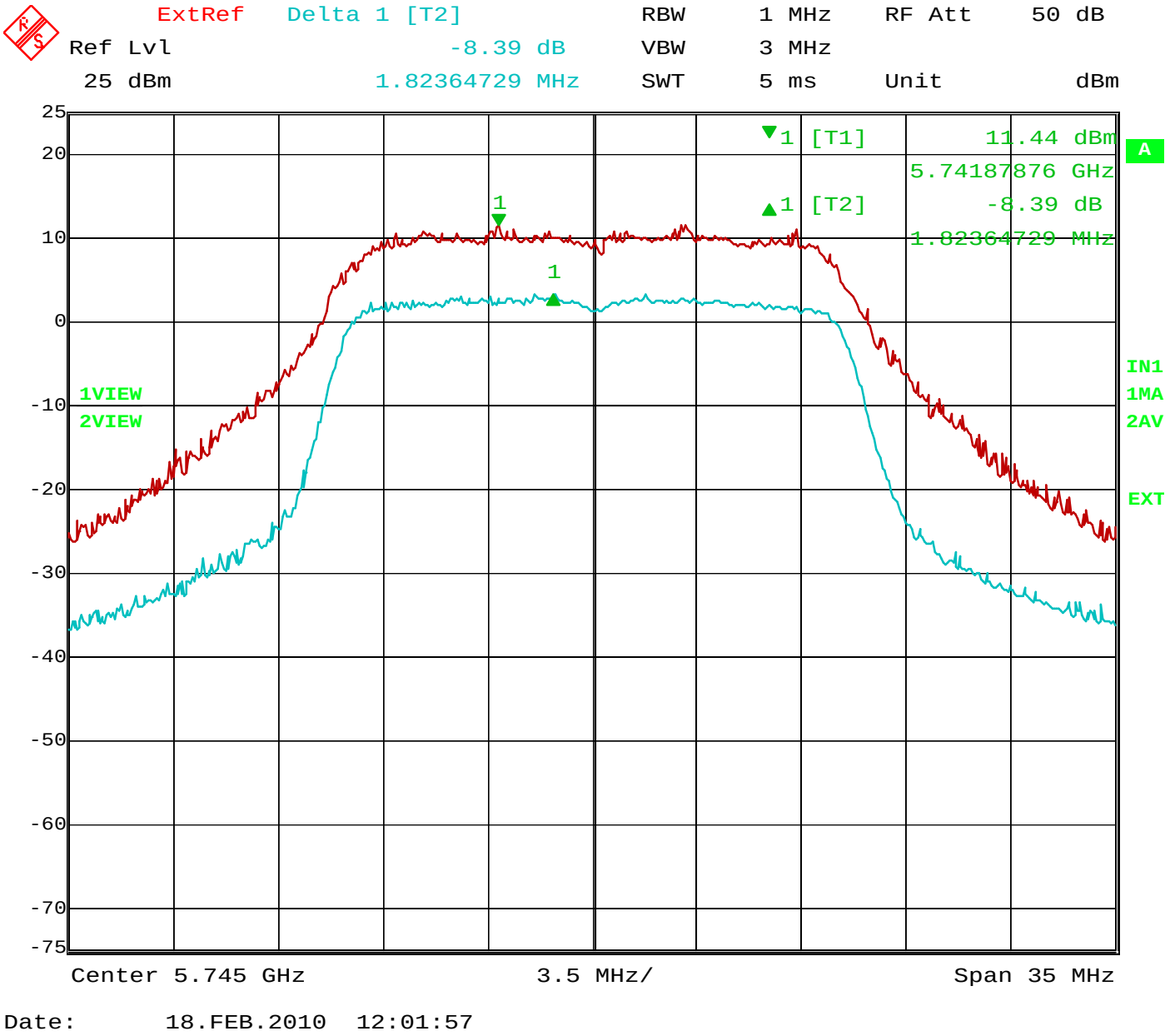
4.6.2 Final Test

The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.



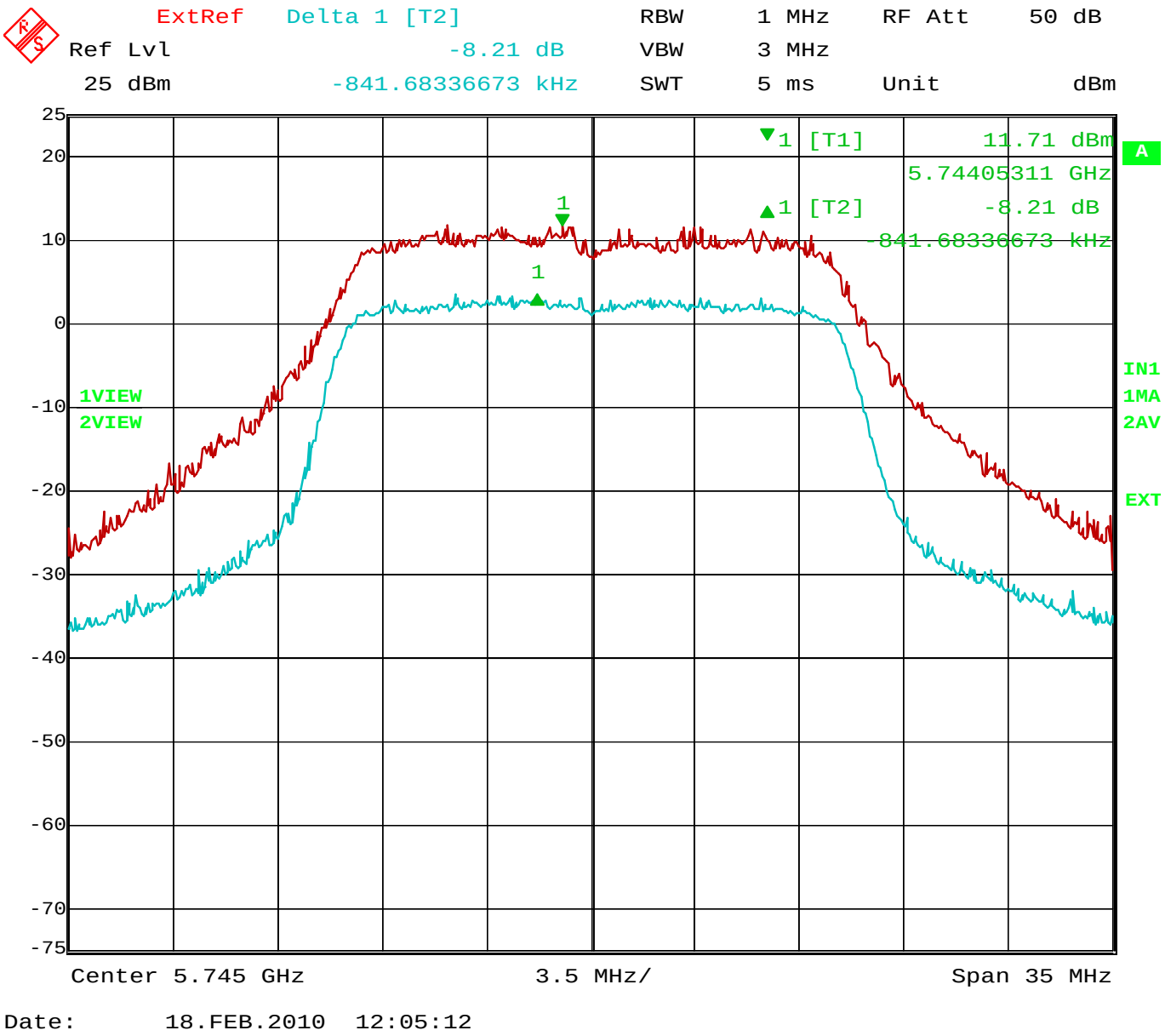
Plot 17 - Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 6 Mbits/s



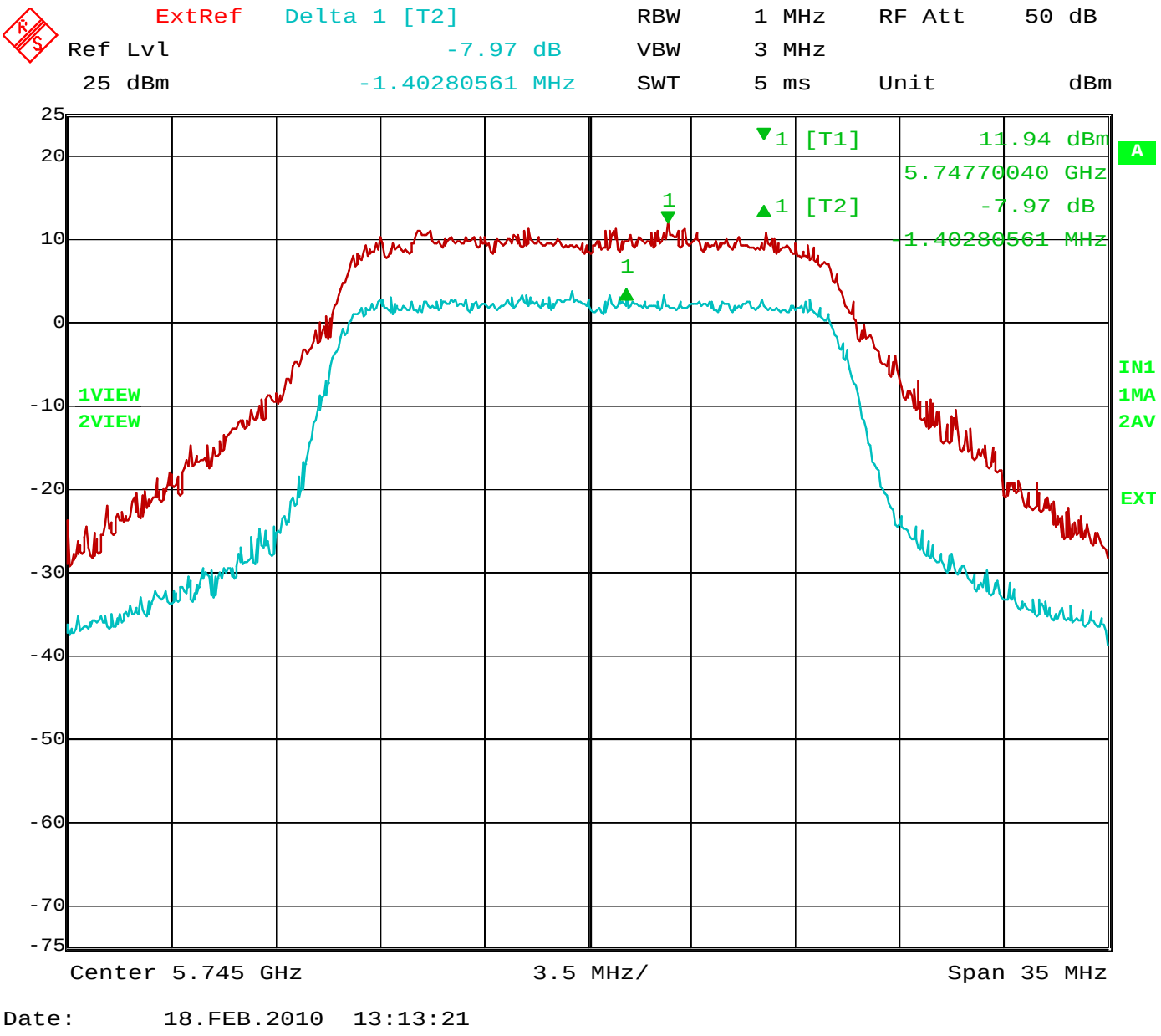
Plot 18 - Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 146 (5745 MHz) at a Transmission rate of 12 Mbits/s



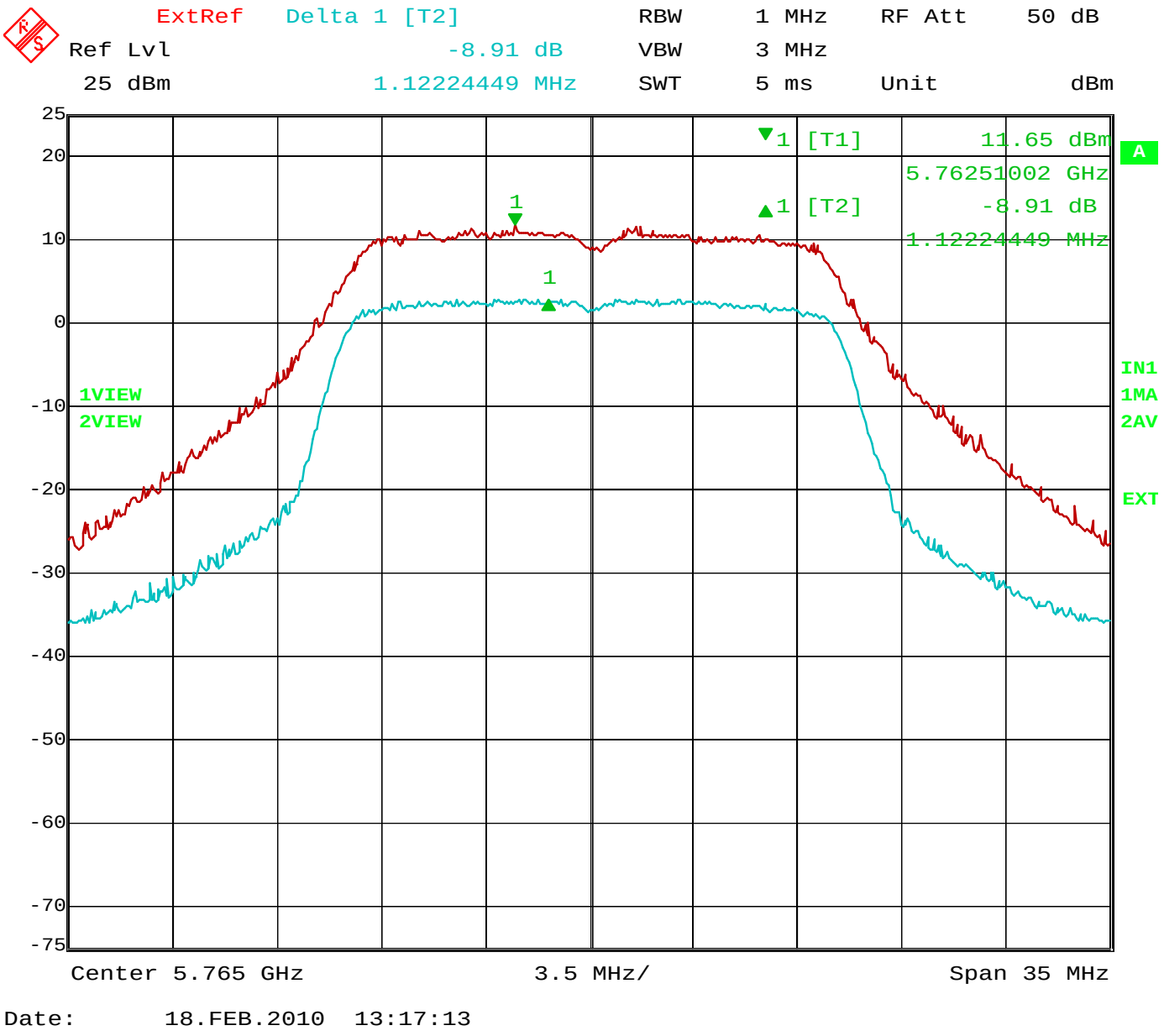
Plot 19- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 24 Mbits/s



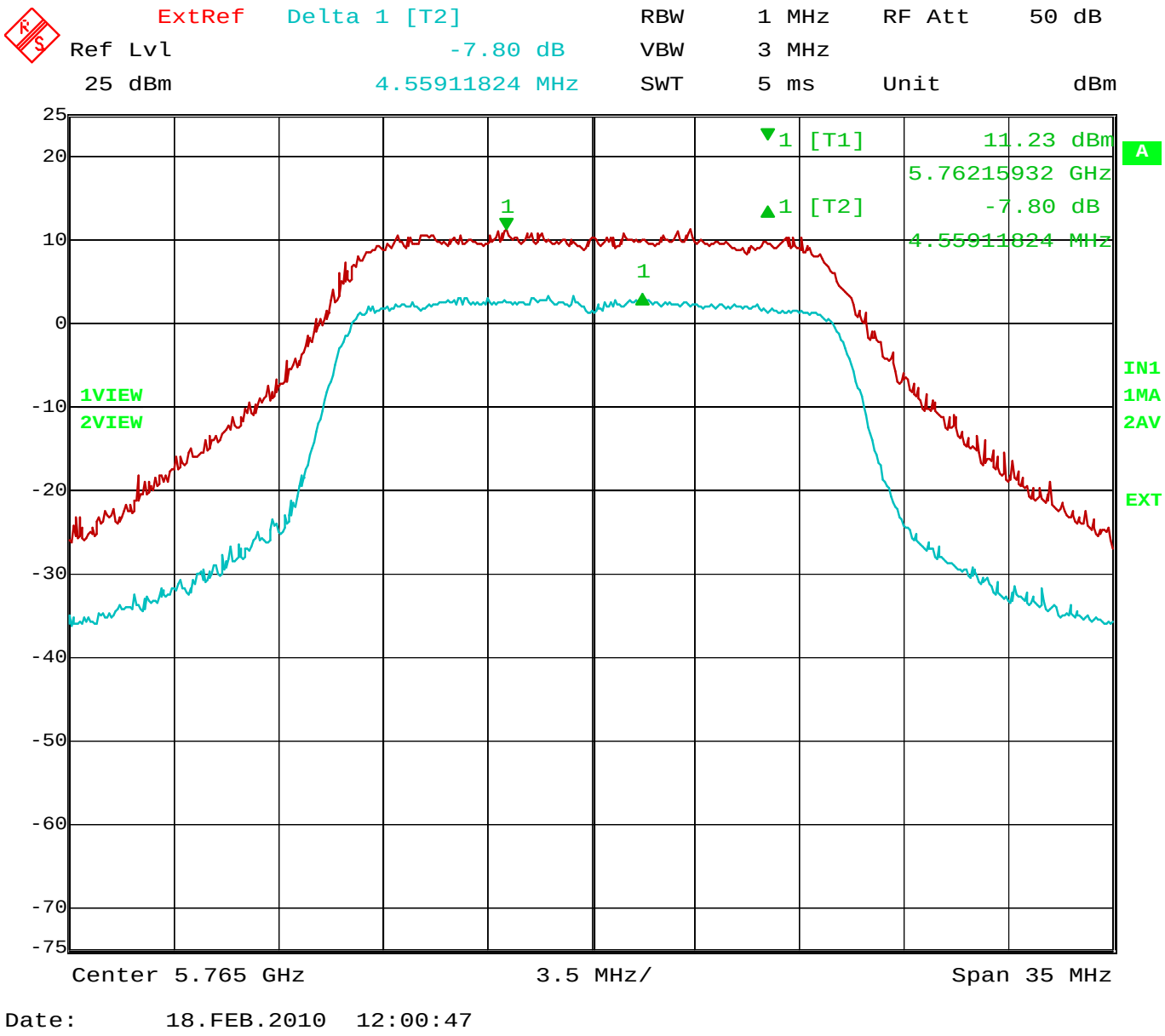
Plot 20 - Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 149 (5745 MHz) at a Transmission rate of 54 Mbits/s



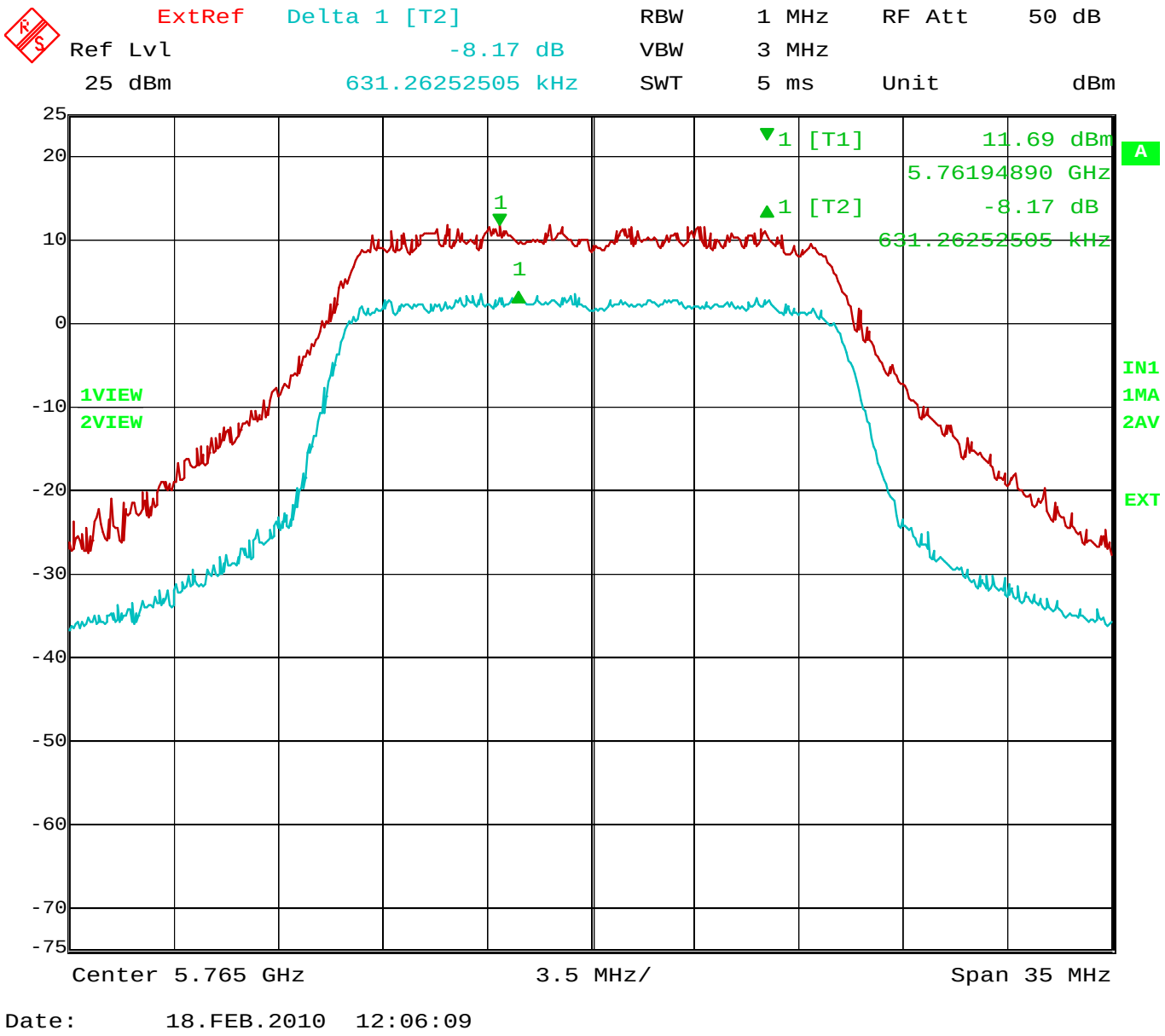
Plot 21 - Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 6 Mbits/s



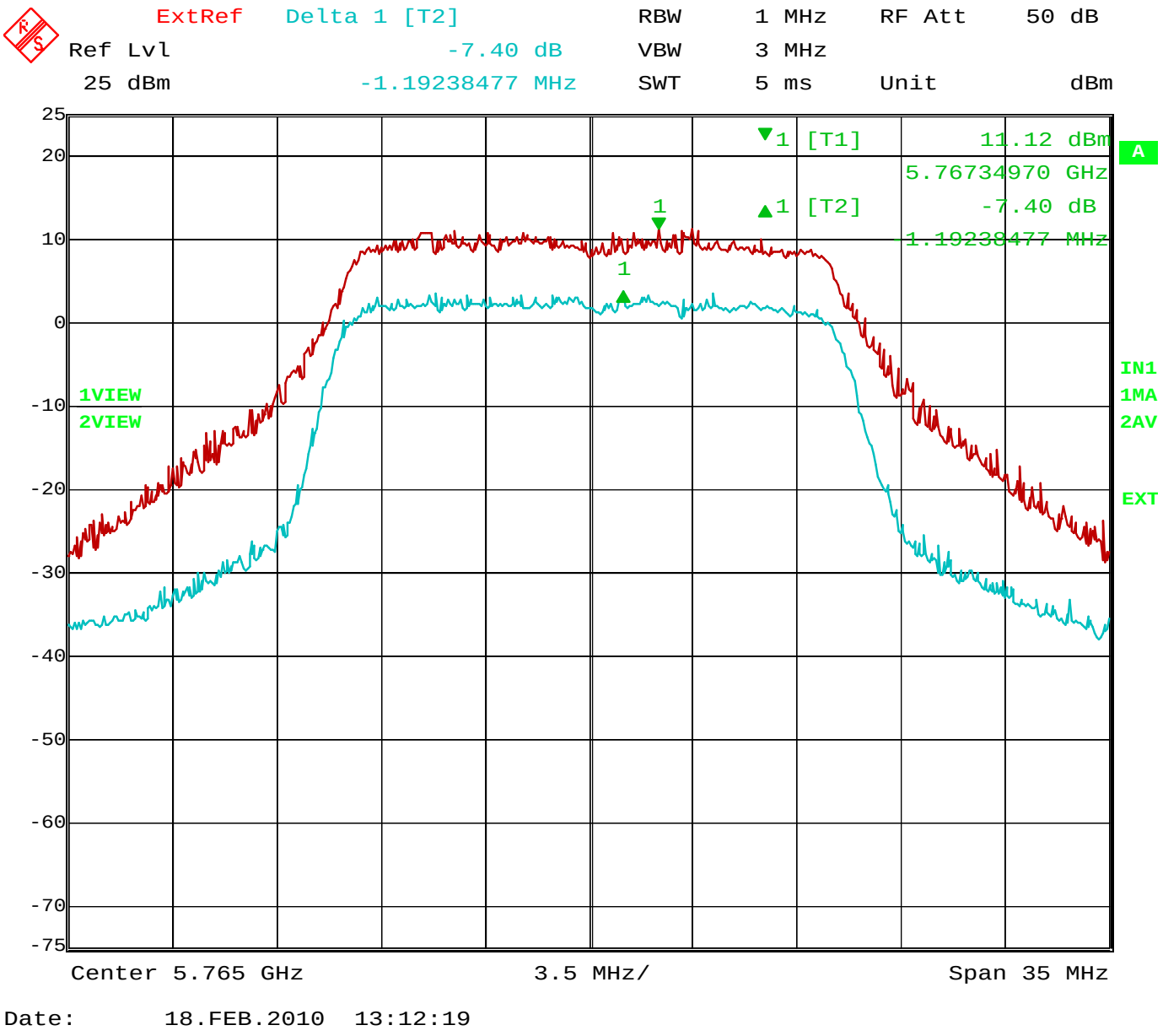
Plot 22- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 24 Mbits/



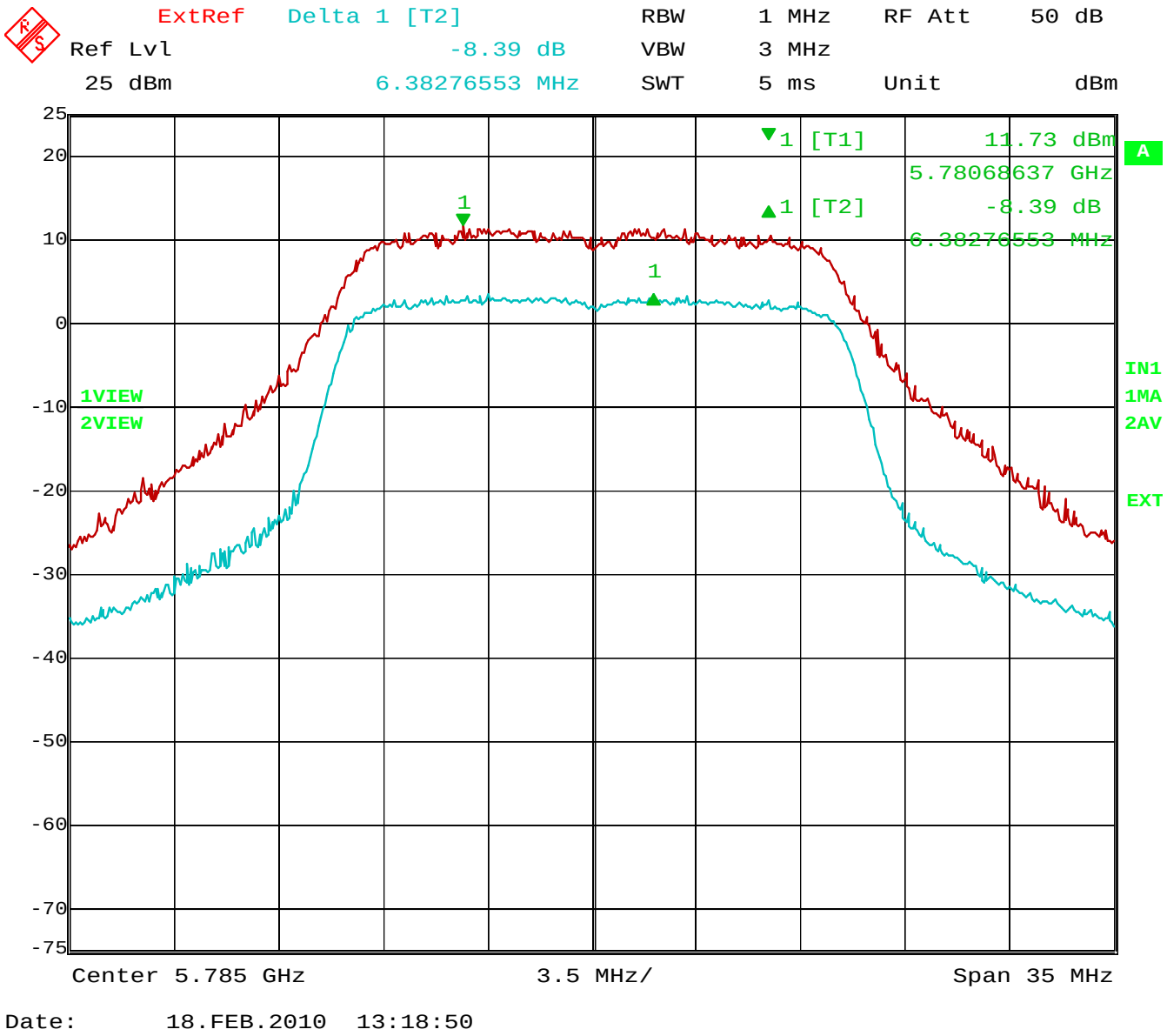
Plot 23- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 24 Mbits/s



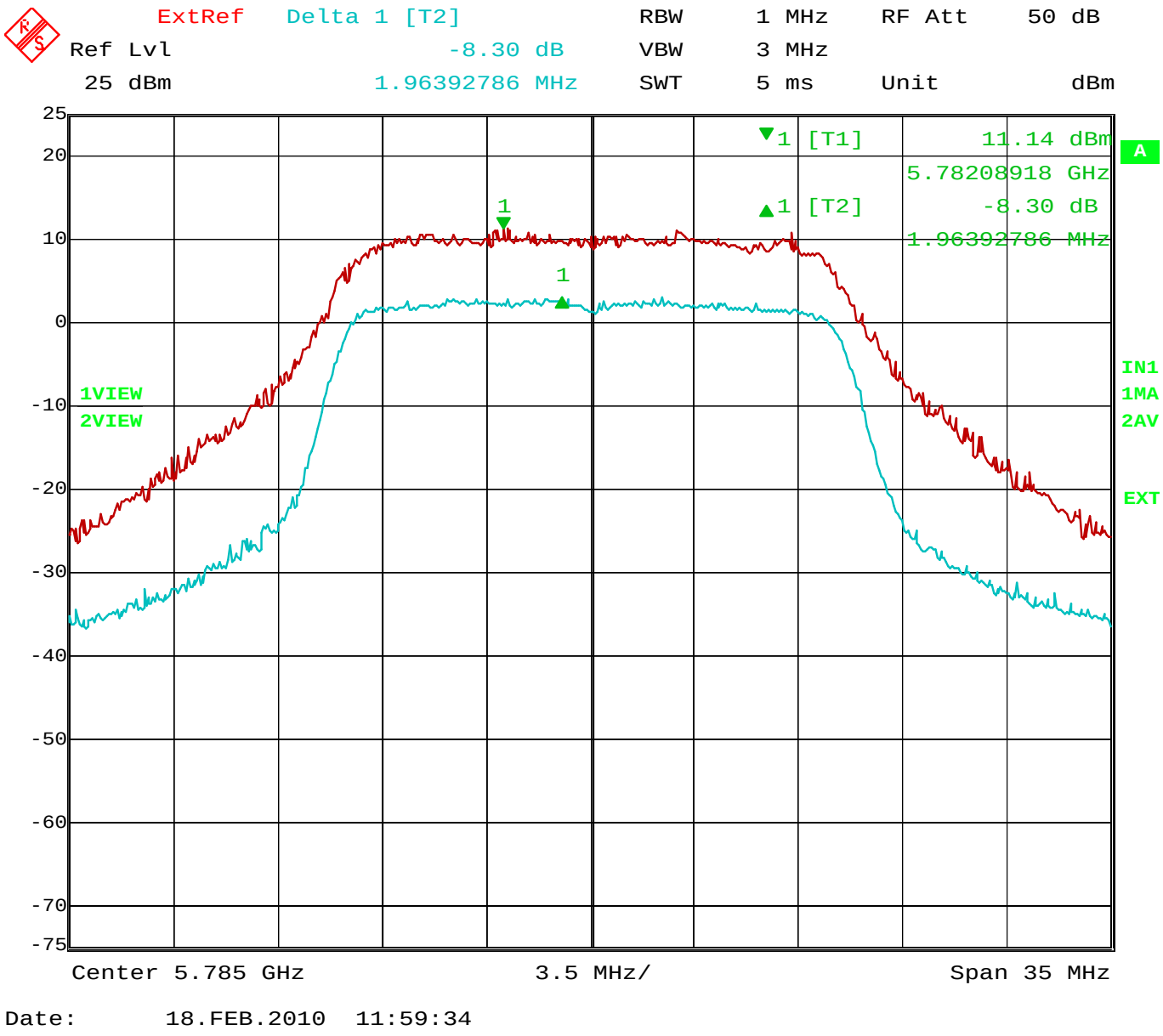
Plot 24- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 153 (5765 MHz) at a Transmission rate of 54 Mbits/s



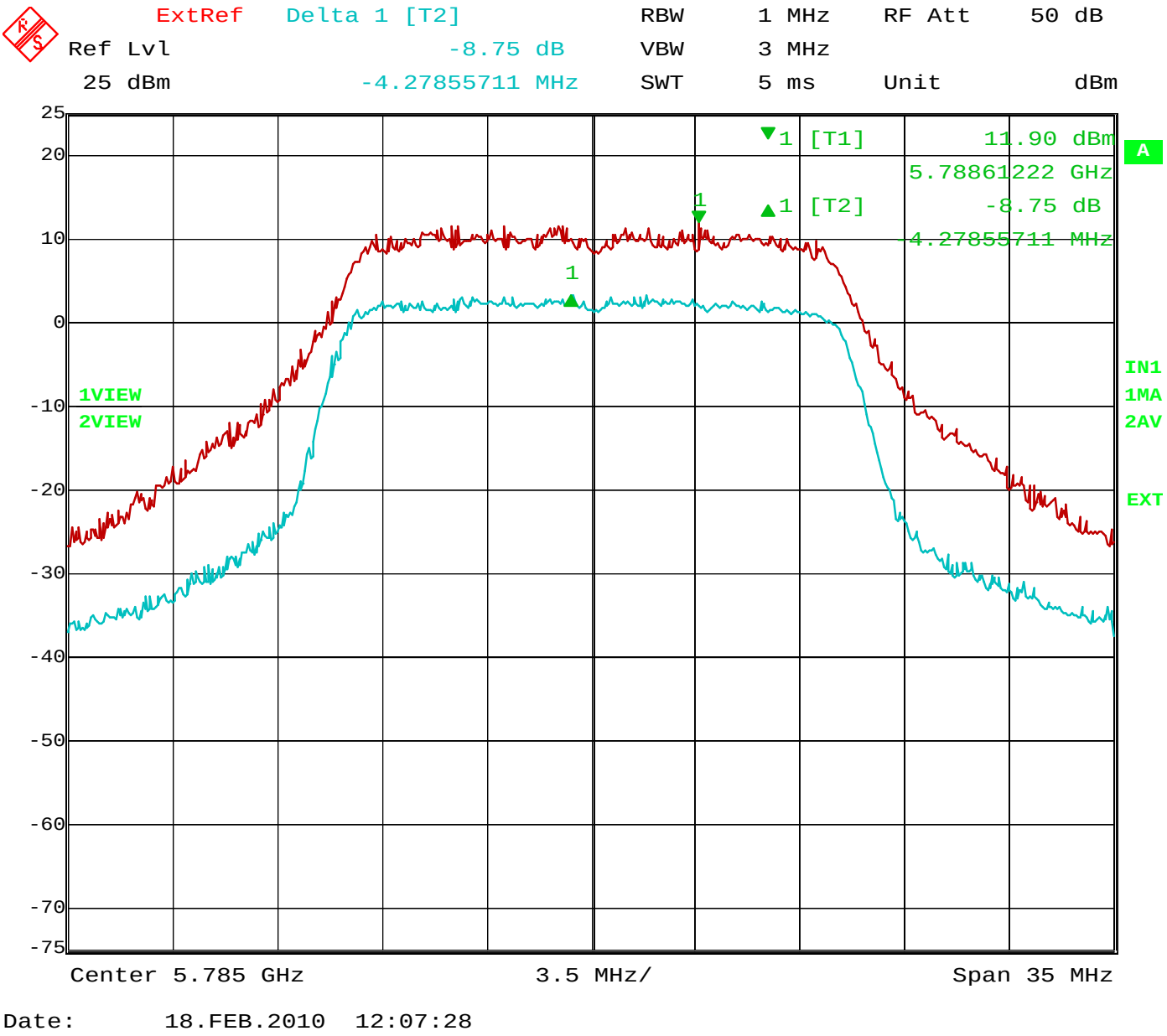
Plot 25- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 6 Mbits/s



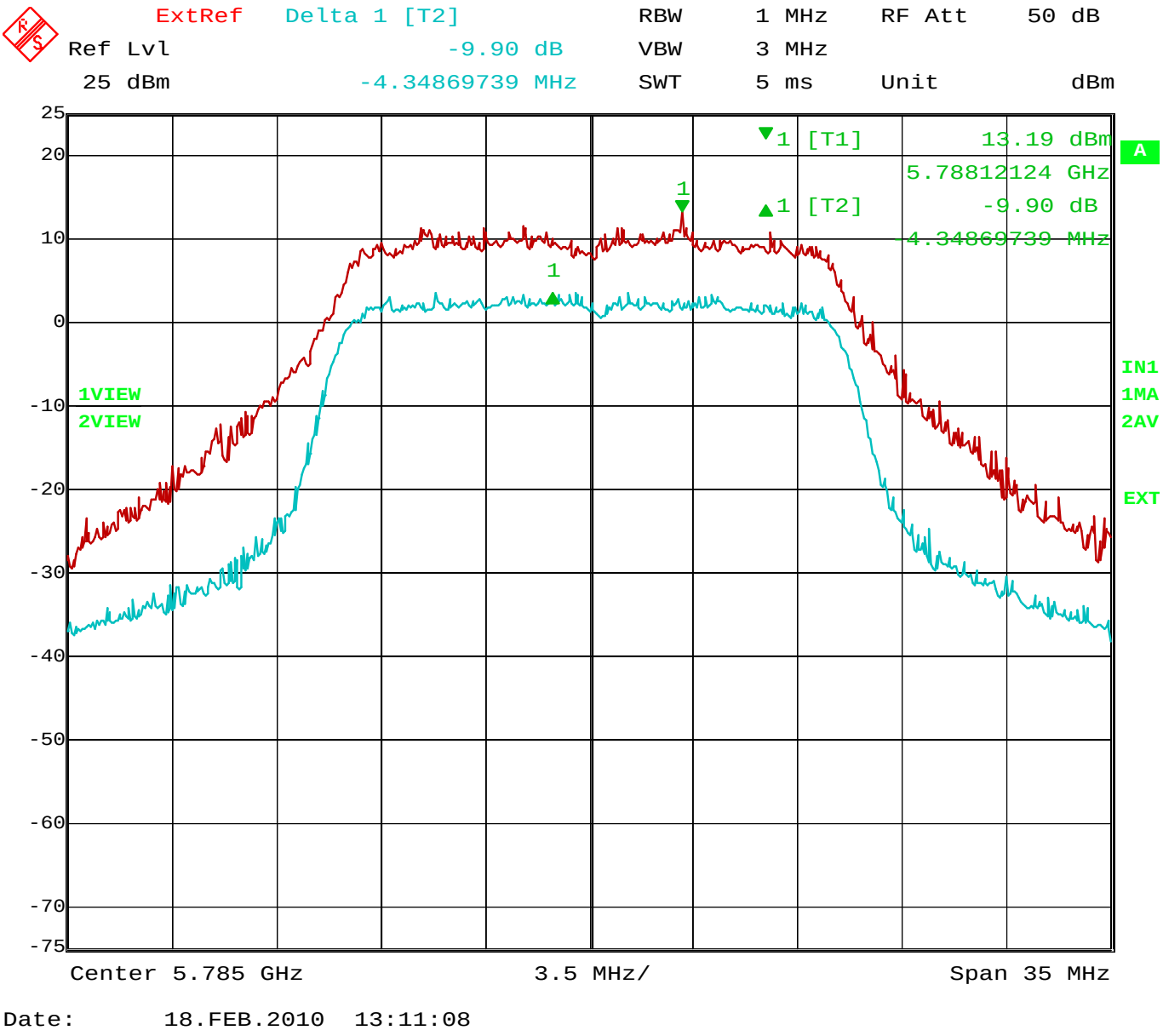
Plot 26- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 12 Mbits/s



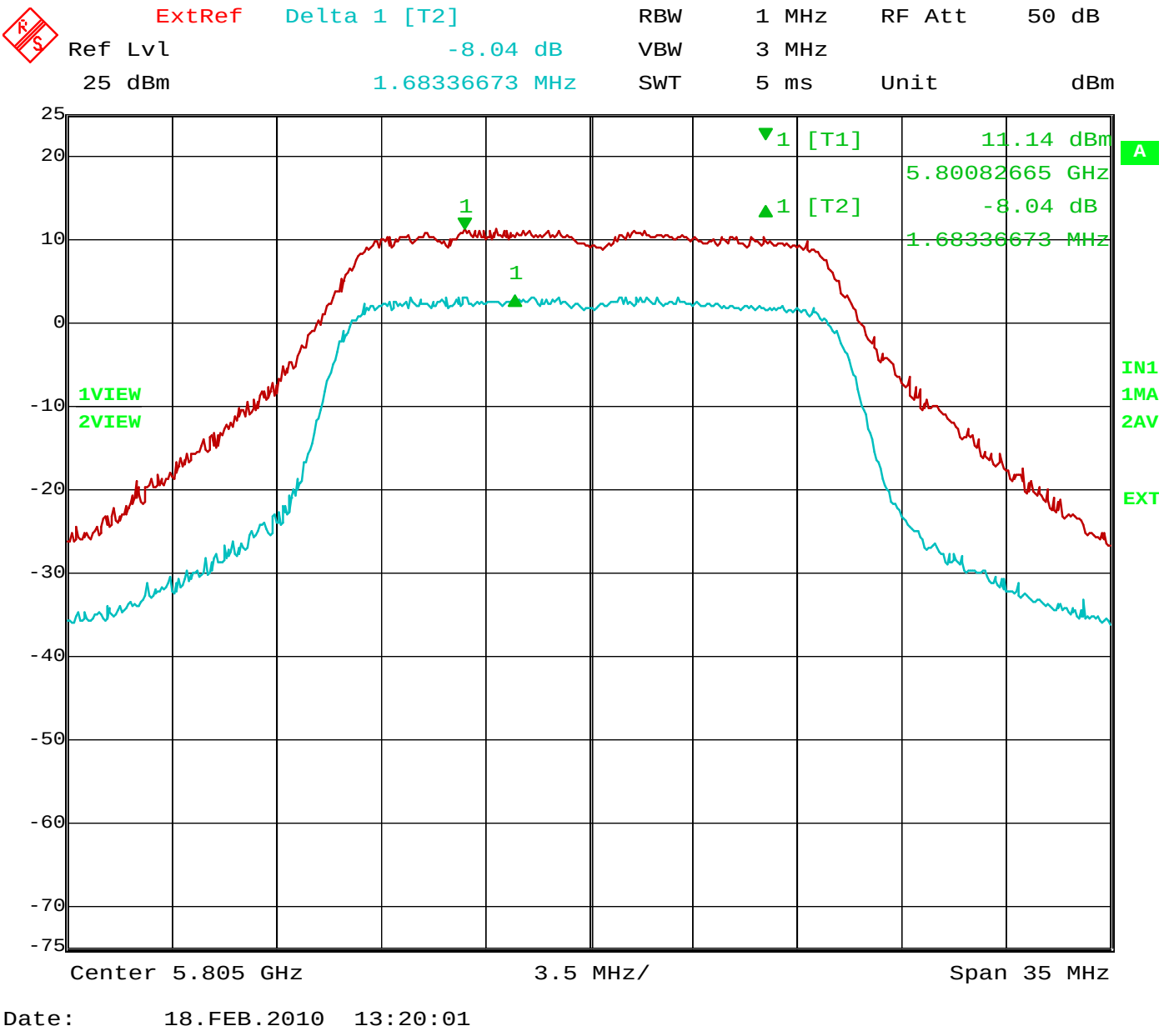
Plot 27- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 24 Mbits/s



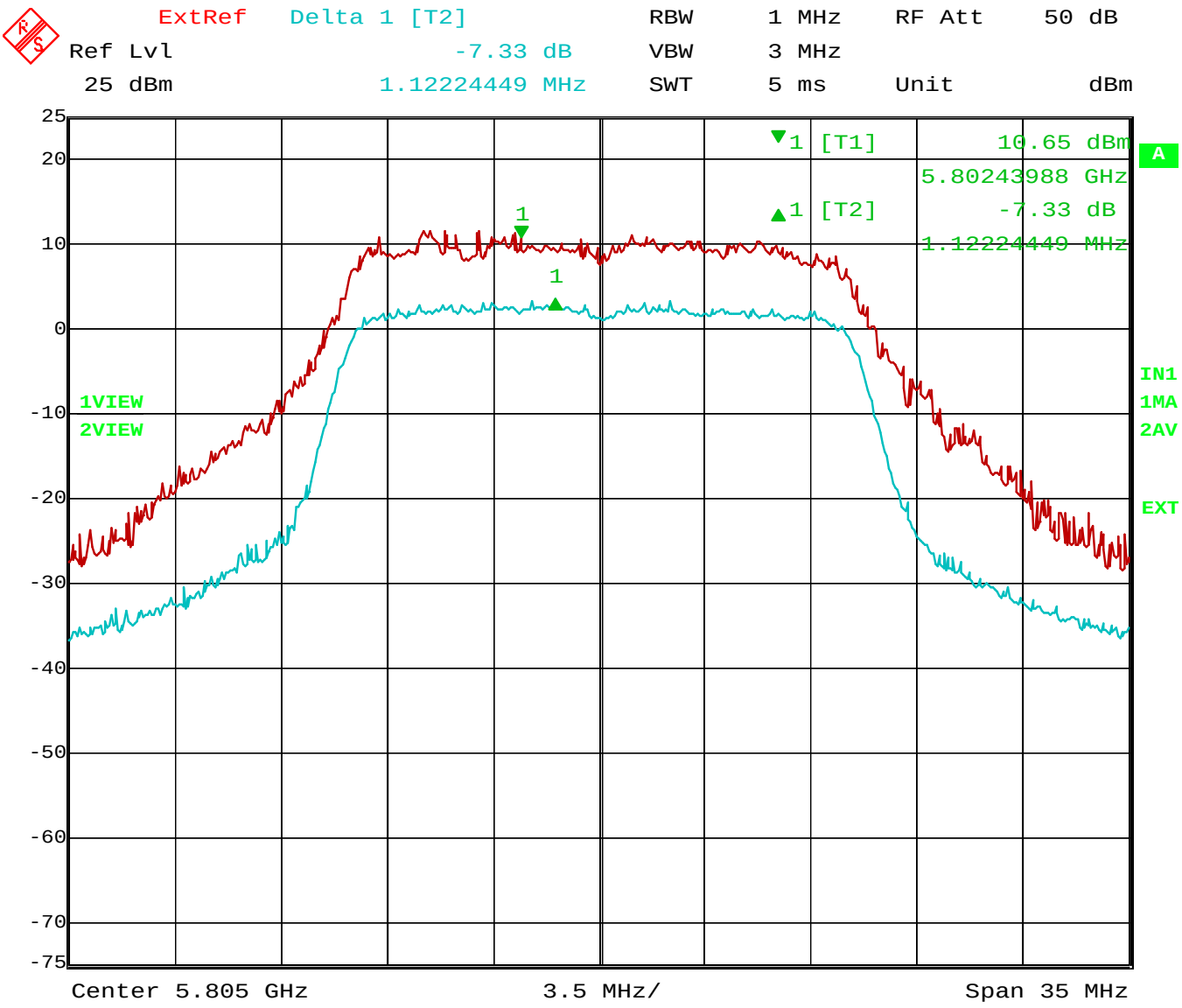
Plot 28- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 157 (5785 MHz) at a Transmission rate of 54 Mbits/s



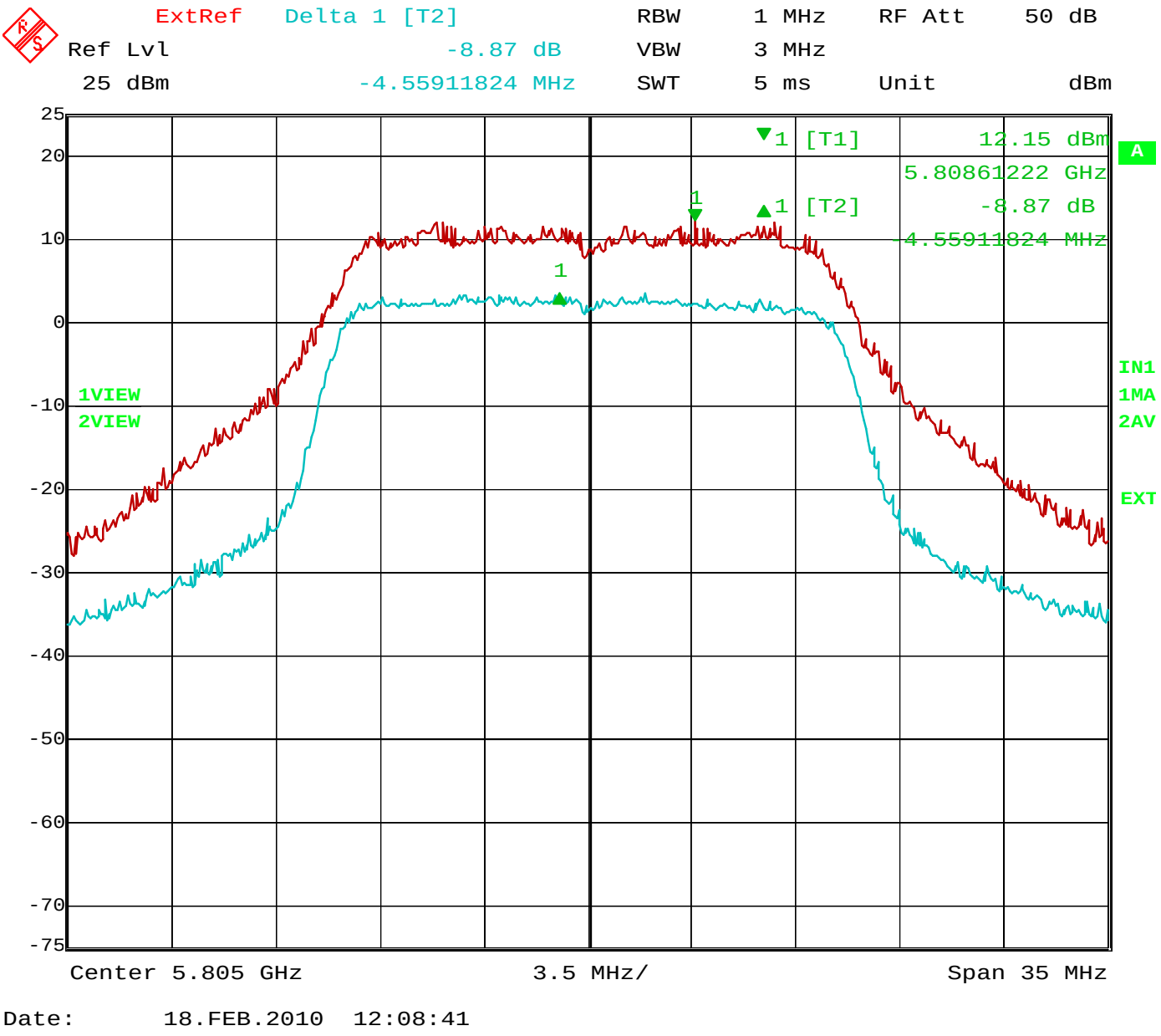
Plot 29- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 6 Mbits/s



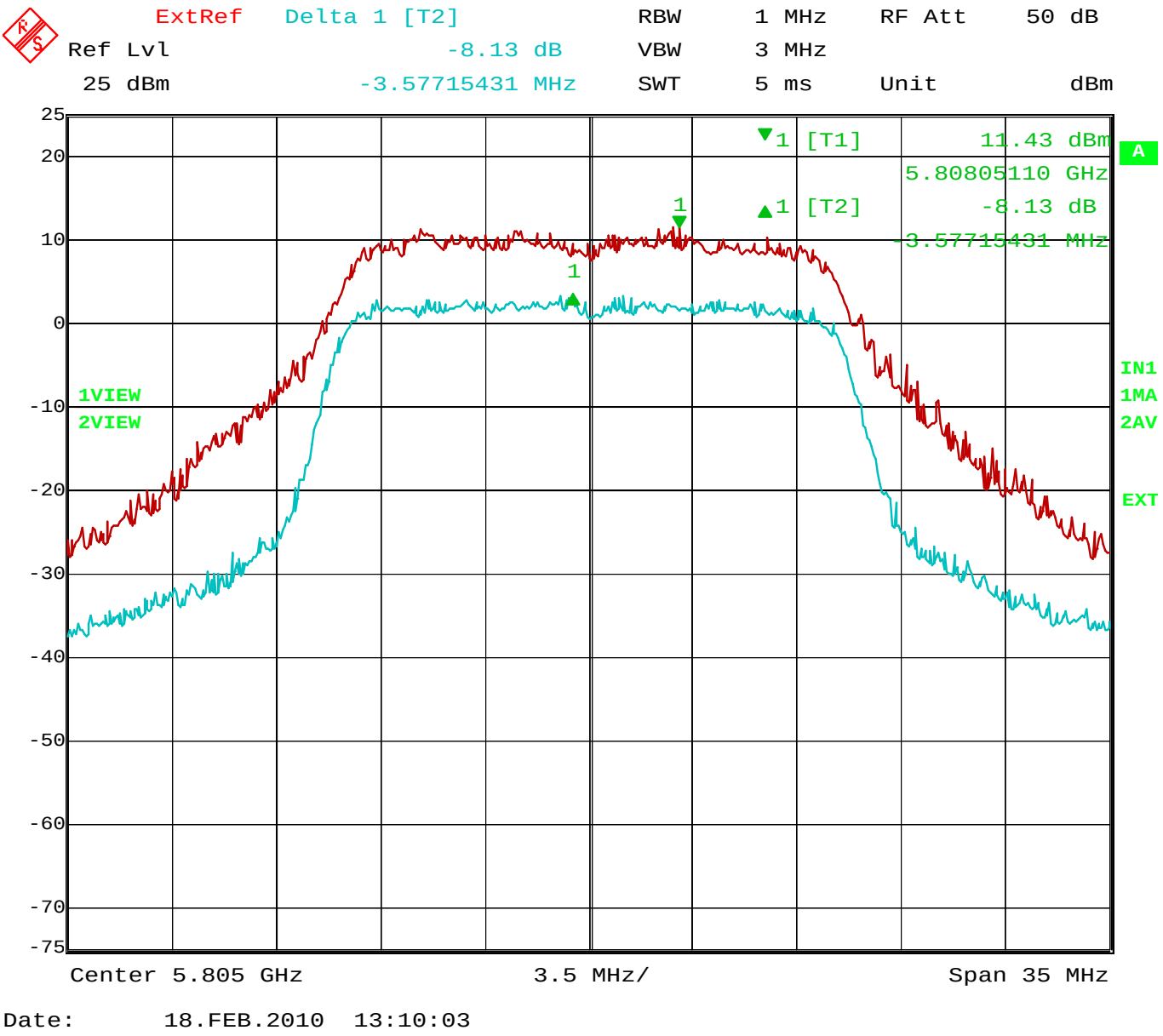
Plot 30- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 12 Mbits/s



Plot 31- Ratio of Peak Excursion of the Modulation Envelope

EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 24 Mbits/s

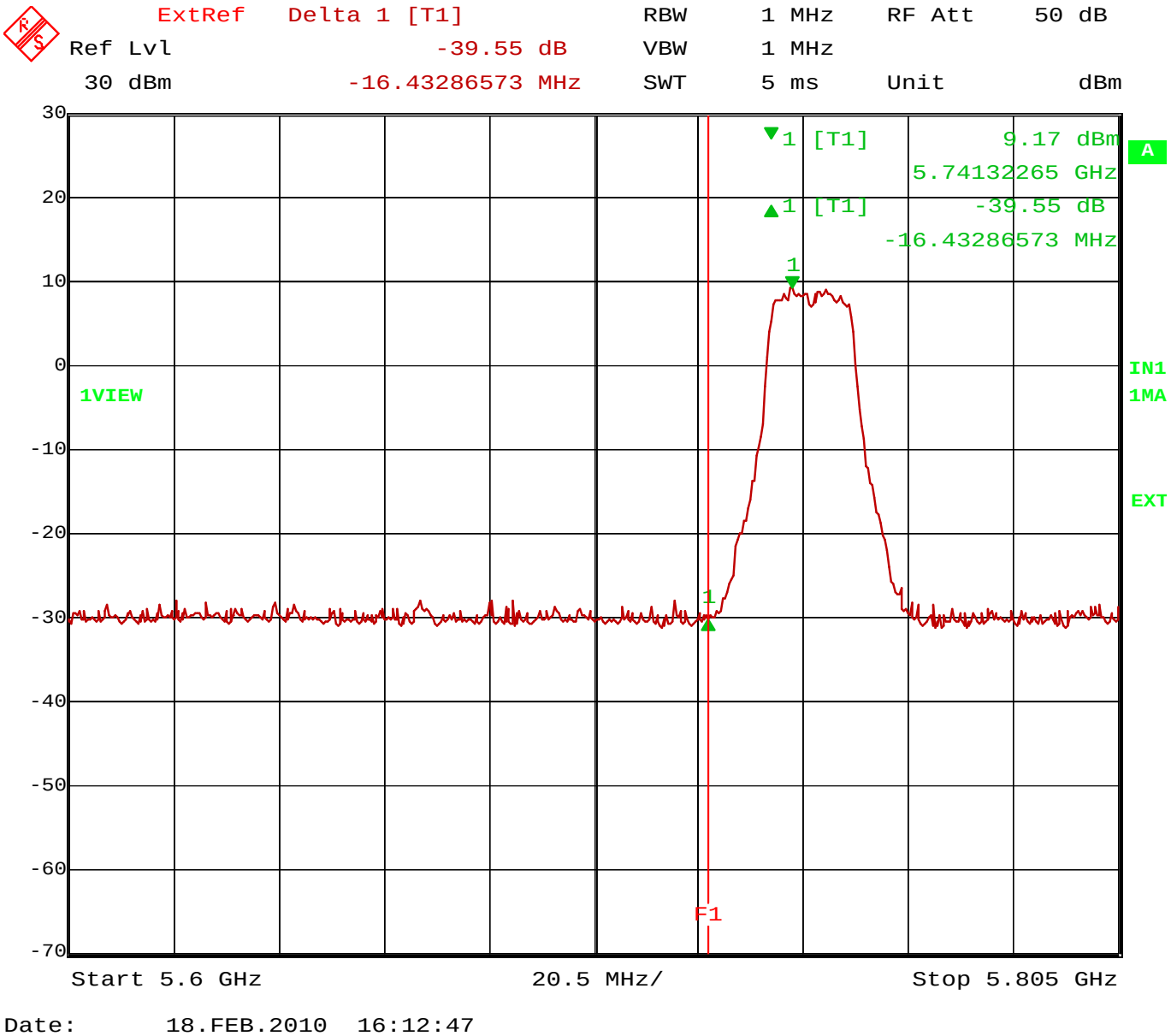


Plot 32- Ratio of Peak Excursion of the Modulation Envelope

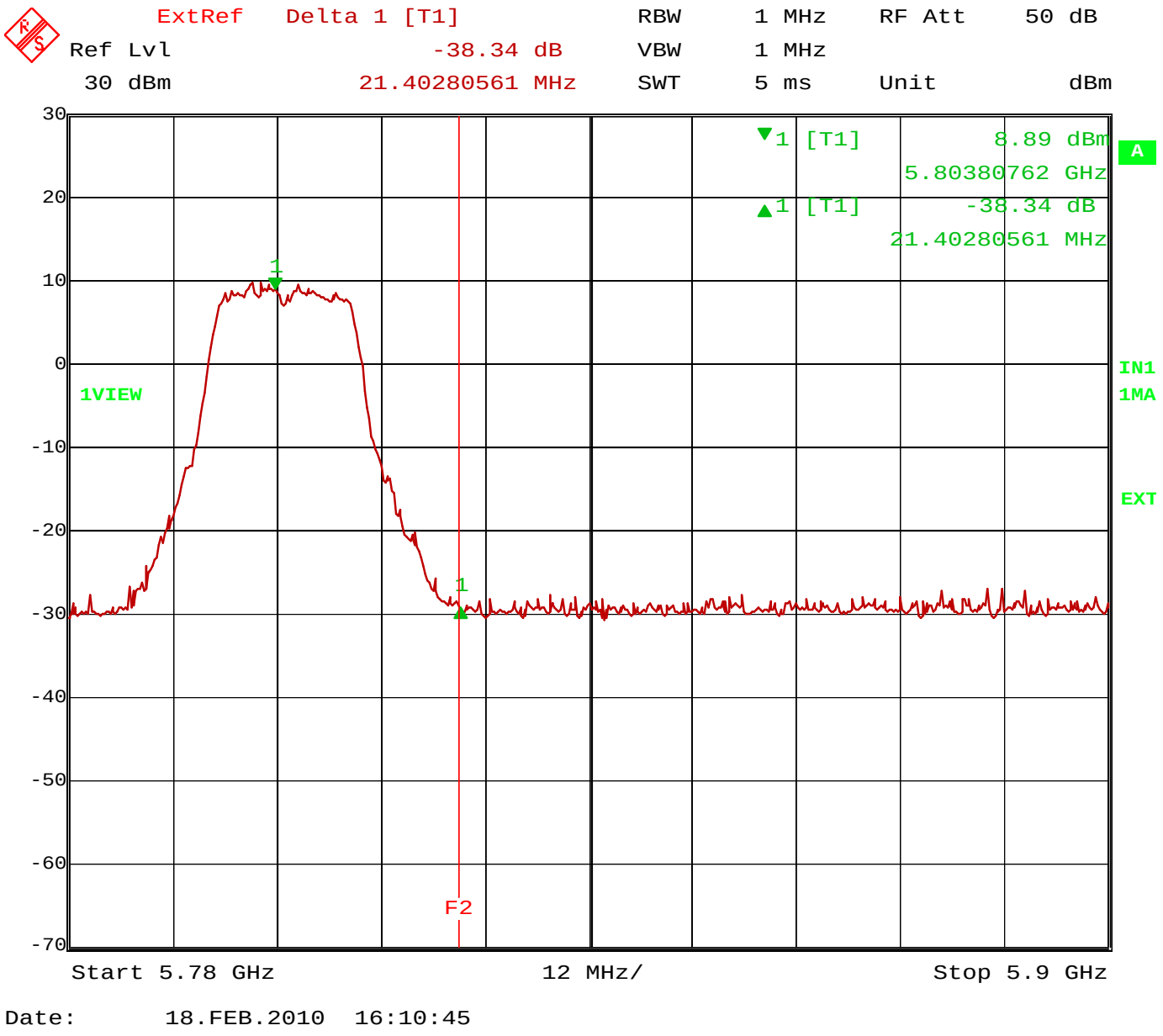
EUT operating on Ch 161 (5805 MHz) at a Transmission rate of 54 Mbits/s

4.7 Band Edge

In accordance with 47 CFR Part 15.407(b) All emissions outside of the 5.725 – 5.825 GHz Band shall not exceed an EIRP of -27dBm/MHz.



Plot 33– Lower Band edge at 5725 MHz



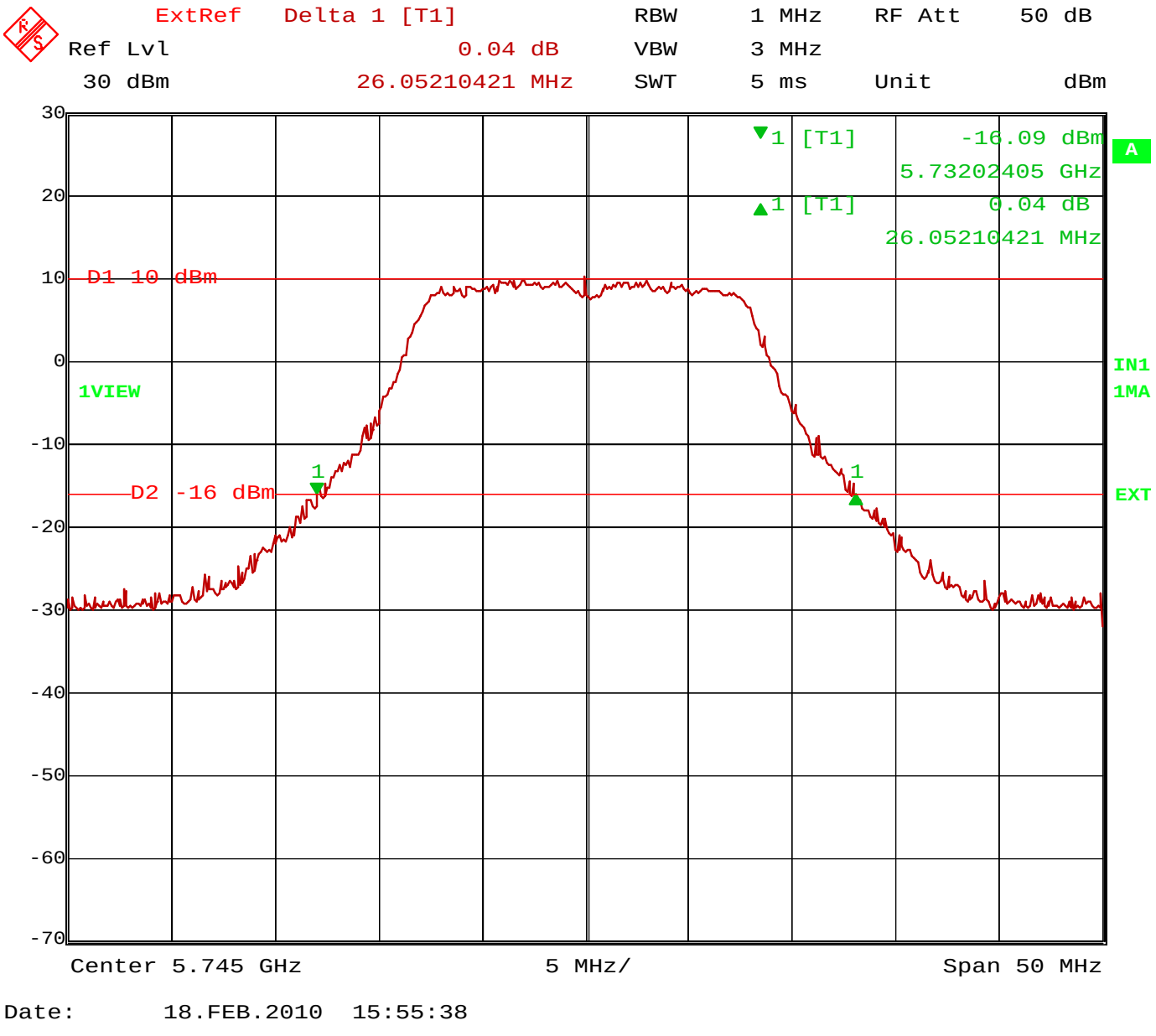
Plot 34– Upper Band edge at 5805 MHz

4.7.1 Final Test

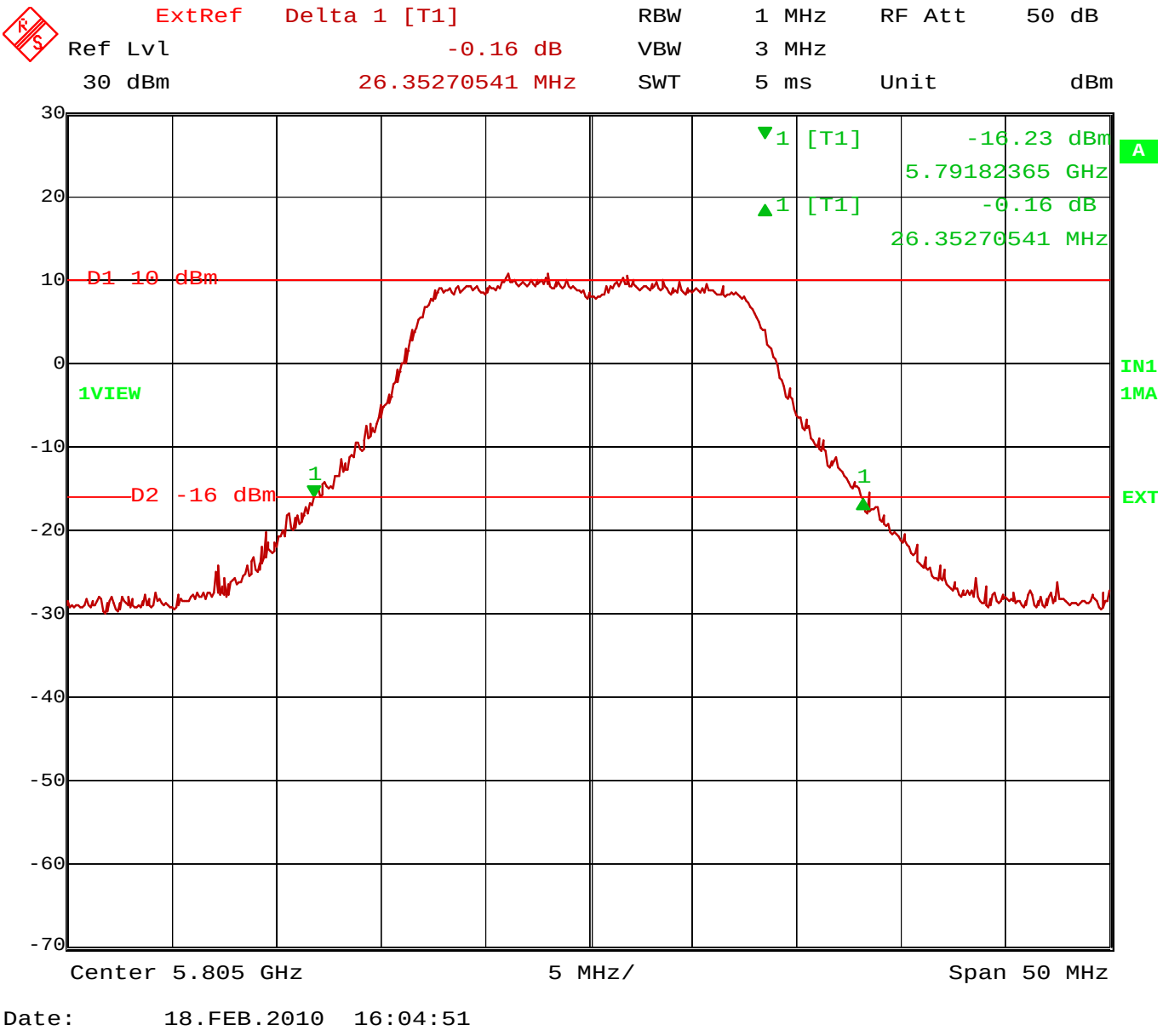
The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.

4.8 -26 dB Bandwidth

In accordance with 47 CFR Part 15.407(a) (3)



Plot 35– (-26) dB Bandwidth of EUT operating on Ch 149



Plot 36– (-26) dB Bandwidth of EUT operating on Ch 161

4.8.1 Final Test

The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.

4.9 Restricted Bands of Operation

In accordance with 47 CFR Part 15.407(b)(7) Intentional radiators need to comply with the provisions of 47 CFR Part 15.205. The results of these measurements can be found in section 4.1

4.10 Discontinuance of transmission in absence of Information

In accordance with 47 CFR part 15.407(c) applicants shall include in their application of how this requirement is met.

Carestream HEALTH

Carestream Health, Inc.
150 Verona Street
Rochester, NY 14608

TO: TUV Rheinland of N.A.
336 Initiative Dr.
Rochester, New York 14624

From: Ronald L. Cain
Carestream Health, Inc.
1049 West Ridge Rd.
Rochester, N.Y. 14615

DATE: March 12, 2010

In my capacity as Electromagnetic Compliance Engineer, Carestream Health, Inc., I confirm that the Carestream DRX1-4 radio meets the requirements for discontinuance of transmission contained in 47 CFR 15.407 C.

The Carestream DRX1-4 radio functions as a station (slave) to a wireless access point. The DRX1-4 radio is programmed to respond to the access point and will not transmit unless requested to do so.

Regards,

Ronald L. Cain

Ronald L. Cain

4.11 Frequency Stability

In accordance with 47 CFR Part 15.407(g) the frequency stability of U-NII devices must be such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual. The Manufacturer calls out operating temperature ranges of +10º to +30º C

4.11.1 Test results

Temp	Start -26 dB(GHz)	Start +26dB (GHz)	30Min -26 dB (GHz)	30Min +26dB (GHz)	Permitted Band Edge (GHz)	Results
-10º C	5.7320	5.7918	5.7320	5.7918	5.725 – 5.825	Complies
0º C	5.7320	5.7918	5.7320	5.7918	5.725 – 5.825	Complies
+30º C	5.7320	5.7918	5.7320	5.7918	5.725 – 5.825	Complies

Table 4 – Frequency Stability

4.11.2 Final Test

The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.

4.12 Antenna Requirements

In accordance with 47 CFR Part 15.203 an intentional radiator shall be designed to ensure that no antenna other then that furnished by the responsible party shall be used with the device.

Carestream HEALTH

Carestream Health, Inc.
150 Verona Street
Rochester, NY 14608

TO: TUV Rheinland of N.A.
336 Initiative Dr.
Rochester, New York 14624

From: Ronald L. Cain
Carestream Health, Inc.
1049 West Ridge Rd.
Rochester, N.Y. 14615

DATE: March 12, 2010

In my capacity as Electromagnetic Compliance Engineer, Carestream Health, Inc., I confirm that only the antennas furnished with the Carestream DRX1-4 radio will be used with the device as specified in CFR 47 15.203.

The DRX1-4 radio antennas are installed inside the case of a wireless X-Ray detector and are accessible only to authorized service personnel.

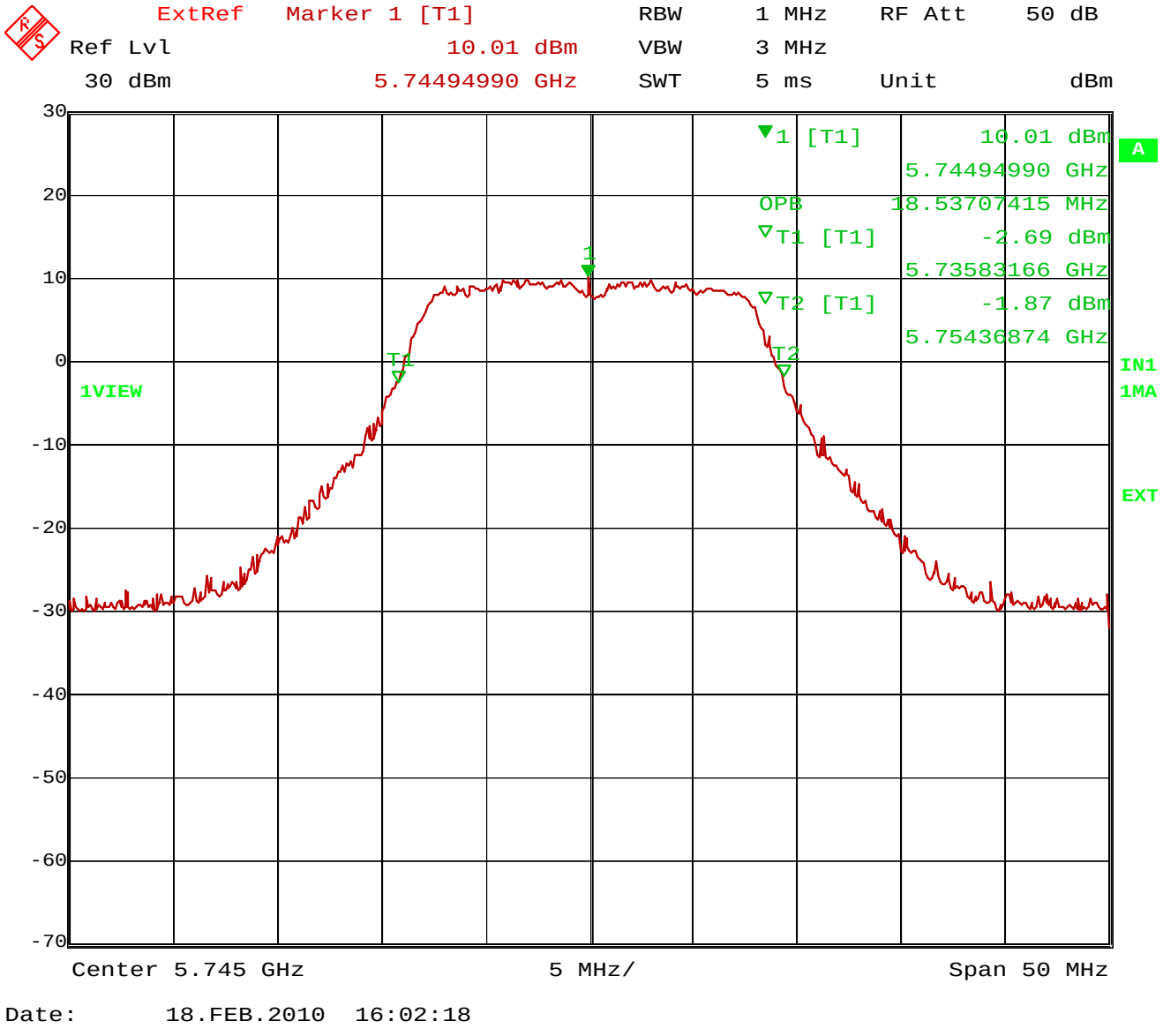
Regards,

Ronald L. Cain

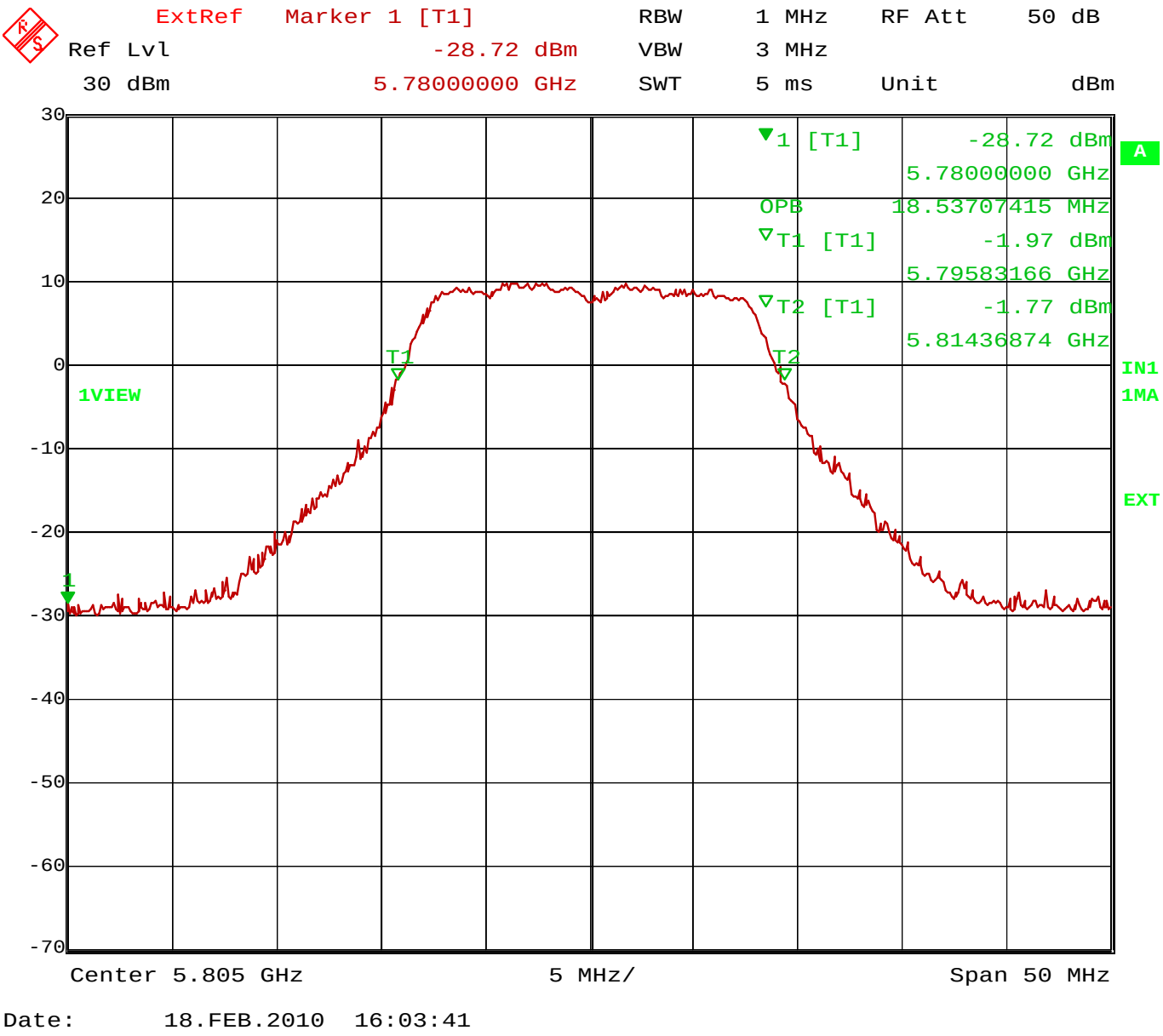
Ronald L. Cain

4.13 99% Bandwidth

In accordance with Industry Canada's RSS-210 Issue 7 Annex 9.2(1)



Plot 37– 99% Bandwidth Ch 149



Plot 38– 99% Bandwidth Ch 161

4.13.1 Final Test

The EUT met the performance criteria requirement as specified in the test plan of this report and in the standards.

Appendix A

5 Test Plan

This test report is intended to follow this test plan outlined here in unless other wise stated in this here report. The following test plan will give details on product information, standards to be used, test set ups and refer to TUV test procedures. The test procedures will give the steps to be taken when performing the stated test. The product information below came via client, product manual, product itself and or the internet.

5.1 General Information

Client	Carestream Health Inc.
Address	150 Verona St
Address	Rochester NY, 14608
Contact Person	Ronald Cain
Telephone	585-627-8321
Fax	585-477-2718
e-mail	ronald.cain@carestreamhealth.com

5.2 Model(s) Name

DRX1 and DRX1-4

5.3 Type of Product

DRX Radio

5.4 EUT Electrical Powered Information

5.4.1 Electrical Power Type

☐	**AC**	☐	**DC**	☒	**Batteries**	☐	**Host -**

5.5 Electrical Support Equipment

Type	Manufacture	Model	Connected To
Laptop	IBM	Thinkpad T30	Radio

5.6 EUT Test Program

ART V80 – Revision 8.0 Build #39 ART_11N

Customer Version (ANWI Build)