SENTON

■ EMV-Prüfzentrum ■ EMI/EMC-Testcenter ■

Straubing, 3 July, 1998

TEST-REPORT

No. 51966-70833-1

for

SRIF Module
2.4 GHz RF Modem

Applicant: Siemens AG,
A & D, Automation and Drives Division

Purpose of testing: To show compliance with

FCC Code of Federal Regulations,
CFR 47, Part 15, Subpart C,
Sections 15.209 and 15.249

Table of Contents

1. Administrative Data

Equipment Under Test (EUT):	SRIF Module
Type of equipment:	RF Modem
Parts/accessories:	N.A.
Version of EUT:	**FCC-ID: NXWSRIF245**

Applicant:	Siemens AG, A & D PT 34
(full address)	Gleiwitzer Strasse 555 D-90475 Nürnberg
Contract identification:	N.A.
Contact person:	Mr. Spies
Manufacturer:	Applicant

Receipt of EUT:	November 18, 1997
Date of test:	July 1998

Responsible for testing:	Mr. Johann Roidt
Responsible for test report:	Mr. Johann Roidt

2. Summary of Test Results

The tested samples fully comply with the requirements for intentional radiators set forth in the

Code of Federal Regulations CFR 47
Part 15 Subpart C, Section 15.249
of the
Federal Communication Commission (FCC).

Johann Roidt
Technical Manager

3. Operation Mode of EUT

The EUT was powered from a 5 V DC power source. During all measurements the EUT was operated with ist dedicated antenna. Emission testing was performed with modulated carrier at ist lowest, mid and highest channel.

4. Changes made to the EUT during this certification test

No changes have been made to the EUT during this certification test.

5. Configuration of EUT and Peripheral Devices

Configuration of cables to EUT

Unshielded two-wire power supply cable

Configuration of peripheral devices connected to EUT

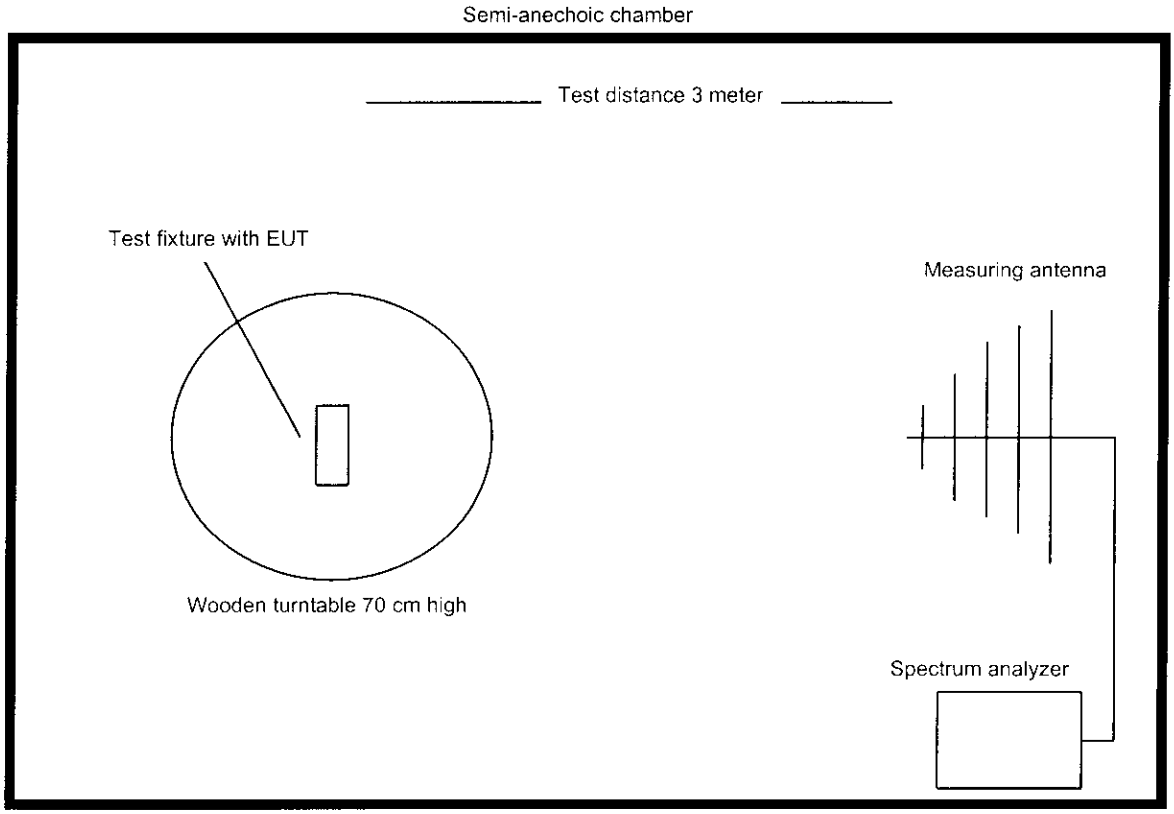
Not applicable

Measuring Methods

Transmitter Parameter TestS (§15.209)

All transmitter parameter radiated tests are performed at a test distance of 3 meteters in a semianechoic chamberDuring the tests the EUT will be rotated all around and the receiving antenna will be raised and lowered from 1 meter to 4 meter to find the maximum levels of emission. Cables and equipment will be placed and moved within the position likely to find their maximum emissions. Measurements will be made in horizontal and vertical polarization of the receiving antenna.
The EUT was operating in transmit mode with its internal modulation.

The bandwidth of the emission will be measured with a spectrum analyzer. Resolution Bandwidth and Video Bandwidth will be set to 10 kHz.

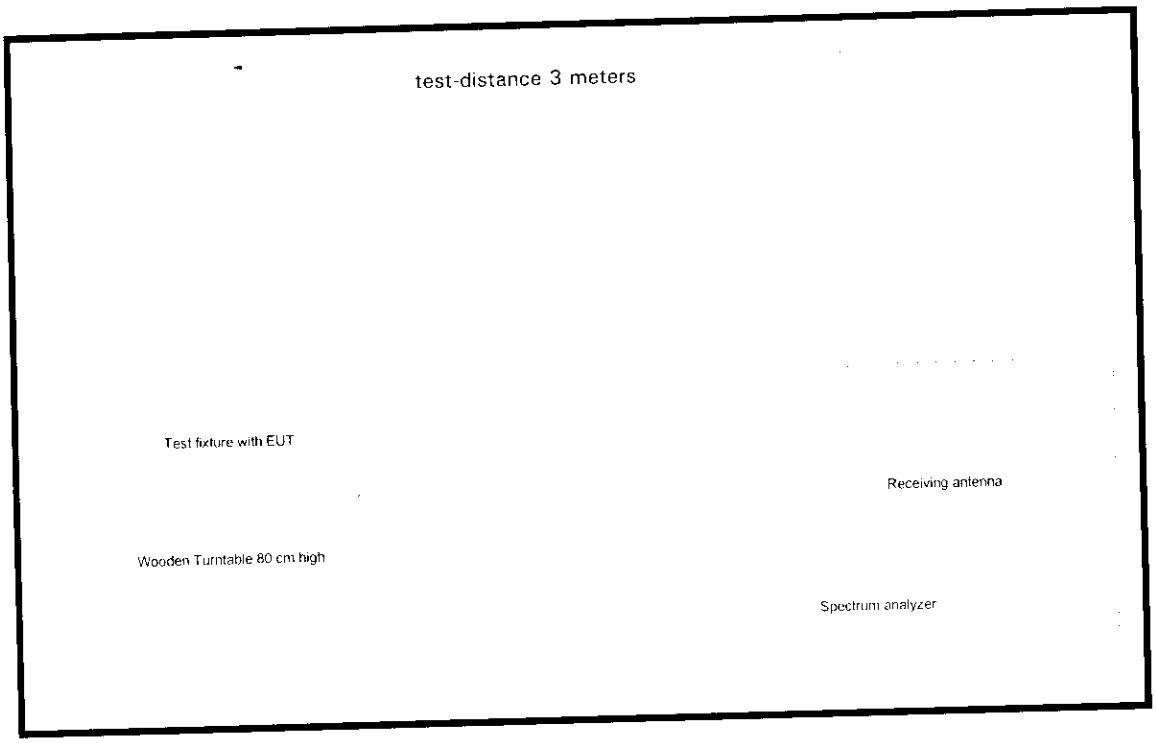


Radiated Emissions 0.009 – 30 MHz

Radiated emissions in the frequency range 0.009 – 30 MHz will be measured initially at a distance of 3 meters. A prescan at 3 meter distance will be performed in a shielded room with the detector of the spectrum analyzer or EMI Receiver set to peak. Final measurement is then performed at 30 meter distance. In case the regulation requires testing at other distances, the result will be extrapolated. The extrapolation factor will be determined by making a second measurement at 10 meter distance. The provisions of 15.31 (d) apply.
According to section 15.209 (d) final measurementis performed with the detector set to Quasi Peak except for the frequency bands 9 – 90 kHz and 110 – 490 kHz where average detector is employed.

Radiated Emissions 30 MHz – 1 GHz

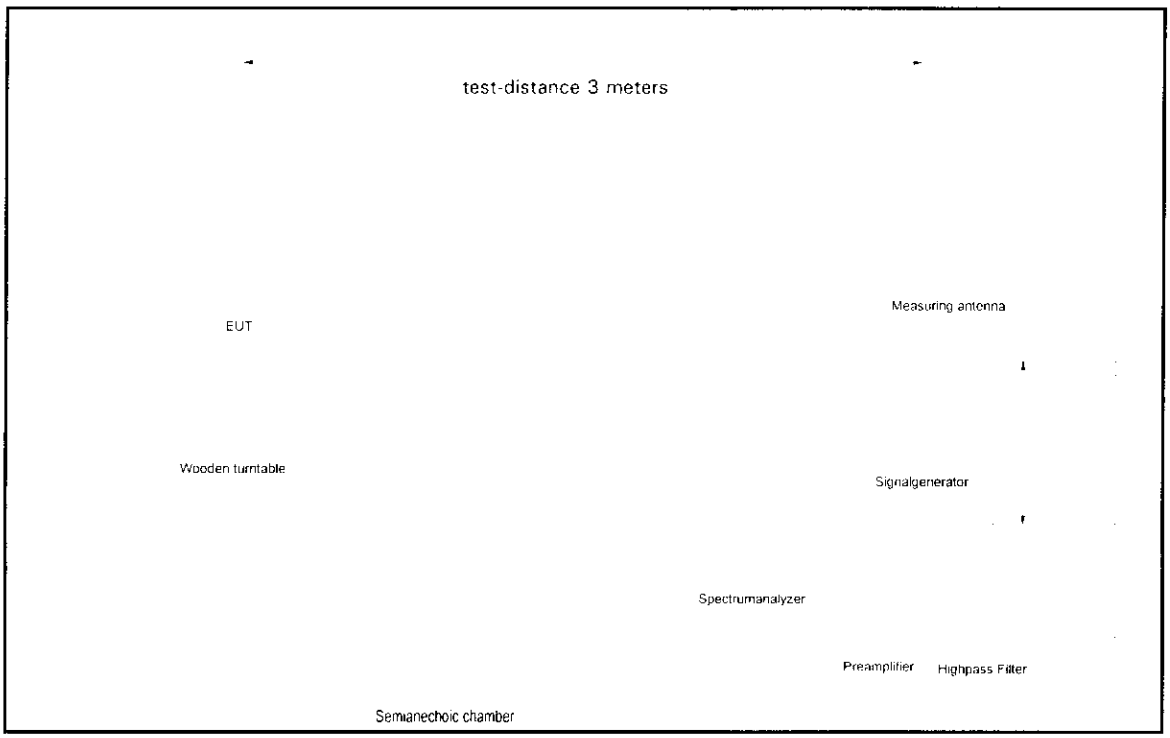
Radiated emissions in the frequency range 30 – 1000 MHz will be measured at a distance of 3 meter. The bandwidth of the spectrum analyzer will be set to 100 kHz and the detector function set to Quasi Peak.
The test setup will be made in accordance with ANSI C.63.4-1992.
Measurements will be made in horizontal and vertical polarization of the receiving antenna. Prescans will be taken in a semianechoic chamber using a spectrum analyzer with the detector function set to peak. All tests will be performed at a test distance of 3 meters. For final testing an open field test site will be used. During the tests the EUT will be rotated all around and the receiving antenna will be raised and lowered from 1 meter to 4 meterto find maximum levels of emissions.



Radiated Emissions above 1 GHz

Radiated emissions were measured in the frequency range 1 GHz to 3.15 GHz in transmit mode .The resolution bandwidth and the video bandwidth of the spectrum analyzer was set to 1 MHz. Prescans with video bandwidth 1 MHz (peak mode) were taken to check out the highest levels (with reference to the limits), see 6.4 for details to prescan procedure. Final measurements were performed at the three highest emissions per band. EUT was rotated all around and receiving antenna was raised and lowered to find the maximum levels of emission. Cables and equipment were placed and moved within the range of position likely to find their maximum emissions. Measurements were made in horizontal and vertical polarization.
All tests were performed in a semi-anechoic chamber with a test-distance of 3 meters.
To avoid overload in transmit mode a high pass filter was connected to the input of the preamplifier (in case when a preamplifier was necessary)). In this case a signal generator was used for substitution to eliminate the influence of filter and preamplifier.
Substitution was performed in the following steps:

- antenna cable was disconnected from receiving antenna and connected to signal generator output
- level of signal generator was increased until the reading value of the analyzer was the same as caused by EUT
- level of signal generator was noted
- final value was calculated by converting the signal generator level to dBµV/m and adding the antenna correction factor.



Procedure for preliminary Radiated Emission Tests

The procedure for preliminary radiated emission tests follows section 13.4.1 of ANSI C63.4-1992. In case the EUT is a handheld device preliminary emission measurements will be performed in three orthogonal axes of the EUT.

Prescans are made in the following frequency range:

0.009 – 30 MHz
30 – 230 MHz
230 – 1000 MHz
1000 – 2600 MHz
2600 – 3950 MHz
3950 – 5850 MHz
5850 – 8200 MHz
8200 – 12400 MHz
12400 – 18000 MHz
18000 – 26500 MHz
26500 – 40000 MHz

with the receiving antenna set to horizontal and vertical polarization.

The following step-by-step procedure will be used:

1) Monitor the frequency range at a fixed antenna height and EUT azimuth

2) Rotate the EUT by 360 degrees to maximize the suspected highest azimuth signals. Note the amplitude and frequency of the signals. Orient the EUT azimuth for maximum emission.

3) Move the antenna over its full allowed range of travel to maximize the emission. If the signal or another one at a different frequency is observed to exceed the previously noted highest amplitude signal by 1 dB or more, return to step 2) with the antenna fixed at this height. Otherwise move the antenna to the height that repeats the highest amplitude observation and proceed.

4) Identify at least the three highest emissions per band by using the multimarker function of the spectrum analyzer. Make a hardcopy of the spectrum.

5) Repeat steps 1) through 4) for the other orthogonal axes of the EUT.

6) Repest steps 1) through 5) for other orthogonal antenna polarization.

Method for comparing spectrum analyzer output to the limit

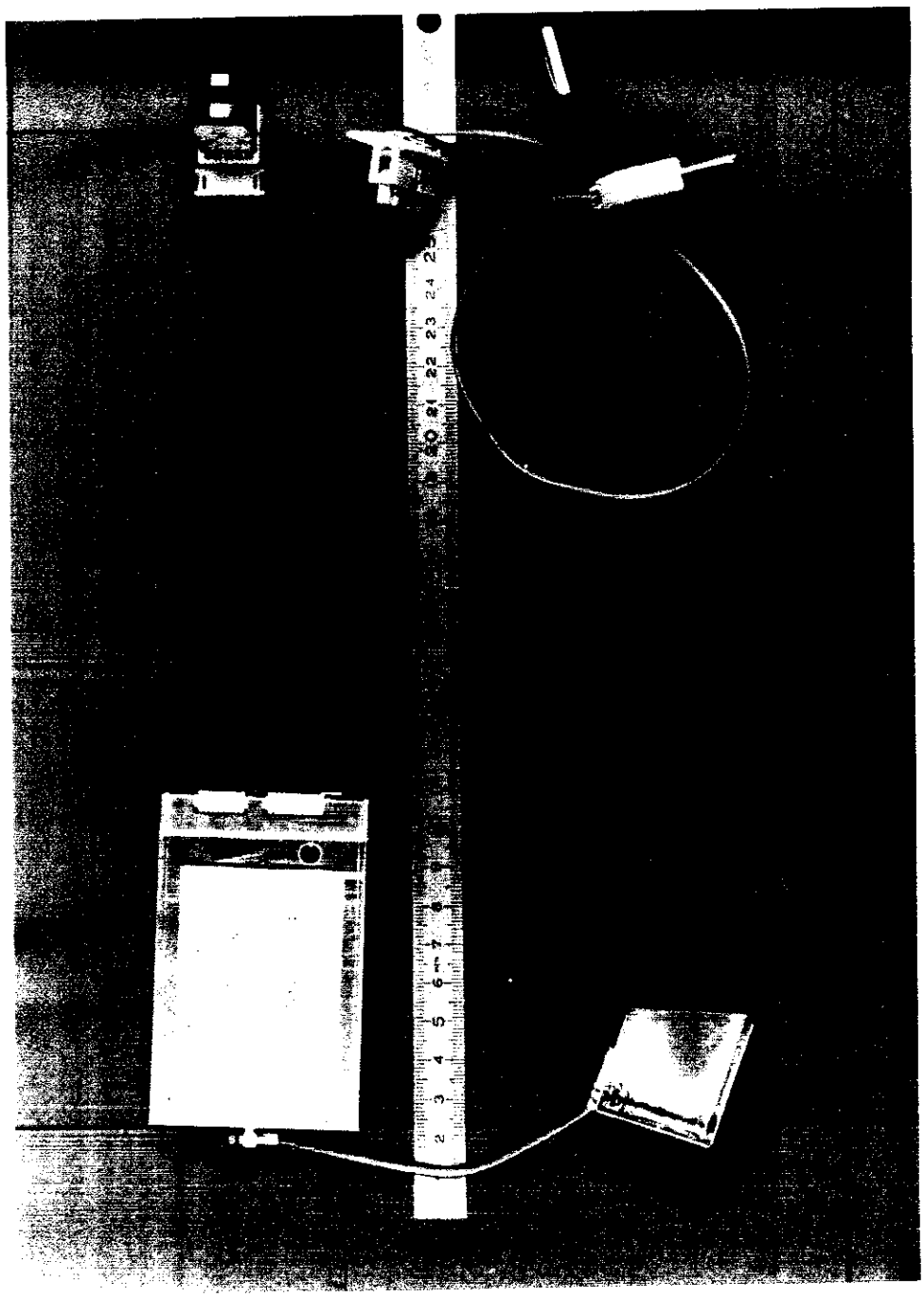
The following procedure will be used:

1) Maximize the emission according to 6.4.
2) Set the spectrum analyzer to **Max Hold**
3) Wait until the noise is fully maximized.
4) Put the marker on topof the investigated signal.
5) Note frequency and level of the investigated signal
6) Add antenna correction and cable loss to this level and compare it with the limit.

Spectrum analyzer setting for final test

Frequency range	Detector	Resolution Bandwidth	Video Bandwidth	Trace Mode
0.009 – 30 MHz	Quasi Peak	10 kHz	10 kHz	Max Hold
9 – 90 kHz 110 – 490 kHz	Average	10 kHz	100 Hz	Max Hold
30 – 1000 MHz	Quasi Peak	100 kHz	1 MHz	Max Hold
> 1000 MHz	Peak	1 MHz	1 MHz	Max Hold
> 1000 MHz	Average	1 MHz	1 kHz	Max Hold

6. Photographs Taken During Testing



7. List of Measurements

FCC Part 15 Subpart C			
Section(s):	**Test**	**Page**	**Result**
	Transmit mode (TX):		
15.249	Field strength of emissions (fundamental)	17	passed
15.249	Field strength of emissions (harmonics)	18	
	Receive Mode (RX)		
15.249	Field strength of emissions	19	

8. Test Results

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (Fundamental, TX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
2451.5	Peak	Horizontal	61.5	31.2	**92.7**	94.0	**1.3**
2466.5	Peak	Horizontal	61.3	31.2	**92.5**	94.0	**1.5**
2481.5	Peak	Horizontal	61.4	31.2	**92.6**	94.0	**1.4**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (Harmonics, TX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
4938.0	Peak	Horizontal	20.1	28.2	**48.3**	54.0	**5.7**
7403.6	Peak	Horizontal	19.2	31.1	**50.3**	54.0	**3.7**
9936.0	Peak	Horizontal	16.3	34.8	**51.1**	54.0	**2.9**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (RX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
2384.8	Peak	Vertical	18.5	31.2	**49.7**	54.0	**4.3**
2400.8	Peak	Vertical	20.4	31.2	**51.6**	54.0	**2.4**
2415.1	Peak	Vertical	22.0	31.2	**53.2**	54.0	**0.8**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

9. Equipment List

General Test Equipment and Ancillaries

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
001	Open area test site	EG 1		Senton
002	Shielded room	No. 1	1451	Senton
003	Shielded room	No. 2	1452	Senton
004	Semi-anechoic room	No. 3	1453	Siemens
005	Shielded room	No. 4	3FD 100 544	Euroshield
006	Shielded room	No. 5	5468	Ray Proof Division
007	Temperature test chamber	HT4010	07065550	Heraeus
008	Cable	RG214	1309	Senton
009	Cable	200CM_001	1357	Rosenberger
010	Cable	150CM_001	1479	Rosenberger
011	Cable	150CM_002	1480	Rosenberger
012	Cable set EG1	RG214	1189 - 1191	Senton
013	Cable set cabin no. 1	RG214		Senton
014	Cable set cabin no. 2	RG214		Senton
015	Cable set cabin no. 3	RG214		Senton
016	Cable set cabin no. 4	RG214		Senton
017	DC power supply	NGSM 32/10	203	Rohde & Schwarz
018	DC power supply	NGB	2455	Rohde & Schwarz
019	DC power supply	NGA	386	Rohde & Schwarz
020	Isolating transformer	RT 5A	10387	Grundig
021	Isolating transformer	RT 5A	10416	Grundig
022	Digital multimeter	199	463386	Keithley
023	Multimeter	HP E2373A	2927J03345	Hewlett Packard

Test Equipment and Ancillaries used for Emission Tests

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
101	EMI test receiver/ Spectrum Analyzer with Harmonic Mixer Set (26.5 - 40 GHz)	ESMI FS-Z-40	839379/013 839587/006 845881/005	Rohde & Schwarz
102	Spectrum analyzer	R 3271	05050023	Advantest
103	Test receiver	ESH 3	880112/032	Rohde & Schwarz
104	Test receiver	ESHS 10	860043/016	Rohde & Schwarz
105	Test receiver	ESV	881414/009	Rohde & Schwarz
106	Test receiver	ESVP	881120/024	Rohde & Schwarz
107	Audio analyzer	UPA	862954	Rohde & Schwarz
108	Radio communication service monitor	CMS 54	838384/030	Rohde & Schwarz
109	Power meter	NRVS	836856/015	Rohde & Schwarz
110	Power sensor	NRV-Z52	837901/030	Rohde & Schwarz
111	Power sensor	NRV-Z4	863828/015	Rohde & Schwarz
112	Preamplifier	ESV-Z3	860907/004	Rohde & Schwarz
113	Preamplifier	R14601		Advantest
114	Preamplifier	ACX/080-3030	32640	CTT
115	Preamplifier	ACO/180-3530	32641	CTT
116	Signal generator	SMS	872166/039	Rohde & Schwarz
117	Signal generator	HP 8673 D	2930A00966	Hewlett Packard
118	Waveform generator	HP 33120 A	US34005375	Hewlett Packard
119	UHF attenuator set	DPU	300771/075	Rohde & Schwarz
120	UHF attenuator set	DPU	300788/006	Rohde & Schwarz
121	Attenuator	4776-10	9412	Narda
122	Attenuator	4776-20	9503	Narda
123	Pulse limiter	ESH 3-Z2	1144	Rohde & Schwarz
124	Pulse limiter	11947 A	3107A00566	Hewlett Packard
125	V-network	ESH 3-Z5	862770/018	Rohde & Schwarz
126	V-network	ESH 3-Z5	894785/005	Rohde & Schwarz
127	V-network	ESH 3-Z5	830952/025	Rohde & Schwarz
128	V-network	ESH 3-Z6	830722/010	Rohde & Schwarz
129	V-network	NSLK 8127	8127152	Schwarzbeck
130	Artificial mains network	ESH 2-Z5	842966/004	Rohde & Schwarz
131	T-network	ESH 3-Z4	890602/011	Rohde & Schwarz
132	T-network	ESH 3-Z4	890602/012	Rohde & Schwarz

Test Equipment and Ancillaries used for Emission Tests (continued)

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
134	High impedance probe	TK 9416	01	Schwarzbeck
135	High impedance probe	TK 9416	02	Schwarzbeck
136	Current probe	ESH 2-Z1	863366/18	Rohde & Schwarz
137	Current probe	ESV-Z1	862553/3	Rohde & Schwarz
138	Absorbing clamp	MDS 21	80911	Lüthi
139	Absorbing clamp	MDS 21	79690	Lüthi
140	Loop antenna	HFH2-Z2	882964/1	Rohde & Schwarz
141	Biconical antenna	HK 116	836239/02	Rohde & Schwarz
142	Biconical antenna	HK 116	842204/001	Rohde & Schwarz
143	Log. periodic antenna	HL 223	834408/12	Rohde & Schwarz
144	Log. periodic antenna	HL 223	841516/023	Rohde & Schwarz
145	Horn antenna 1 - 18 GHz	3115	9508-4553	Emco
146	Horn antenna 1.7 - 2.6 GHz	3160-03	9112-1003	Emco
147	Horn antenna 2.6 - 3.95 GHz	3160-04	9112-1001	Emco
148	Horn antenna 3.95 - 5.85 GHz	3160-05	9112-1001	Emco
149	Horn antenna 5.85 - 8.2 GHz	3160-06	9112-1001	Emco
150	Horn antenna 8.2 - 12.4 GHz	3160-07	9112-1008	Emco
151	Horn antenna 12.4 - 18 GHz	3160-08	9112-1002	Emco
152	Horn antenna 18 - 26.5 GHz	3160-09	9403-1025	Emco
152	Horn Antenna 26.5 - 40 GHz	3160-10	9704-1047	Emco
153	Stub tuner	904N	04	Narda
154	Mains analyzer	DPA 503	496 - 02	EM Test
155	Controller	HIS 500	X71010	EM Test
156	AC Amplifier	ACS 500	HK51736	EM Test
157	Mains impedance	AIF 500	X71062	EM Test
158	Dual Directional Coupler	778D	0826A01562	Hewlett Packard
159	Data Analyzer	DA-10	J-0048	Wandel & Goltermann

Test Equipment and Ancillaries used for Immunity Tests

No.	Type	Model	Serial Number	Manufacturer
201	ESD simulator	NSG 435	000290	Schaffner
202	EFT generator	NSG 1025	3020	Schaffner
203	Ultra compact simulator	UCS	1195-30	EM Test
204	Coupling clamp	CDN 8014	131	Schaffner
205	Coupling clamp	SL 400-071D	007	Schaffner
206	Coupling filter	FP 16	080554-14-84	Haefely
207	Oscilloscope	2225	203550	Tektronix
208	Signal generator	SMT 03	838129/029 837533/032	Rohde & Schwarz
209	Power amplifier	150 L	8835	Amplifier Research
210	Power amplifier	200 W 1000	12904	Amplifier Research
211	Power meter	NRVS	838624/016	Rohde & Schwarz
212	E-field generator	3107 B	2302	Emco
213	Biconical antenna	VHBA 9123	1018	Schwarzbeck
214	Log. periodic antenna	AT 1080	12834	Amplifier Research
215	Isotropic field probe	FP 2000	12847	Amplifier Research
216	Isotropic field monitor	FM 2004	12632	Amplifier Research
217	Ultra compact simulator	UCS	1195-30	EM Test
218	Surge generator	NSG 650	1679204	Schaffner
219	Coupling network	CDN 110	1649135	Schaffner
220	Coupling network	CDN 115	132	Schaffner
221	Dropping resistor	INA 110-40	121	Schaffner
222	Oscilloscope	HM 408	9005 F 3144	Hameg
223	Signal generator	SMX	883184/018	Rohde & Schwarz
224	Power amplifier	411 LA	299	ENI
225	Power amplifier	HVV 250	836956/004	Rohde & Schwarz
226	Power meter	NRV	863825/018	Rohde & Schwarz
227	Coupling network	FCC - 801- M3-25	117	FCC
228	Coupling network	FCC - 801- M4-25	17	FCC
229	Coupling network	FCC - 801- M5-25	16	FCC
230	Coupling network	FCC - 801- AF4	47	FCC
231	Coupling network	FCC - 801- AF4	48	FCC
232	Coupling network	FCC - 801-T4	68	FCC
233	Coupling network	FCC - 801- C1	64	FCC
234	Coupling network	CDN 801-M3	--	Senton
235	Coupling network	CDN 801-S37	--	Senton
236	Current clamp	FCC-120-9B	15	FCC
237	EM injection clamp	EM 101	35354	Lüthi
238	Ultra compact simulator	UCS 500	1195-30	EM Test
239	Transformer			Senton
240	Oscilloscope	54602B	US35060304	Hewlett Packard

10. Charts Taken During Testing

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

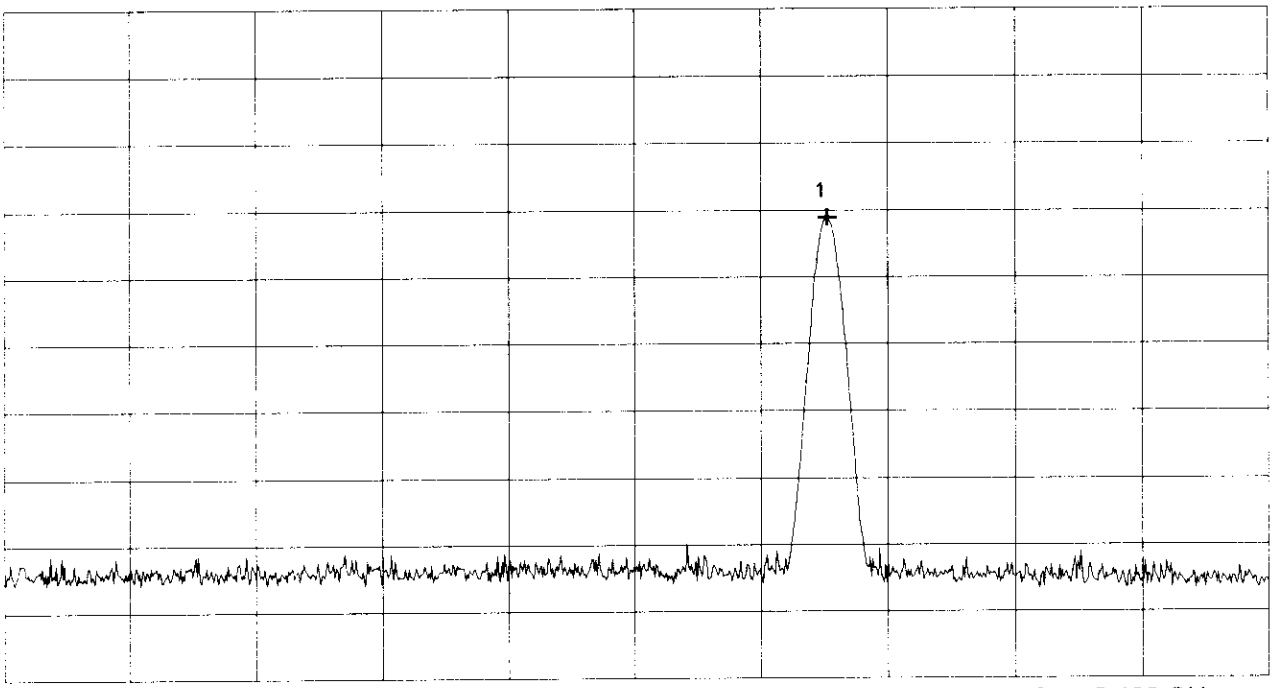
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 21 (2451.5 MHz)

Horizontal Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.452178 GHz	61.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Date:

Project-No.:

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

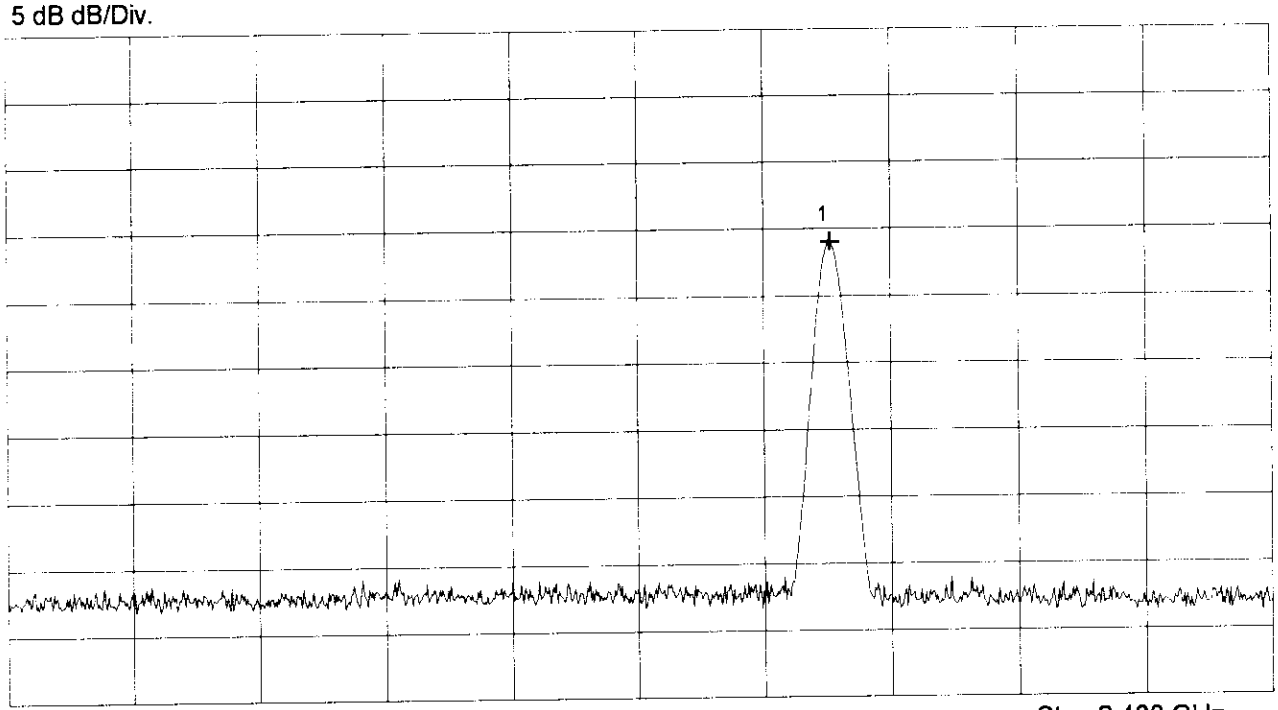
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 21 (2451.5 MHz)

Vertical Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.452178 GHz	61.06 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

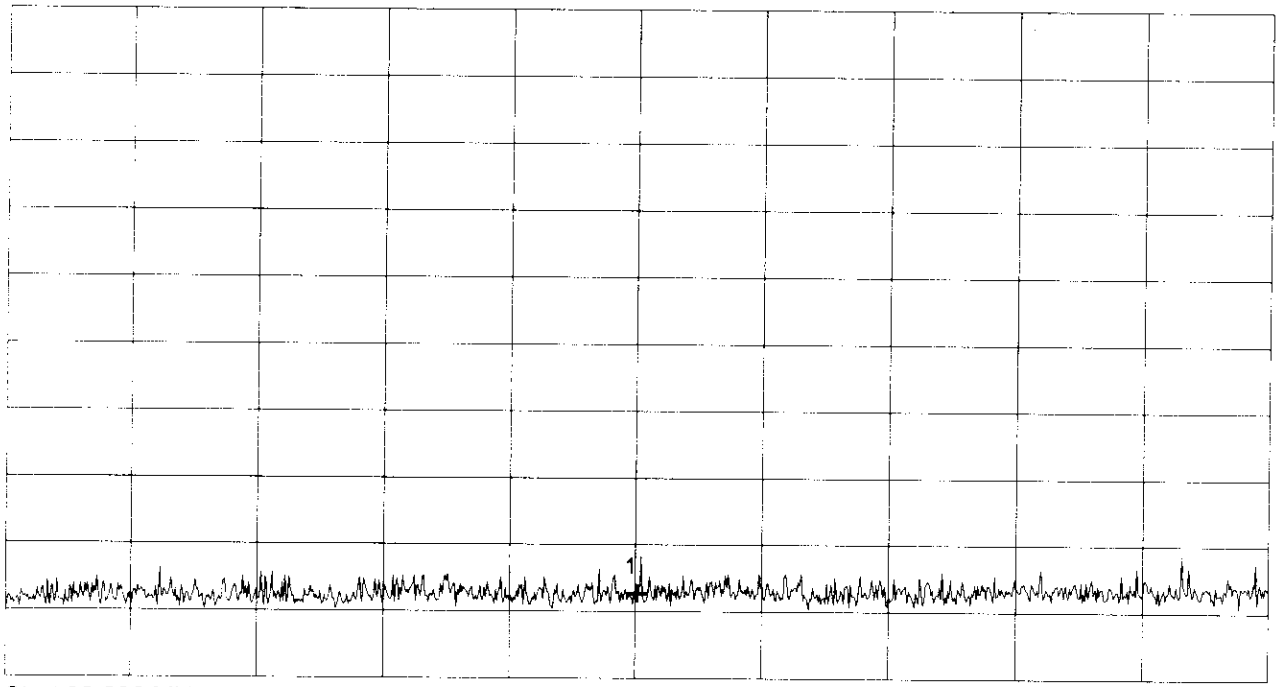
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	3.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

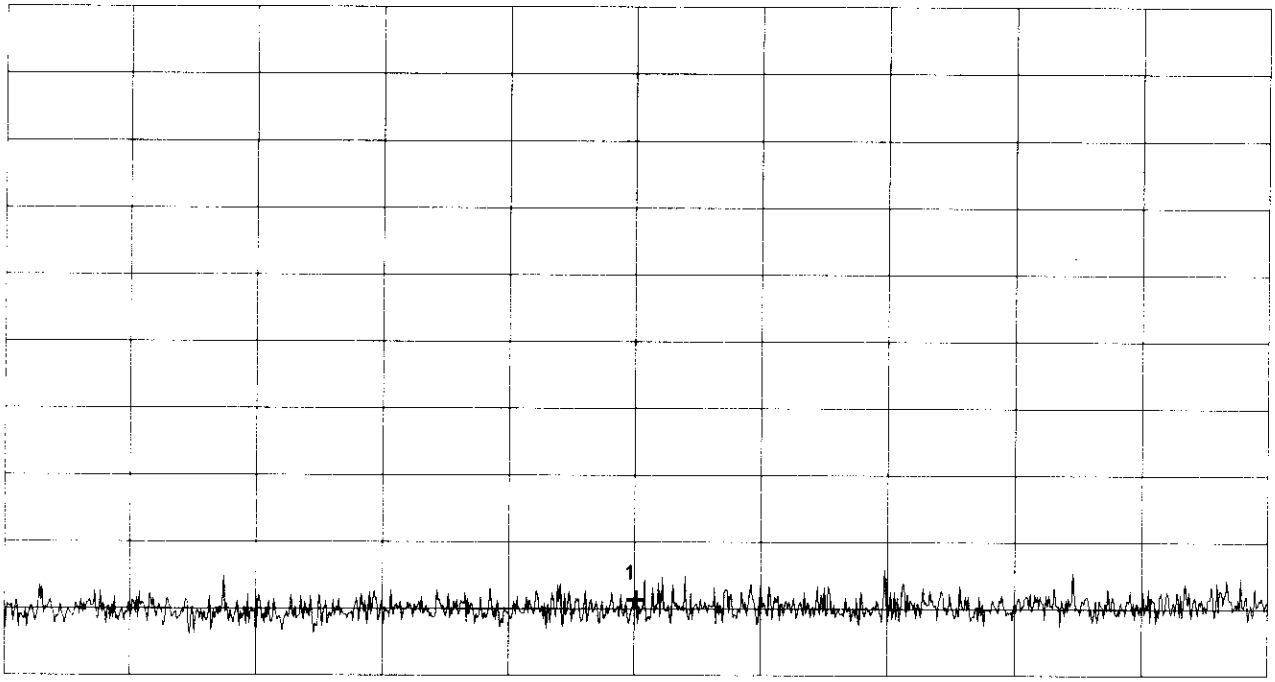
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.67 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

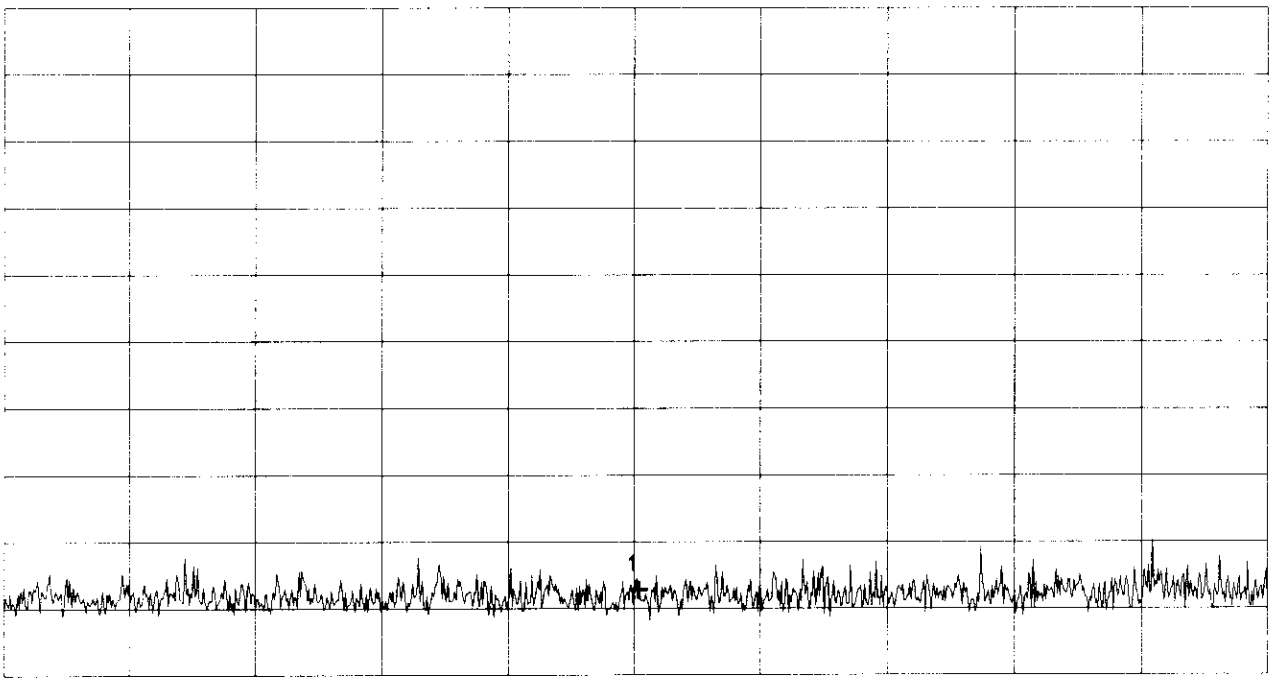
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	3.39 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

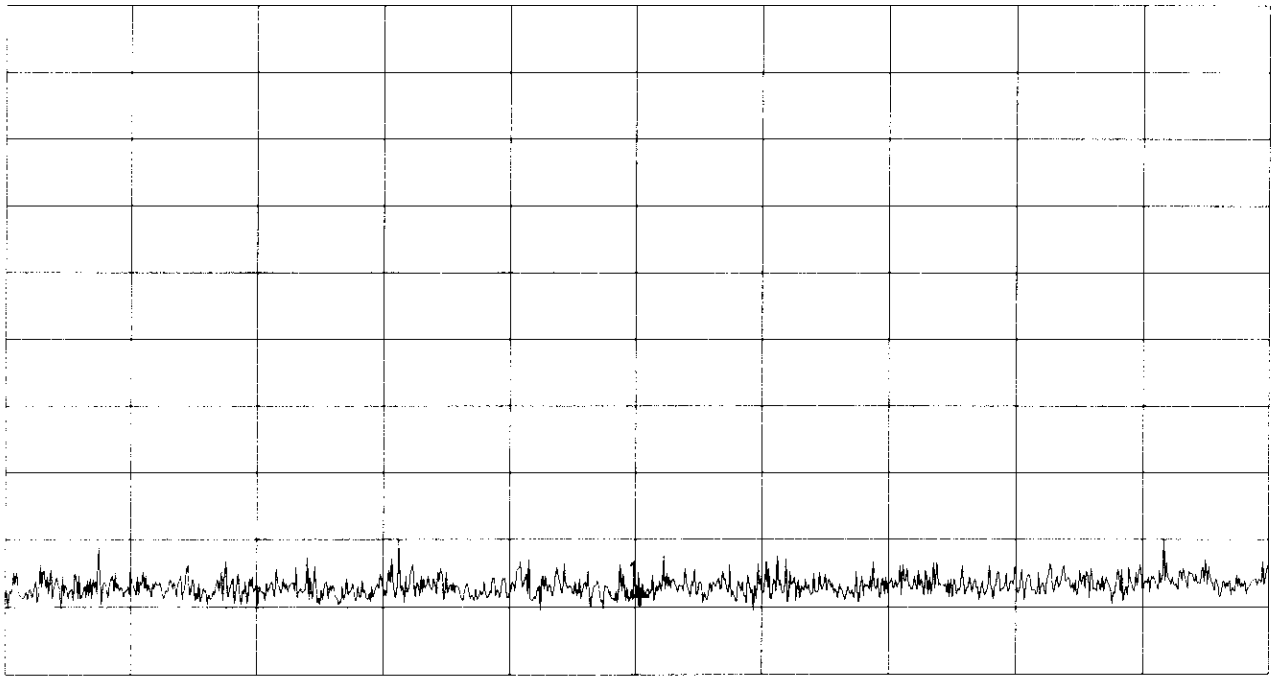
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	2.76 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

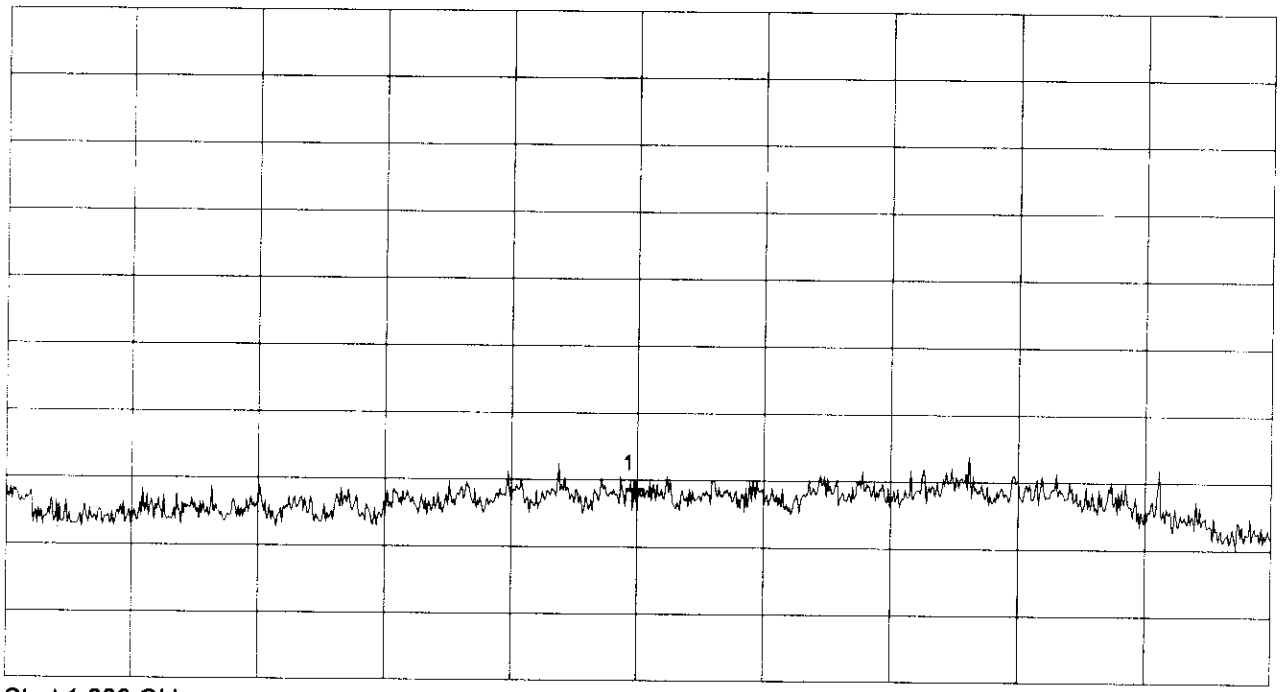
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.796444 GHz	5.75 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

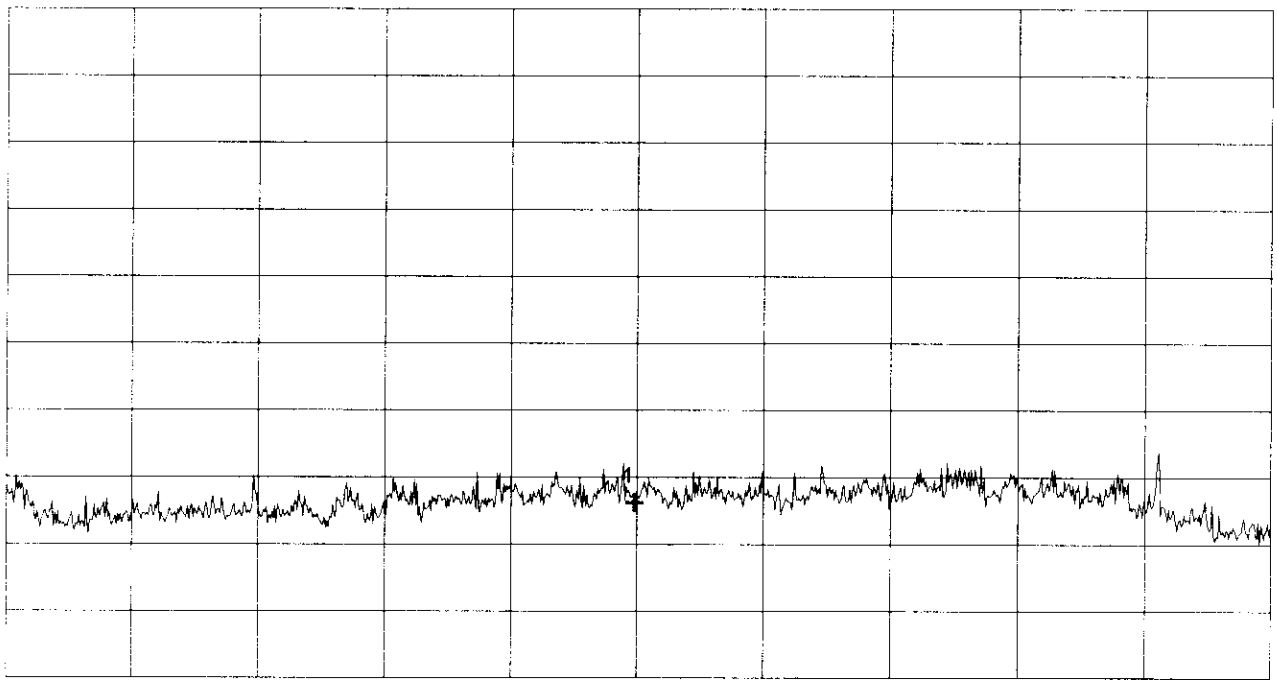
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 21 (2451.5 MHz) Test distance 1 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.796444 GHz	4.63 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

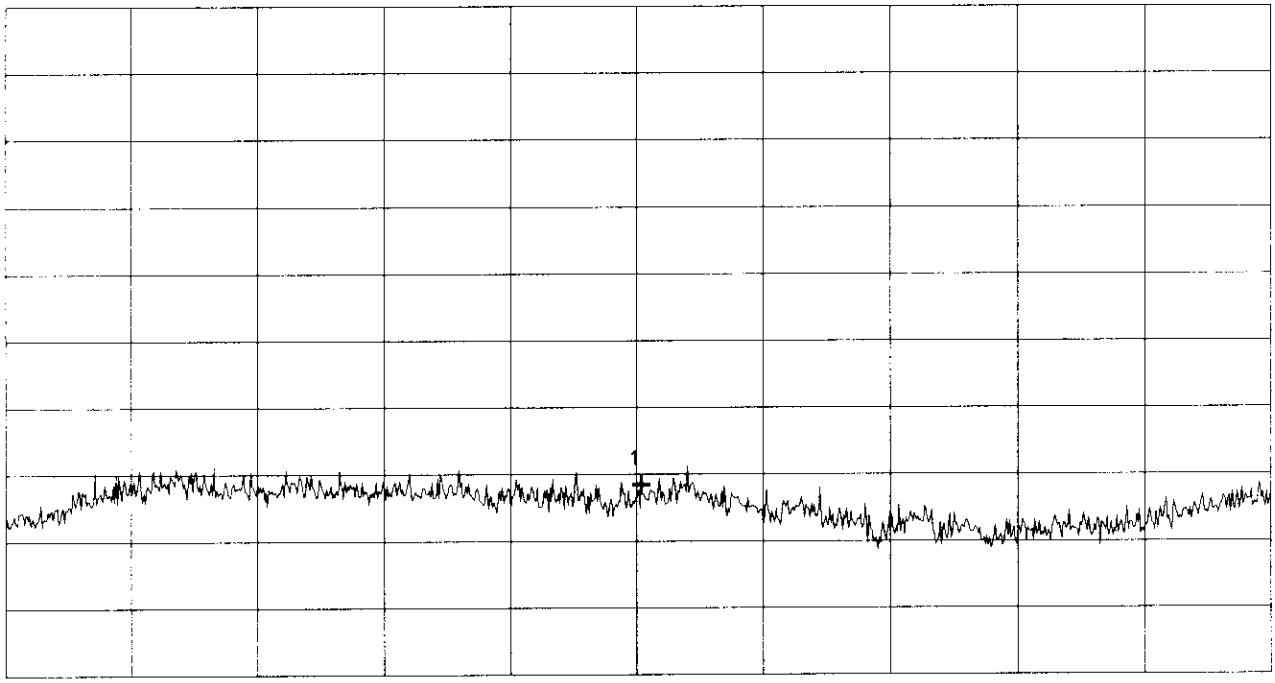
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 1 m Vertical Polarization
	Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.279500 GHz	5.73 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

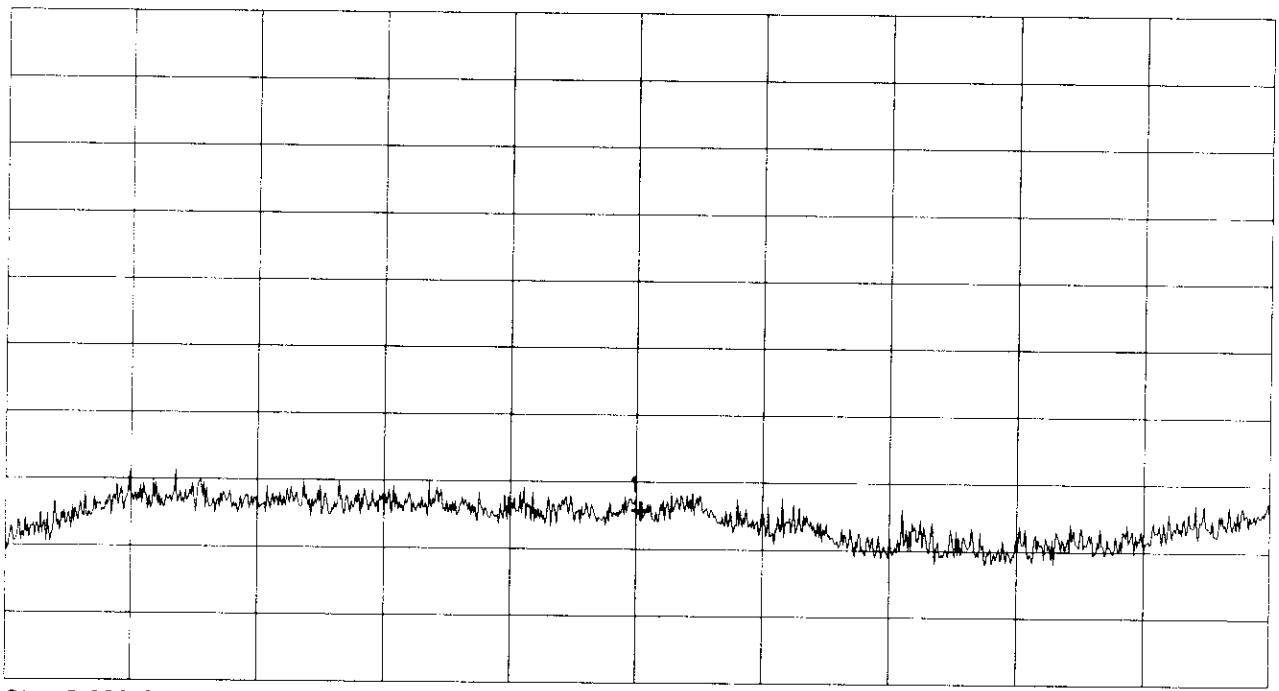
Test distance 1 m
Horizontal Polarization

Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.279500 GHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

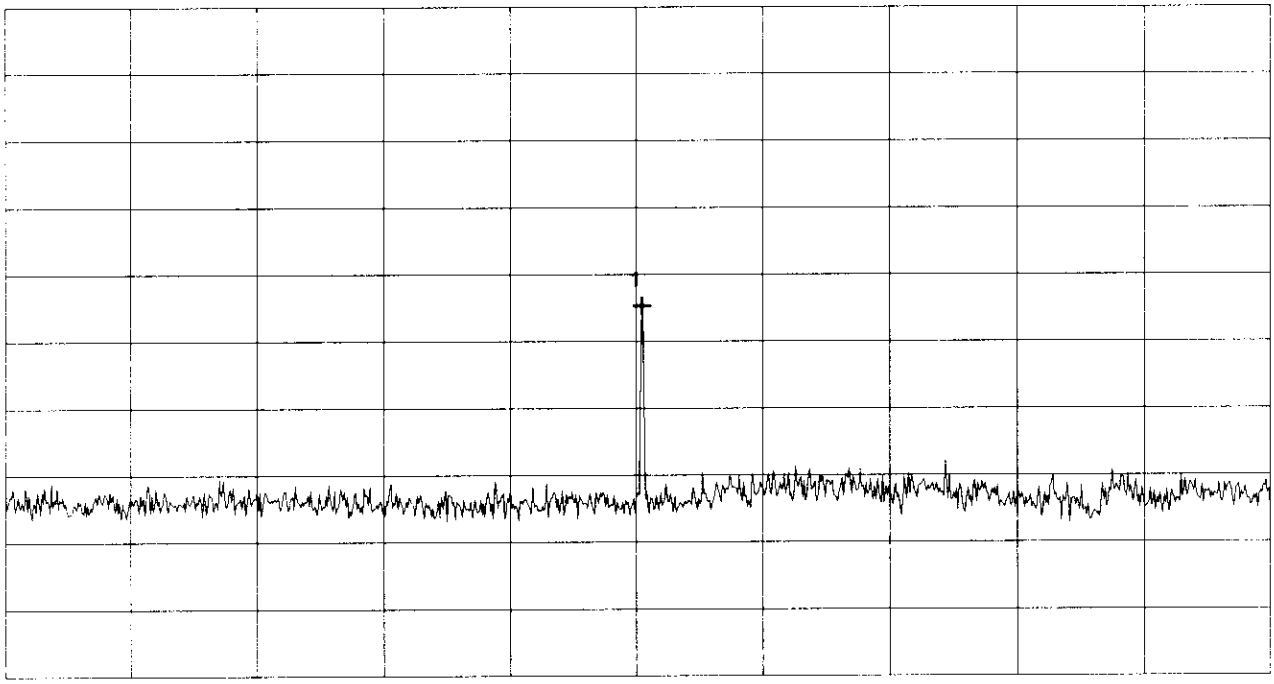
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 1 m Vertical Polarization
	Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.908444 GHz	19.15 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

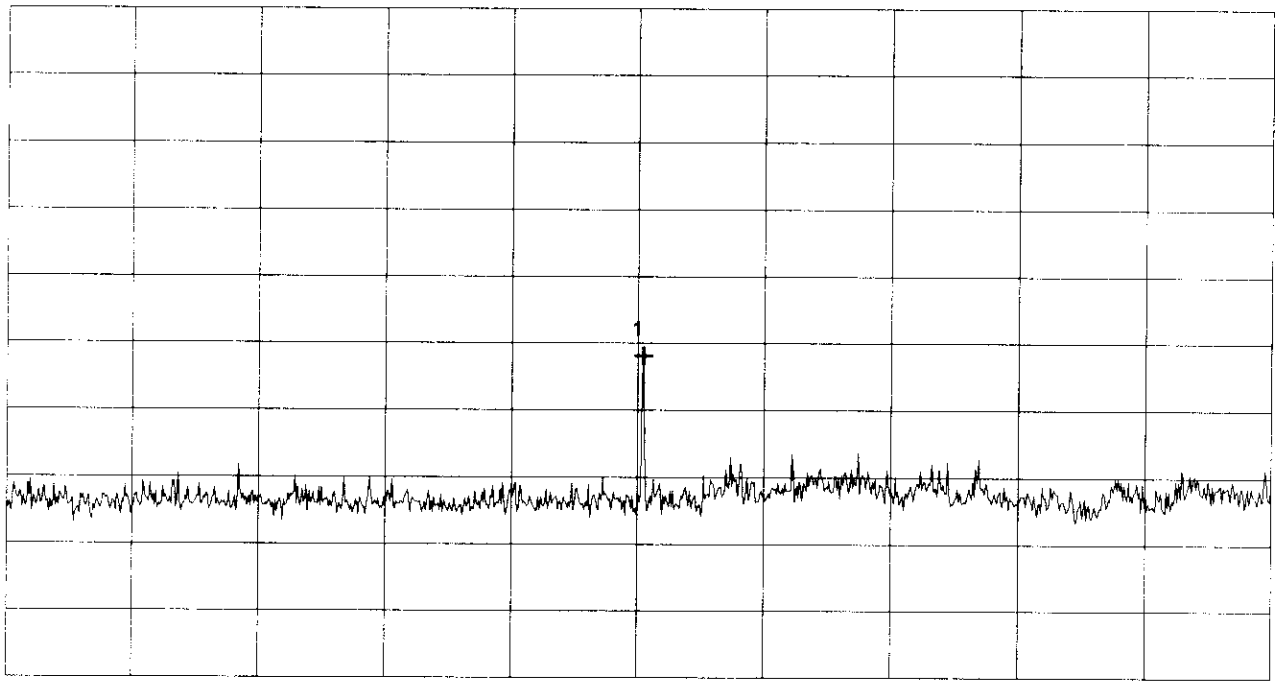
Test distance 1 m
Horizontal Polarization

Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.908444 GHz	15.53 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

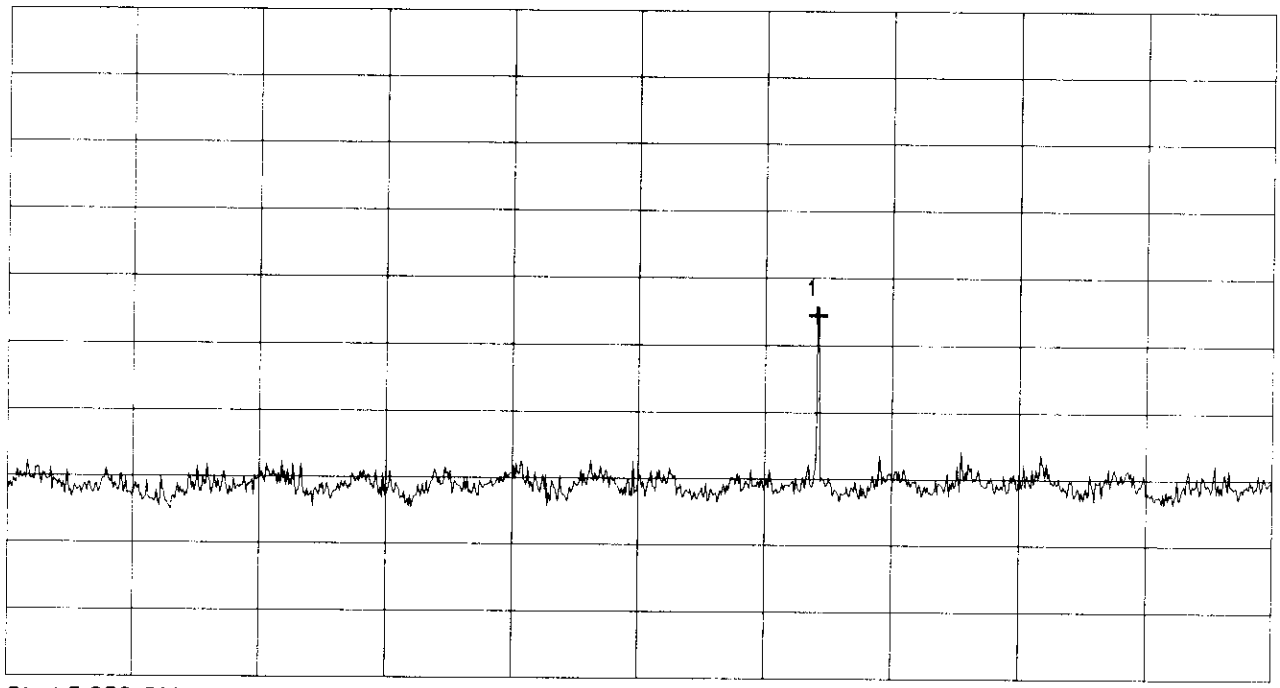
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.356611 GHz	18.74 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

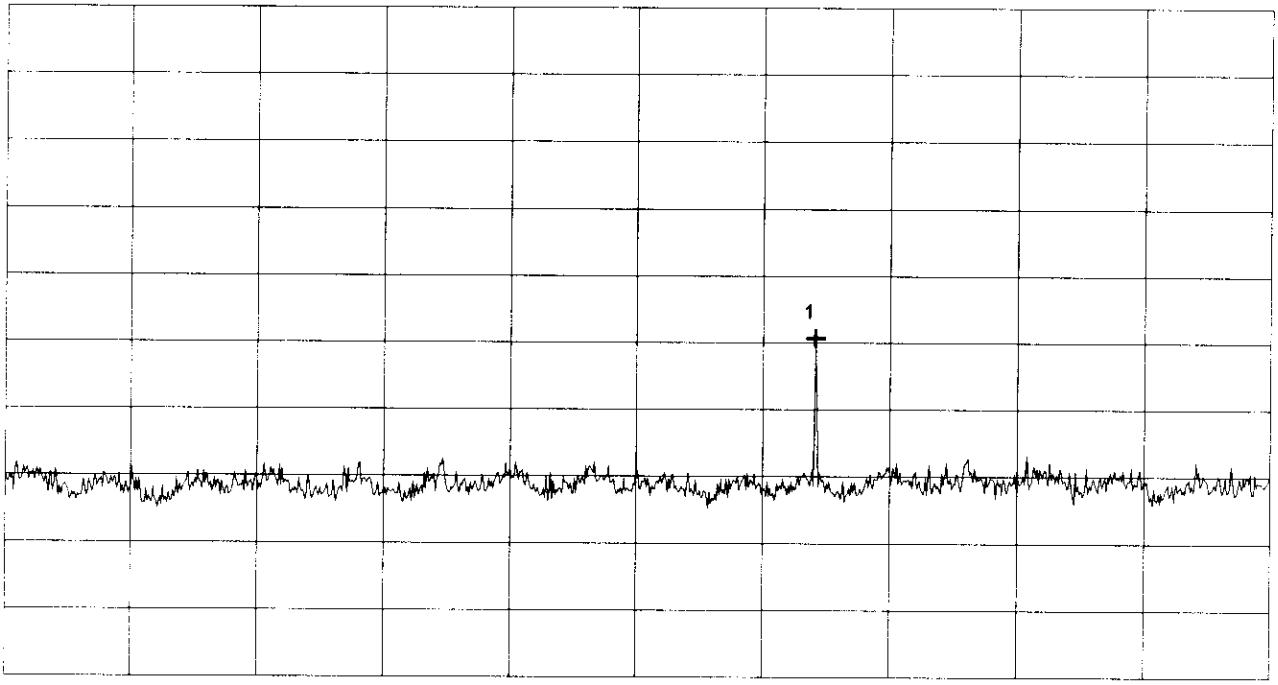
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.356611 GHz	16.84 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

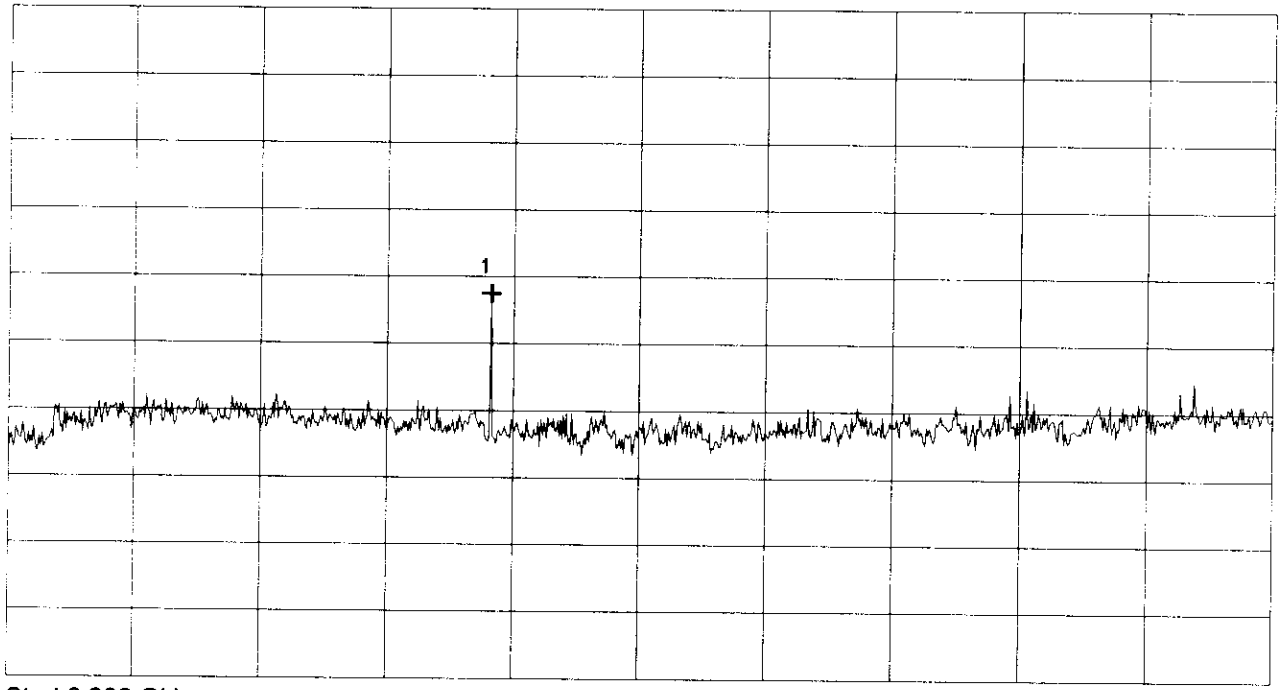
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.805333 GHz	15.75 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

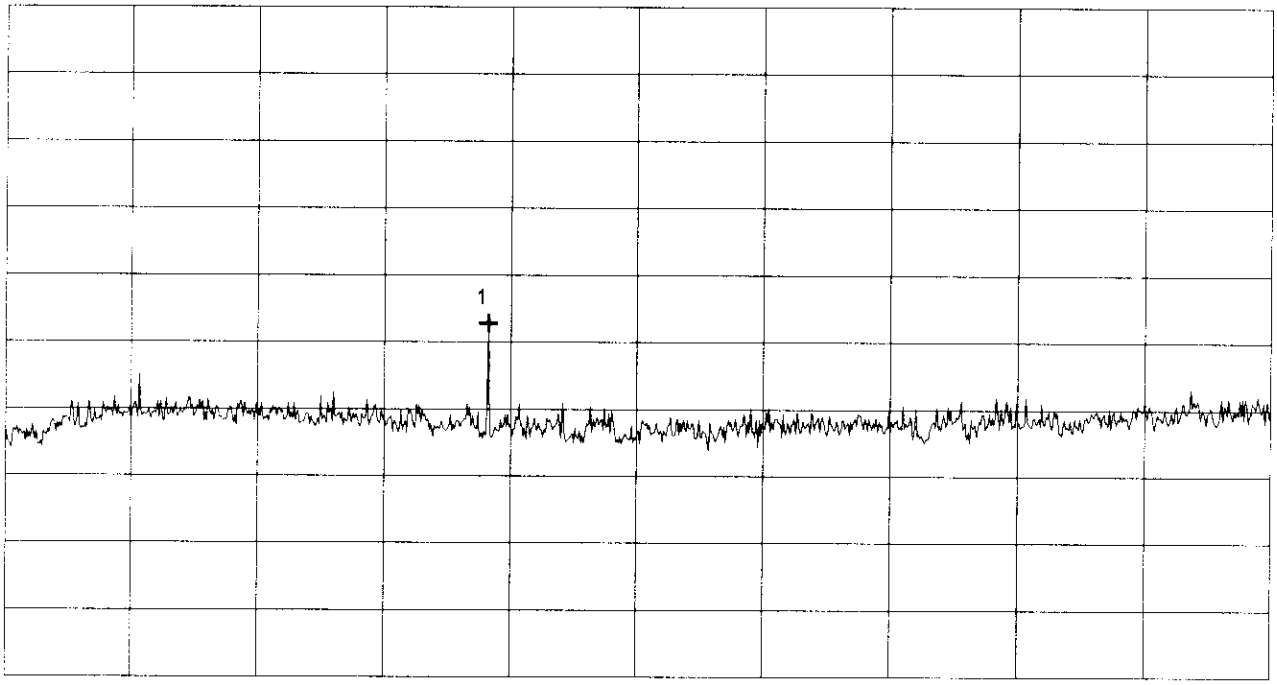
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.805333 GHz	13.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

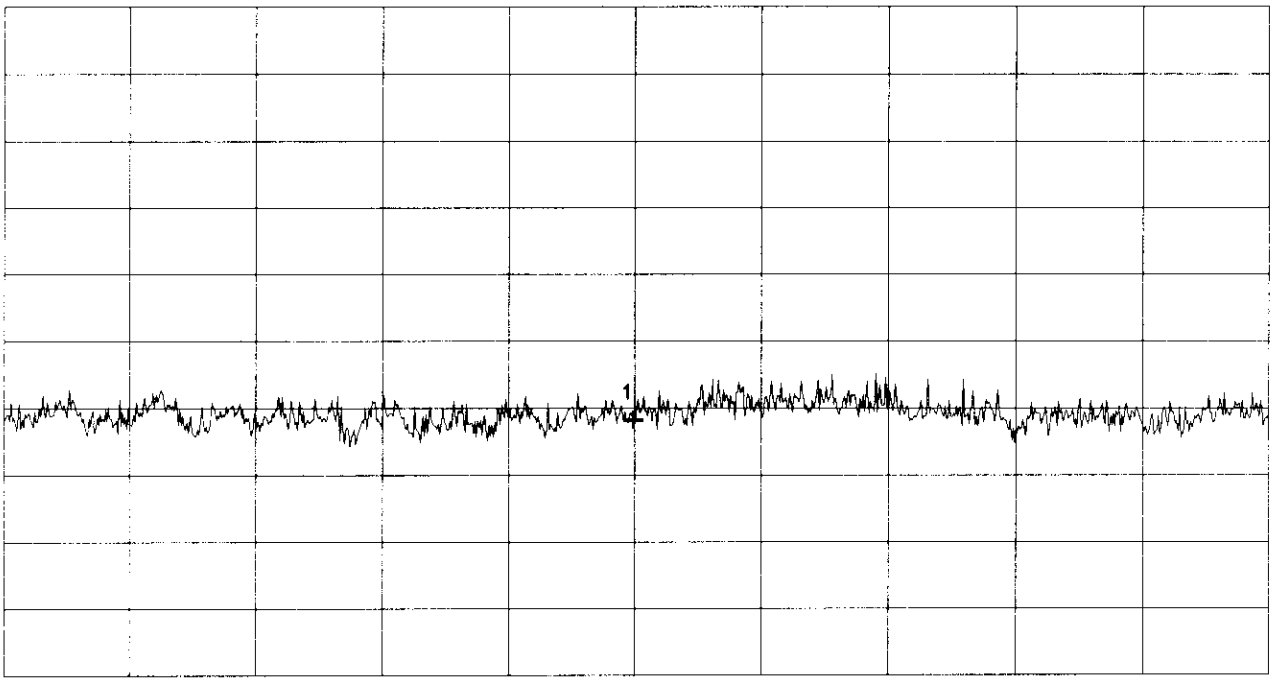
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.14 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

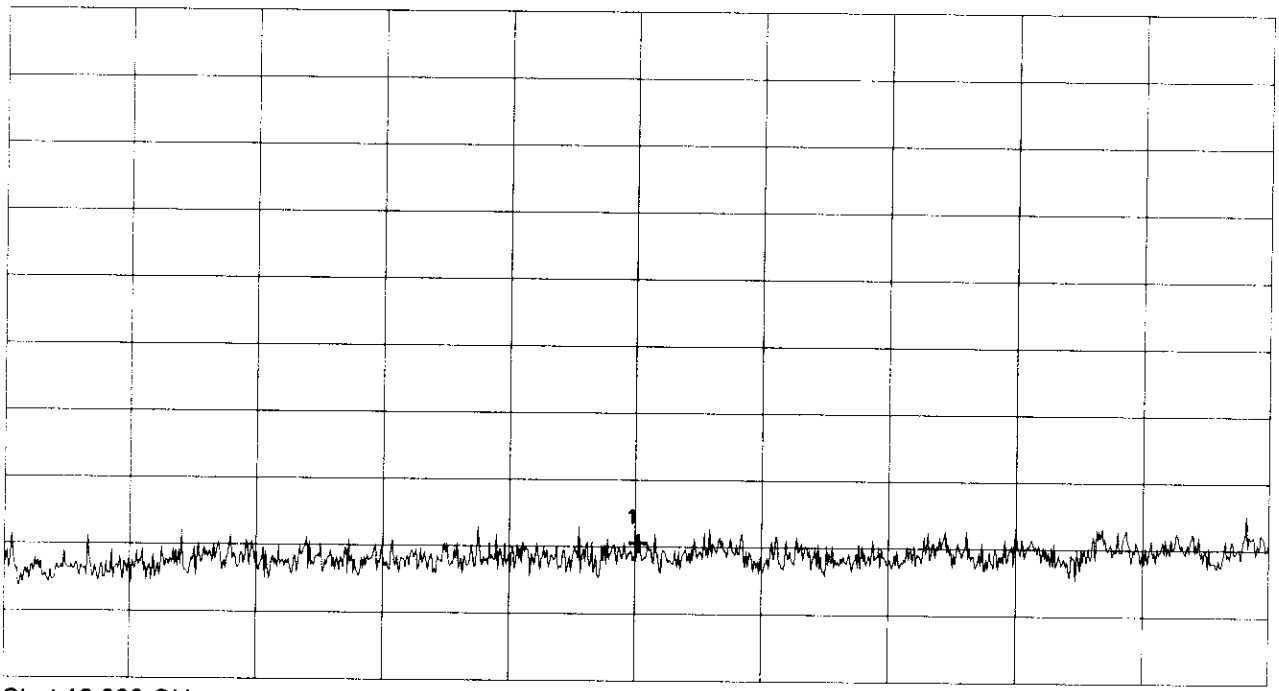
Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.515556 GHz	7.25 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

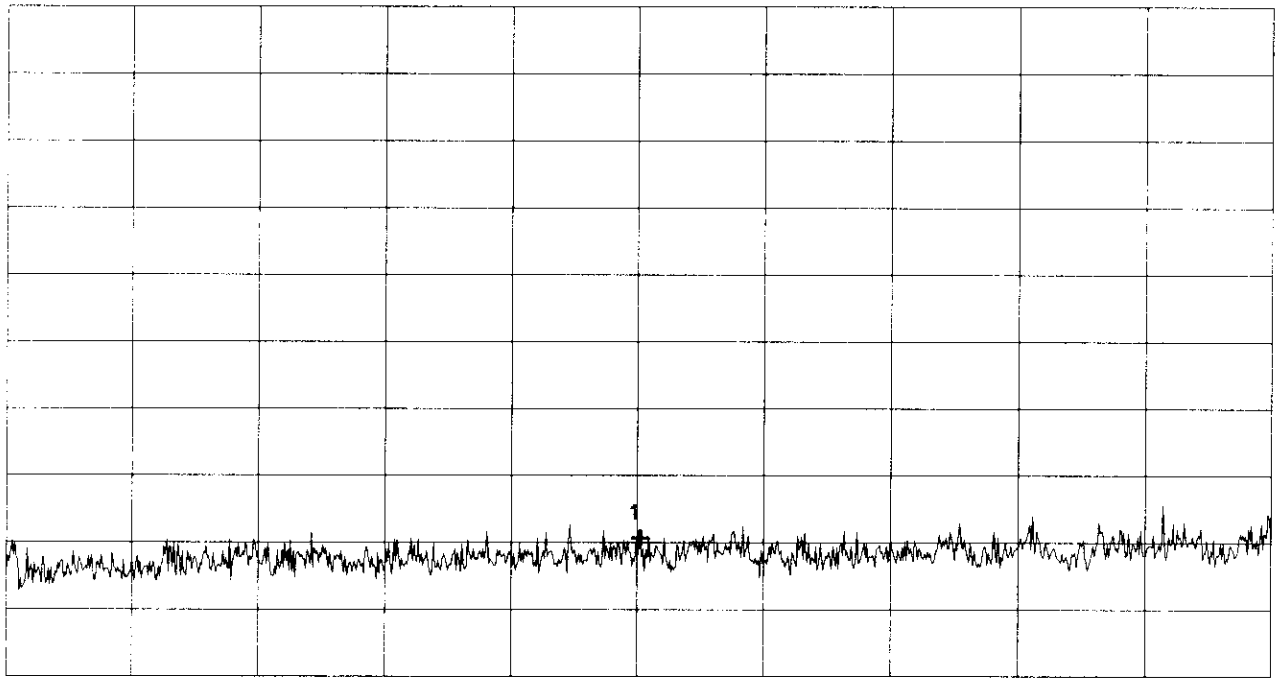
Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 1 m Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.515556 GHz	7.29 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

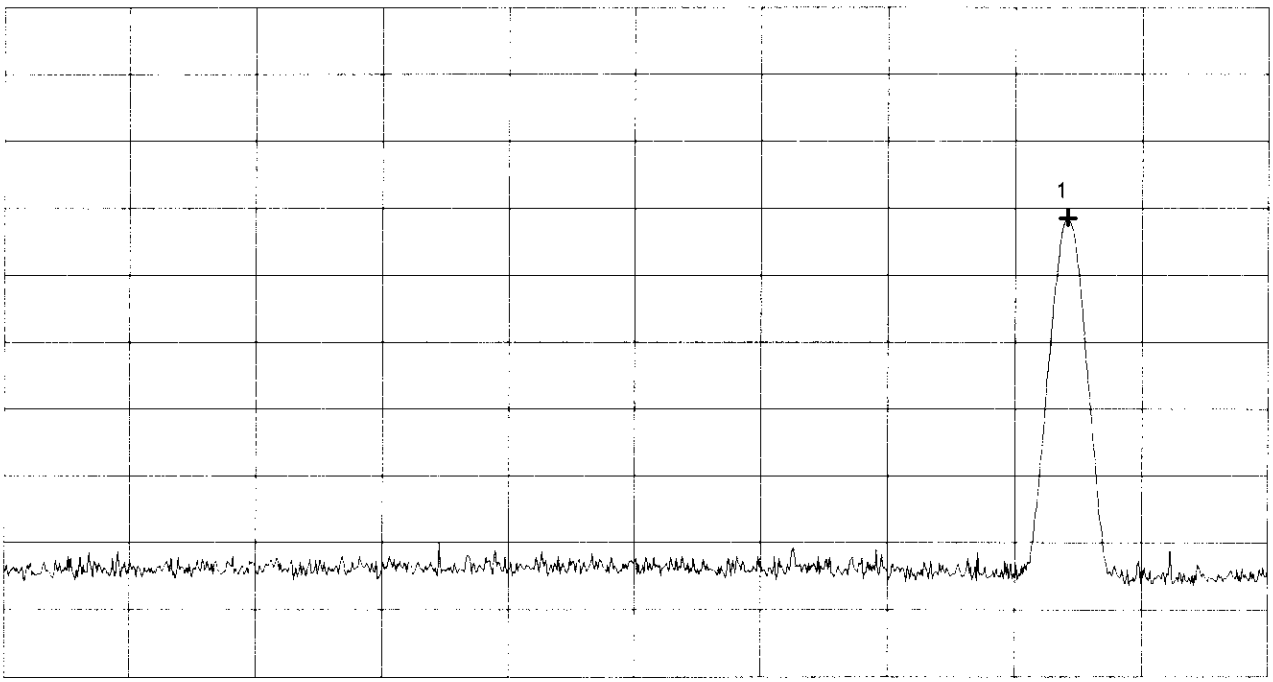
Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emissions Measurements according to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC TX Mode, Channel 27 (2466.5 MHz) Horizontal Polarization, Test distance 3 m
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	61.29 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:	Project-No.:
Date:	Page of pages

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

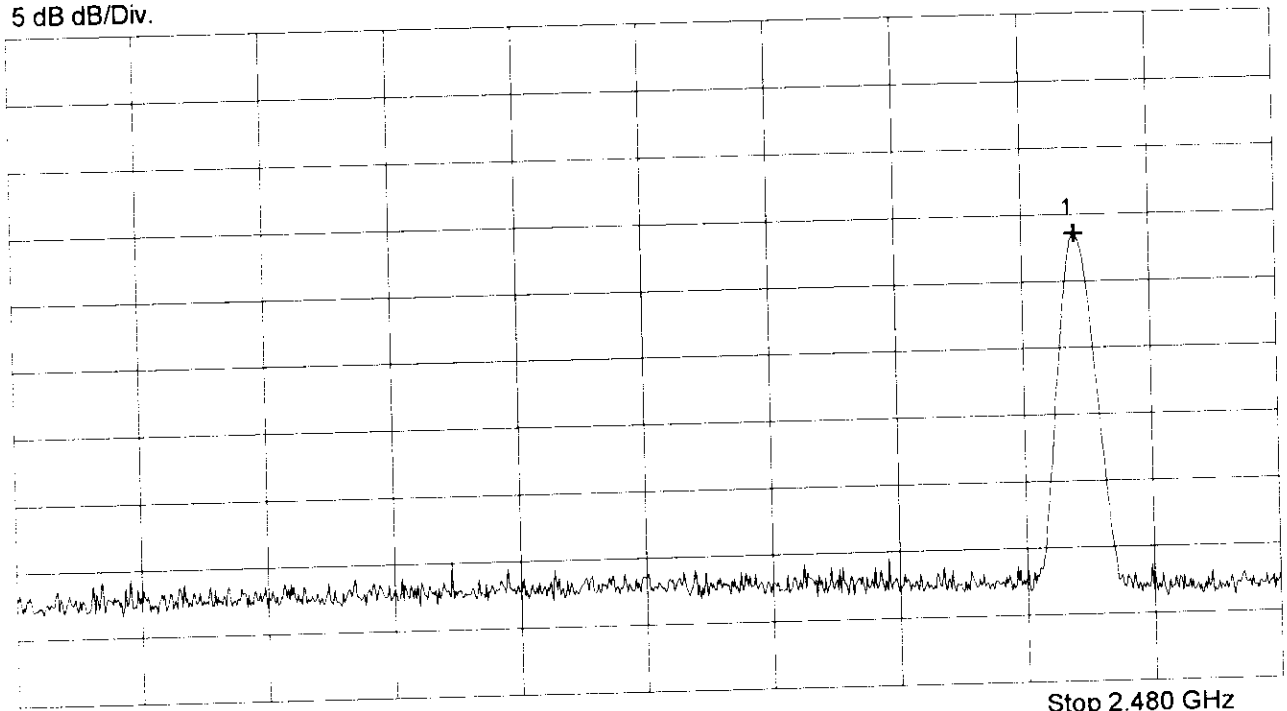
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 27 (2466.5 MHz)

Vertical Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	60.61 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

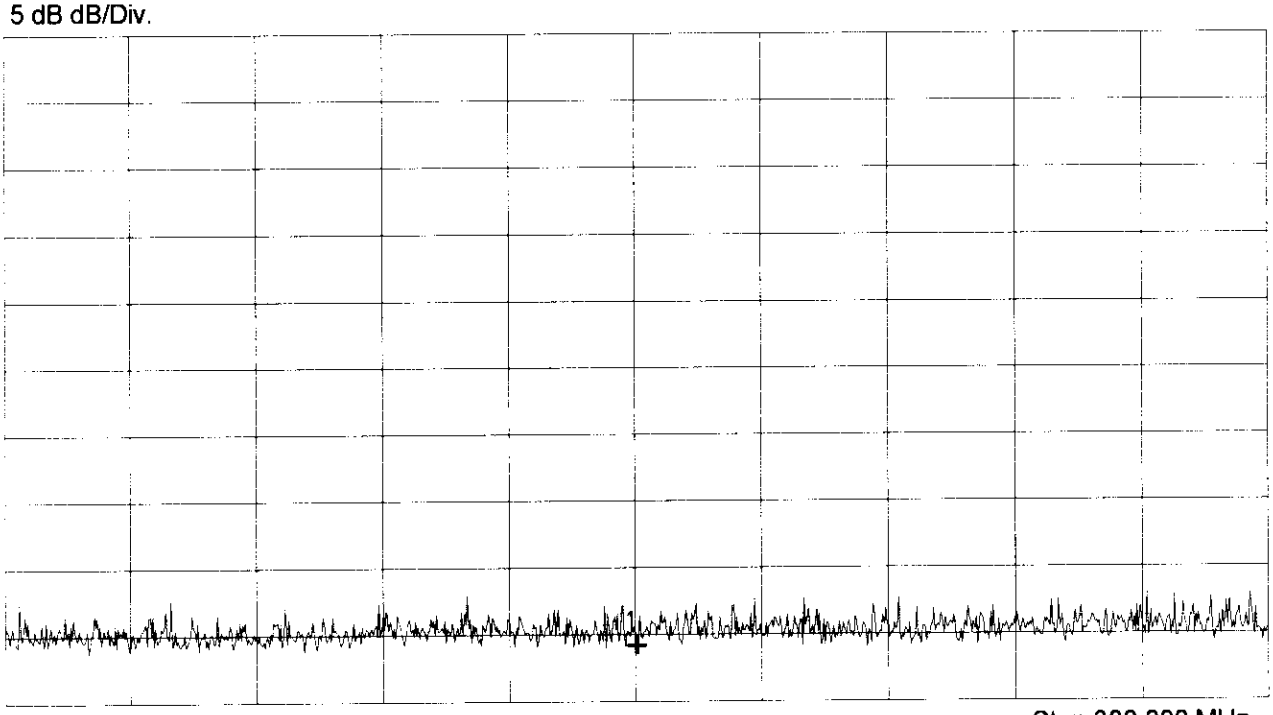
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	1.18 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

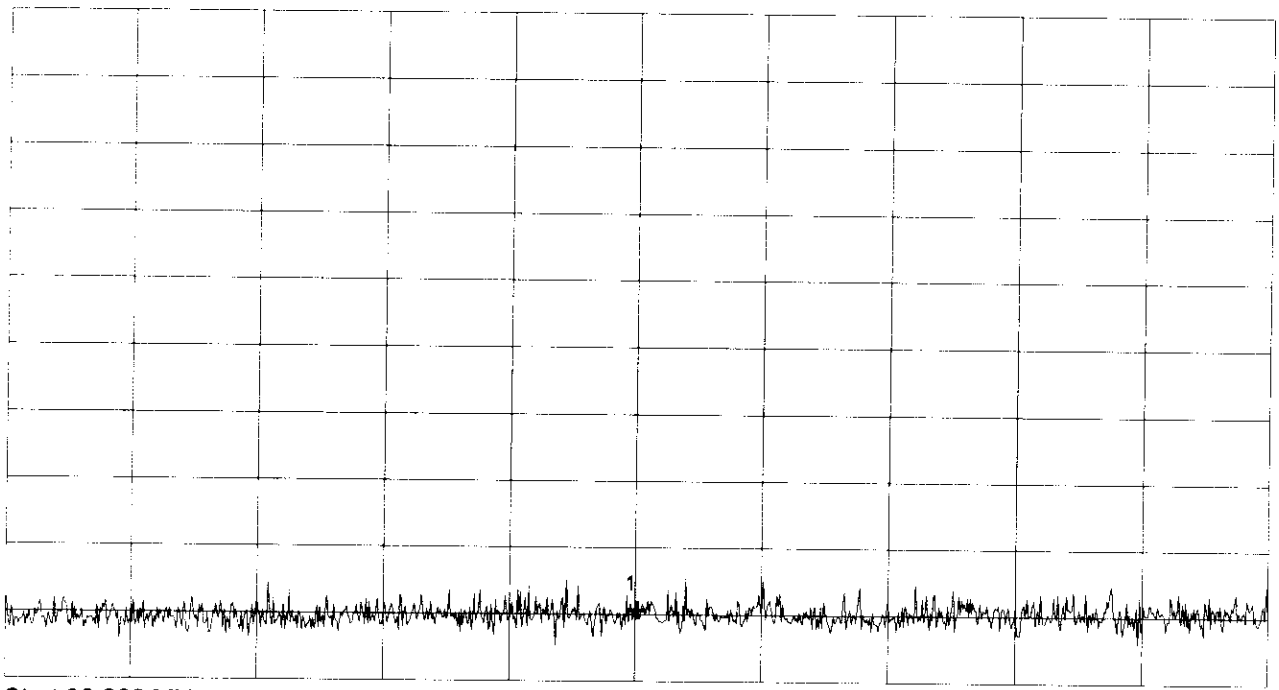
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

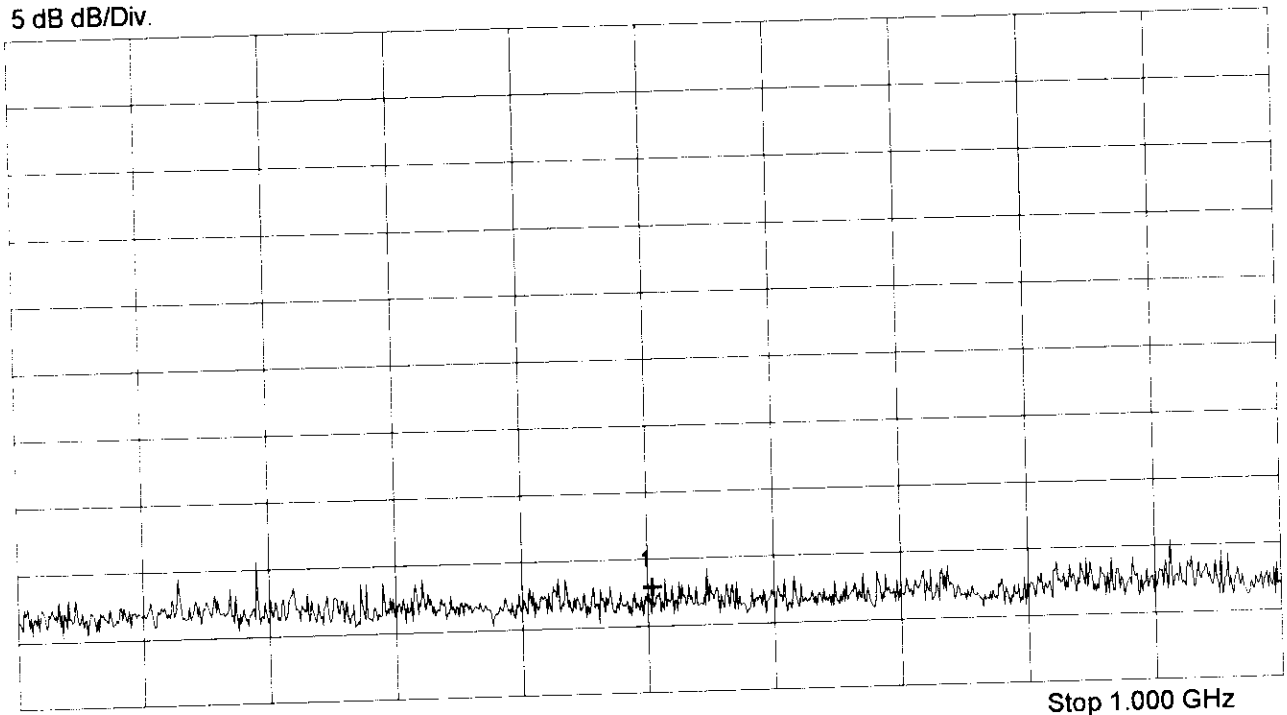
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

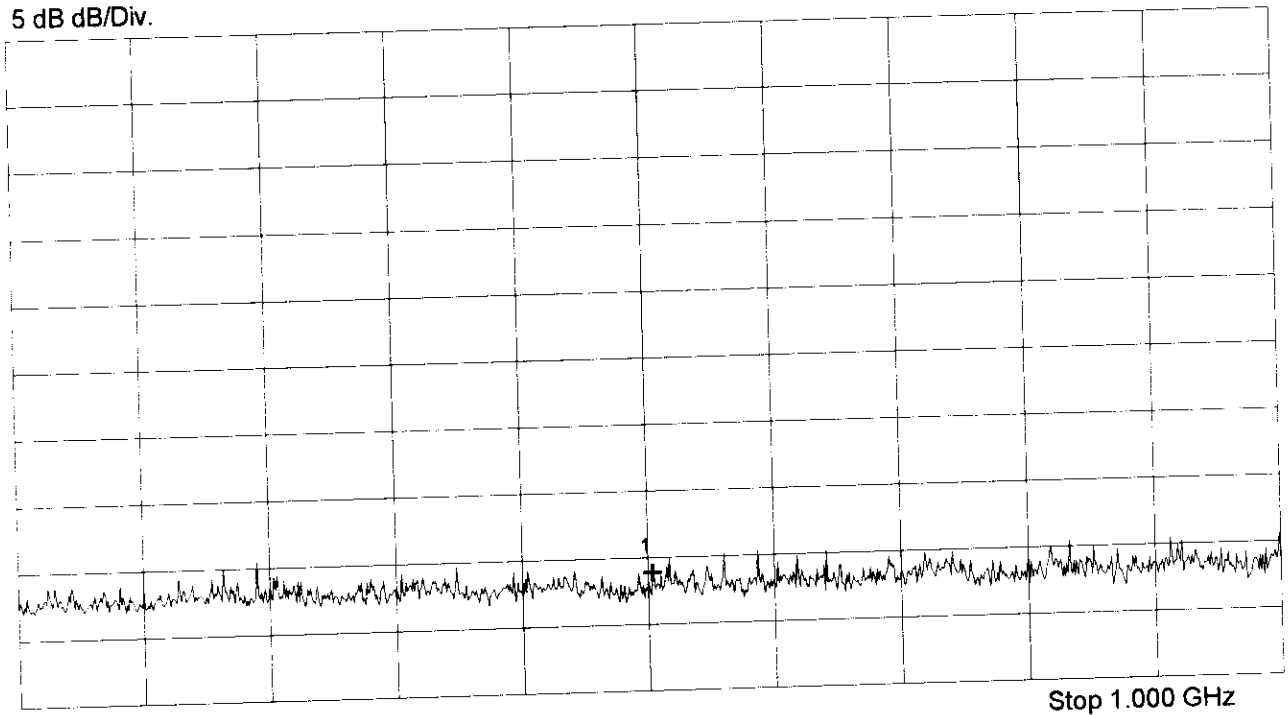
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	5.87 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

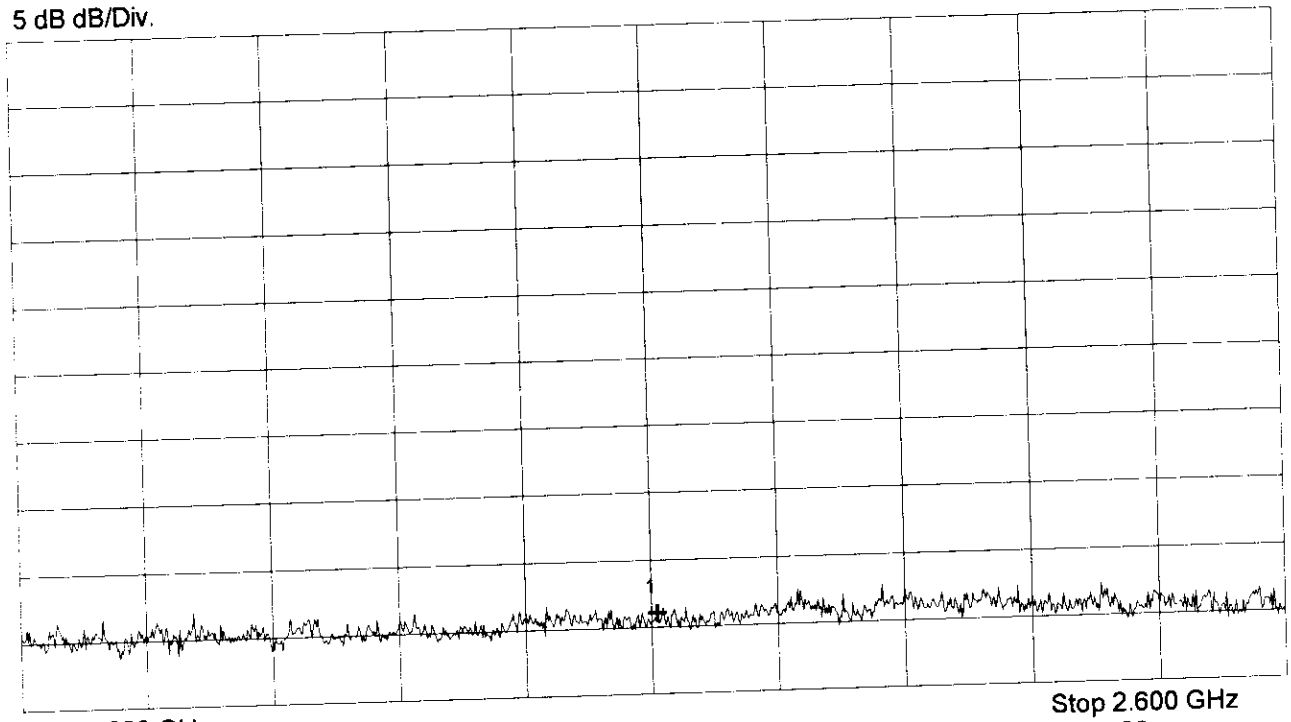
Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.807111 GHz	18.01 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

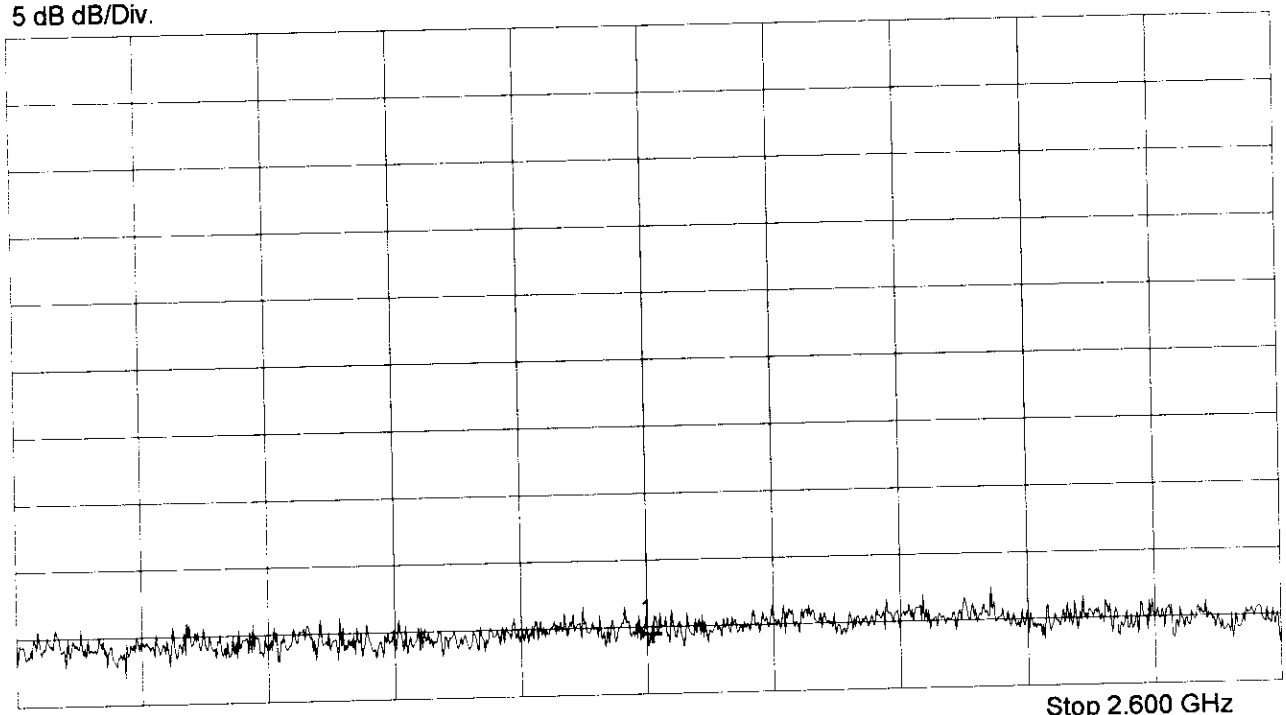
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Notch Filter on TX Frequency

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.807111 GHz	16.44 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

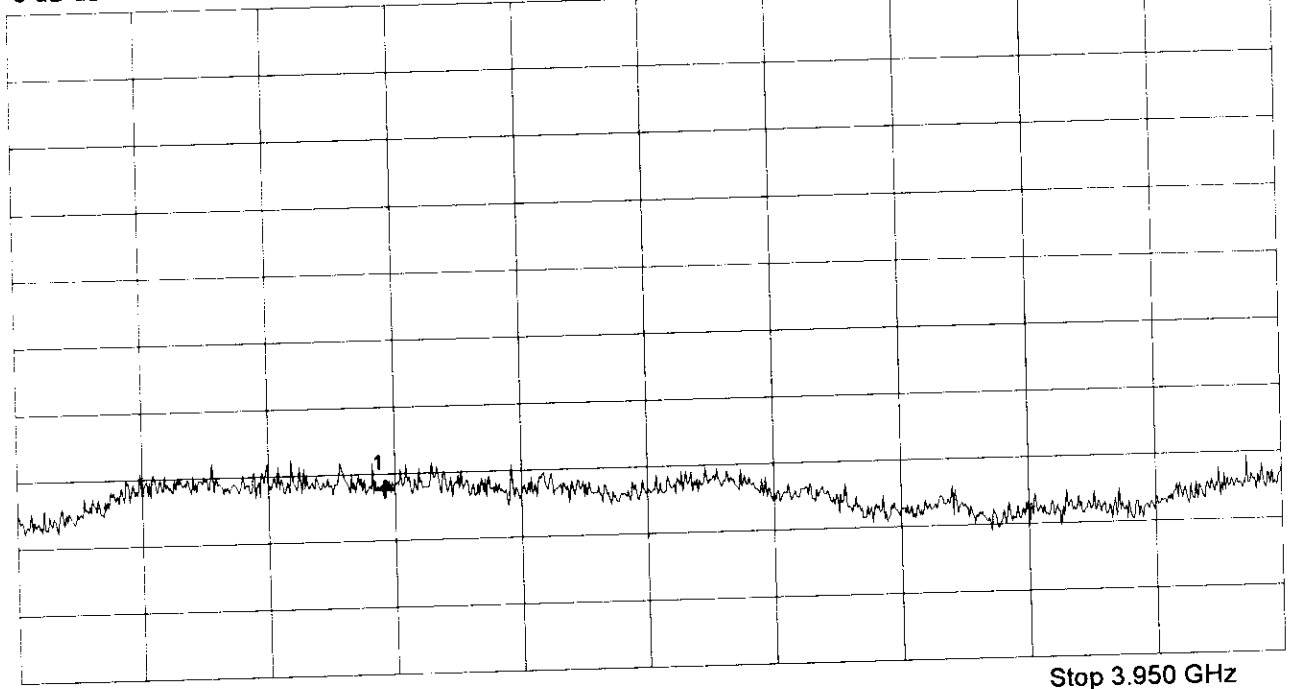
Test distance 3 m
Vertical Polarization

Notch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.994500 GHz	5.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

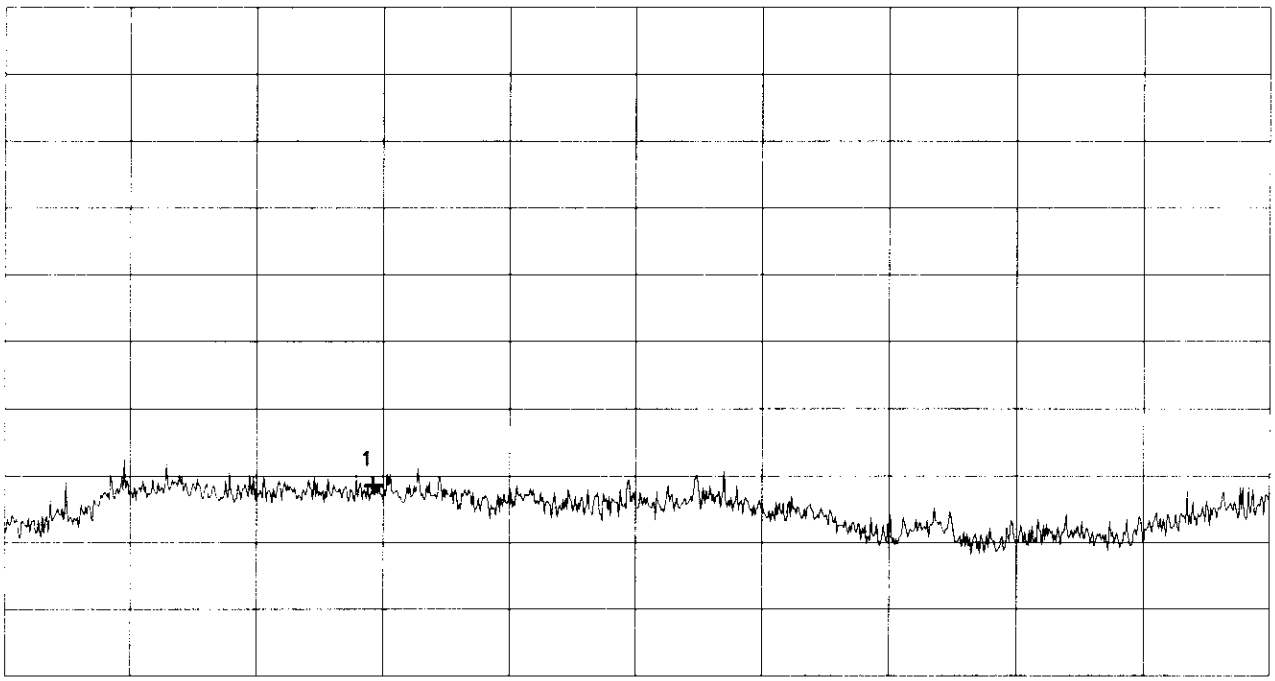
Test distance 3 m
Horizontal Polarization

Notch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.994500 GHz	5.79 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

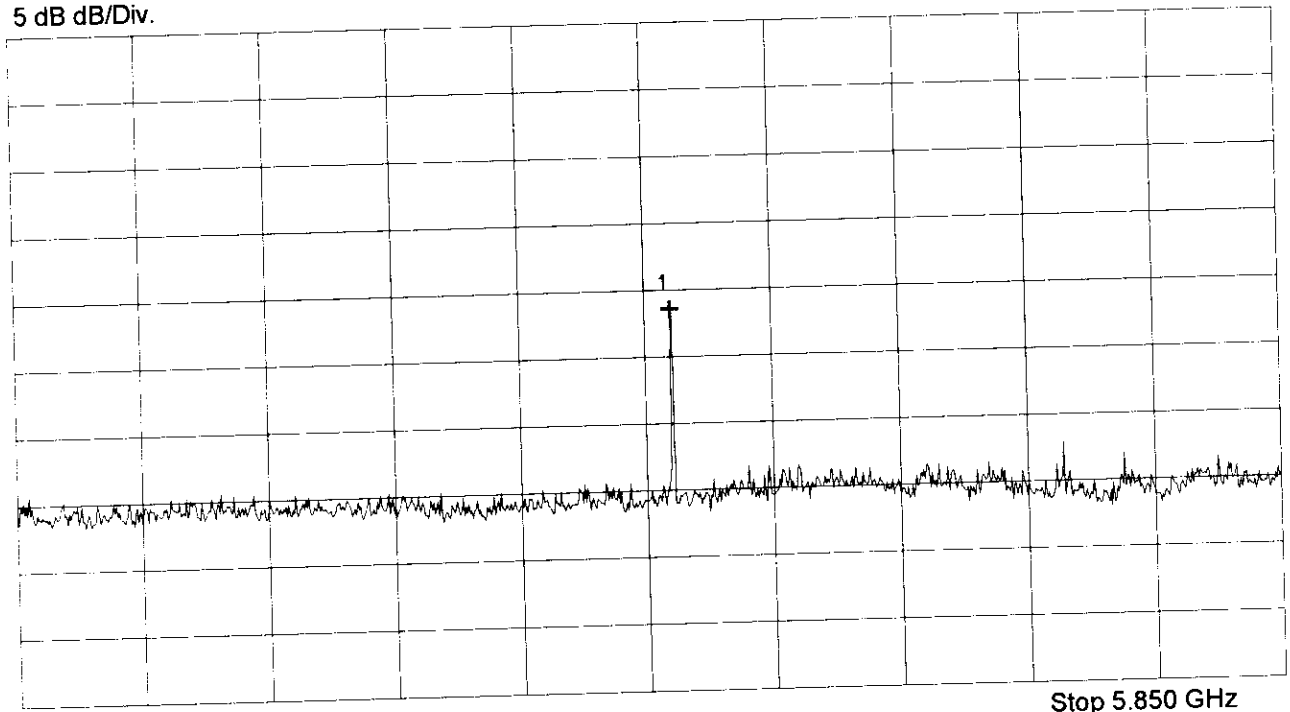
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.938000 GHz	20.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

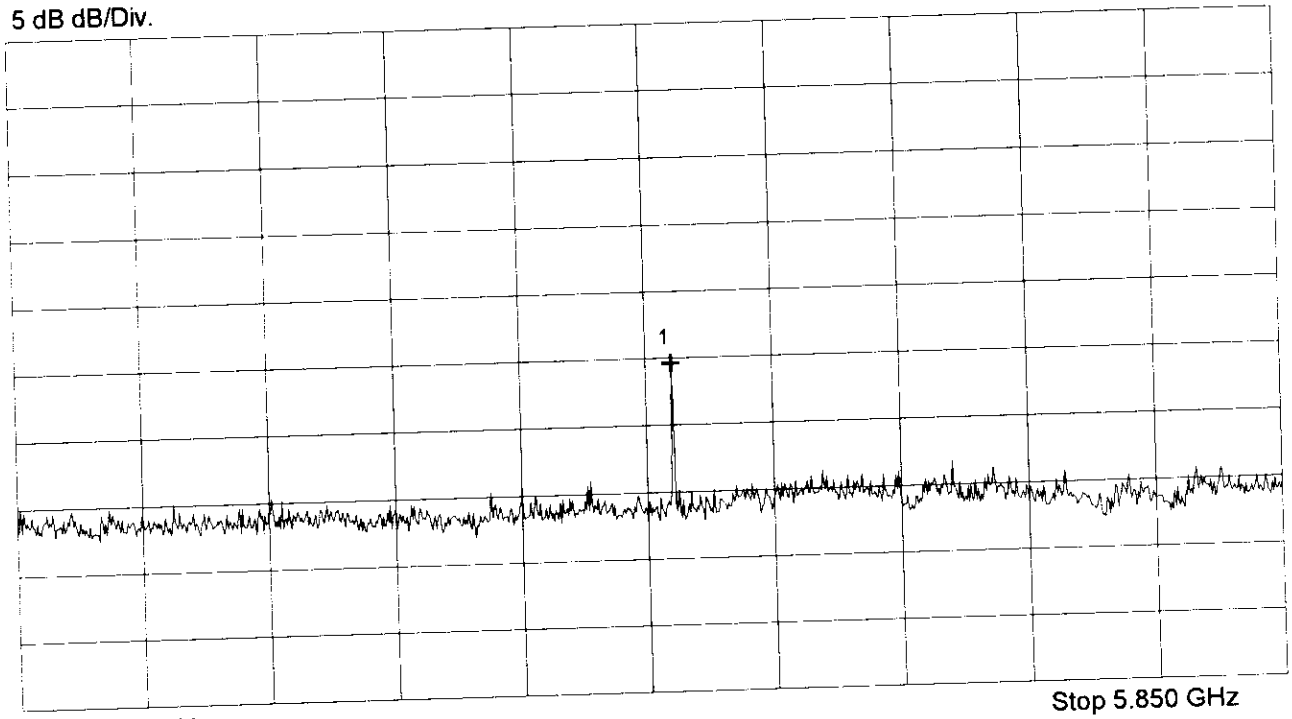
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.938000 GHz	16.11 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

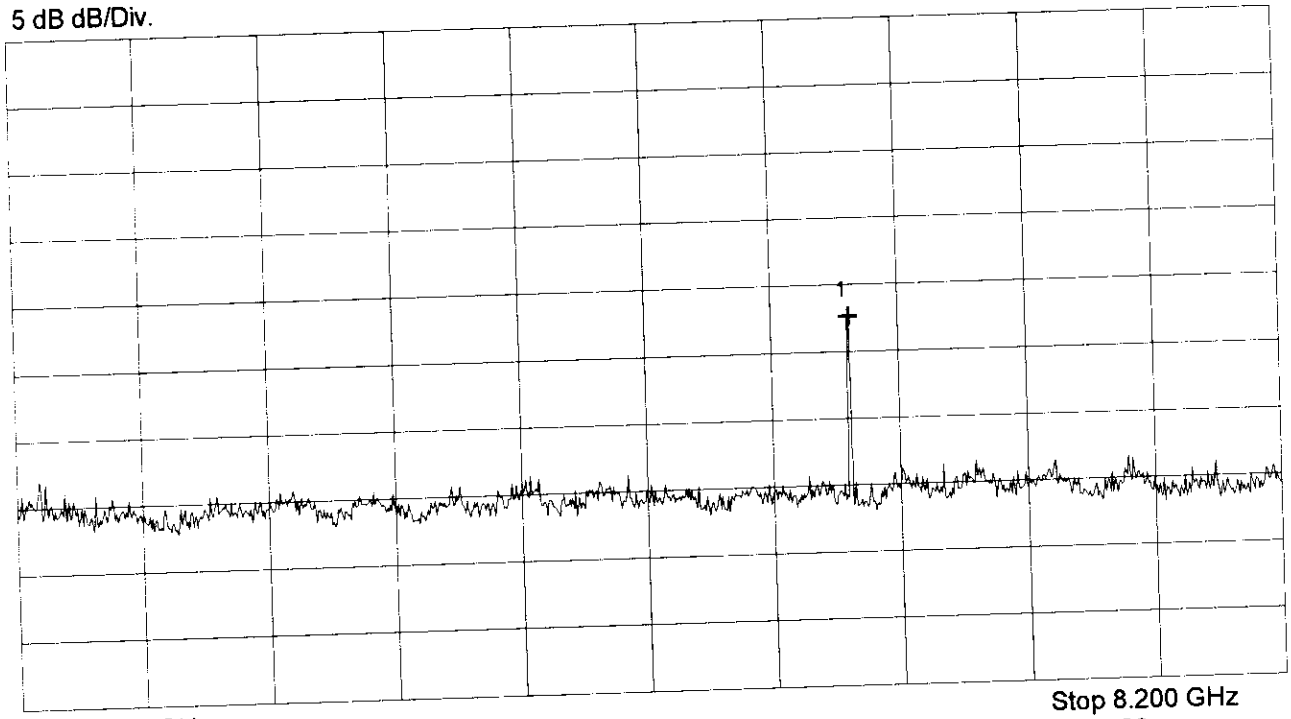
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	19.16 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

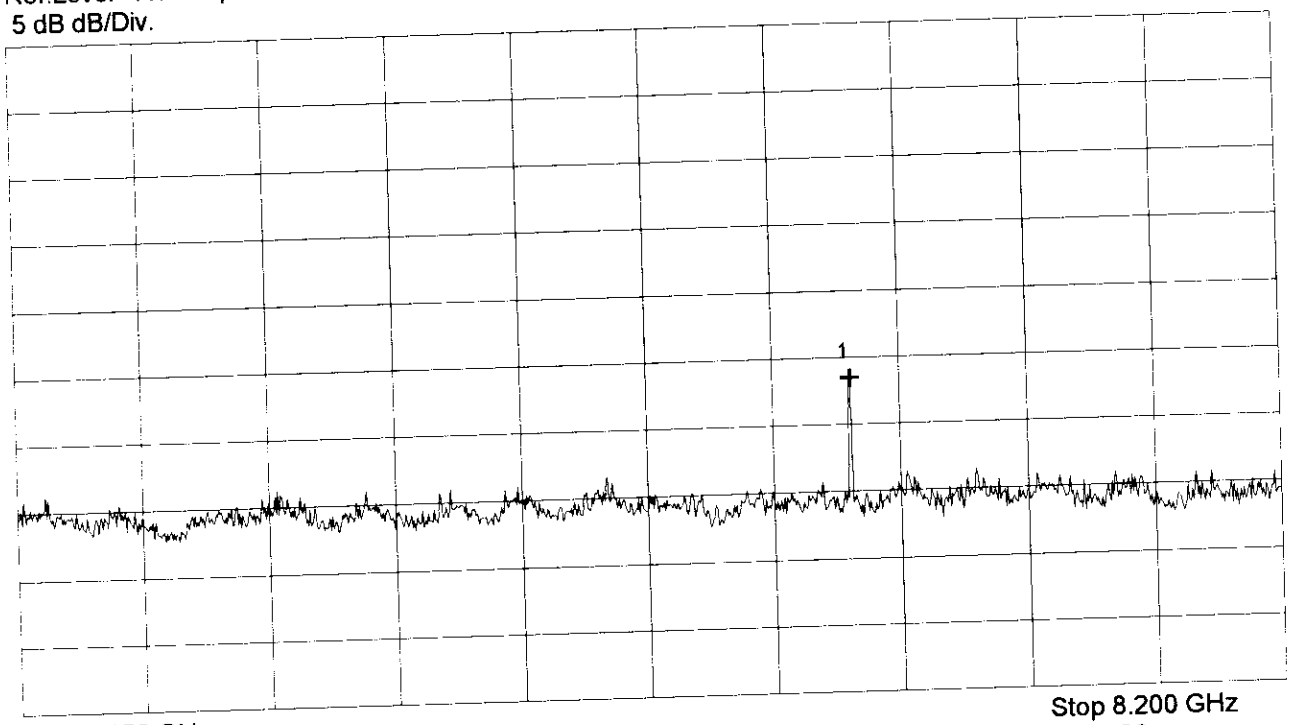
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	14.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

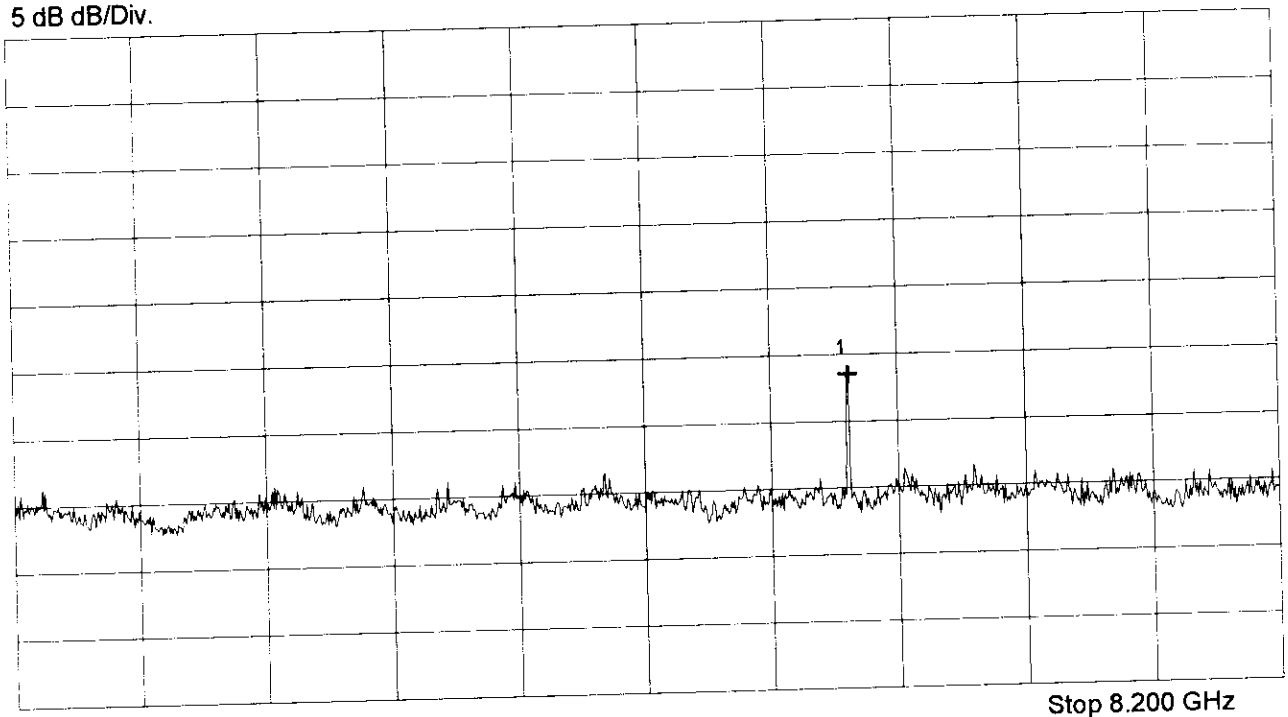
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	14.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

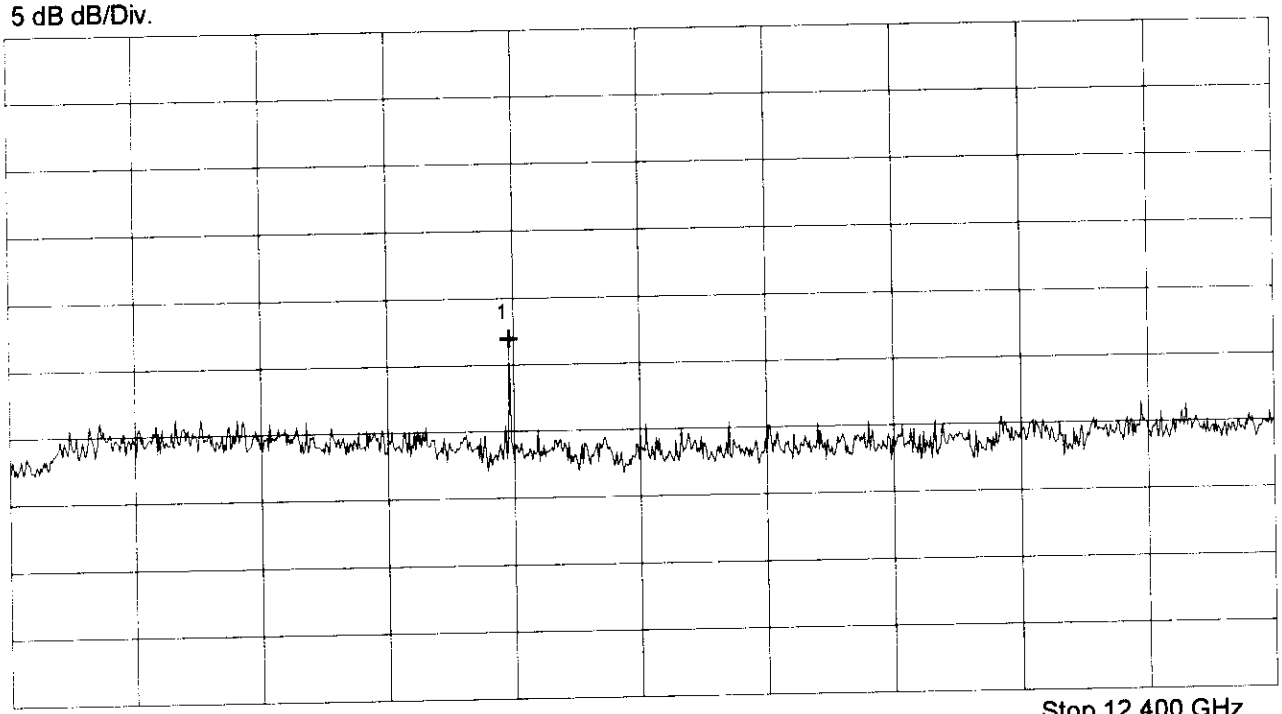
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.866000 GHz	13.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

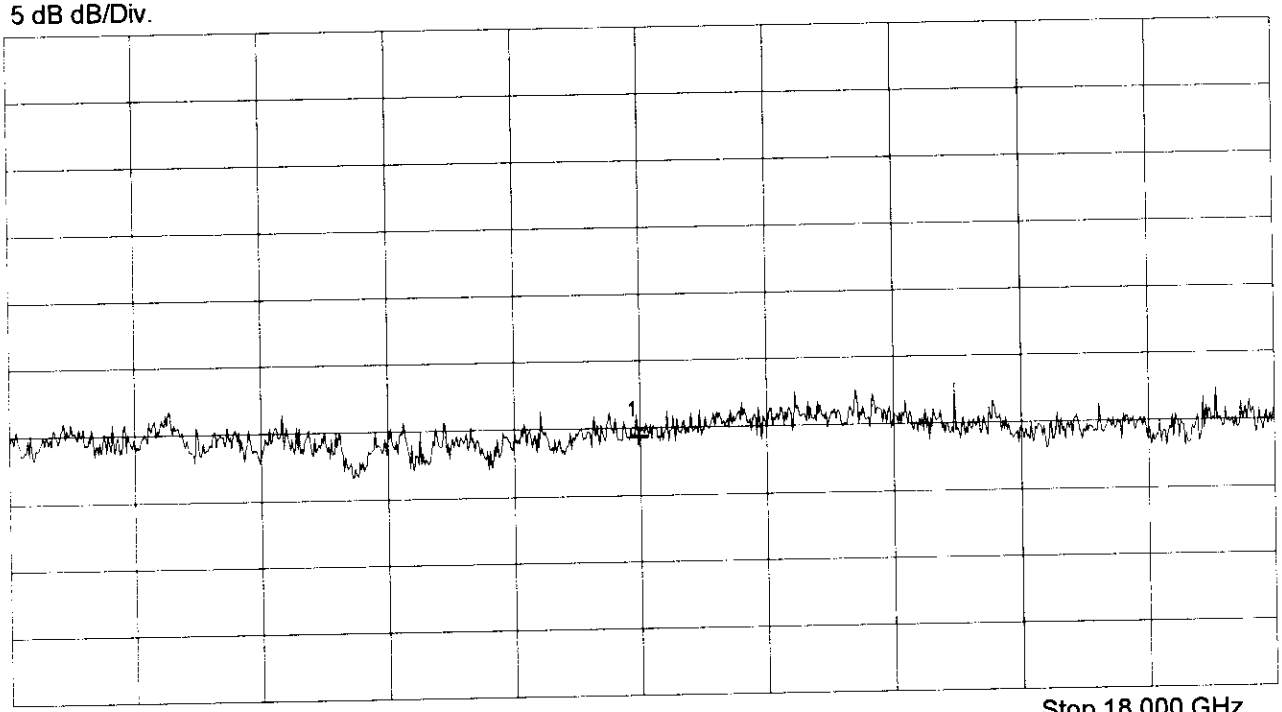
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

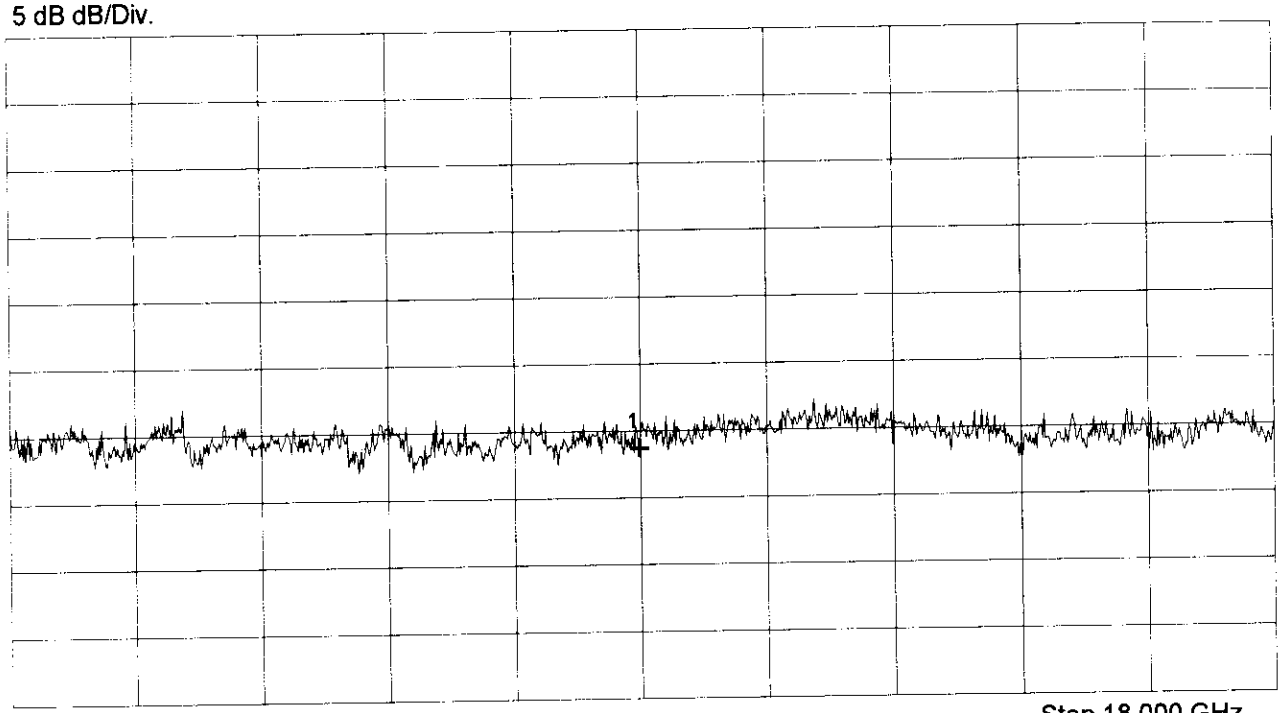
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	5.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

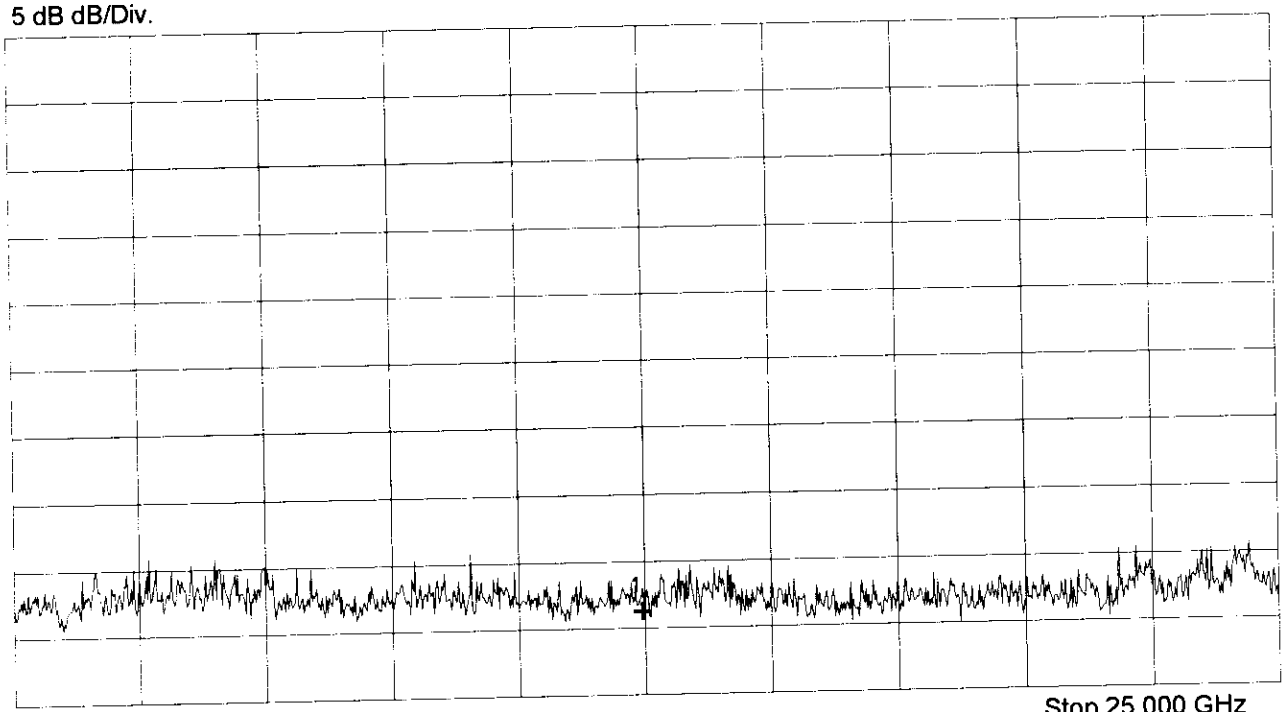
Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 57 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.484444 GHz	13.28 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

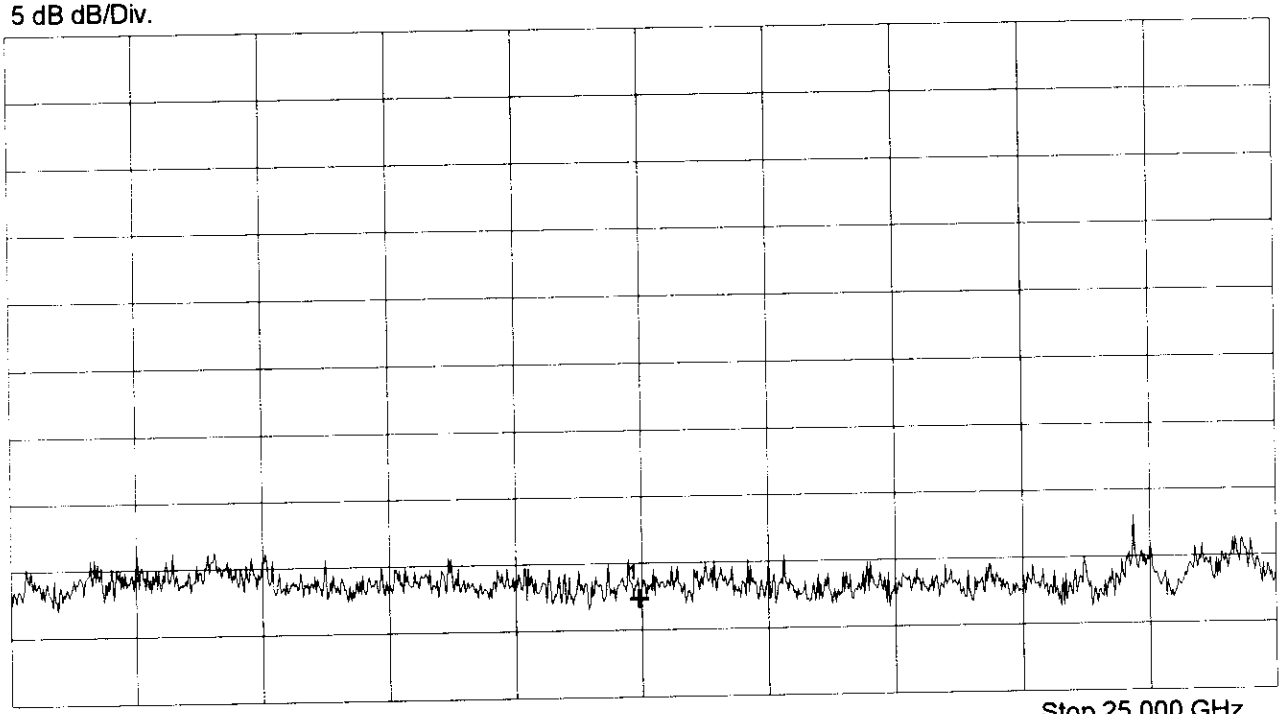
Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 57 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.484444 GHz	14.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

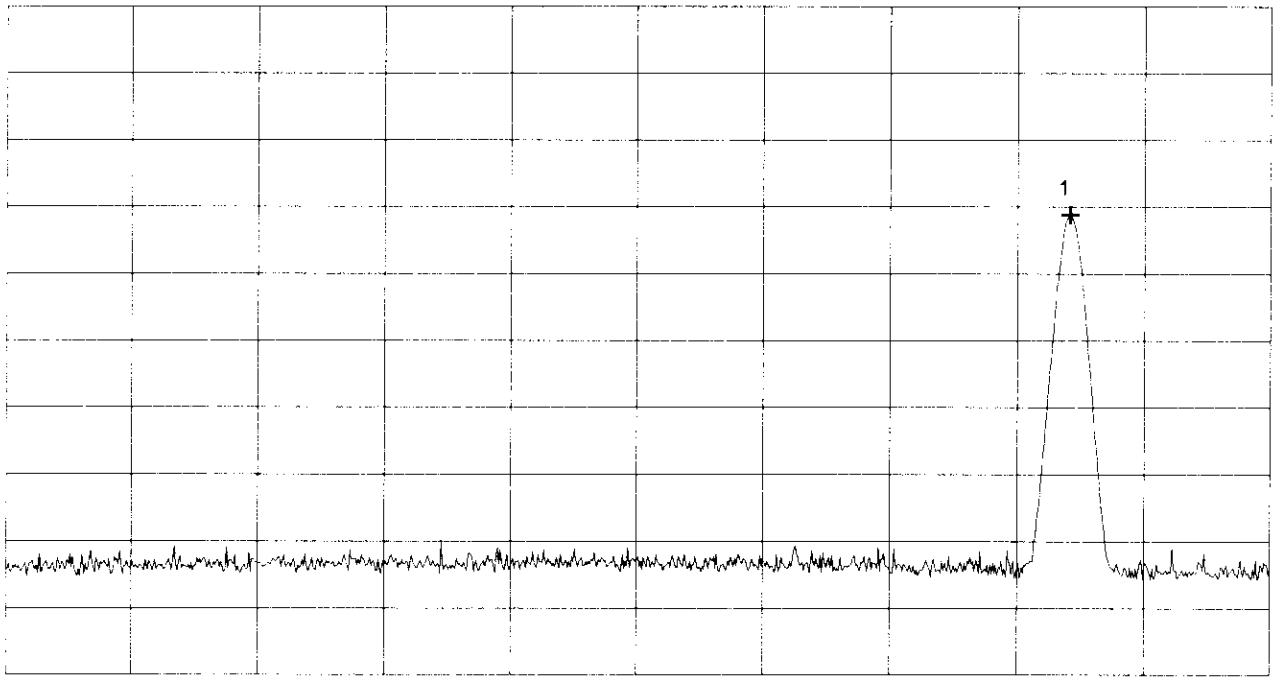
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Horizontal Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	61.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

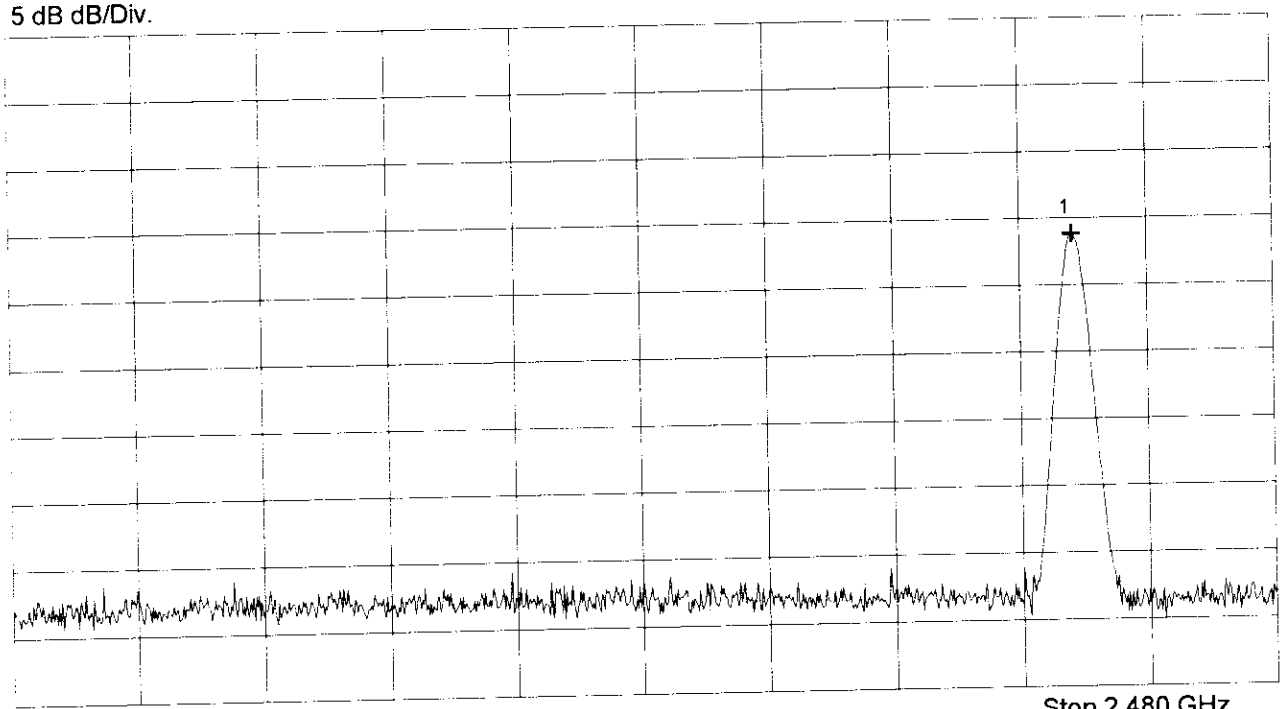
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Vertical Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	60.82 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

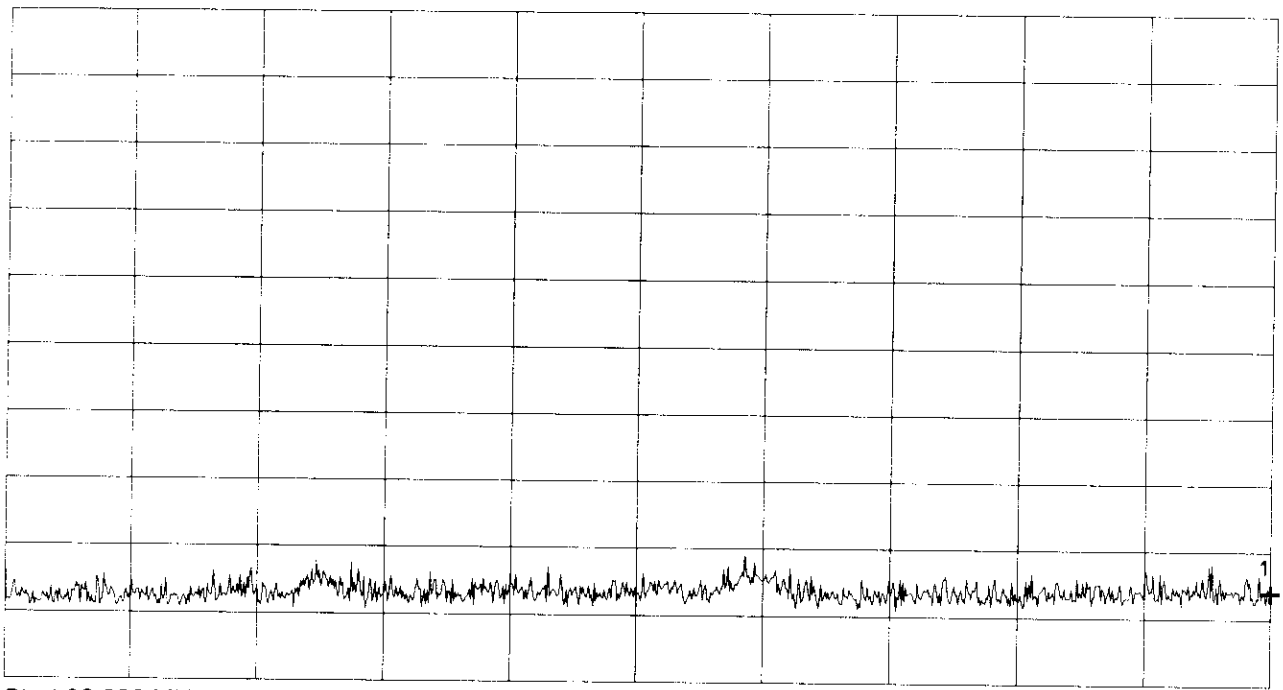
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.92 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

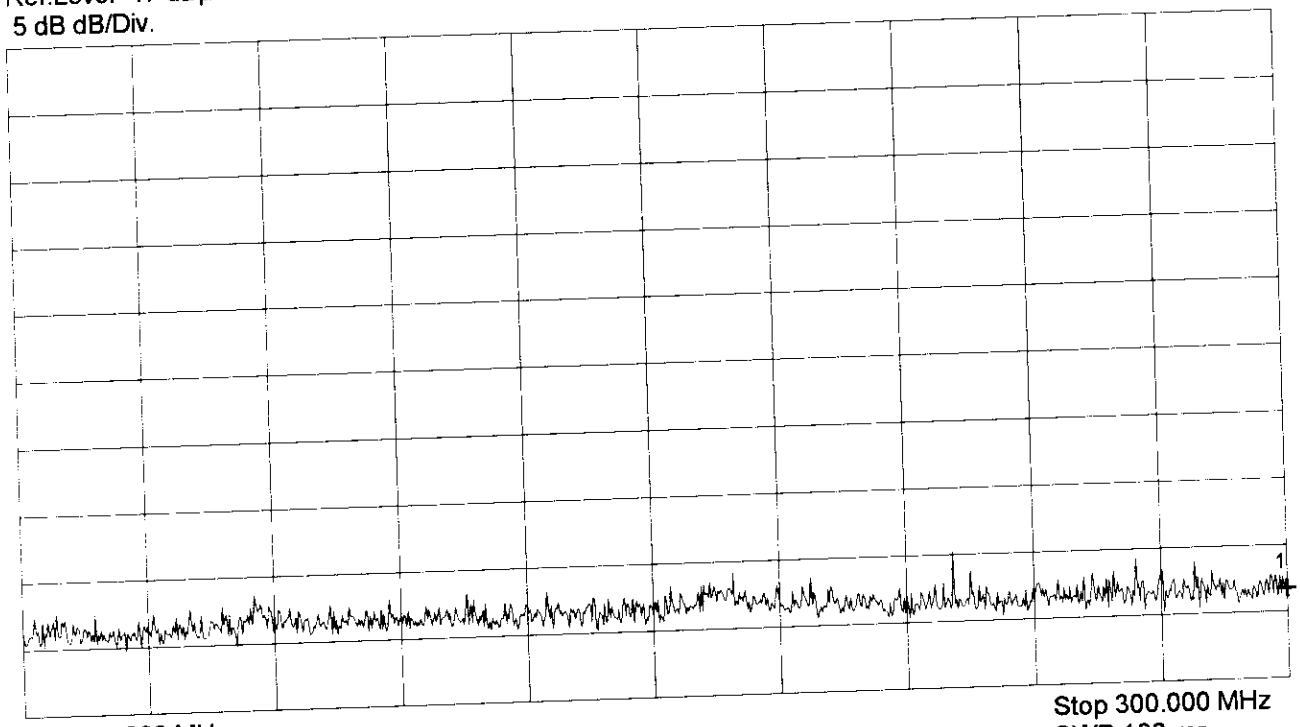
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.73 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

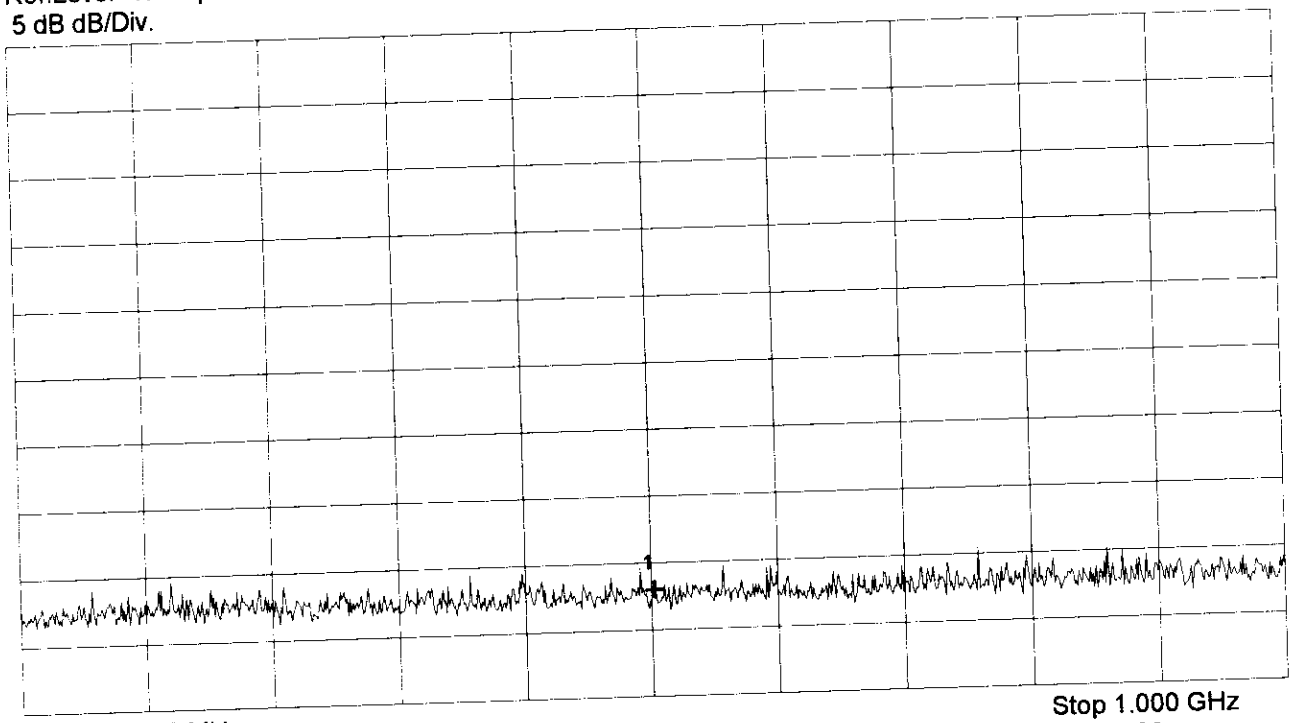
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	5.00 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

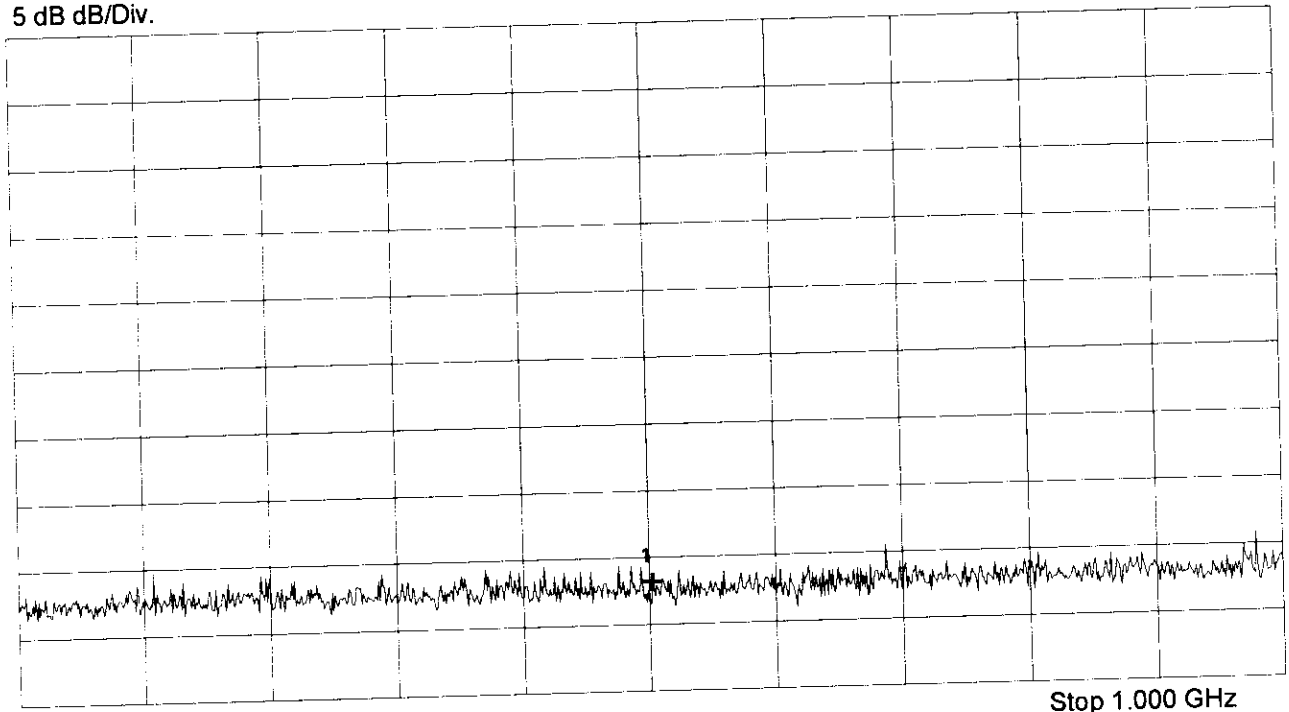
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	5.16 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

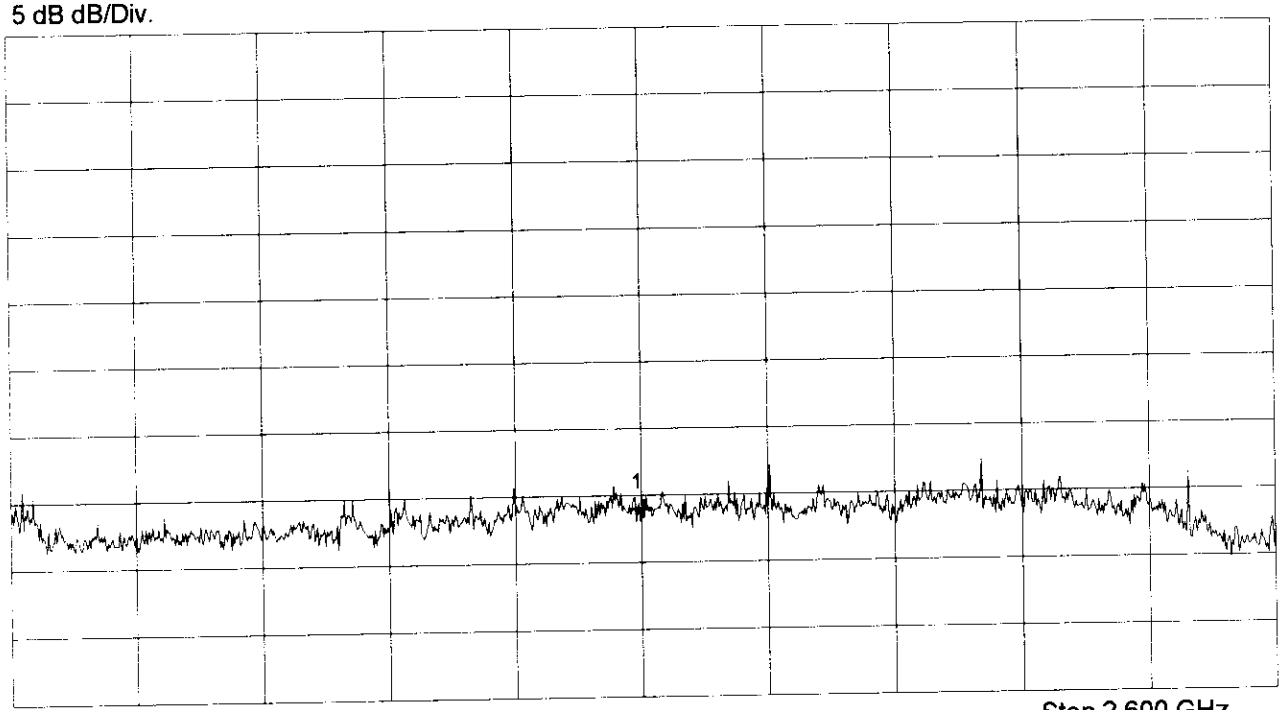
Test distance 3 m
Vertical Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.801778 GHz	5.50 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

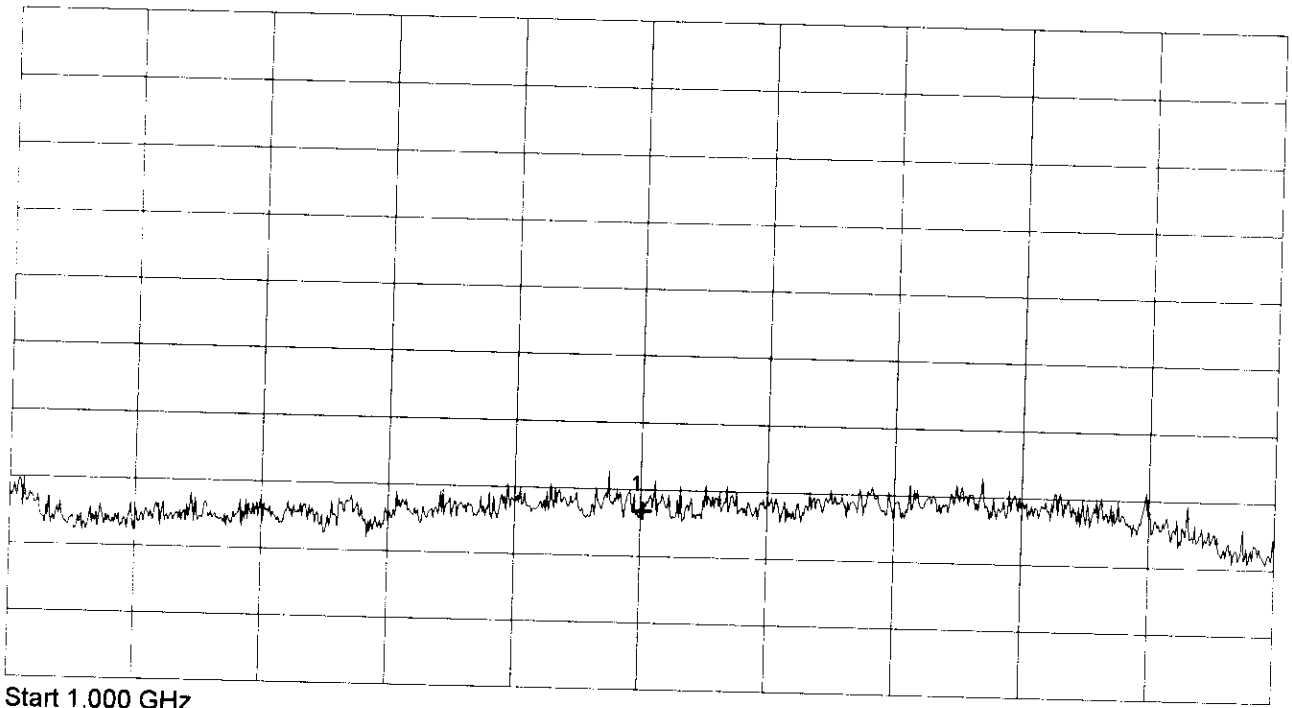
Test distance 3 m
Horizontal Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.801778 GHz	4.93 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

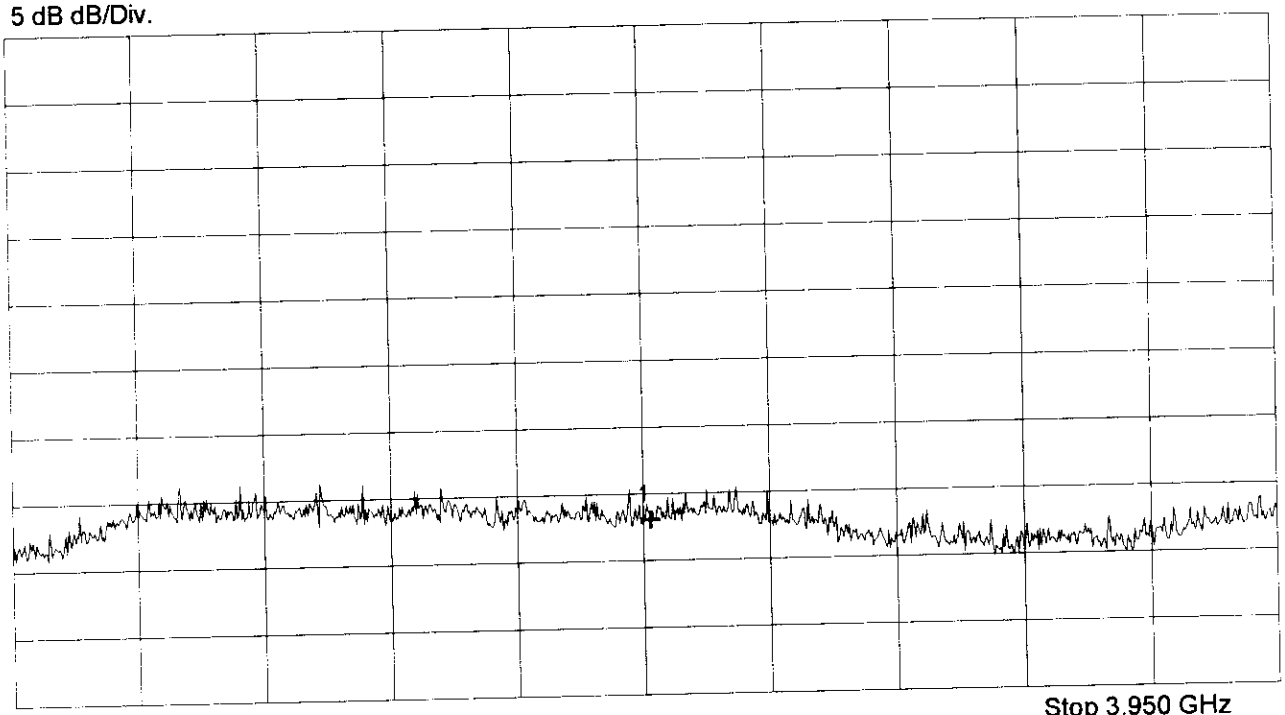
Test distance 3 m
Vertical Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.282500 GHz	4.57 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

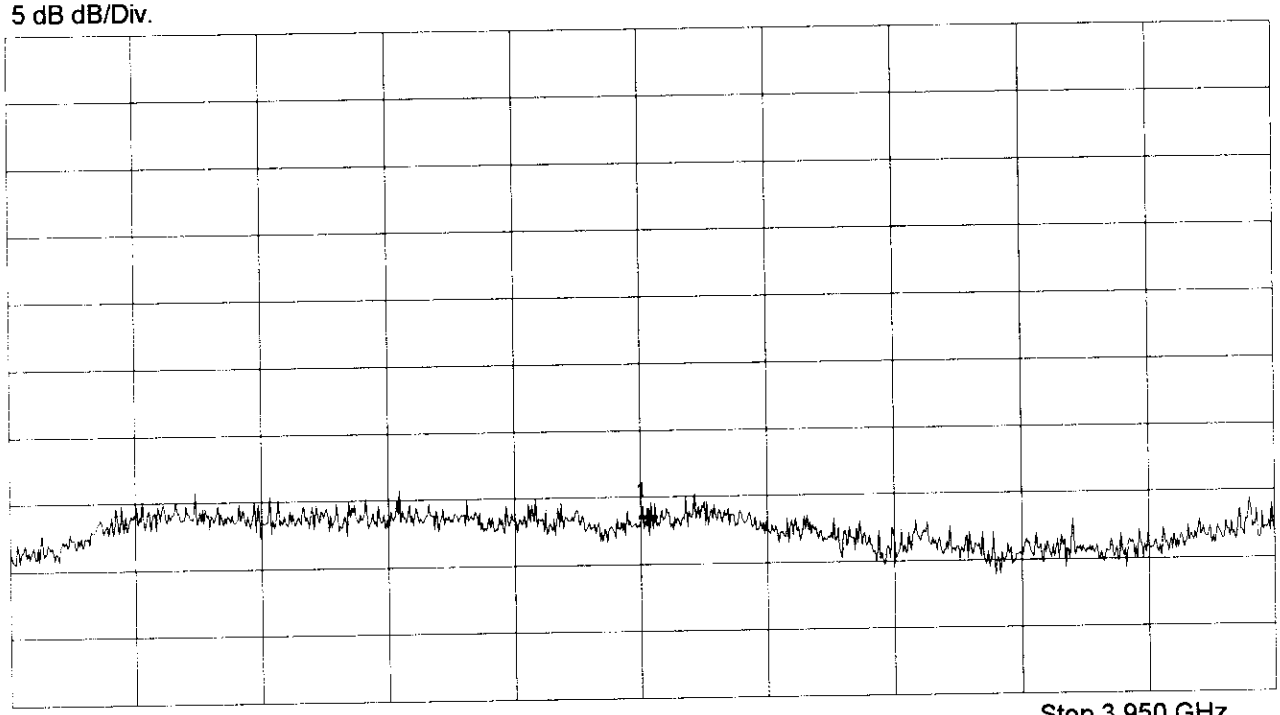
Test distance 3 m
Horizontal Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.282500 GHz	4.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

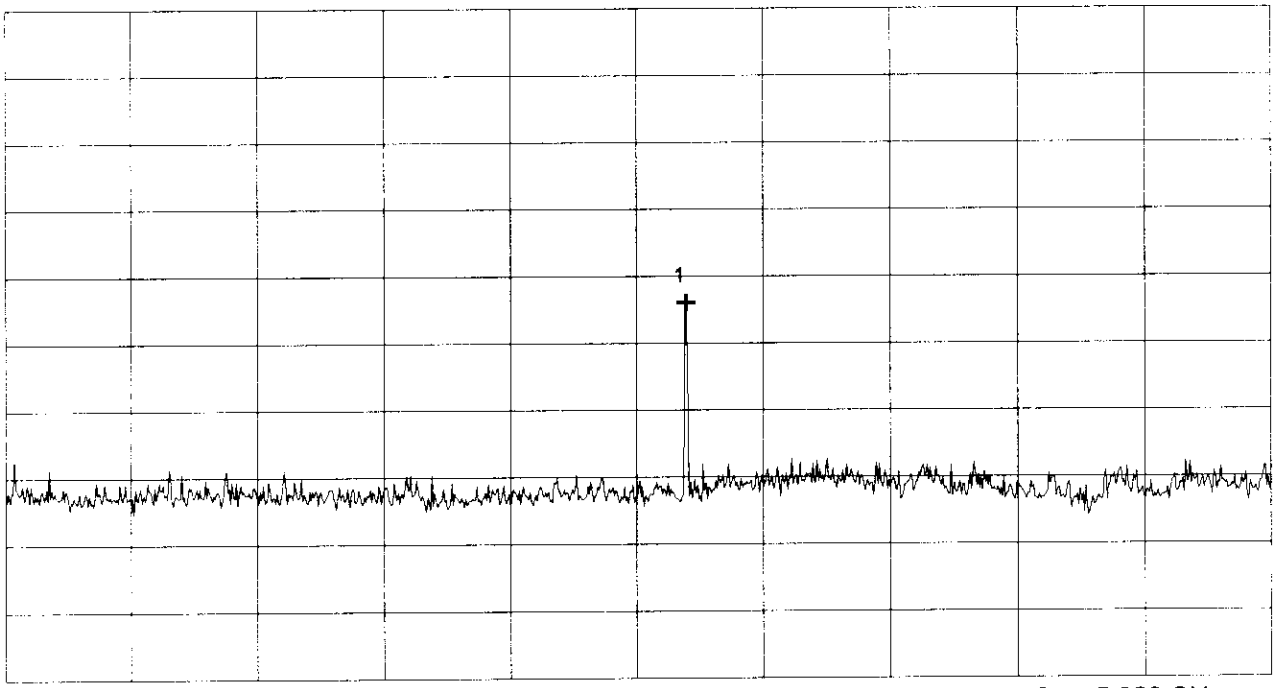
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization
	Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.973889 GHz	19.56 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

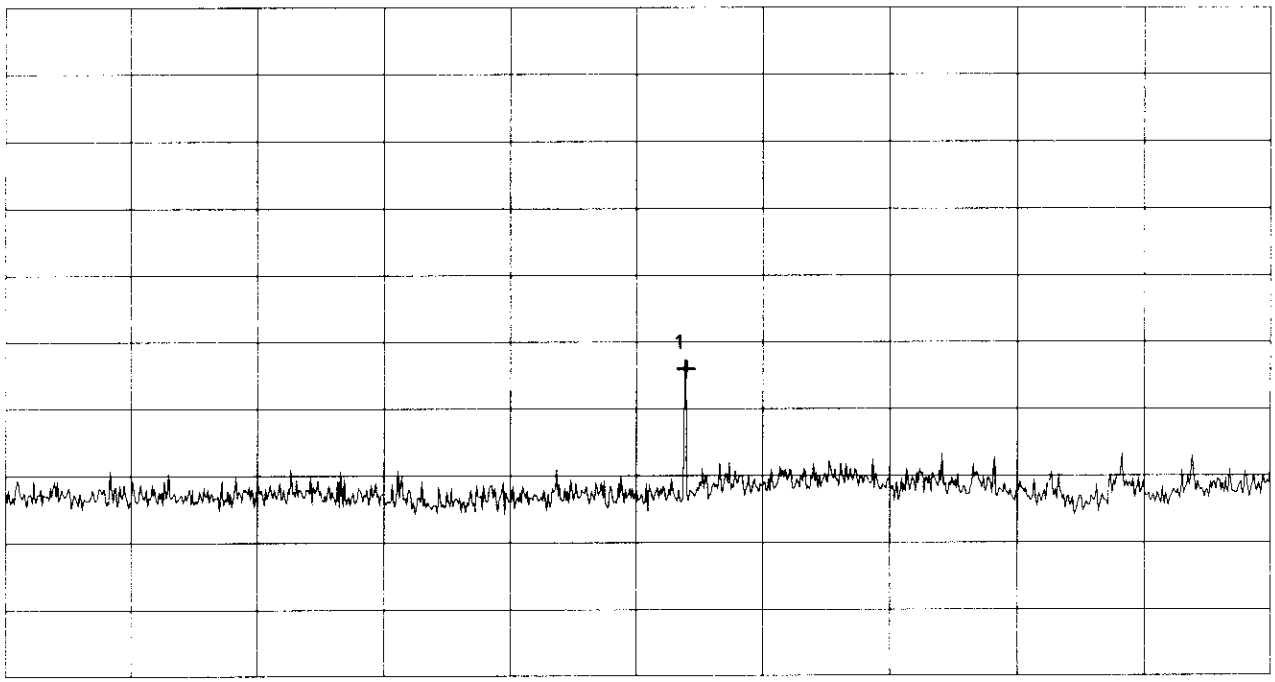
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization
	Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.973889 GHz	14.47 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

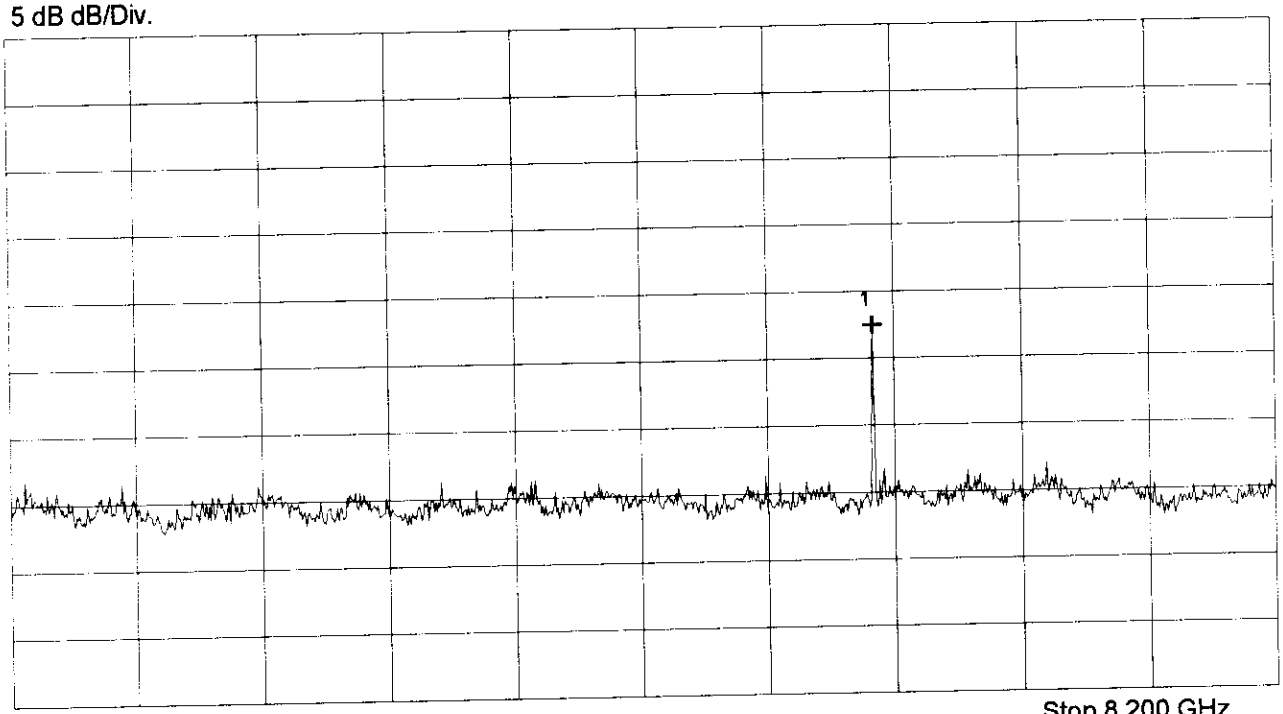
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.455833 GHz	18.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

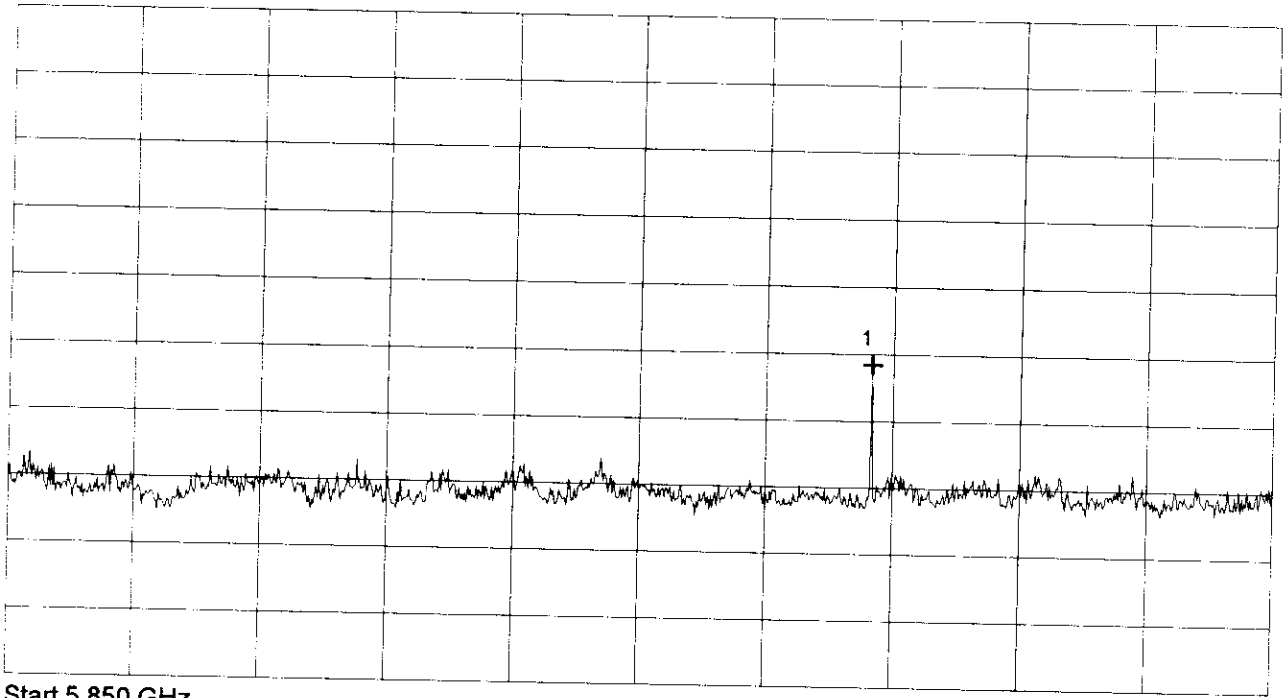
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.455833 GHz	15.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

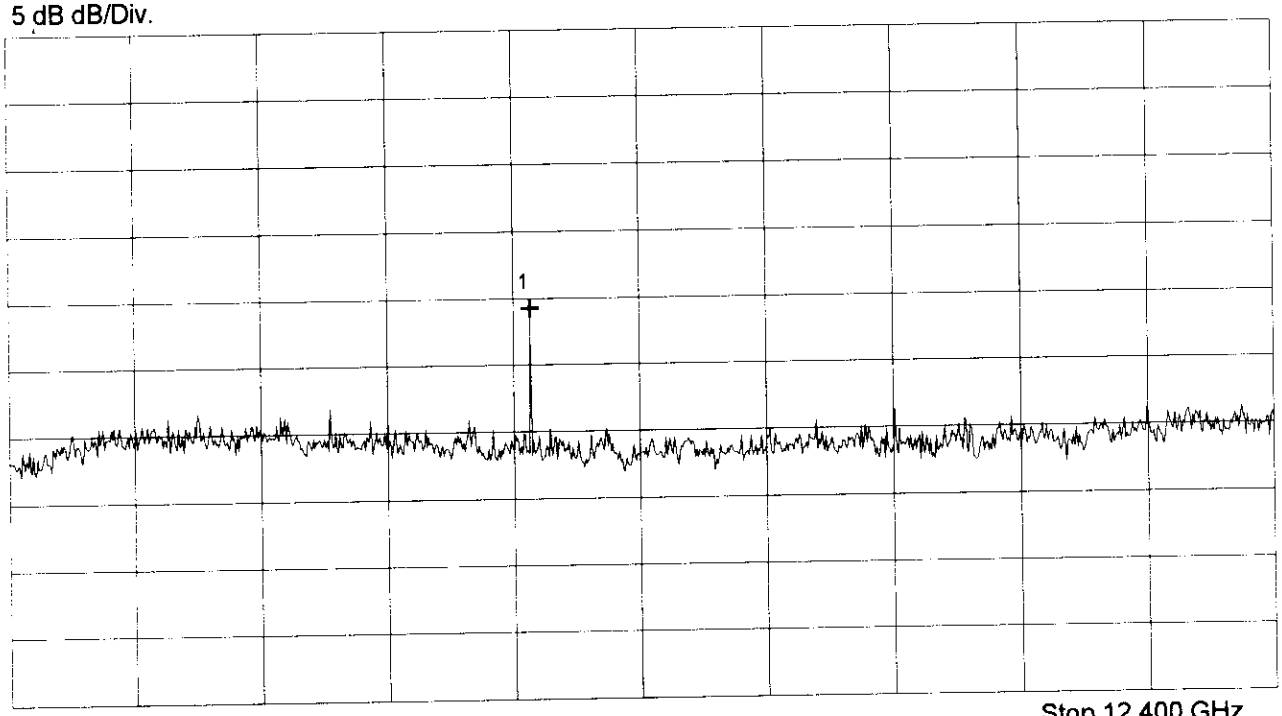
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.936000 GHz	16.28 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRiF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

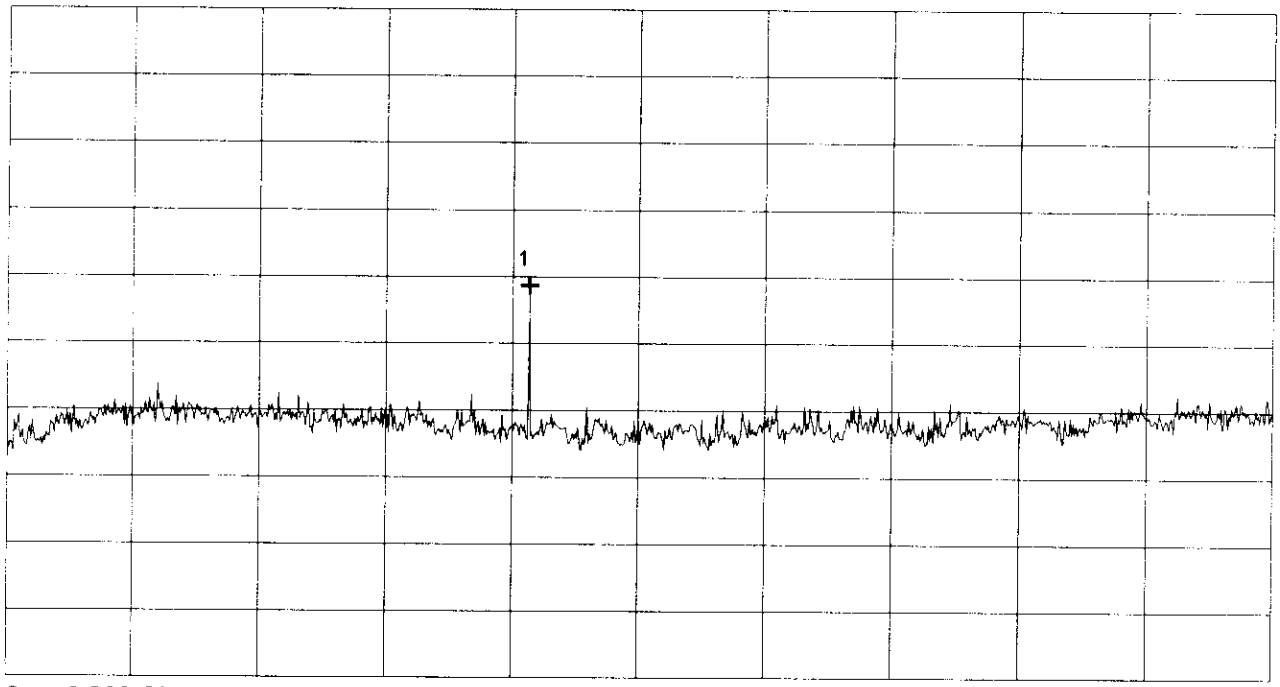
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.936000 GHz	16.37 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

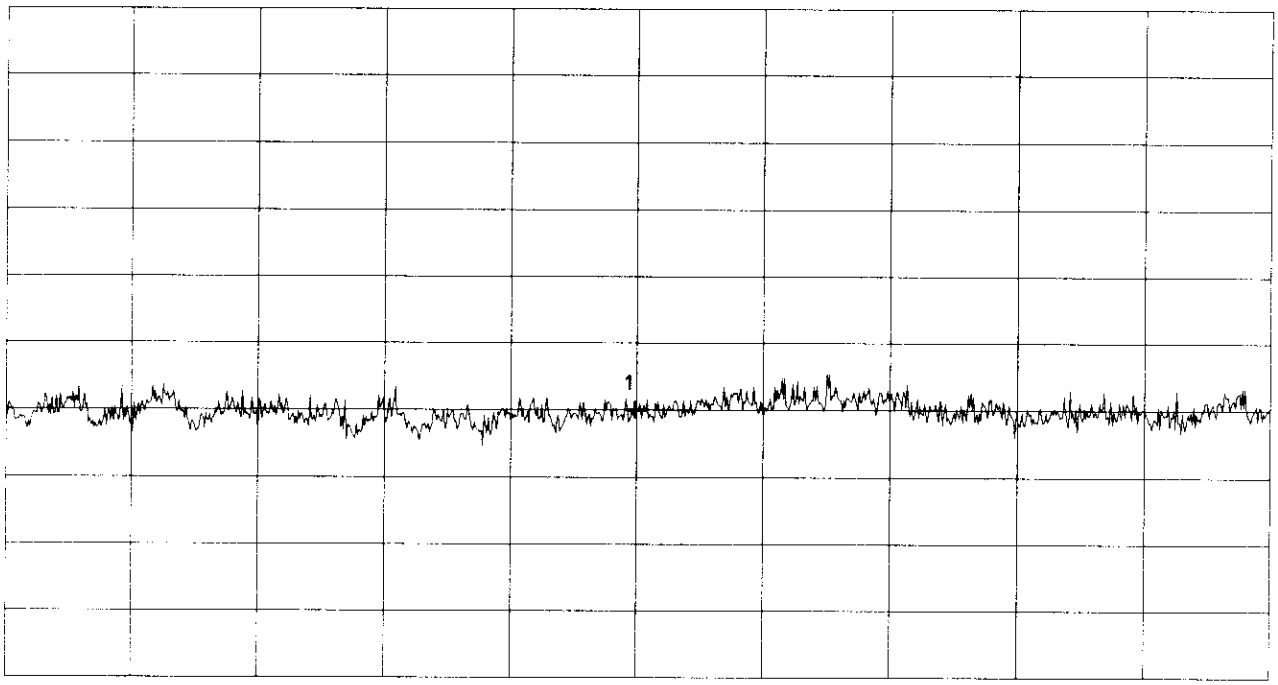
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	7.00 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

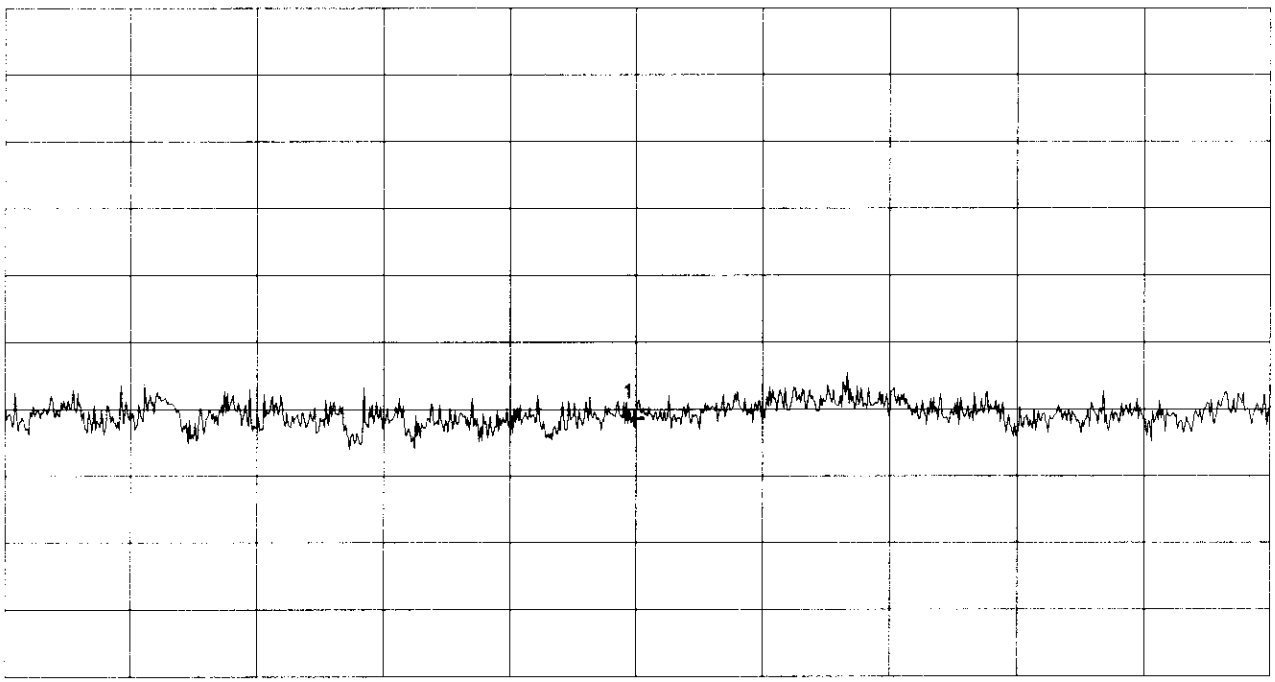
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 33 (2481.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.33 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

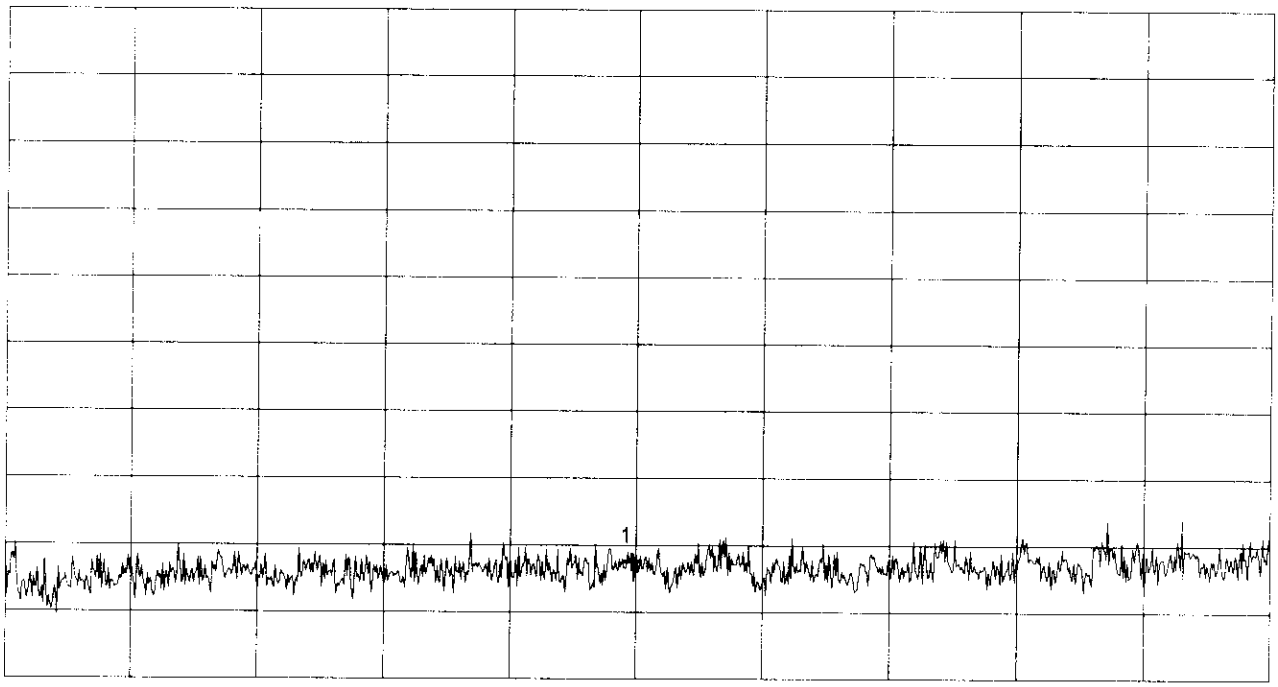
Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.476667 GHz	5.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

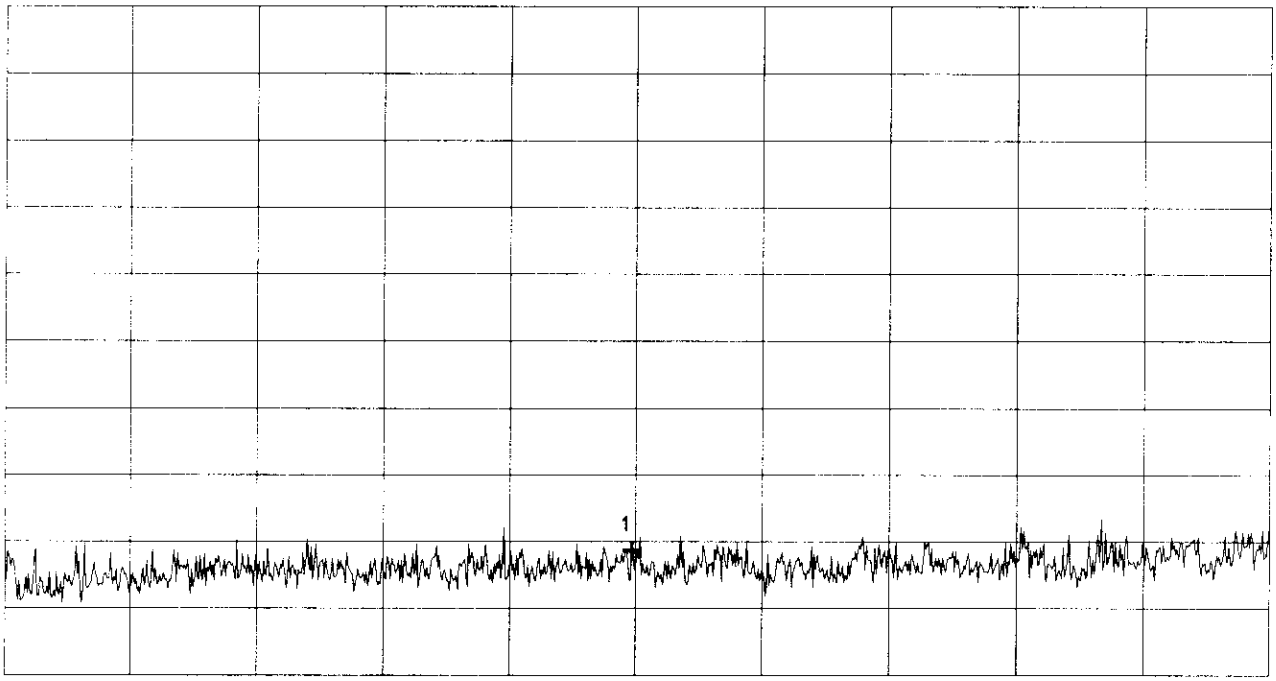
Date:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 1 m Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.476667 GHz	6.32 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

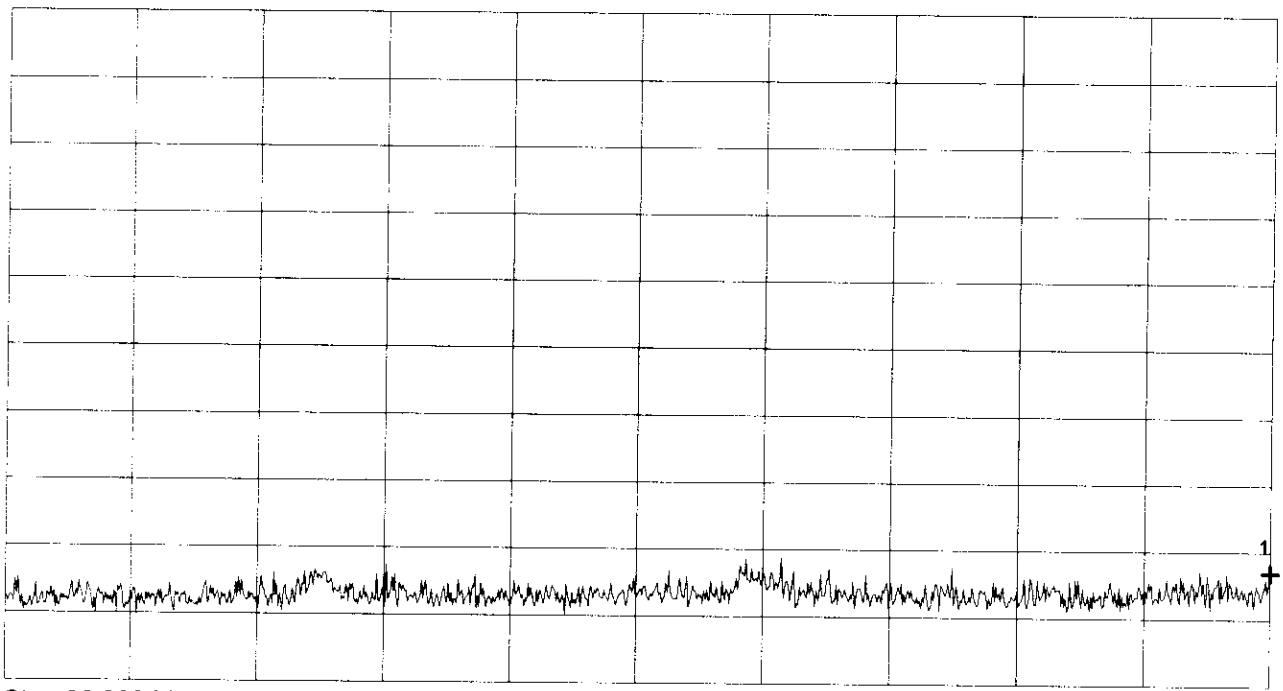
Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz)
Serial No.: Sample No. 1	
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	5.42 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

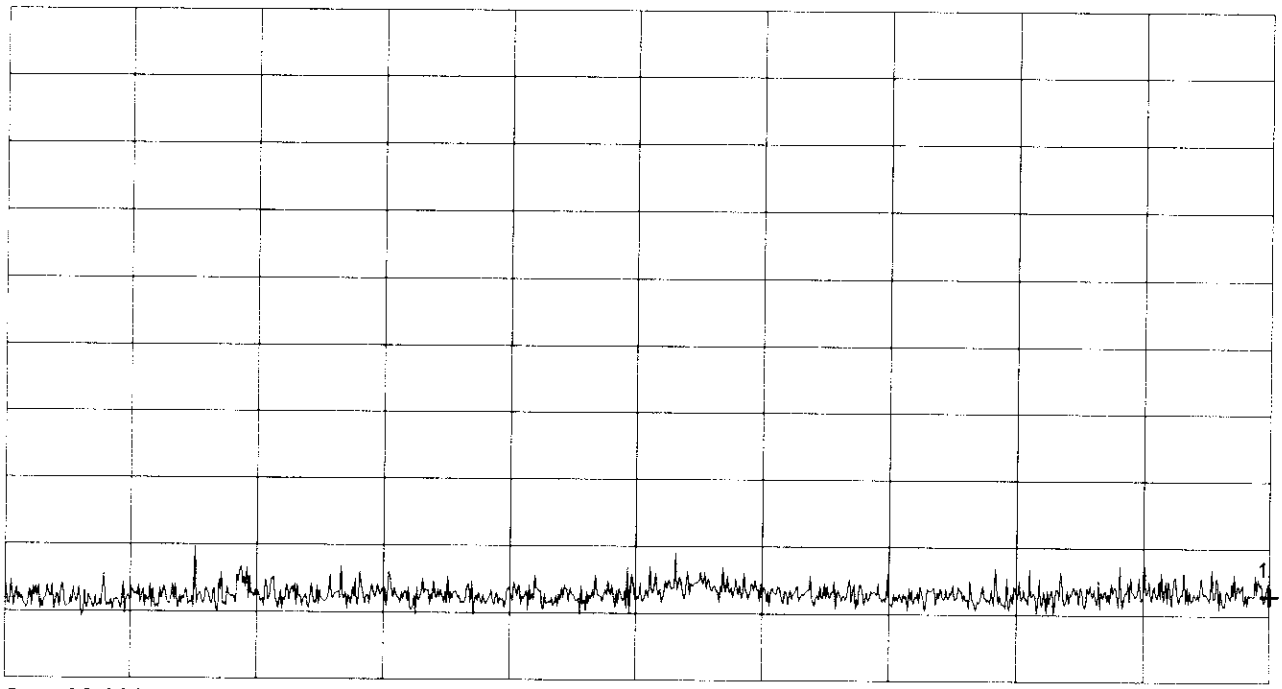
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.42 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

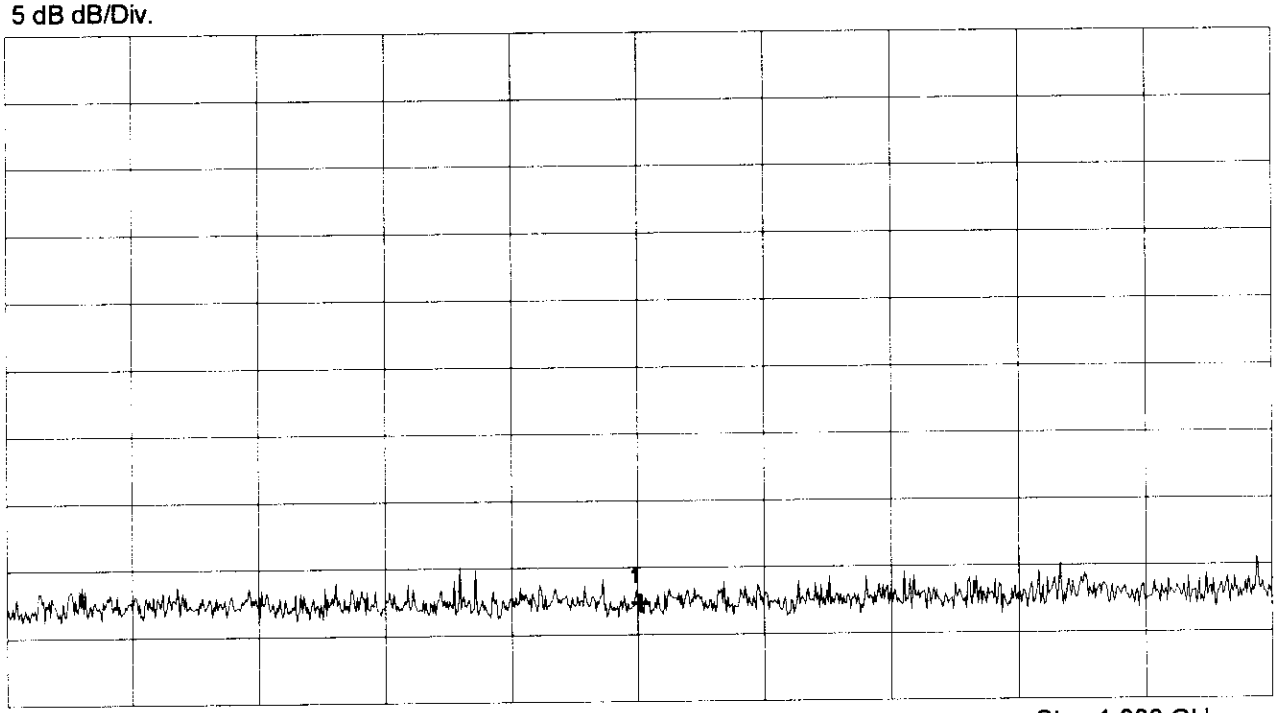
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

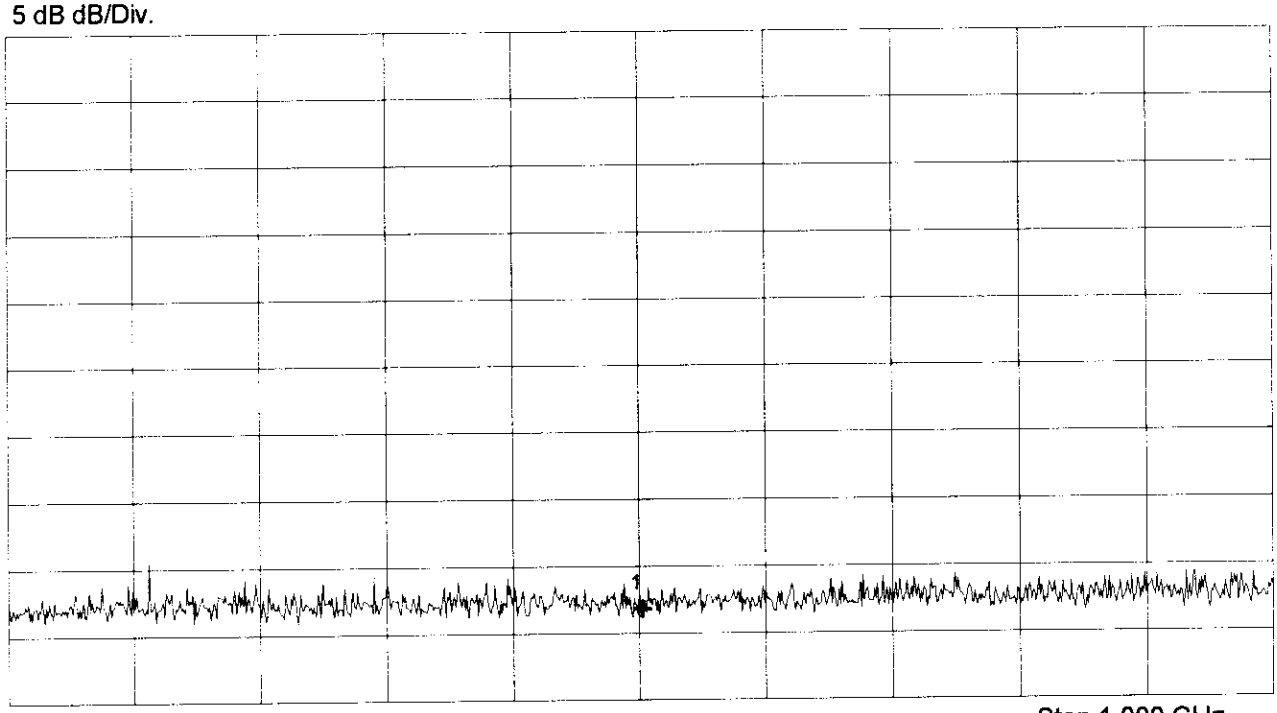
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	3.80 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

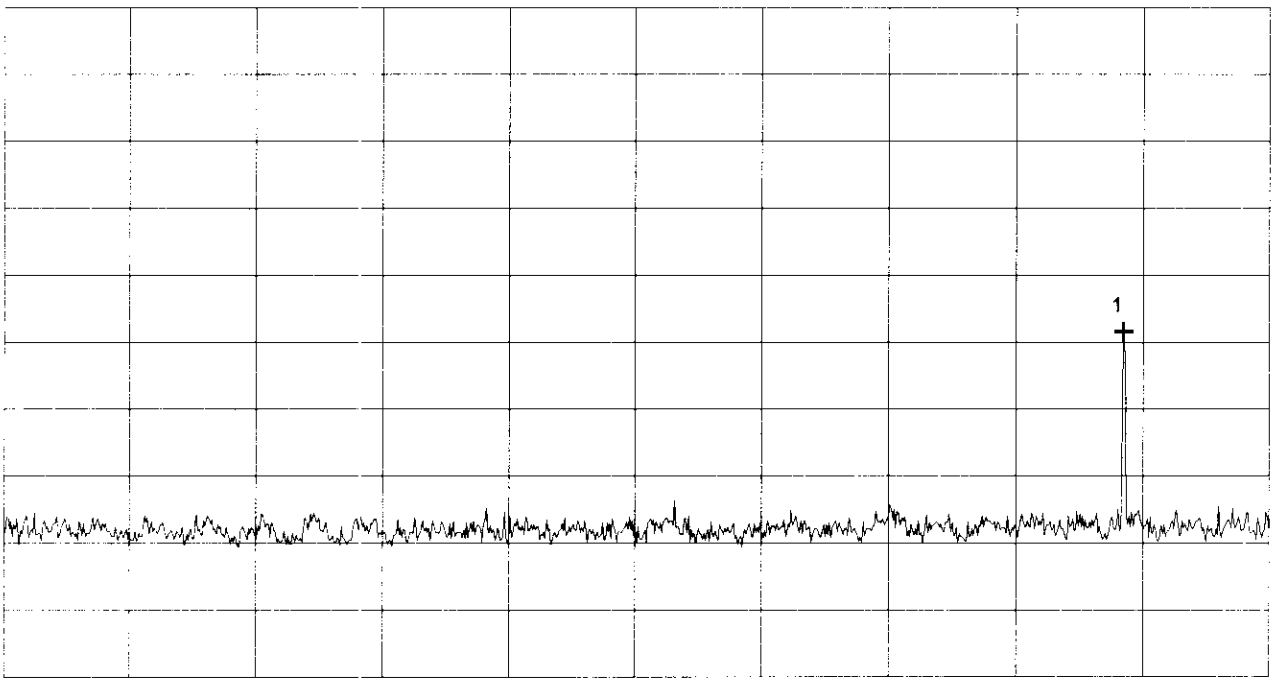
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC RX Mode Channel 33 (2481.5 MHz) Test distance 3m Vertical polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.415111 GHz	22.30 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

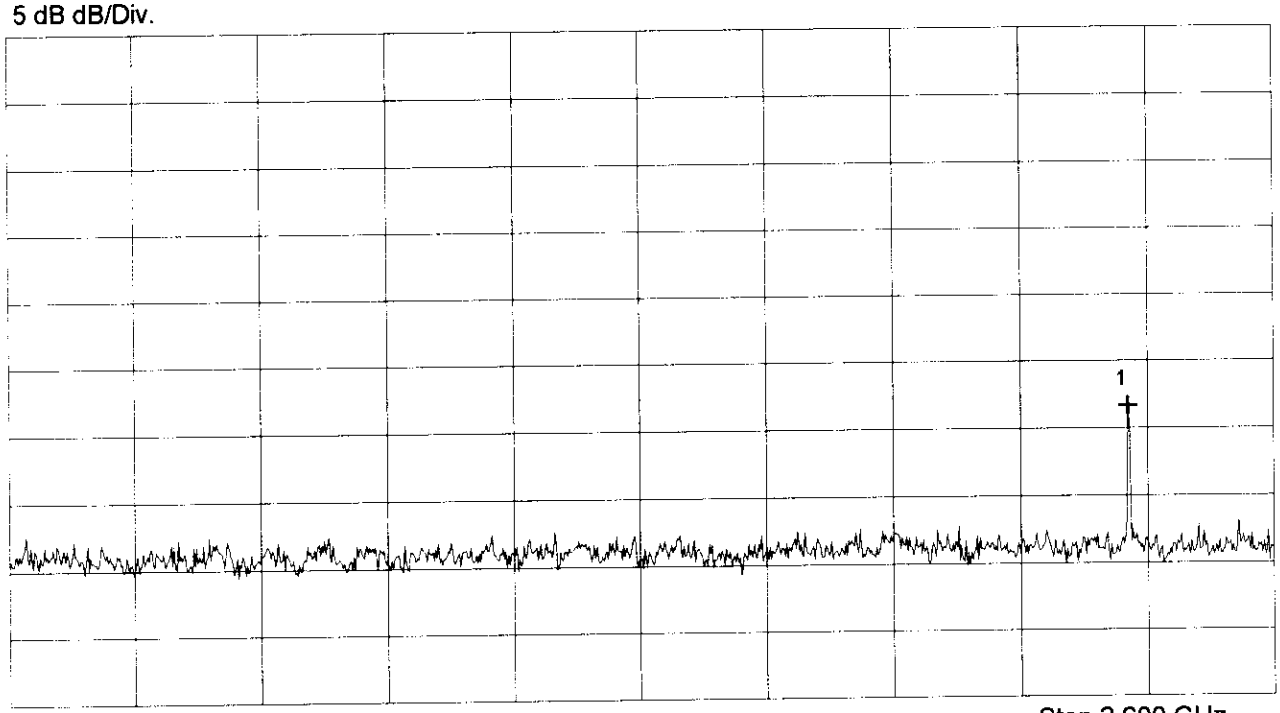
RX Mode Channel 33 (2481.5 MHz)

Test distance 3m
Horizontal polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.415111 GHz	18.20 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

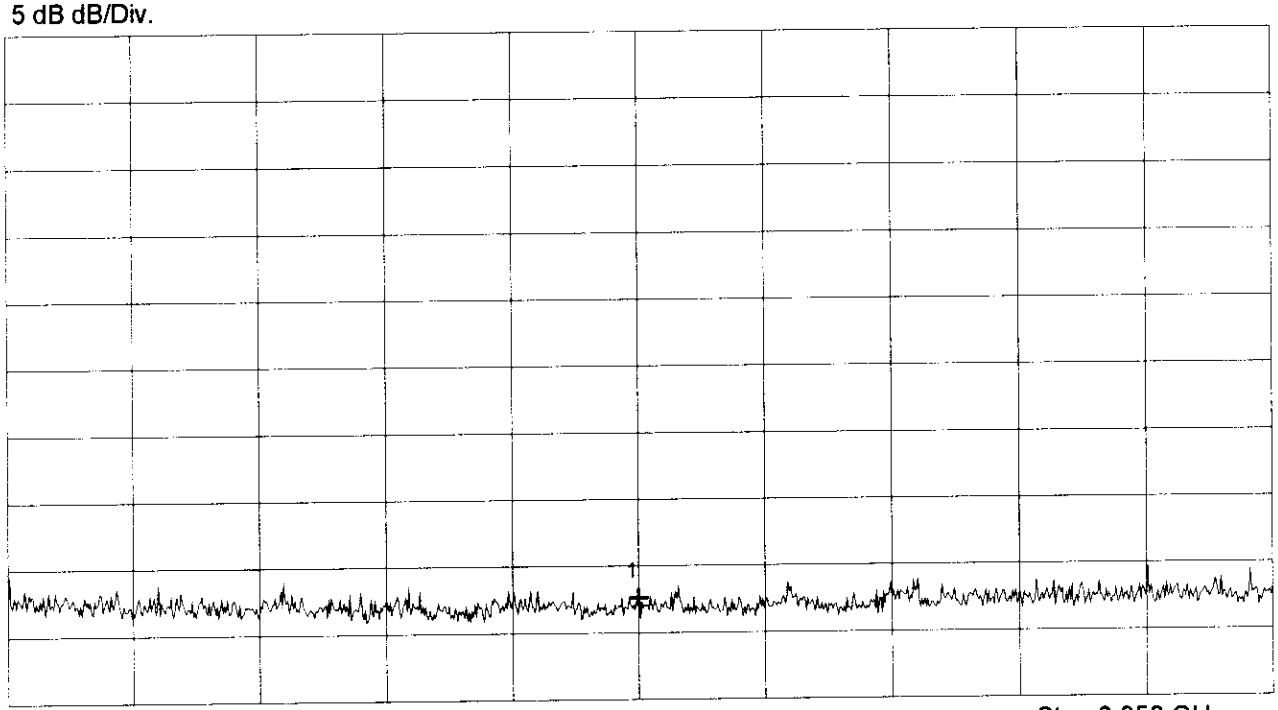
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.275000 GHz	4.11 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

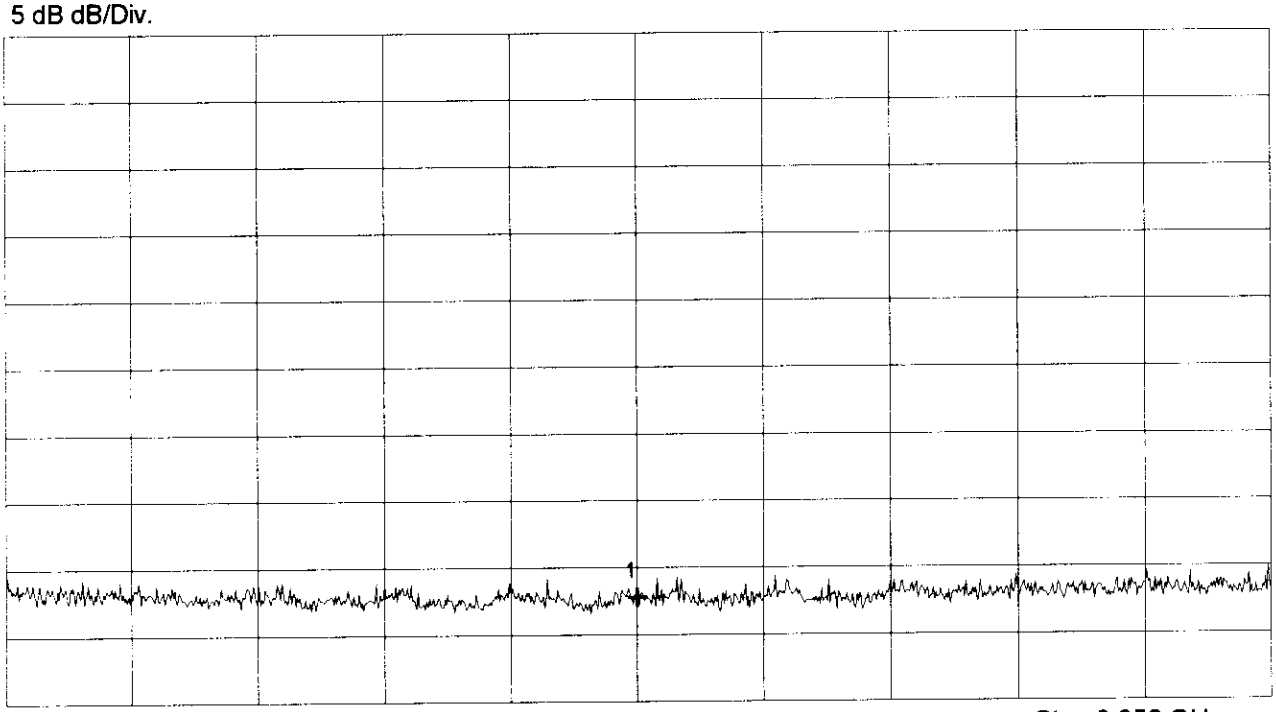
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

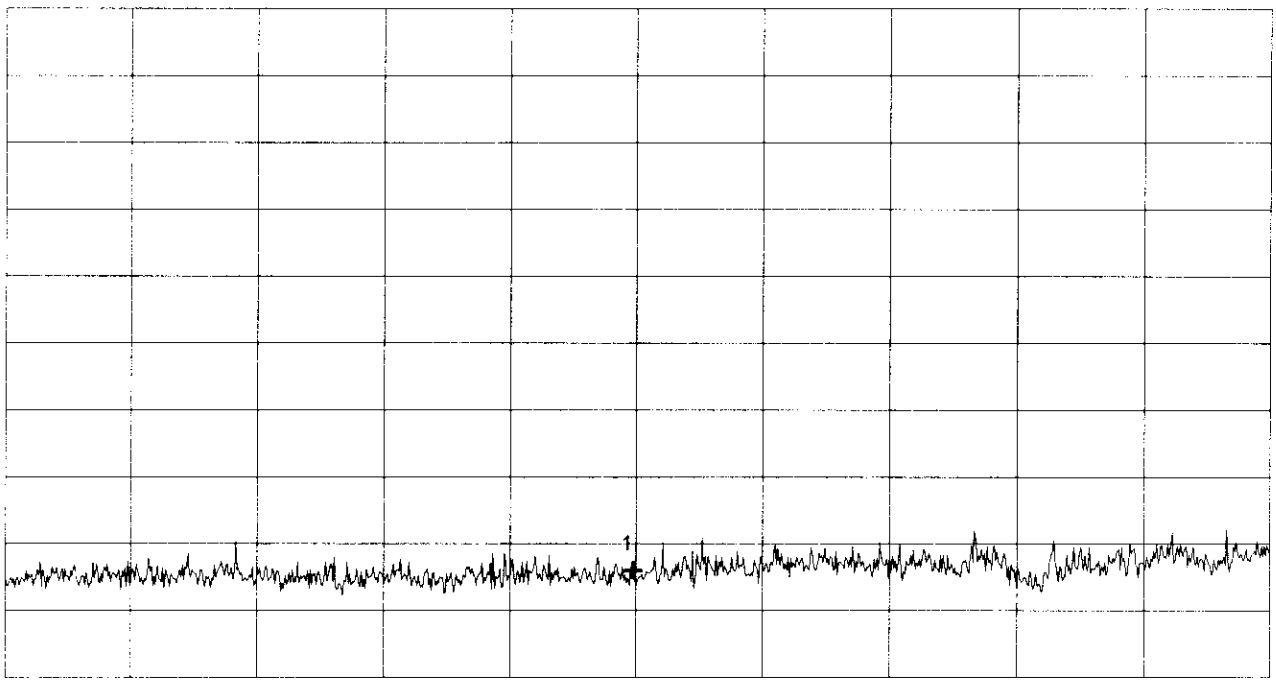
Nr.1	3.275000 GHz	4.30 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV ATT 0 dB Ref. Offset -30.5 dB
5 dB dB/Div.



Start 3.950 GHz Stop 5.850 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

**** Multi Marker ****

Nr.1	4.895778 GHz	4.50 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

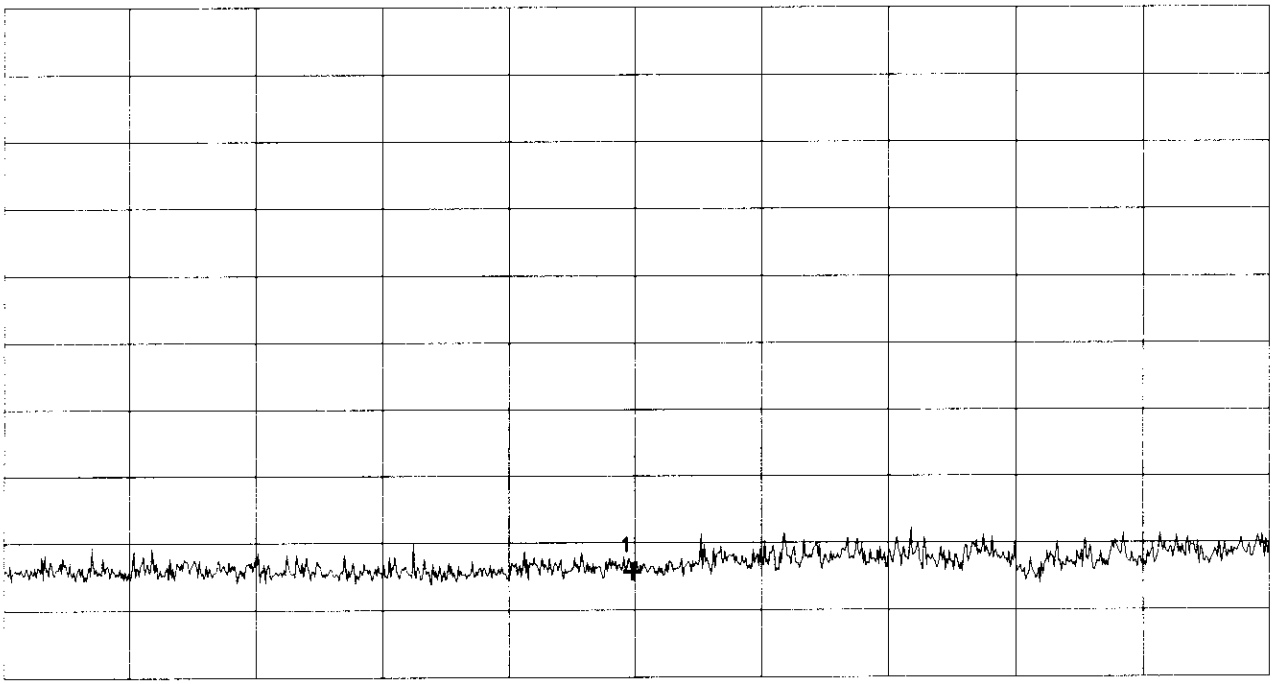
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.895778 GHz	4.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

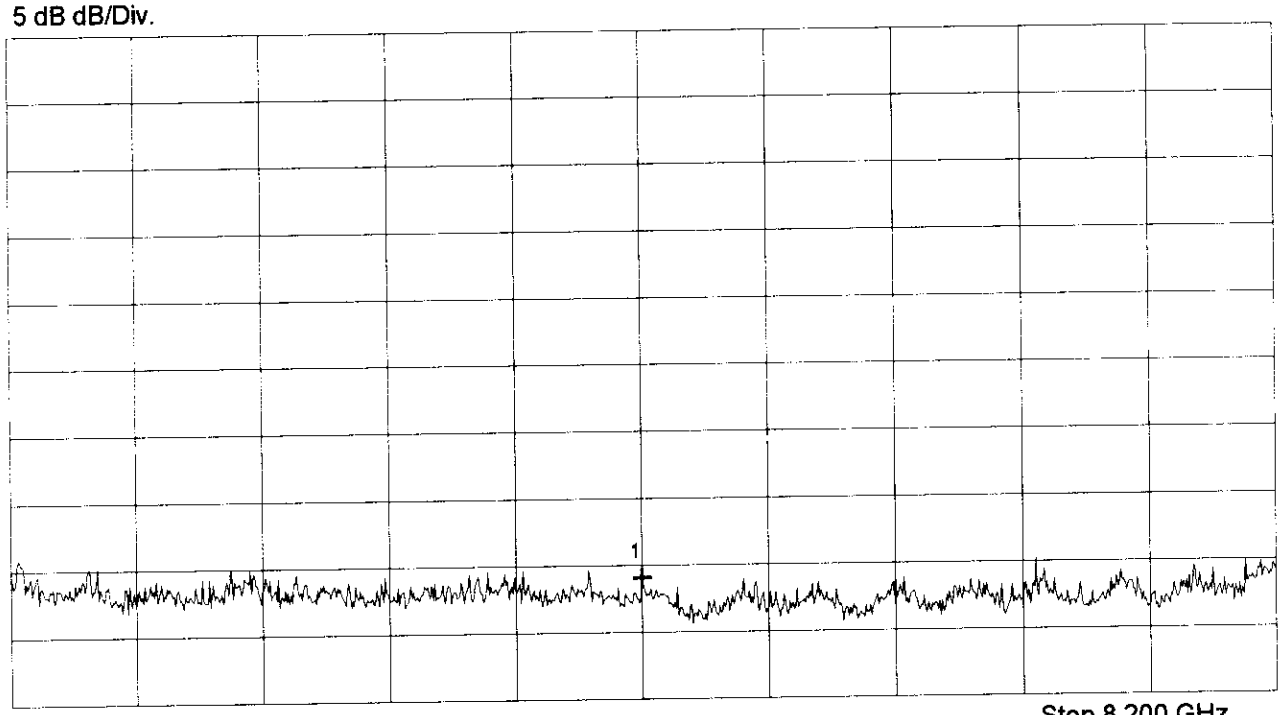
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.025000 GHz	5.58 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

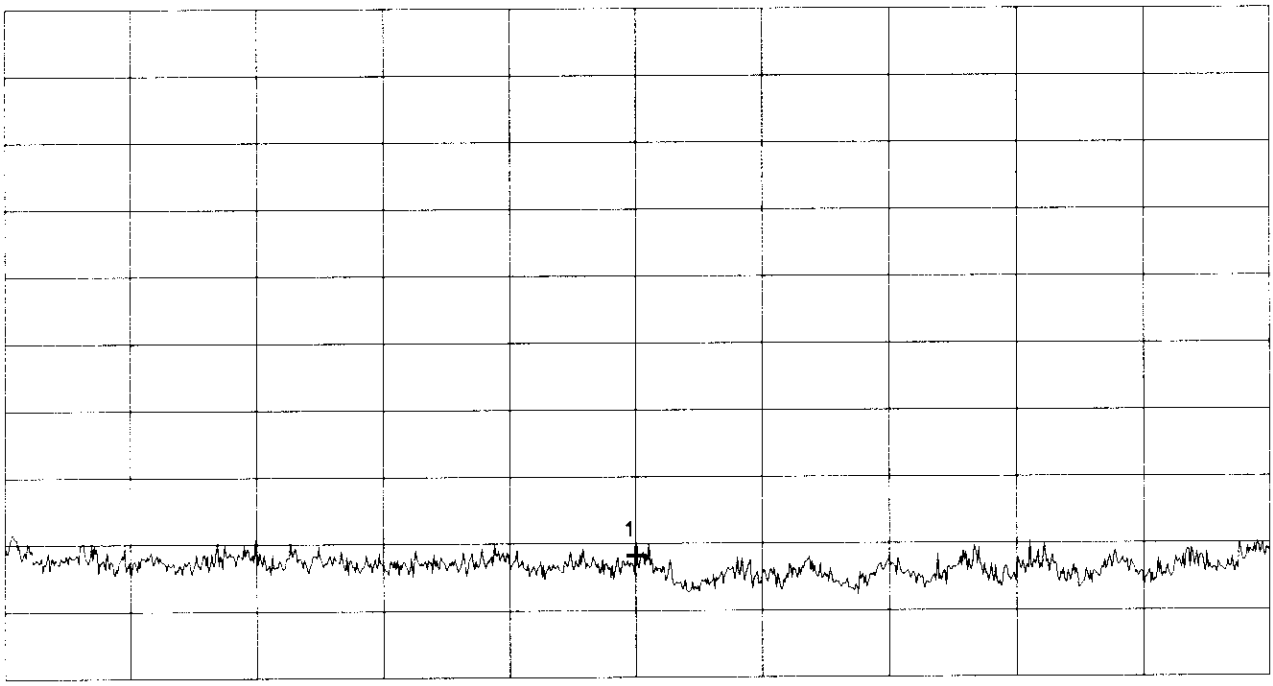
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.025000 GHz	5.58 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

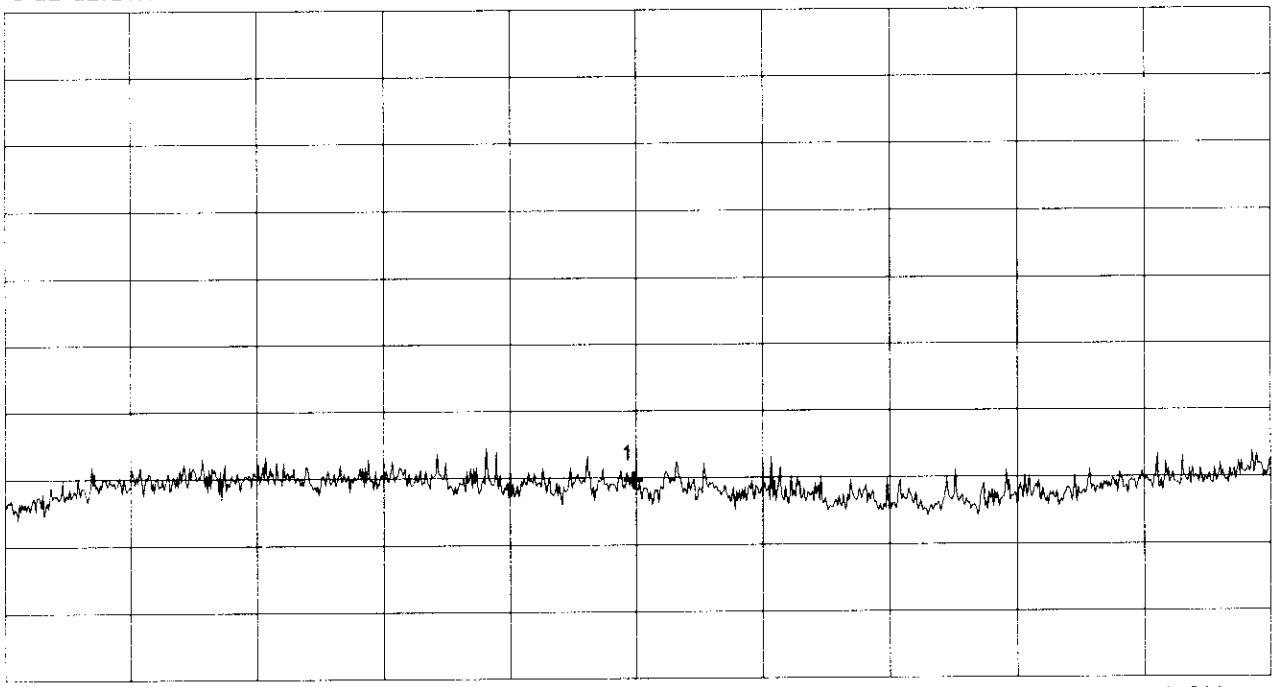
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.290667 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

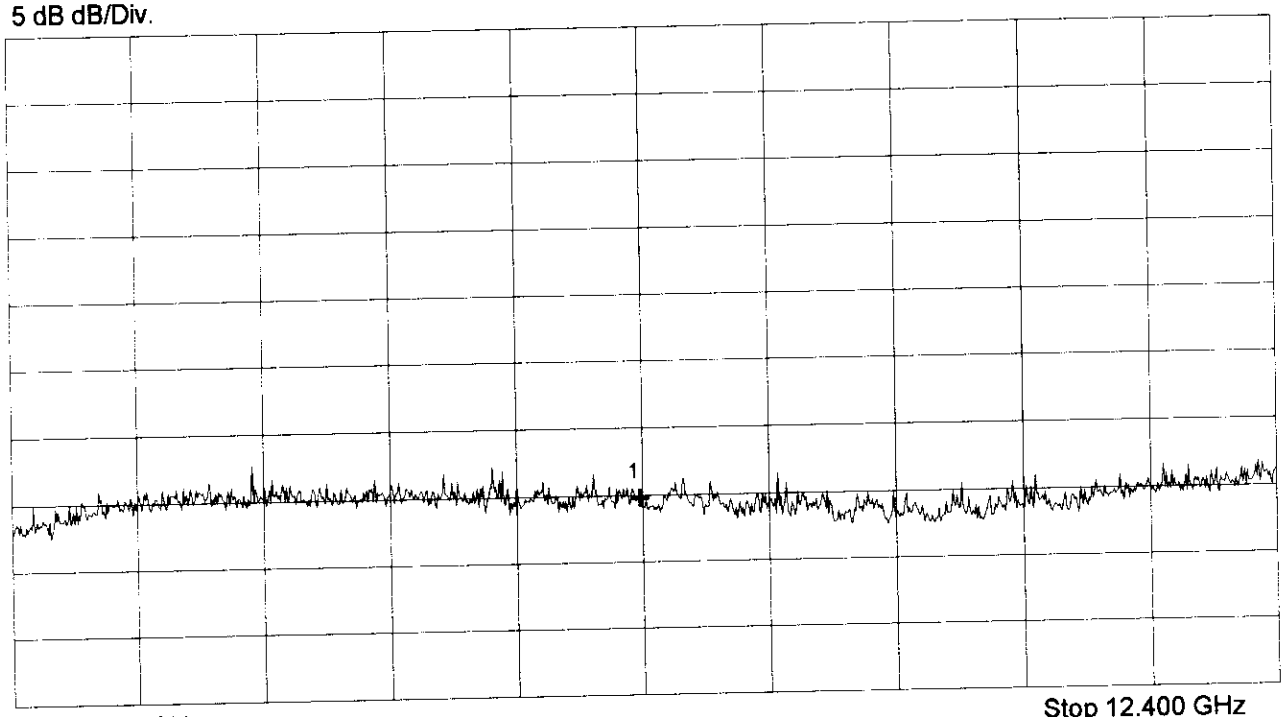
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.290667 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

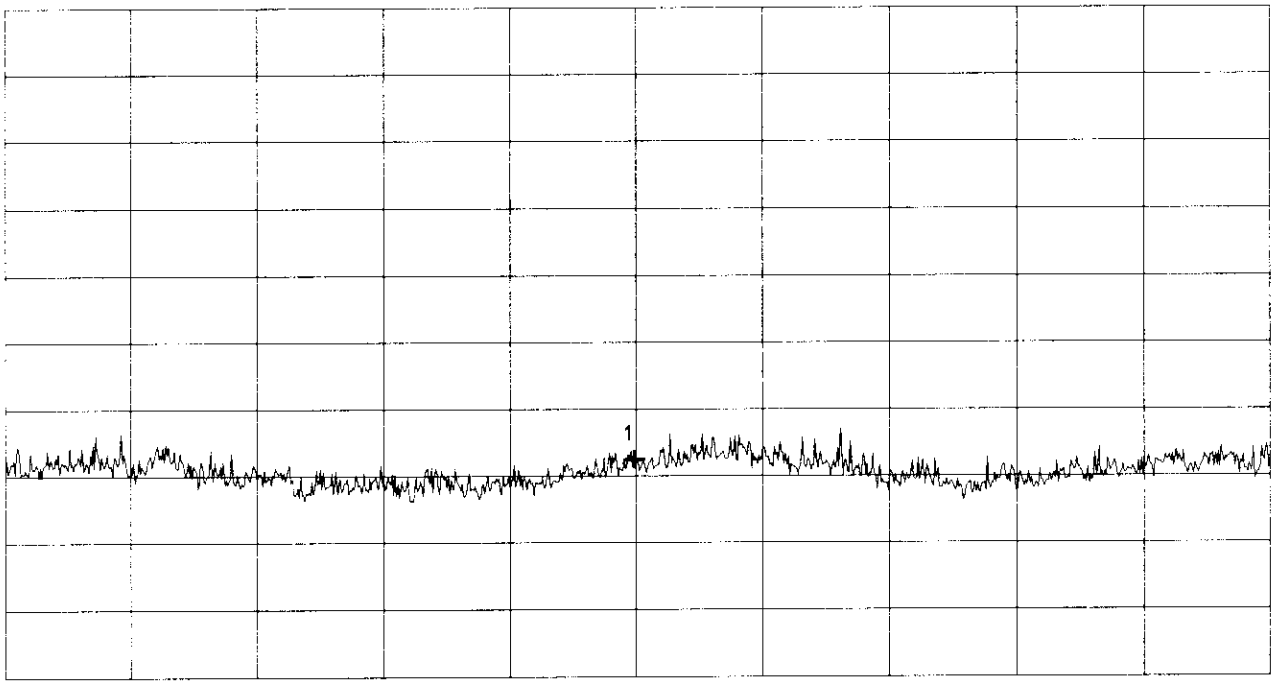
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	8.23 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

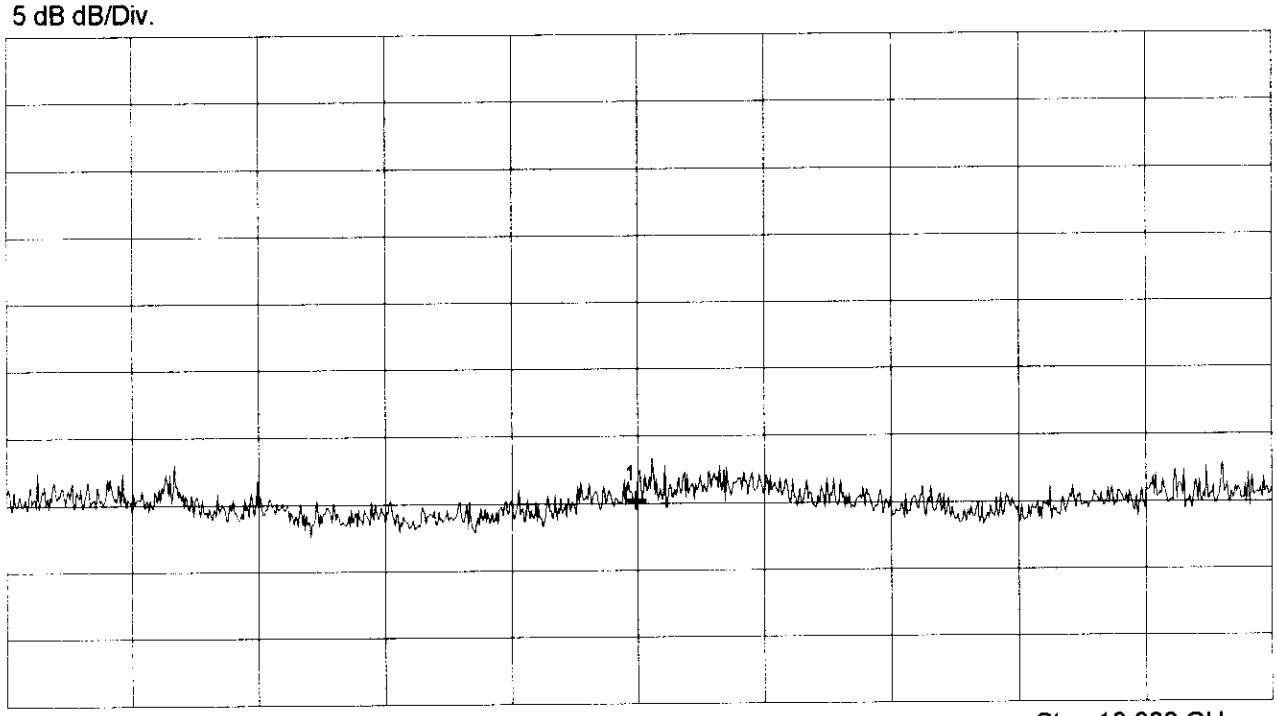
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	7.22 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

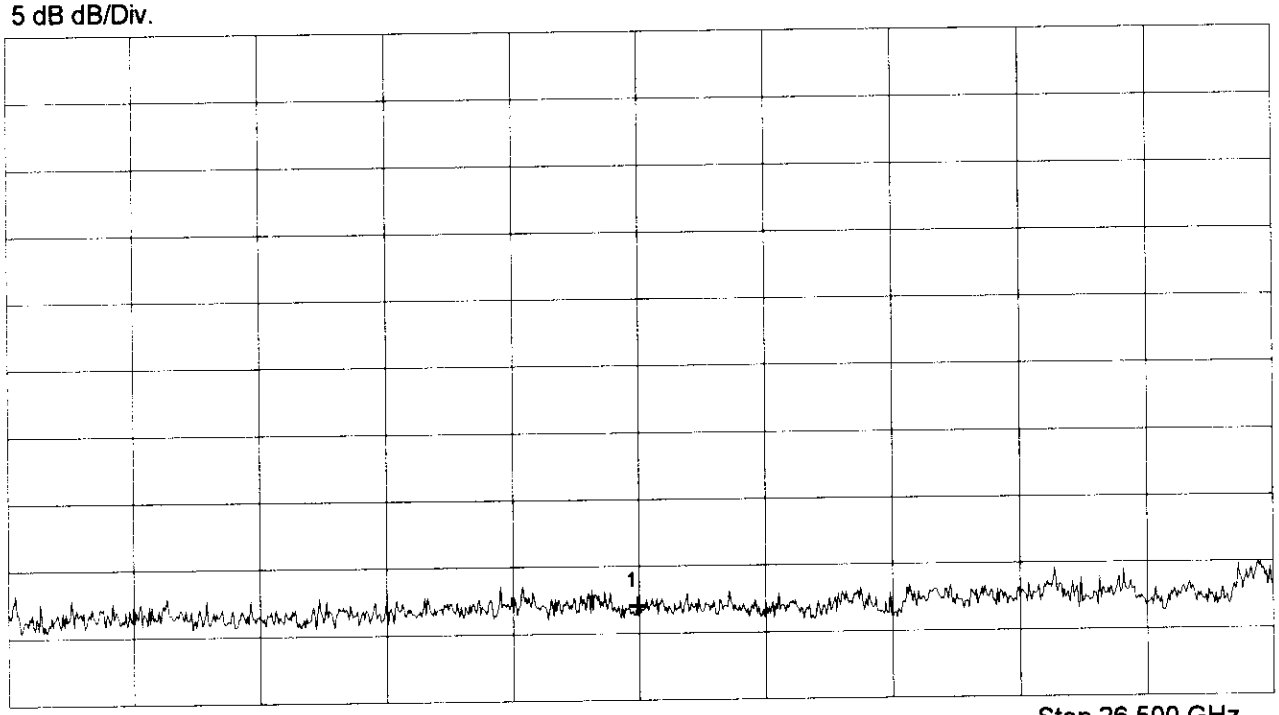
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.240556 GHz	18.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

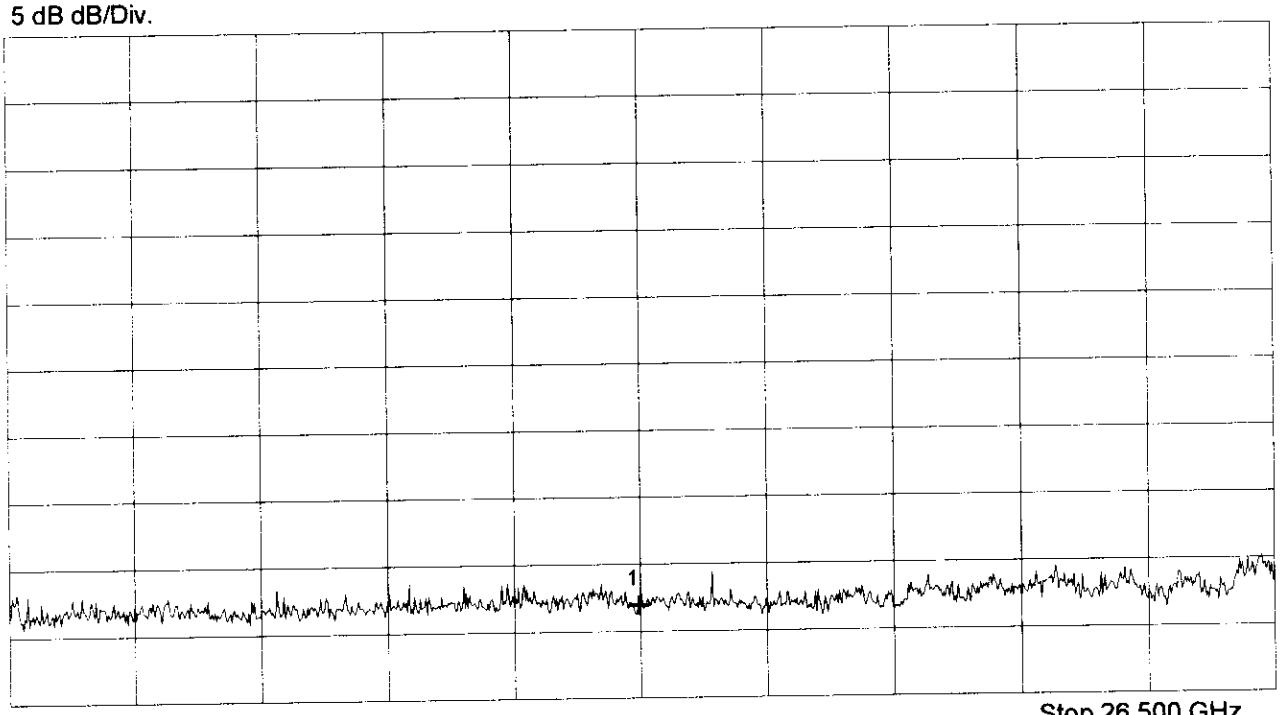
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.240556 GHz	18.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

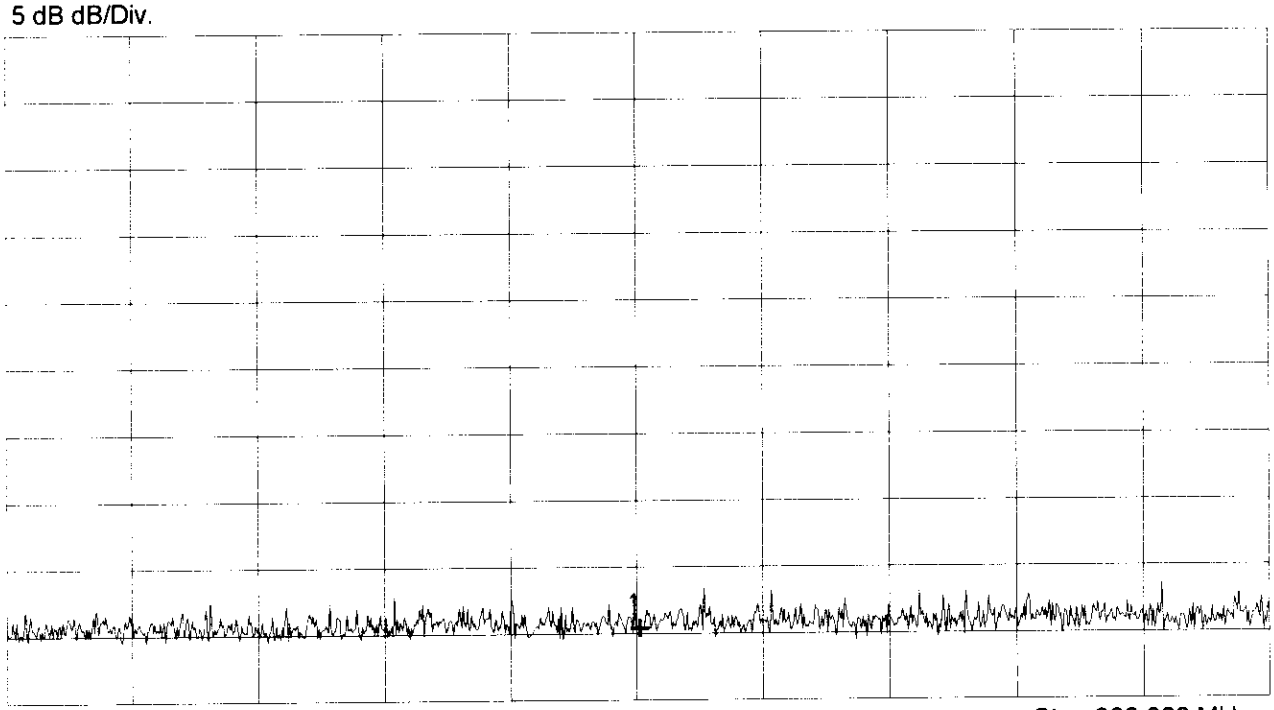
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.600000 MHz	2.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

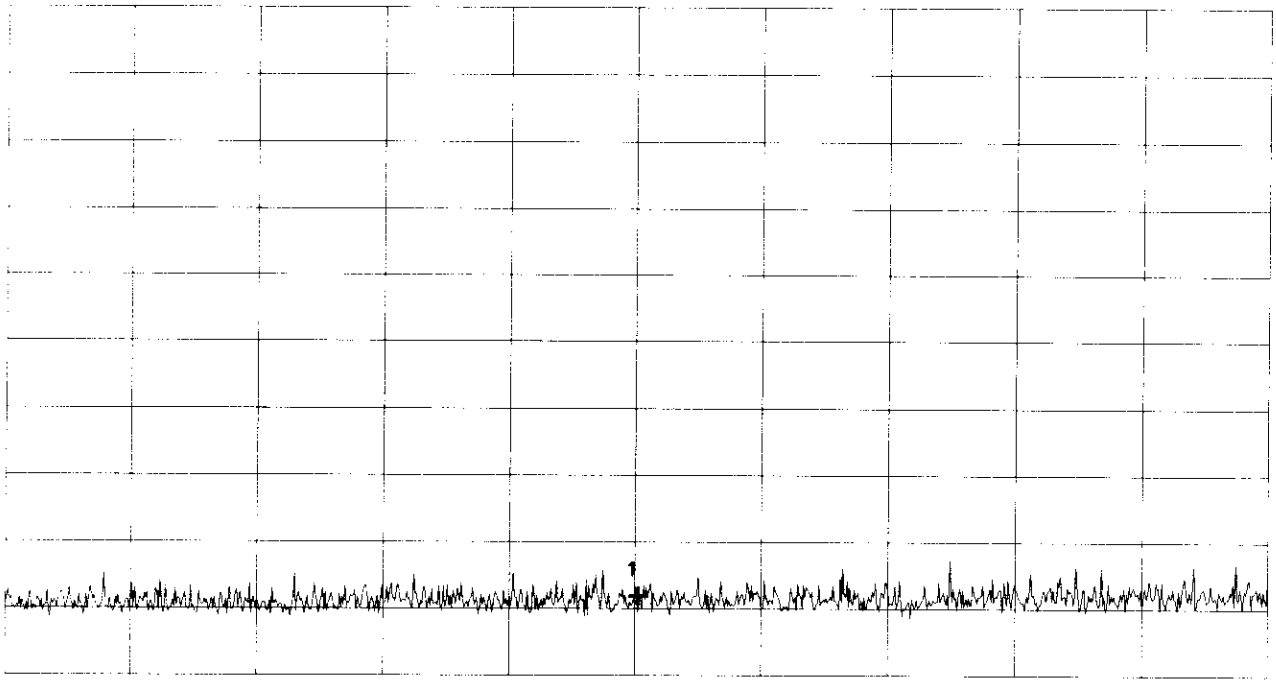
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.600000 MHz	2.92 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

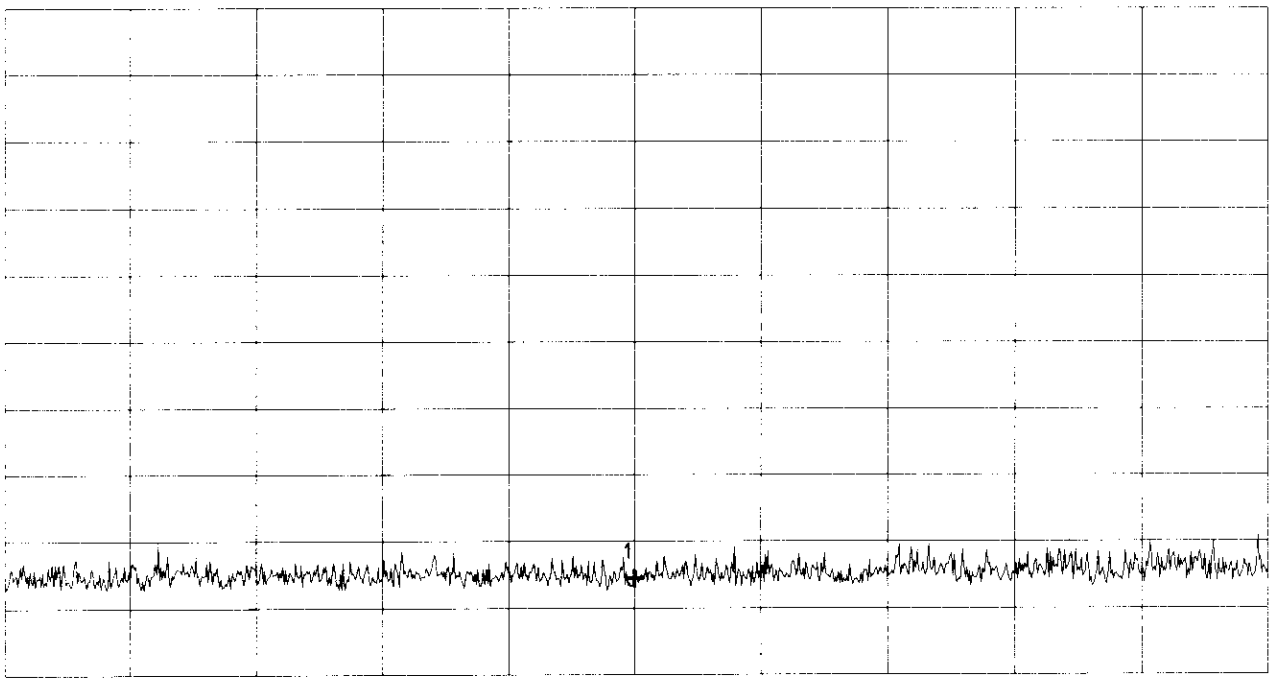
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.24 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

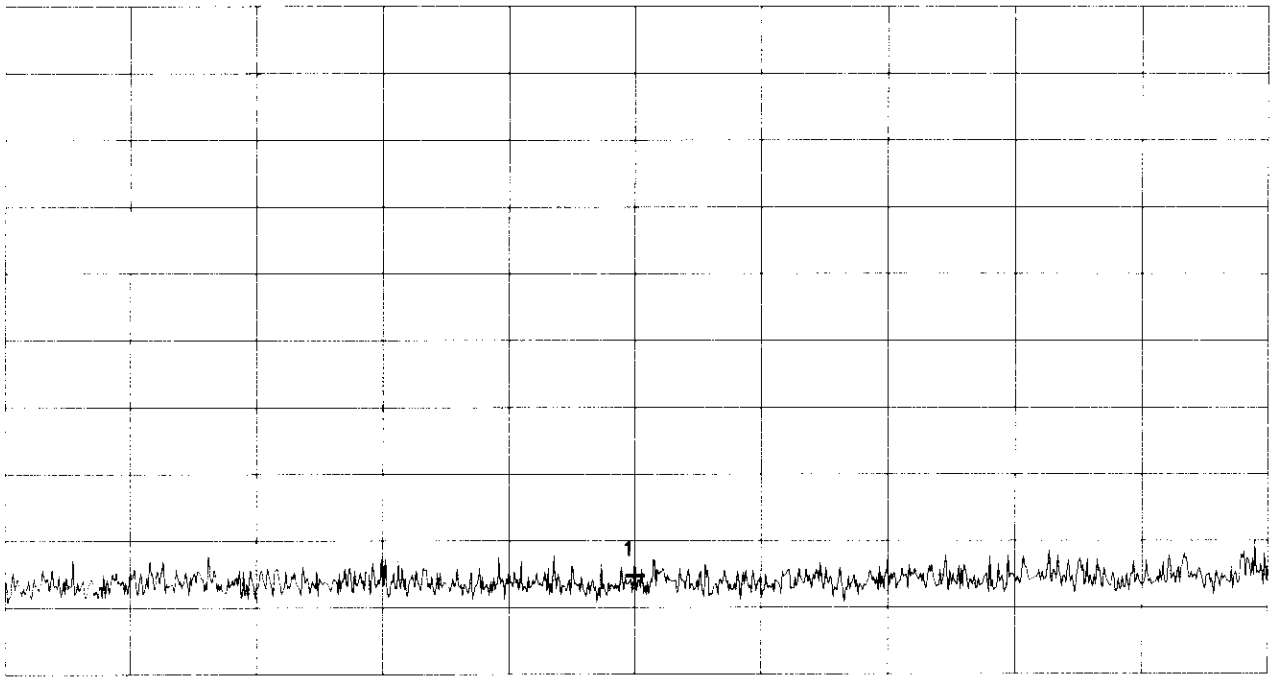
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

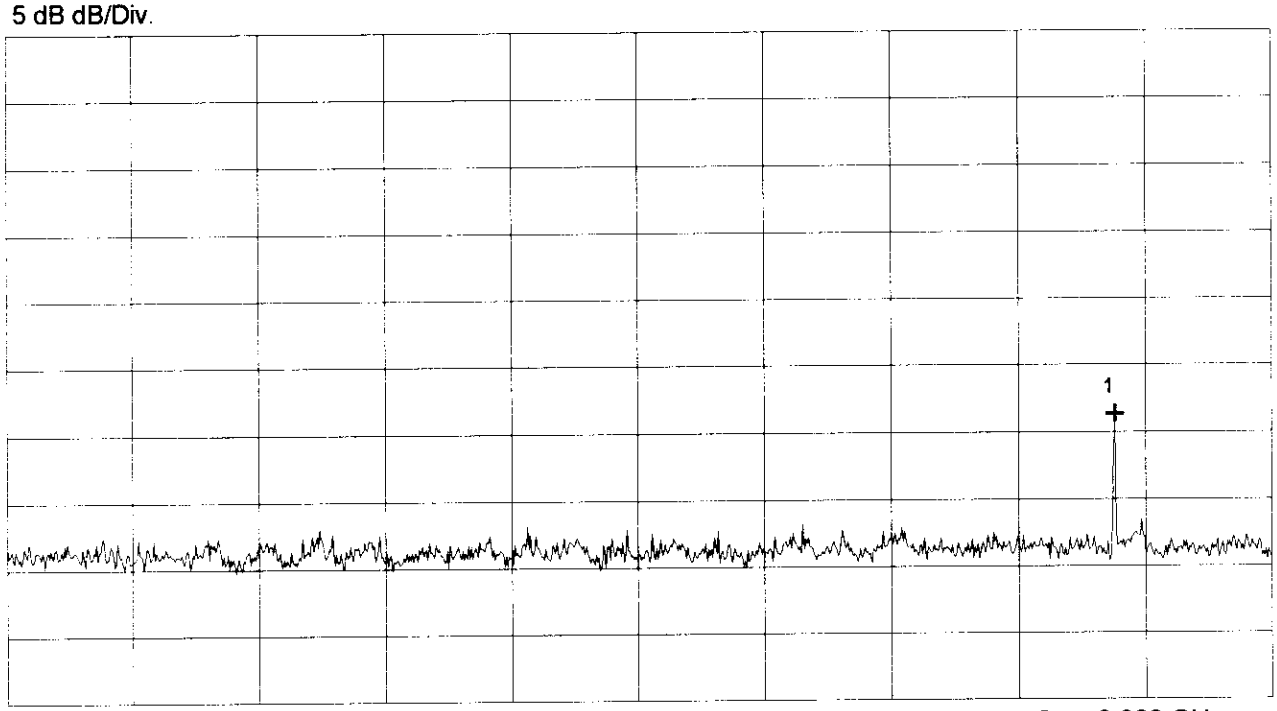
RX Mode Channel 27 (2466.5 MHz)

Test distance 3m
Horizontal polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.400889 GHz	17.89 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

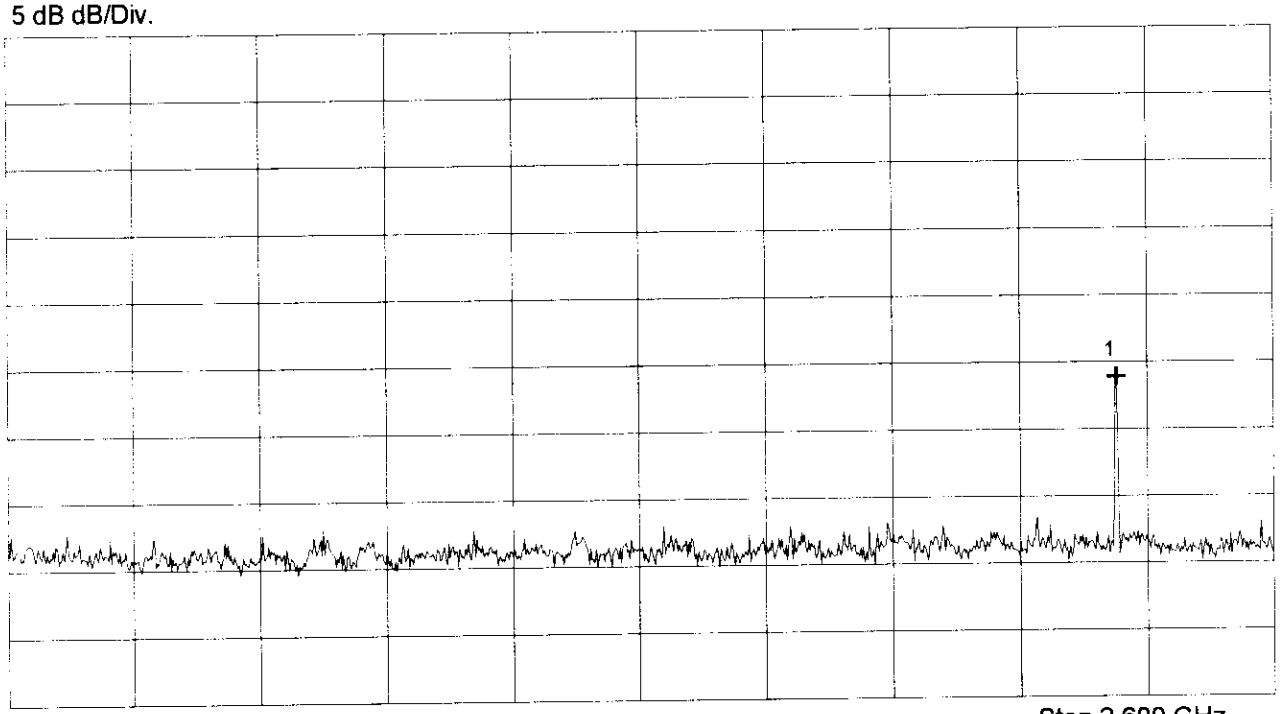
RX Mode Channel 27 (2466.5 MHz)

Test distance 3m
Vertical polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.400889 GHz	20.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

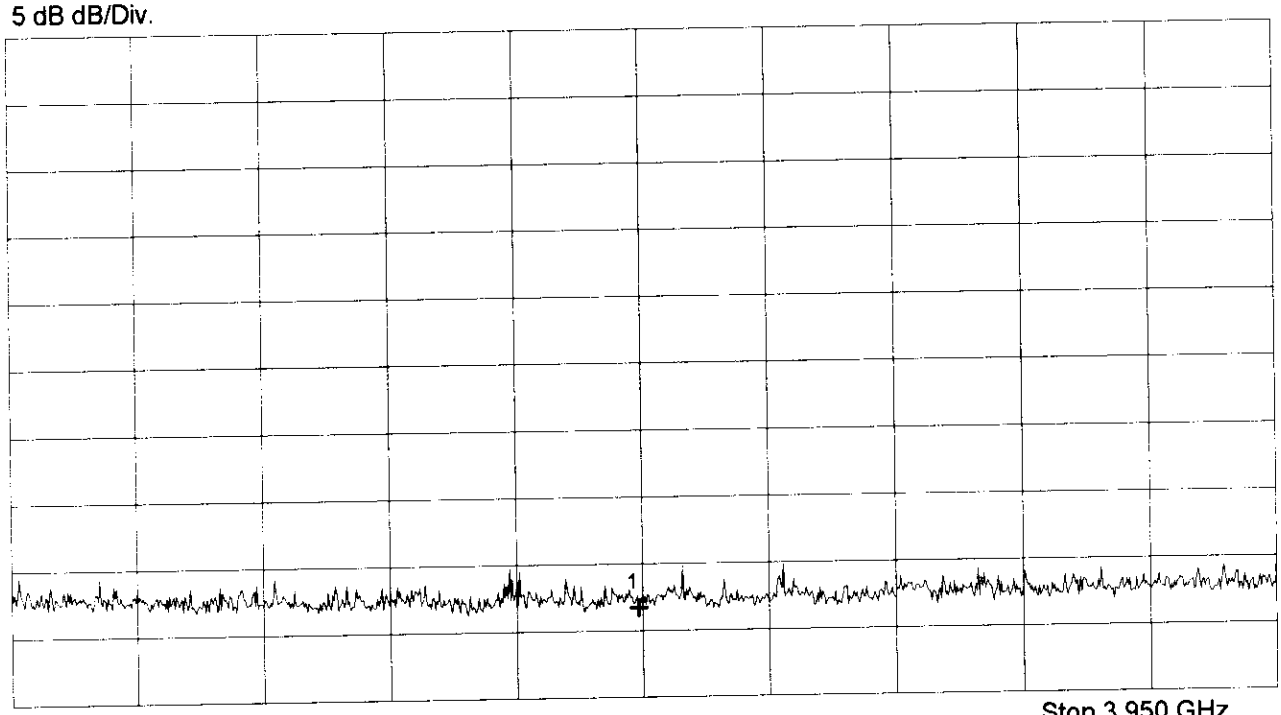
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.20 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

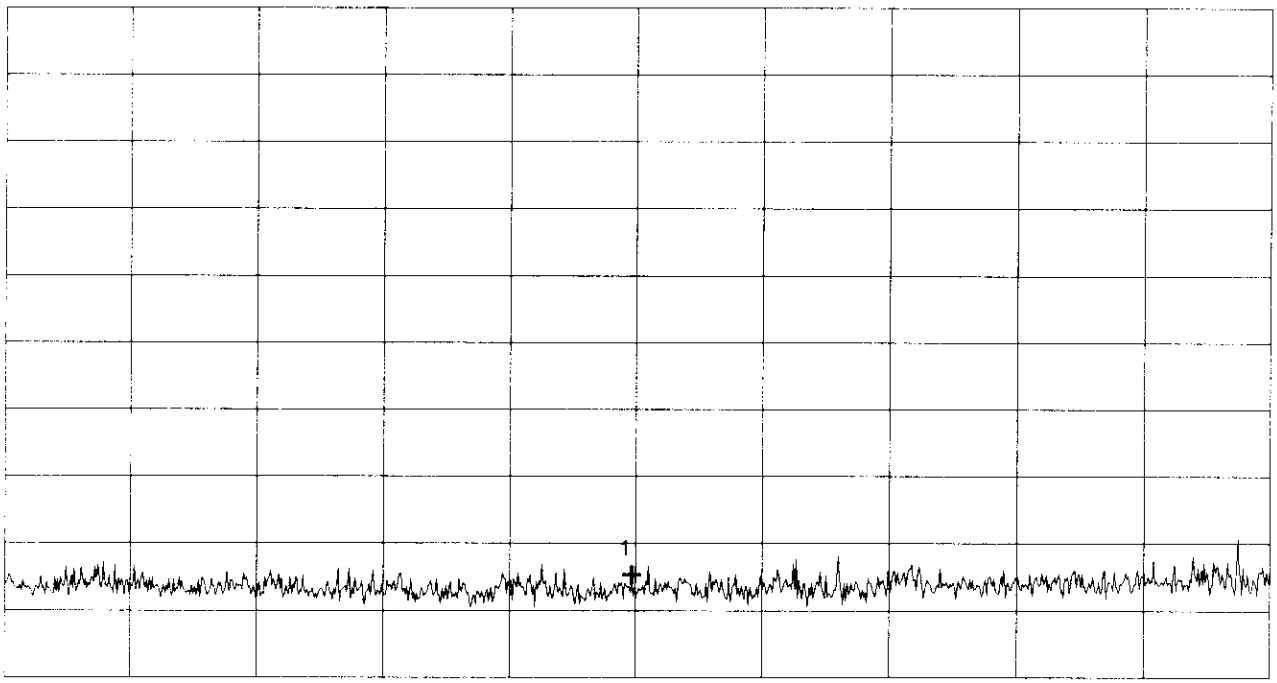
Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 27 (2466.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 46.5 dBµV ATT 0 dB Ref. Offset -30.5 dB
5 dB dB/Div.



Start 2.600 GHz Stop 3.950 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	4.15 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

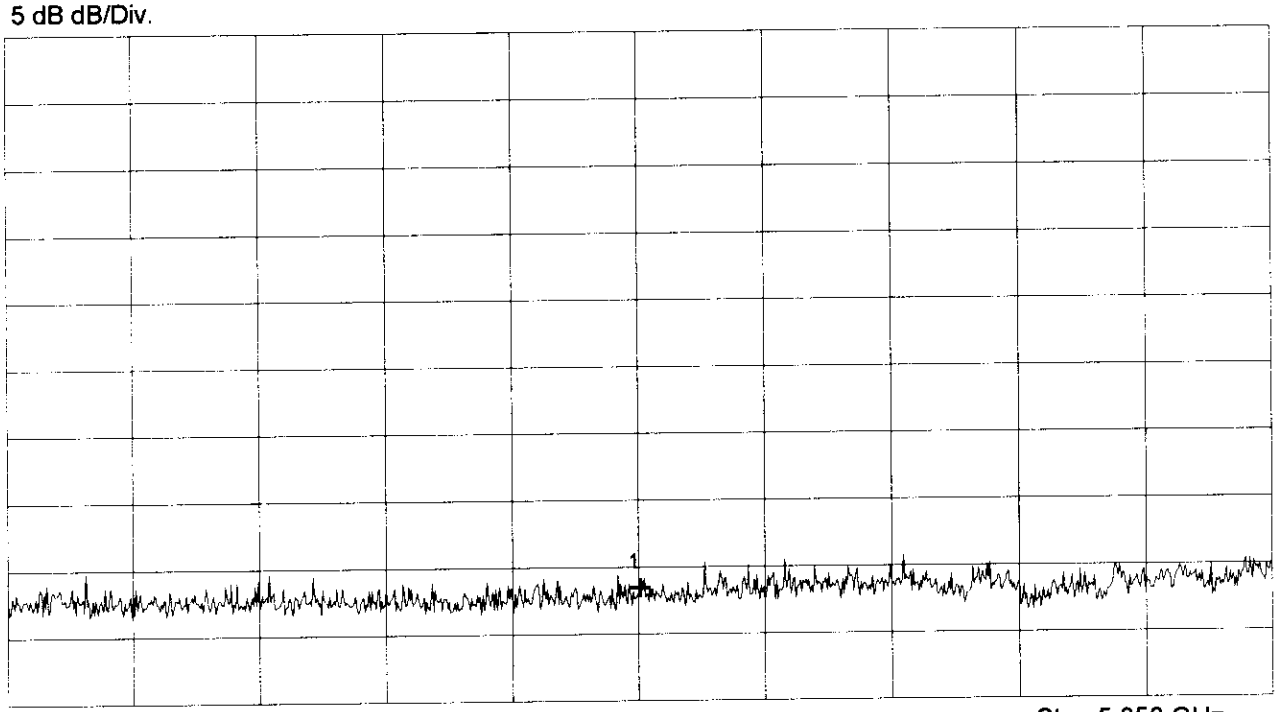
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.902111 GHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

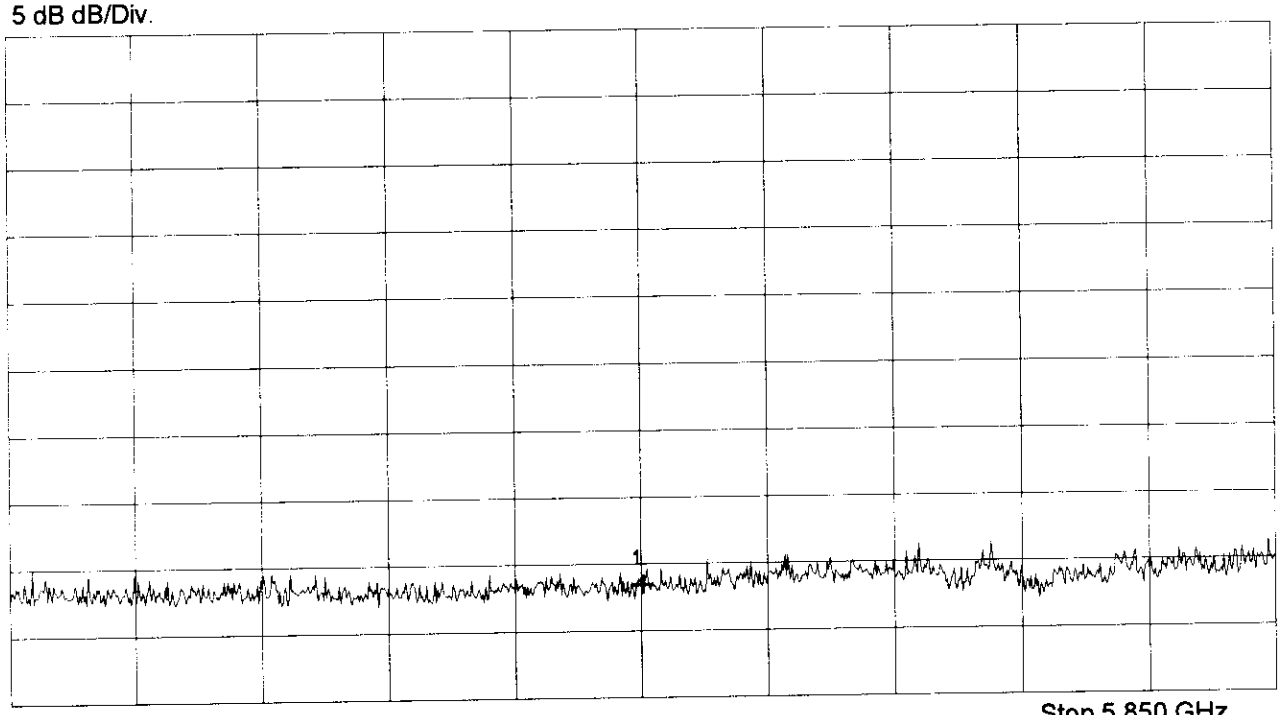
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.902111 GHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

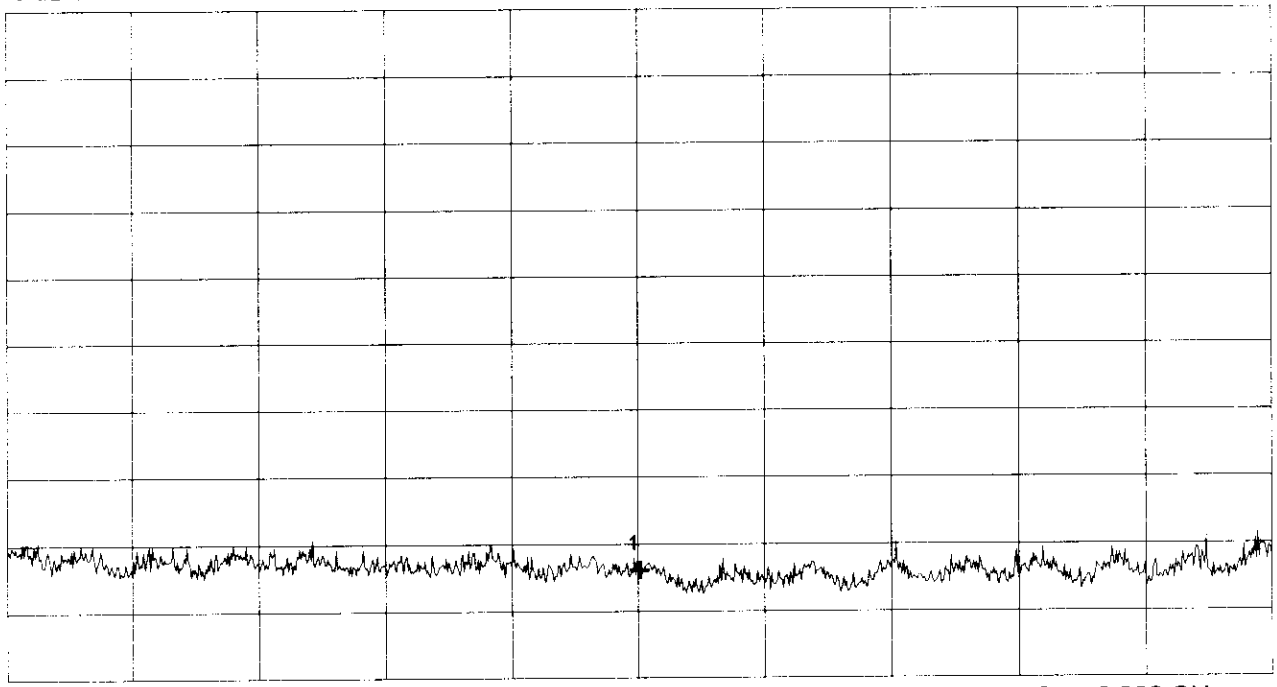
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.027611 GHz	4.55 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

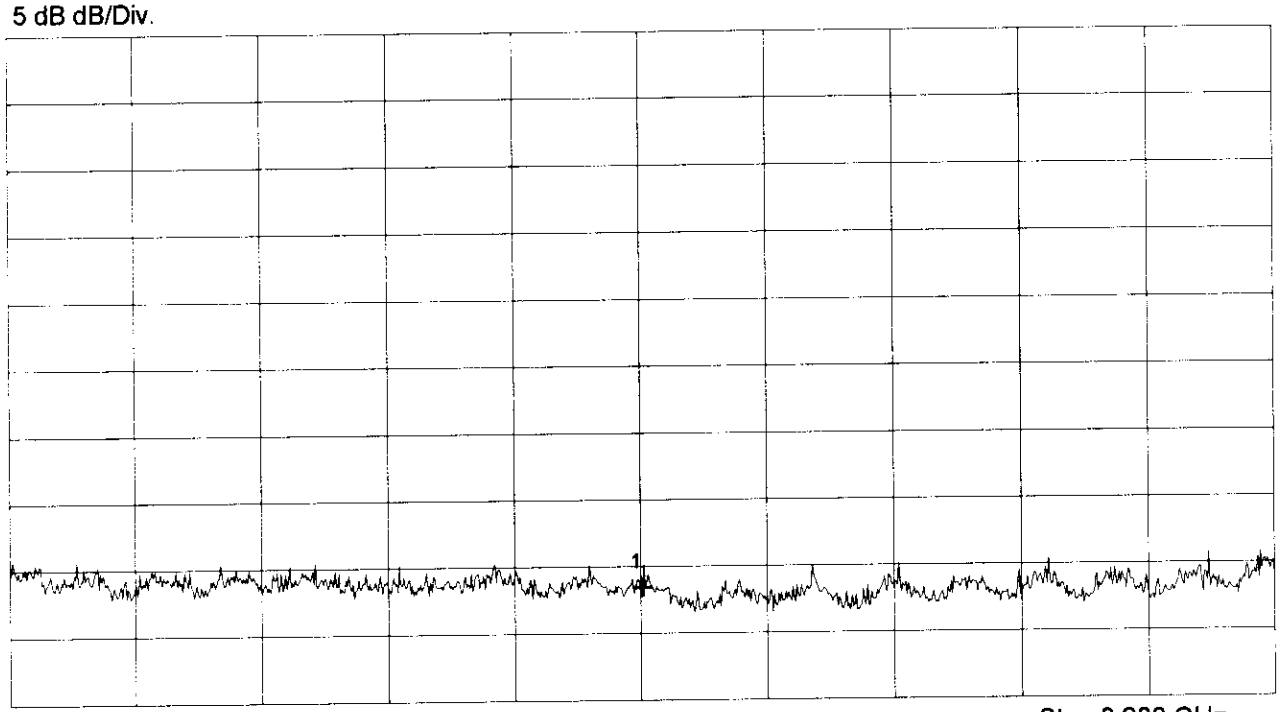
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.027611 GHz	4.91 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

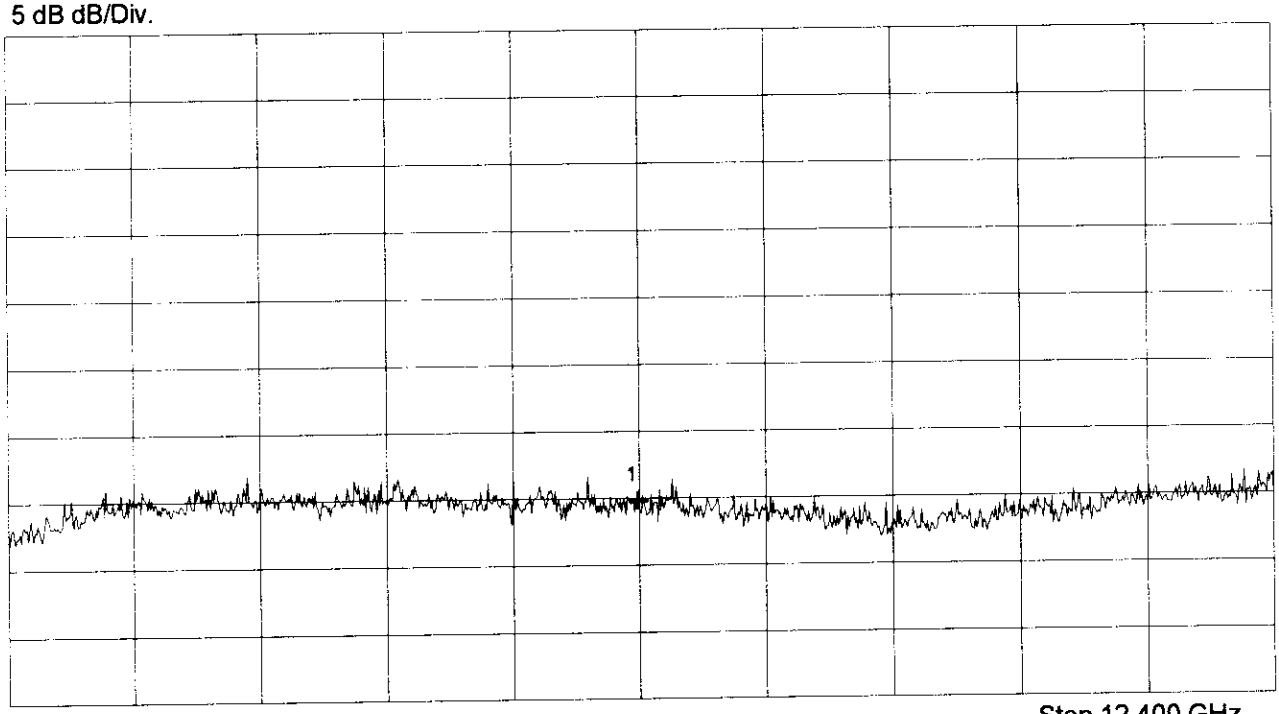
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.295333 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

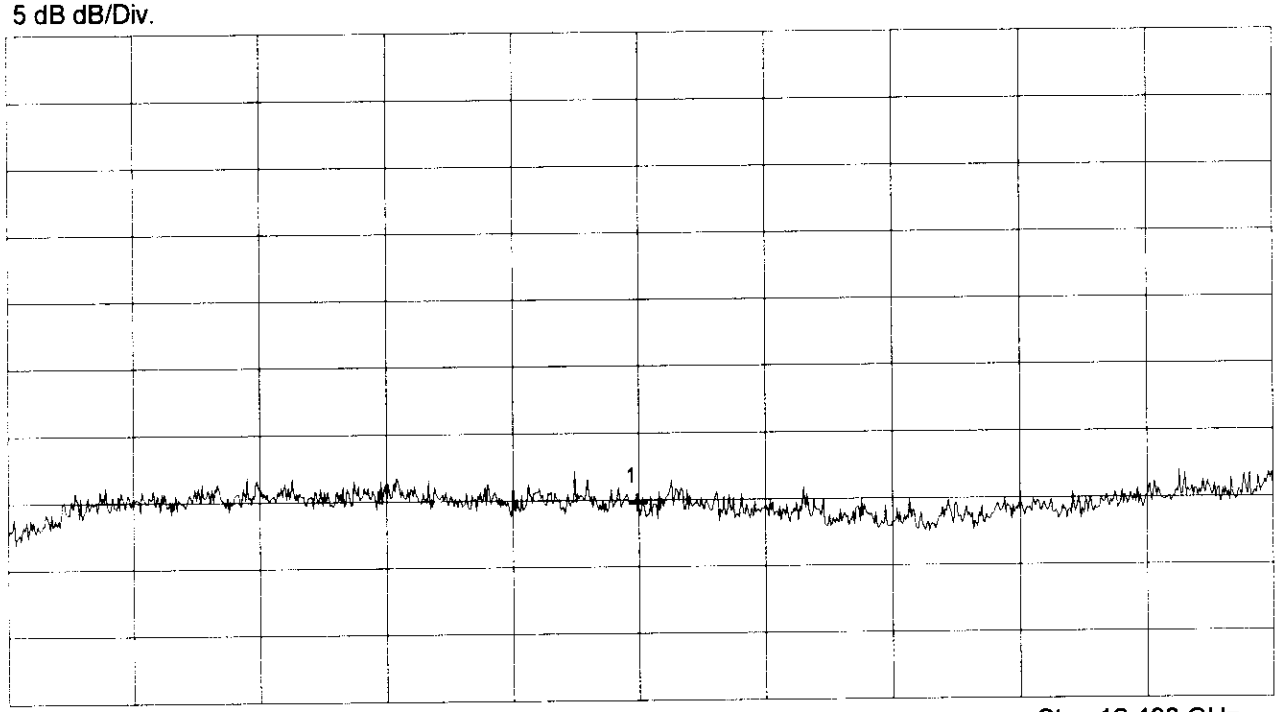
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.295333 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

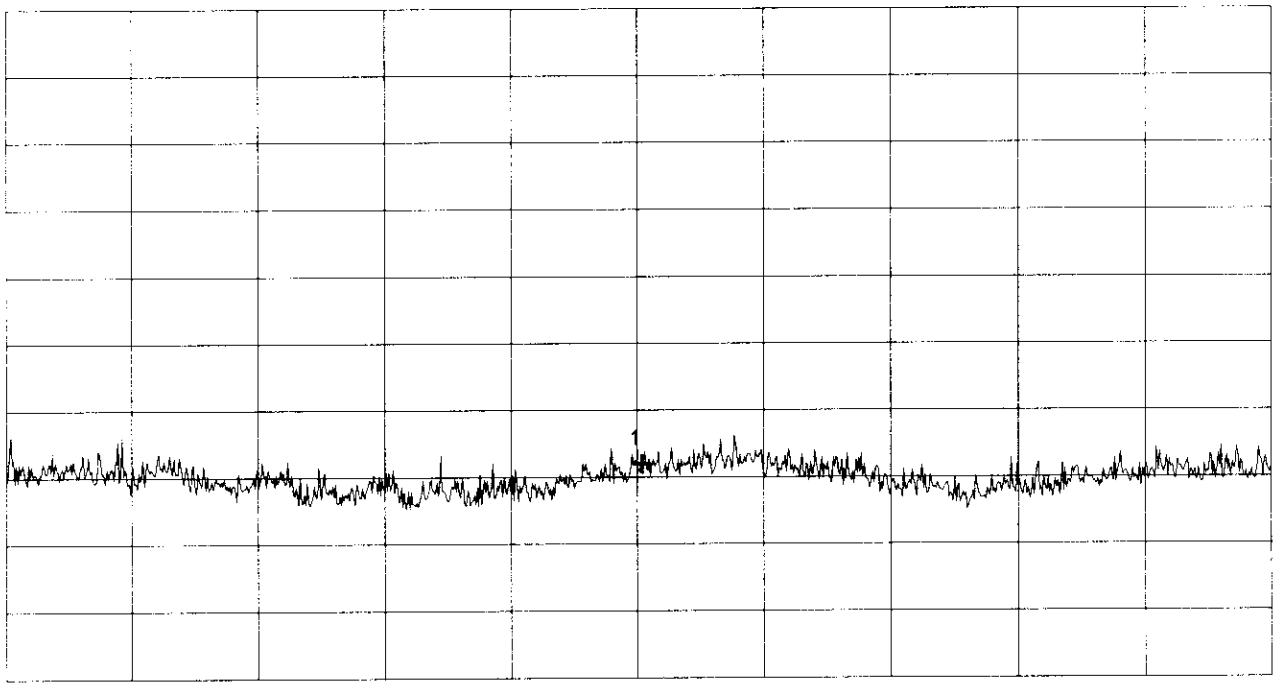
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 27 (2466.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.218667 GHz	7.98 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

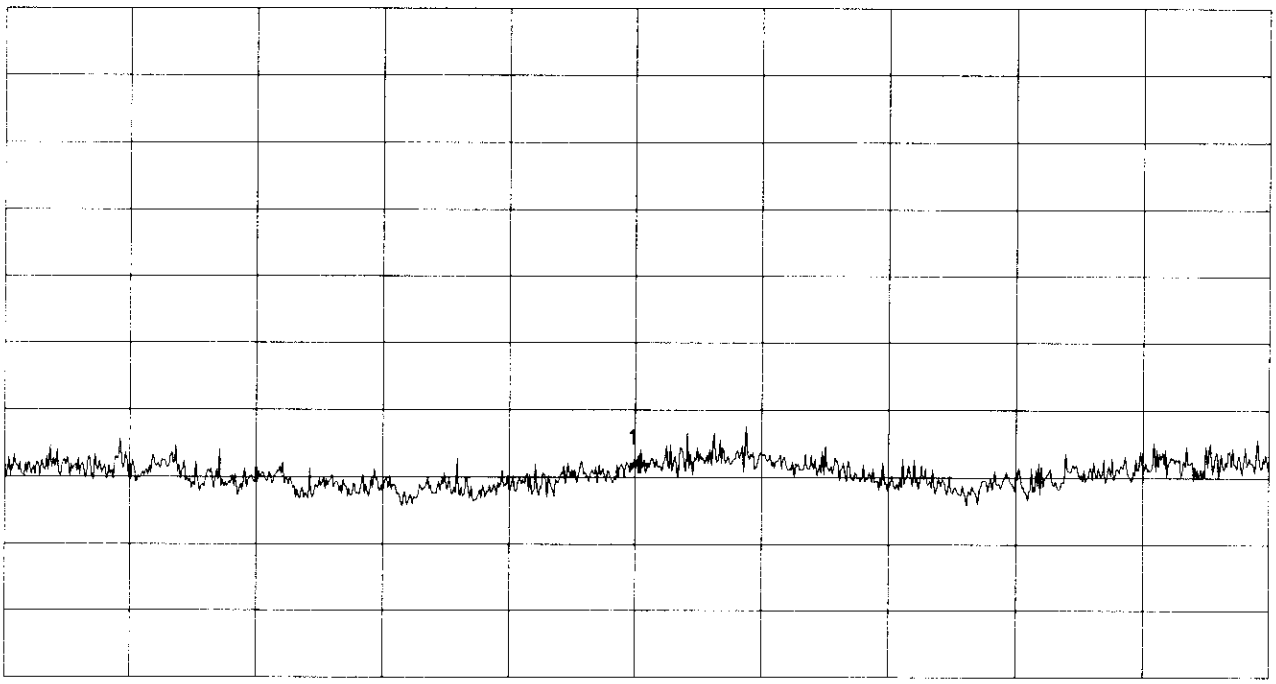
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 27 (2466.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.218667 GHz	7.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

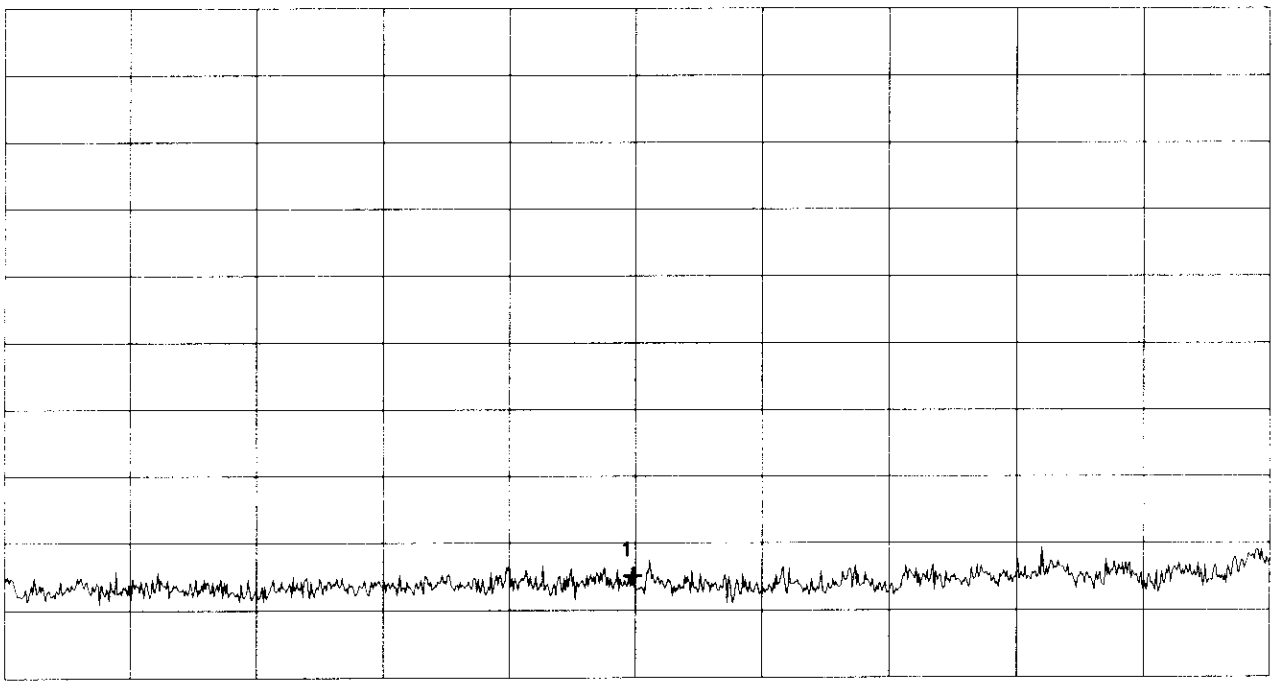
Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 27 (2466.5 MHz)
Applicant: Siemens AG	Test distance 1 m Vertical Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.231111 GHz	19.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

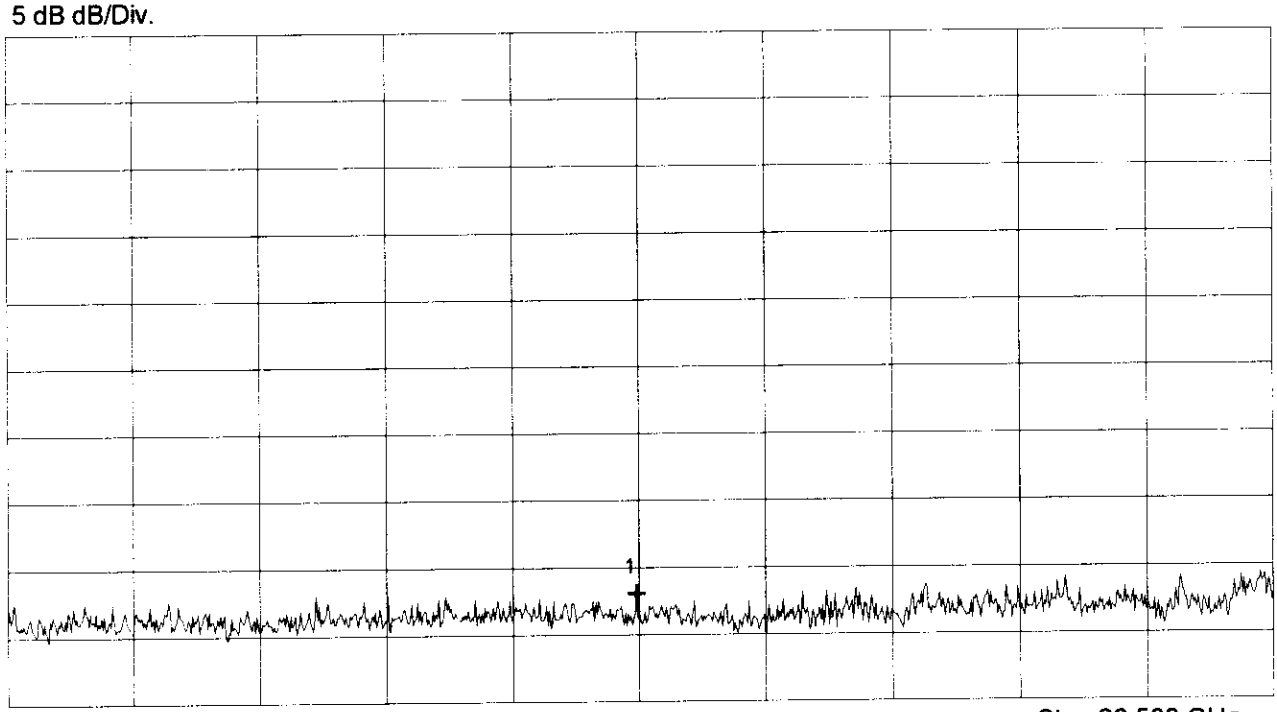
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.231111 GHz	20.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

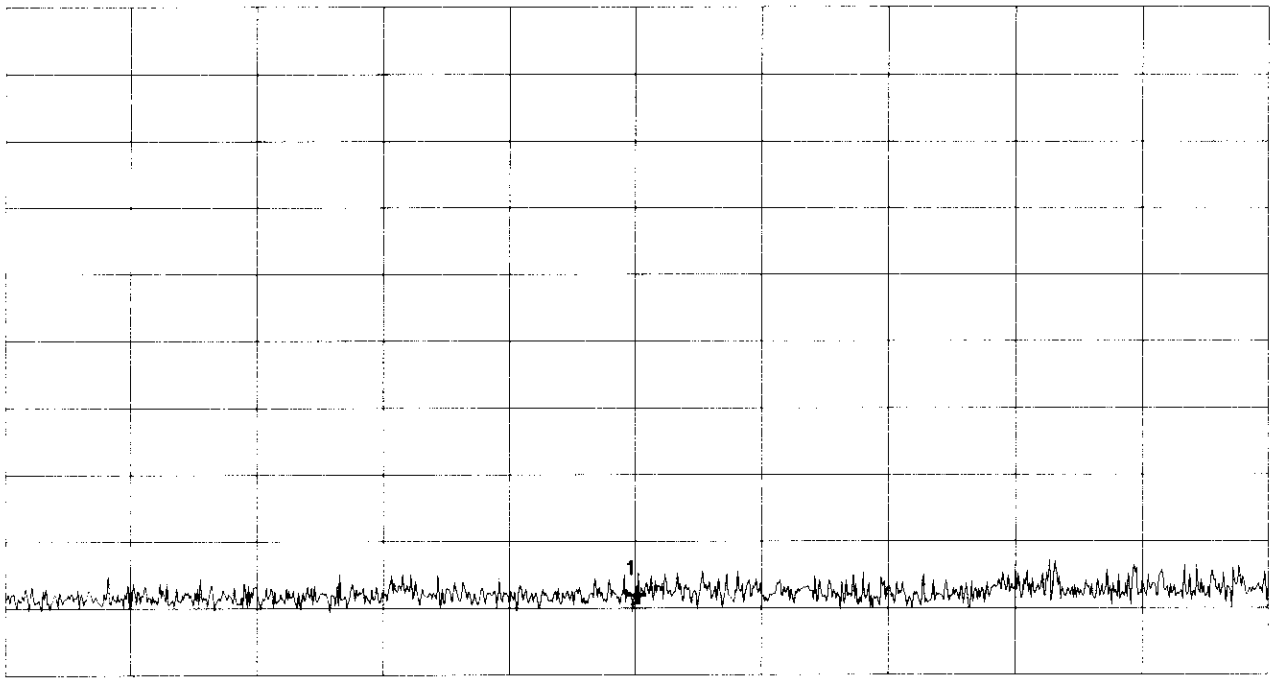
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

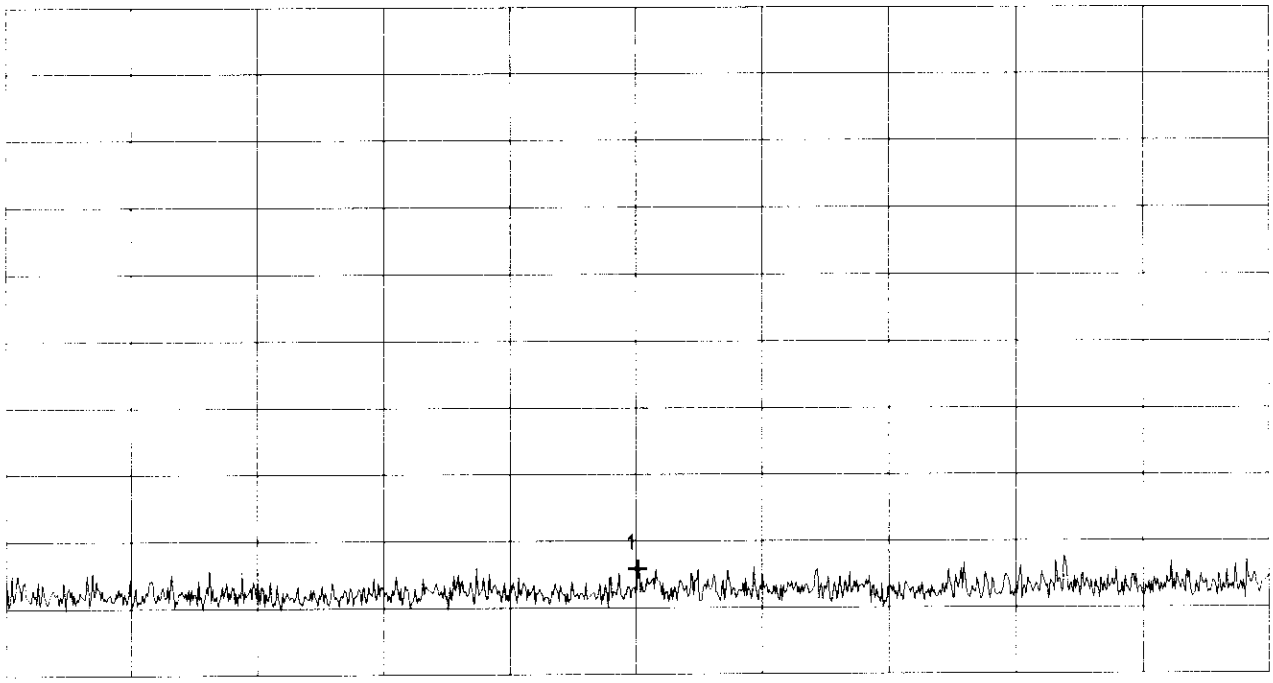
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	4.88 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

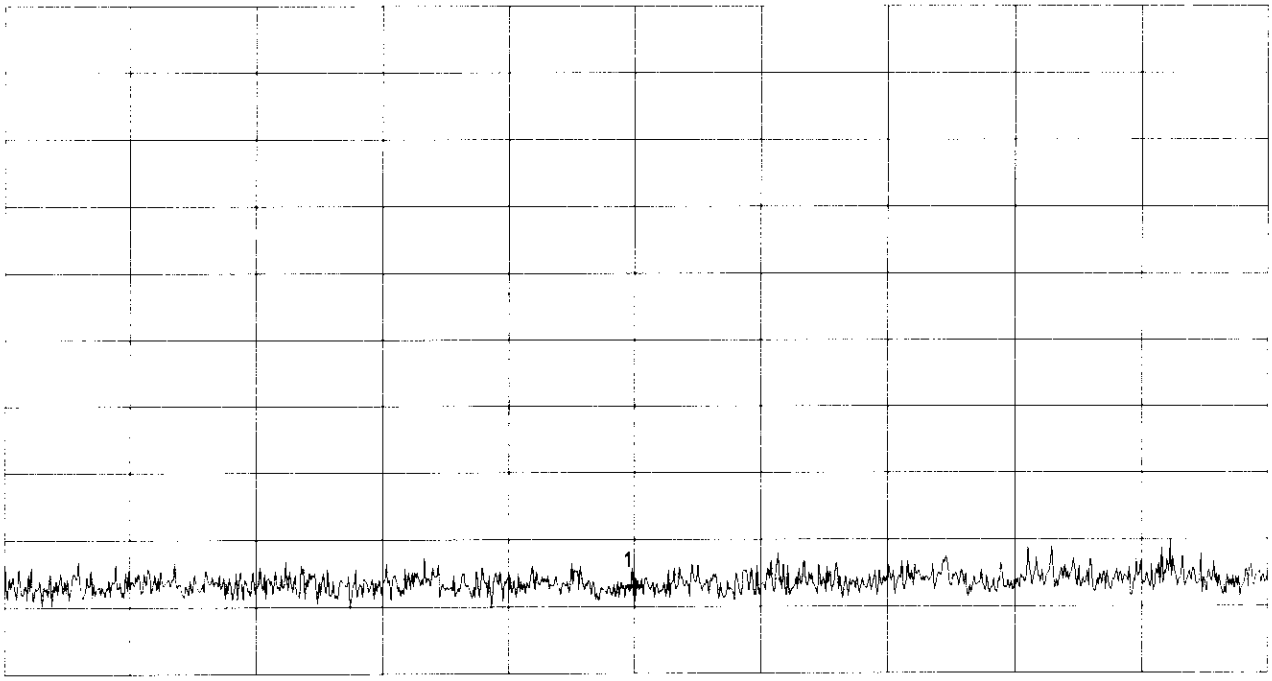
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	3.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

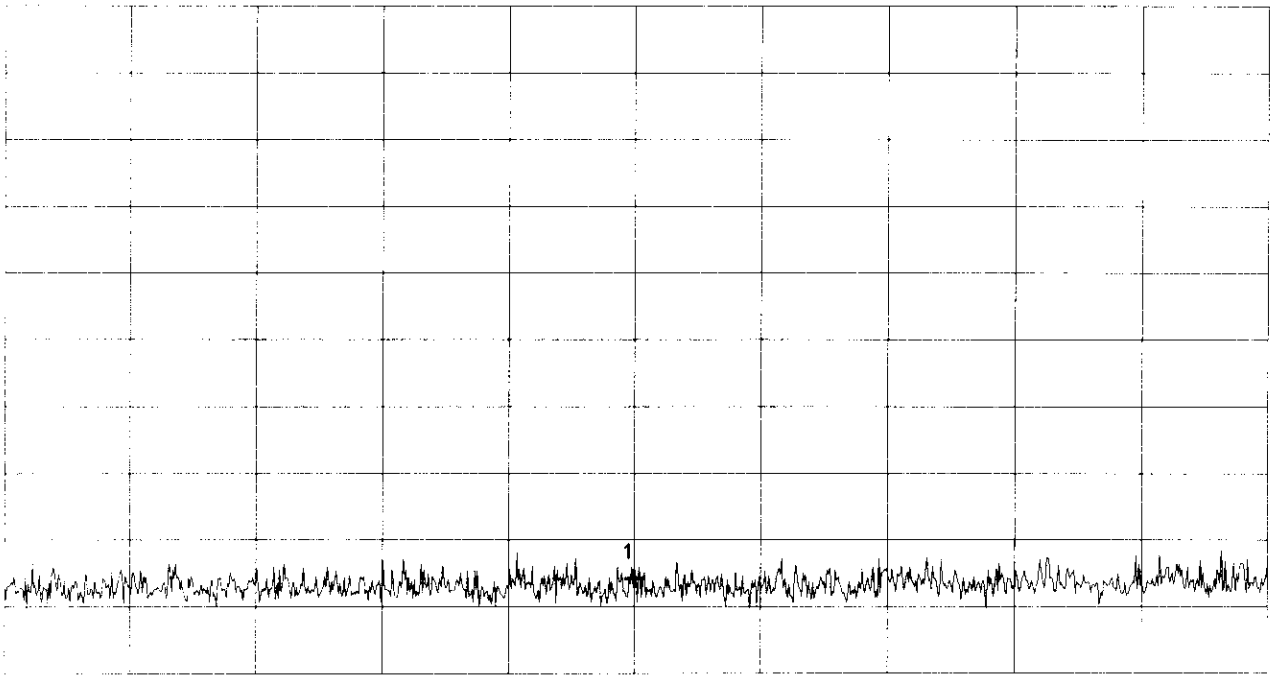
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

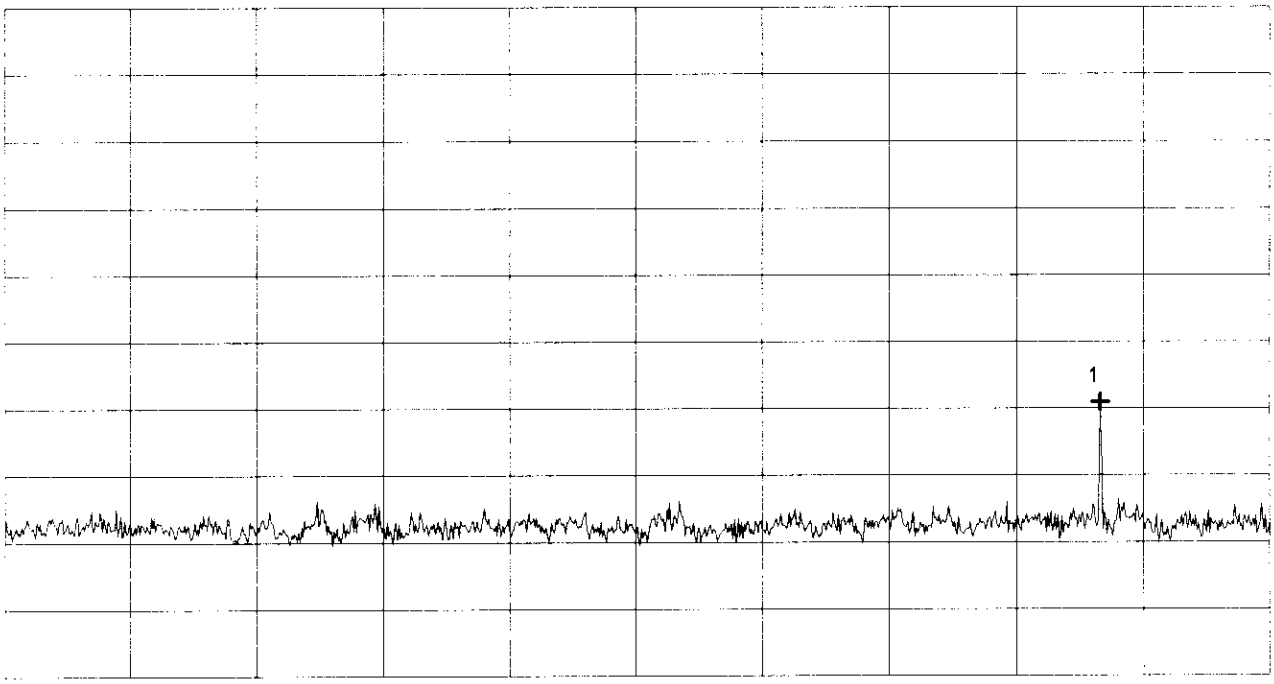
RX Mode Channel 21 (2451.5 MHz)

Test distance 3m
Horizontal polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.384889 GHz	16.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

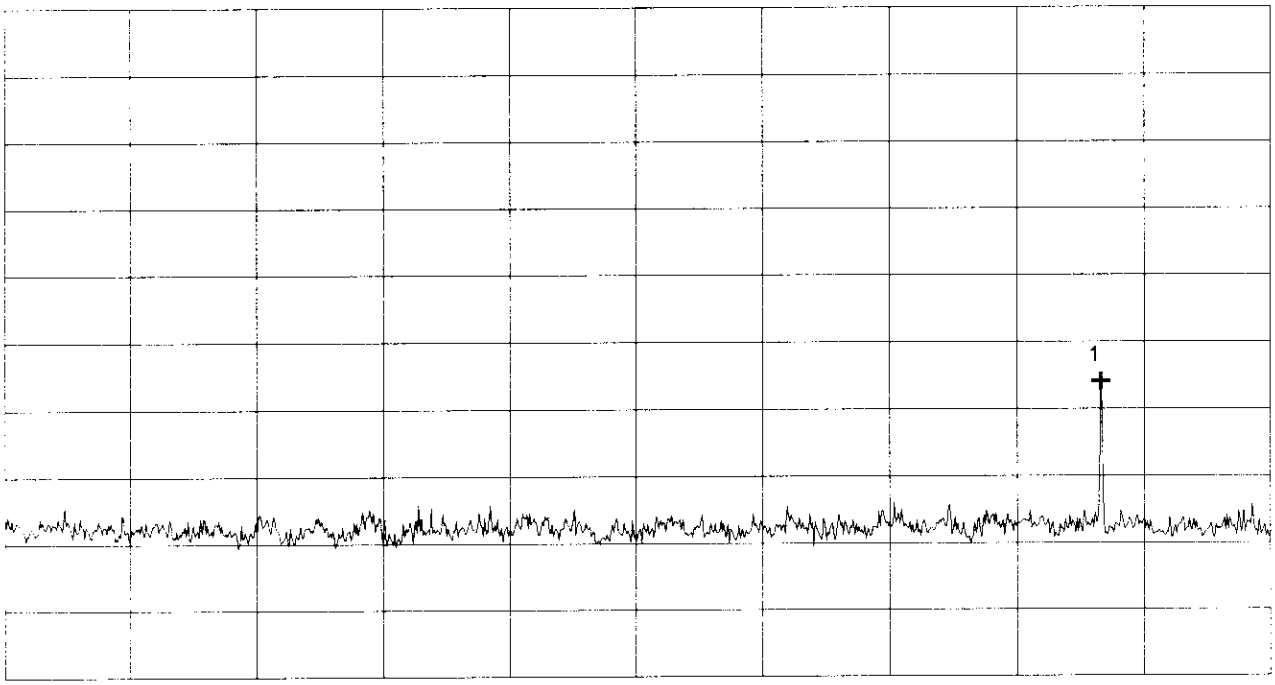
RX Mode Channel 21 (2451.5 MHz)

Test distance 3m
Vertical polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.384889 GHz	18.52 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

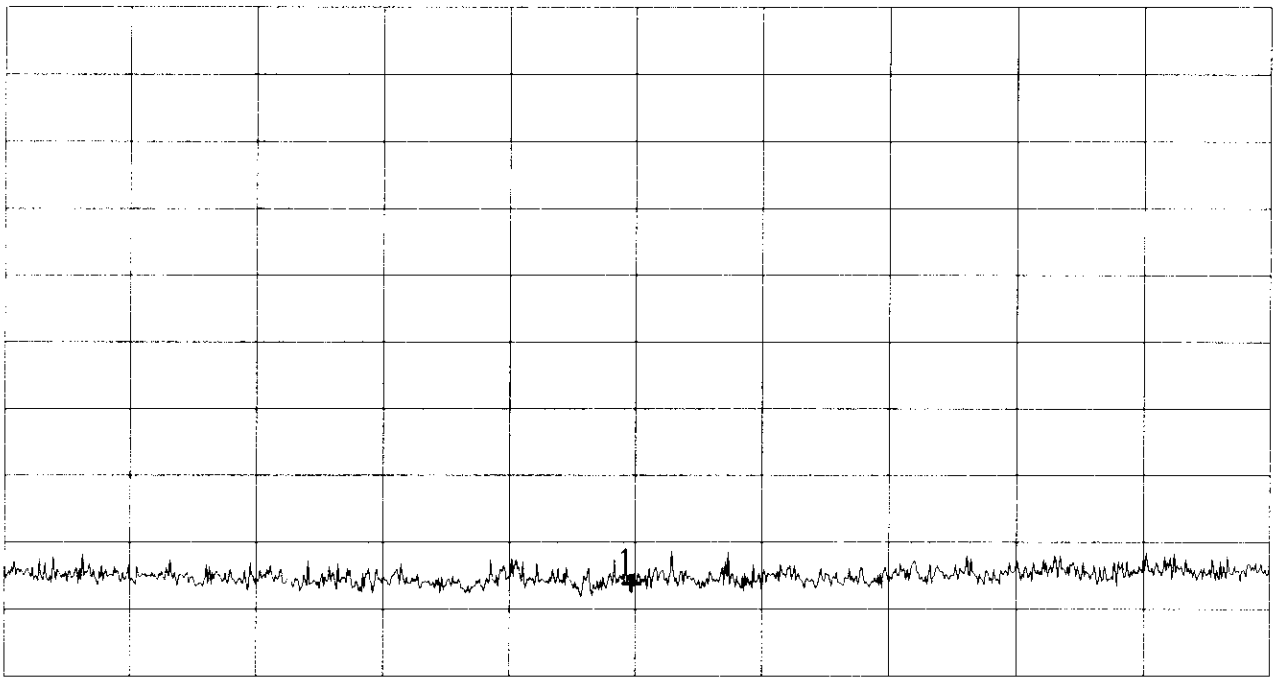
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.40 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

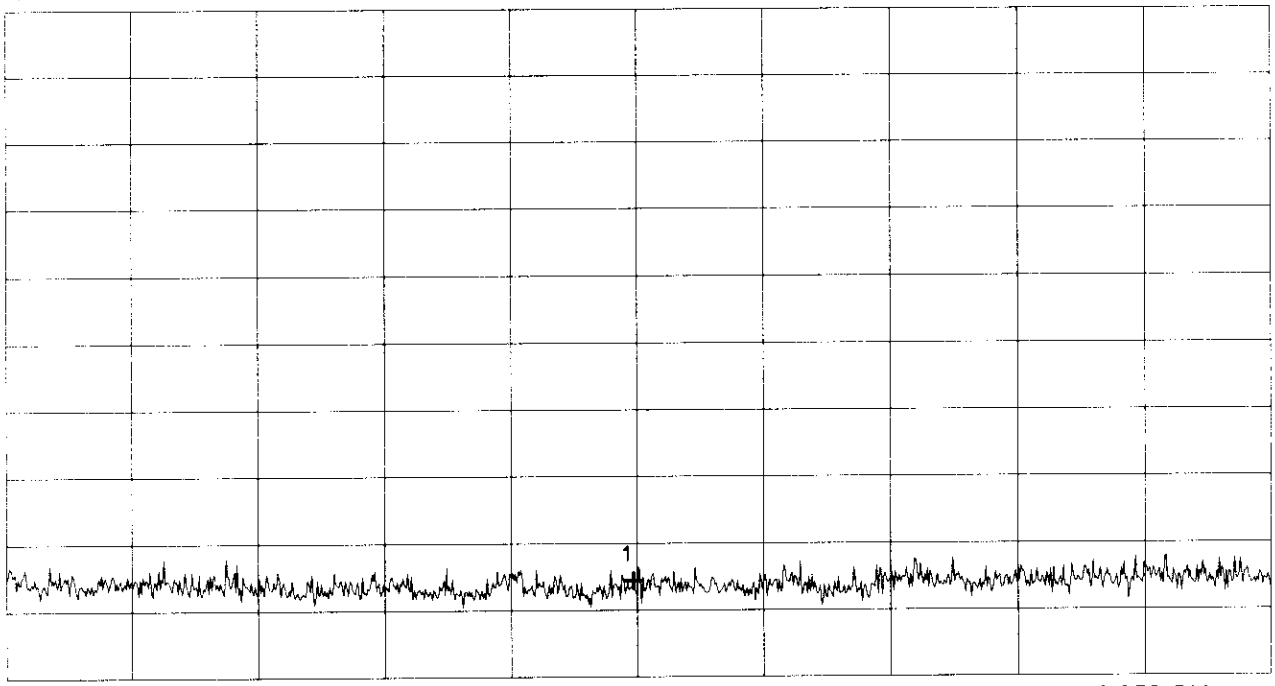
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.70 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

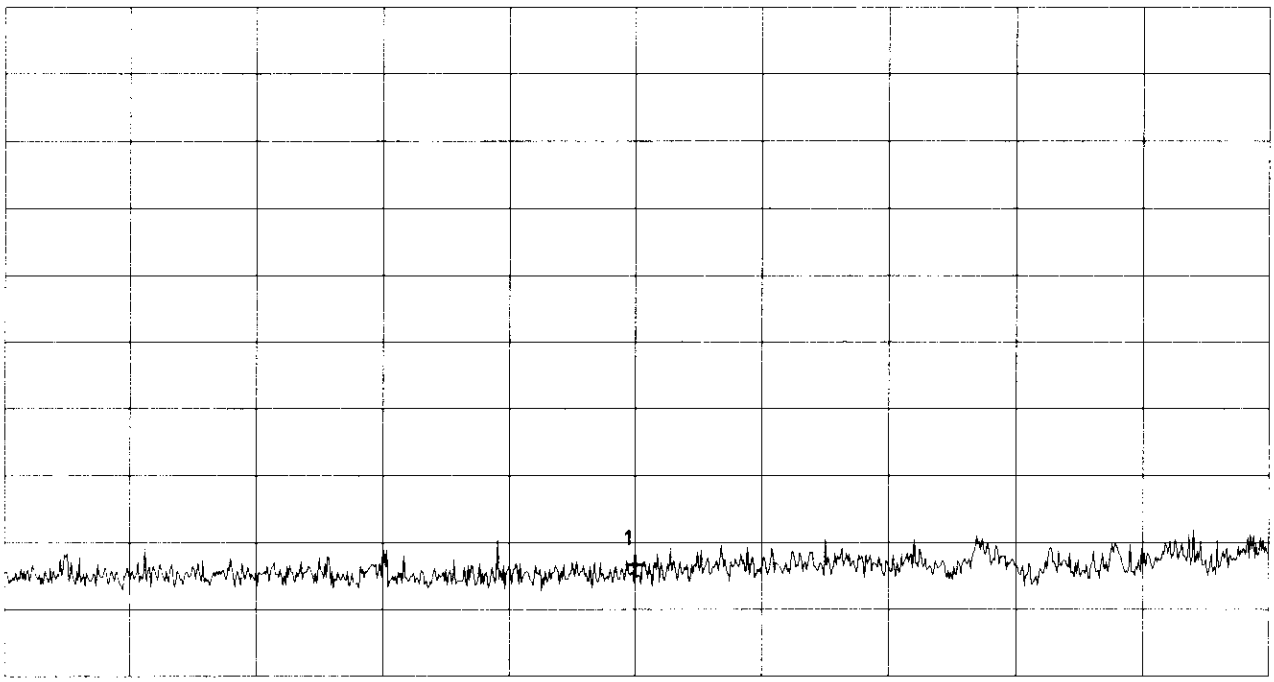
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

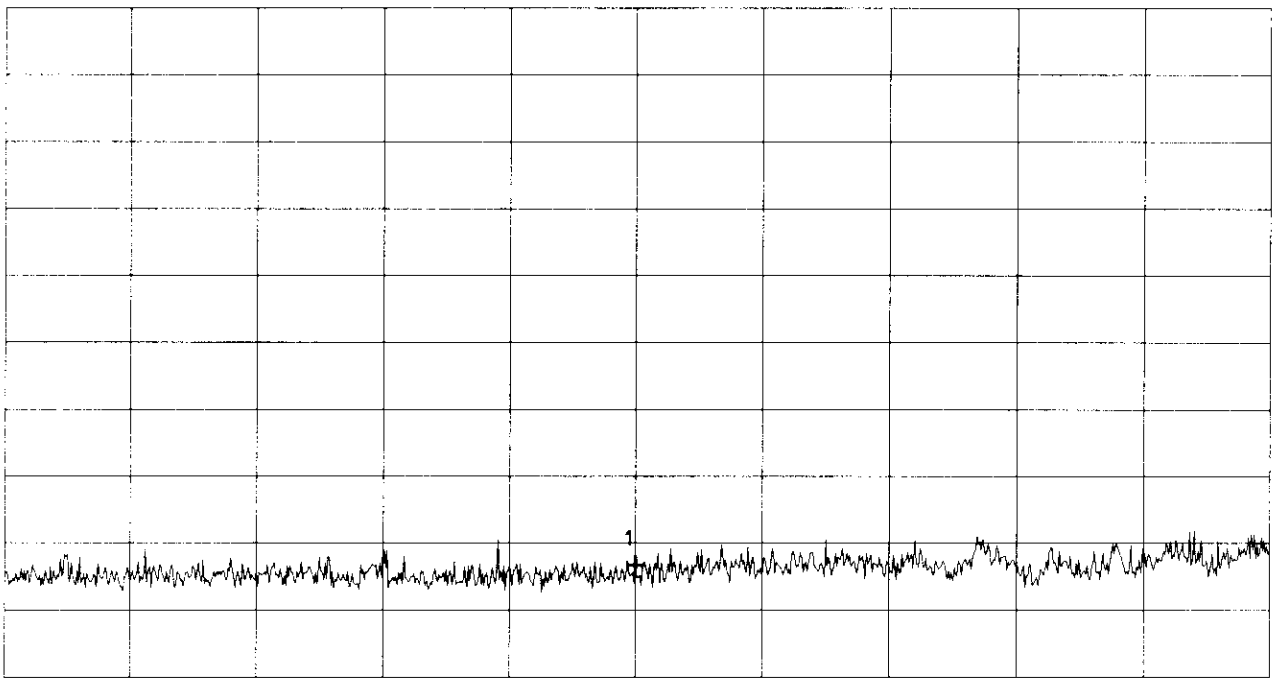
Nr.1	4.900000 GHz	4.86 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 46.5 dBµV ATT 0 dB Ref. Offset -30.5 dB
5 dB dB/Div.



Start 3.950 GHz Stop 5.850 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

**** Multi Marker ****

Nr.1	4.900000 GHz	4.86 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

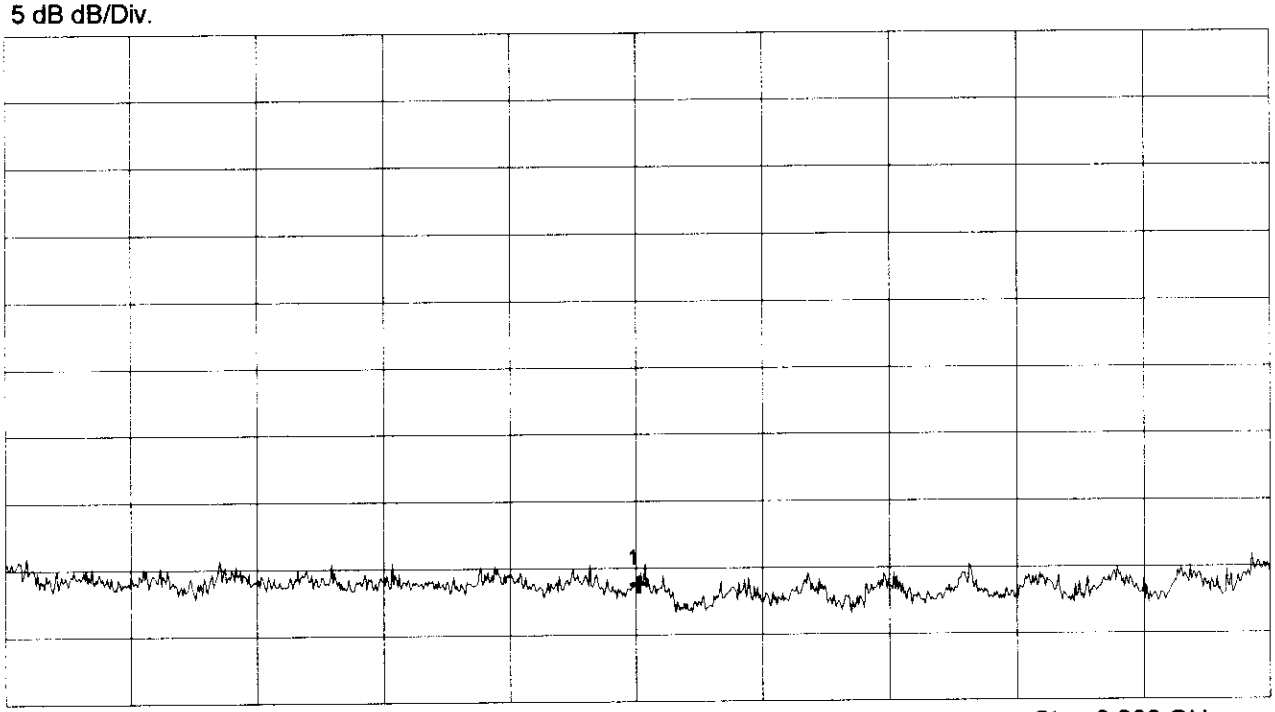
RX Mode, Channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.030222 GHz	5.27 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

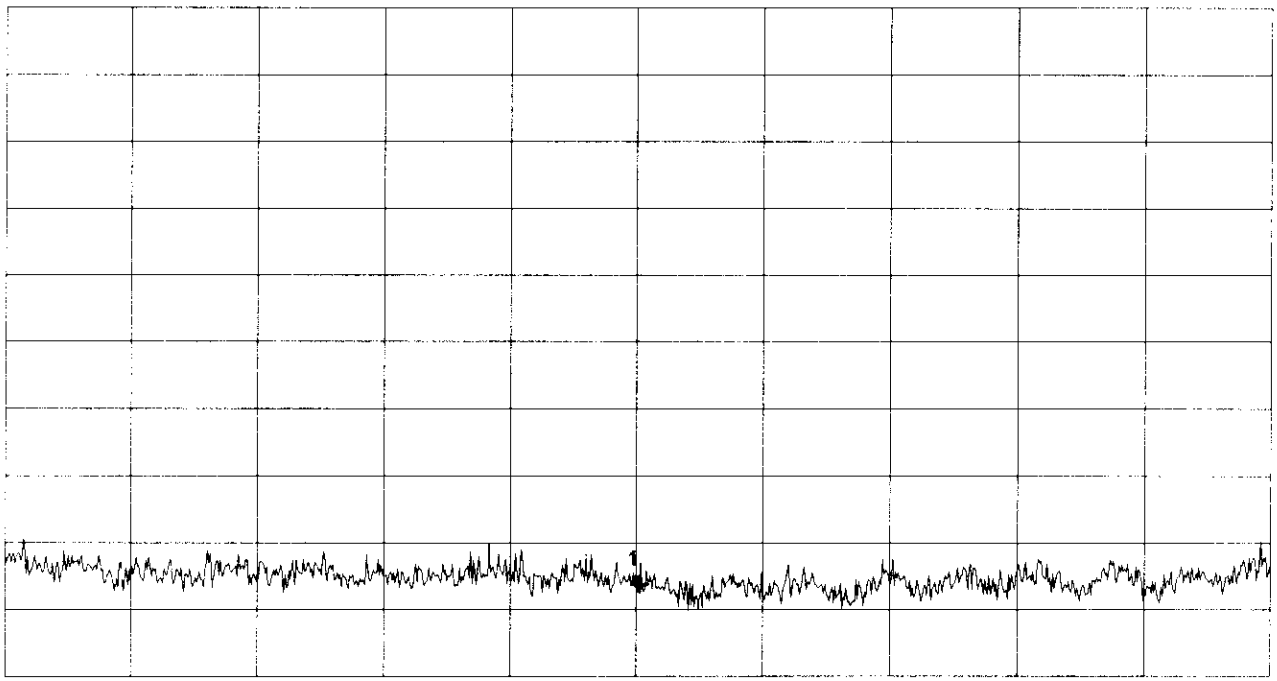
Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV ATT 0 dB Ref. Offset -30.5 dB
5 dB dB/Div.



Start 5.850 GHz Stop 8.200 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

**** Multi Marker ****

Nr.1	7.030222 GHz	3.35 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

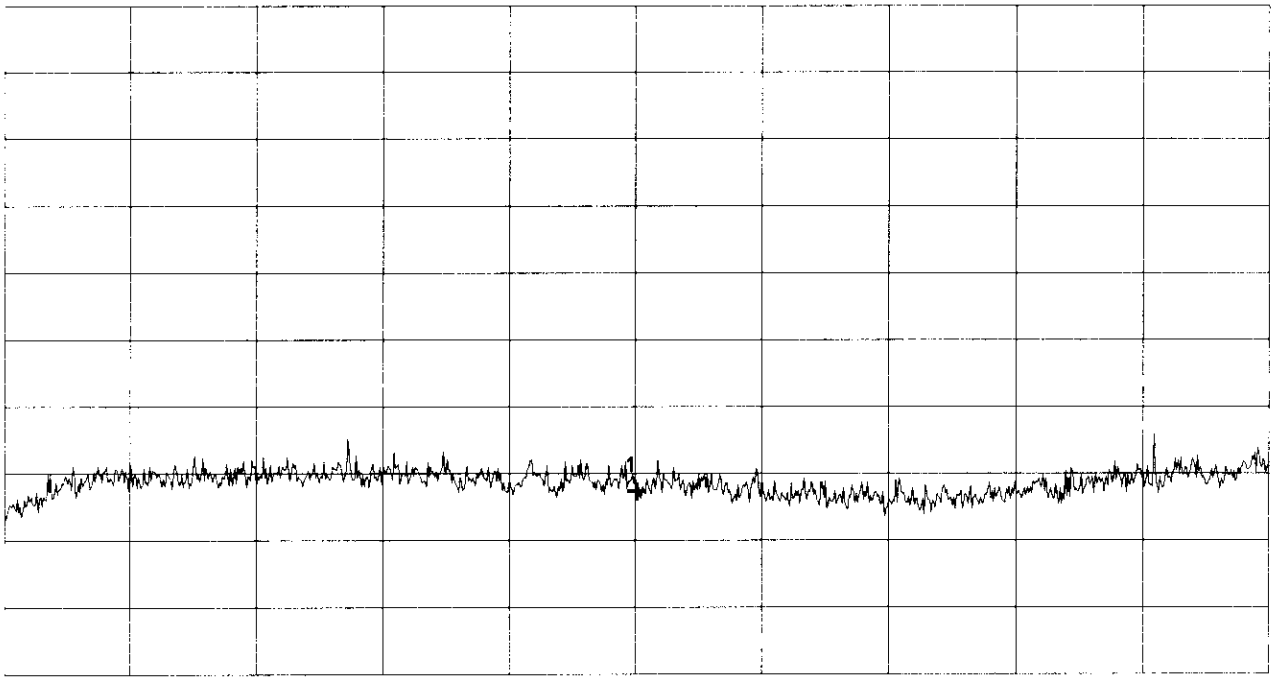
RX Mode, Channel 21 (2451.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.304667 GHz	5.63 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

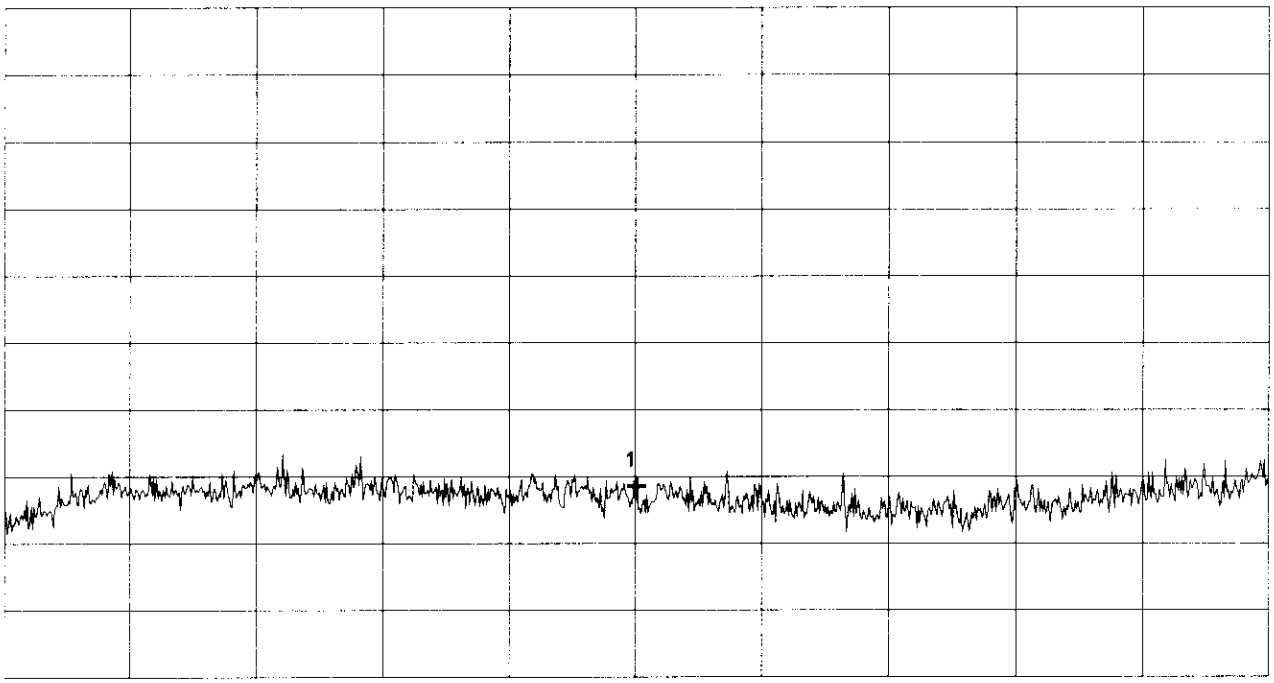
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.304667 GHz	6.25 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

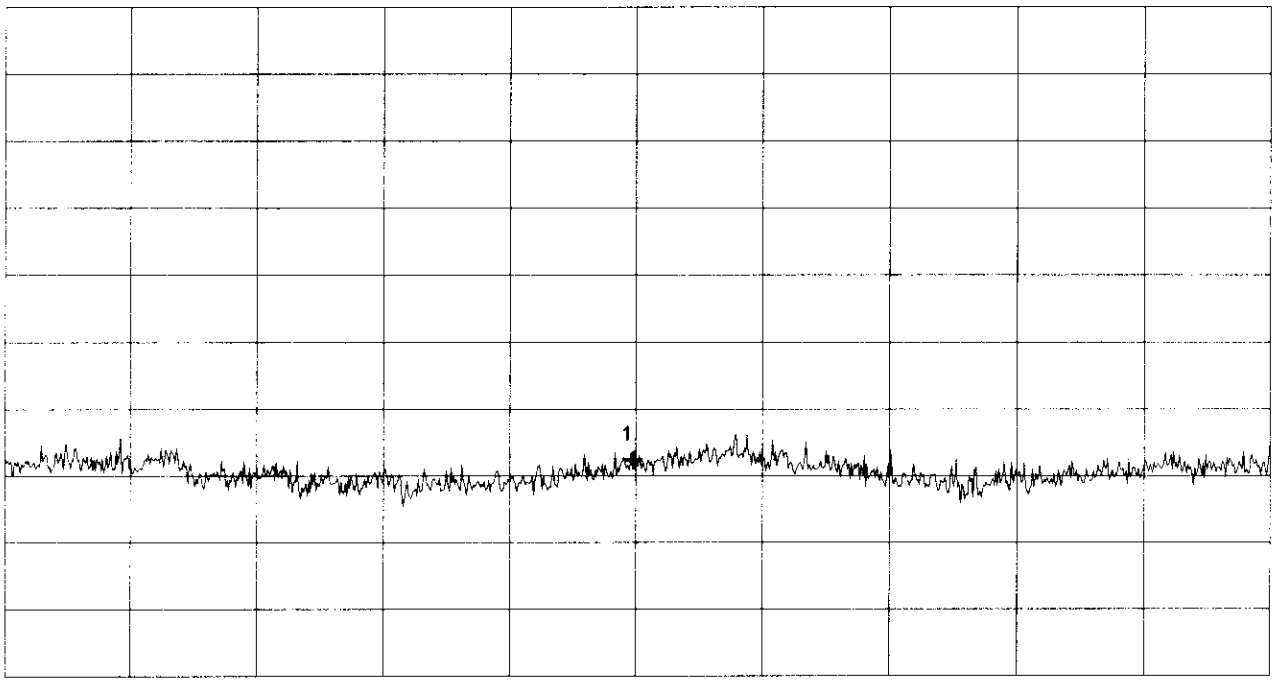
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.187556 GHz	8.17 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

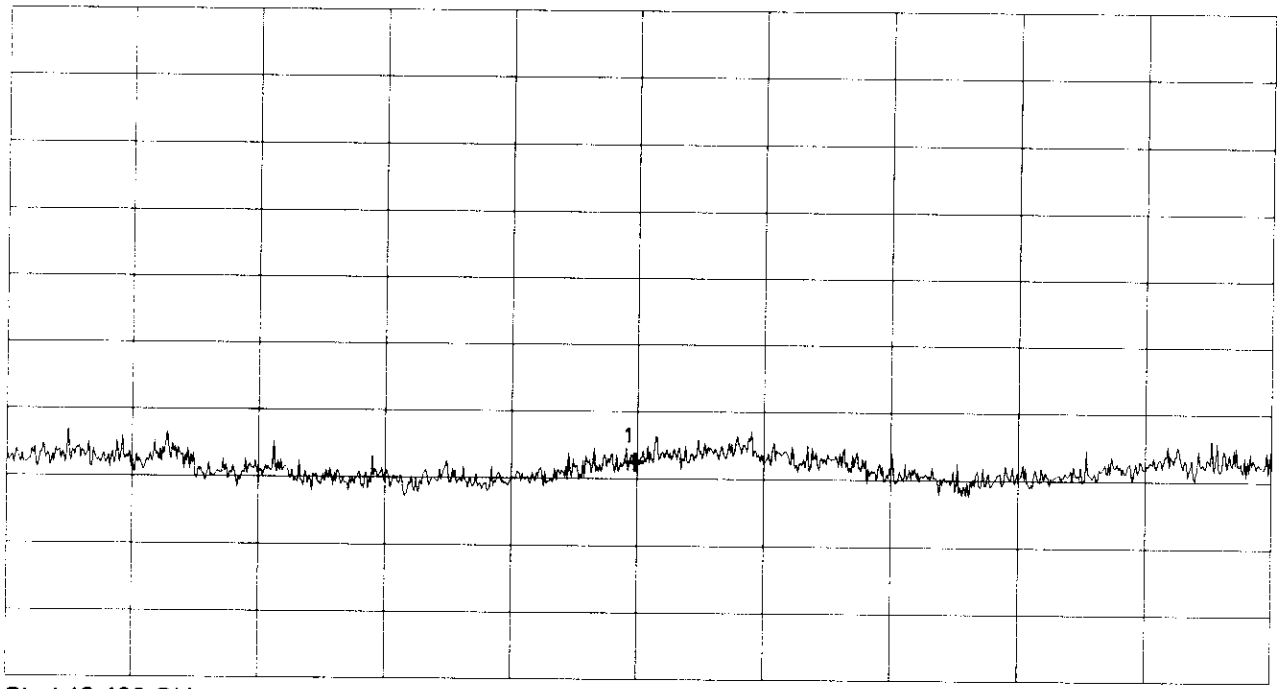
RX Mode, Channel 21 (2451.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.187556 GHz	8.22 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

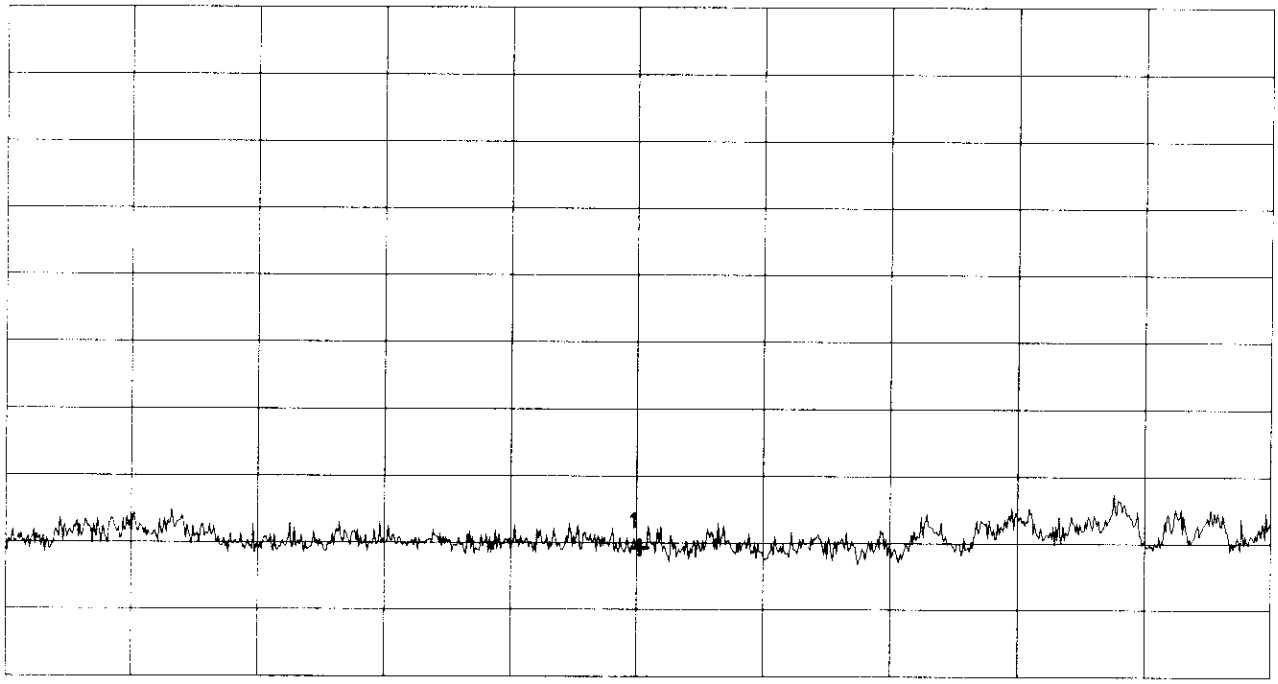
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 67 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.268889 GHz	26.62 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

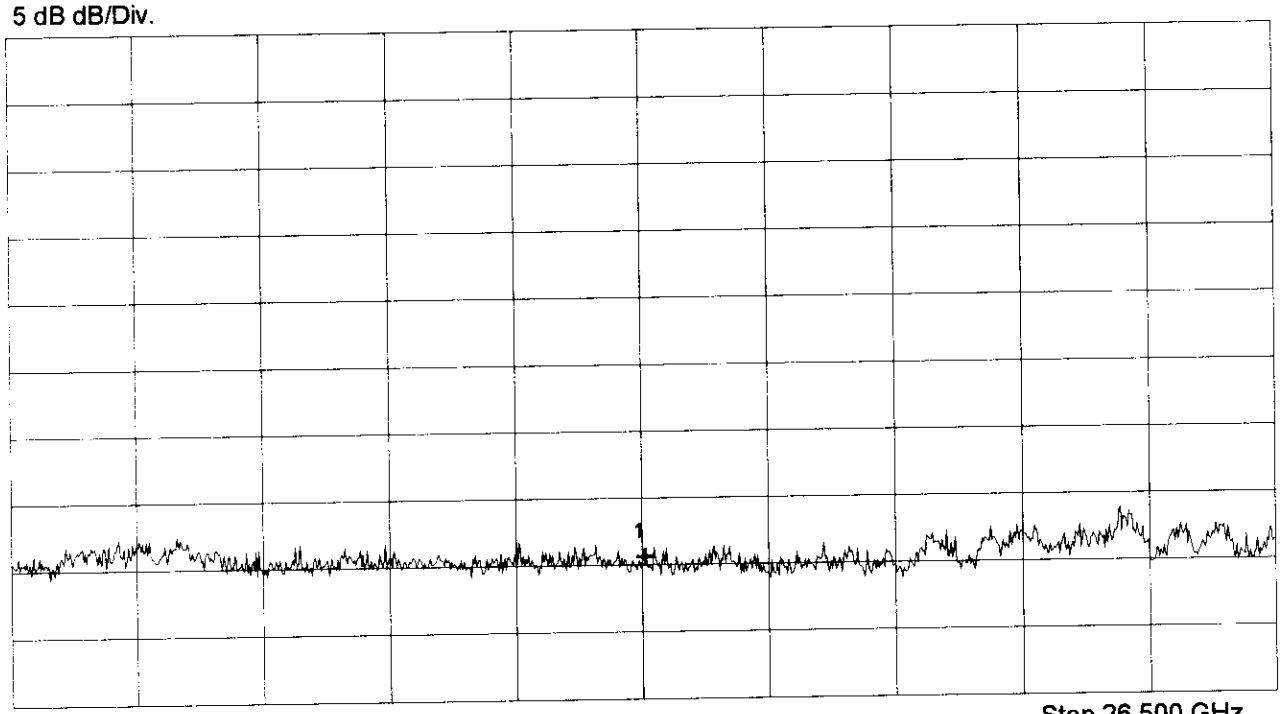
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 67 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.268889 GHz	27.59 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

SENTON

▪ EMV-Prüfzentrum ▪ EMI/EMC-Testcenter ▪

Straubing, 3 July, 1998

TEST-REPORT

No. 51966-70833-1

for

SRIF Module
2.4 GHz RF Modem

Applicant: Siemens AG,
A & D, Automation and Drives Division

Purpose of testing: To show compliance with

FCC Code of Federal Regulations,
CFR 47, Part 15, Subpart C,
Sections 15.209 and 15.249

Table of Contents

1. Administrative Data

Equipment Under Test (EUT):	SRIF Module
Type of equipment:	RF Modem
Parts/accessories:	N.A.
Version of EUT:	**FCC-ID: NXWSRIF245**

Applicant:	Siemens AG, A & D PT 34
(full address)	Gleiwitzer Strasse 555 D-90475 Nürnberg
Contract identification:	N.A.
Contact person:	Mr. Spies
Manufacturer:	Applicant

Receipt of EUT:	November 18, 1997
Date of test:	July 1998

Responsible for testing:	Mr. Johann Roidt
Responsible for test report:	Mr. Johann Roidt

2. Summary of Test Results

The tested samples fully comply with the requirements for intentional radiators set forth in the

Code of Federal Regulations CFR 47
Part 15 Subpart C, Section 15.249
of the
Federal Communication Commission (FCC).

Johann Roidt
Technical Manager

3. Operation Mode of EUT

The EUT was powered from a 5 V DC power source. During all measurements the EUT was operated with ist dedicated antenna. Emission testing was performed with modulated carrier at ist lowest, mid and highest channel.

4. Changes made to the EUT during this certification test

No changes have been made to the EUT during this certification test.

5. Configuration of EUT and Peripheral Devices

Configuration of cables to EUT

Unshielded two-wire power supply cable

Configuration of peripheral devices connected to EUT

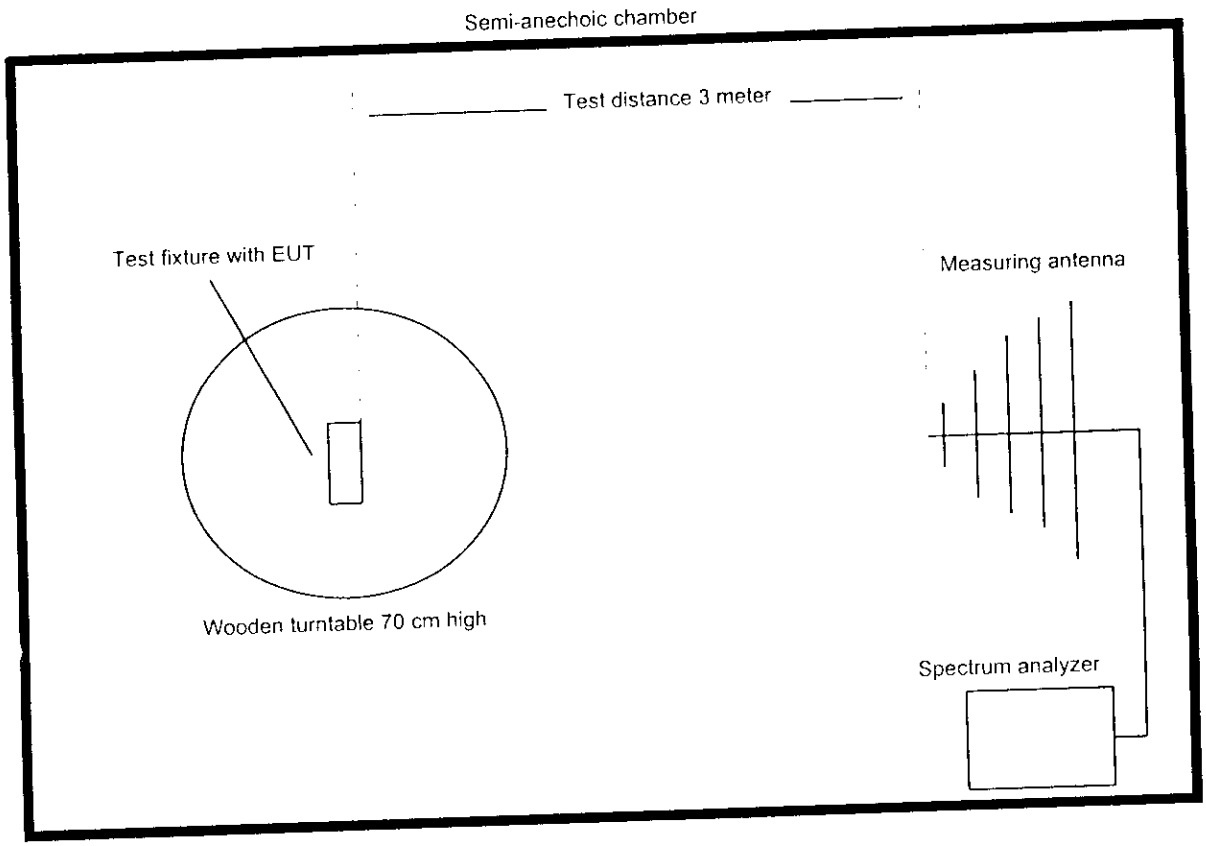
Not applicable

Measuring Methods

Transmitter Parameter TestS (§15.209)

All transmitter parameter radiated tests are performed at a test distance of 3 meteters in a semianechoic chamberDuring the tests the EUT will be rotated all around and the receiving antenna will be raised and lowered from 1 meter to 4 meter to find the maximum levels of emission. Cables and equipment will be placed and moved within the position likely to find their maximum emissions. Measurements will be made in horizontal and vertical polarization of the receiving antenna. The EUT was operating in transmit mode with its internal modulation.

The bandwidth of the emission will be measured with a spectrum analyzer. Resolution Bandwidth and Video Bandwidth will be set to 10 kHz.

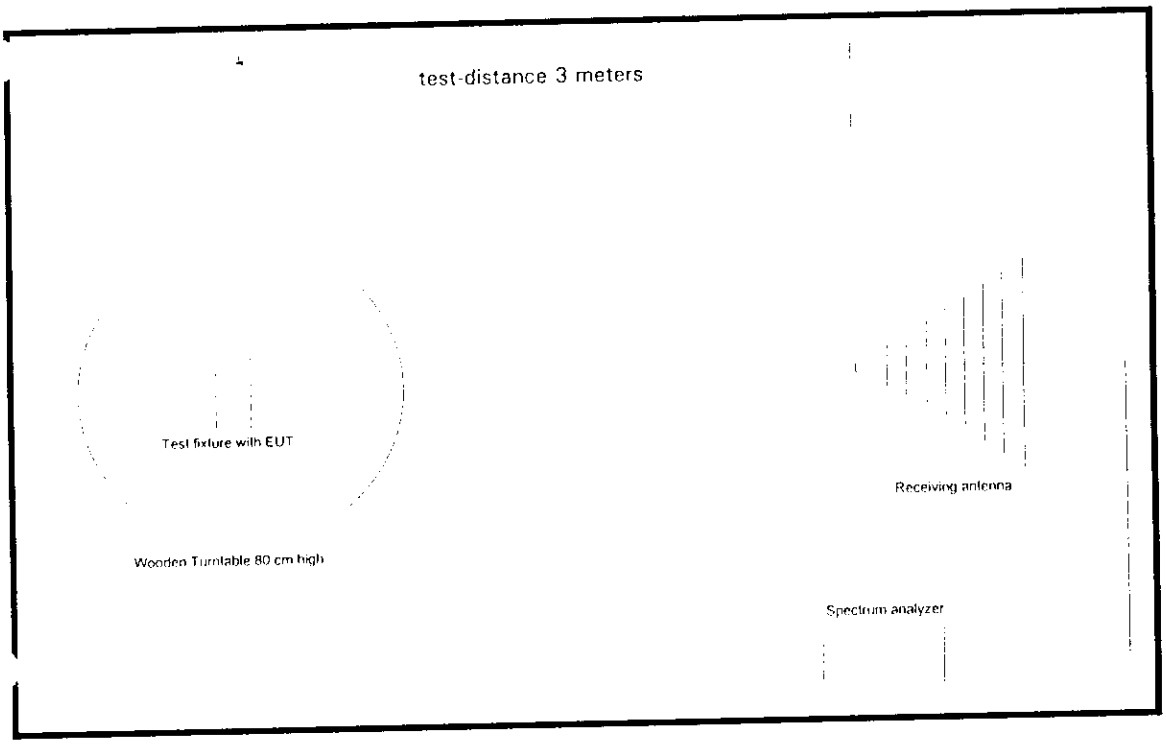


Radiated Emissions 0.009 – 30 MHz

Radiated emissions in the frequency range 0.009 – 30 MHz will be measured initially at a distance of 3 meters. A prescan at 3 meter distance will be performed in a shielded room with the detector of the spectrum analyzer or EMI Receiver set to peak. Final measurement is then performed at 30 meter distance. In case the regulation requires testing at other distances, the result will be extrapolated. The extrapolation factor will be determined by making a second measurement at 10 meter distance. The provisions of 15.31 (d) apply.
According to section 15.209 (d) final measurementis performed with the detector set to Quasi Peak except for the frequency bands 9 – 90 kHz and 110 – 490 kHz where average detector is employed.

Radiated Emissions 30 MHz – 1 GHz

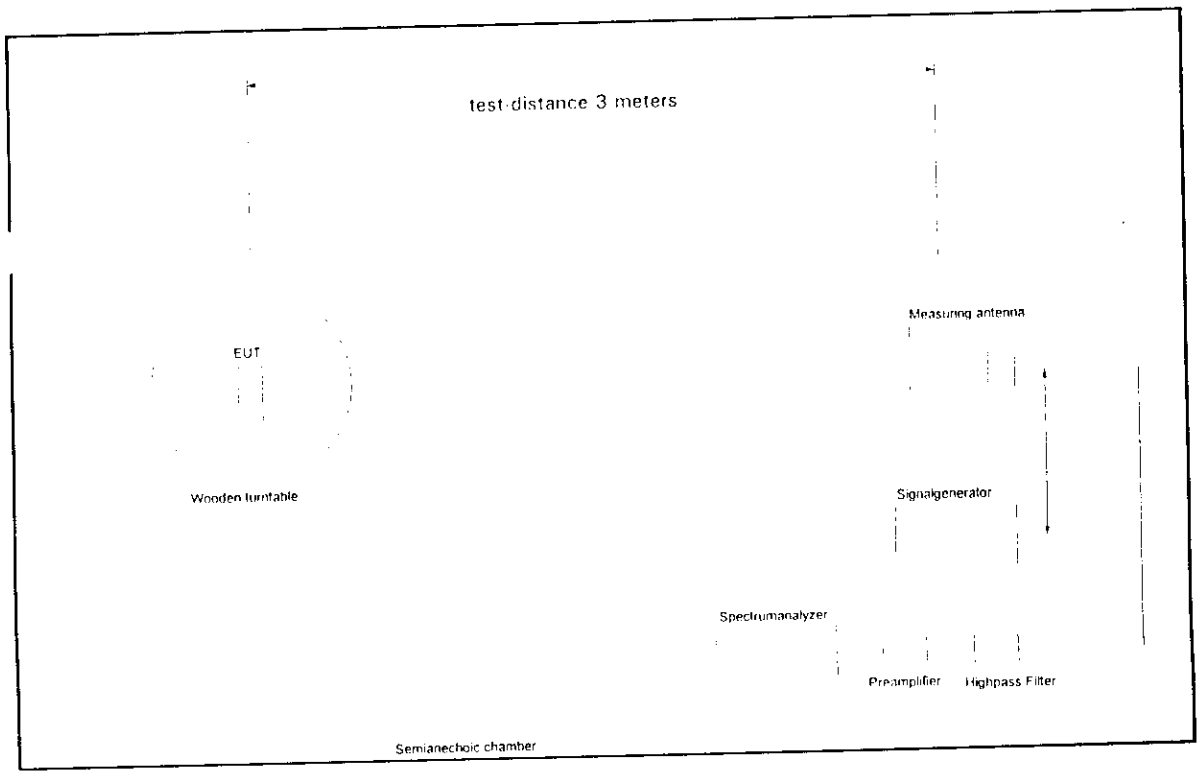
Radiated emissions in the frequency range 30 – 1000 MHz will be measured at a distance of 3 meter. The bandwidth of the spectrum analyzer will be set to 100 kHz and the detector function set to Quasi Peak.
The test setup will be made in accordance with ANSI C.63.4-1992.
Measurements will be made in horizontal and vertical polarization of the receiving antenna.
Prescans will be taken in a semianechoic chamber using a spectrum analyzer with the detector function set to peak. All tests will be performed at a test distance of 3 meters. For final testing an open field test site will be used. During the tests the EUT will be rotated all around and the receiving antenna will be raised and lowered from 1 meter to 4 meterto find maximum levels of emissions.



Radiated Emissions above 1 GHz

Radiated emissions were measured in the frequency range 1 GHz to 3.15 GHz in transmit mode .The resolution bandwidth and the video bandwidth of the spectrum analyzer was set to 1 MHz. Prescans with video bandwidth 1 MHz (peak mode) were taken to check out the highest levels (with reference to the limits), see 6.4 for details to prescan procedure. Final measurements were performed at the three highest emissions per band. EUT was rotated all around and receiving antenna was raised and lowered to find the maximum levels of emission. Cables and equipment were placed and moved within the range of position likely to find their maximum emissions. Measurements were made in horizontal and vertical polarization.
All tests were performed in a semi-anechoic chamber with a test-distance of 3 meters.
To avoid overload in transmit mode a high pass filter was connected to the input of the preamplifier (in case when a preamplifier was necessary)). In this case a signal generator was used for substitution to eliminate the influence of filter and preamplifier.
Substitution was performed in the following steps:

- antenna cable was disconnected from receiving antenna and connected to signal generator output
- level of signal generator was increased until the reading value of the analyzer was the same as caused by EUT
- level of signal generator was noted
- final value was calculated by converting the signal generator level to dBµV/m and adding the antenna correction factor.



Procedure for preliminary Radiated Emission Tests

The procedure for preliminary radiated emission tests follows section 13.4.1 of ANSI C63.4-1992. In case the EUT is a handheld device preliminary emission measurements will be performed in three orthogonal axes of the EUT.

Prescans are made in the following frequency range:

0.009 – 30 MHz
30 – 230 MHz
230 – 1000 MHz
1000 – 2600 MHz
2600 – 3950 MHz
3950 – 5850 MHz
5850 – 8200 MHz
8200 – 12400 MHz
12400 – 18000 MHz
18000 – 26500 MHz
26500 – 40000 MHz

with the receiving antenna set to horizontal and vertical polarization.

The following step-by-step procedure will be used:

1) Monitor the frequency range at a fixed antenna height and EUT azimuth

2) Rotate the EUT by 360 degrees to maximize the suspected highest azimuth signals. Note the amplitude and frequency of the signals. Orient the EUT azimuth for maximum emission.

3) Move the antenna over its full allowed range of travel to maximize the emission. If the signal or another one at a different frequency is observed to exceed the previously noted highest amplitude signal by 1 dB or more, return to step 2) with the antenna fixed at this height. Otherwise move the antenna to the height that repeats the highest amplitude observation and proceed.

4) Identify at least the three highest emissions per band by using the multimarker function of the spectrum analyzer. Make a hardcopy of the spectrum.

5) Repeat steps 1) through 4) for the other orthogonal axes of the EUT.

6) Repest steps 1) through 5) for other orthogonal antenna polarization.

Method for comparing spectrum analyzer output to the limit

The following procedure will be used:

1) Maximize the emission according to 6.4.
2) Set the spectrum analyzer to **Max Hold**
3) Wait until the noise is fully maximized.
4) Put the marker on topof the investigated signal.
5) Note frequency and level of the investigated signal
6) Add antenna correction and cable loss to this level and compare it with the limit.

Spectrum analyzer setting for final test

Frequency range	Detector	Resolution Bandwidth	Video Bandwidth	Trace Mode
0.009 – 30 MHz	Quasi Peak	10 kHz	10 kHz	Max Hold
9 – 90 kHz 110 – 490 kHz	Average	10 kHz	100 Hz	Max Hold
30 – 1000 MHz	Quasi Peak	100 kHz	1 MHz	Max Hold
> 1000 MHz	Peak	1 MHz	1 MHz	Max Hold
> 1000 MHz	Average	1 MHz	1 kHz	Max Hold

7. List of Measurements

FCC Part 15 Subpart C			
Section(s):	**Test**	**Page**	**Result**
	Transmit mode (TX):		
15.249	Field strength of emissions (fundamental)	17	passed
15.249	Field strength of emissions (harmonics)	18	
	Receive Mode (RX)		
15.249	Field strength of emissions	19	

8. Test Results

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (Fundamental, TX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
2451.5	Peak	Horizontal	61.5	31.2	**92.7**	94.0	**1.3**
2466.5	Peak	Horizontal	61.3	31.2	**92.5**	94.0	**1.5**
2481.5	Peak	Horizontal	61.4	31.2	**92.6**	94.0	**1.4**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (Harmonics, TX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
4938.0	Peak	Horizontal	20.1	28.2	**48.3**	54.0	**5.7**
7403.6	Peak	Horizontal	19.2	31.1	**50.3**	54.0	**3.7**
9936.0	Peak	Horizontal	16.3	34.8	**51.1**	54.0	**2.9**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

Field Strength of Emissions according to FCC Rules, Part 15, Subpart C, Section 15.249 (RX Mode)

Model:	**SRIF Module**
Type:	**with dedicated Antenna**
Serial No.:	Sample No. 1
Applicant:	Siemens AG, A & D
Test Site:	Senton GmbH
Distance:	3 meter
Date of Test	June 10, 1989
Test Operator:	J. Roidt

Frequency MHz	Detector	Antenna Pol.	Analyzer Reading dBµV	Antenna correction dB/m	Field Strength dBµV/m	Limit dBµV/m	Margin dB
2384.8	Peak	Vertical	18.5	31.2	**49.7**	54.0	**4.3**
2400.8	Peak	Vertical	20.4	31.2	**51.6**	54.0	**2.4**
2415.1	Peak	Vertical	22.0	31.2	**53.2**	54.0	**0.8**

Sample calculation of Field Strength values:

Field Strength (dBµV/m) = Analyzer Reading (dBµV) + Antenna Correction (dB/m)

Duty cycle correction and desensitization correction not applicable

Note: Antenna correction includes cable losses as well.

Test instruments used: 101, 114, 149, 009 (see instruments list for details)

9. Equipment List

General Test Equipment and Ancillaries

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
001	Open area test site	EG 1		Senton
002	Shielded room	No. 1	1451	Senton
003	Shielded room	No. 2	1452	Senton
004	Semi-anechoic room	No. 3	1453	Siemens
005	Shielded room	No. 4	3FD 100 544	Euroshield
006	Shielded room	No. 5	5468	Ray Proof Division
007	Temperature test chamber	HT4010	07065550	Heraeus
008	Cable	RG214	1309	Senton
009	Cable	200CM_001	1357	Rosenberger
010	Cable	150CM_001	1479	Rosenberger
011	Cable	150CM_002	1480	Rosenberger
012	Cable set EG1	RG214	1189 - 1191	Senton
013	Cable set cabin no. 1	RG214		Senton
014	Cable set cabin no. 2	RG214		Senton
015	Cable set cabin no. 3	RG214		Senton
016	Cable set cabin no. 4	RG214		Senton
017	DC power supply	NGSM 32/10	203	Rohde & Schwarz
018	DC power supply	NGB	2455	Rohde & Schwarz
019	DC power supply	NGA	386	Rohde & Schwarz
020	Isolating transformer	RT 5A	10387	Grundig
021	Isolating transformer	RT 5A	10416	Grundig
022	Digital multimeter	199	463386	Keithley
023	Multimeter	HP E2373A	2927J03345	Hewlett Packard

Test Equipment and Ancillaries used for Emission Tests

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
101	EMI test receiver/ Spectrum Analyzer with Harmonic Mixer Set (26.5 - 40 GHz)	ESMI FS-Z-40	839379/013 839587/006 845881/005	Rohde & Schwarz
102	Spectrum analyzer	R 3271	05050023	Advantest
103	Test receiver	ESH 3	880112/032	Rohde & Schwarz
104	Test receiver	ESHS 10	860043/016	Rohde & Schwarz
105	Test receiver	ESV	881414/009	Rohde & Schwarz
106	Test receiver	ESVP	881120/024	Rohde & Schwarz
107	Audio analyzer	UPA	862954	Rohde & Schwarz
108	Radio communication service monitor	CMS 54	838384/030	Rohde & Schwarz
109	Power meter	NRVS	836856/015	Rohde & Schwarz
110	Power sensor	NRV-Z52	837901/030	Rohde & Schwarz
111	Power sensor	NRV-Z4	863828/015	Rohde & Schwarz
112	Preamplifier	ESV-Z3	860907/004	Rohde & Schwarz
113	Preamplifier	R14601		Advantest
114	Preamplifier	ACX/080-3030	32640	CTT
115	Preamplifier	ACO/180-3530	32641	CTT
116	Signal generator	SMS	872166/039	Rohde & Schwarz
117	Signal generator	HP 8673 D	2930A00966	Hewlett Packard
118	Waveform generator	HP 33120 A	US34005375	Hewlett Packard
119	UHF attenuator set	DPU	300771/075	Rohde & Schwarz
120	UHF attenuator set	DPU	300788/006	Rohde & Schwarz
121	Attenuator	4776-10	9412	Narda
122	Attenuator	4776-20	9503	Narda
123	Pulse limiter	ESH 3-Z2	1144	Rohde & Schwarz
124	Pulse limiter	11947 A	3107A00566	Hewlett Packard
125	V-network	ESH 3-Z5	862770/018	Rohde & Schwarz
126	V-network	ESH 3-Z5	894785/005	Rohde & Schwarz
127	V-network	ESH 3-Z5	830952/025	Rohde & Schwarz
128	V-network	ESH 3-Z6	830722/010	Rohde & Schwarz
129	V-network	NSLK 8127	8127152	Schwarzbeck
130	Artificial mains network	ESH 2-Z5	842966/004	Rohde & Schwarz
131	T-network	ESH 3-Z4	890602/011	Rohde & Schwarz
132	T-network	ESH 3-Z4	890602/012	Rohde & Schwarz

Test Equipment and Ancillaries used for Immunity Tests

No.	Type	Model	Serial Number	Manufacturer
201	ESD simulator	NSG 435	000290	Schaffner
202	EFT generator	NSG 1025	3020	Schaffner
203	Ultra compact simulator	UCS	1195-30	EM Test
204	Coupling clamp	CDN 8014	131	Schaffner
205	Coupling clamp	SL 400-071D	007	Schaffner
206	Coupling filter	FP 16	080554-14-84	Haefely
207	Oscilloscope	2225	203550	Tektronix
208	Signal generator	SMT 03	838129/029 837533/032	Rohde & Schwarz
209	Power amplifier	150 L	8835	Amplifier Research
210	Power amplifier	200 W 1000	12904	Amplifier Research
211	Power meter	NRVS	838624/016	Rohde & Schwarz
212	E-field generator	3107 B	2302	Emco
213	Biconical antenna	VHBA 9123	1018	Schwarzbeck
214	Log. periodic antenna	AT 1080	12834	Amplifier Research
215	Isotropic field probe	FP 2000	12847	Amplifier Research
216	Isotropic field monitor	FM 2004	12632	Amplifier Research
217	Ultra compact simulator	UCS	1195-30	EM Test
218	Surge generator	NSG 650	1679204	Schaffner
219	Coupling network	CDN 110	1649135	Schaffner
220	Coupling network	CDN 115	132	Schaffner
221	Dropping resistor	INA 110-40	121	Schaffner
222	Oscilloscope	HM 408	9005 F 3144	Hameg
223	Signal generator	SMX	883184/018	Rohde & Schwarz
224	Power amplifier	411 LA	299	ENI
225	Power amplifier	HVV 250	836956/004	Rohde & Schwarz
226	Power meter	NRV	863825/018	Rohde & Schwarz
227	Coupling network	FCC - 801- M3-25	117	FCC
228	Coupling network	FCC - 801- M4-25	17	FCC
229	Coupling network	FCC - 801- M5-25	16	FCC
230	Coupling network	FCC - 801- AF4	47	FCC
231	Coupling network	FCC - 801- AF4	48	FCC
232	Coupling network	FCC - 801-T4	68	FCC
233	Coupling network	FCC - 801- C1	64	FCC
234	Coupling network	CDN 801-M3	--	Senton
235	Coupling network	CDN 801-S37	--	Senton
236	Current clamp	FCC-120-9B	15	FCC
237	EM injection clamp	EM 101	35354	Lüthi
238	Ultra compact simulator	UCS 500	1195-30	EM Test
239	Transformer			Senton
240	Oscilloscope	54602B	US35060304	Hewlett Packard

Test Equipment and Ancillaries used for Emission Tests (continued)

No.	Instrument/Ancillary	Type	Serial Number	Manufacturer
134	High impedance probe	TK 9416	01	Schwarzbeck
135	High impedance probe	TK 9416	02	Schwarzbeck
136	Current probe	ESH 2-Z1	863366/18	Rohde & Schwarz
137	Current probe	ESV-Z1	862553/3	Rohde & Schwarz
138	Absorbing clamp	MDS 21	80911	Lüthi
139	Absorbing clamp	MDS 21	79690	Lüthi
140	Loop antenna	HFH2-Z2	882964/1	Rohde & Schwarz
141	Biconical antenna	HK 116	836239/02	Rohde & Schwarz
142	Biconical antenna	HK 116	842204/001	Rohde & Schwarz
143	Log. periodic antenna	HL 223	834408/12	Rohde & Schwarz
144	Log. periodic antenna	HL 223	841516/023	Rohde & Schwarz
145	Horn antenna 1 - 18 GHz	3115	9508-4553	Emco
146	Horn antenna 1.7 - 2.6 GHz	3160-03	9112-1003	Emco
147	Horn antenna 2.6 - 3.95 GHz	3160-04	9112-1001	Emco
148	Horn antenna 3.95 - 5.85 GHz	3160-05	9112-1001	Emco
149	Horn antenna 5.85 - 8.2 GHz	3160-06	9112-1001	Emco
150	Horn antenna 8.2 - 12.4 GHz	3160-07	9112-1008	Emco
151	Horn antenna 12.4 - 18 GHz	3160-08	9112-1002	Emco
152	Horn antenna 18 - 26.5 GHz	3160-09	9403-1025	Emco
152	Horn Antenna 26.5 - 40 GHz	3160-10	9704-1047	Emco
153	Stub tuner	904N	04	Narda
154	Mains analyzer	DPA 503	496 - 02	EM Test
155	Controller	HIS 500	X71010	EM Test
156	AC Amplifier	ACS 500	HK51736	EM Test
157	Mains impedance	AIF 500	X71062	EM Test
158	Dual Directional Coupler	778D	0826A01562	Hewlett Packard
159	Data Analyzer	DA-10	J-0048	Wandel & Goltermann

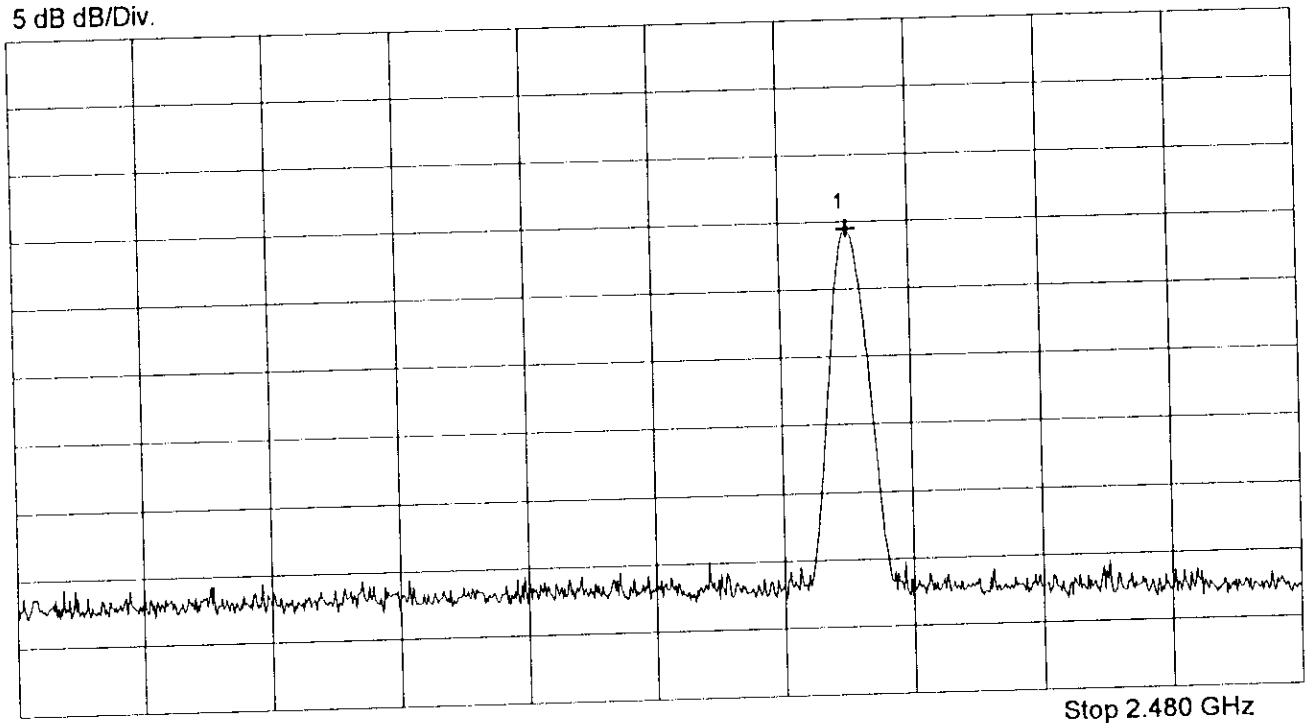
10. Charts Taken During Testing

Radiated Emissions Measurements according to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC TX Mode, Channel 21 (2451.5 MHz) Horizontal Polarization, Test distance 3 m
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.452178 GHz	61.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:	Project-No.:
Date:	Page of pages

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

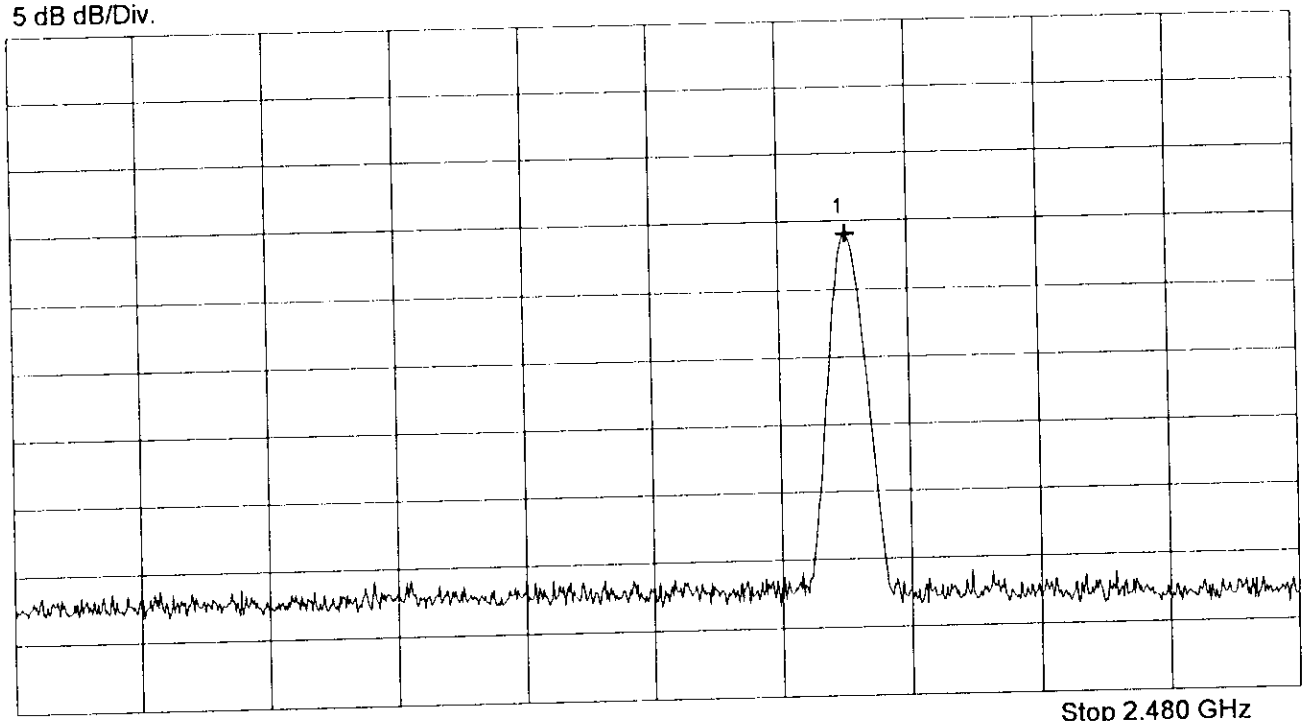
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 21 (2451.5 MHz)

Vertical Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.452178 GHz	61.06 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

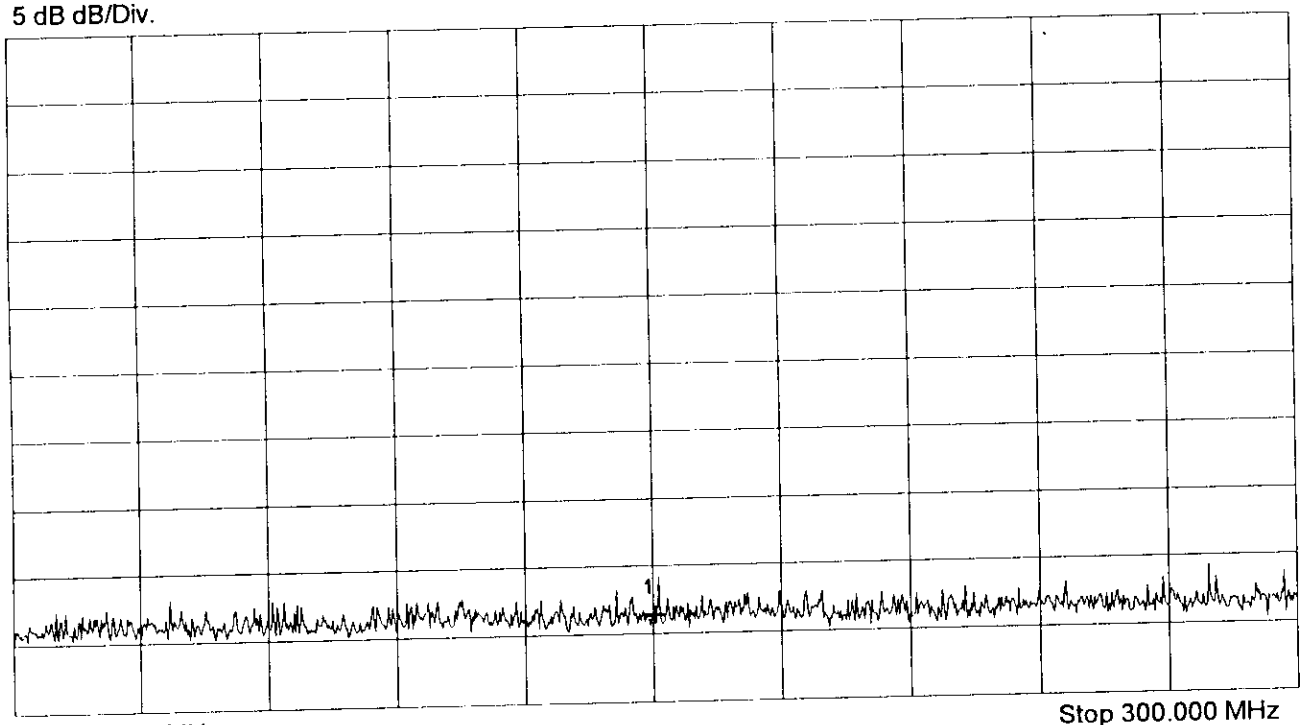
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	3.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

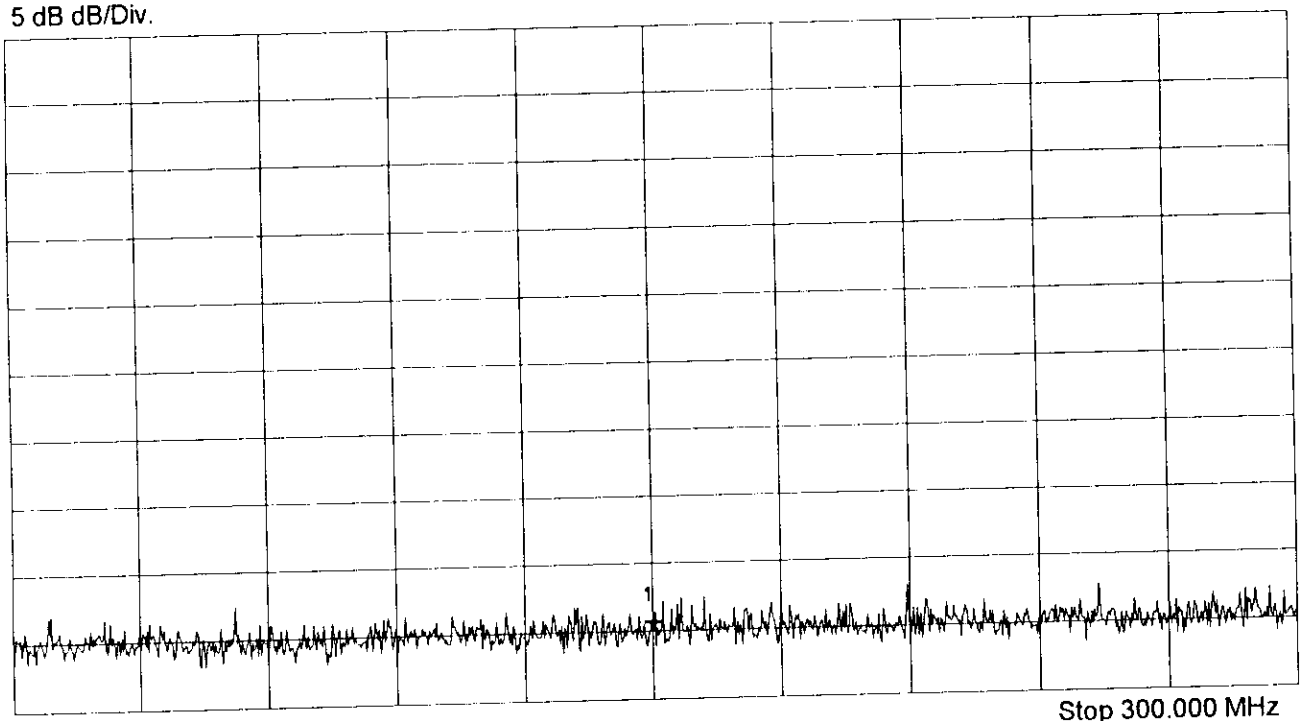
Date:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, channel 21 (2451.5 MHz) Test distance 3 m Vertical polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.67 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

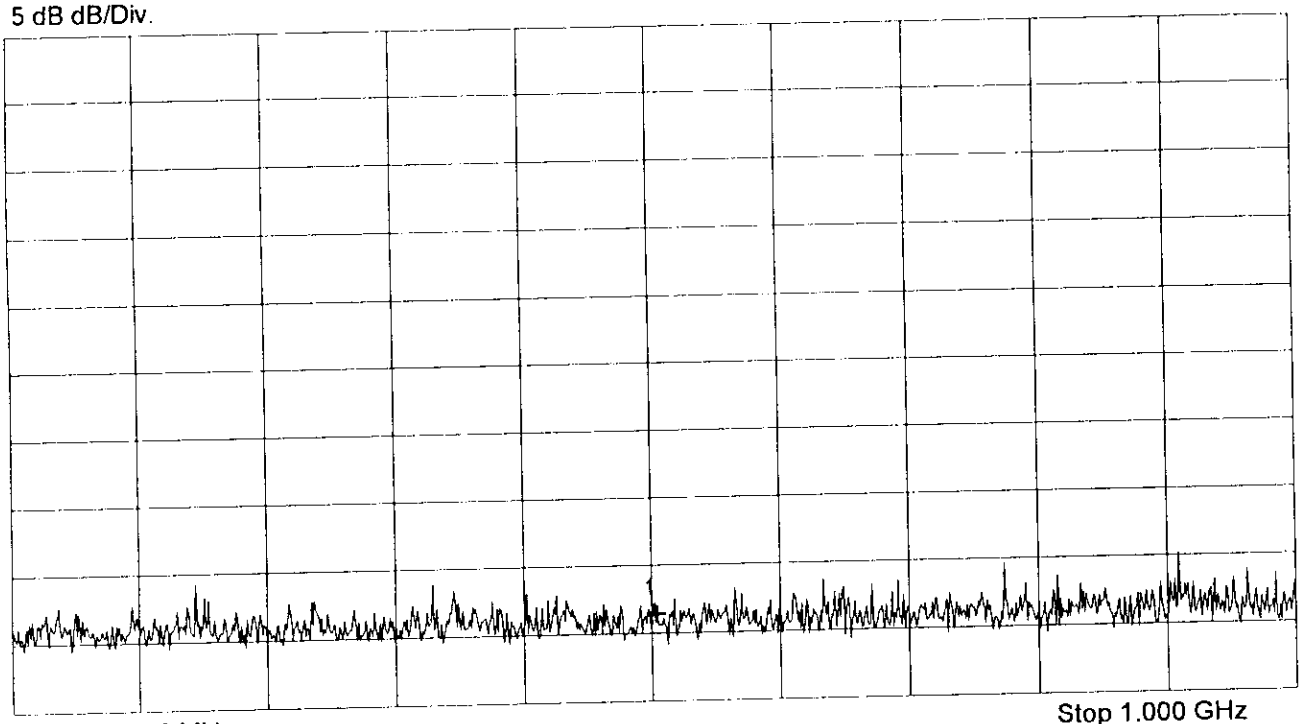
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	3.39 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

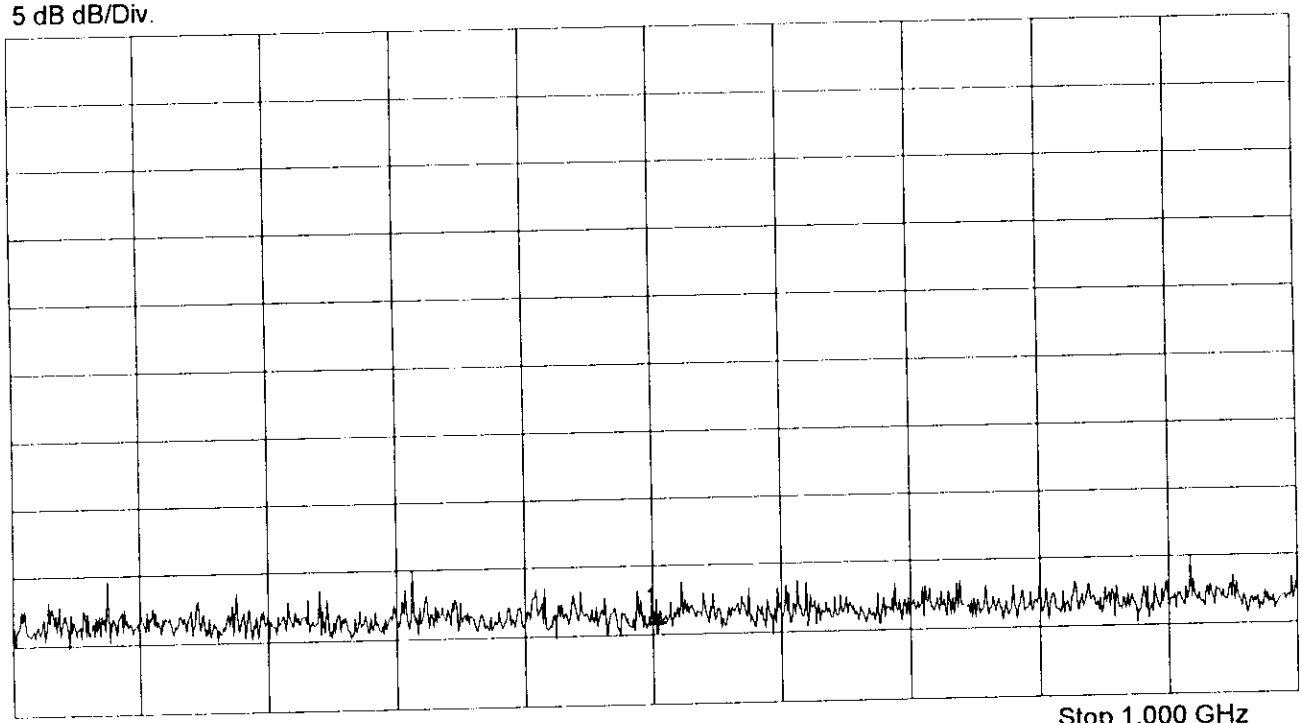
Mode:
Supply voltage 5 V DC

TX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	2.76 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

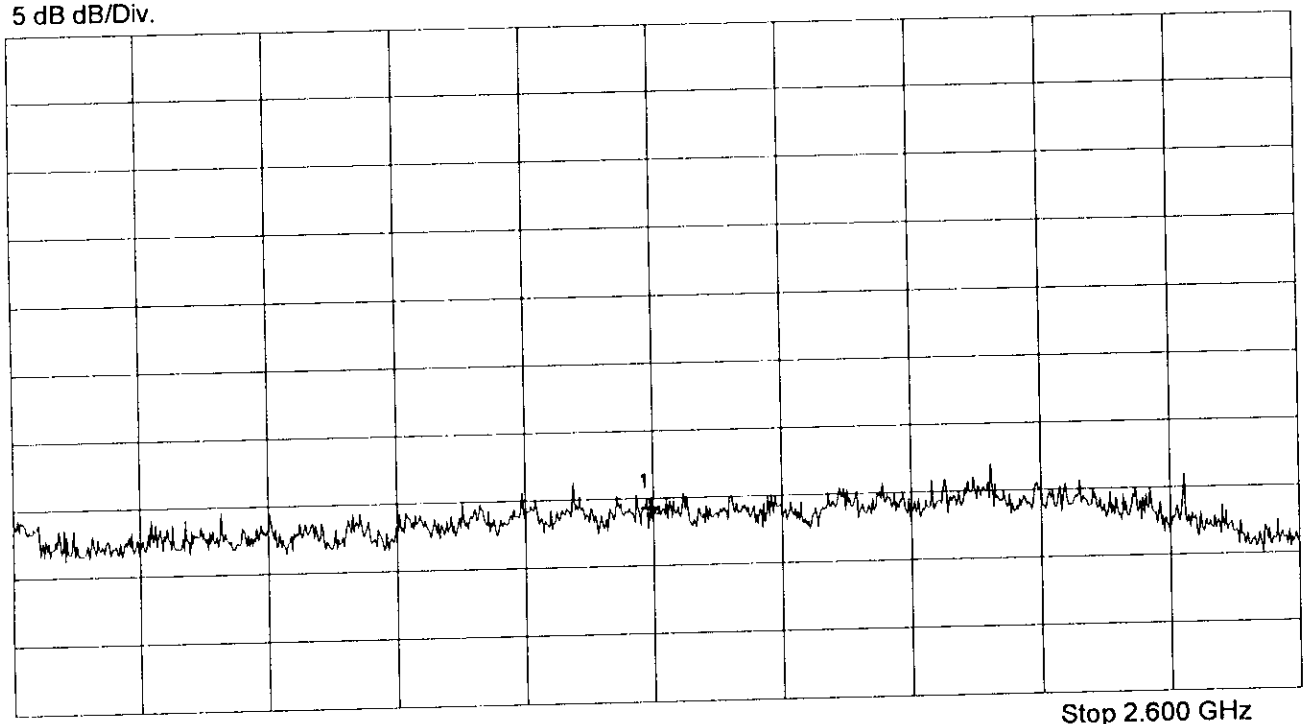
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.796444 GHz	5.75 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

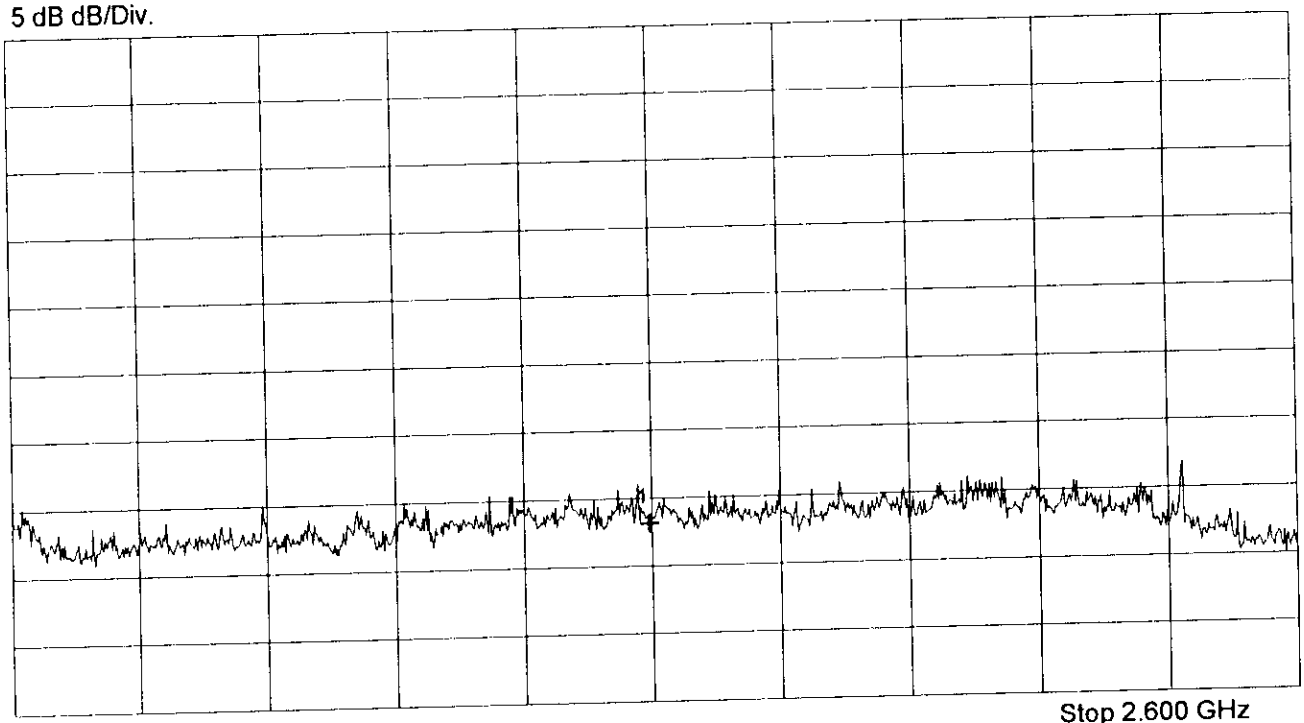
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.796444 GHz	4.63 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

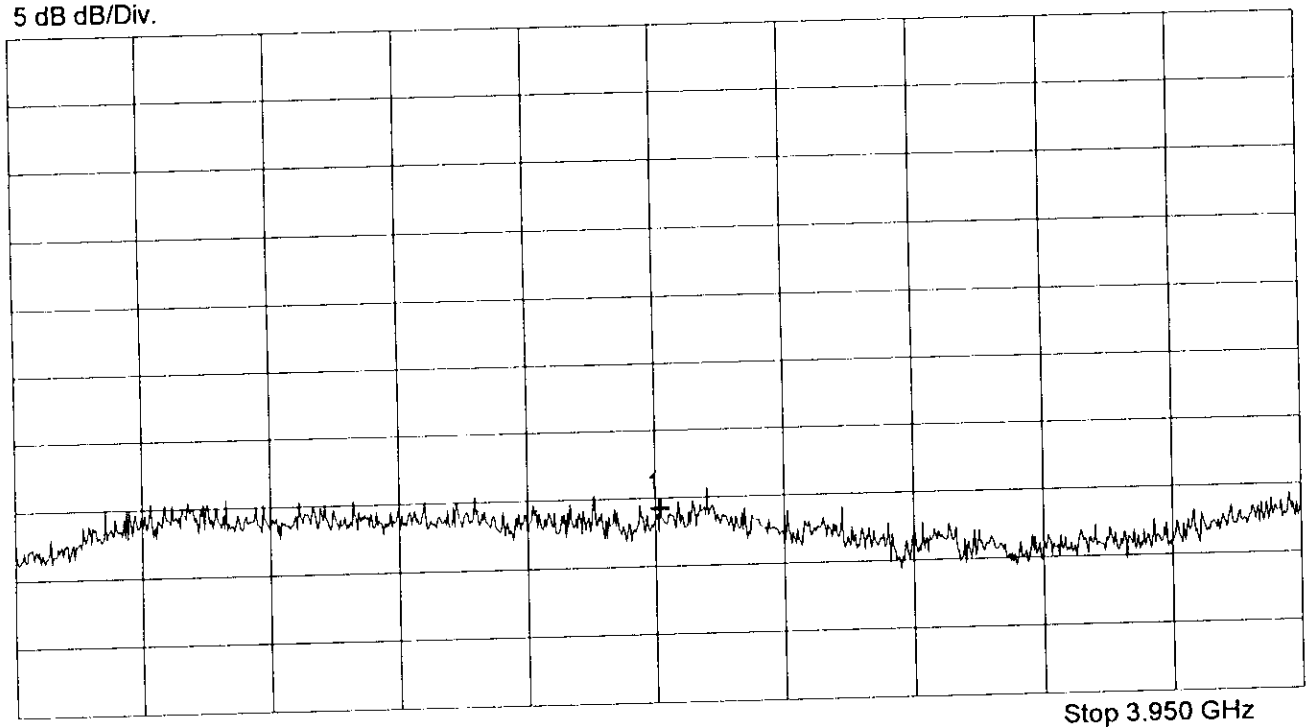
Test distance 1 m
Vertical Polarization

Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.279500 GHz	5.73 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

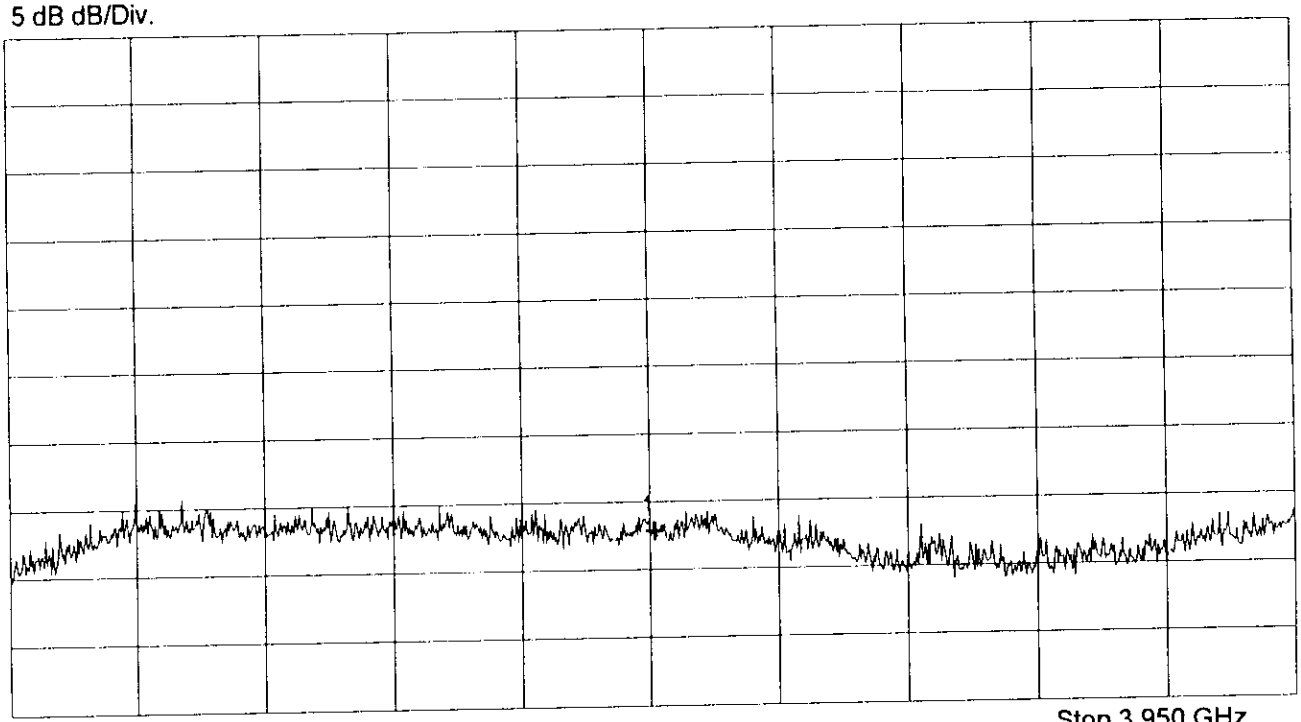
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 21 (2451.5 MHz) Test distance 1 m Horizontal Polarization Noch Filter on TX Frequency
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.279500 GHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

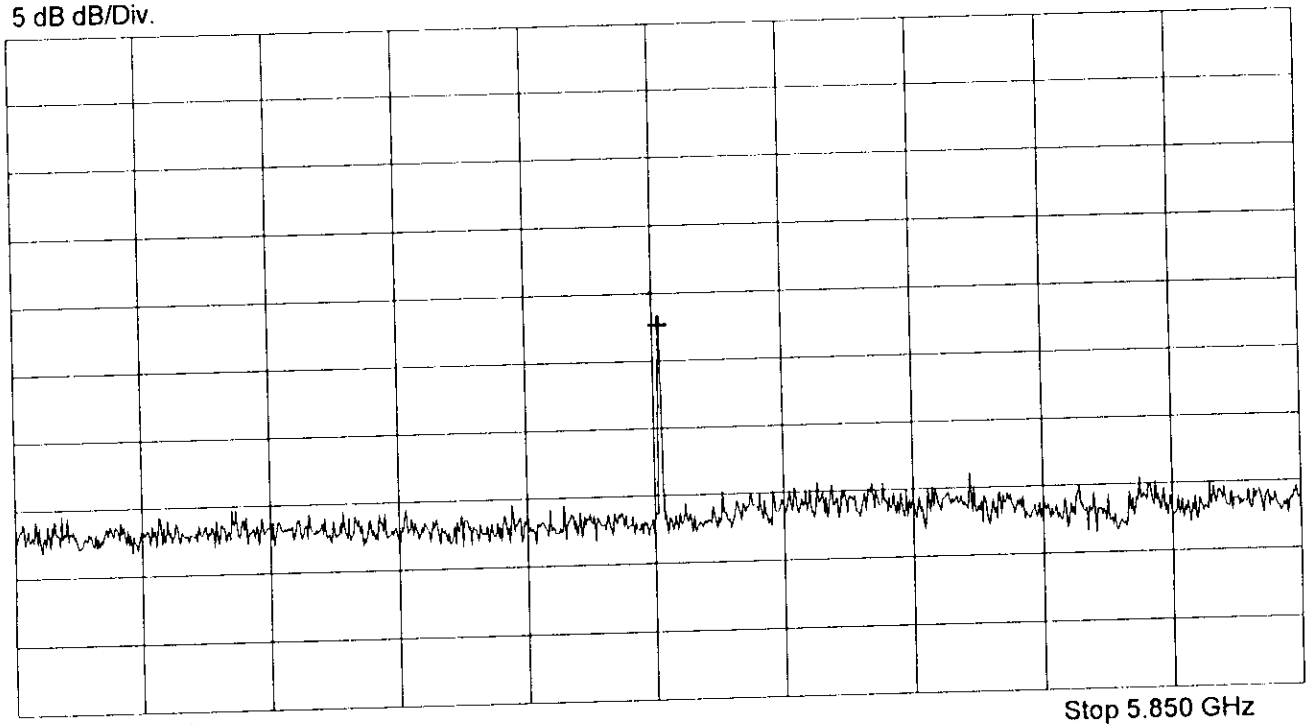
Test distance 1 m
Vertical Polarization

Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.908444 GHz	19.15 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

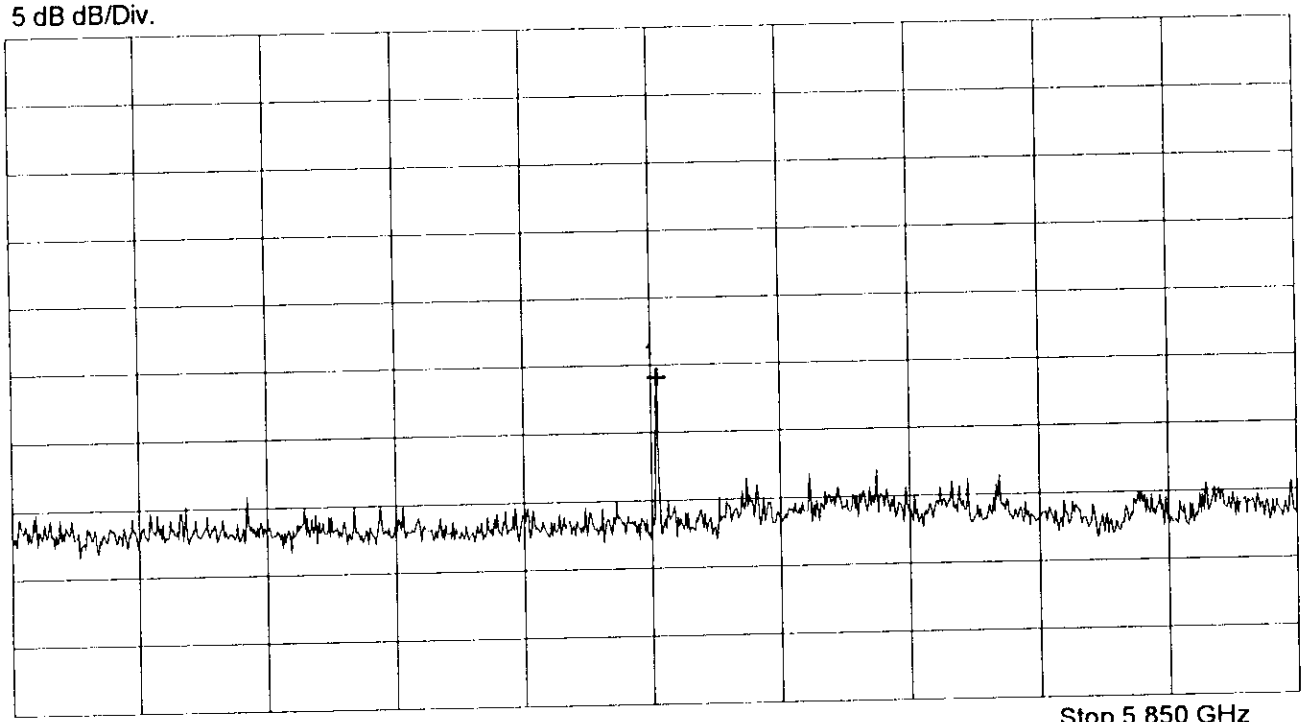
Test distance 1 m
Horizontal Polarization

Noch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.908444 GHz	15.53 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

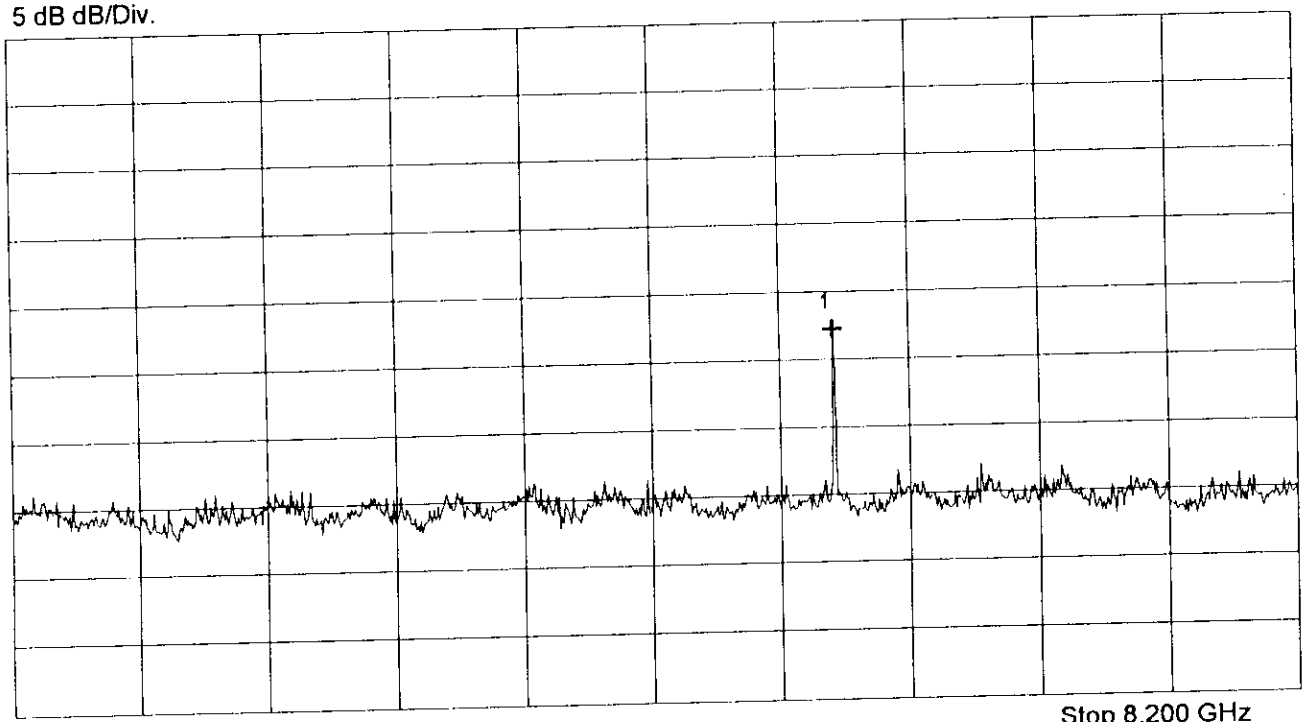
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.356611 GHz	18.74 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

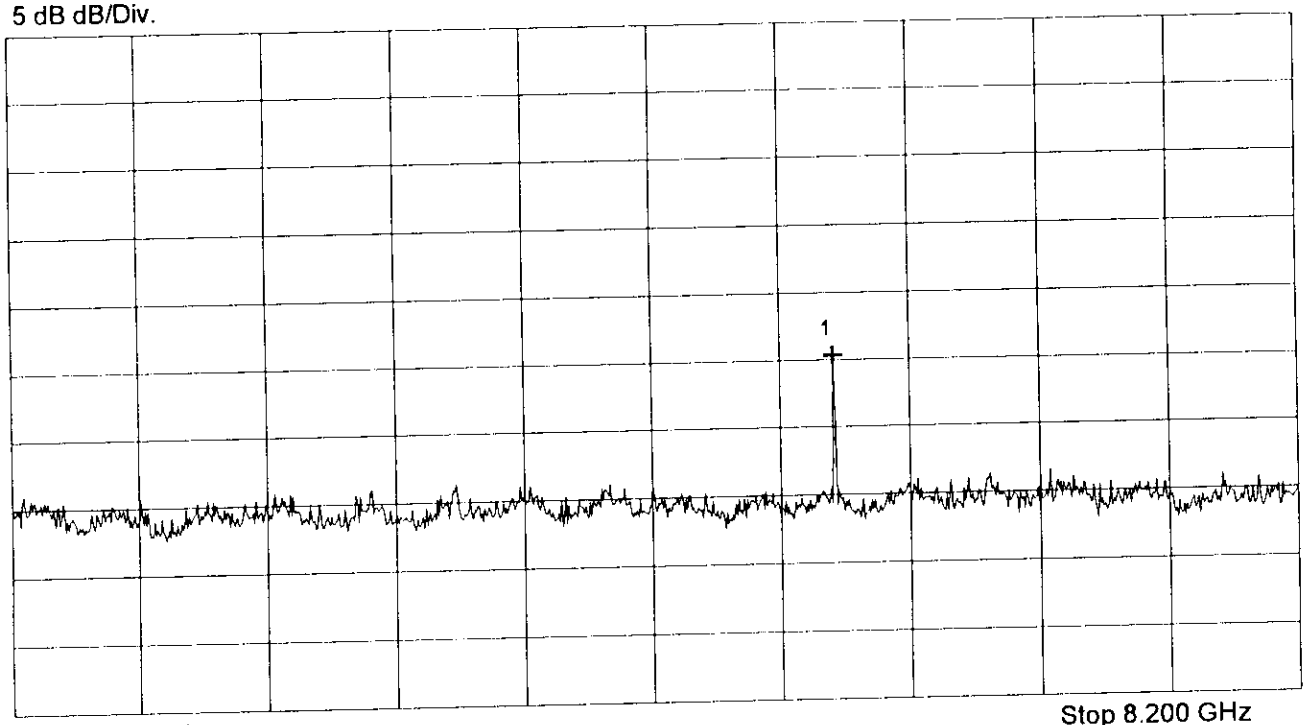
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 21 (2451.5 MHz) Test distance 1 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.356611 GHz	16.84 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

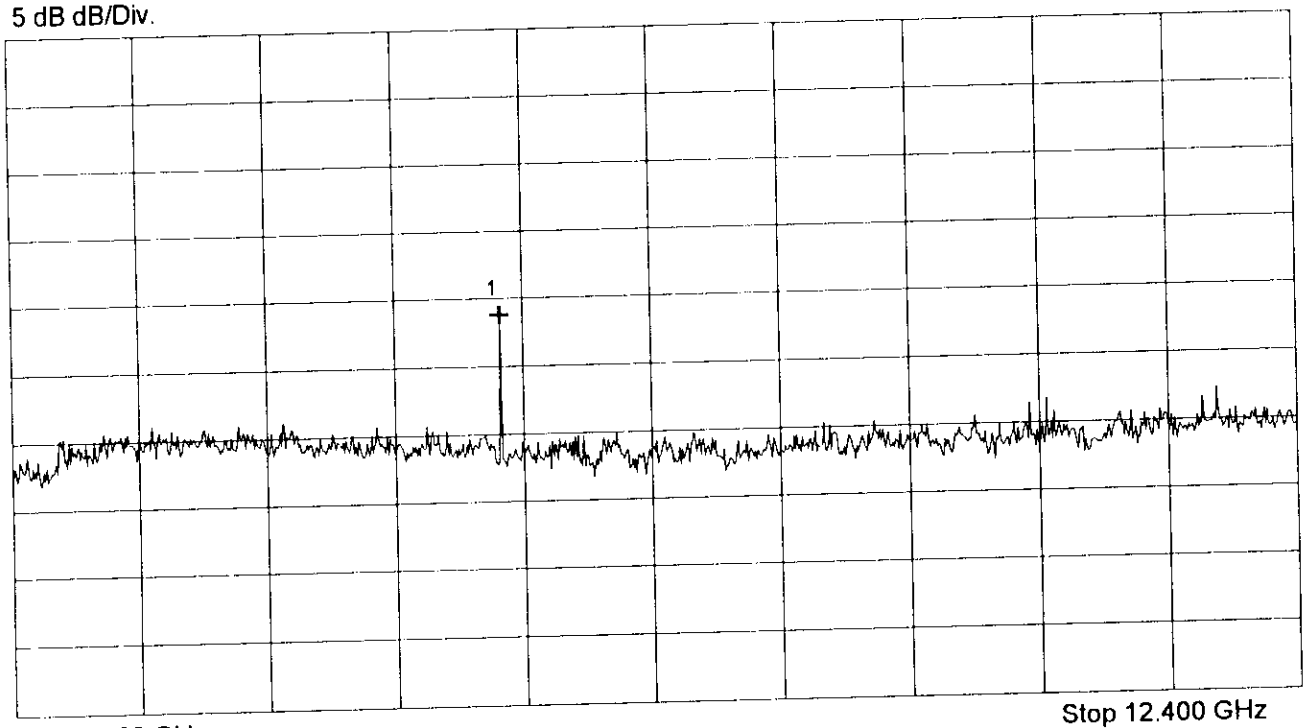
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.805333 GHz	15.75 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

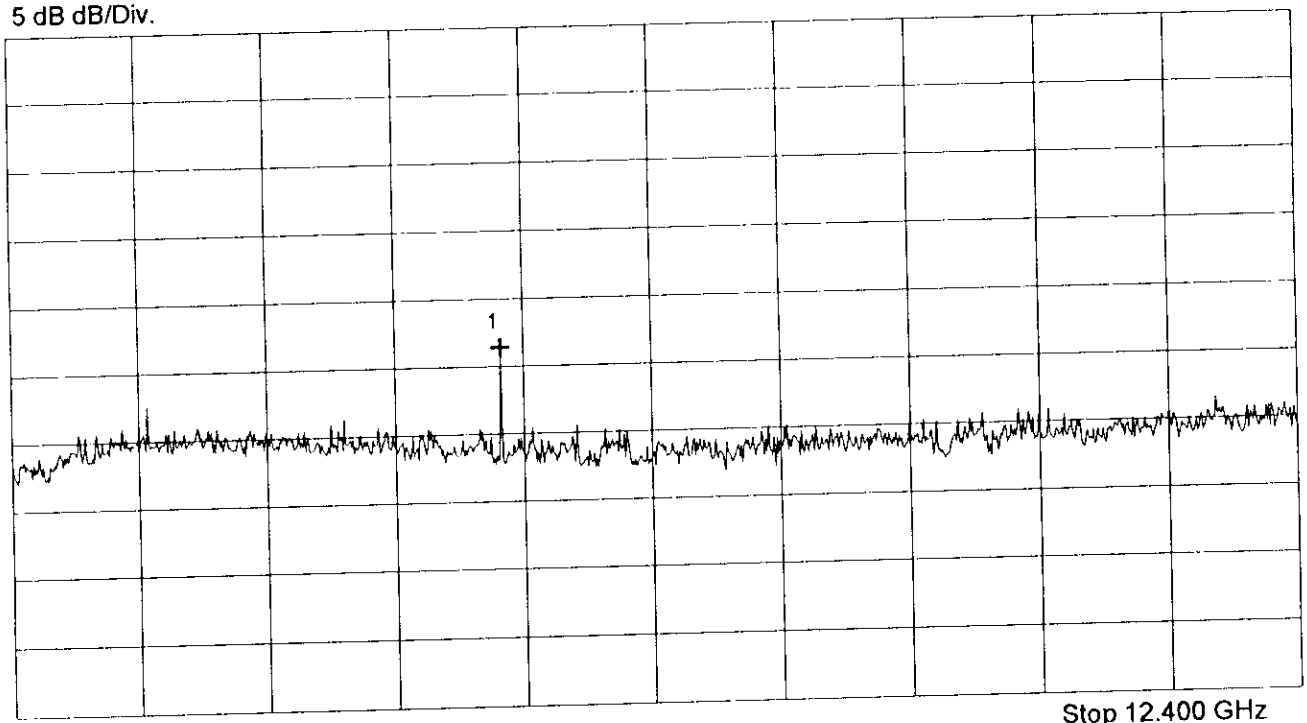
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.805333 GHz	13.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

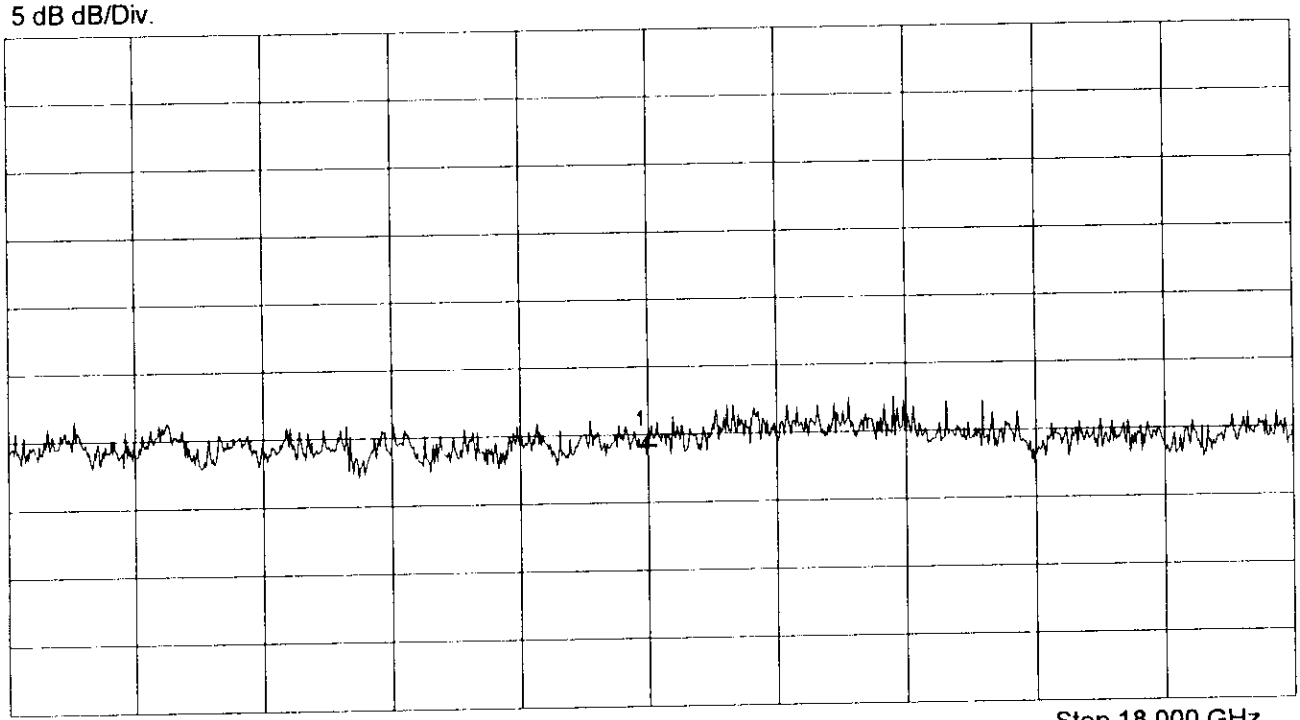
TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.14 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Date:

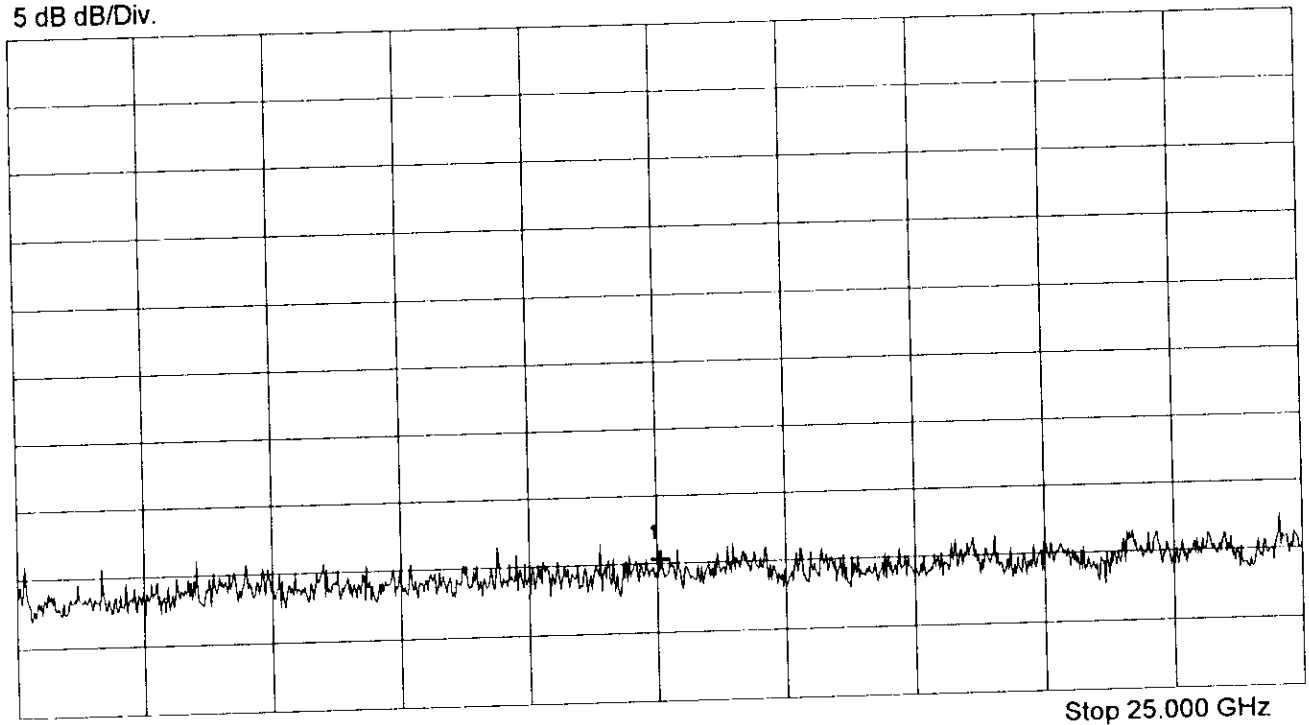
Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 21 (2451.5 MHz) Test distance 1 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.515556 GHz	7.25 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

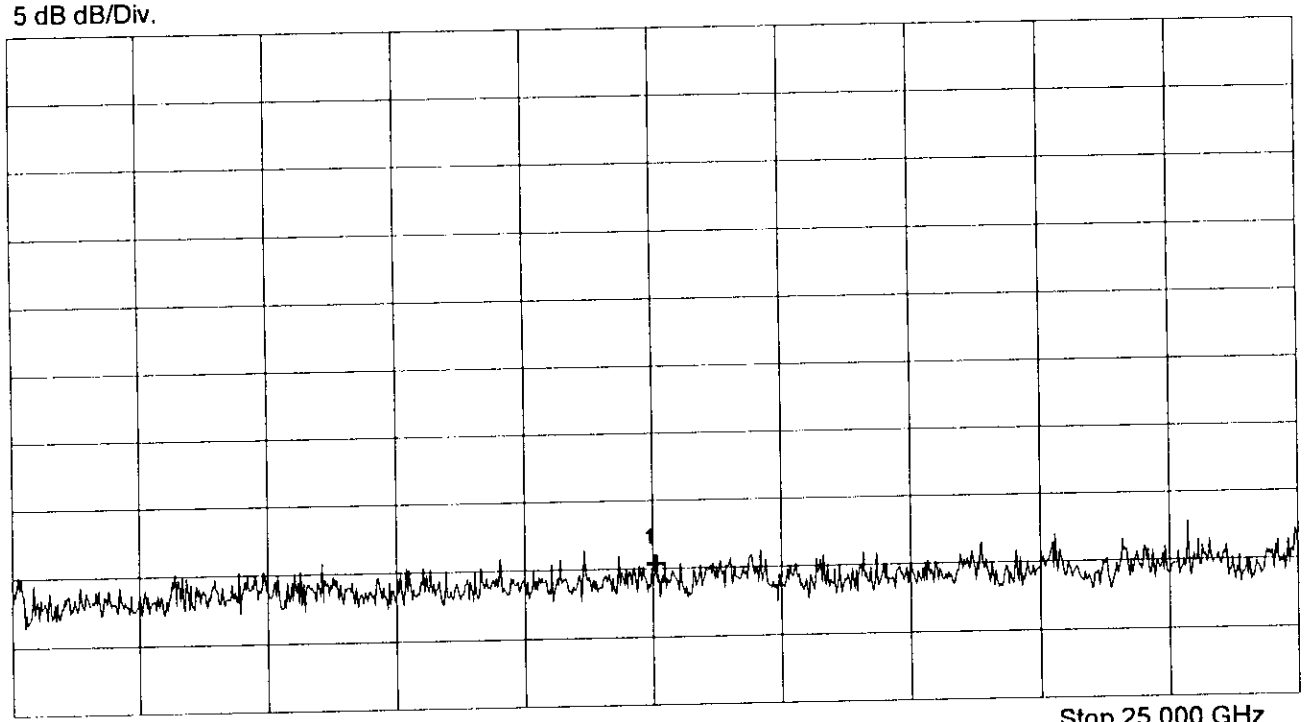
Mode:
Supply voltage 5 V DC

TX mode, Channel 21 (2451.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.515556 GHz	7.29 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

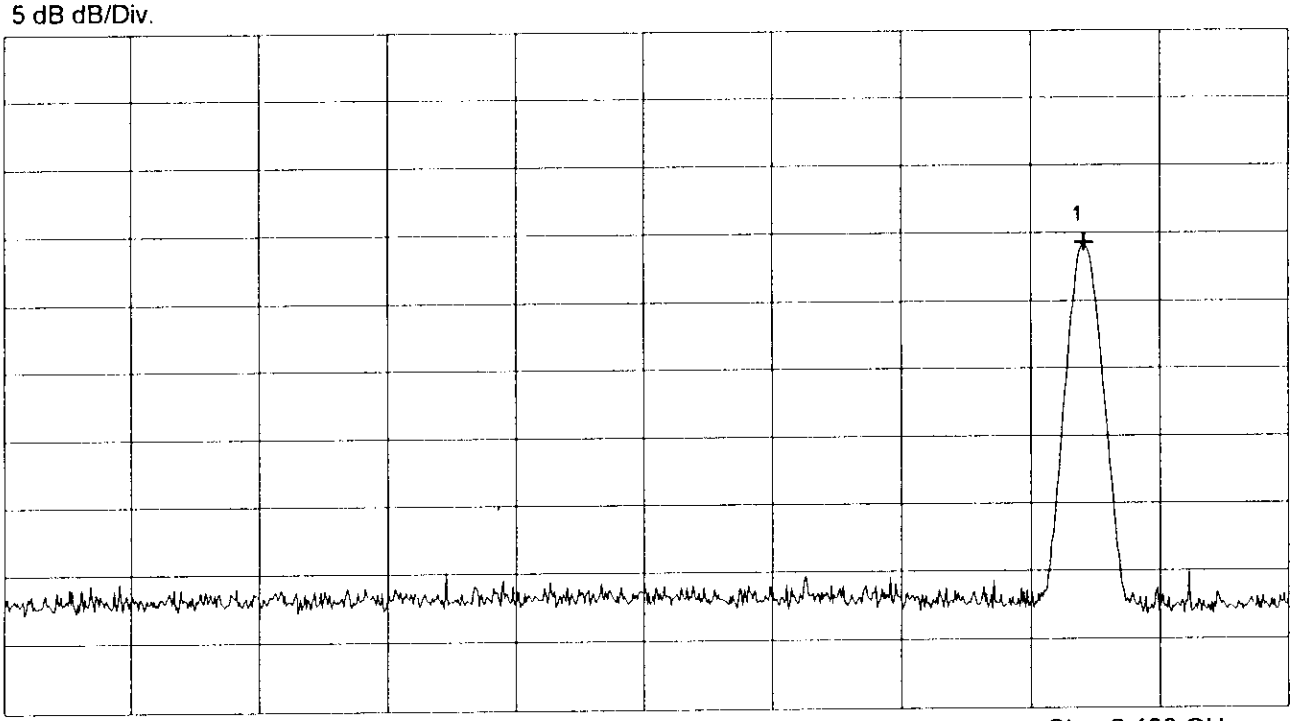
Project-No.:

Radiated Emissions Measurements according to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC TX Mode, Channel 27 (2466.5 MHz) Horizontal Polarization, Test distance 3 m
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	61.29 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

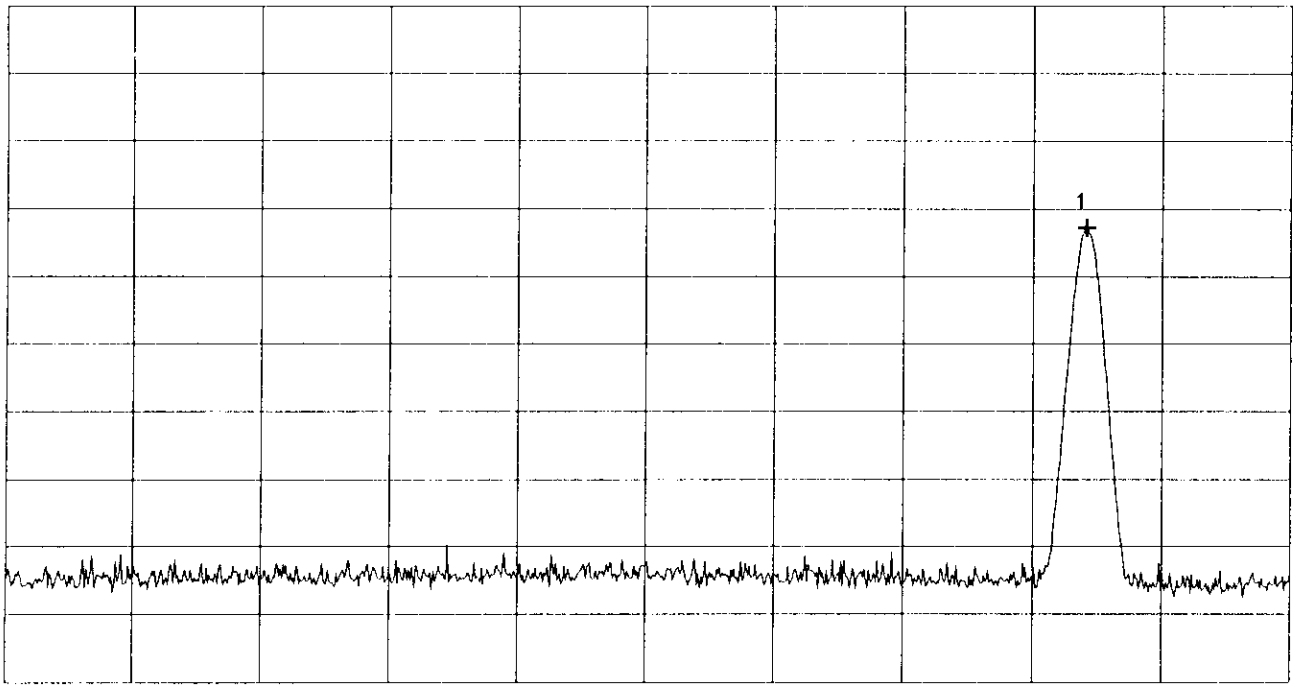
Tested by:	Project-No.:

Radiated Emissions Measurements according to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC TX Mode, Channel 27 (2466.5 MHz) Vertical Polarization, Test distance 3 m
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	60.61 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:	Project-No.:
Date:	

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

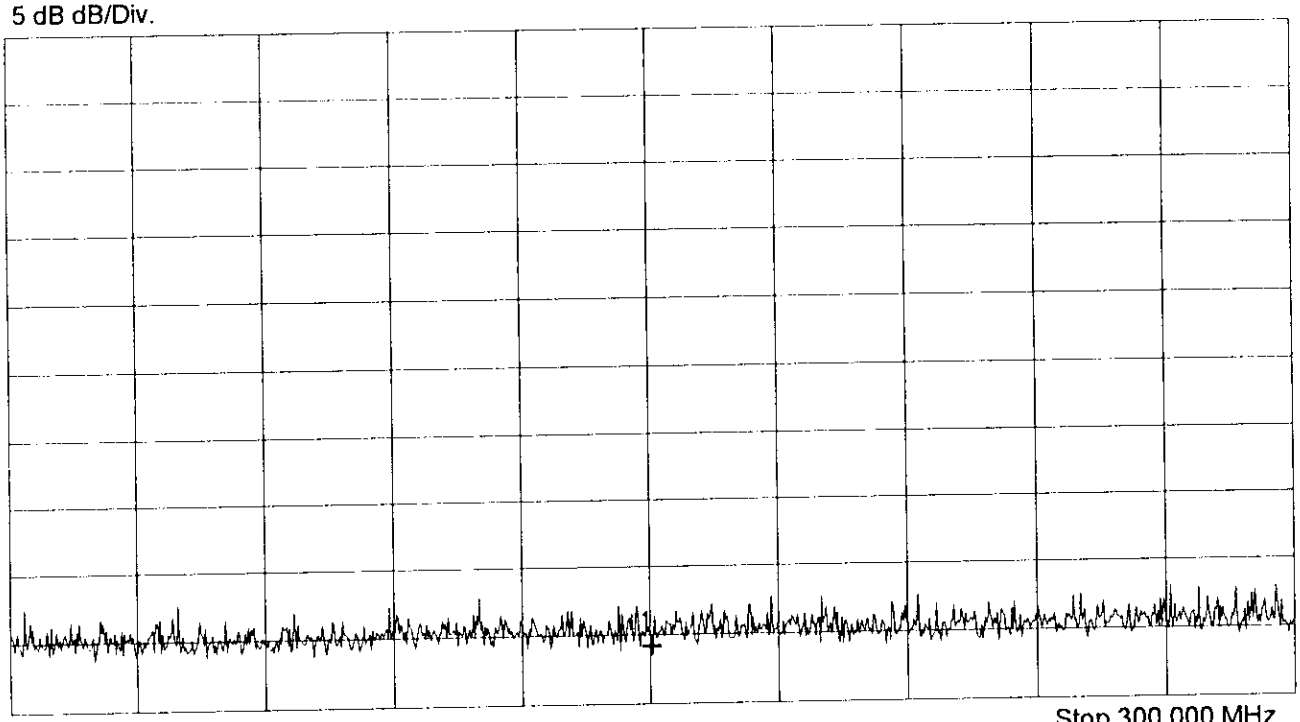
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	1.18 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

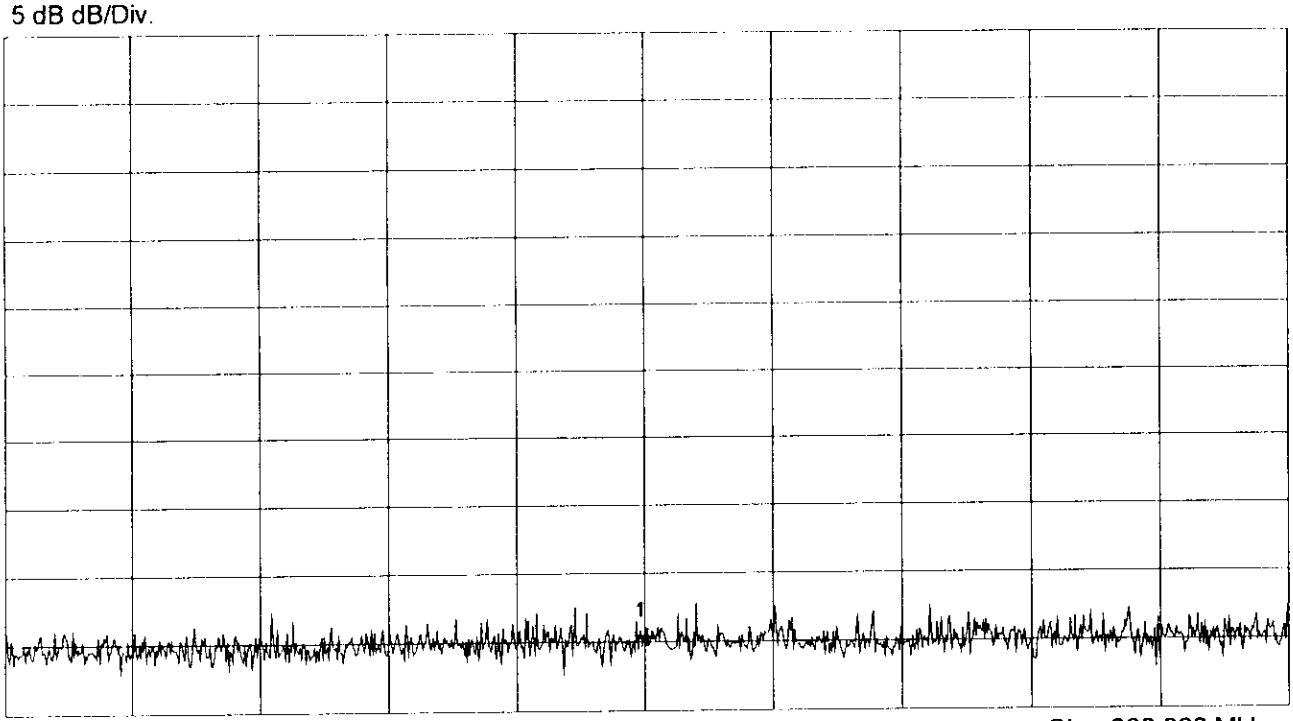
Date:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, channel 27 (2466.5 MHz) Test distance 3 m Vertical polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

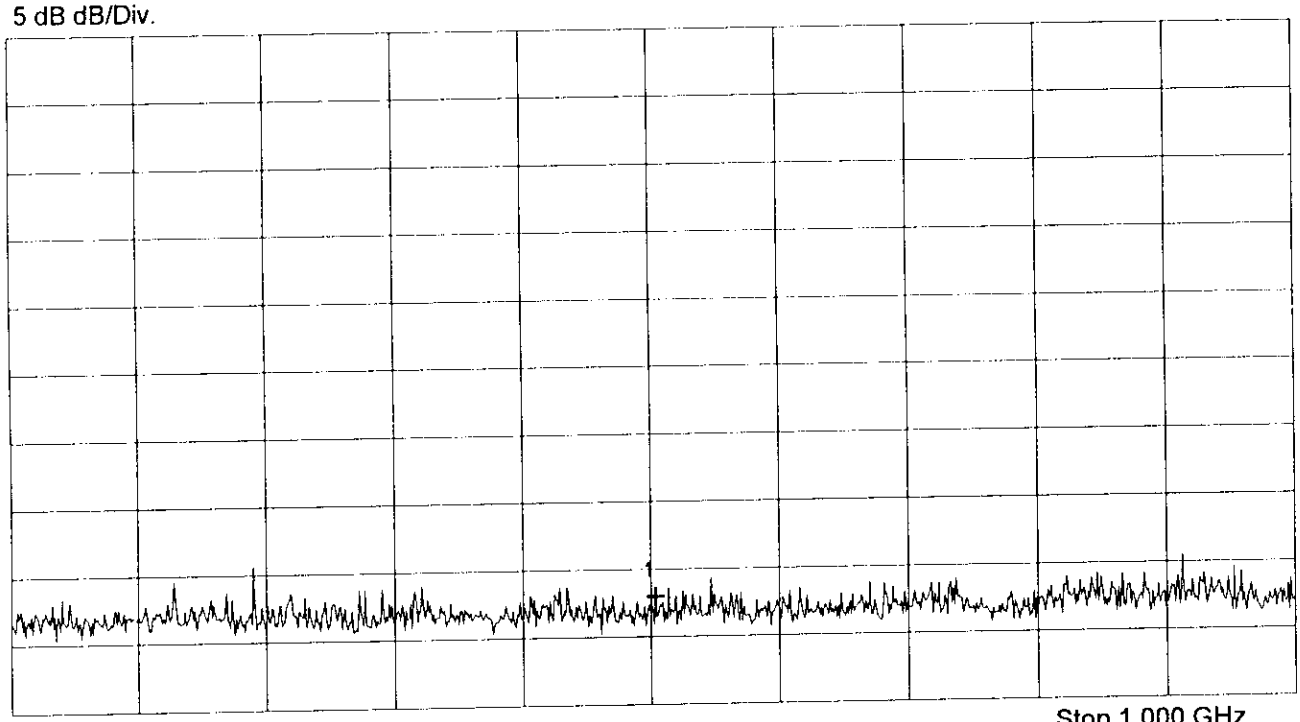
Mode:
Supply voltage 5 V DC

TX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

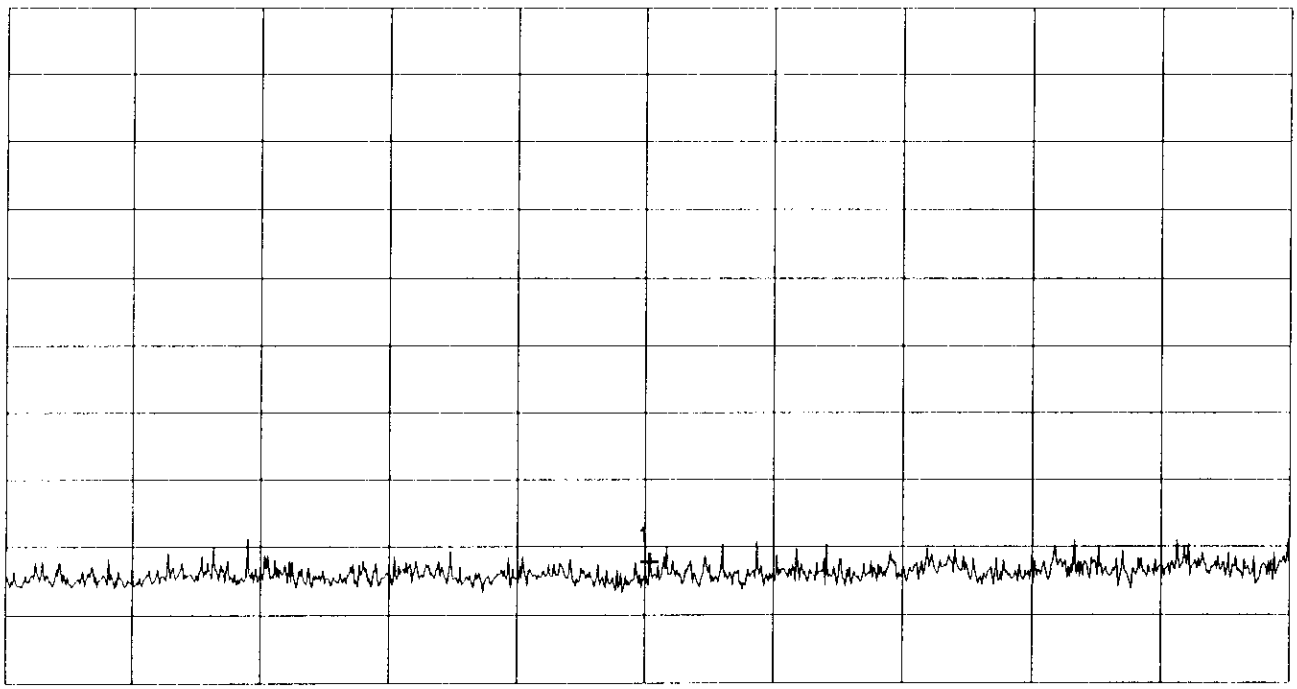
Date:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, channel 27 (2466.5 MHz) Test distance 3 m Horizontal polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	652.333333 MHz	5.87 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

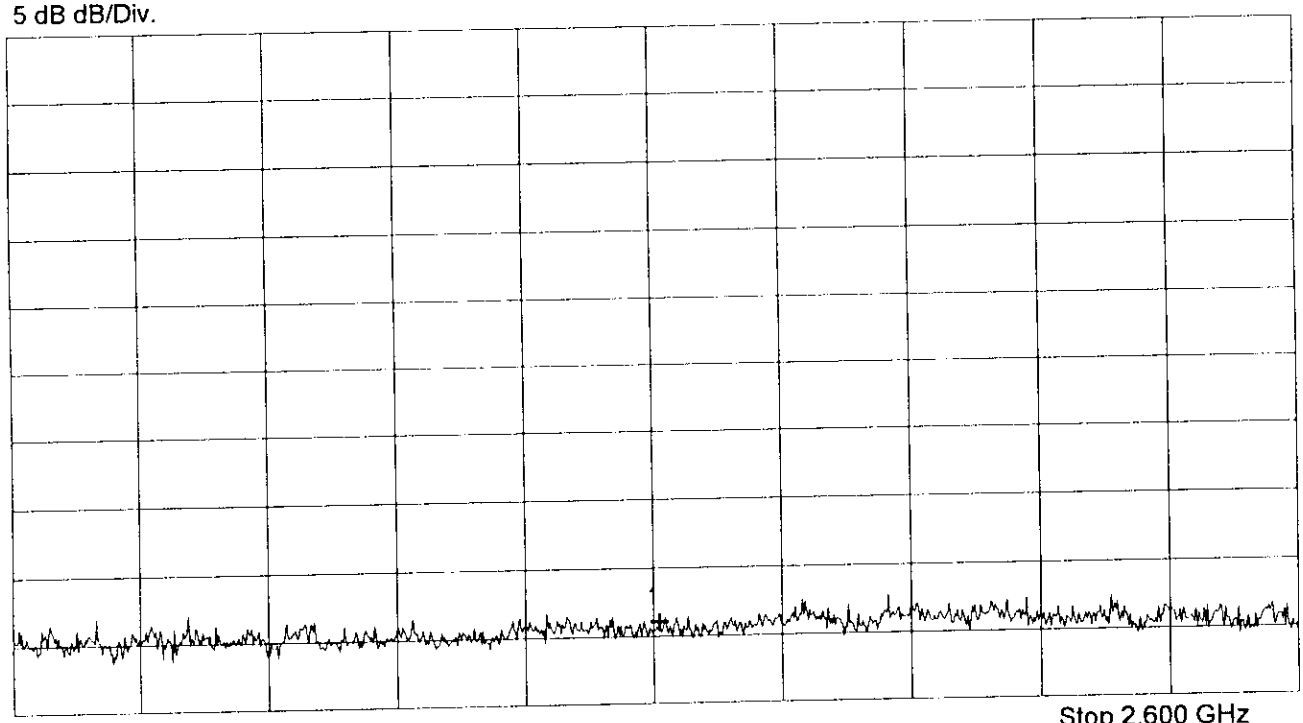
Tested by: Johann Roidt	Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 27 (2466.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.807111 GHz	18.01 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

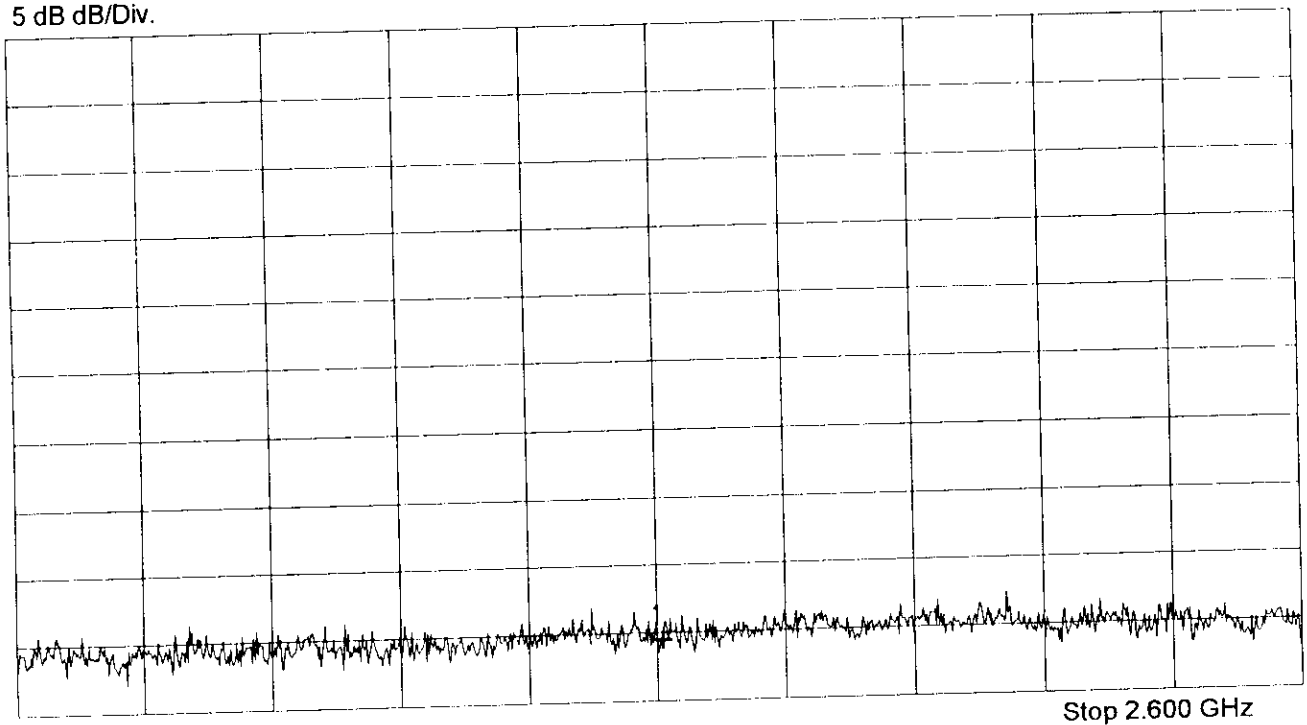
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Notch Filter on TX Frequency

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.807111 GHz	16.44 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

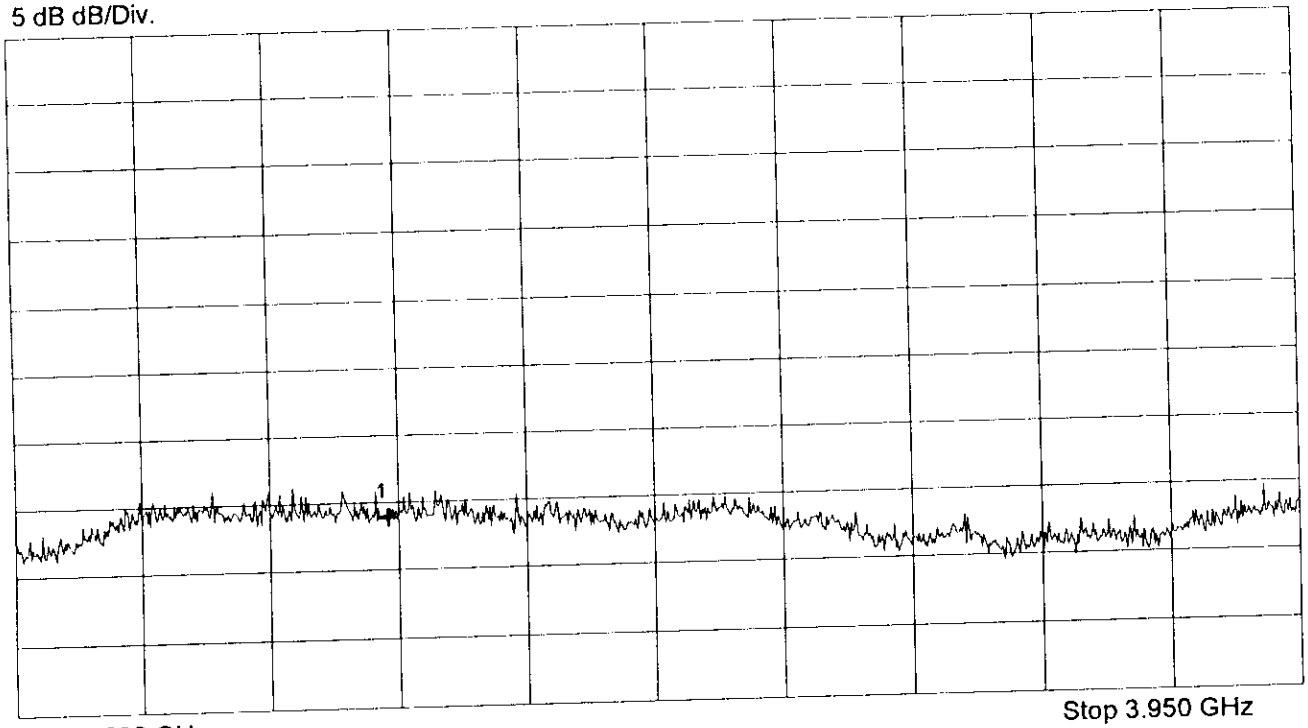
Test distance 3 m
Vertical Polarization

Notch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.994500 GHz	5.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

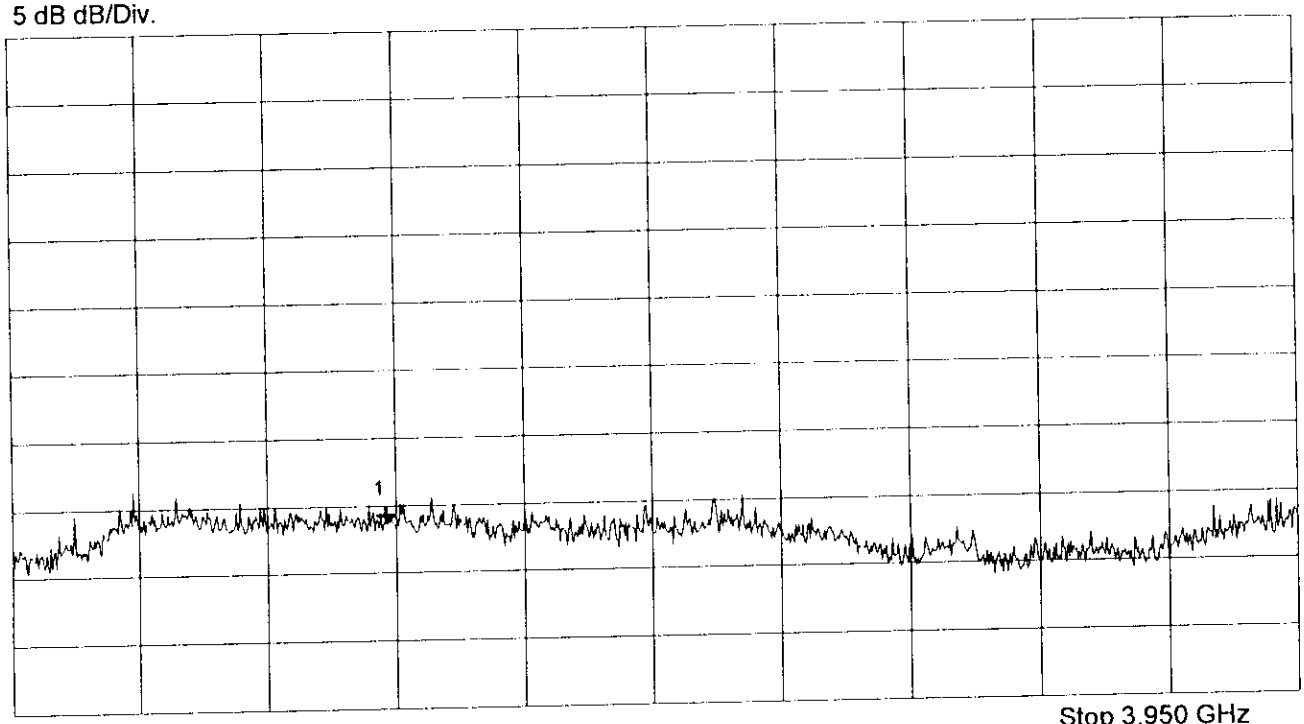
Test distance 3 m
Horizontal Polarization

Notch Filter on TX Frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.994500 GHz	5.79 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

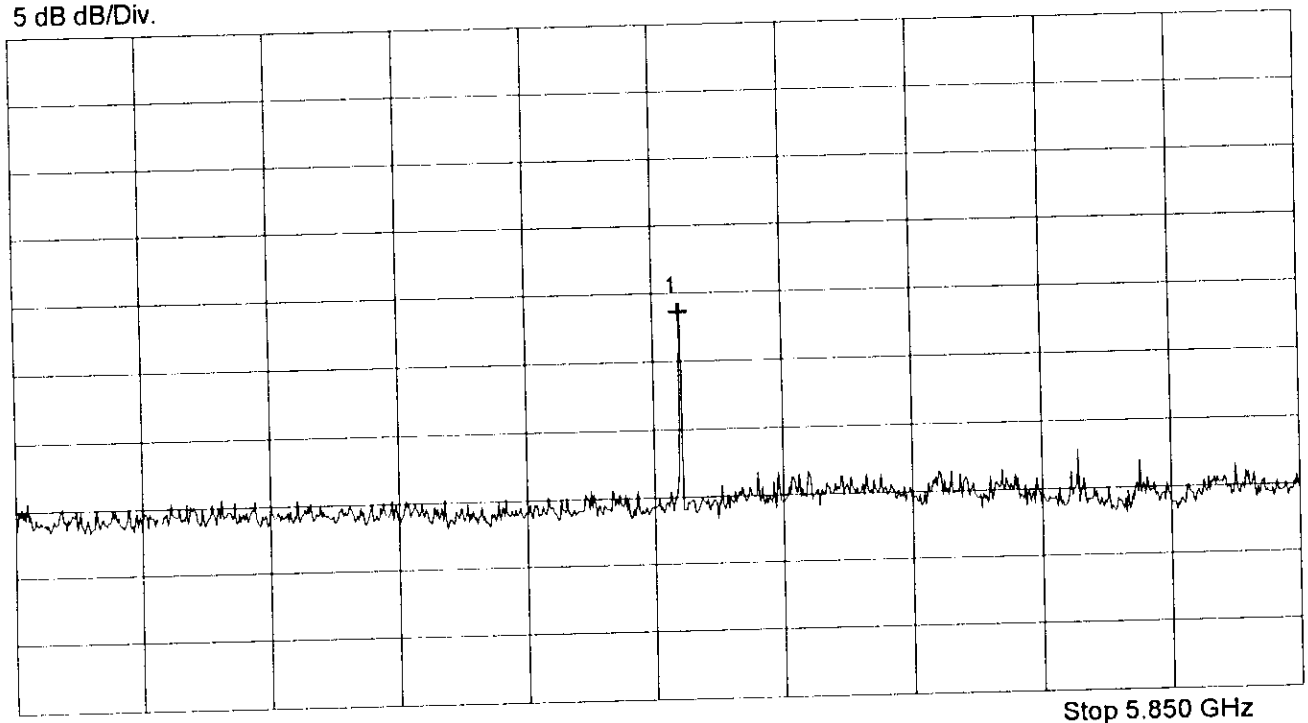
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.938000 GHz	20.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

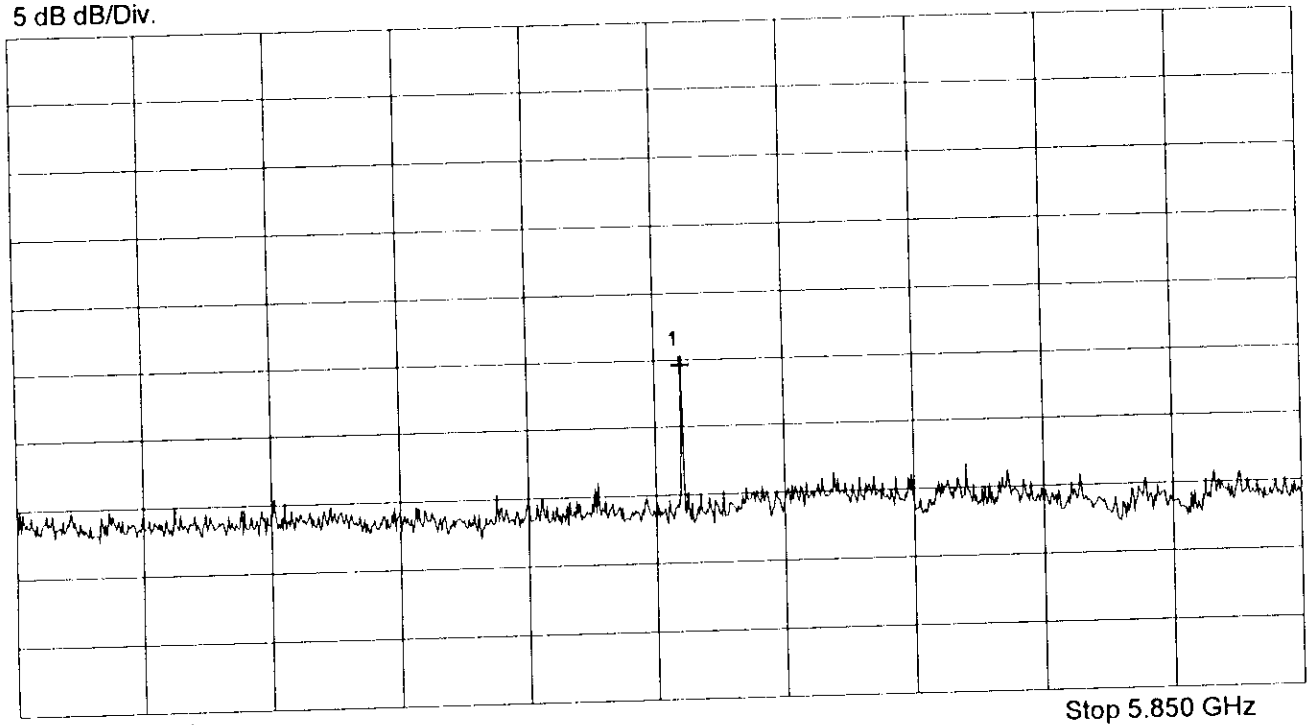
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.938000 GHz	16.11 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

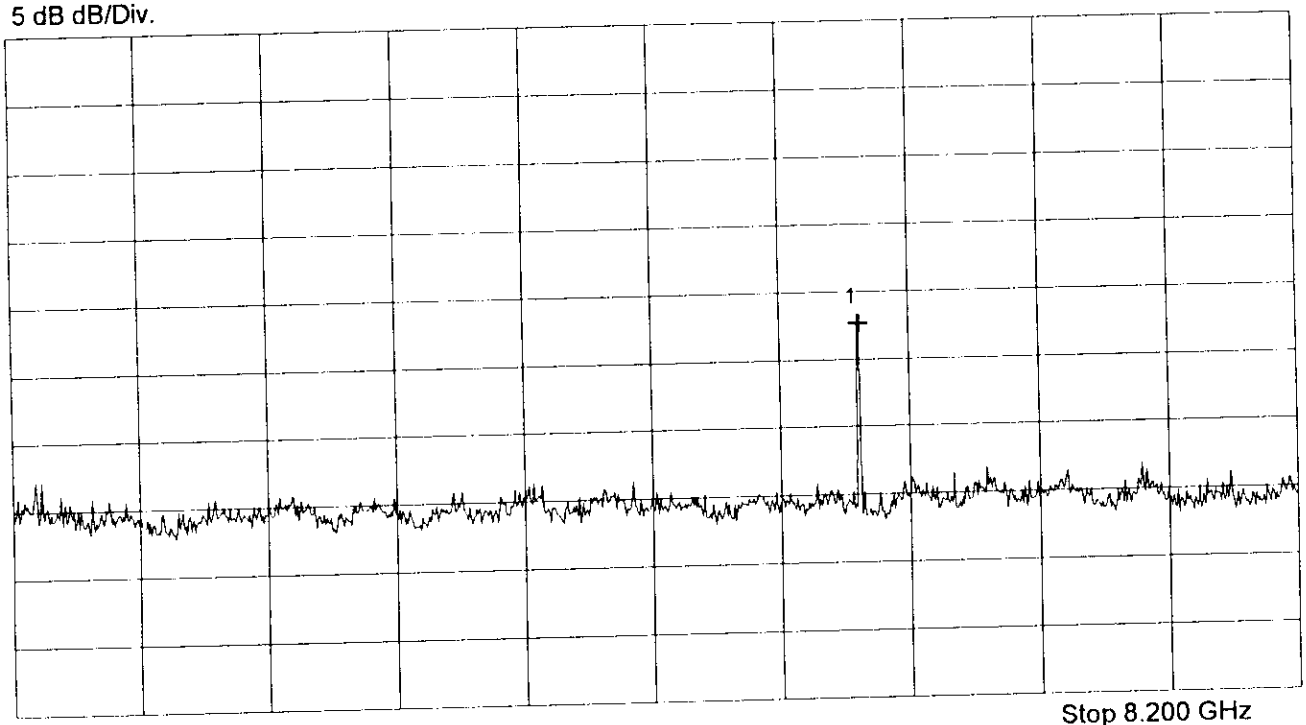
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	19.16 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

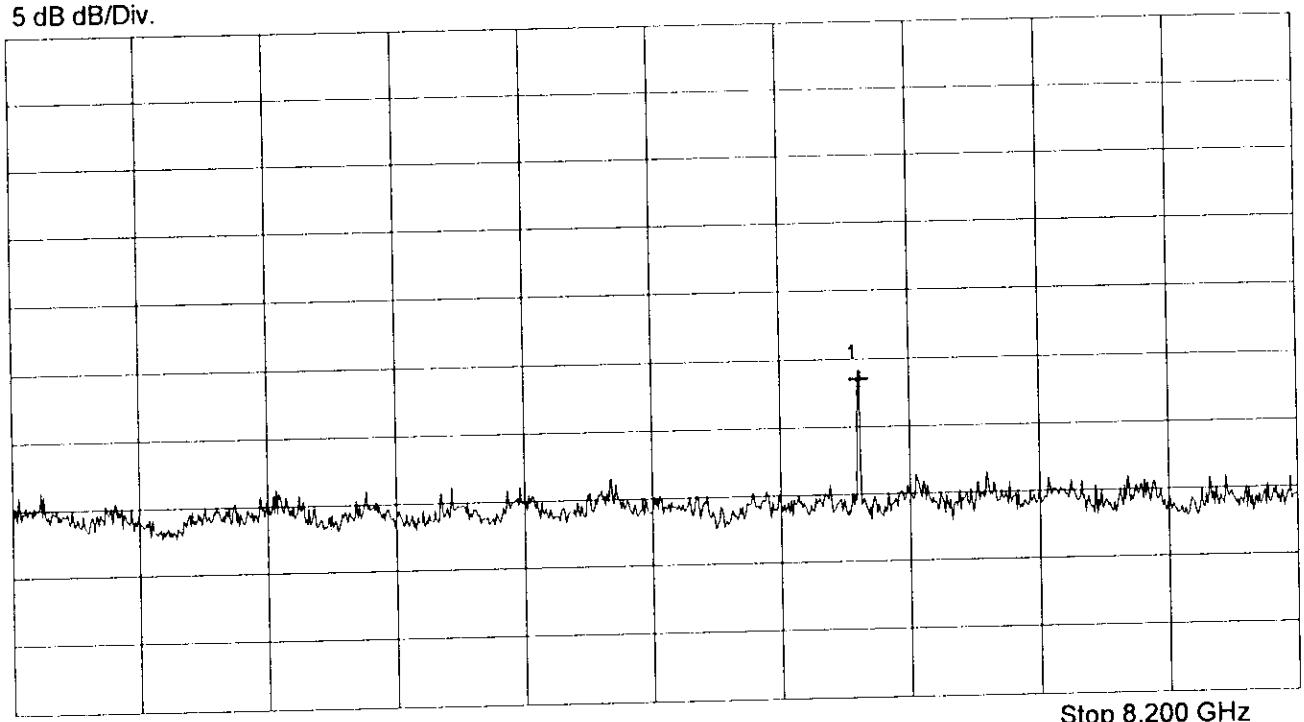
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	14.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

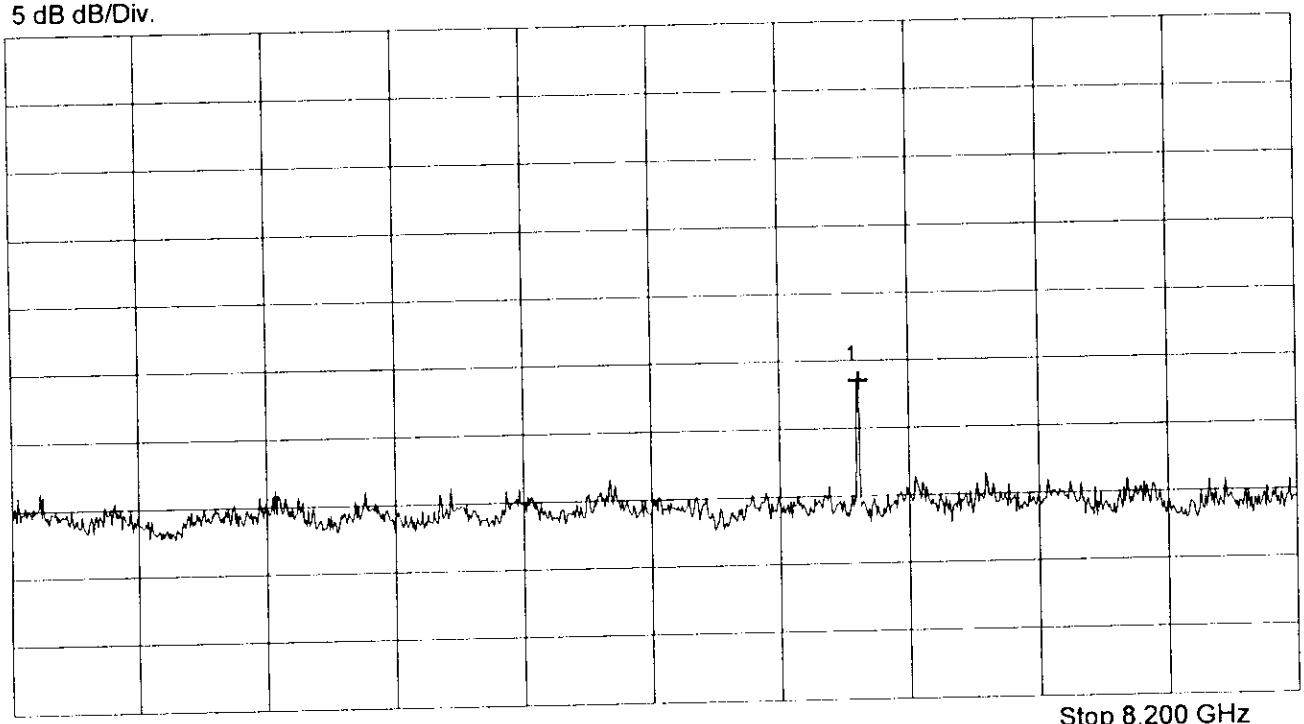
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.403611 GHz	14.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

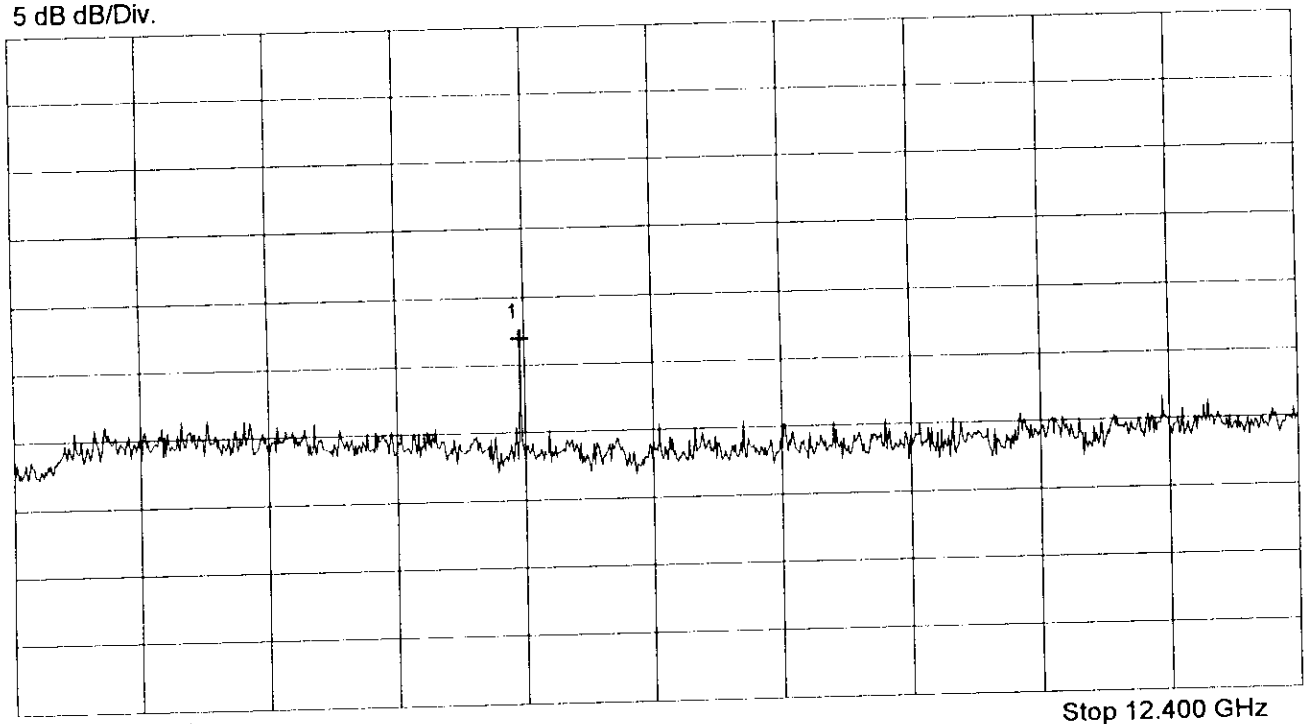
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.866000 GHz	13.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

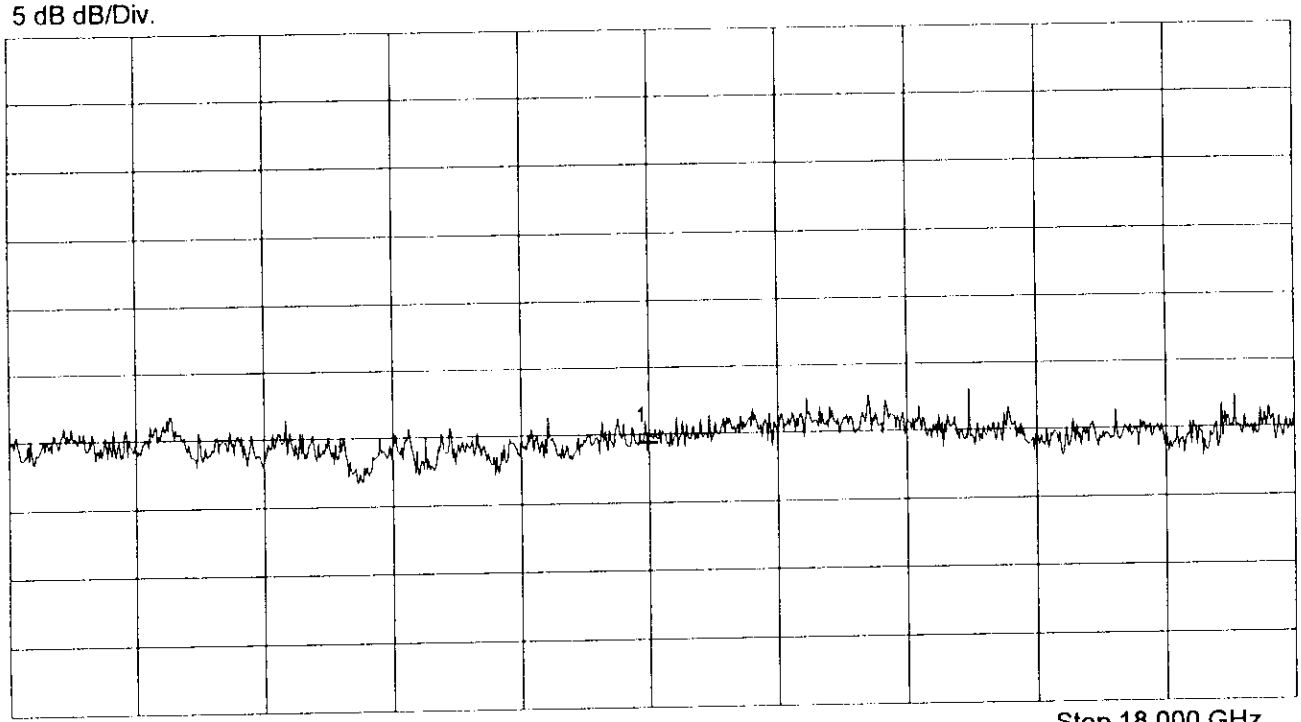
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC TX mode, Channel 27 (2466.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.38 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

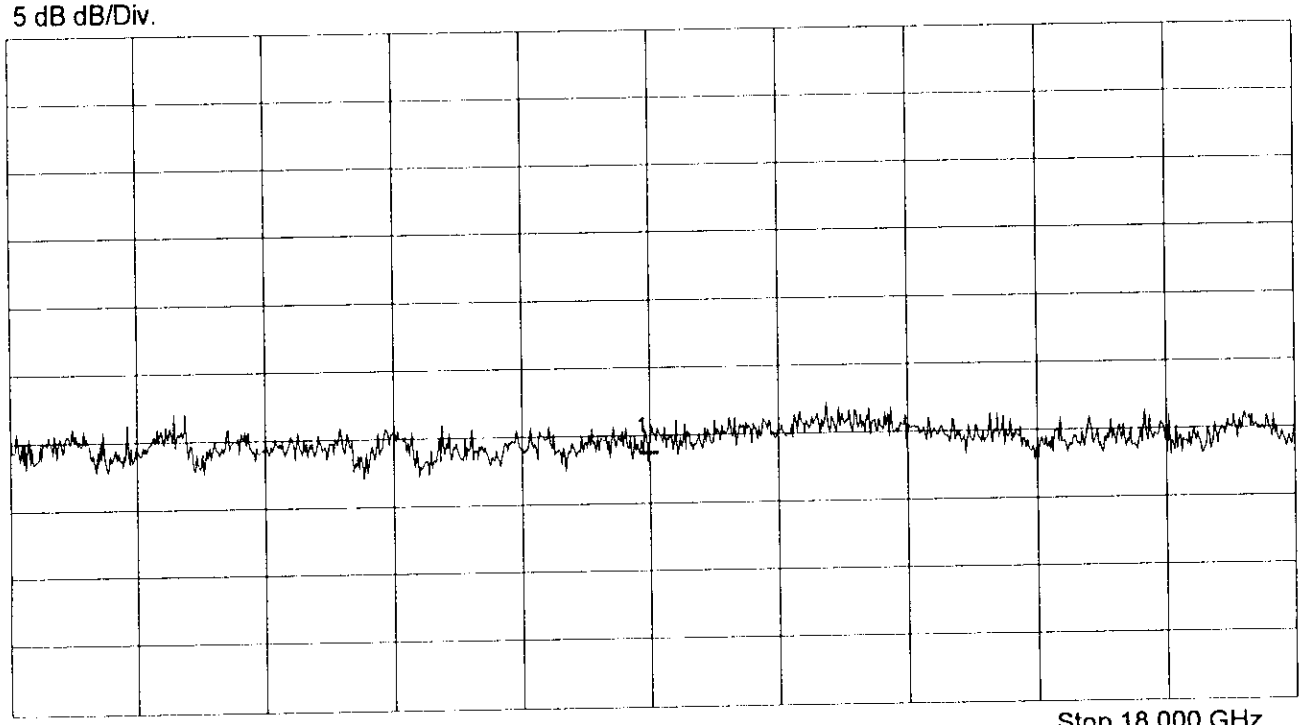
TX mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	5.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

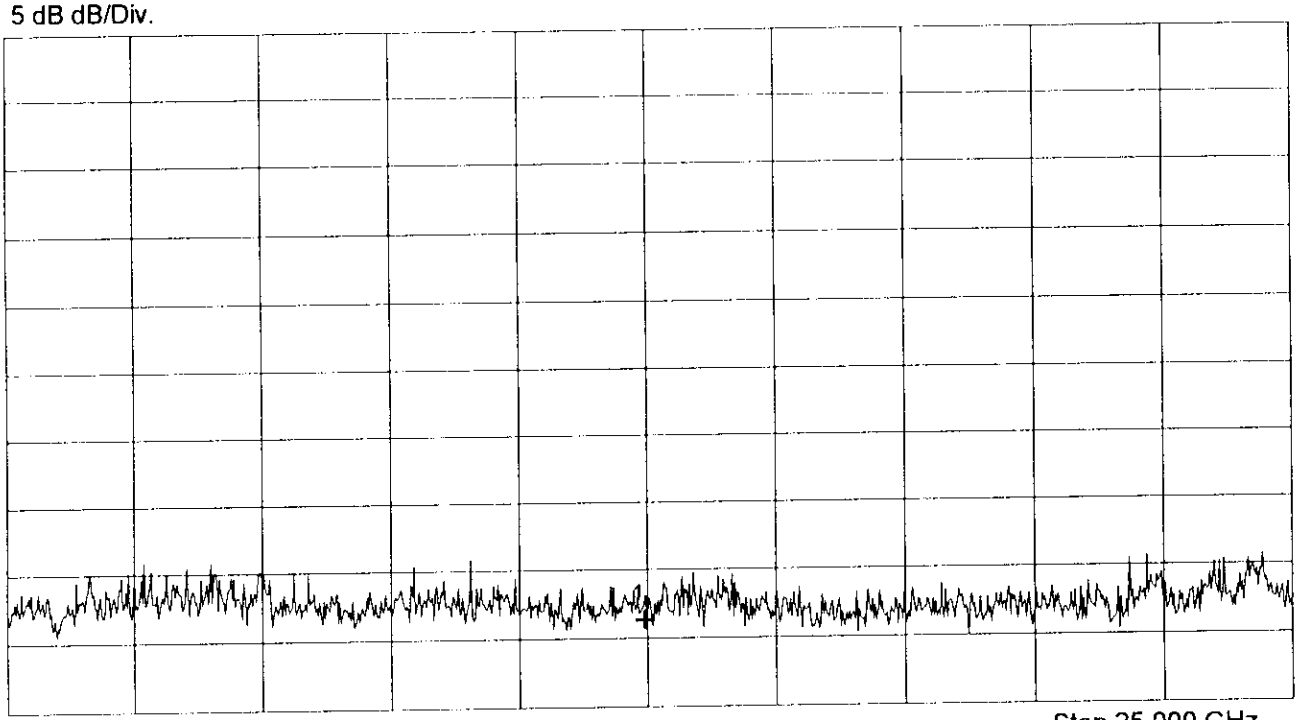
Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 57 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.484444 GHz	13.28 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

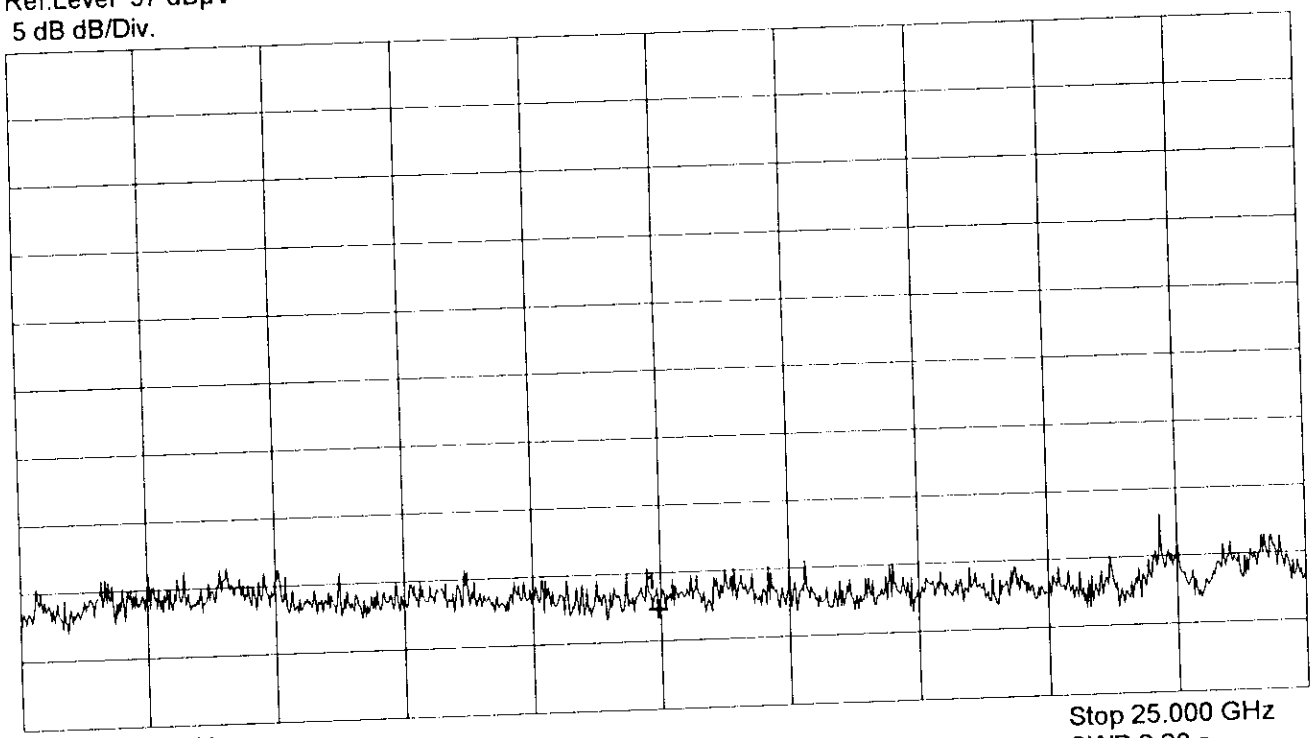
Mode:
Supply voltage 5 V DC

TX mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 57 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.484444 GHz	14.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

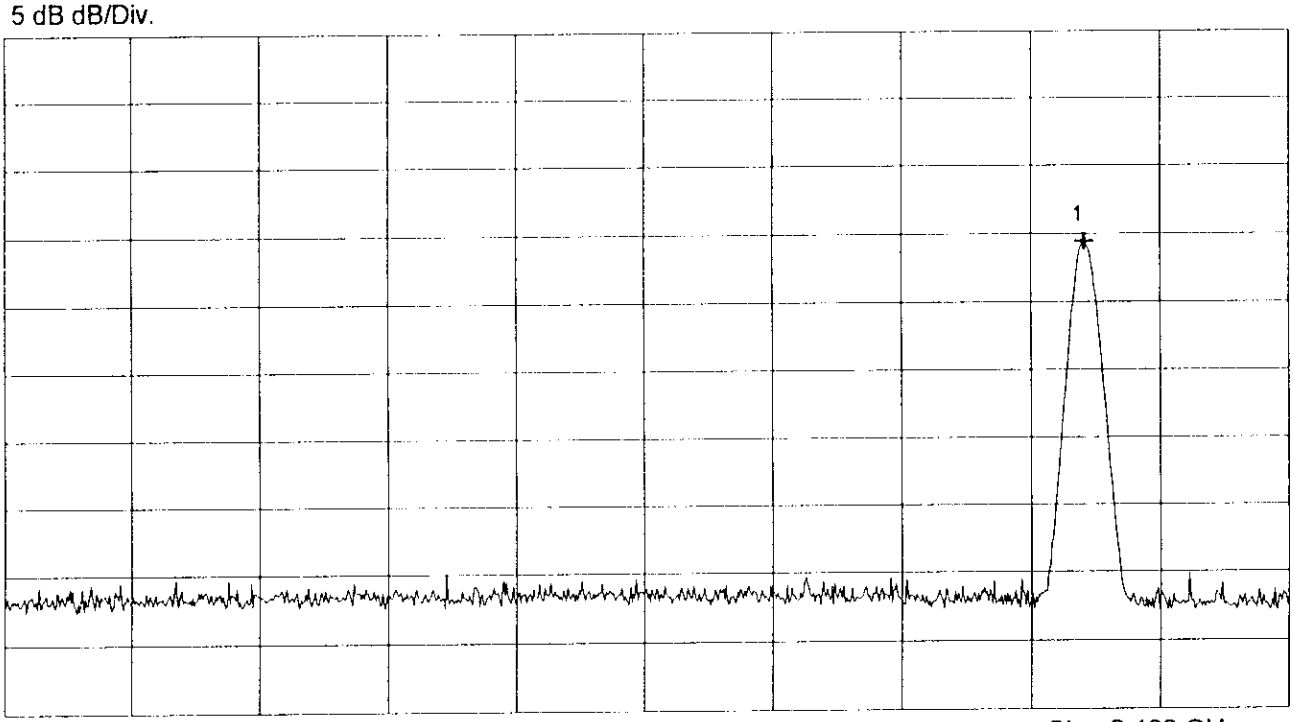
Date:

Radiated Emissions Measurements according to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC TX Mode, Channel 33 (2481.5 MHz) Horizontal Polarization, Test distance 3 m
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	61.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:	Project-No.:

Radiated Emissions Measurements according to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

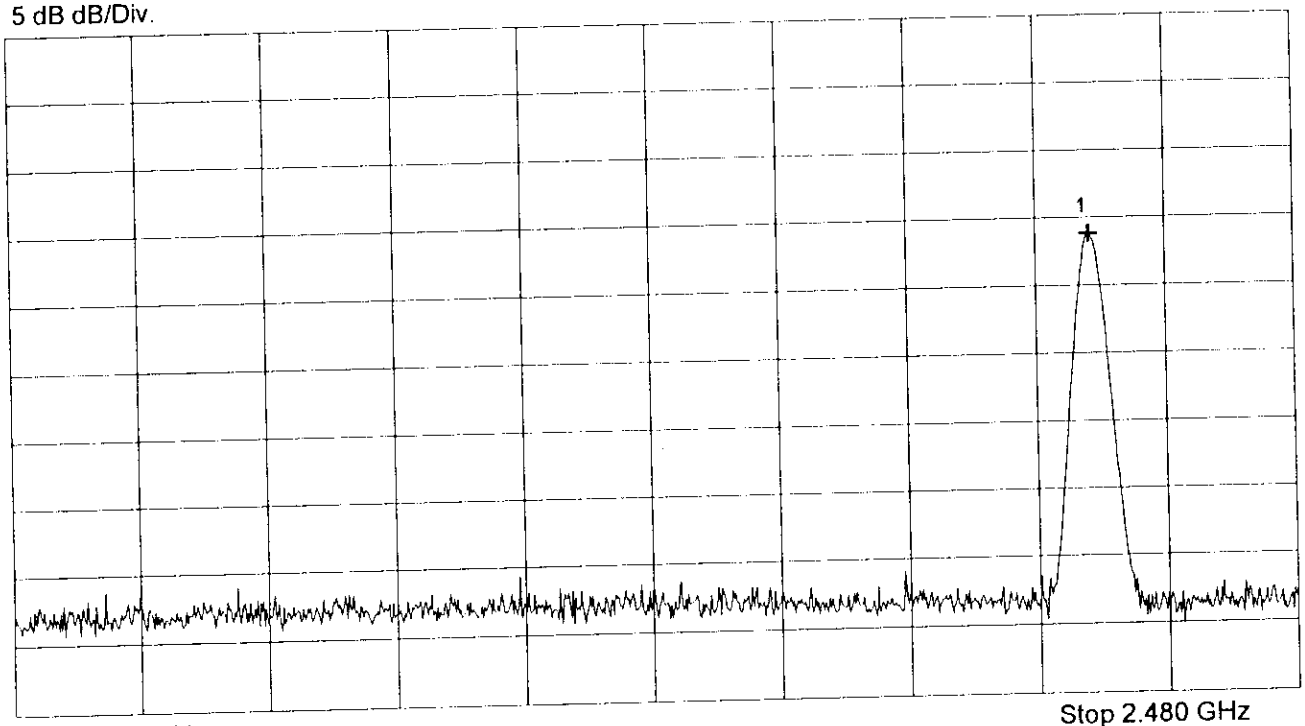
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Vertical Polarization, Test distance 3 m

Ref.Level 77 dBµV
5 dB dB/Div.

ATT 10 dB



Start 2.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.480 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.467289 GHz	60.82 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

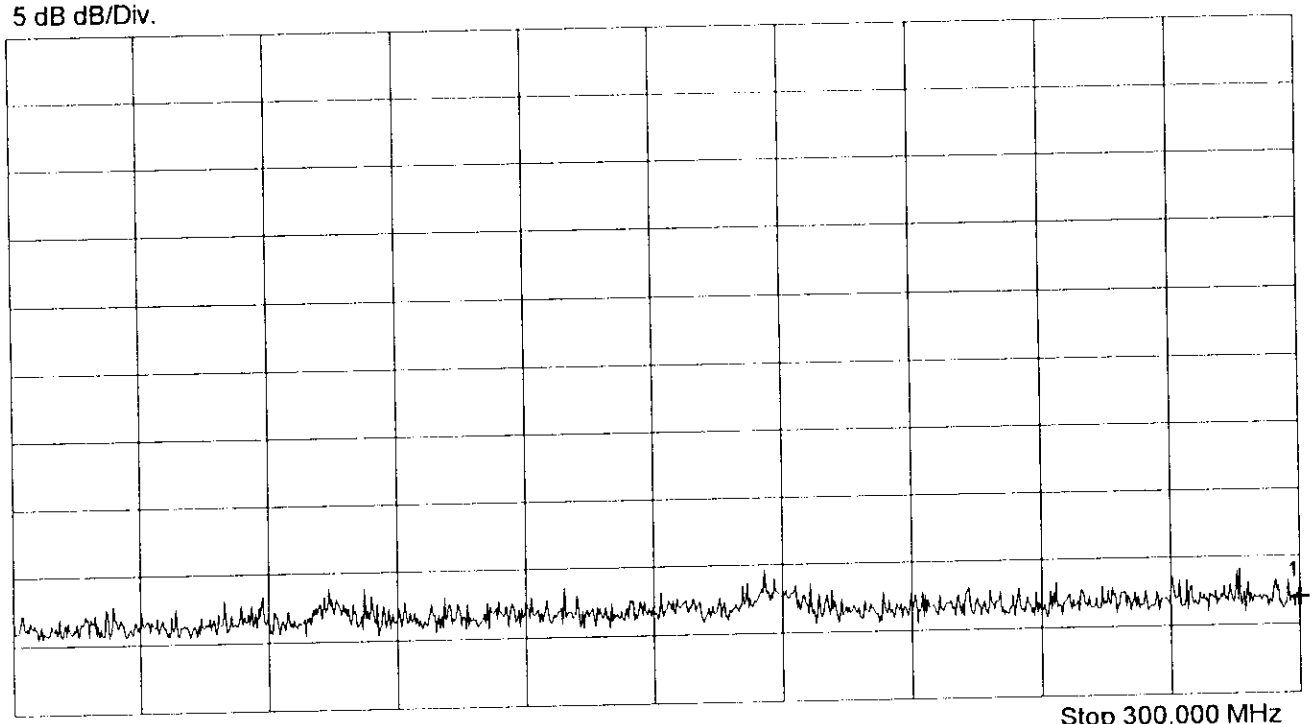
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.92 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

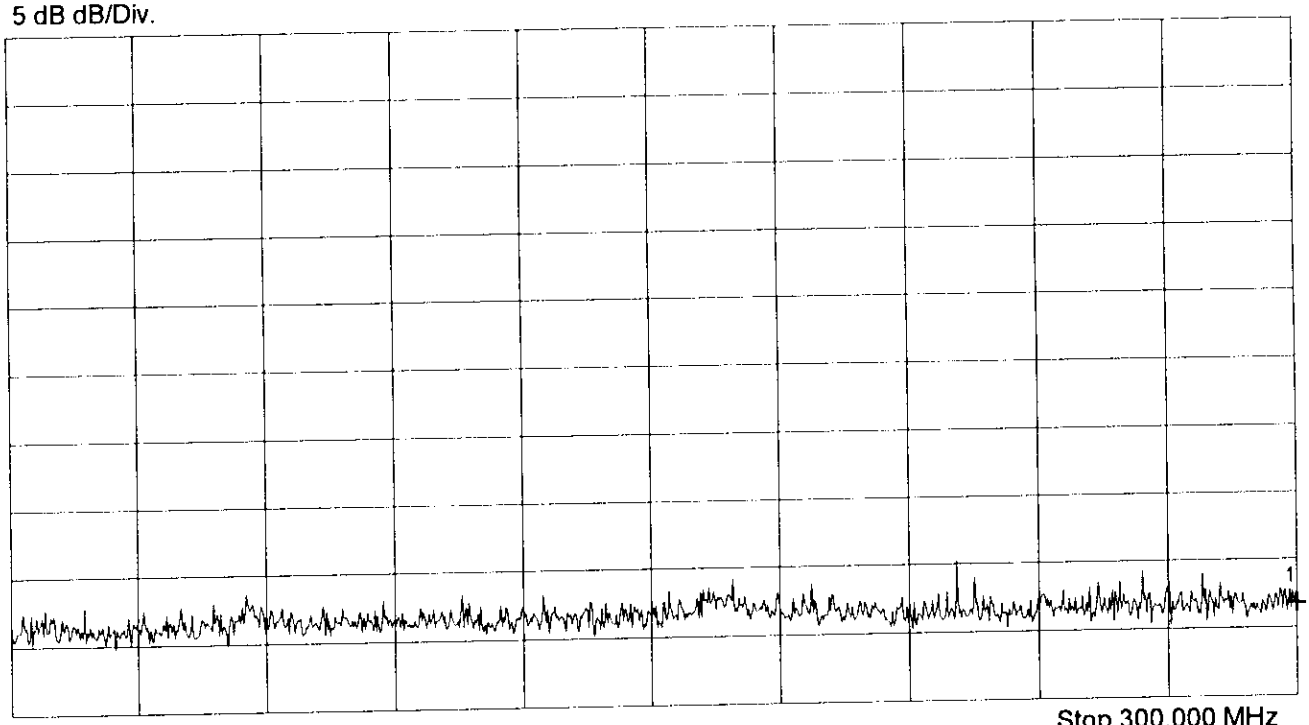
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.73 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

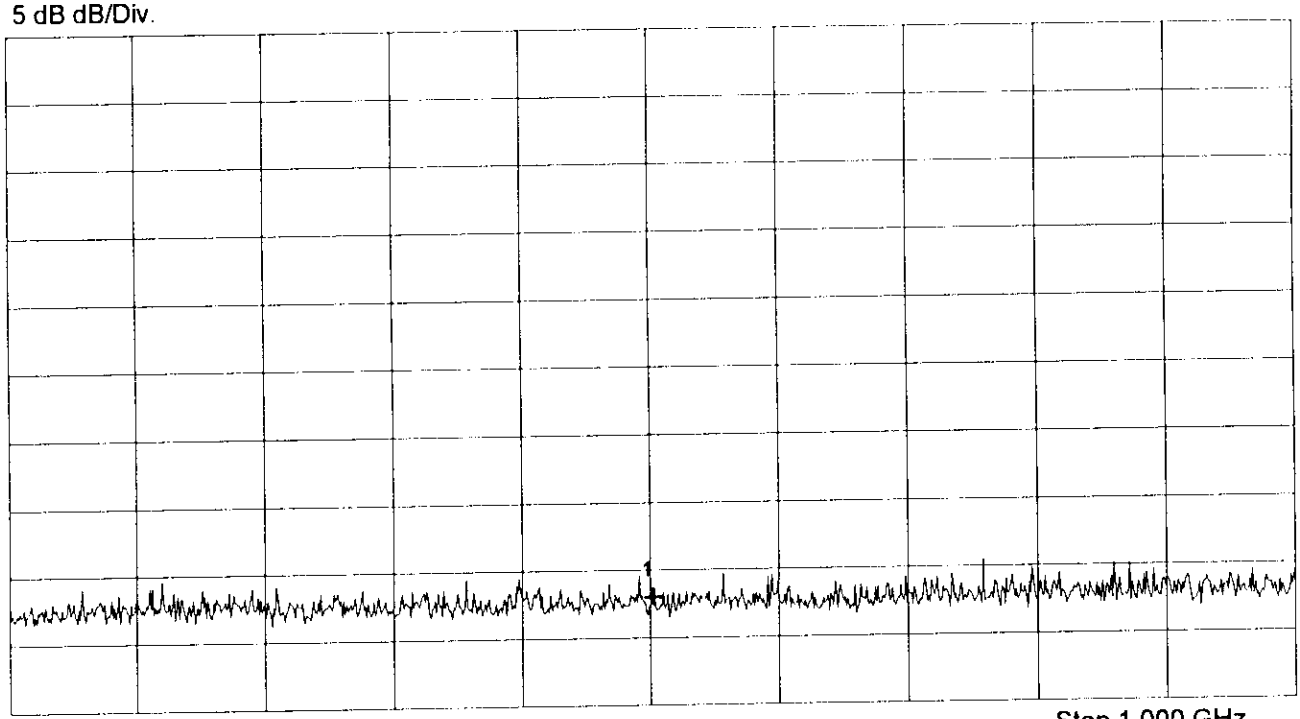
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	5.00 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

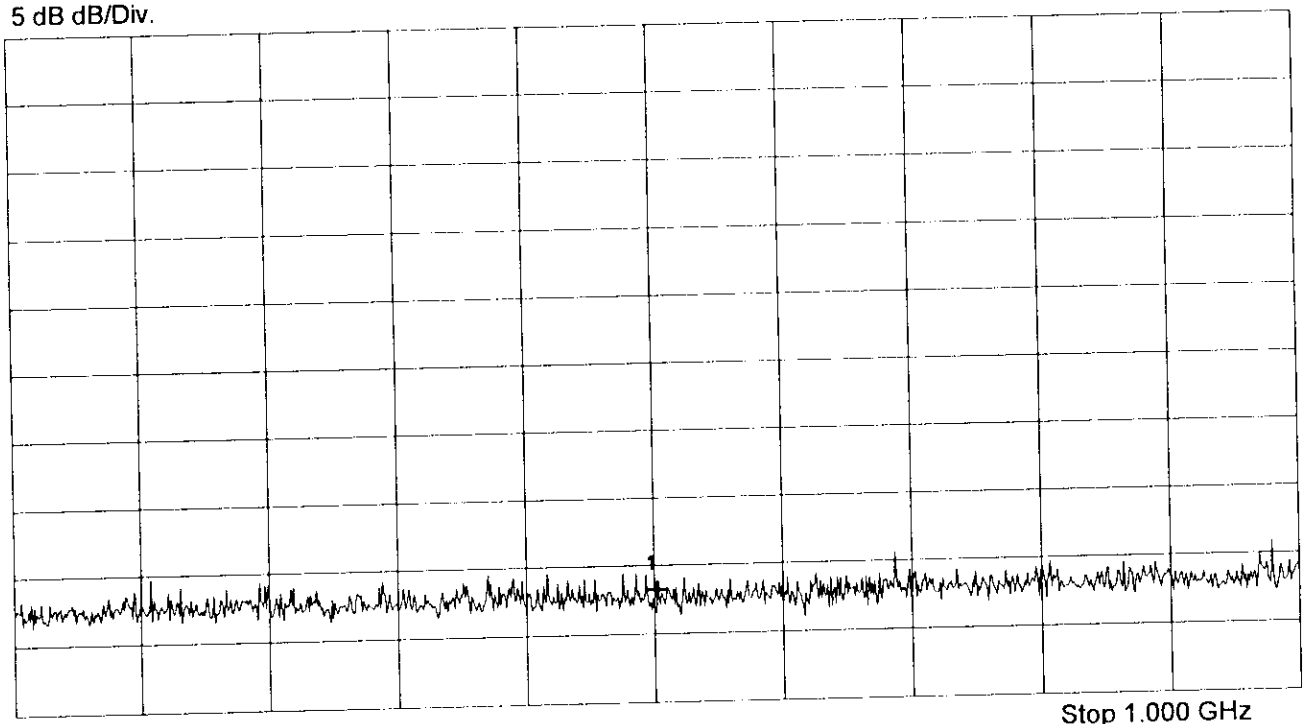
Mode:
Supply Voltage 5 V DC

TX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	5.16 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

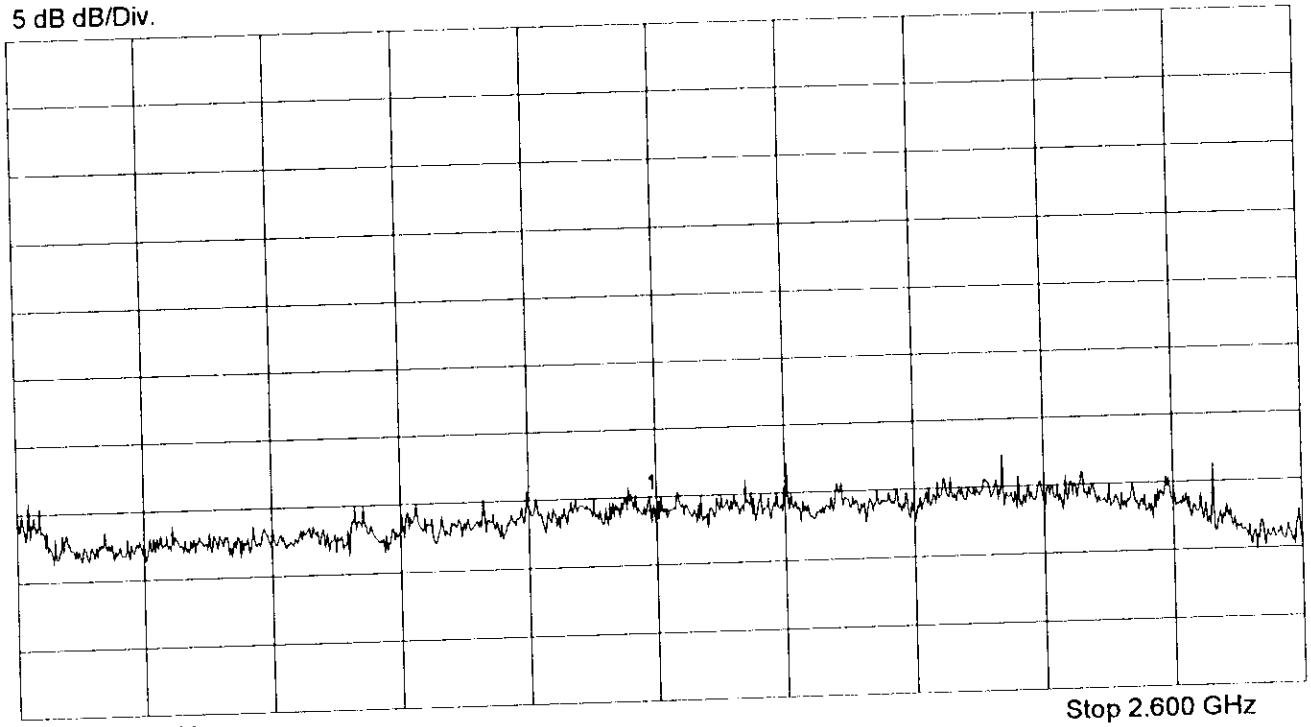
Test distance 3 m
Vertical Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.801778 GHz	5.50 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

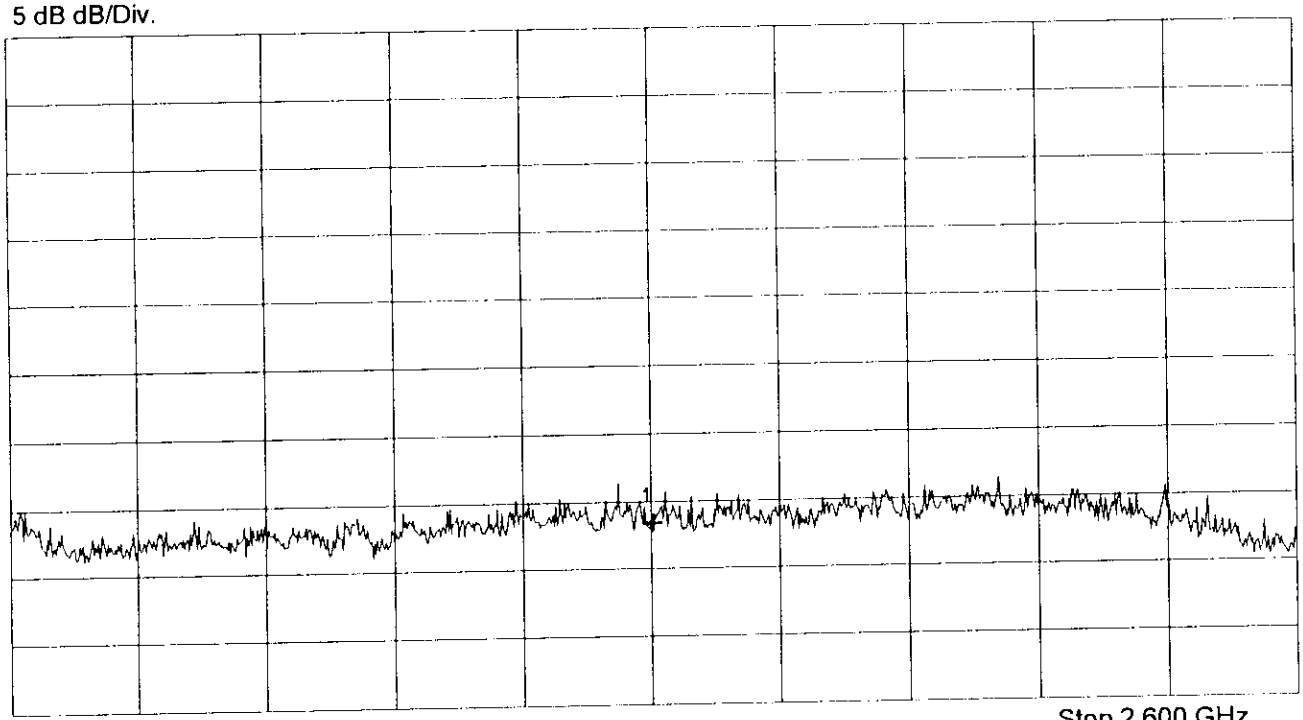
Test distance 3 m
Horizontal Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	1.801778 GHz	4.93 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

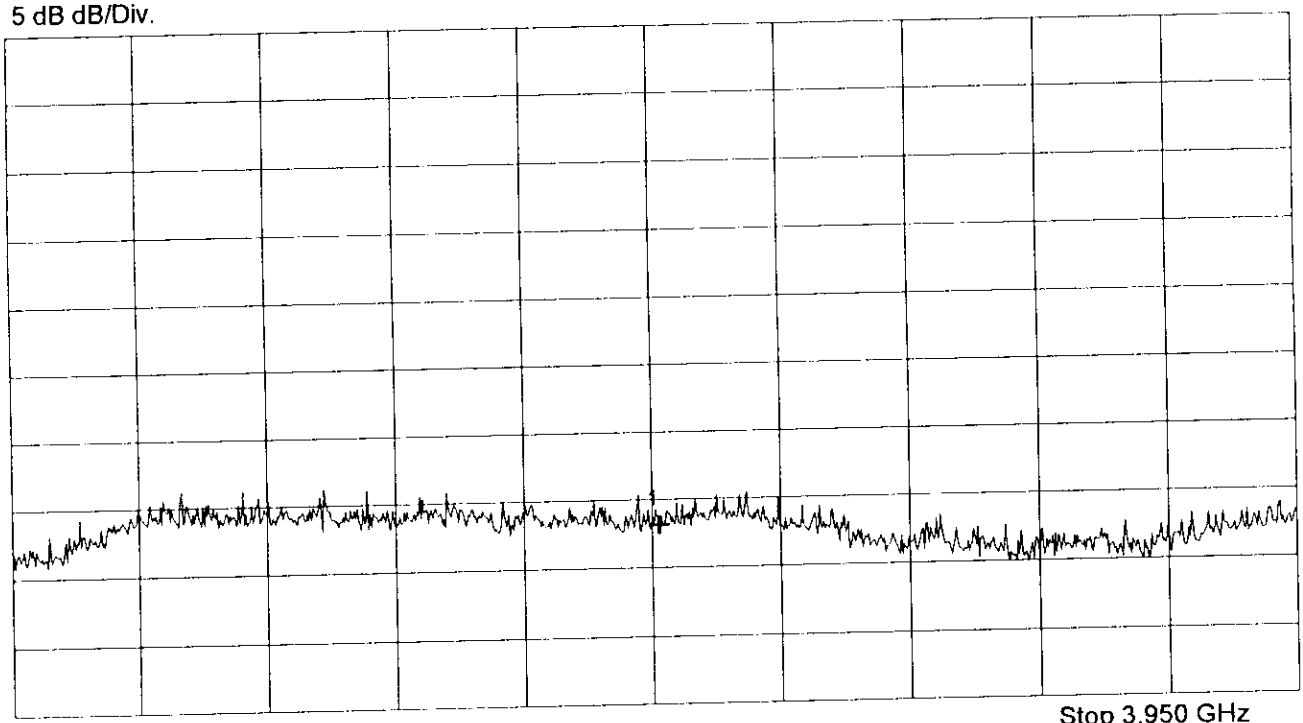
Test distance 3 m
Vertical Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.282500 GHz	4.57 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

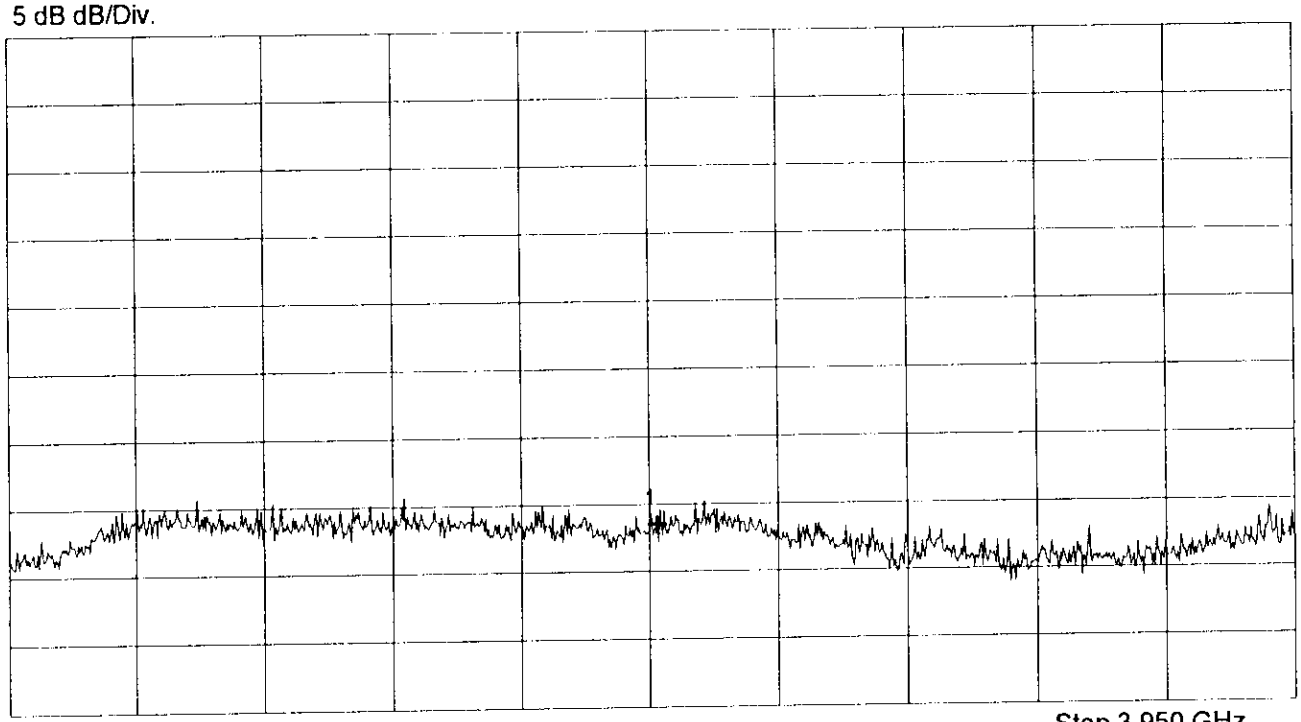
Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization
	Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.282500 GHz	4.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

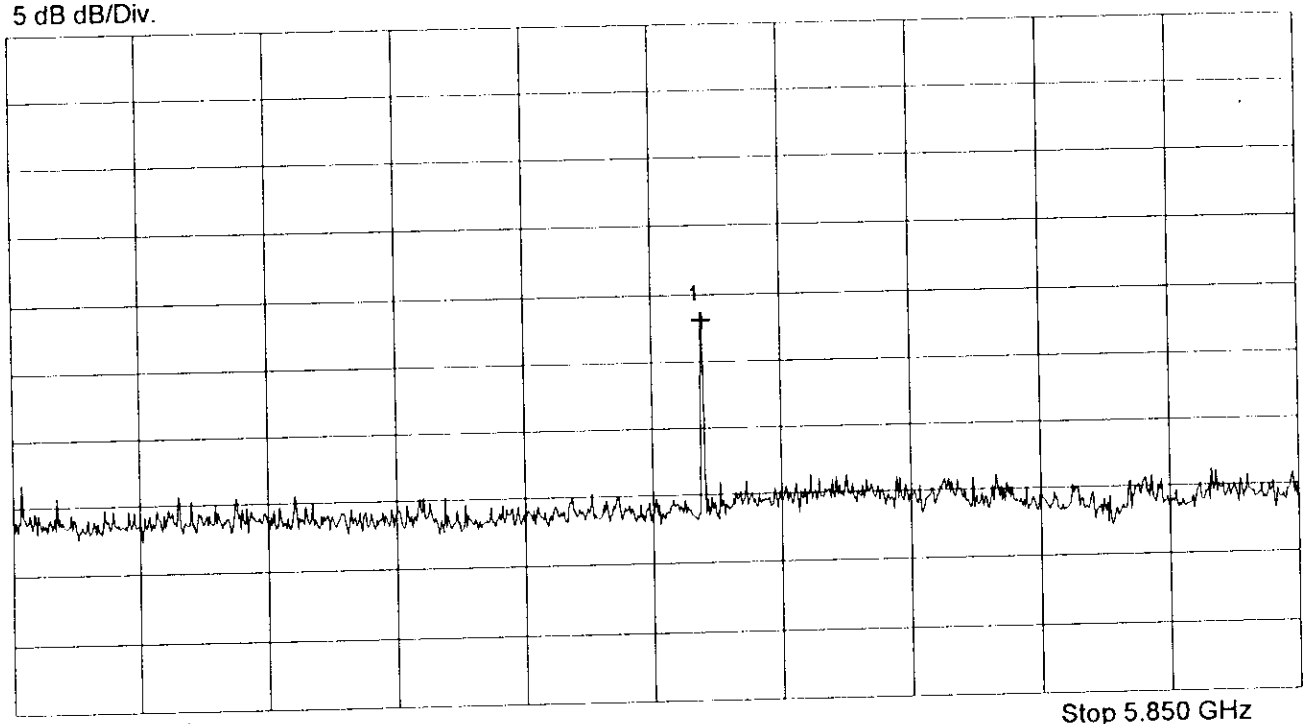
Test distance 3 m
Vertical Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.973889 GHz	19.56 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

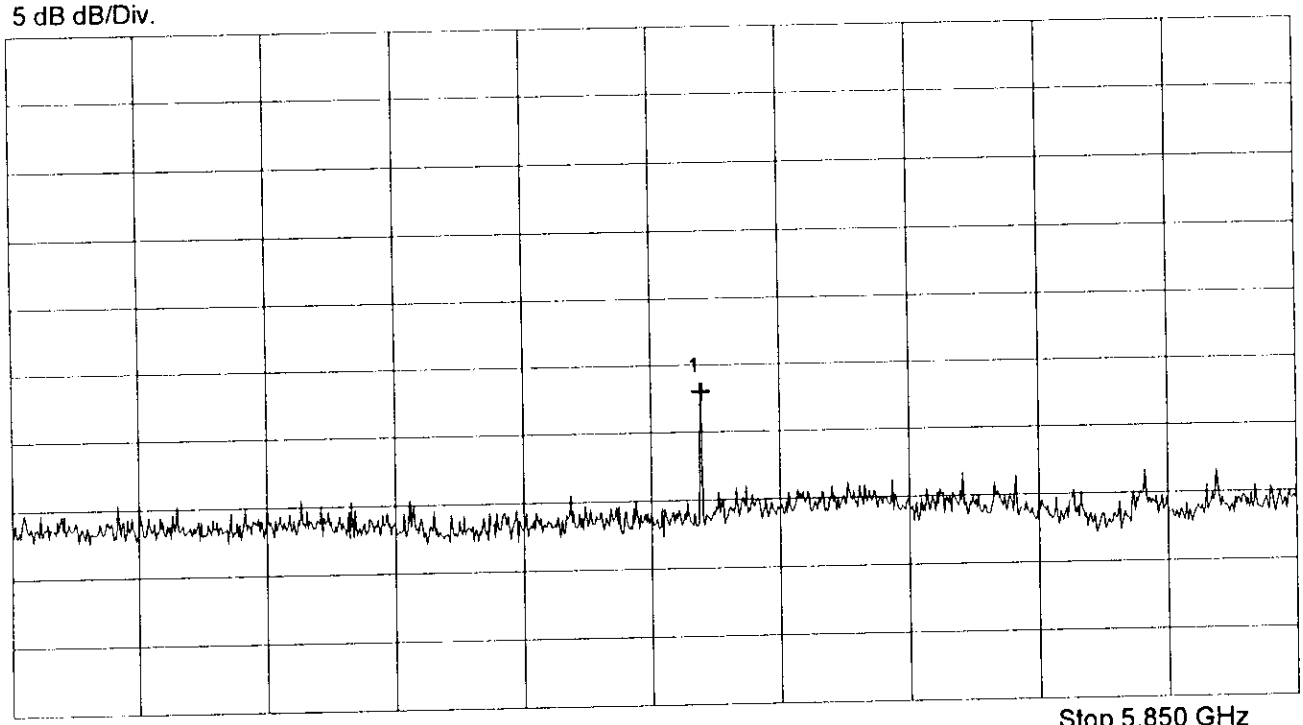
Test distance 3 m
Horizontal Polarization

Notch Filter on TX frequency

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.973889 GHz	14.47 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

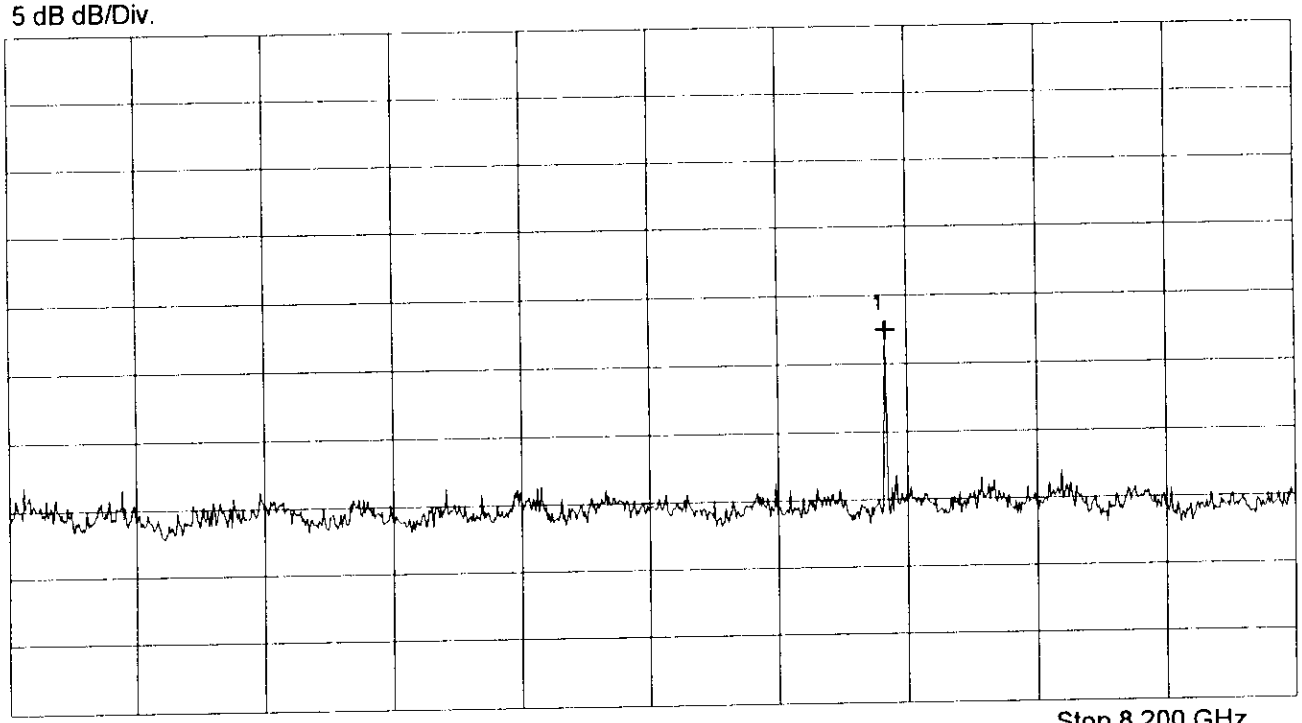
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.455833 GHz	18.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Page of pages

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

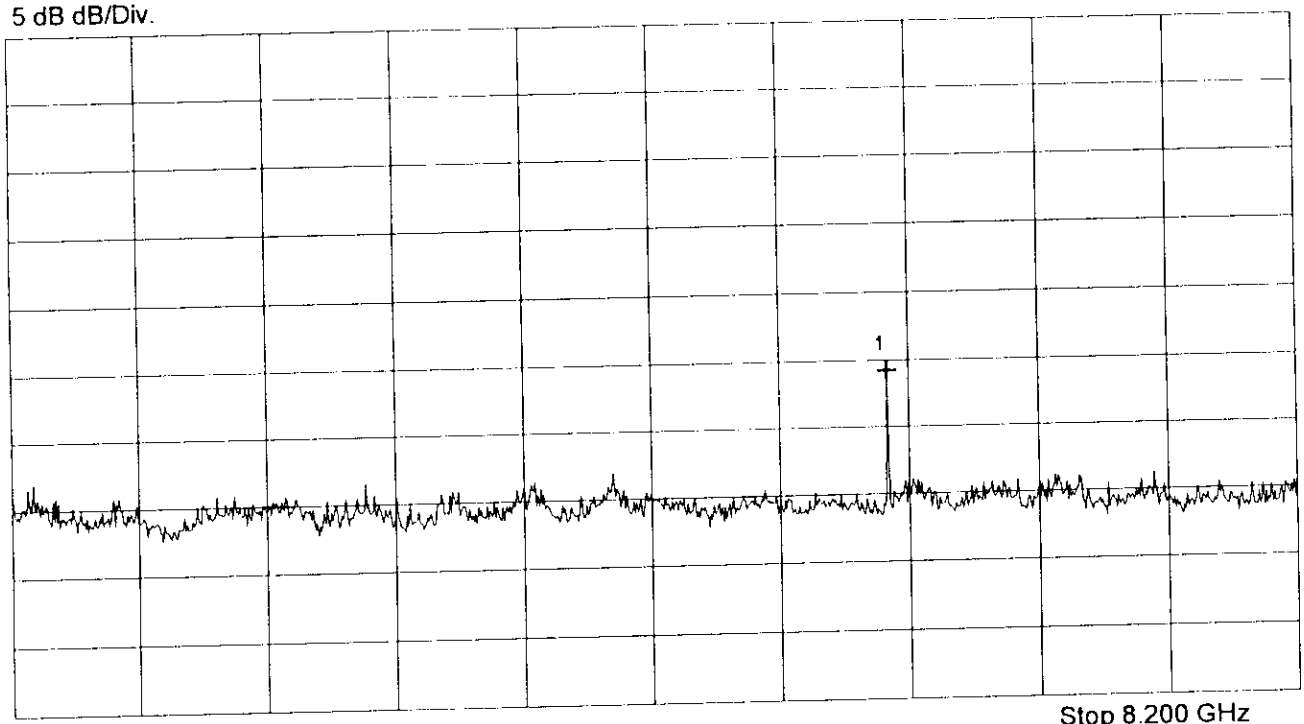
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 41.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.455833 GHz	15.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

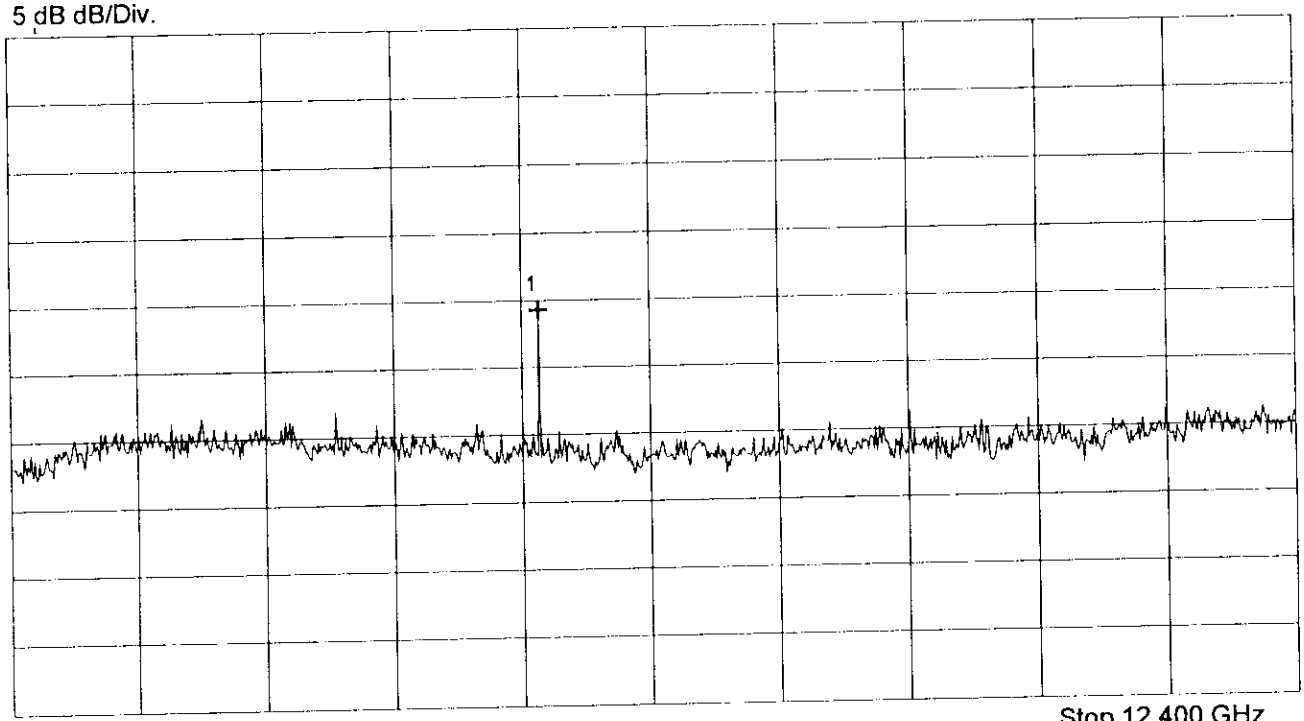
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.936000 GHz	16.28 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

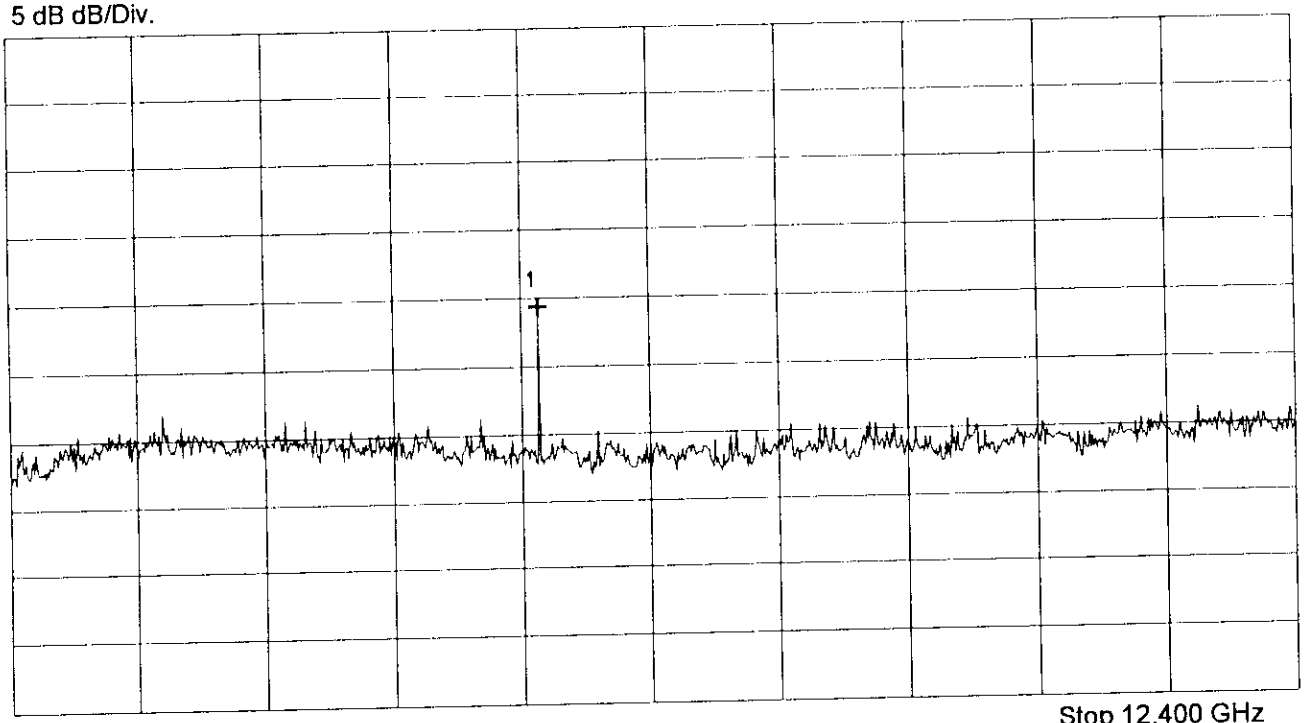
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	9.936000 GHz	16.37 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

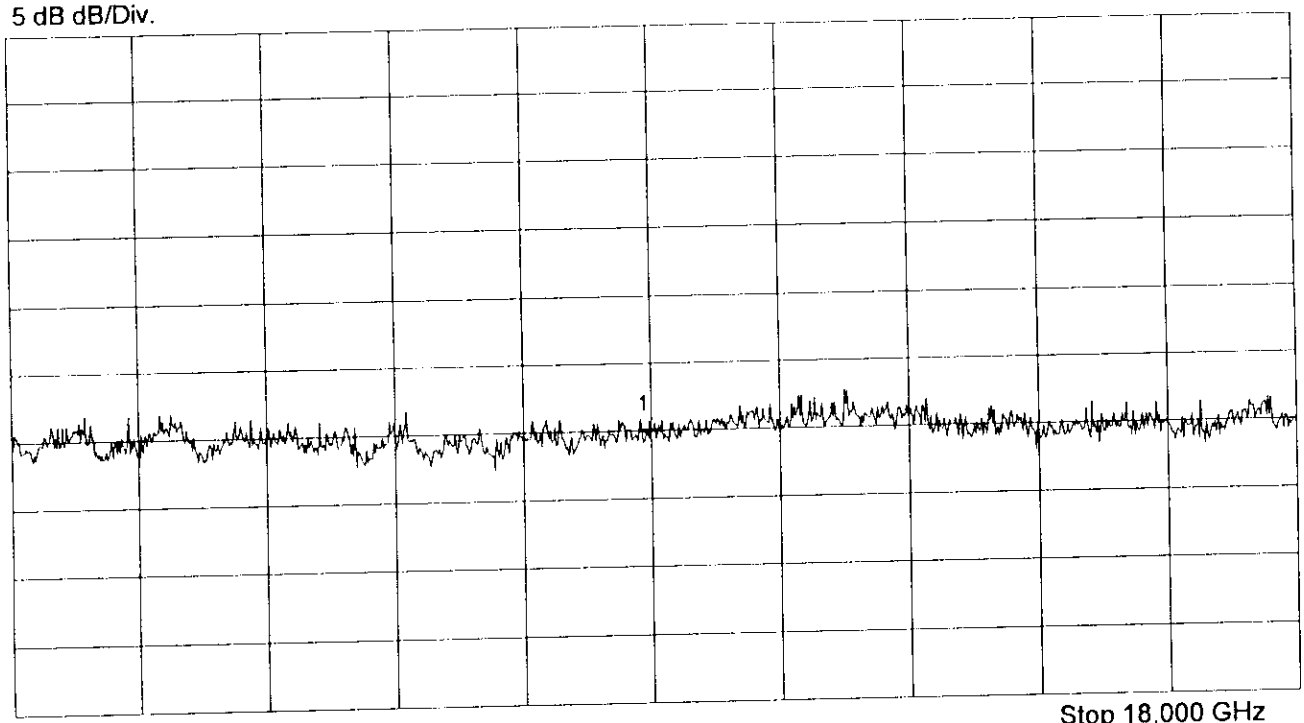
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	7.00 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

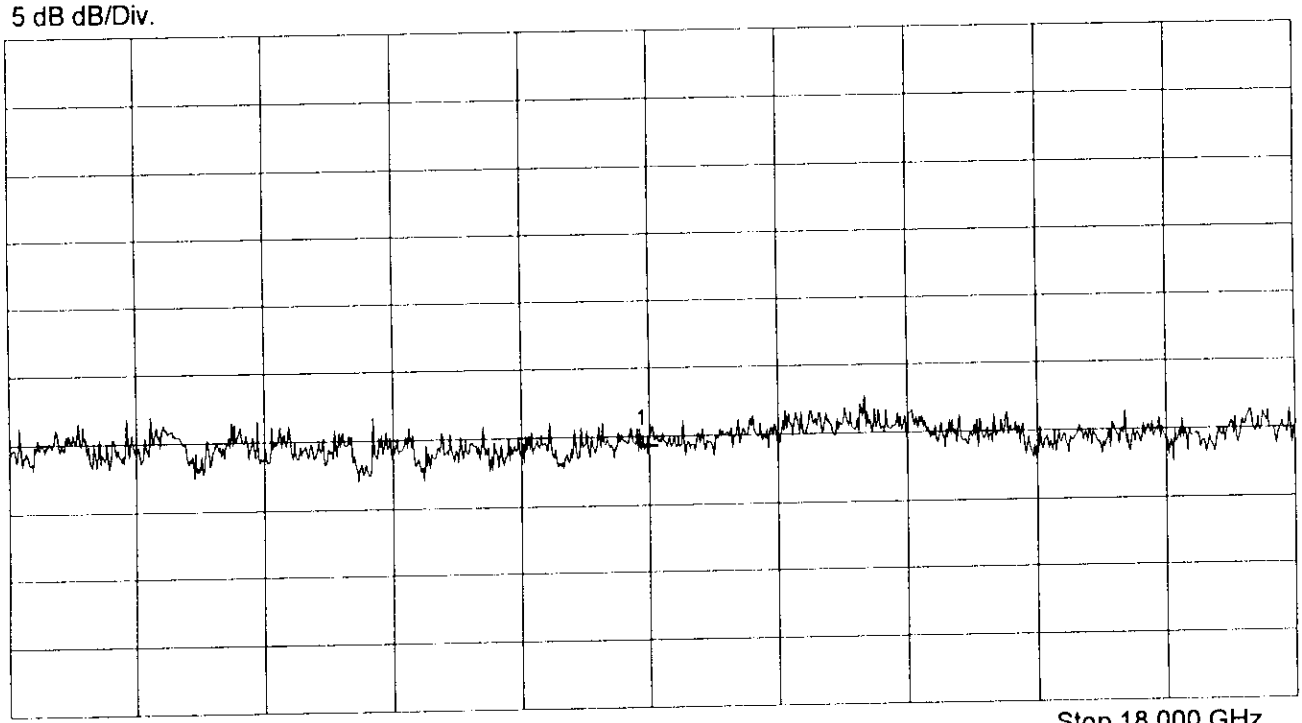
TX mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 37 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	6.33 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

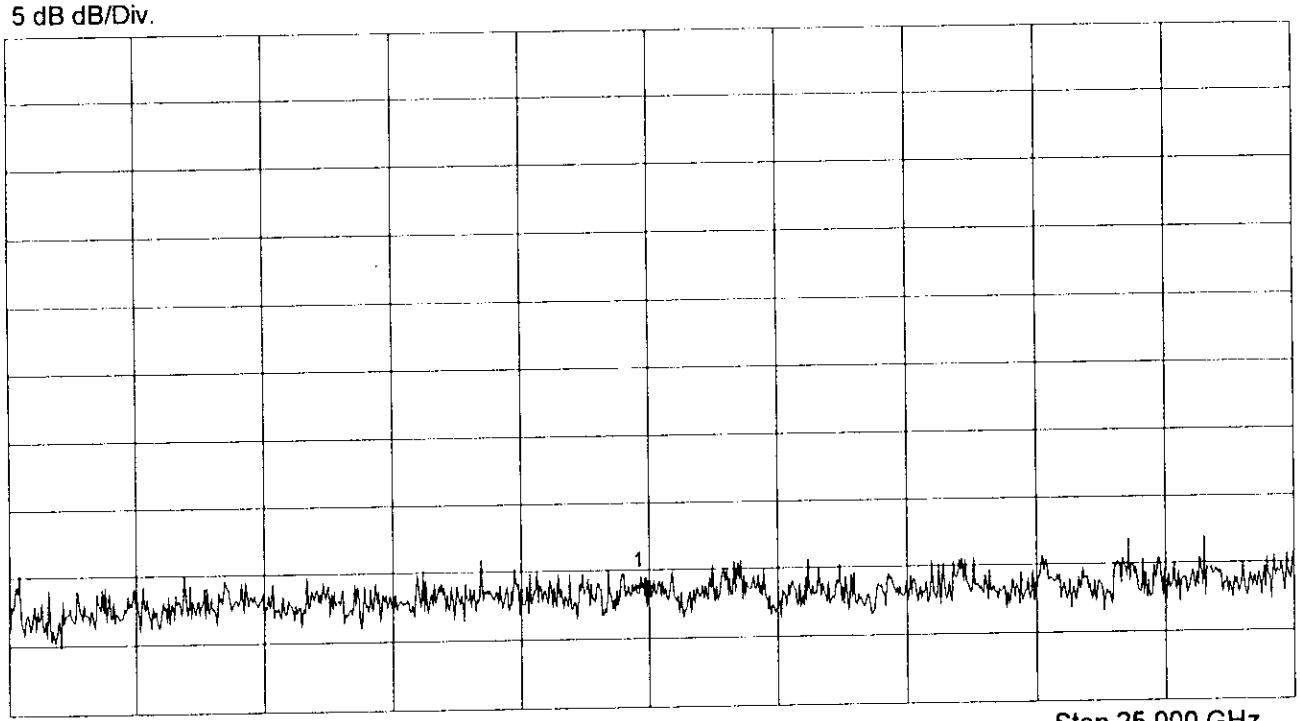
Date:

Radiated Emissions Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC
Serial No.: Sample No. 1	TX mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 1 m Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.476667 GHz	5.72 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

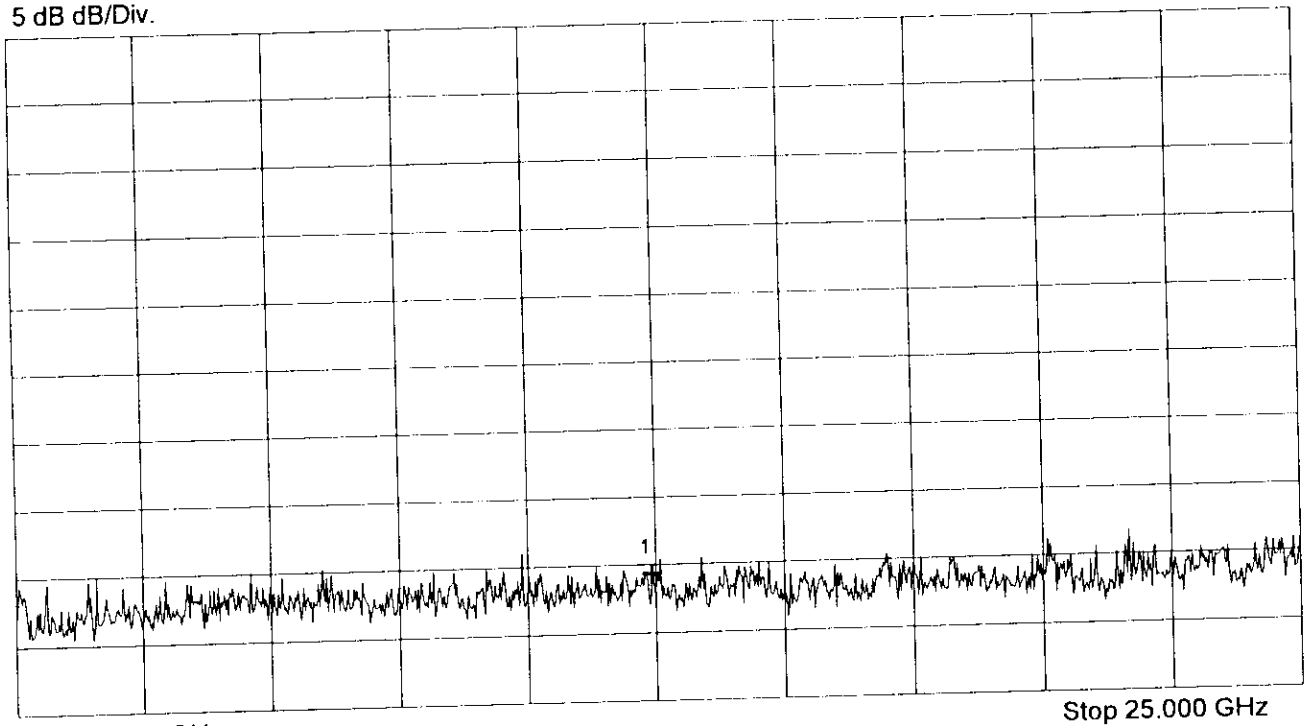
Mode:
Supply voltage 5 V DC

TX mode, Channel 33 (2481.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 100 kHz

VBW 100 kHz

Stop 25.000 GHz
SWP 2.20 s

**** Multi Marker ****

Nr.1	21.476667 GHz	6.32 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

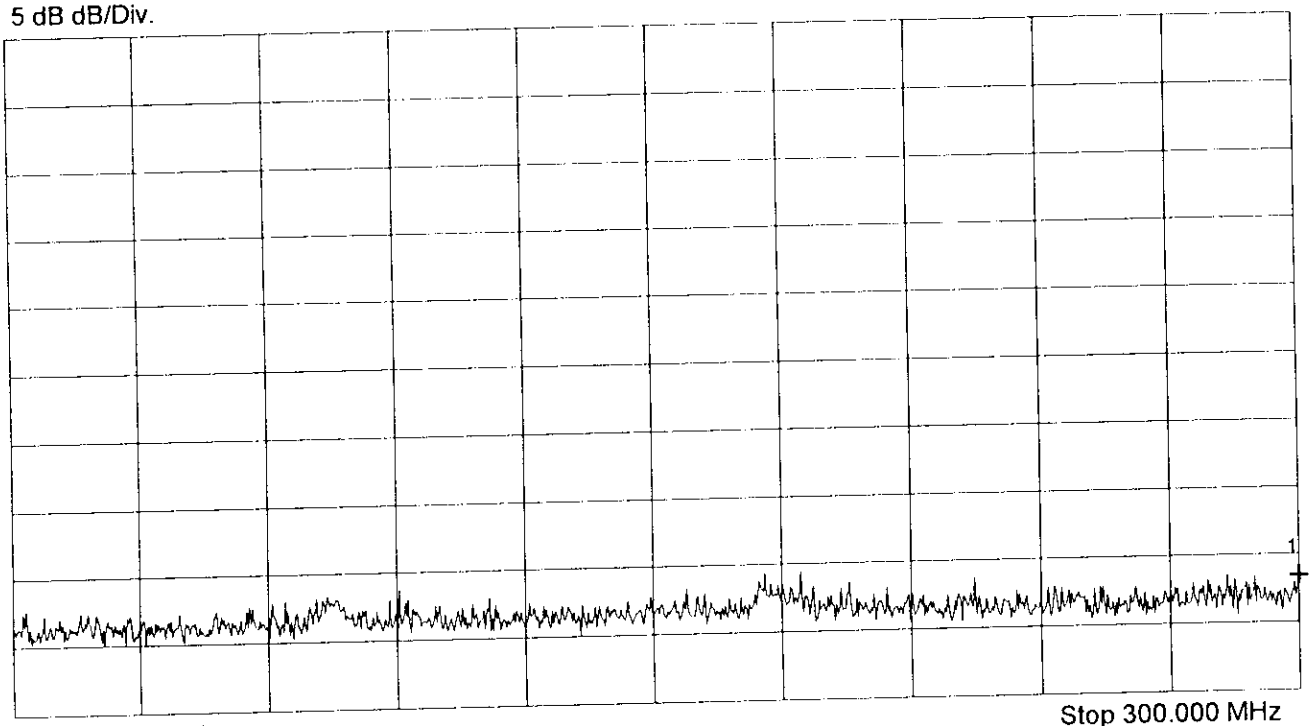
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	5.42 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

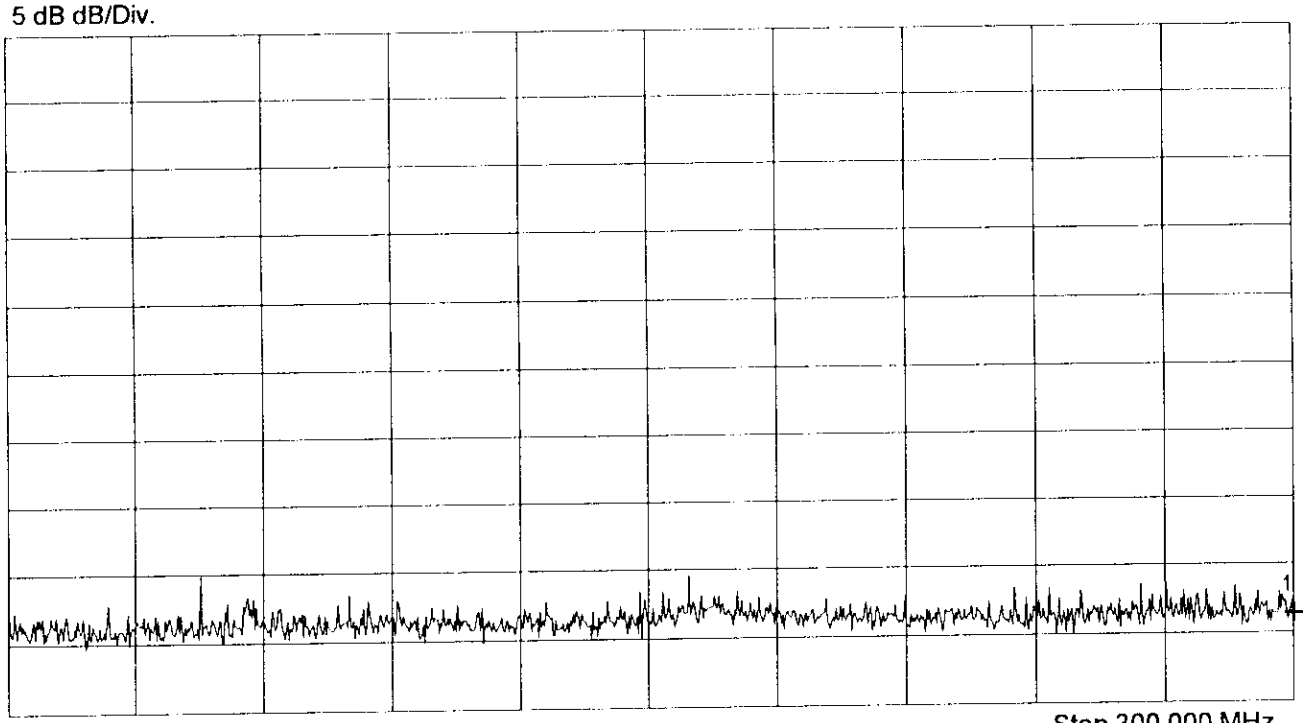
Date:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	300.000000 MHz	3.42 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

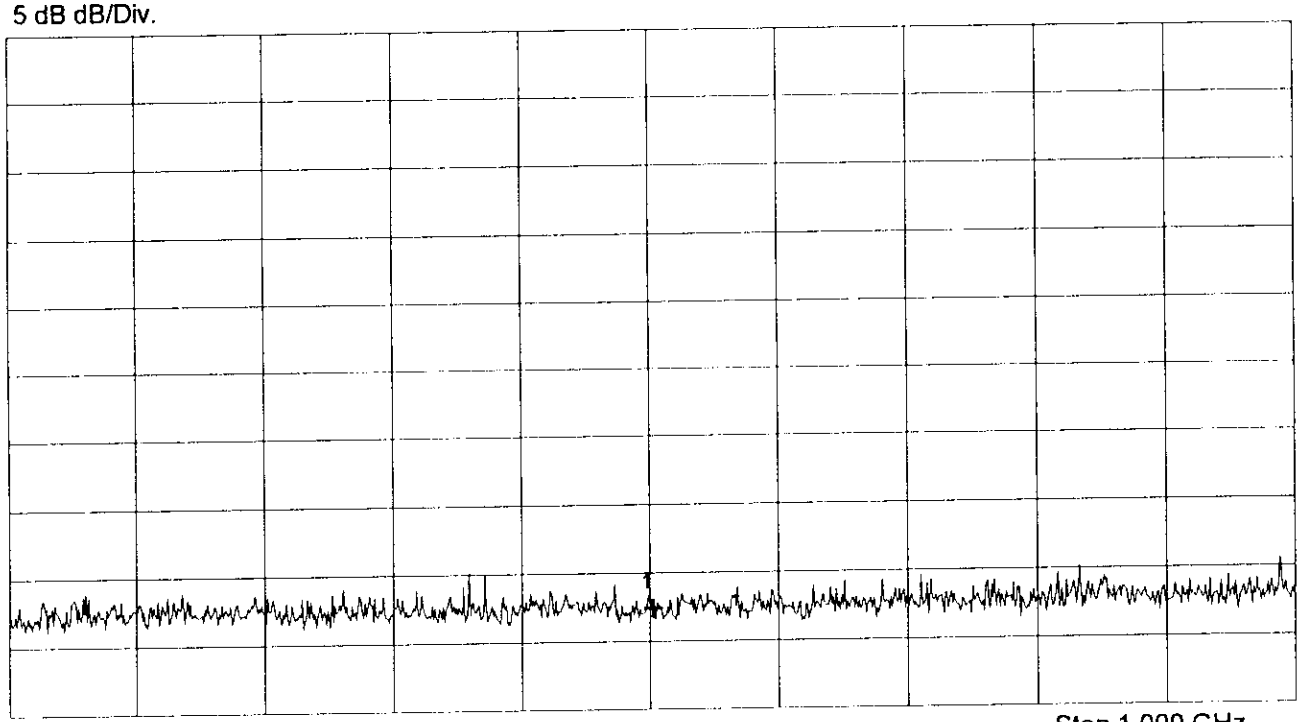
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

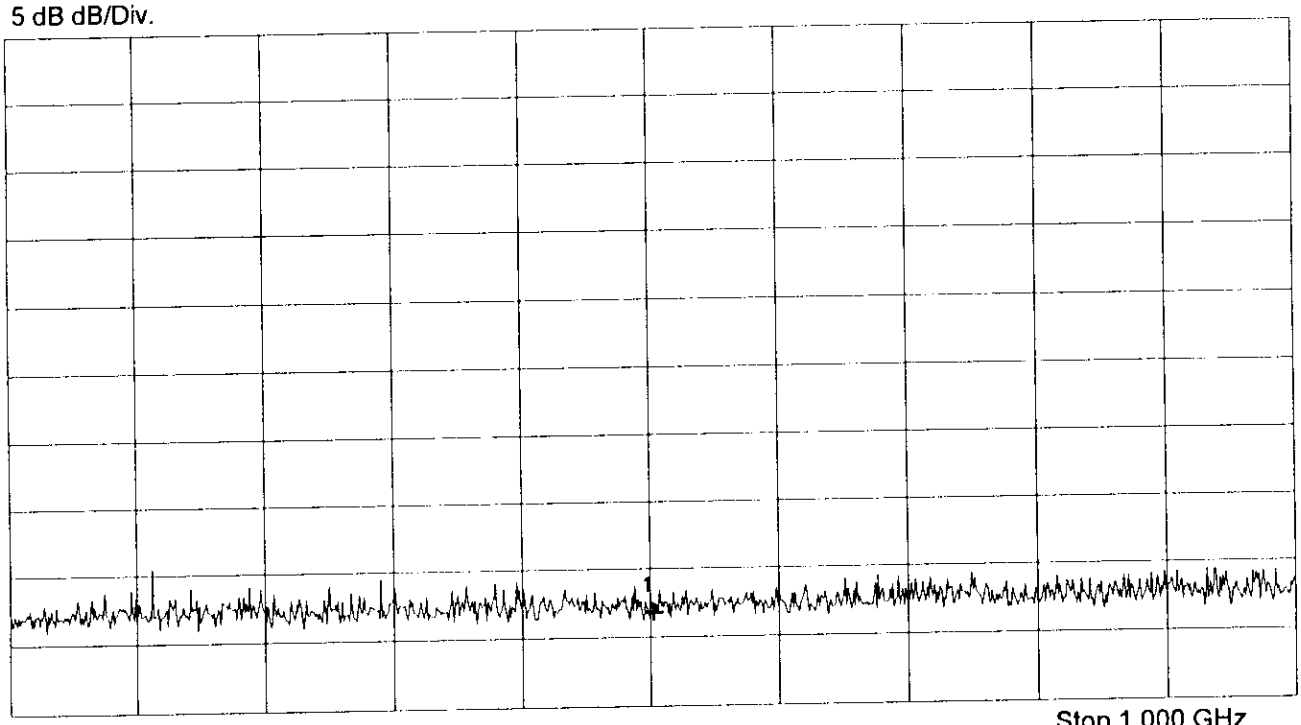
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	651.555556 MHz	3.80 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

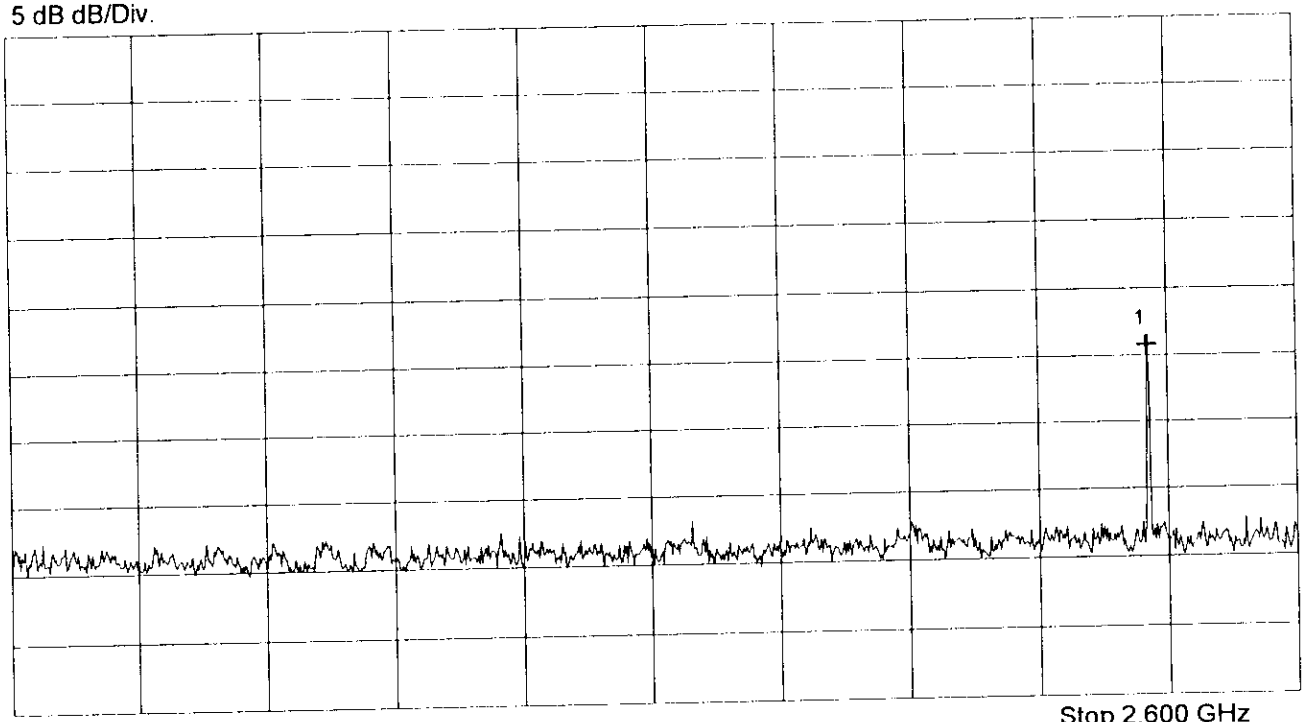
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC RX Mode Channel 33 (2481.5 MHz)
Serial No.: Sample No. 1	
Applicant: Siemens AG	
	Test distance 3m Vertical polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.415111 GHz	22.30 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

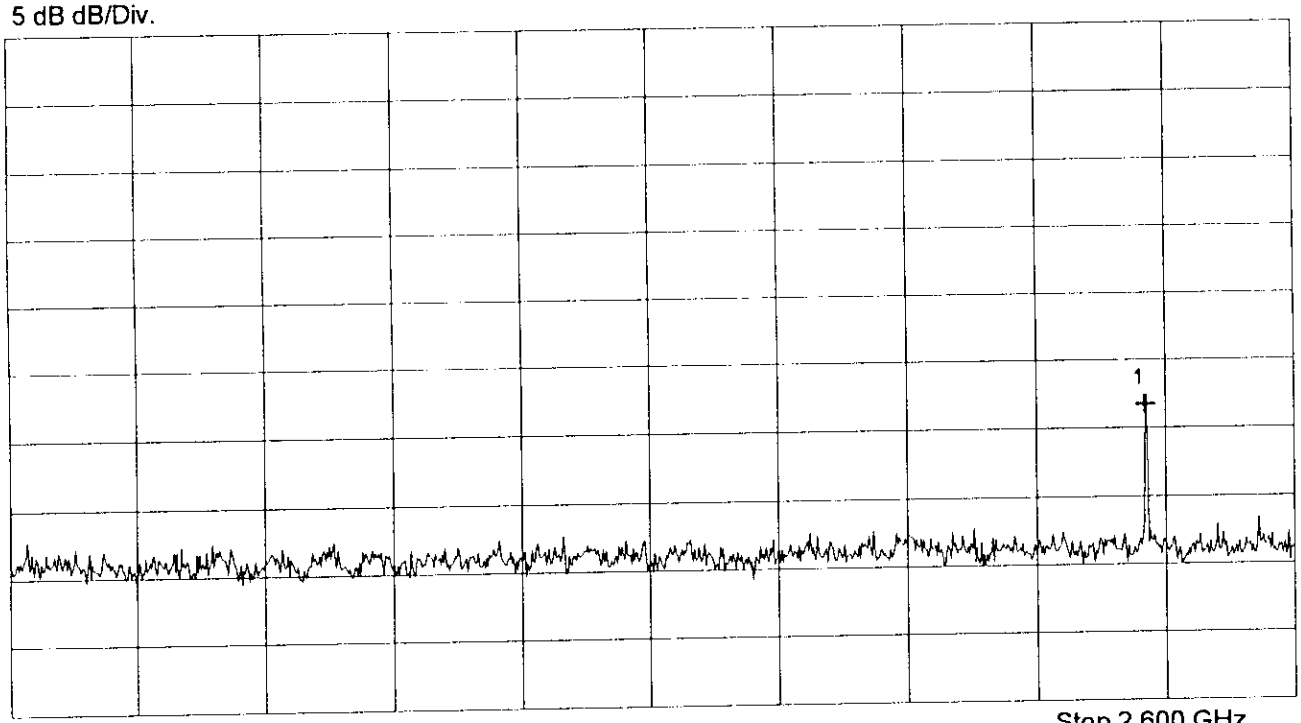
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC RX Mode Channel 33 (2481.5 MHz) Test distance 3m Horizontal polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.415111 GHz	18.20 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

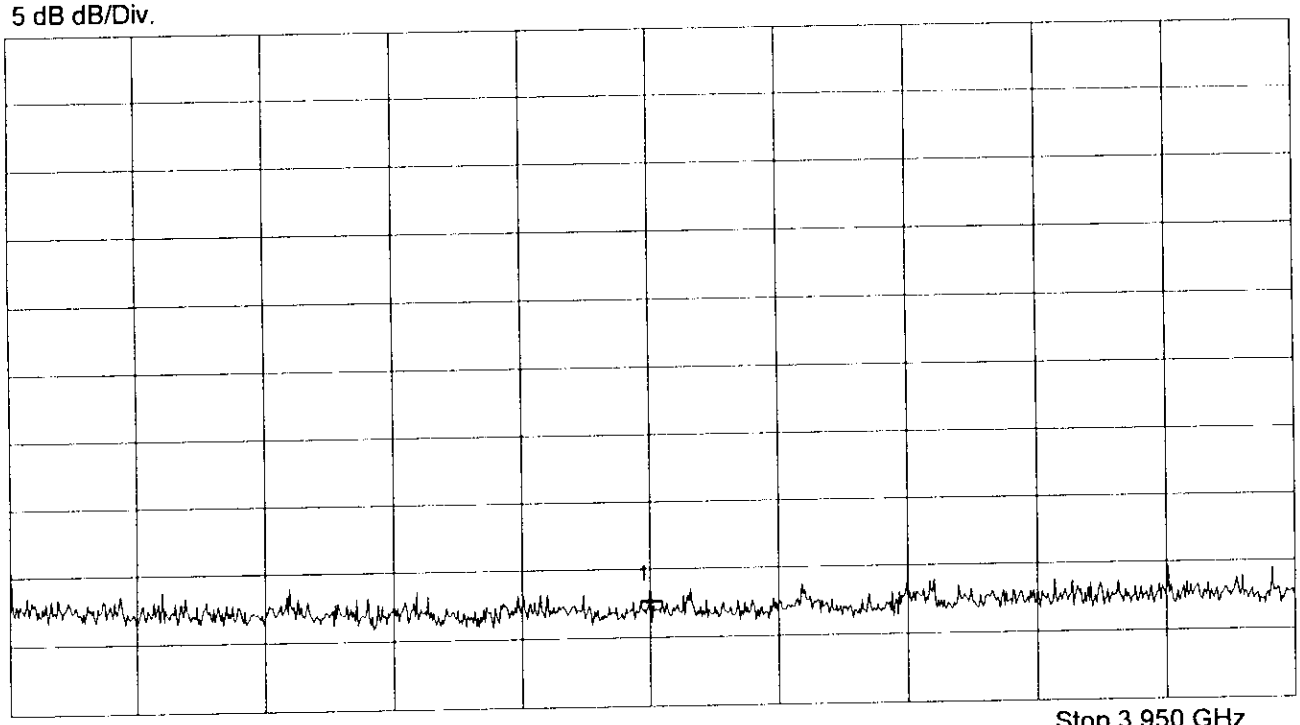
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.275000 GHz	4.11 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

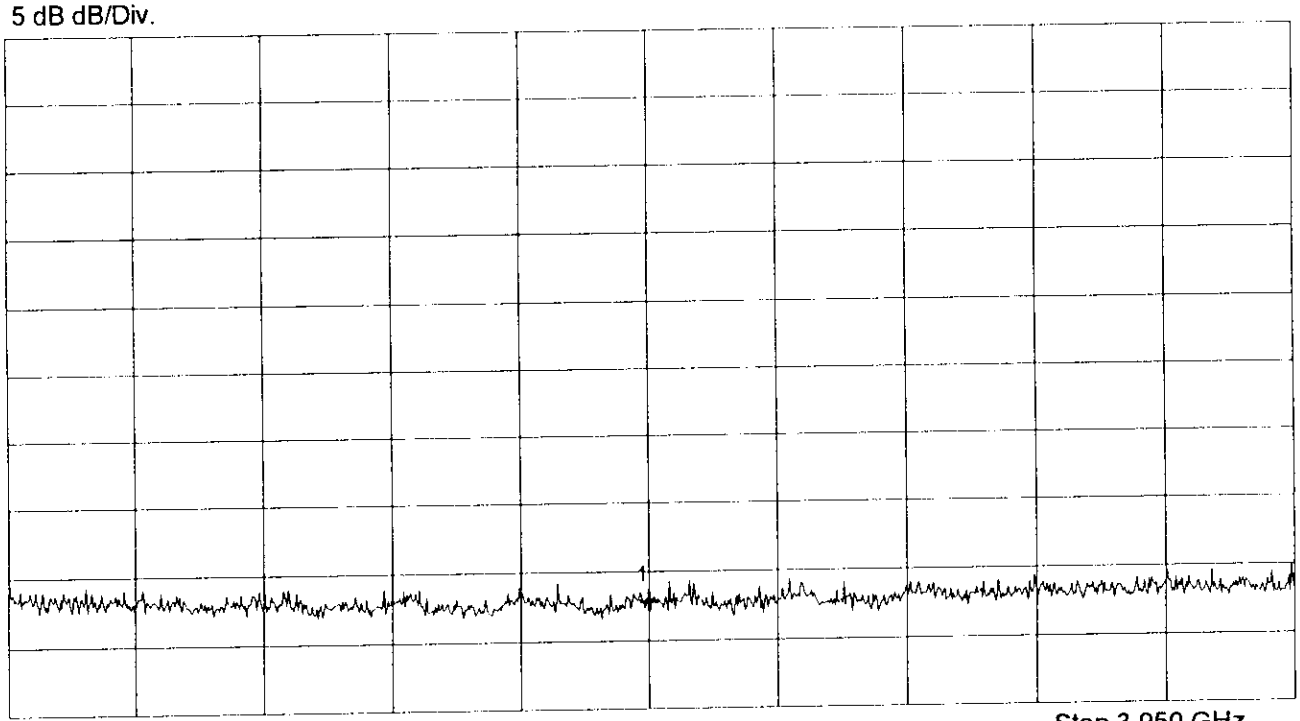
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.275000 GHz	4.30 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

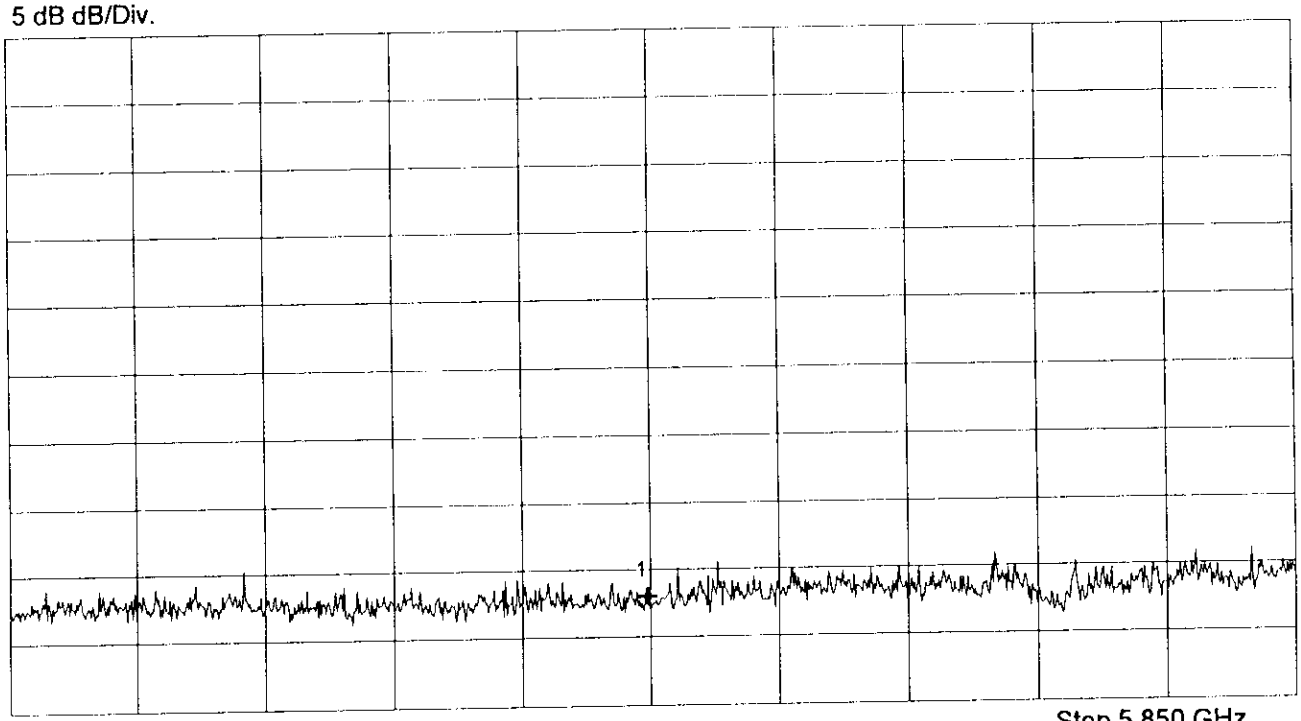
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.895778 GHz	4.50 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

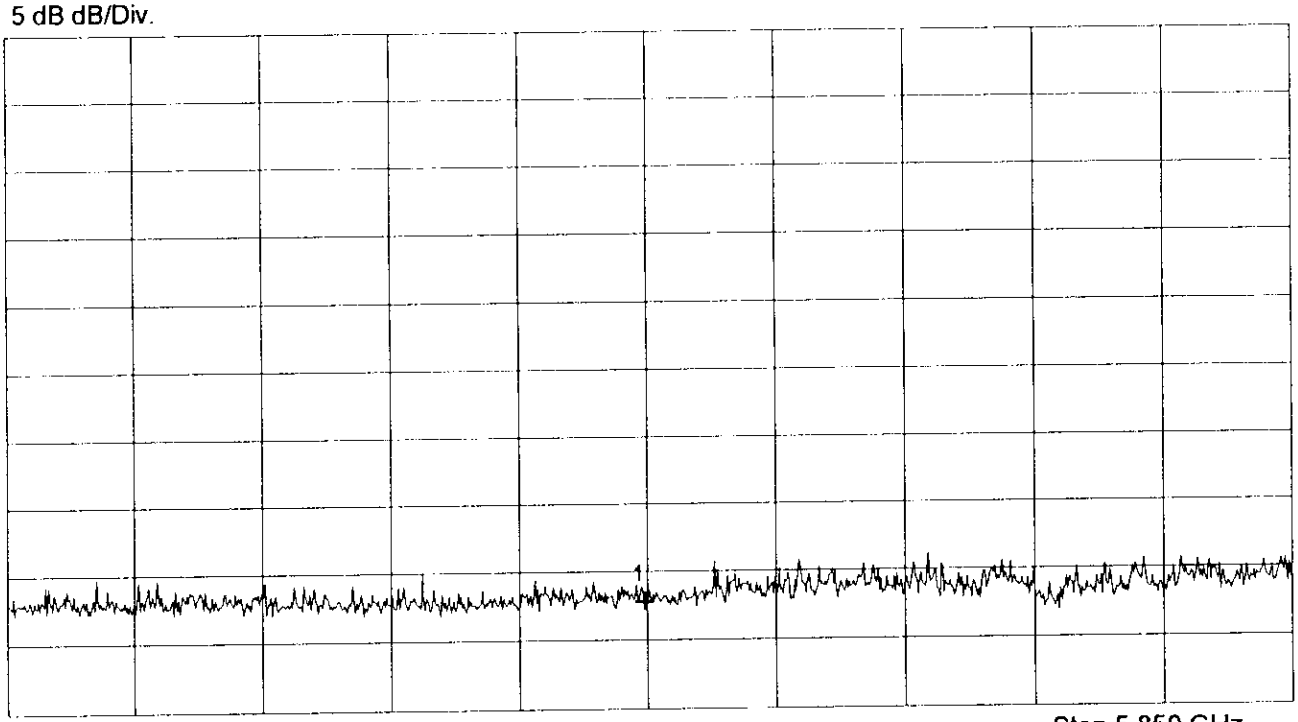
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.895778 GHz	4.31 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

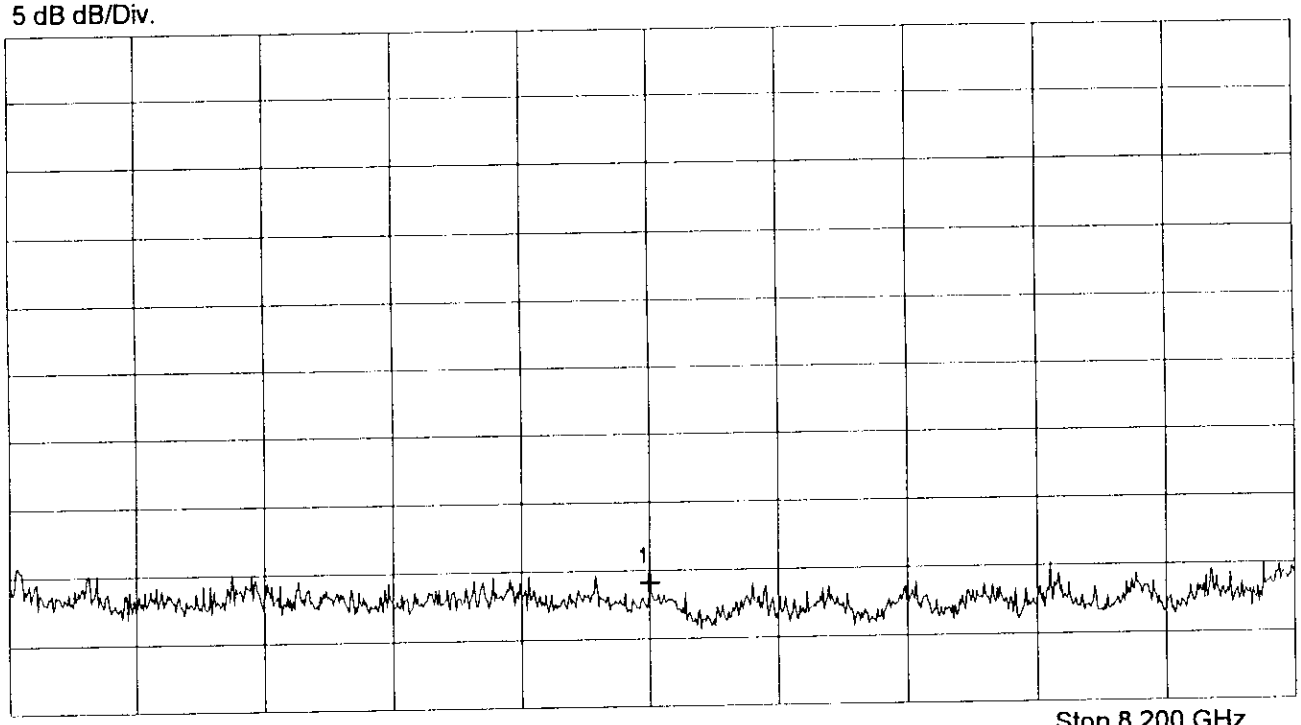
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.025000 GHz	5.58 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	Page of pages

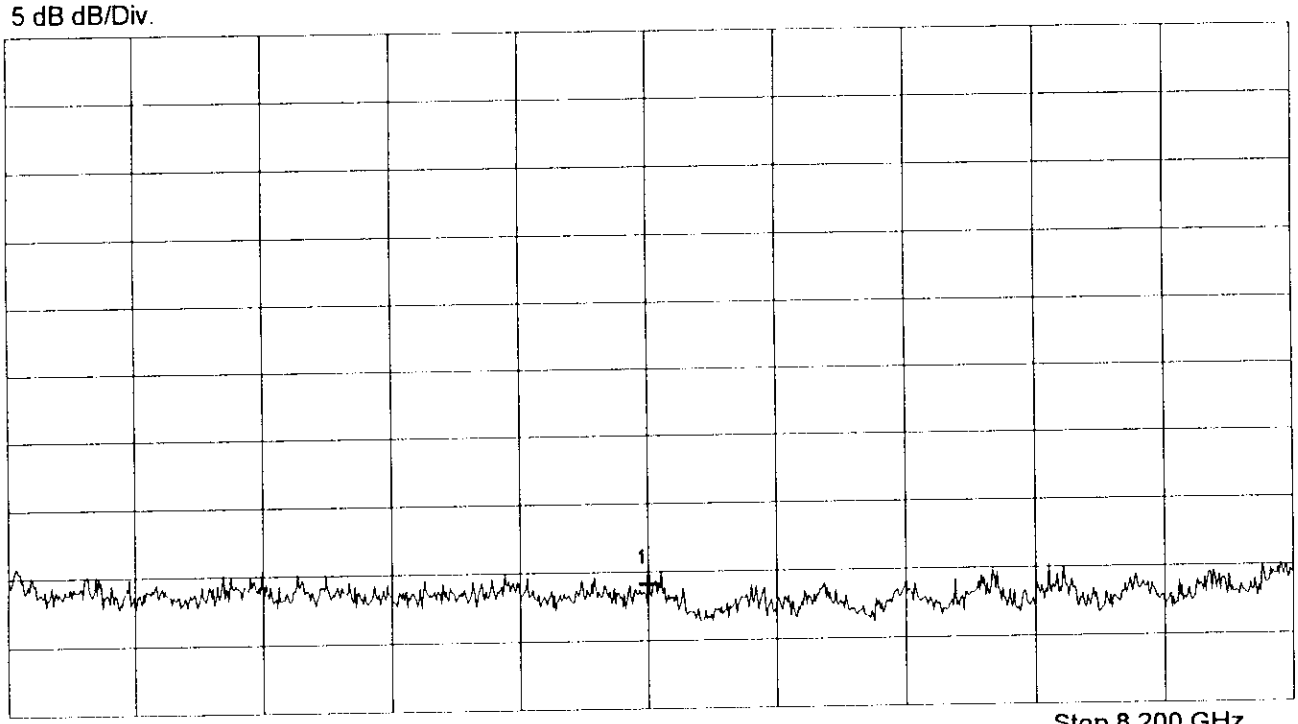
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.025000 GHz	5.58 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

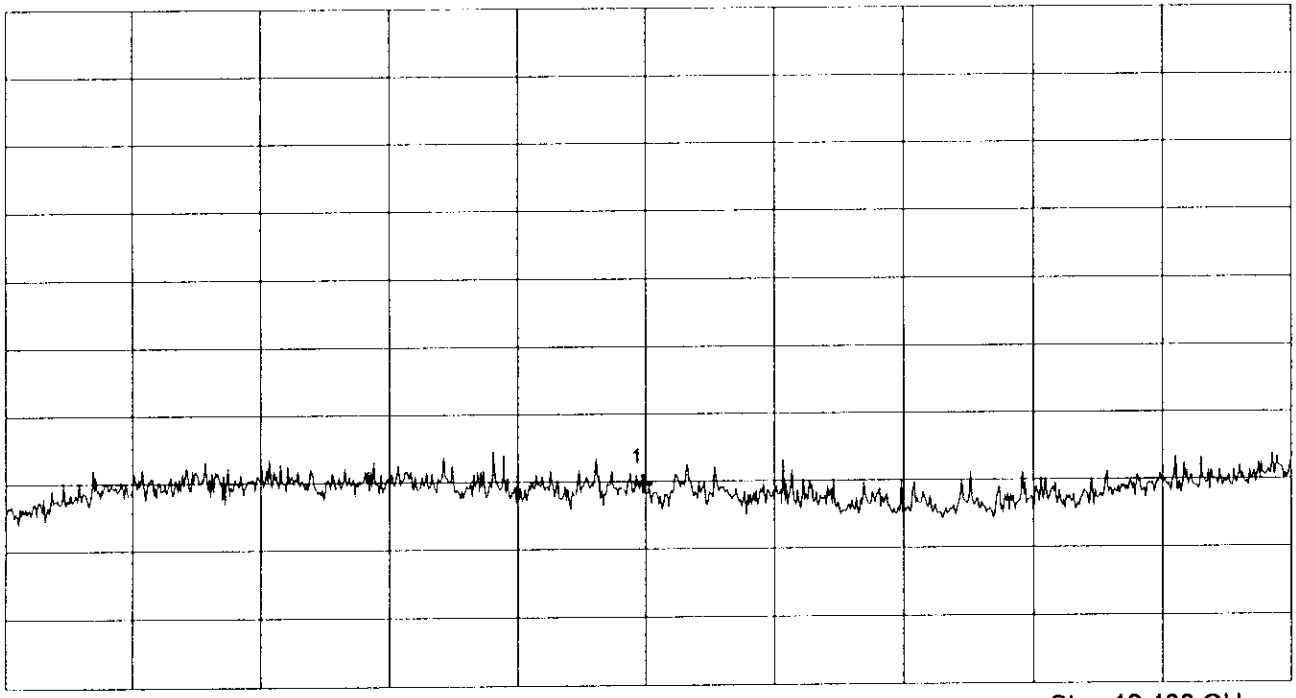
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No : Sample No. 1	RX Mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.290667 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

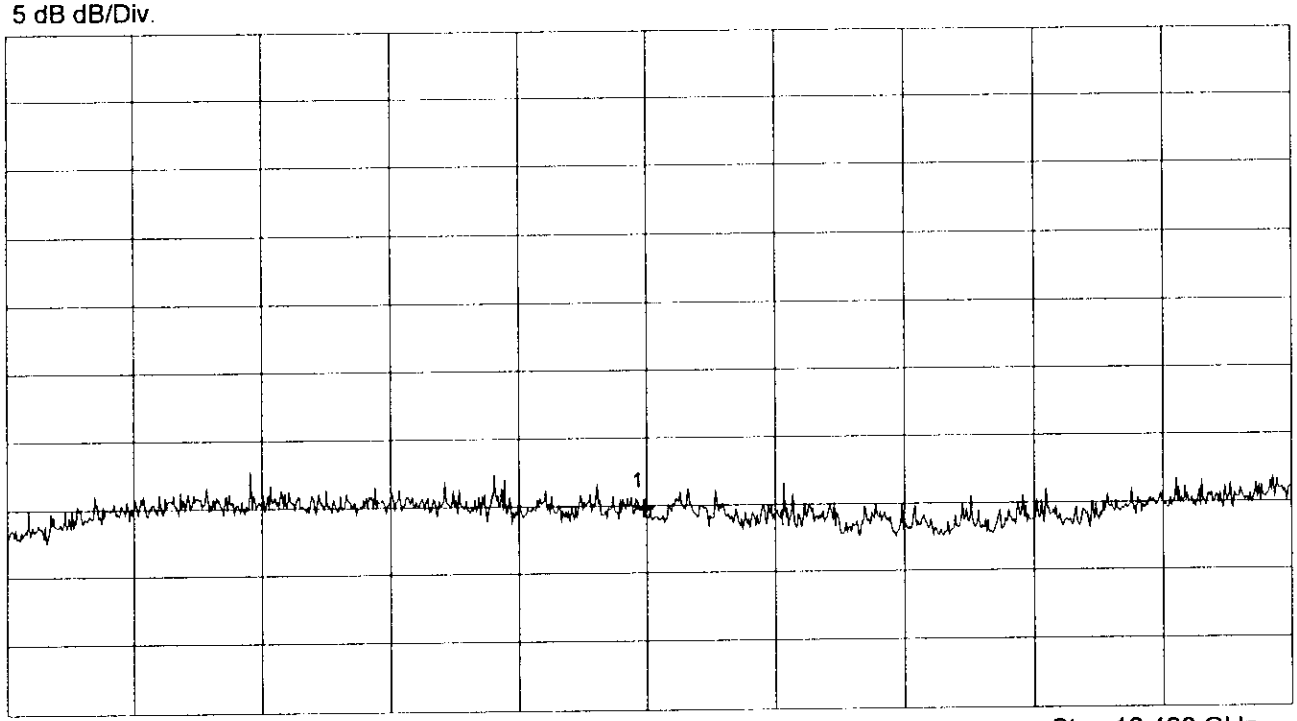
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.290667 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

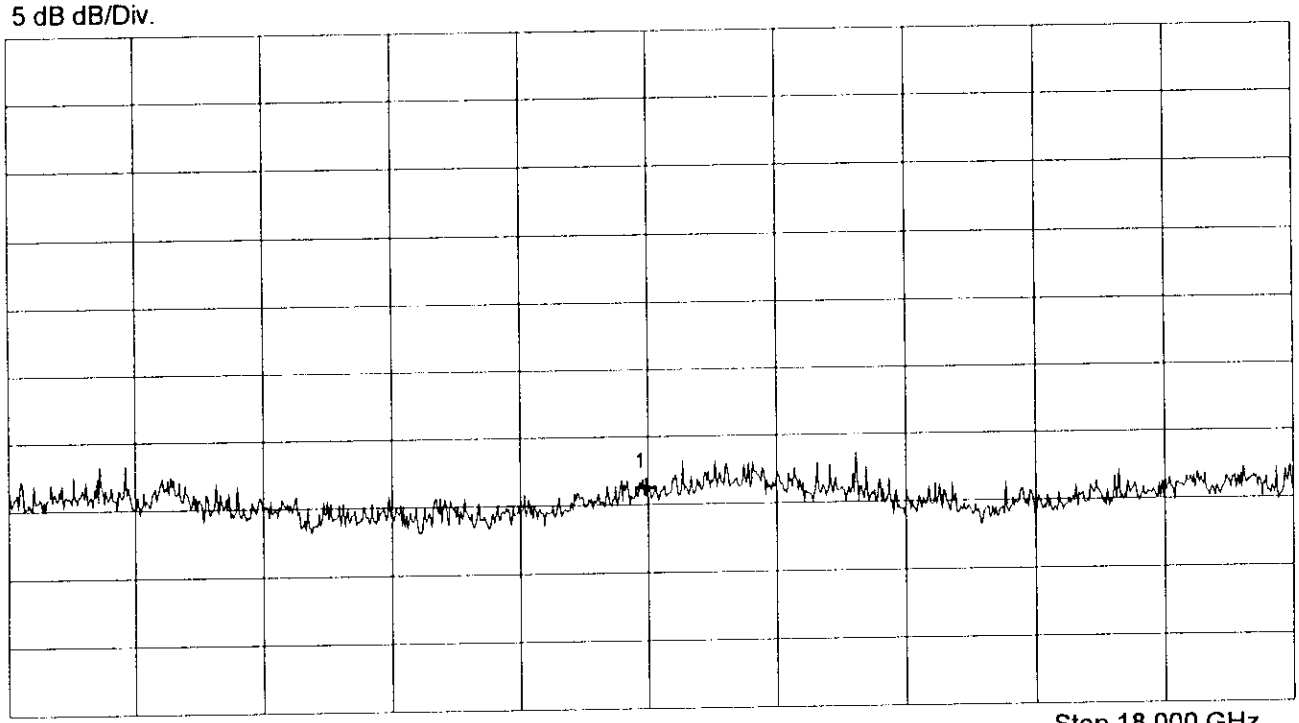
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 33 (2481.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	8.23 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

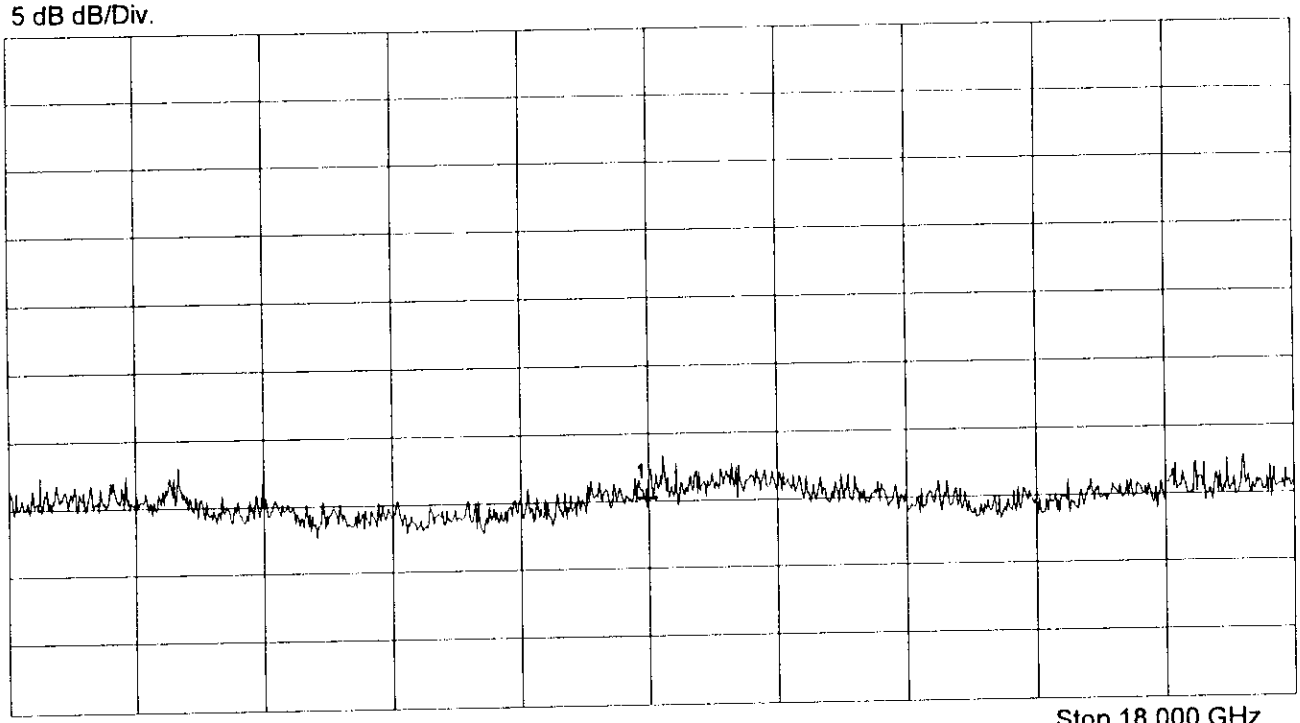
RX Mode, Channel 33 (2481.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.193778 GHz	7.22 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicaht:
Siemens AG

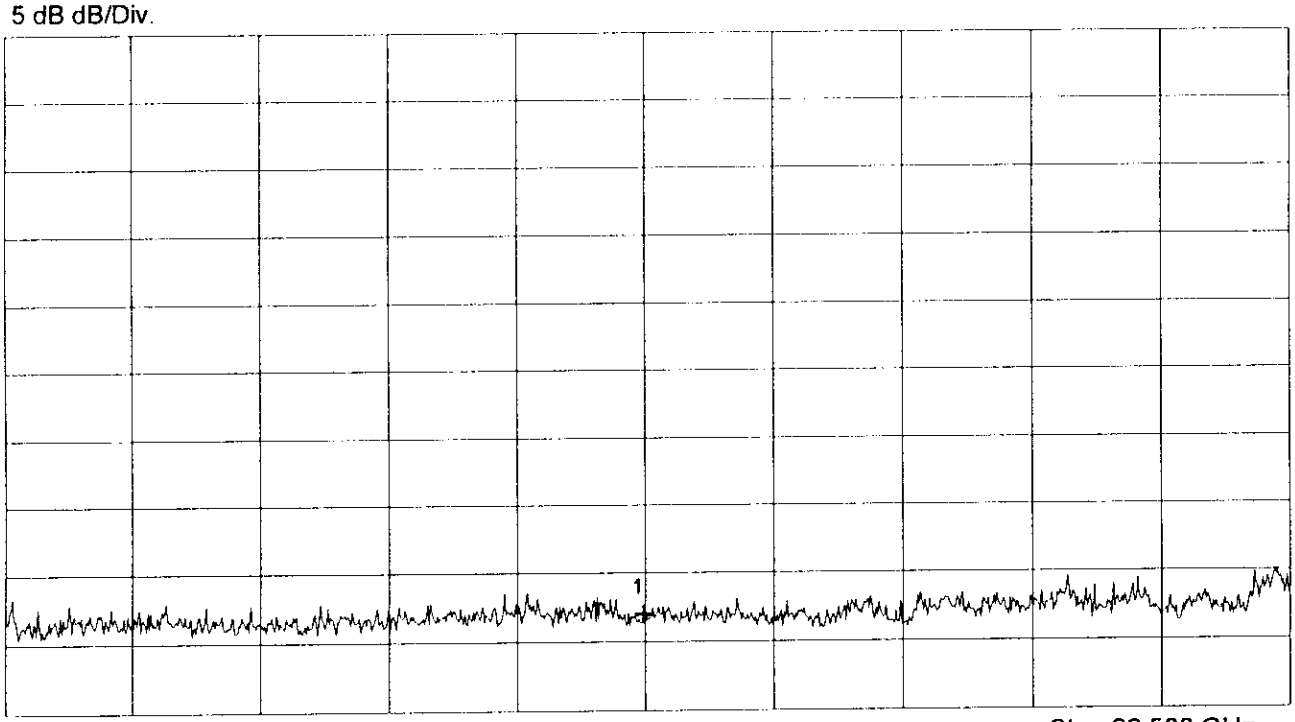
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 33 (2481.5 MHz)

Test distance 1 m
Vertical Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.240556 GHz	18.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

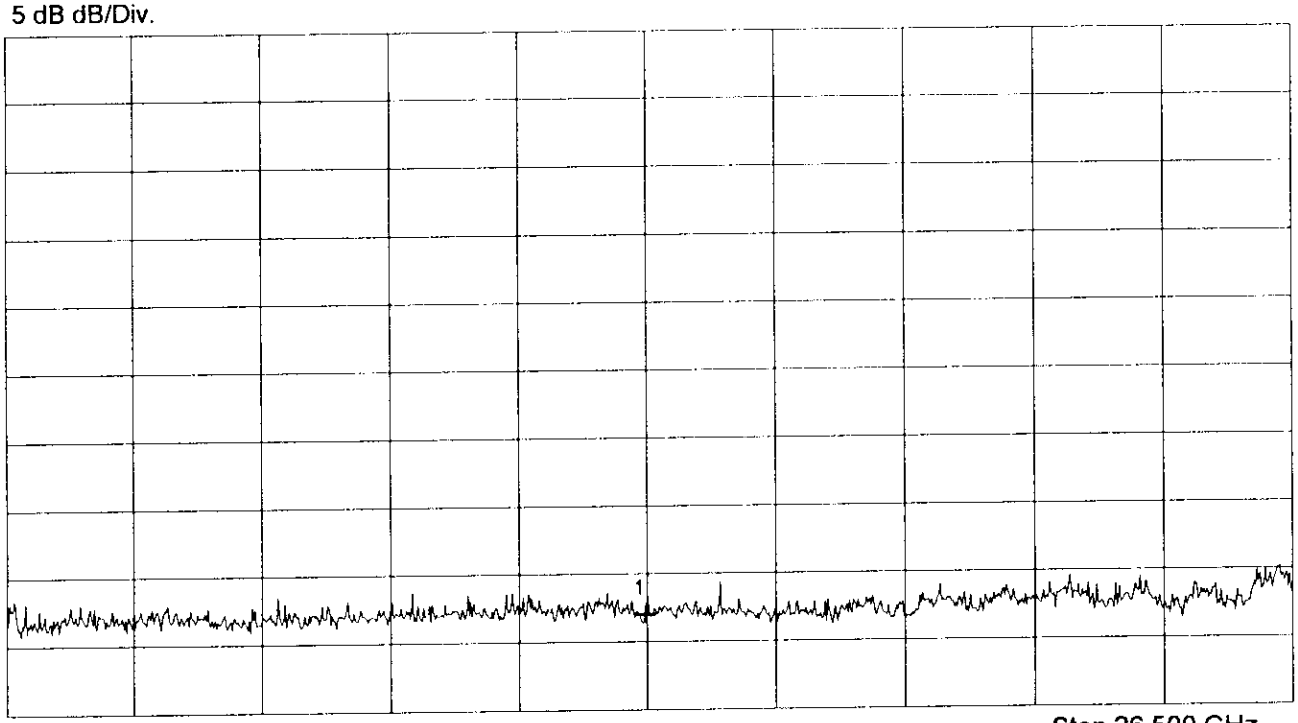
Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 33 (2481.5 MHz) Test distance 1 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.240556 GHz	18.99 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

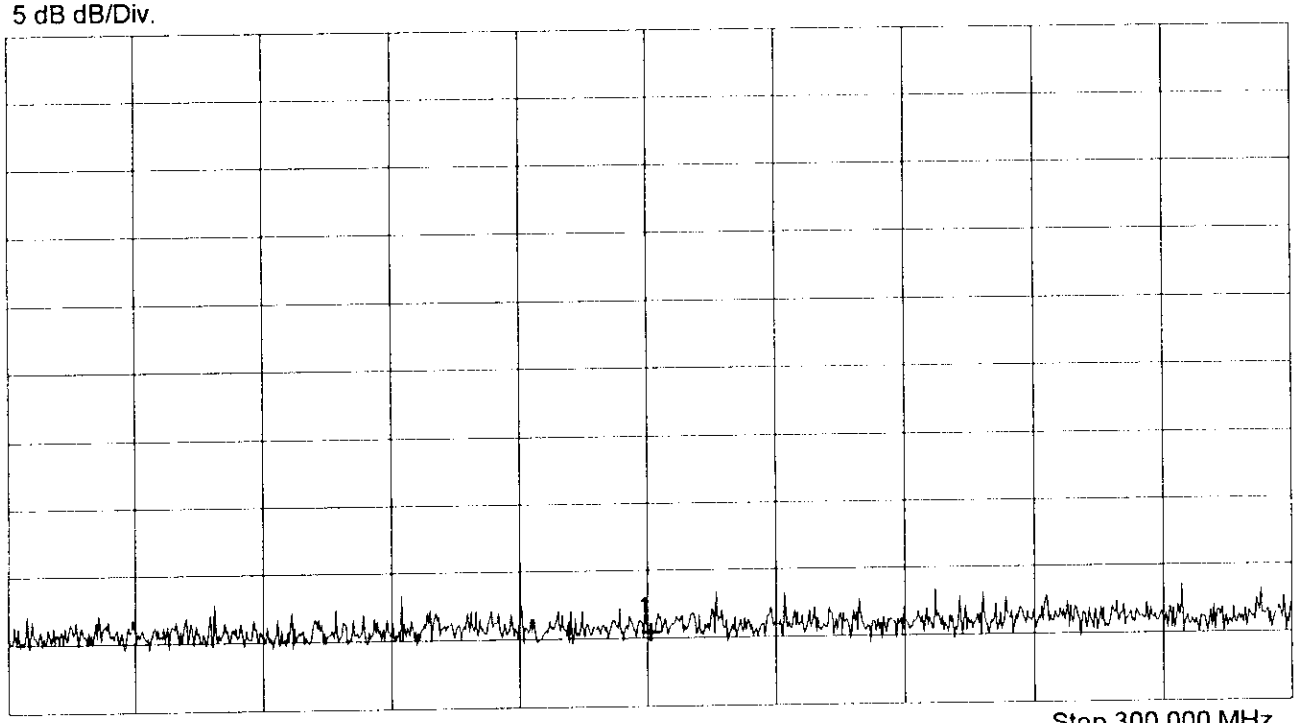
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.600000 MHz	2.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

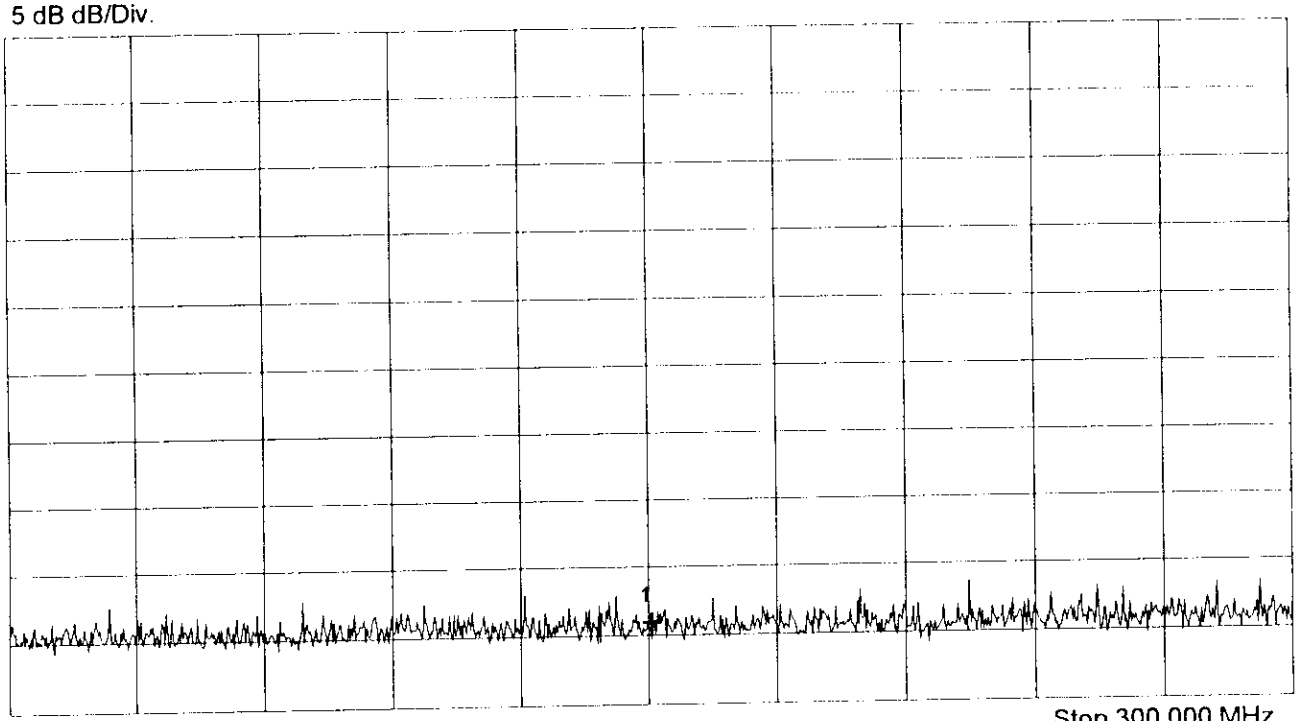
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.600000 MHz	2.92 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

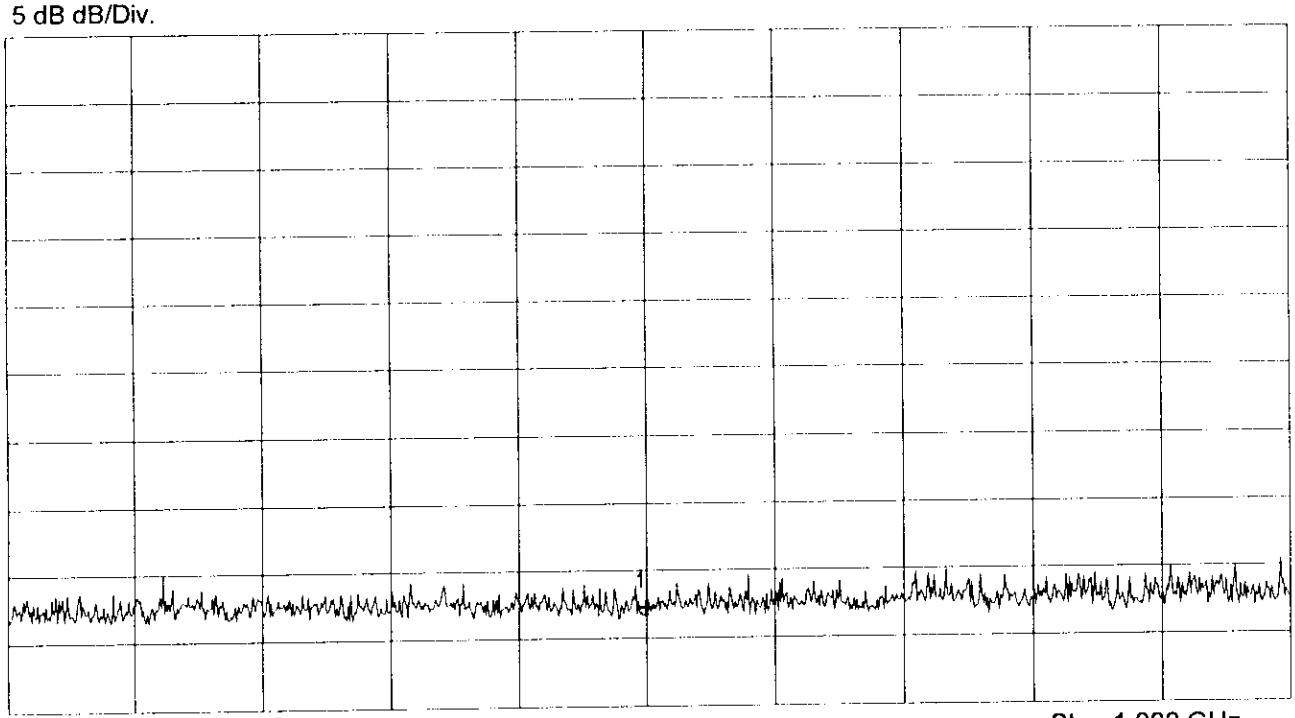
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.24 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

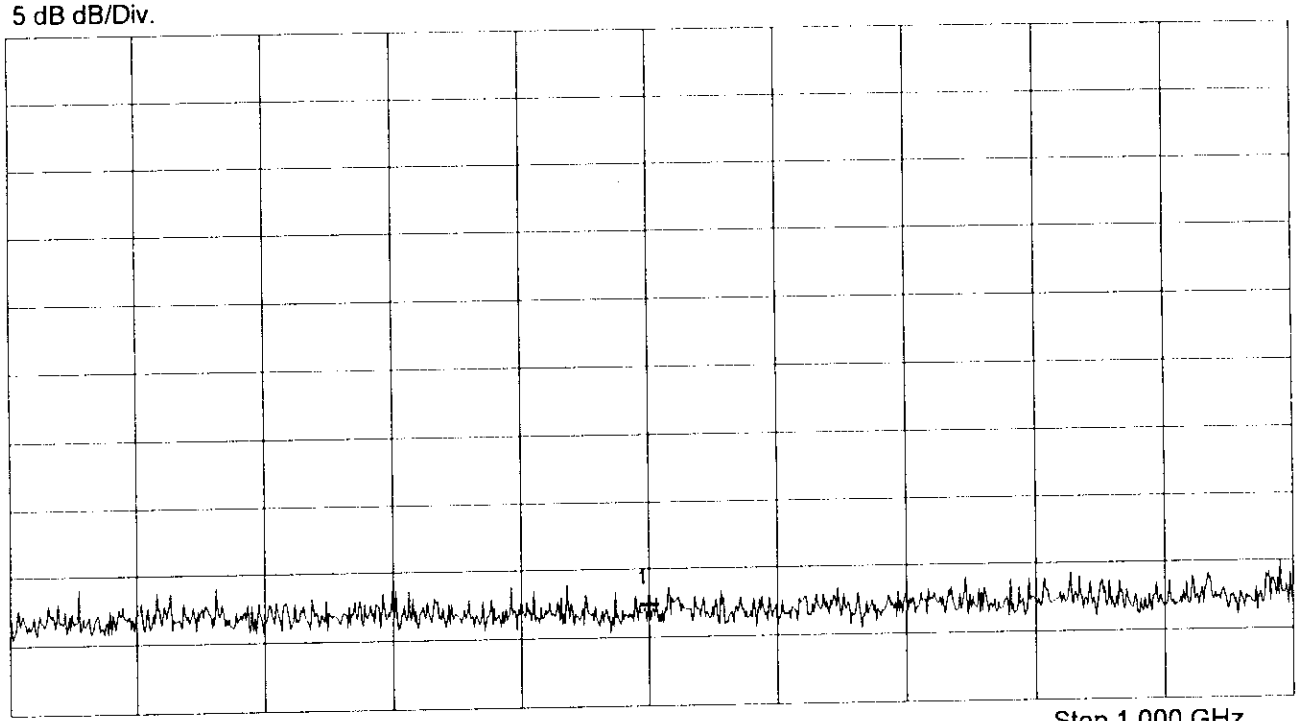
Mode:
Supply voltage 5 V DC

RX mode, channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.34 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

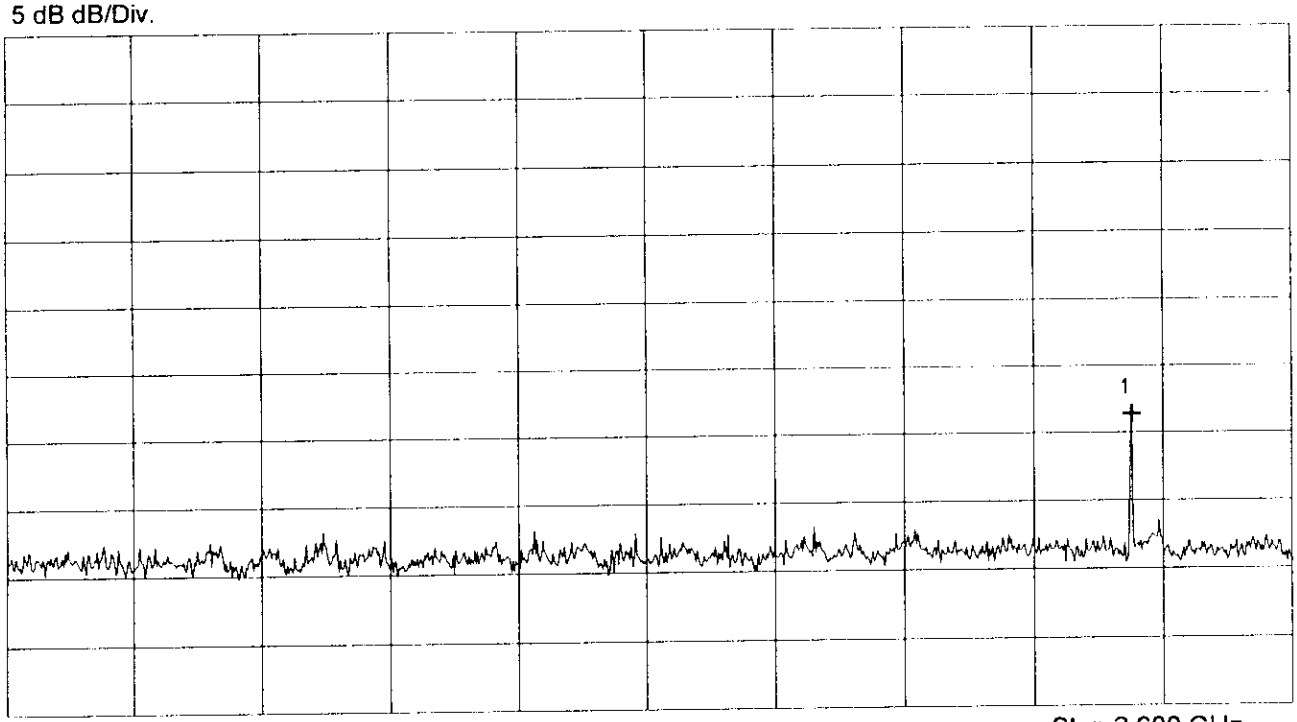
RX Mode Channel 27 (2466.5 MHz)

Test distance 3m
Horizontal polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.400889 GHz	17.89 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

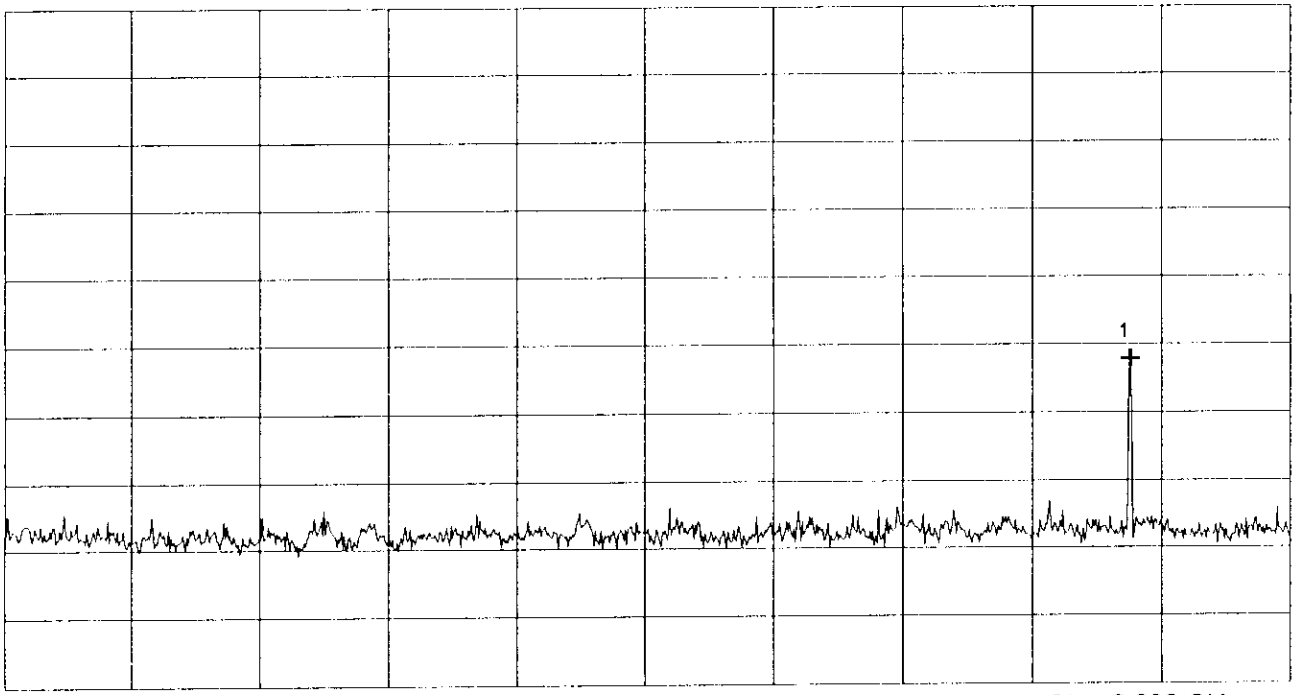
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC RX Mode Channel 27 (2466.5 MHz)
Serial No.: Sample No. 1	
Applicant: Siemens AG	
	Test distance 3m Vertical polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.400889 GHz	20.41 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

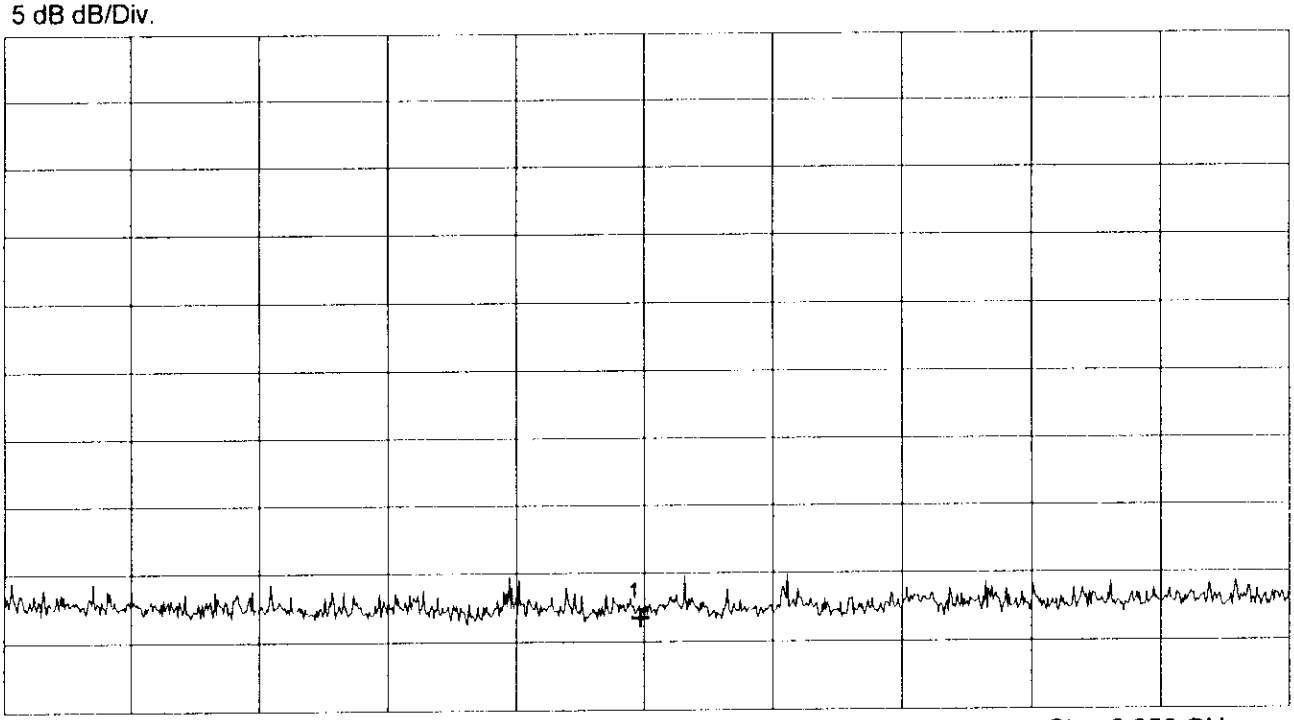
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.20 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

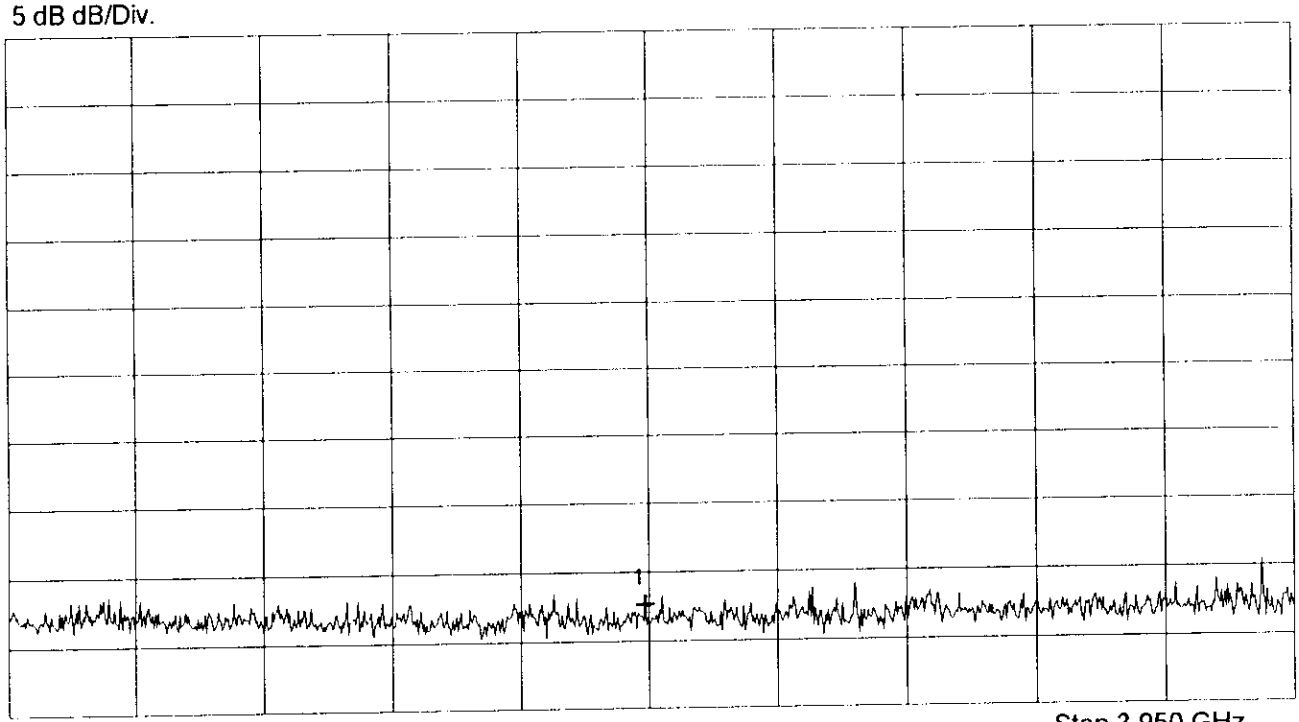
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant. Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	4.15 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

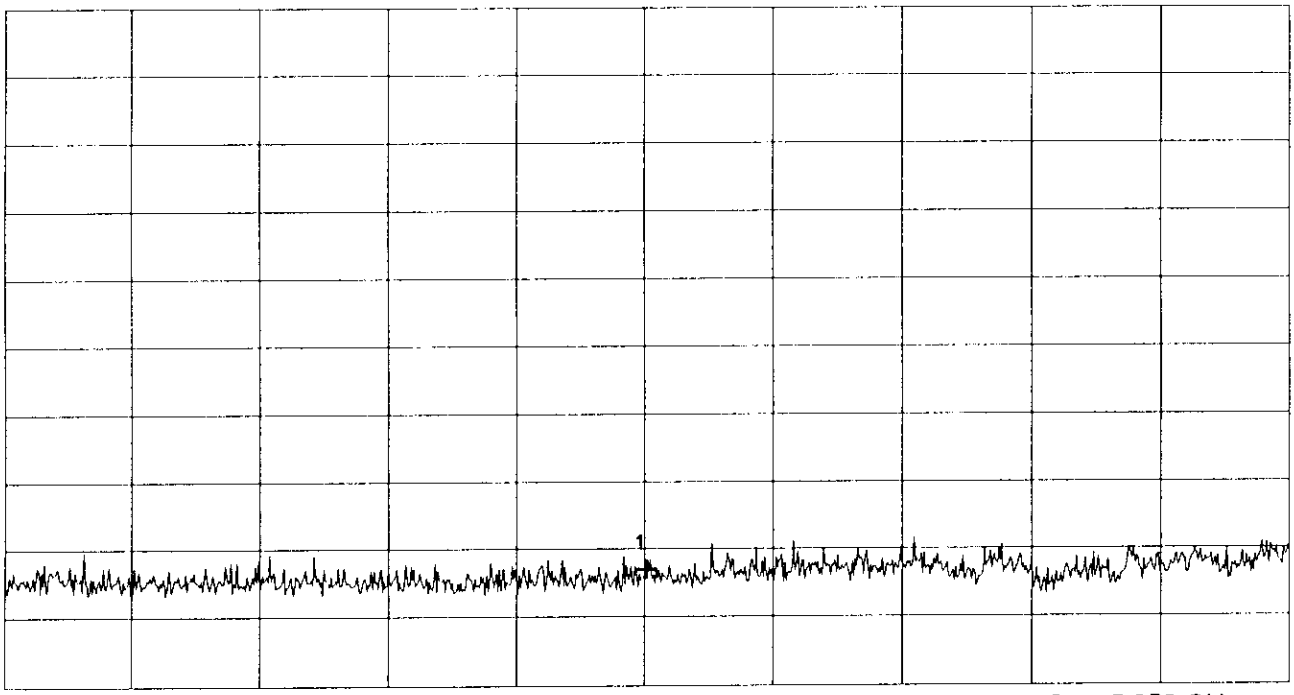
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.902111 GHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

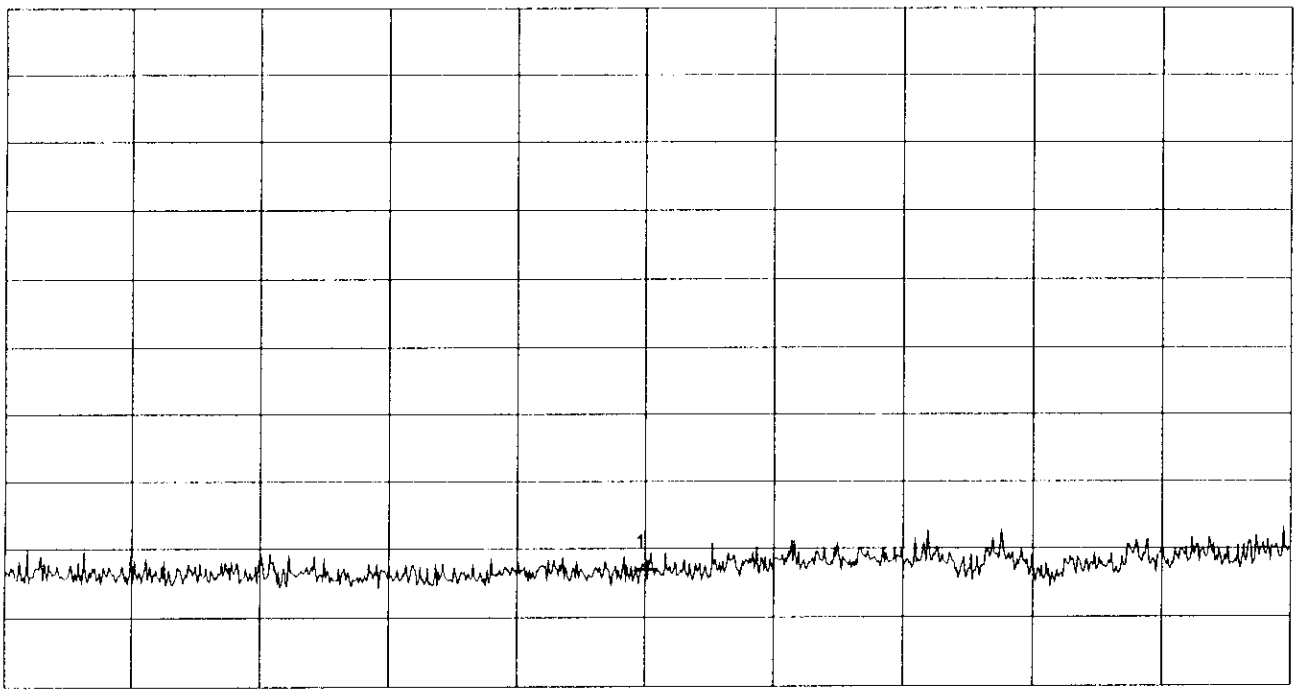
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 27 (2466.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.902111 GHz	4.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

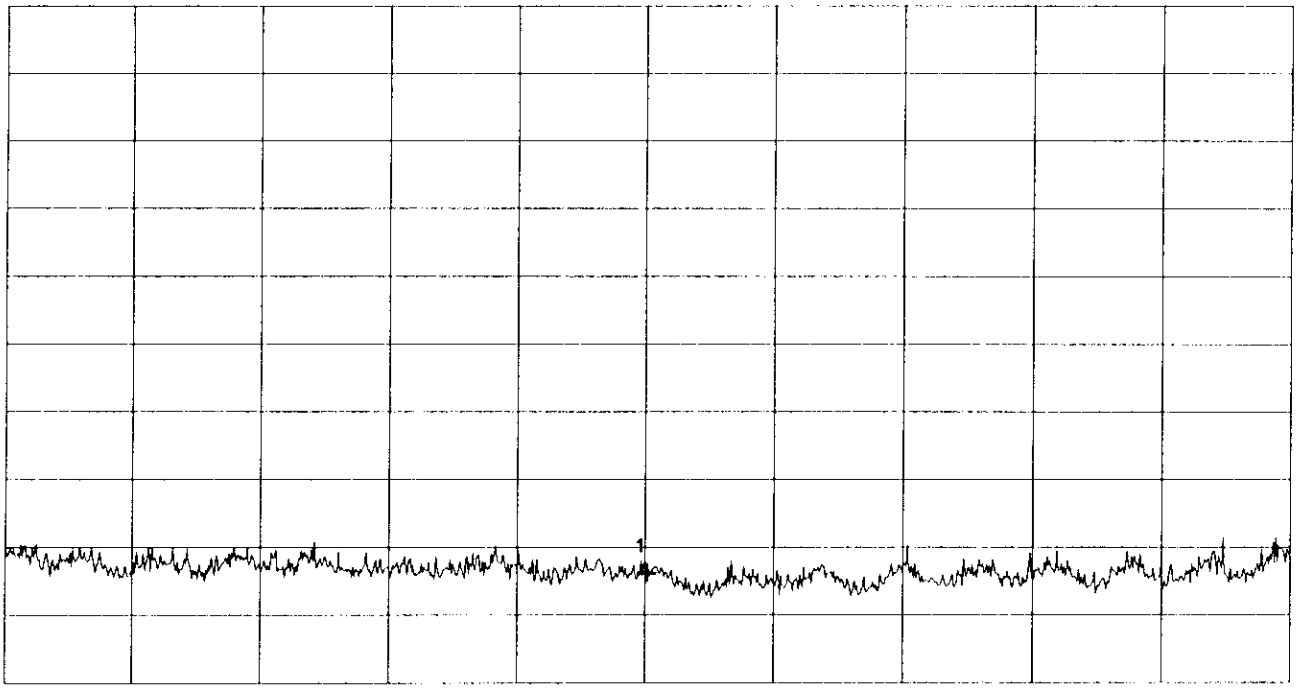
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.027611 GHz	4.55 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

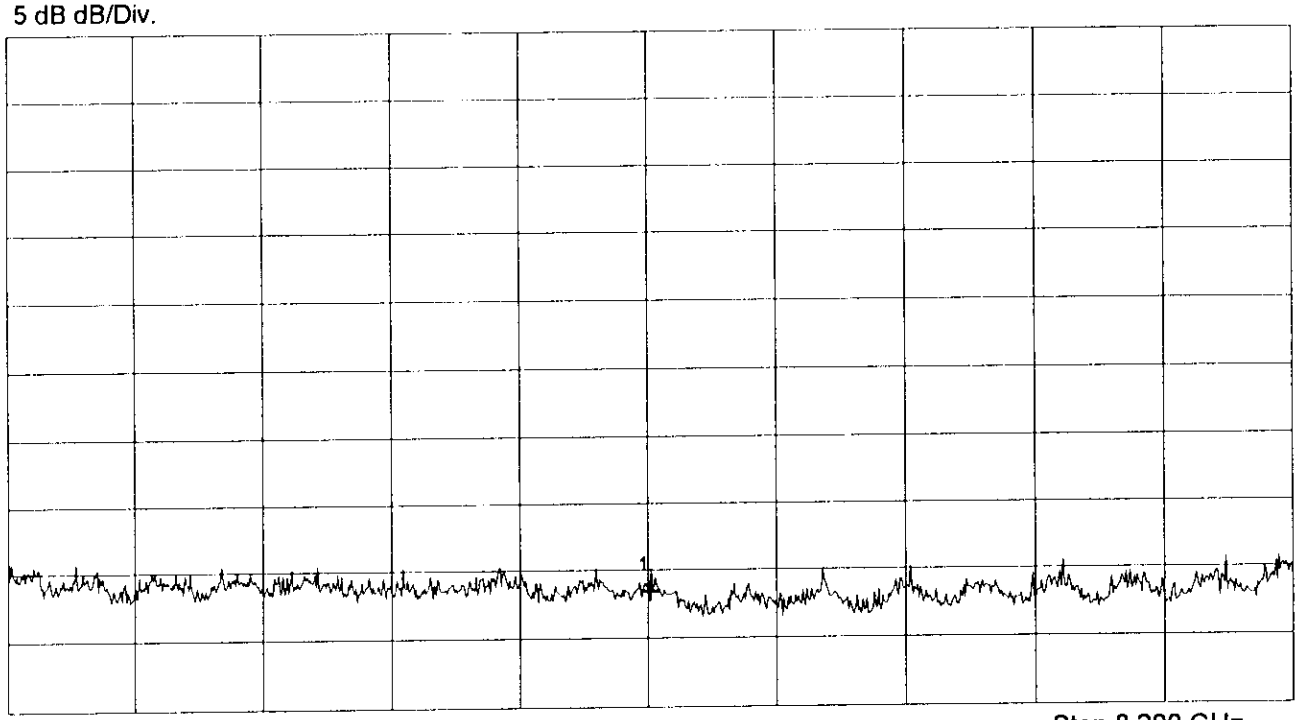
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.027611 GHz	4.91 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

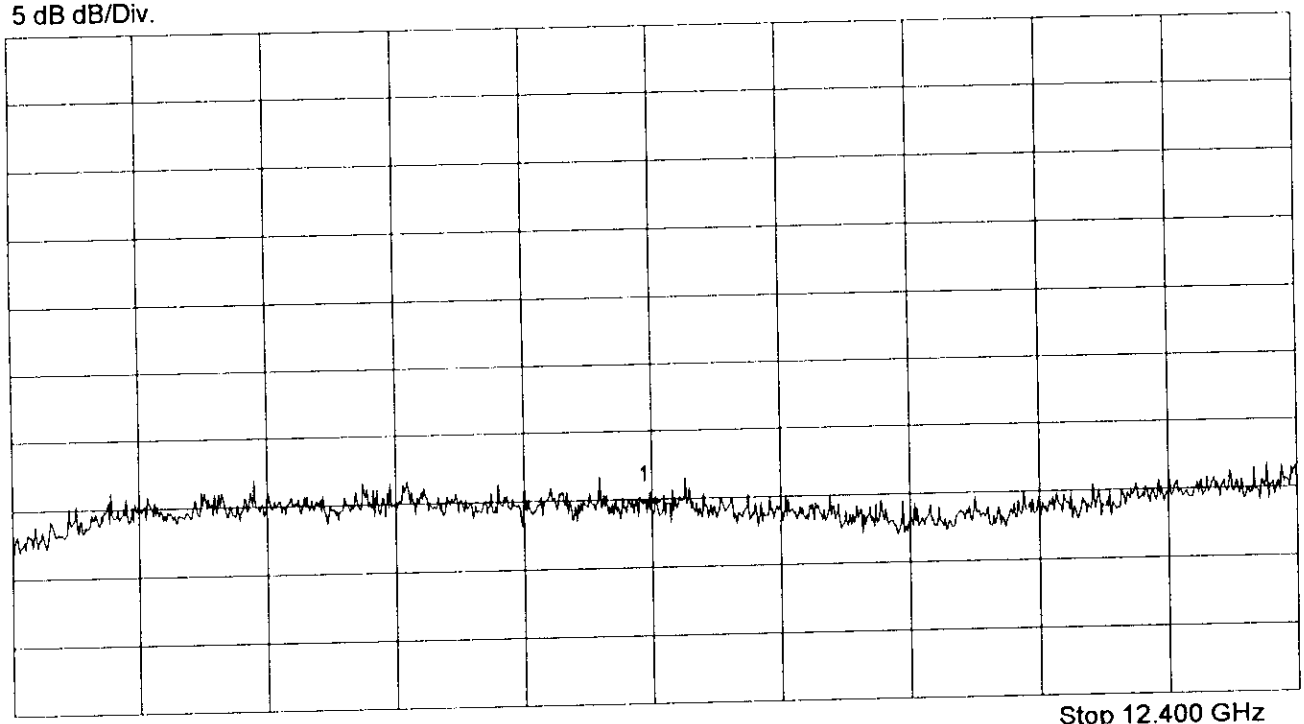
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.295333 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

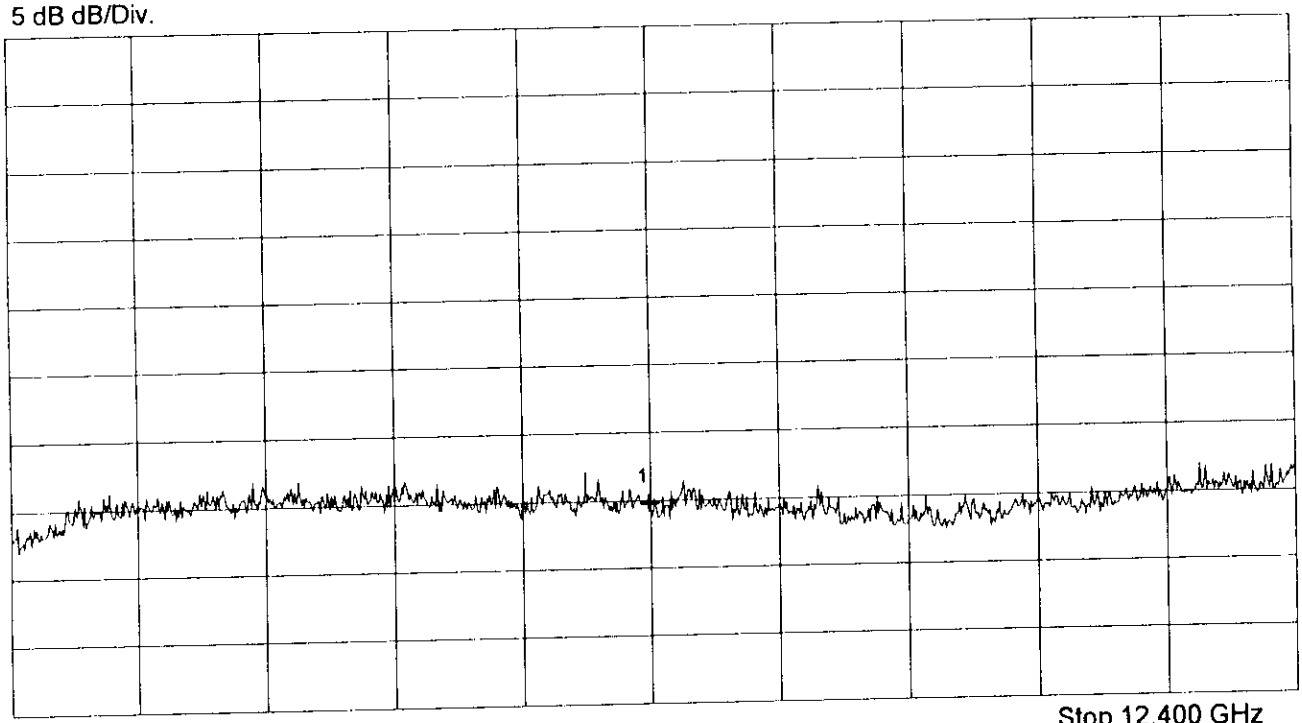
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.295333 GHz	6.81 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply Voltage 5 V DC

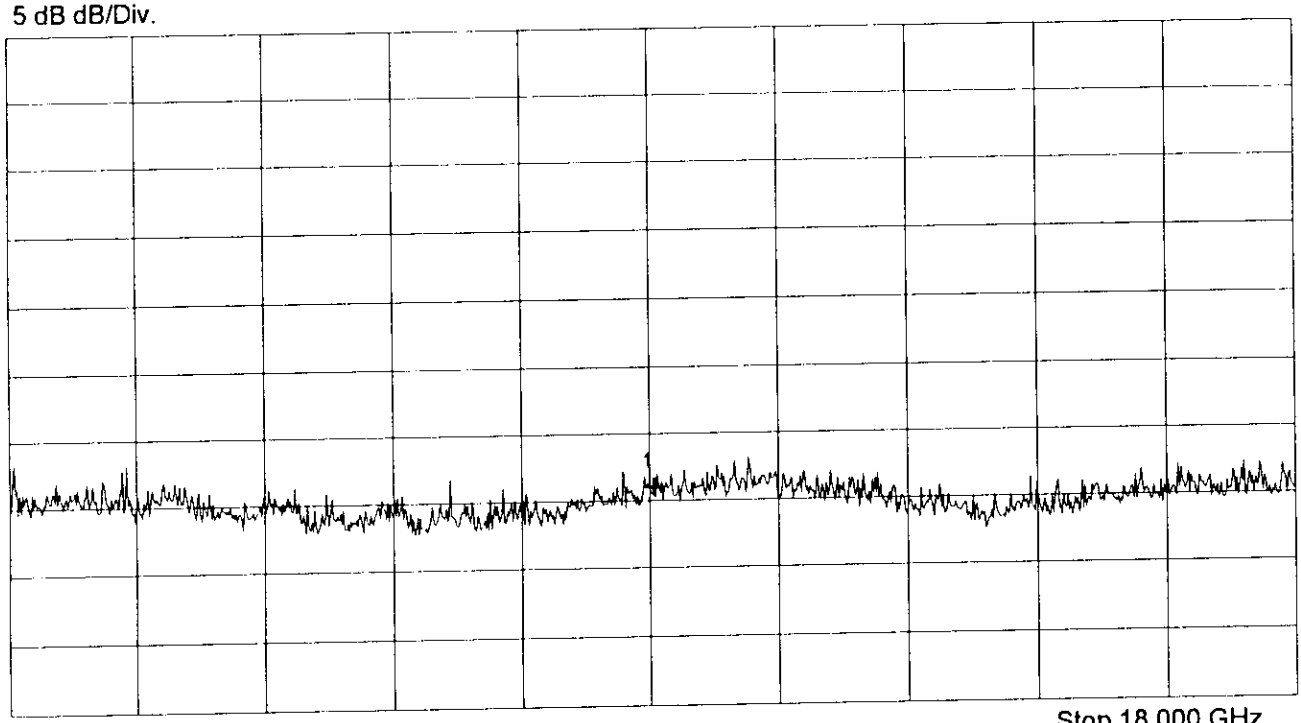
RX Mode, Channel 27 (2466.5 MHz)

Test distance 3 m
Horizontal Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.218667 GHz	7.98 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

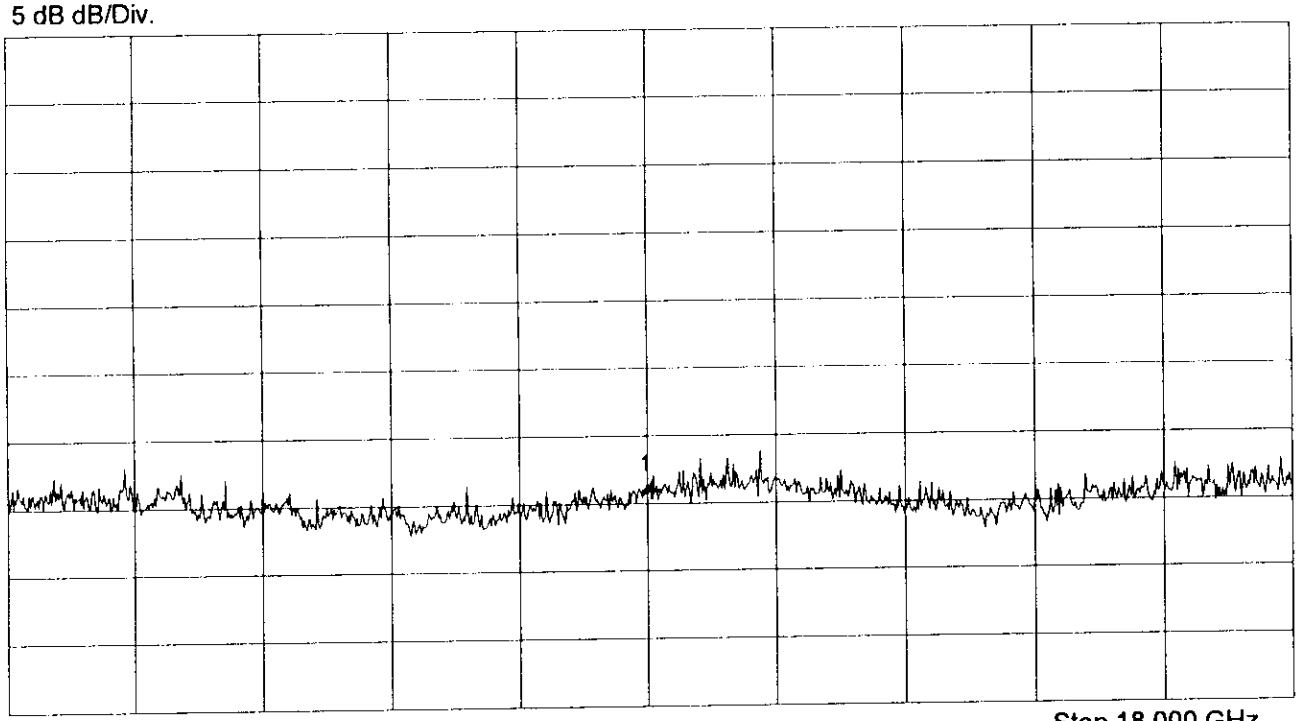
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.218667 GHz	7.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

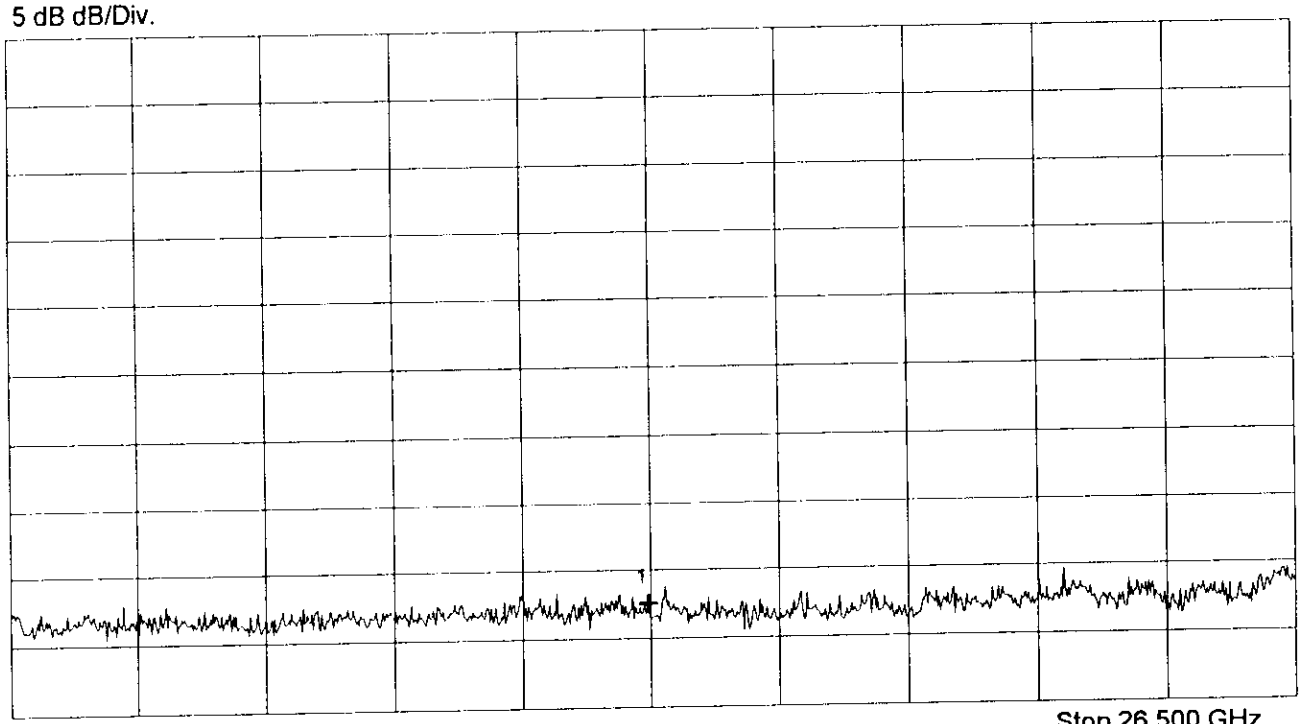
Tested by: Johann Roidt	Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 27 (2466.5 MHz) Test distance 1 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.231111 GHz	19.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

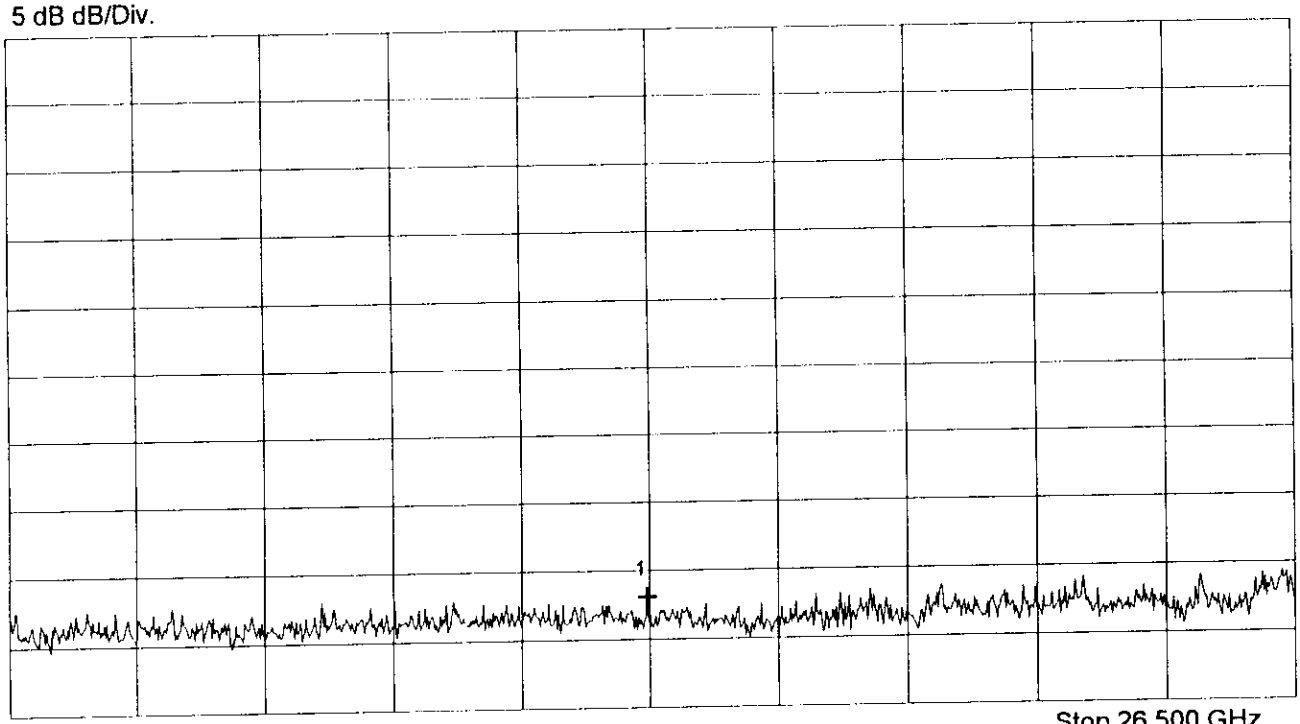
Mode:
Supply Voltage 5 V DC

RX Mode, Channel 27 (2466.5 MHz)

Test distance 1 m
Horizontal Polarization

Ref.Level 62 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.231111 GHz	20.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

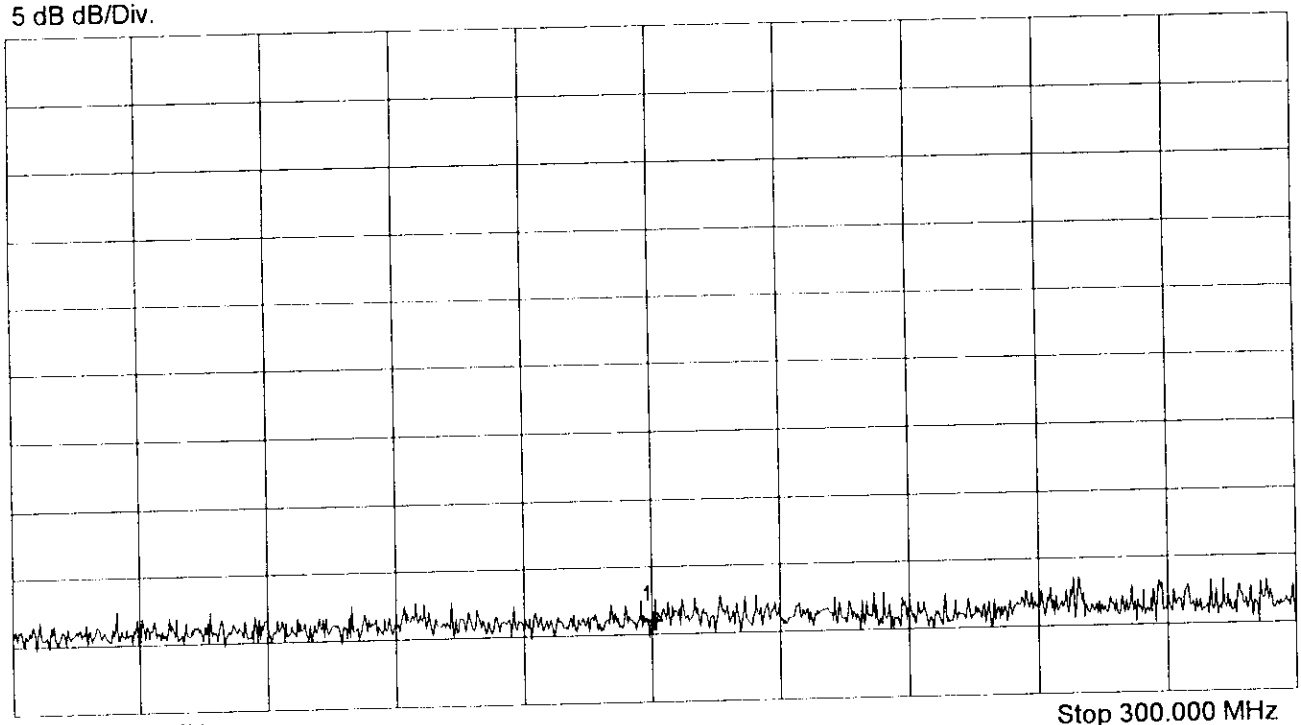
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	2.96 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

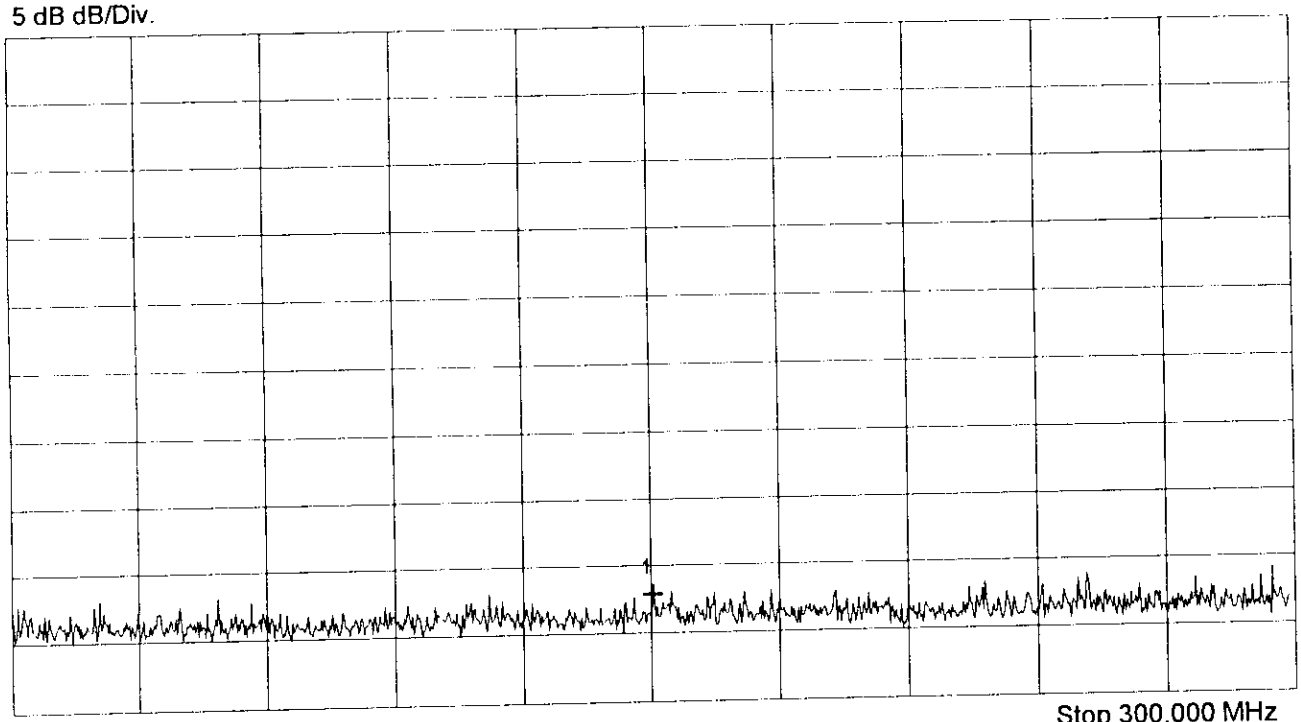
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 30.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 300.000 MHz
SWP 100 ms

**** Multi Marker ****

Nr.1	165.300000 MHz	4.88 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

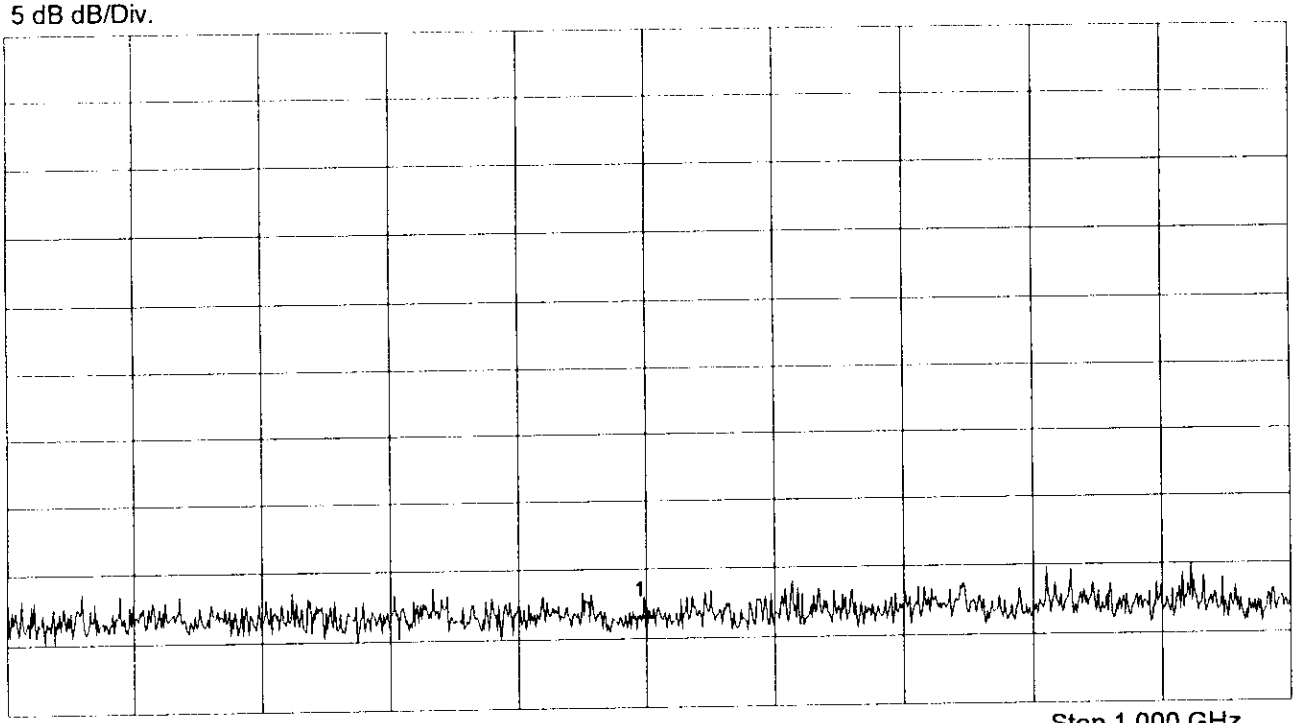
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Horizontal polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	3.48 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Radiated Emissions Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

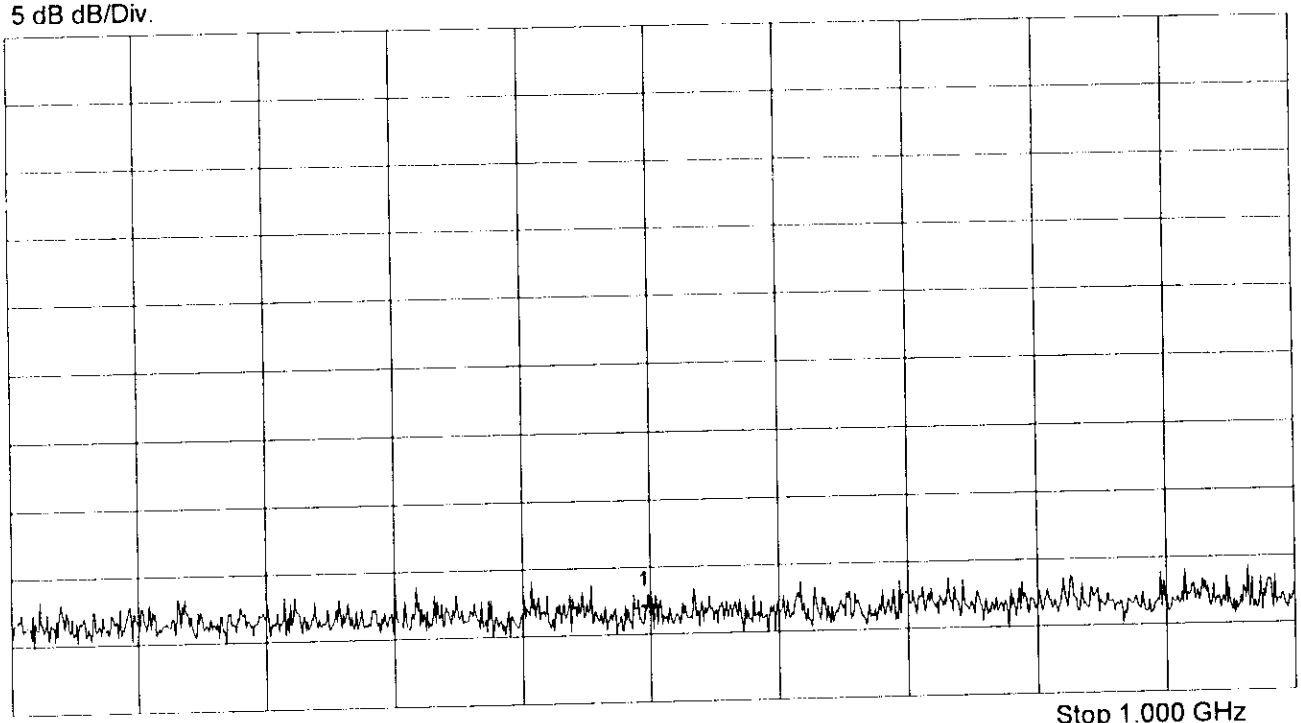
Mode:
Supply voltage 5 V DC

RX mode, channel 21 (2451.5 MHz)

Test distance 3 m
Vertical polarization

Ref.Level 47 dBµV
5 dB dB/Div.

ATT 0 dB



Start 300.000 MHz
RBW 100 kHz

VBW 1 MHz

Stop 1.000 GHz
SWP 220 ms

**** Multi Marker ****

Nr.1	650.000000 MHz	4.09 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

Date:

Radiated Emission Measurement acc. to FCC Rules

Model:
SRIF Module

Serial No.:
Sample No. 1

Applicant:
Siemens AG

Mode:
Supply voltage 5 V DC

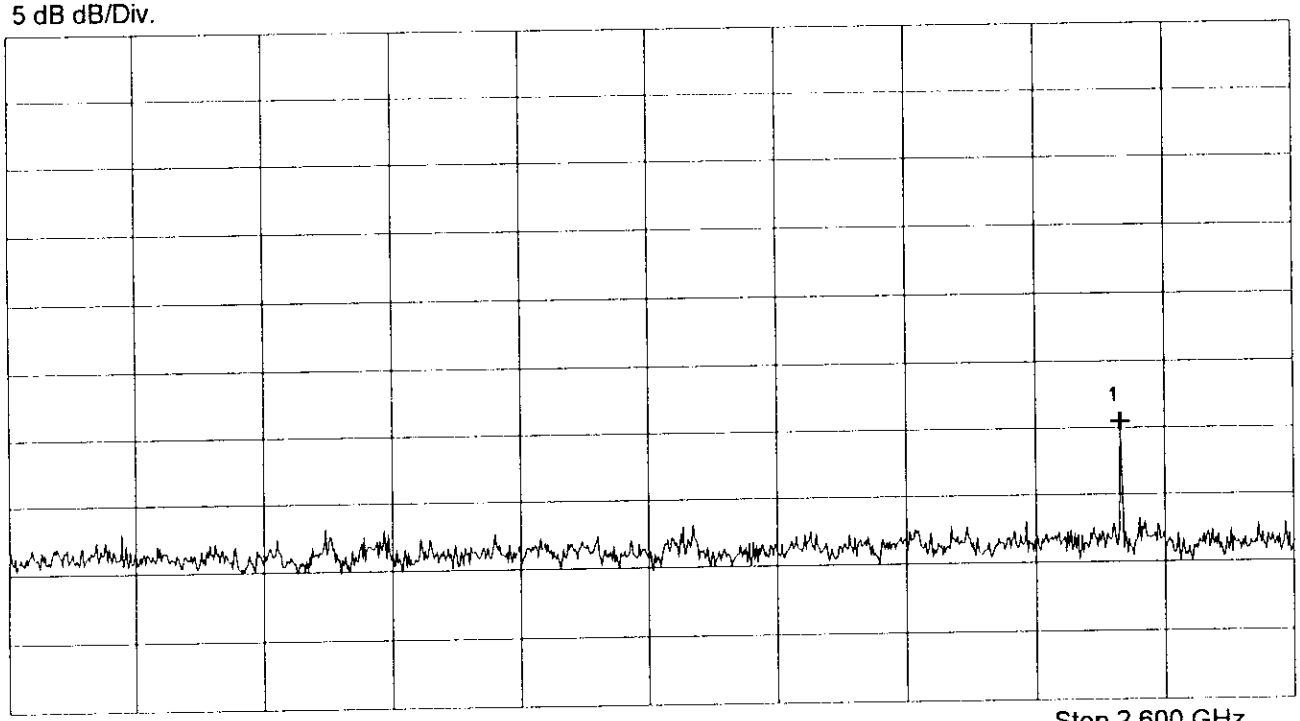
RX Mode Channel 21 (2451.5 MHz)

Test distance 3m
Horizontal polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.384889 GHz	16.95 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by:
Johann Roidt

Project-No.:

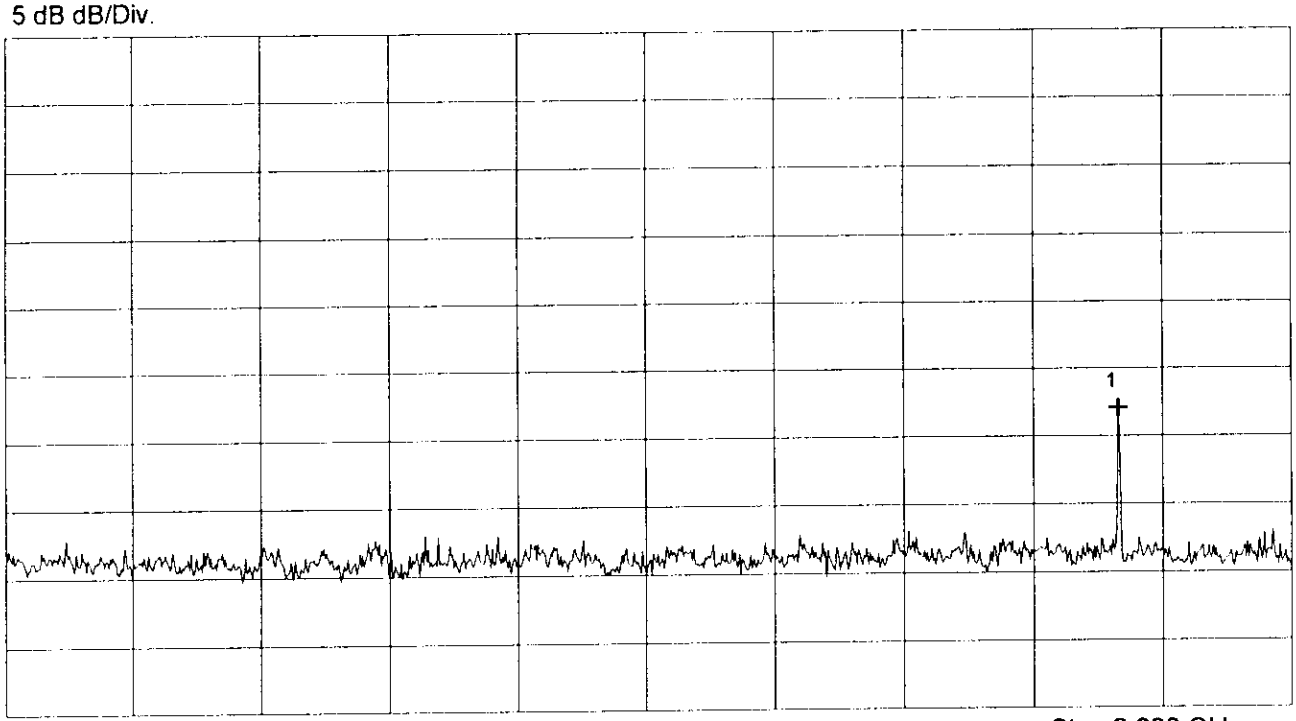
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply voltage 5 V DC RX Mode Channel 21 (2451.5 MHz)
Serial No.: Sample No. 1	
Applicant: Siemens AG	
	Test distance 3m Vertical polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 1.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.600 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	2.384889 GHz	18.52 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

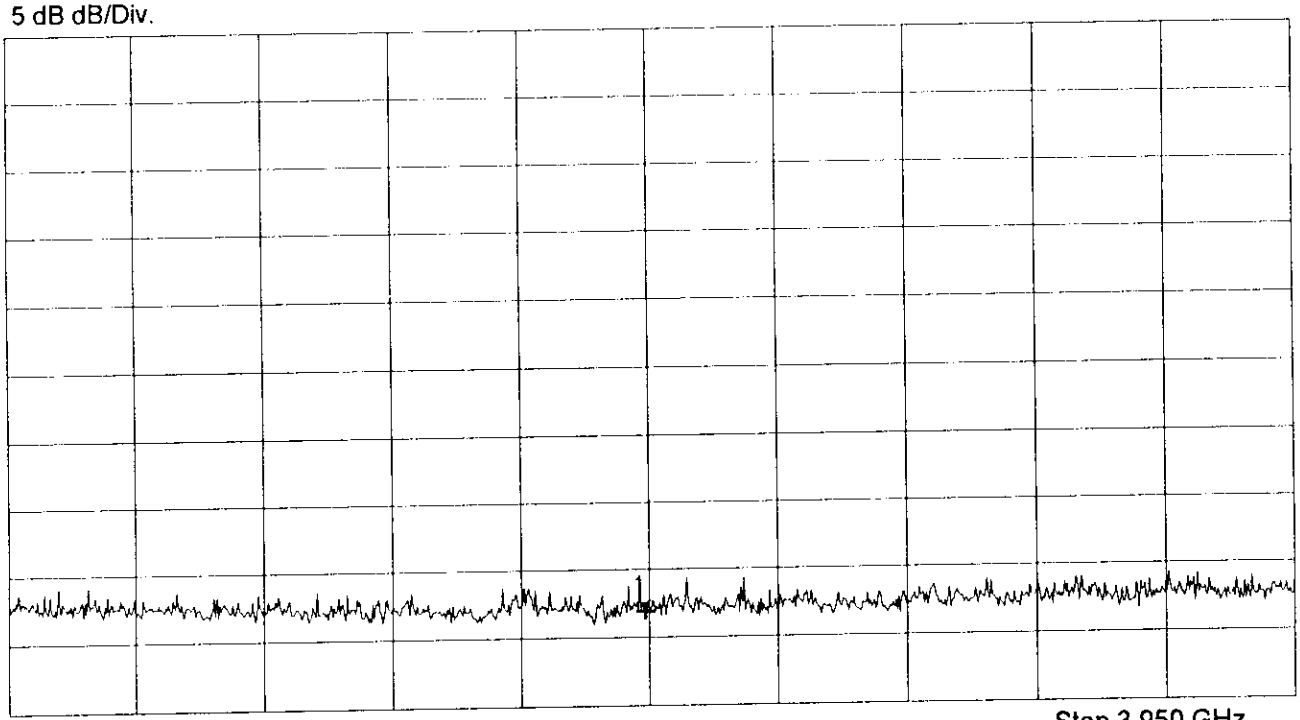
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.40 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

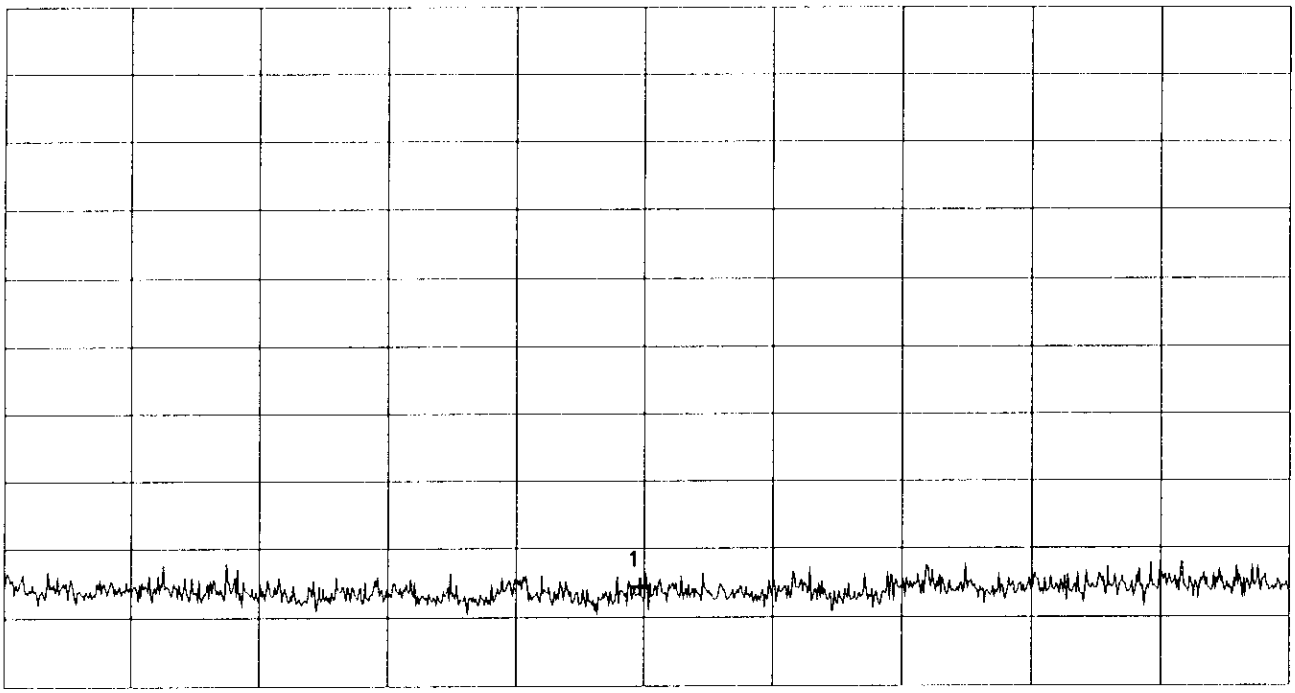
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 2.600 GHz
RBW 1 MHz

VBW 1 MHz

Stop 3.950 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	3.270500 GHz	3.70 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

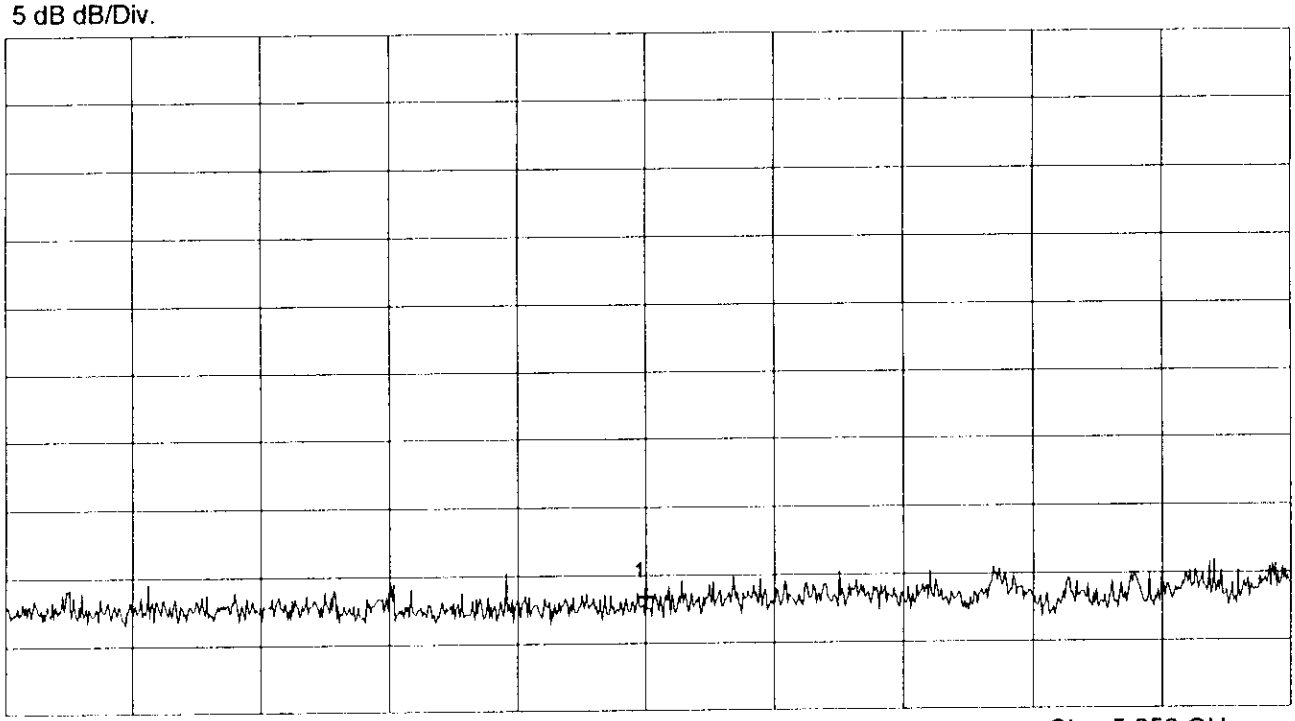
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Vertical Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.900000 GHz	4.86 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

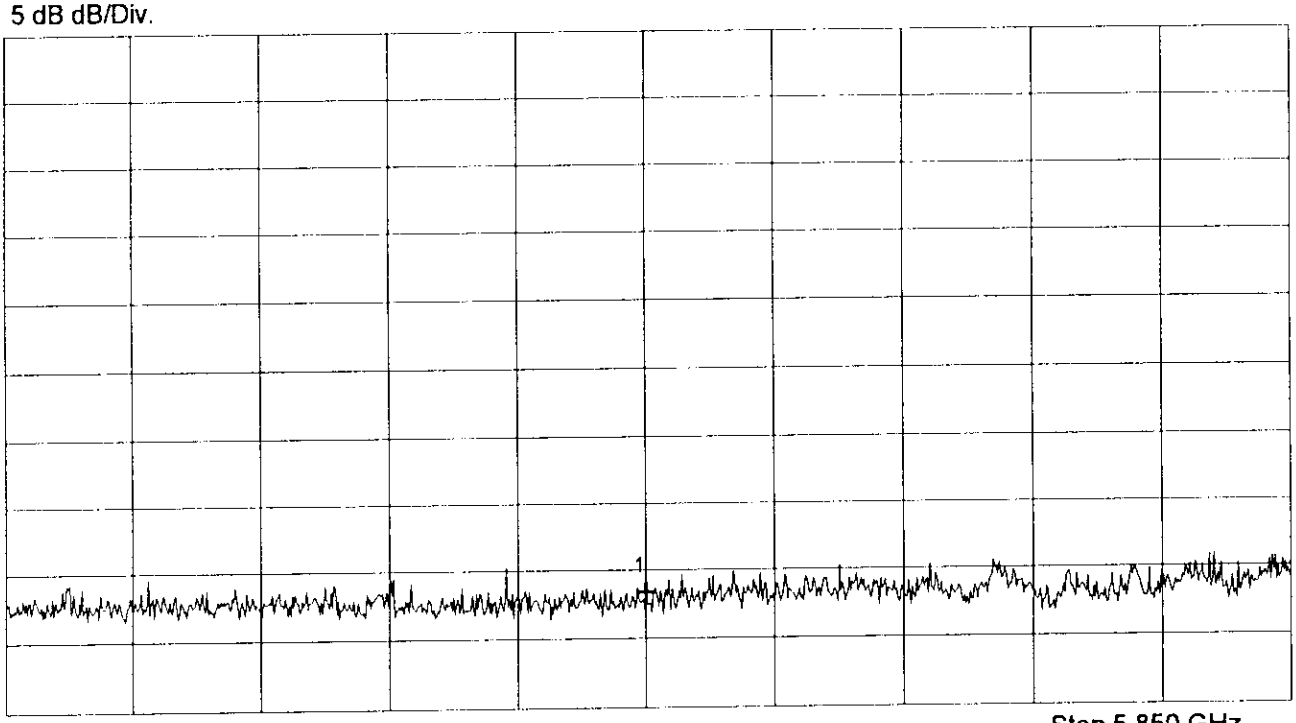
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 3.950 GHz
RBW 1 MHz

VBW 1 MHz

Stop 5.850 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	4.900000 GHz	4.86 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

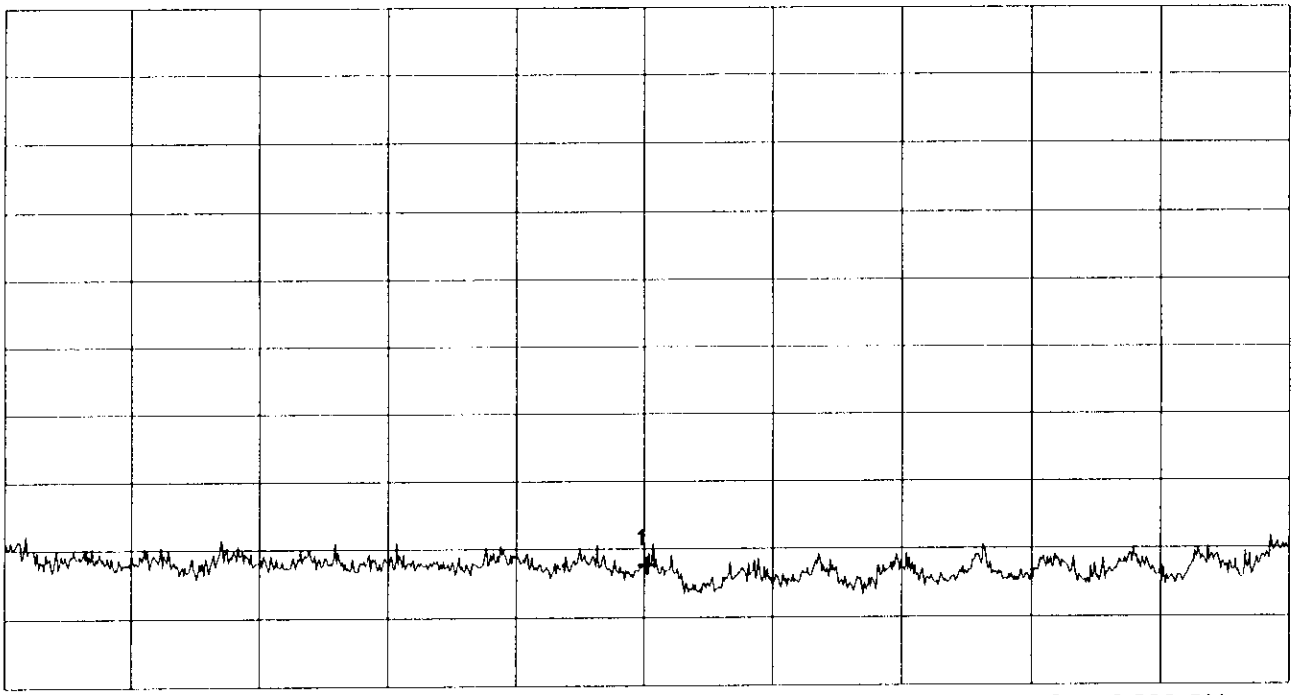
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Horizontal Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.030222 GHz	5.27 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

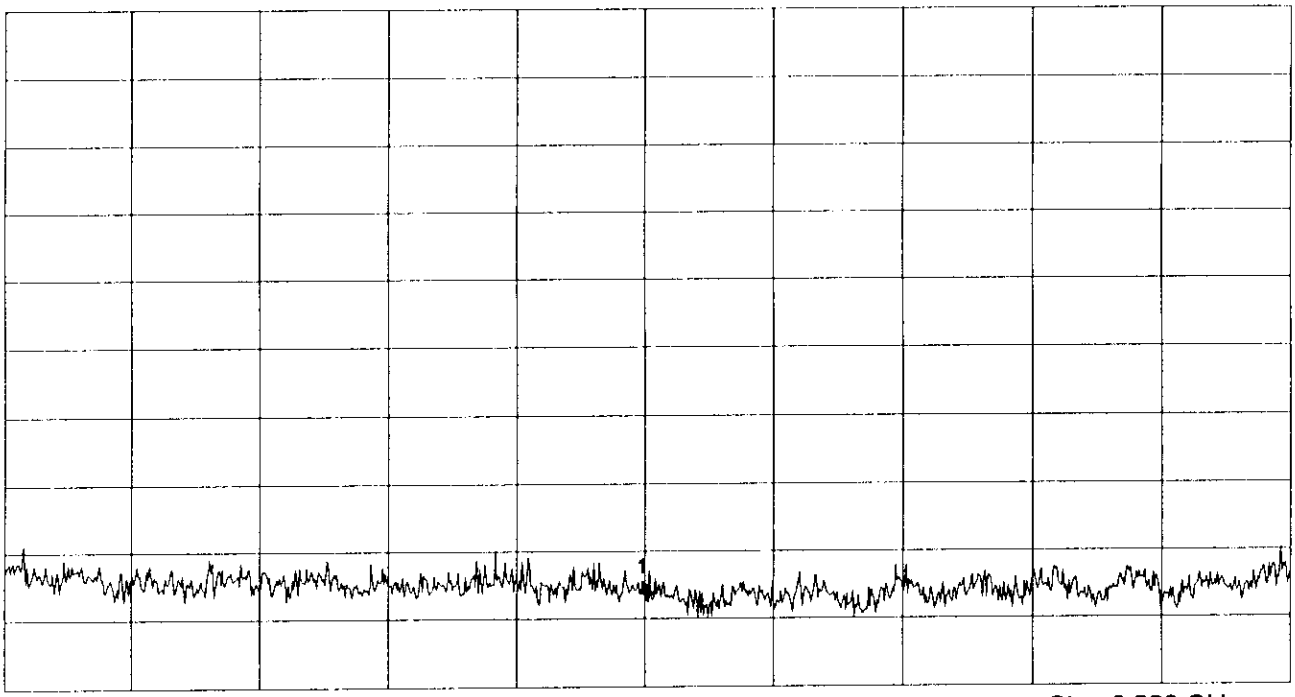
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 46.5 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -30.5 dB



Start 5.850 GHz
RBW 1 MHz

VBW 1 MHz

Stop 8.200 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	7.030222 GHz	3.35 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

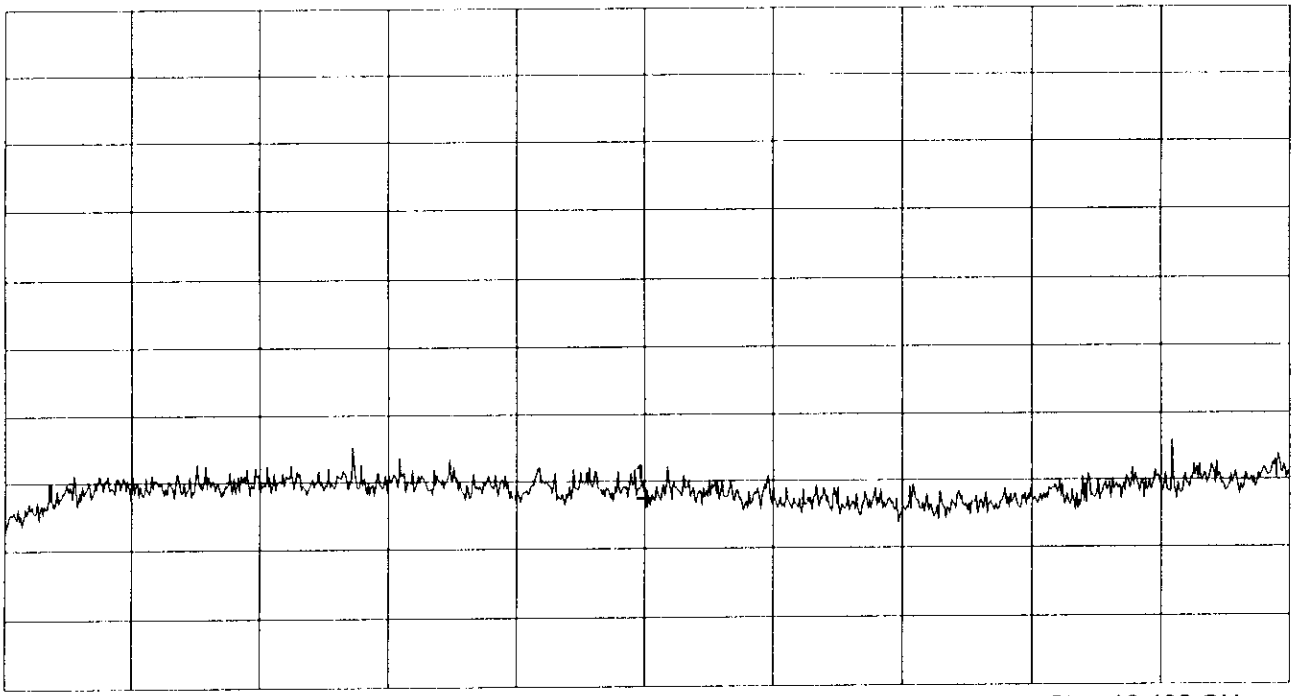
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.304667 GHz	5.63 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

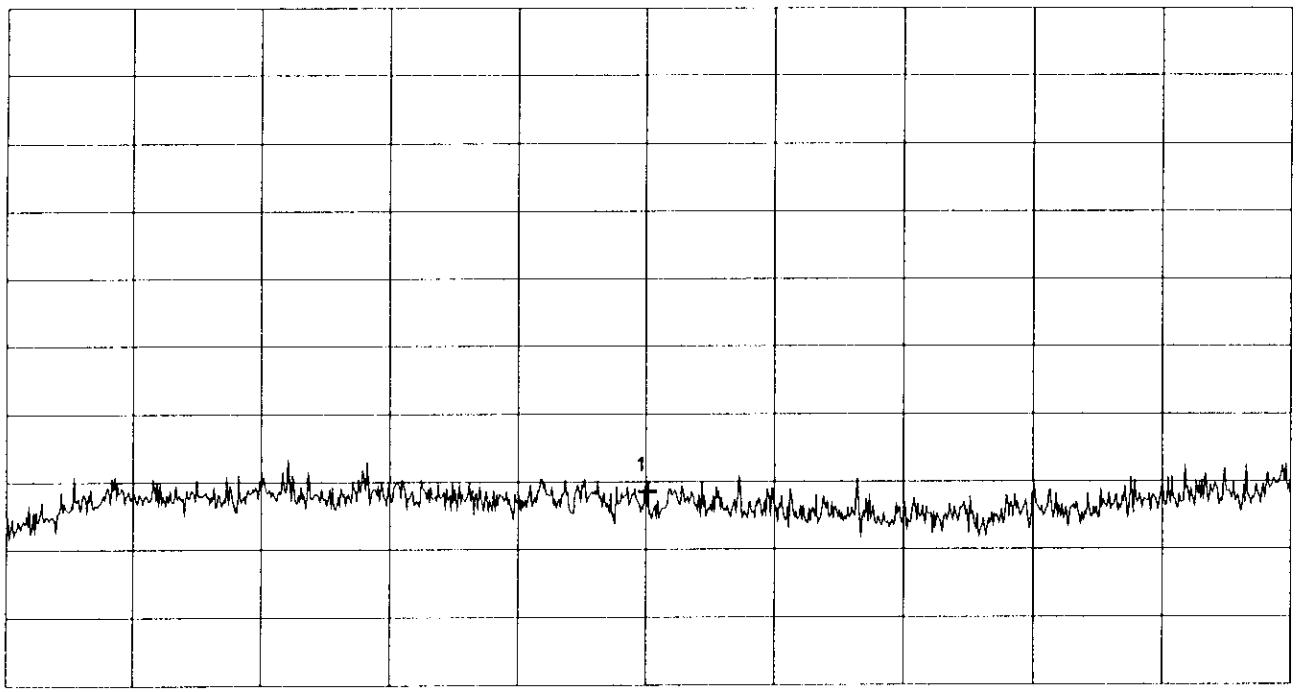
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 8.200 GHz
RBW 1 MHz

VBW 1 MHz

Stop 12.400 GHz
SWP 20 ms

**** Multi Marker ****

Nr.1	10.304667 GHz	6.25 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:

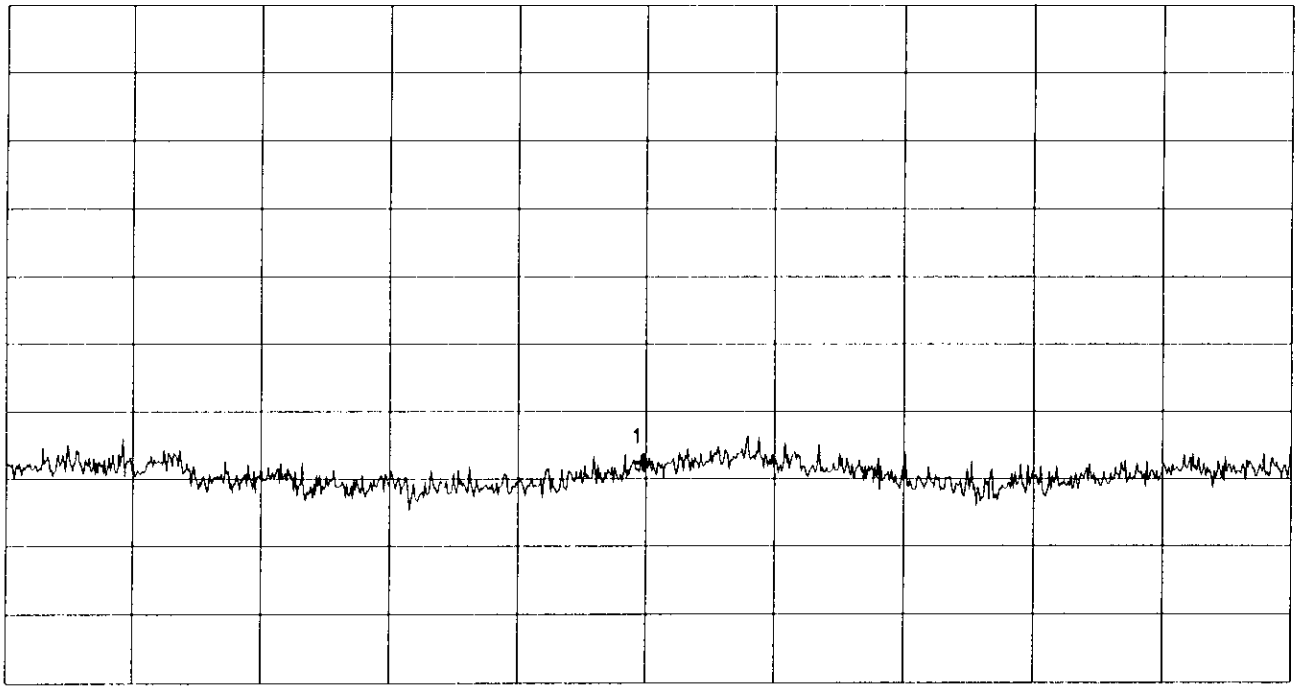
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC RX Mode, Channel 21 (2451.5 MHz) Test distance 3 m Horizontal Polarization
Serial No.: Sample No. 1	
Applicant: Siemens AG	

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.187556 GHz	8.17 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

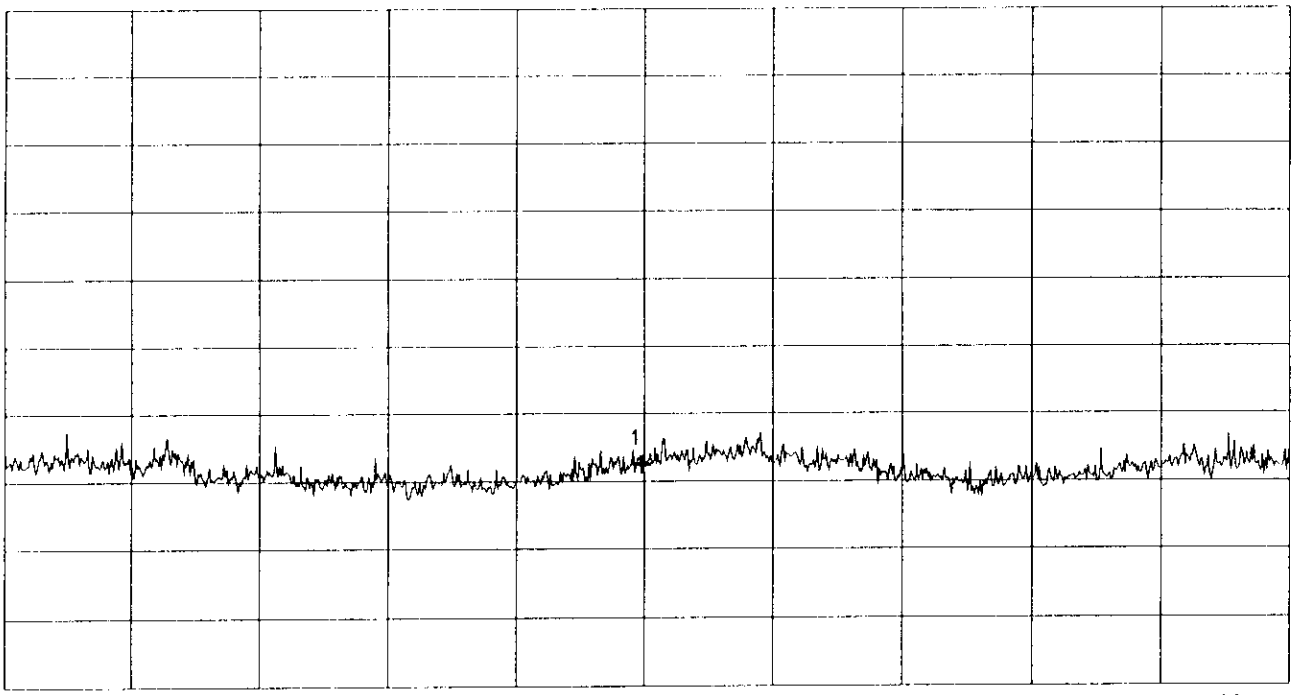
Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 3 m Vertical Polarization

Ref.Level 42 dBµV
5 dB dB/Div.

ATT 0 dB

Ref. Offset -35 dB



Start 12.400 GHz
RBW 1 MHz

VBW 1 MHz

Stop 18.000 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	15.187556 GHz	8.22 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

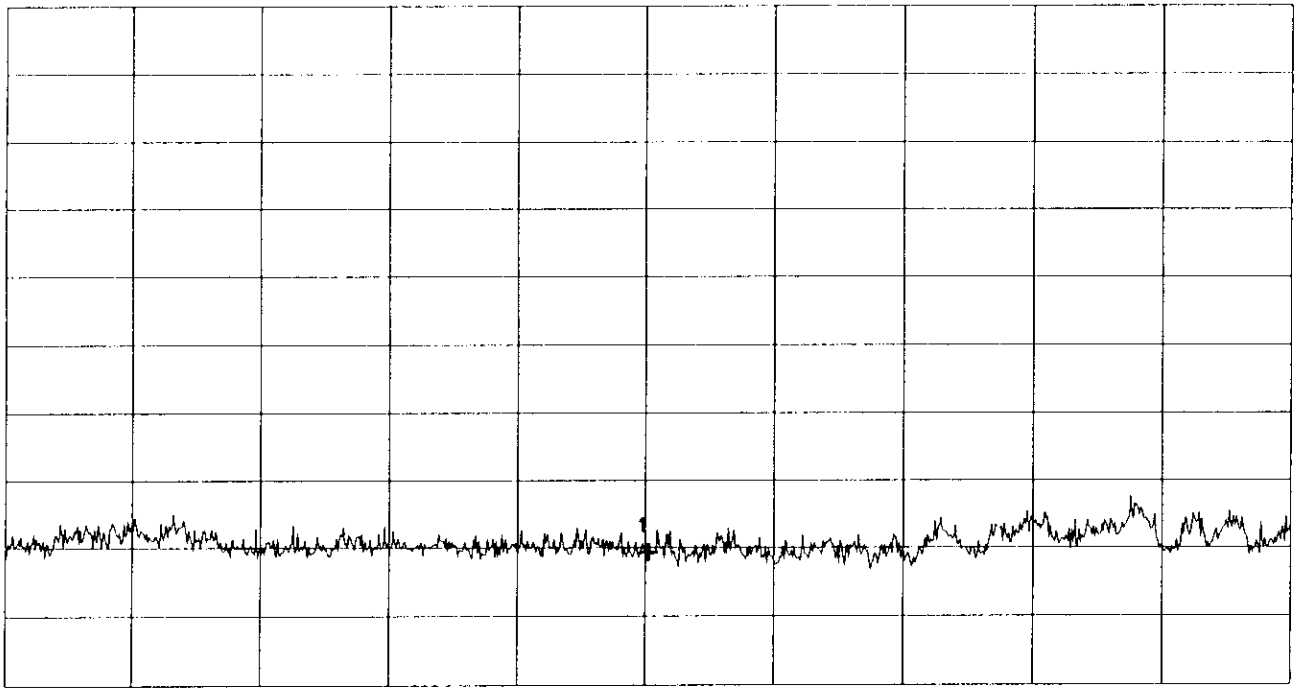
Tested by: Johann Roidt	Project-No.:

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 1 m Vertical Polarization

Ref.Level 67 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.268889 GHz	26.62 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

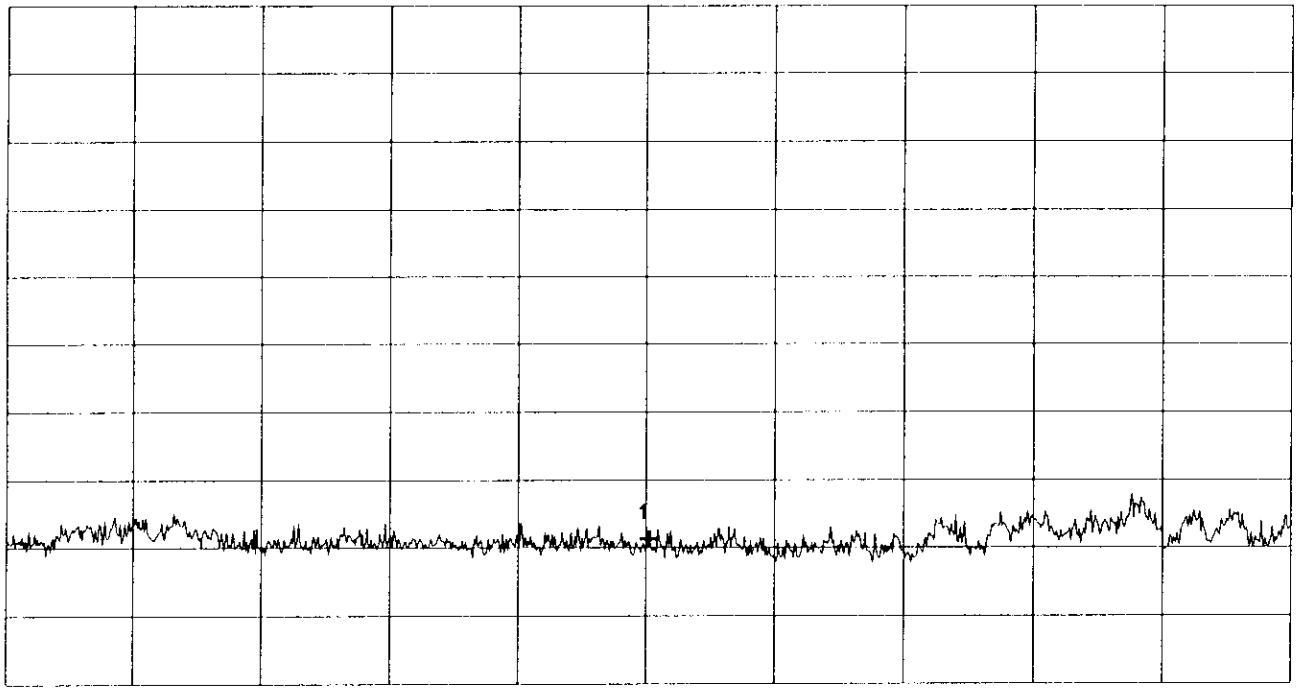
Tested by: Johann Roidt	Project-No.:
Date:	

Radiated Emission Measurement acc. to FCC Rules

Model: SRIF Module	Mode: Supply Voltage 5 V DC
Serial No.: Sample No. 1	RX Mode, Channel 21 (2451.5 MHz)
Applicant: Siemens AG	Test distance 1 m Horizontal Polarization

Ref.Level 67 dBµV
5 dB dB/Div.

ATT 0 dB



Start 18.000 GHz
RBW 1 MHz

VBW 1 MHz

Stop 26.500 GHz
SWP 40 ms

**** Multi Marker ****

Nr.1	22.268889 GHz	27.59 dBµV
Nr.2		
Nr.3		
Nr.4		
Nr.5		
Nr.6		
Nr.7		
Nr.8		

Tested by: Johann Roidt	Project-No.:
Date:	

6. Photographs Taken During Testing