


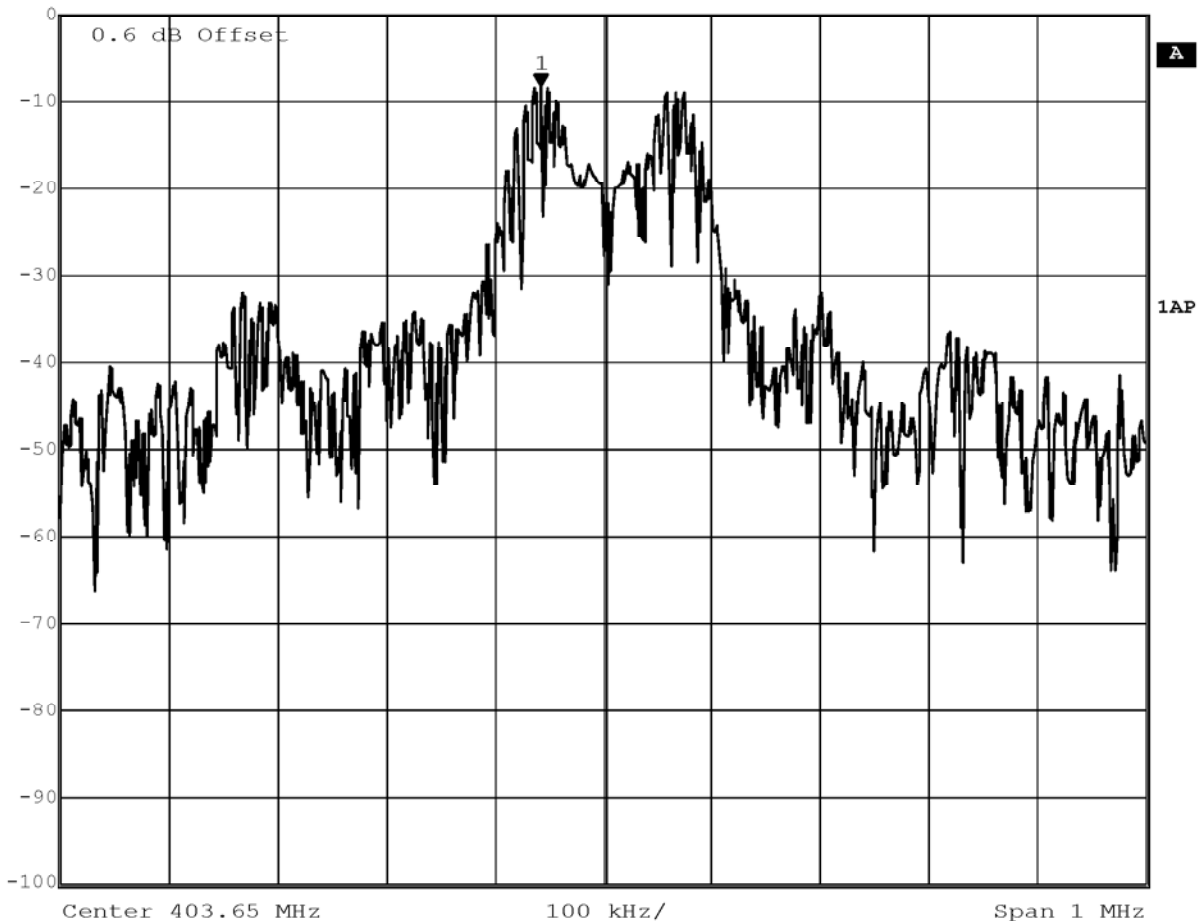
Annex

Measurement diagrams "Frequency Error"

FCC Part 95 .628 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Frequency Error

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	37°C / Unom: 3 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.628 e / EN 301 839-1 8.1
Test Case	Frequency Error (signal count function of analyzer)
Comment 1	f: 403.585 MHz
Comment 2	Limit +/-100 ppm (+/-40.36KHz)

	Marker 1 [T1 CNT]	RBW	20 kHz	RF Att	20 dB
	Ref Lvl	-8.28 dBm	VBW	20 kHz	
	0 dBm	403.584614 MHz	SWT	7.5 ms	Unit dBm




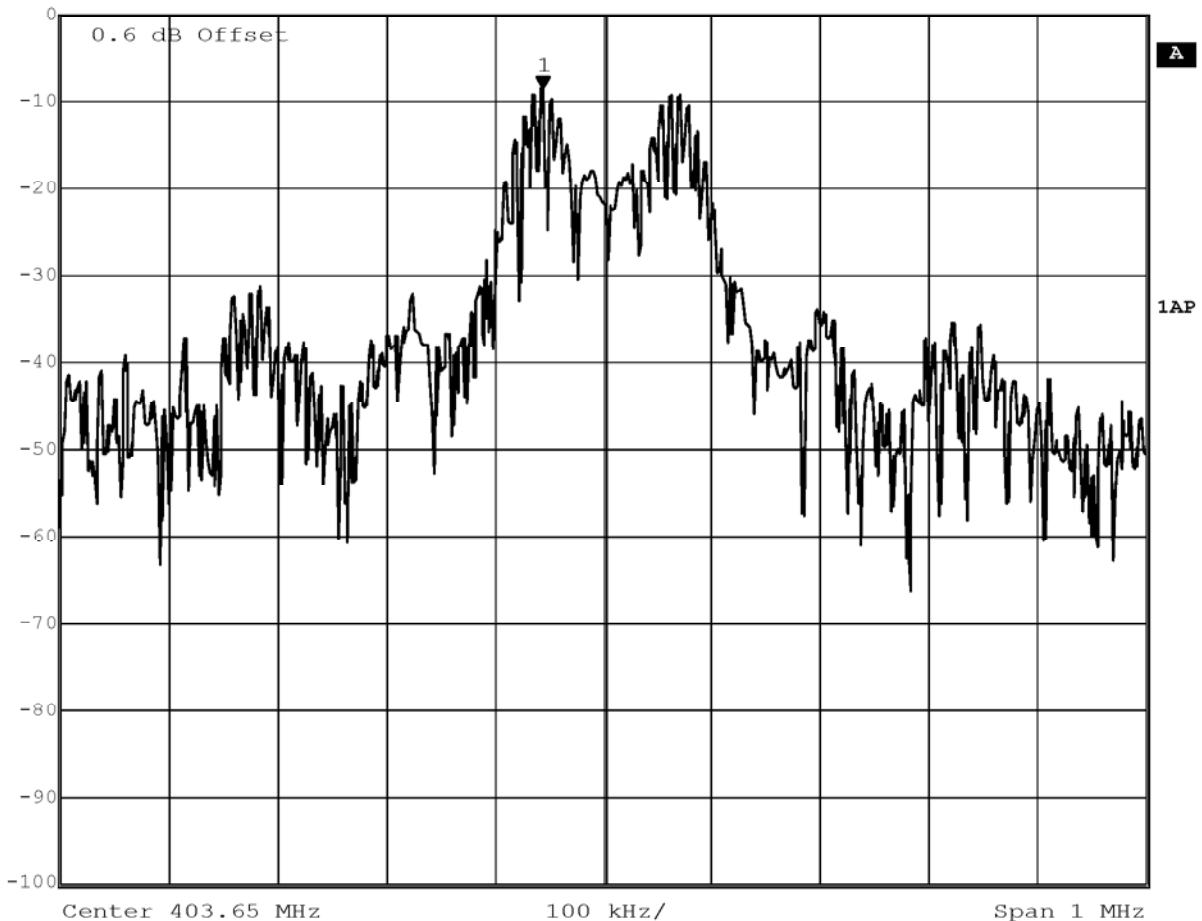
Date: 3.FEB.2006 09:52:24

Measurement diagram

FCC Part 95 .628 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Frequency Error

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.628 e / EN 301 839-1 8.1
Test Case	Frequency Error (signal count function of analyzer)
Comment 1	f: 403.601 MHz
Comment 2	Limit +/-100 ppm (+/-40.36KHz)

	Marker 1 [T1 CNT]	RBW	20 kHz	RF Att	20 dB
	Ref Lvl	-8.72 dBm	VBW	20 kHz	
	0 dBm	403.600751 MHz	SWT	7.5 ms	Unit dBm




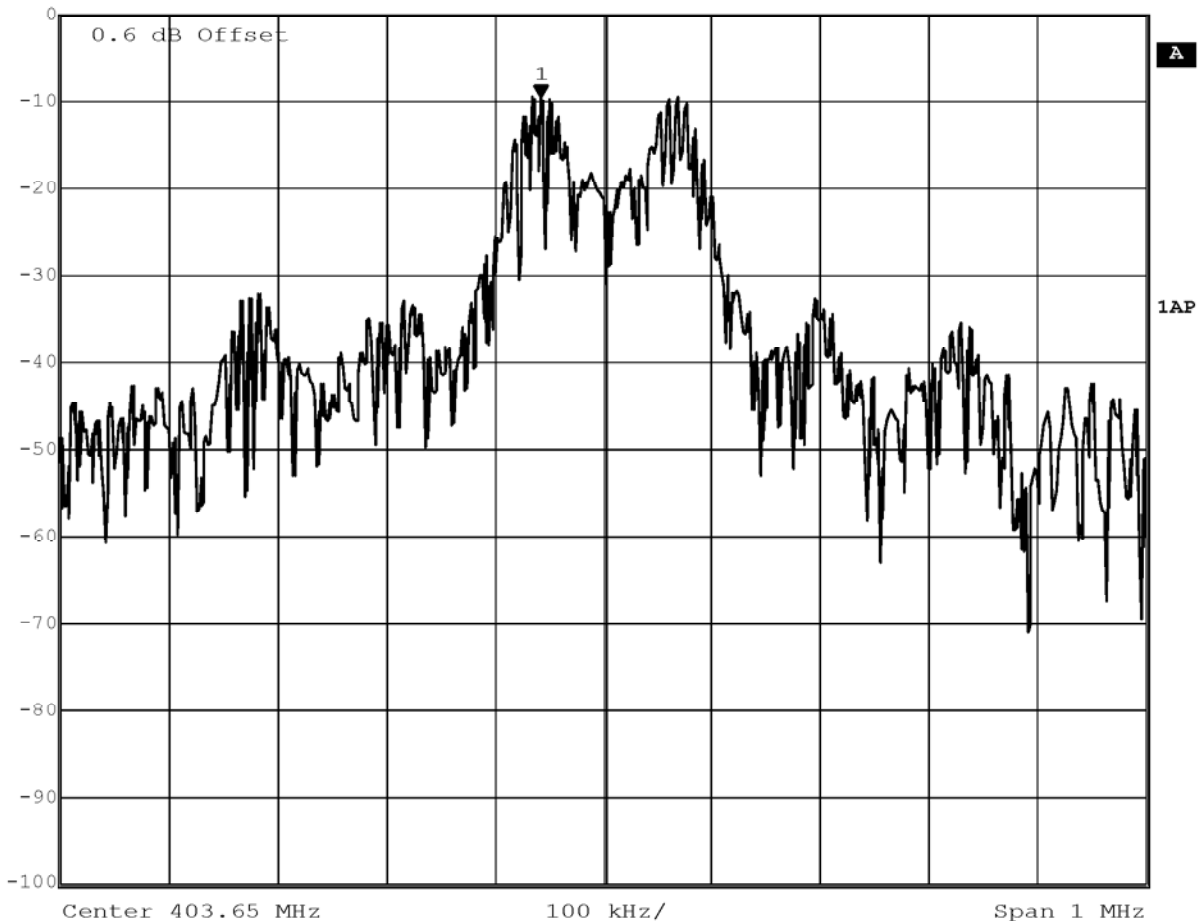
Date: 3.FEB.2006 10:33:27

Measurement diagram

FCC Part 95 .628 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Frequency Error

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.628 e / EN 301 839-1 8.1
Test Case	Frequency Error (signal count function of analyzer)
Comment 1	f: 403.584 MHz
Comment 2	Limit +/-100 ppm (+/-40.36KHz)

	Marker 1 [T1 CNT]	RBW	20 kHz	RF Att	20 dB
	Ref Lvl	-9.52 dBm	VBW	20 kHz	
	0 dBm	403.584032 MHz	SWT	7.5 ms	Unit dBm




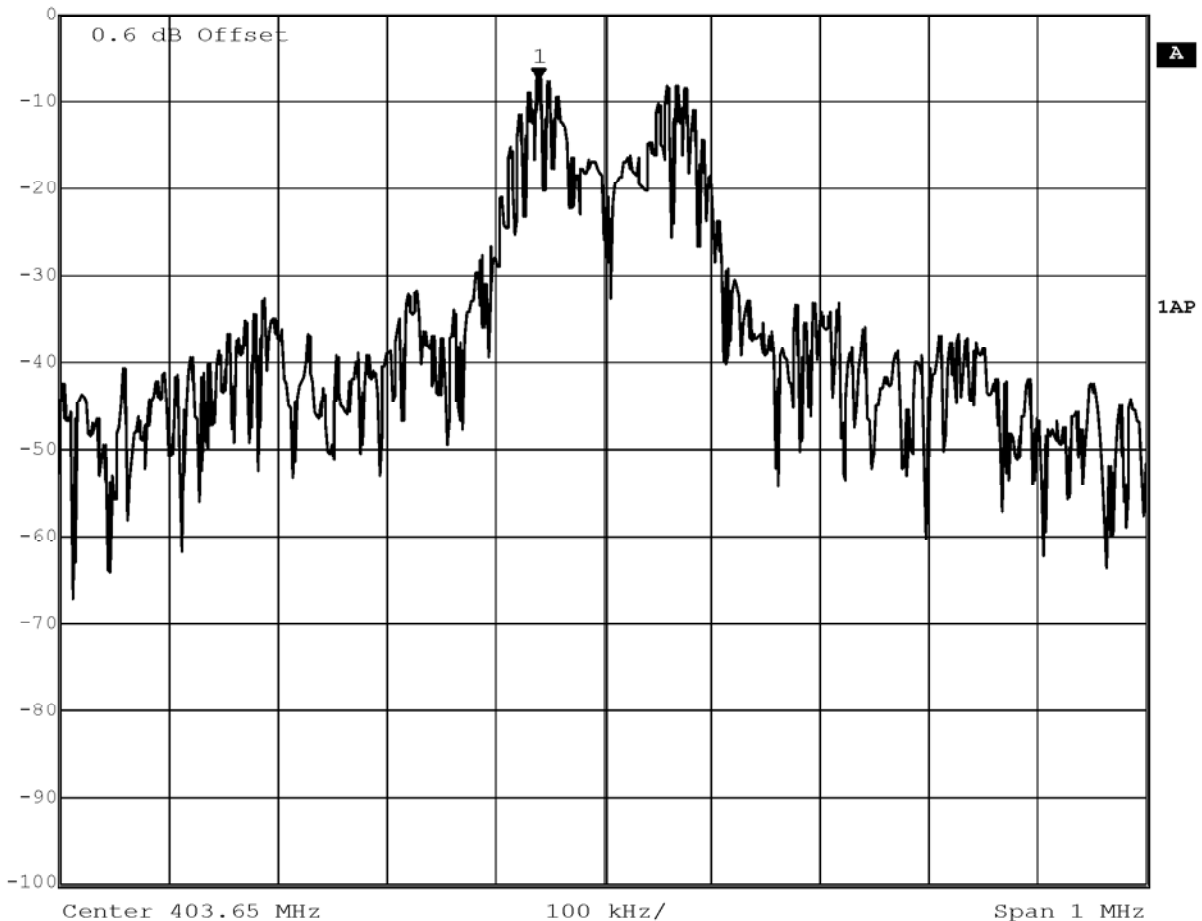
Date: 3.FEB.2006 10:17:47

Measurement diagram

FCC Part 95 .628 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Frequency Error

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.628 e / EN 301 839-1 8.1
Test Case	Frequency Error (signal count function of analyzer)
Comment 1	f: 403.585 MHz
Comment 2	Limit +/-100 ppm (+/-40.36KHz)

	Marker 1 [T1 CNT]	RBW	20 kHz	RF Att	20 dB
	Ref Lvl	-7.54 dBm	VBW	20 kHz	
	0 dBm	403.584657 MHz	SWT	7.5 ms	Unit dBm




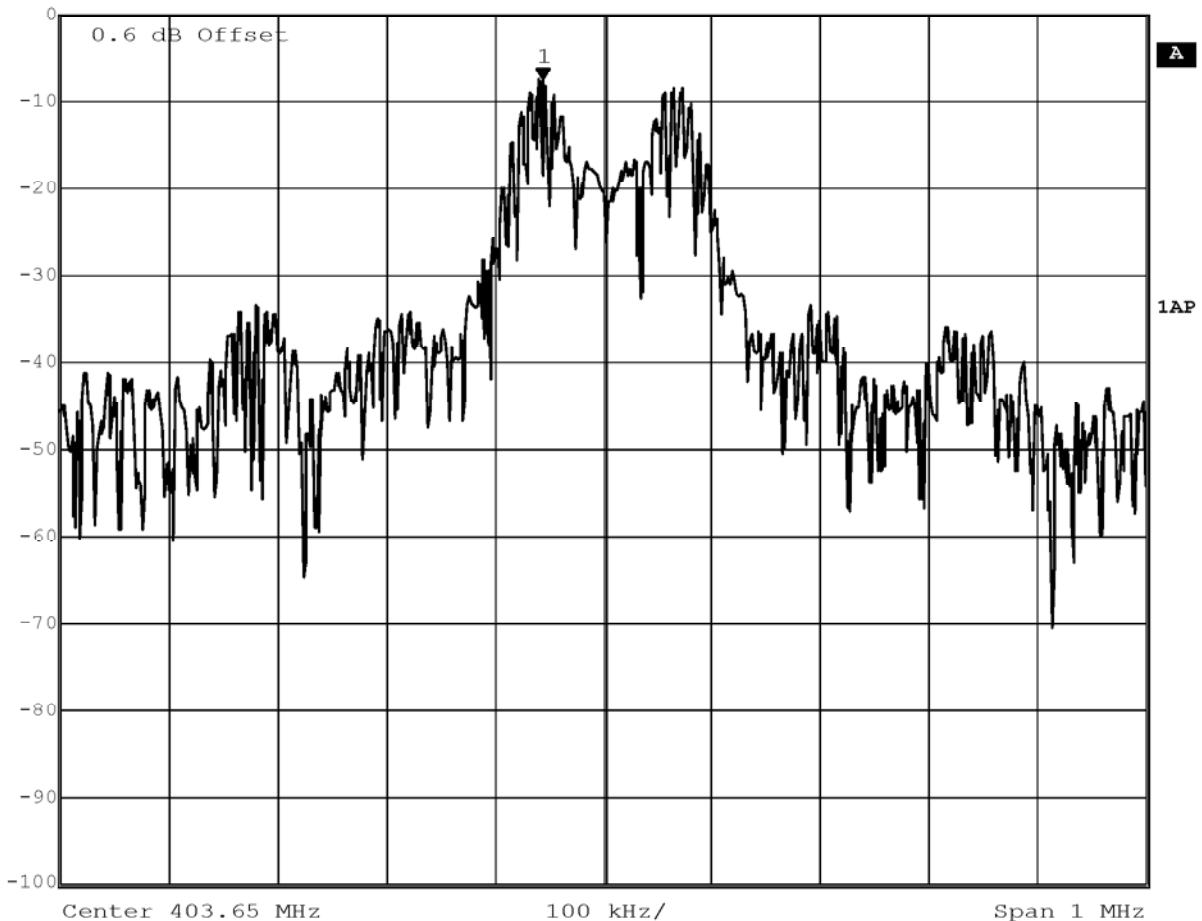
Date: 3.FEB.2006 11:27:33

Measurement diagram

FCC Part 95 .628 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Frequency Error

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.628 e / EN 301 839-1 8.1
Test Case	Frequency Error (signal count function of analyzer)
Comment 1	f: 403.601 MHz
Comment 2	Limit +/-100 ppm (+/-40.36KHz)

	Marker 1 [T1 CNT]	RBW	20 kHz	RF Att	20 dB
	Ref Lvl	-7.66 dBm	VBW	20 kHz	
	0 dBm	403.600703 MHz	SWT	7.5 ms	Unit dBm



Date: 3.FEB.2006 11:36:34

Measurement diagram

Annex

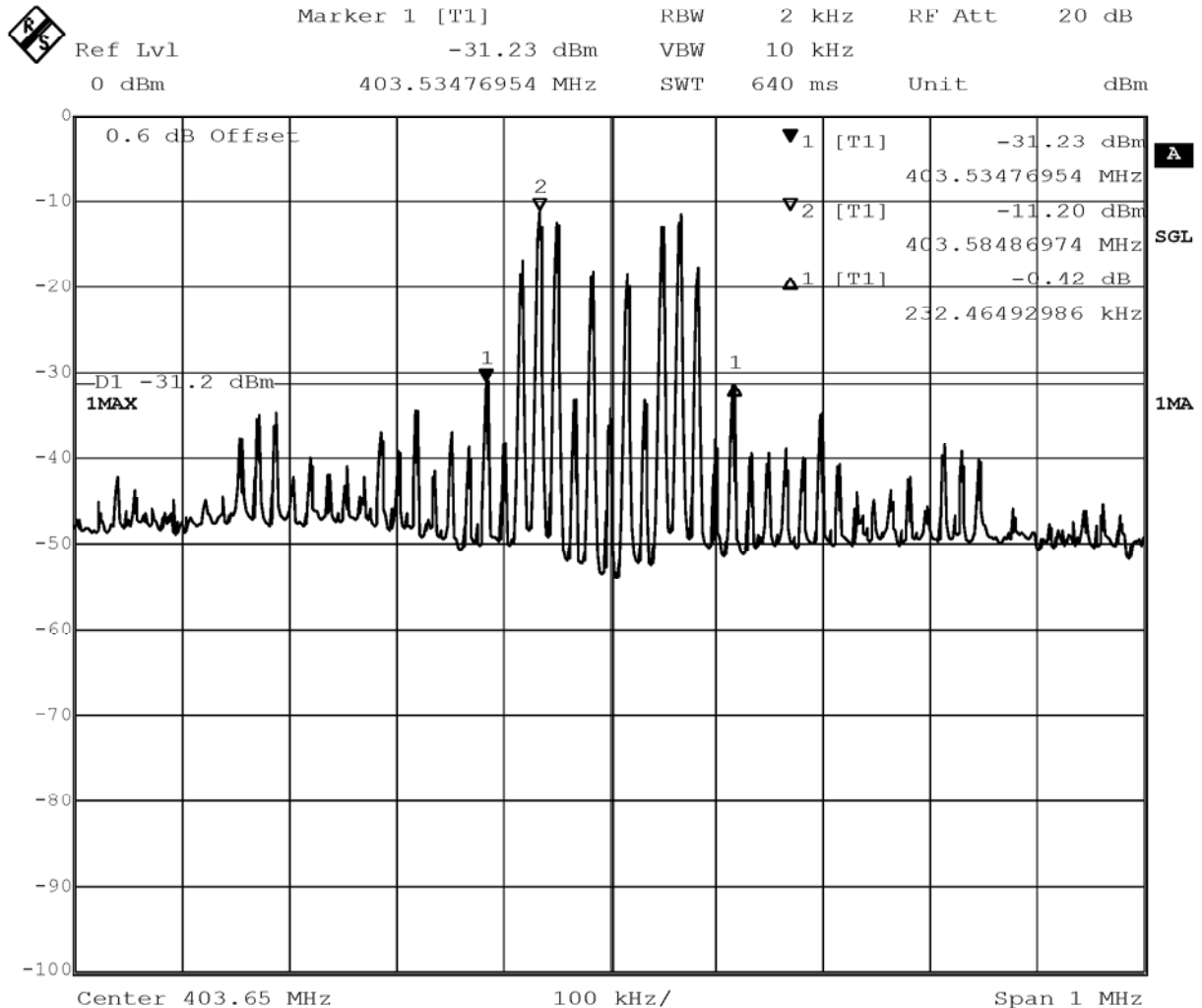
Measurement diagrams "20dB Emission bandwidth"

Registration number: GOM20602-0197-T-47

ELECTRONIC TECHNOLOGY SYSTEMS DR. GENZ GMBH
STORKOWER STRASSE 38c, D-15526 REICHENWALDE B. BERLIN

FCC Part 95.633 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Emission bandwidth

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	37°C / Unom: 3 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.633 e / EN 301 839-1 8.2
Test Case	20 dB Emission bandwidth
Comment 1	f high-low Bandwidth: 232.465 KHz
Comment 2	Limit 300KHz

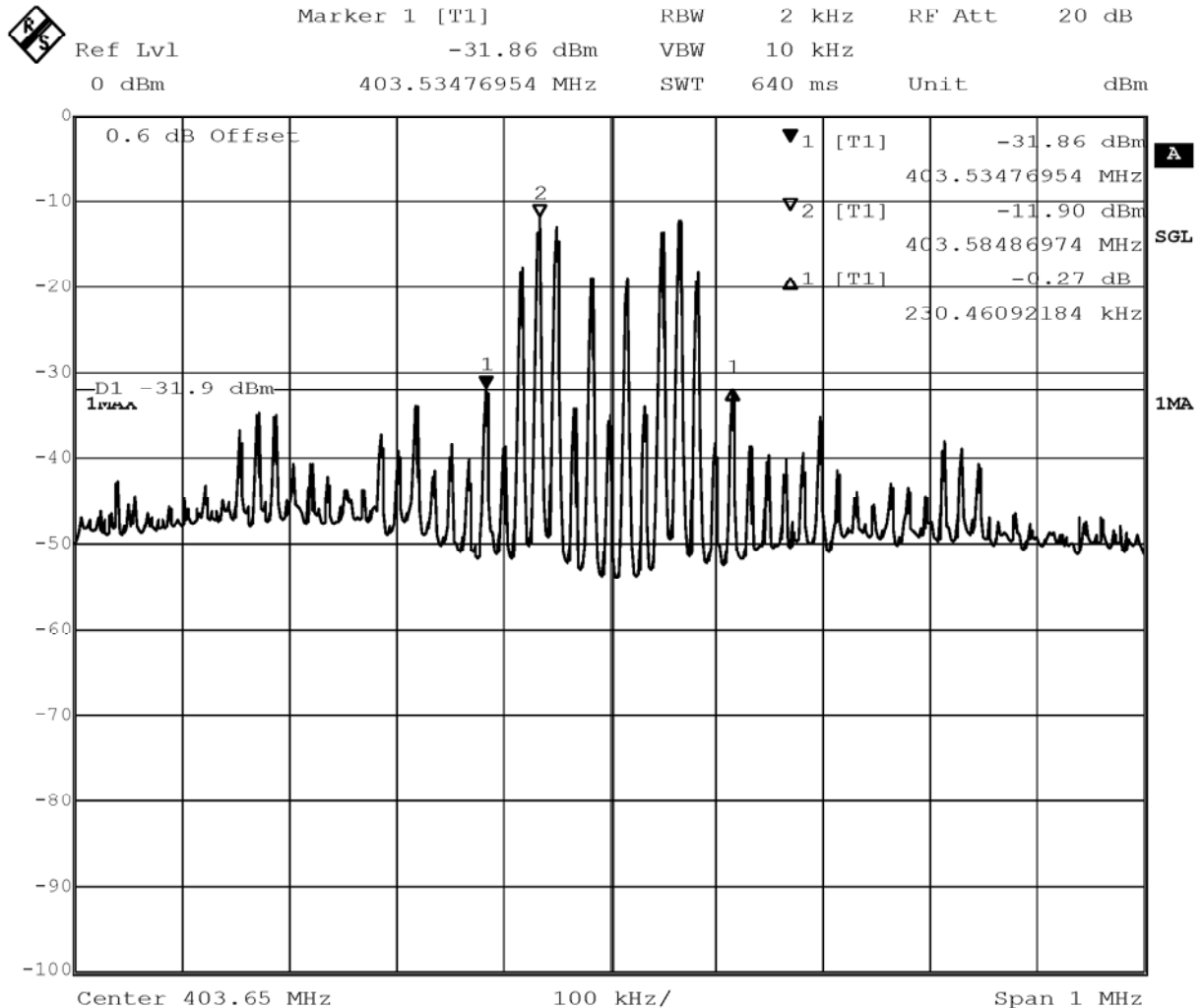


Date: 3.FEB.2006 09:46:58

Measurement diagram

FCC Part 95 .633 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Emission bandwidth

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.633 e / EN 301 839-1 8.2
Test Case	20 dB Emission bandwidth
Comment 1	f high-low Bandwidth: 230.461 KHz
Comment 2	Limit 300KHz

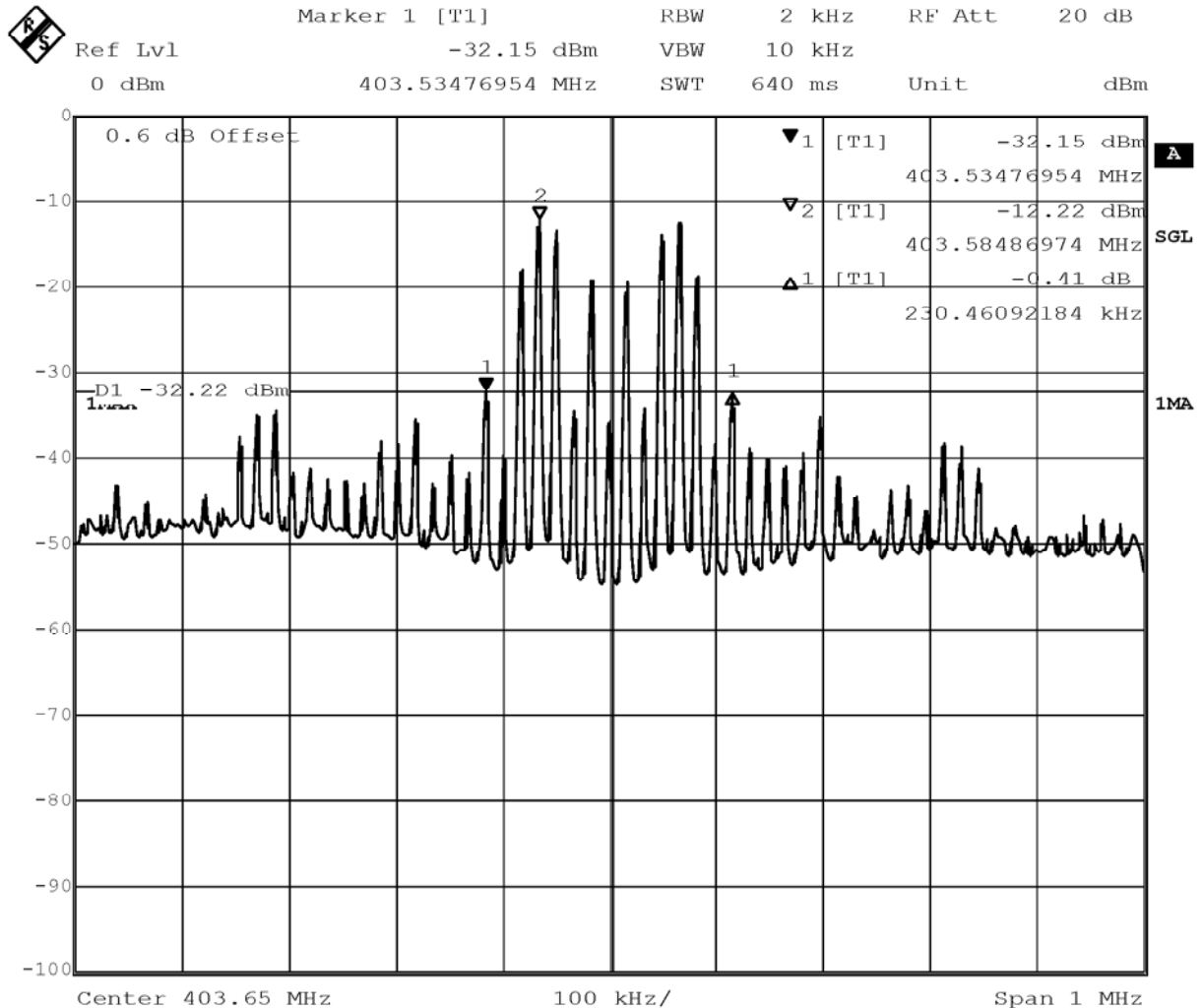


Date: 3.FEB.2006 10:38:16

Measurement diagram

FCC Part 95 .633 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Emission bandwidth

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.633 e / EN 301 839-1 8.2
Test Case	20 dB Emission bandwidth
Comment 1	f high-low Bandwidth: 230.461 KHz
Comment 2	Limit 300KHz

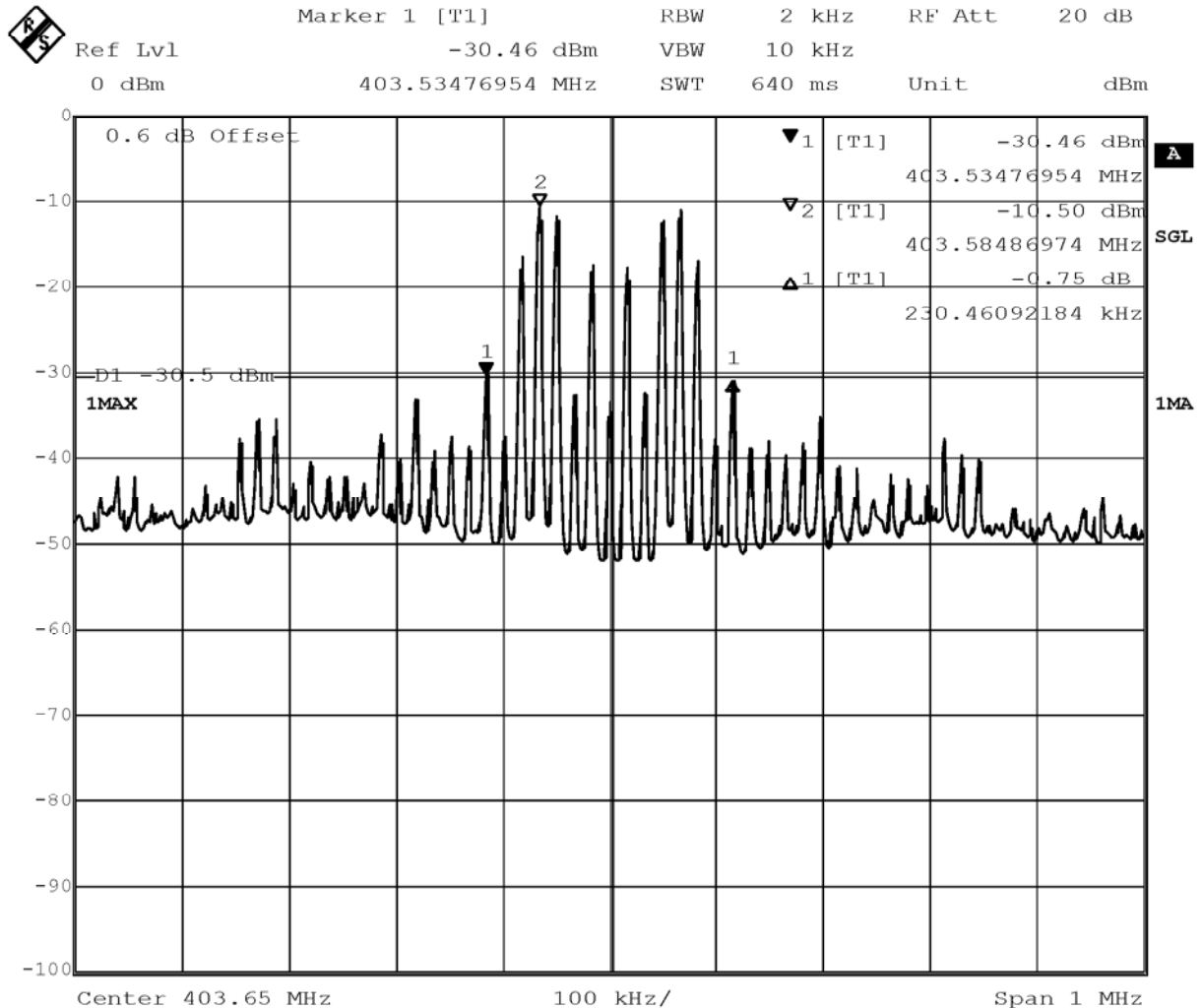


Date: 3.FEB.2006 10:24:17

Measurement diagram

FCC Part 95 .633 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Emission bandwidth

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.633 e / EN 301 839-1 8.2
Test Case	20 dB Emission bandwidth
Comment 1	f high-low Bandwidth: 230.461 KHz
Comment 2	Limit 300KHz

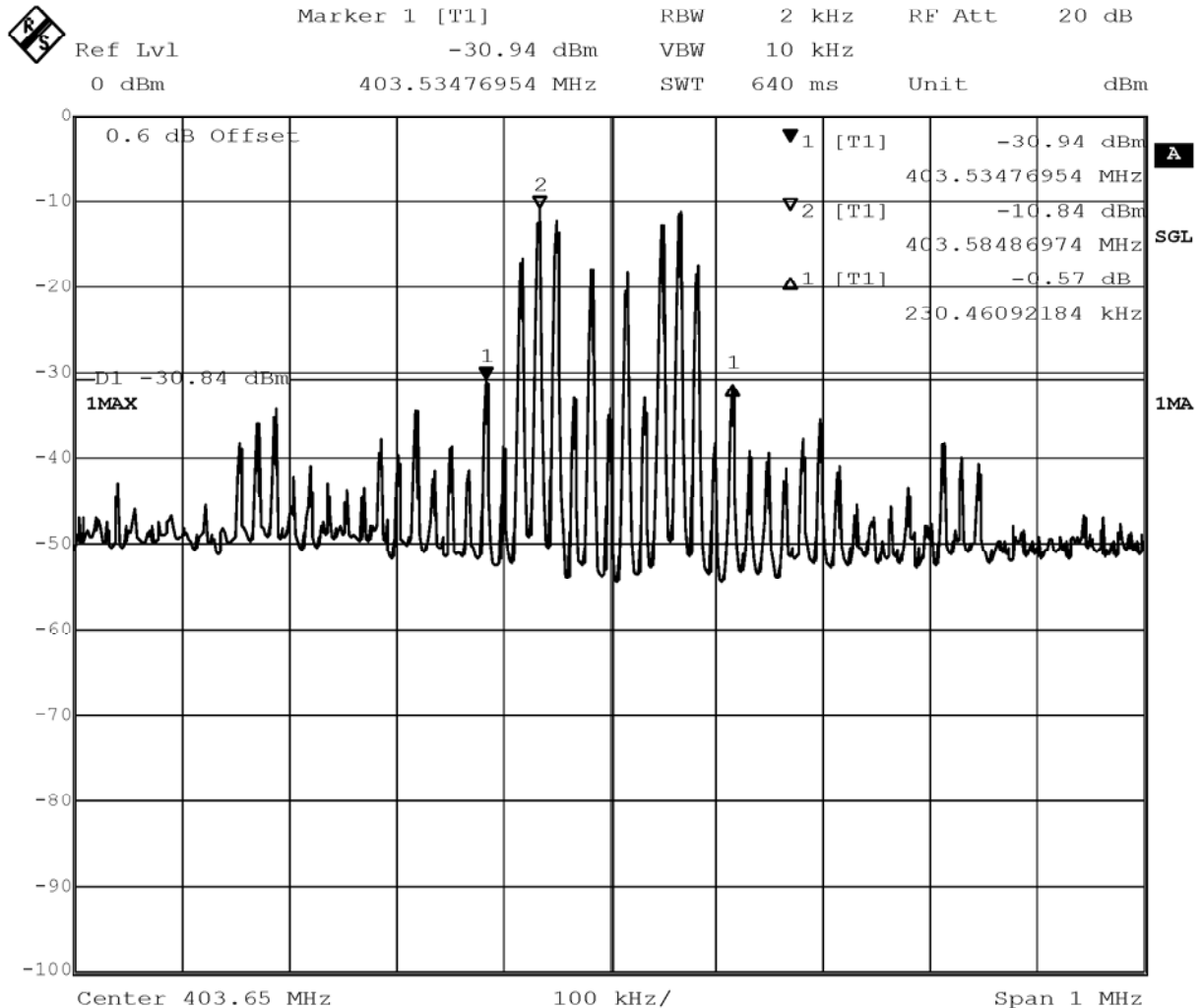


Date: 3.FEB.2006 11:24:08

Measurement diagram

FCC Part 95.633 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Emission bandwidth

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.633 e / EN 301 839-1 8.2
Test Case	20 dB Emission bandwidth
Comment 1	f high-low Bandwidth: 230.461 KHz
Comment 2	Limit 300KHz



Date: 3.FEB.2006 11:44:22

Measurement diagram

Annex

Measurement diagrams "Radiated Power under normal conditions"

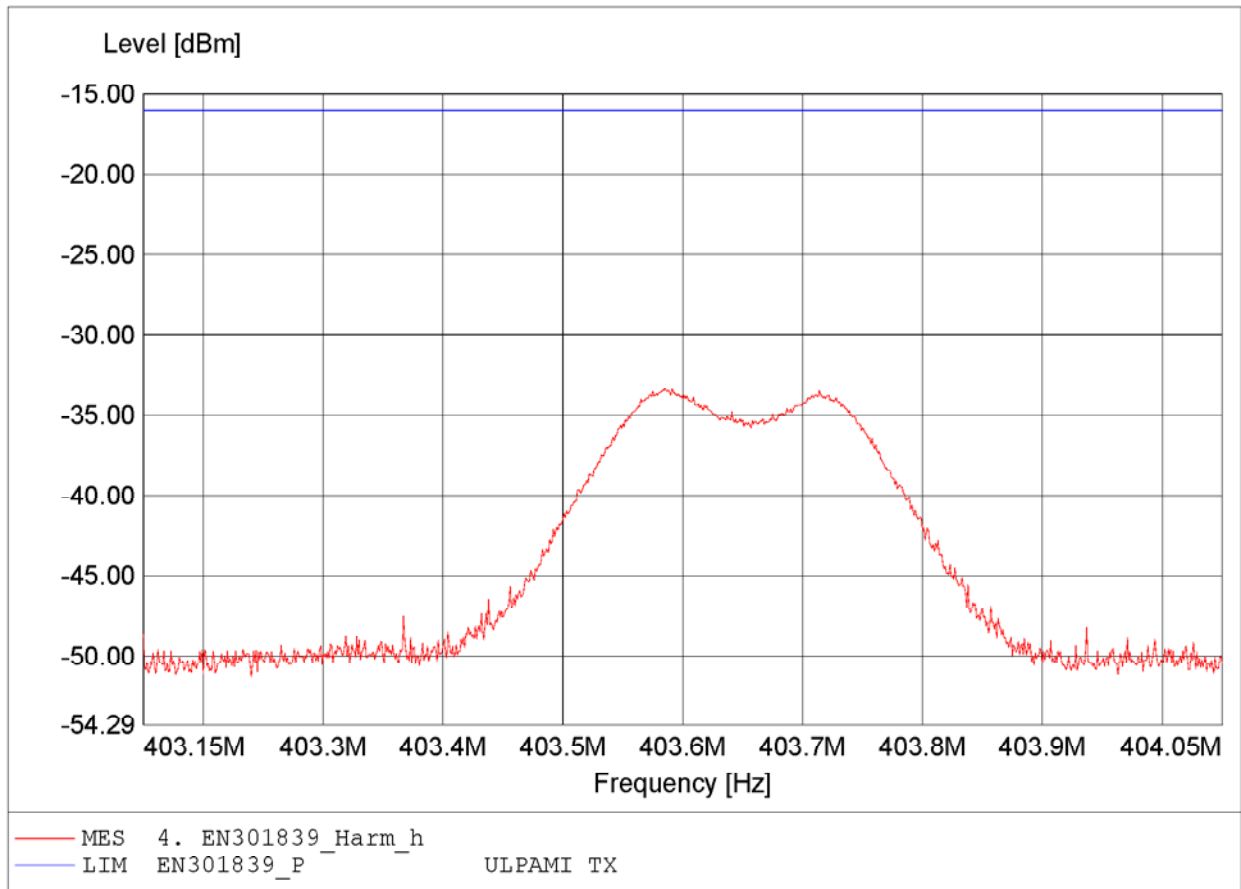
Registration number: GOM20602-0197-T-47

ELECTRONIC TECHNOLOGY SYSTEMS DR. GENZ GMBH
STORKOWER STRASSE 38c, D-15526 REICHENWALDE B. BERLIN

Radiated power under normal conditions

ULPAMI in accordance to the EN 301 839

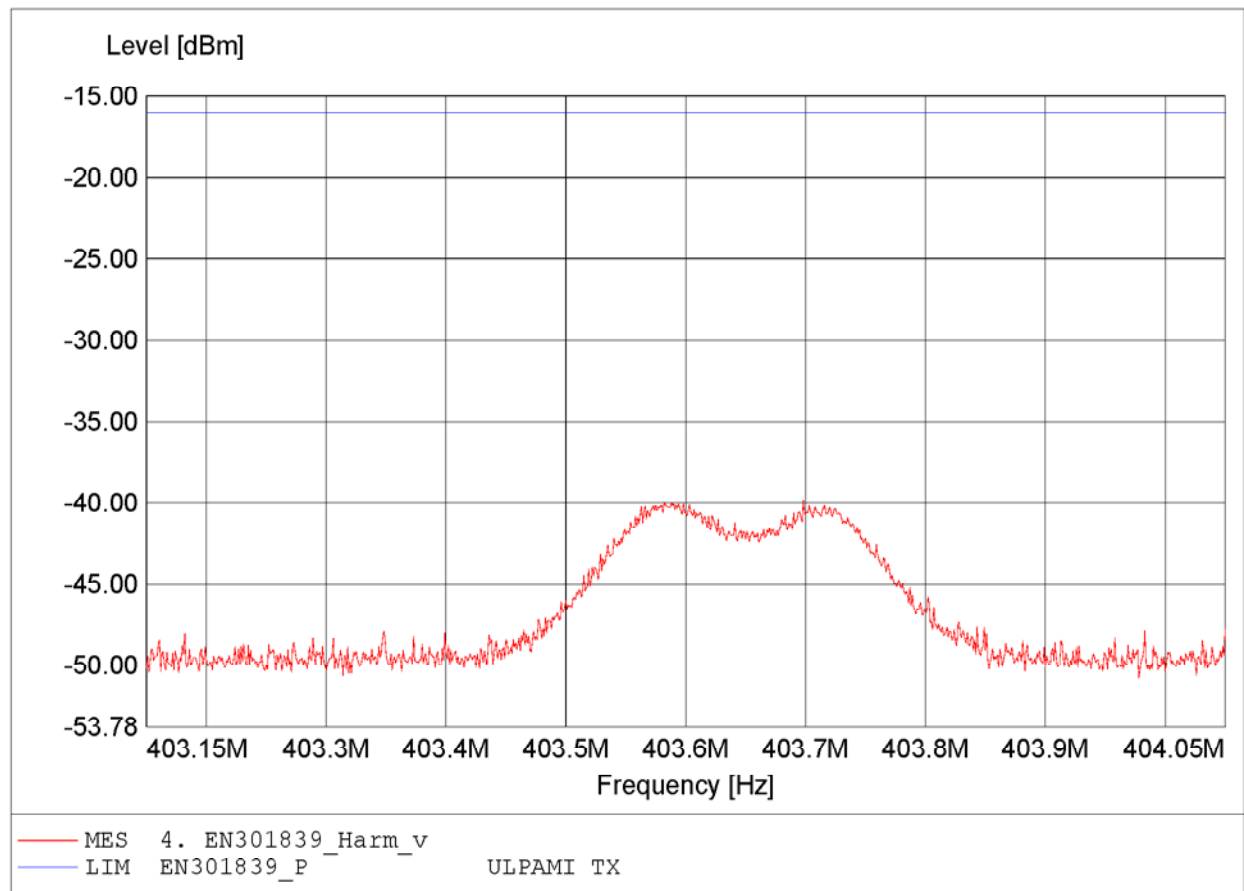
Approval Holder: BIOTRONIK GmbH & Co. KG
EUT: Implantable Cardioverter Defibrillator with HomeMonitoring
Model: LUMAX / 403.65MHz / Pmax
Test Site / Operator: ETS / Mr. Handrik
Temperature/ Voltage: 23°C / Unom: 3.0 V DC (battery)
Test Specification: Fully anechoic chamber / mode: Tx
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:403.585MHz Pmax:-33.36dBm RBW: 10 MHz



Radiated power under normal conditions

ULPAMI in accordance to the EN 301 839

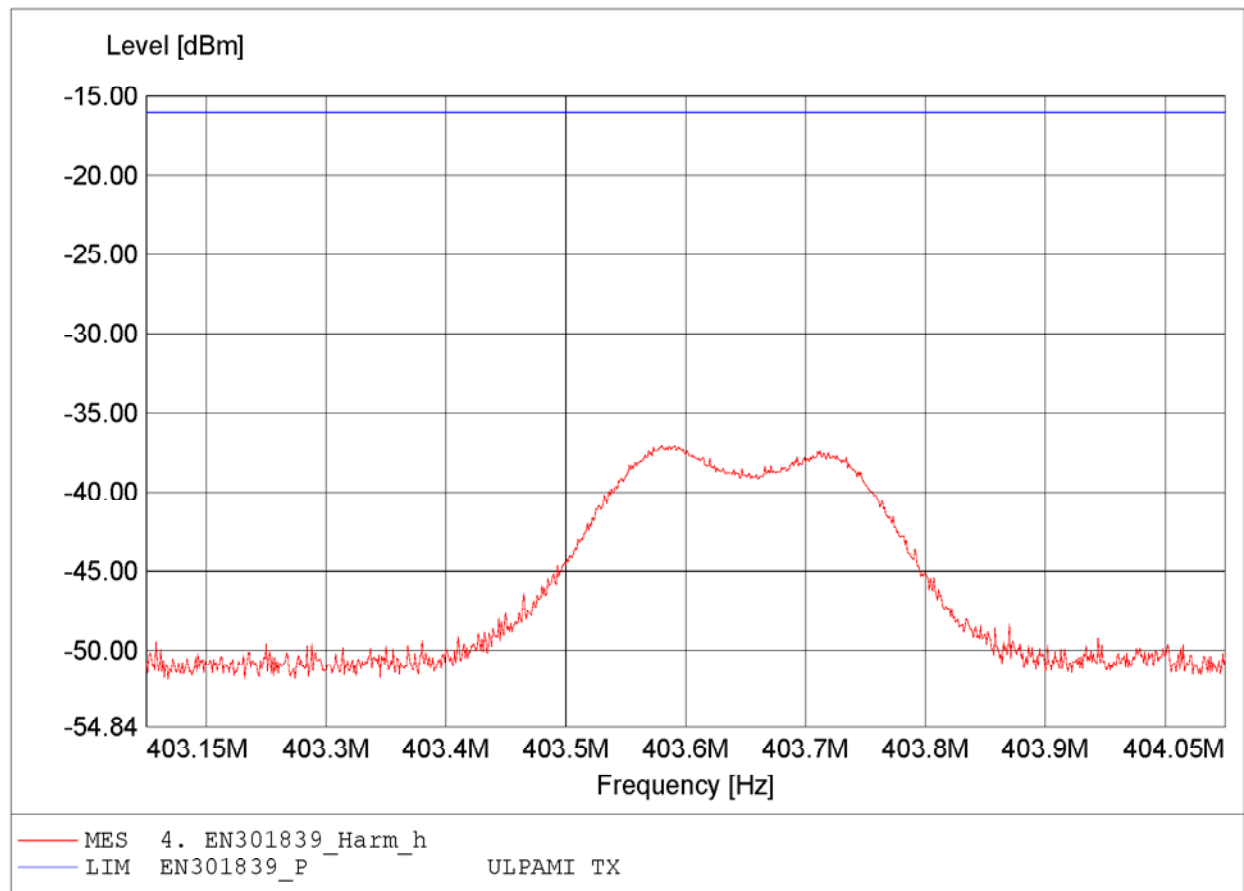
Approval Holder: BIOTRONIK GmbH & Co. KG
EUT: Implantable Cardioverter Defibrillator with HomeMonitoring
Model: LUMAX / 403.65MHz / Pmax
Test Site / Operator: ETS / Mr. Handrik
Temperature/ Voltage: 23°C / Unom: 3.0 V DC (battery)
Test Specification: Fully anechoic chamber / mode: Tx
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:403.698MHz Pmax:-39.83dBm RBW: 10 MHz



Radiated power under normal conditions

ULPAMI in accordance to the EN 301 839

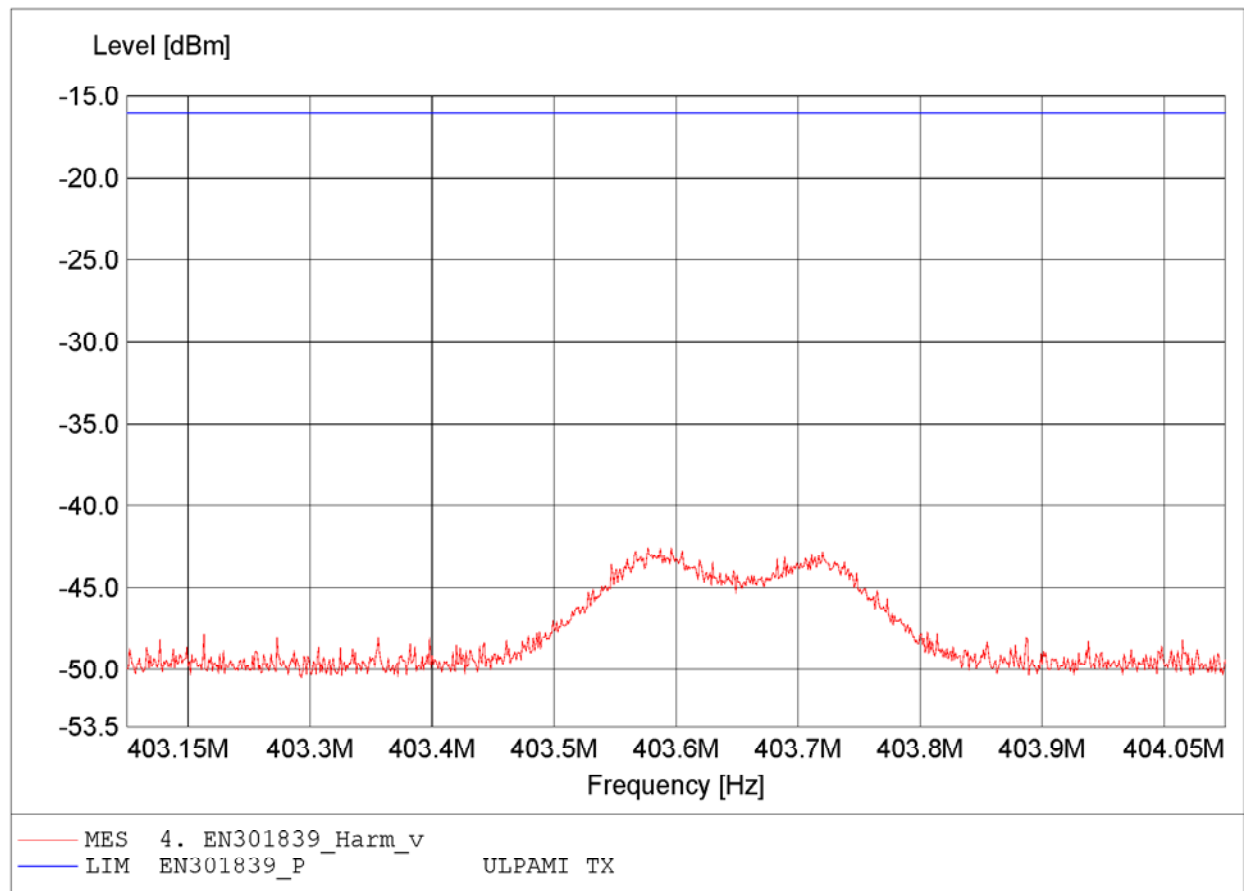
Approval Holder: BIOTRONIK GmbH & Co. KG
EUT: Implantable Cardioverter Defibrillator with HomeMonitoring
Model: LUMAX / 403.65MHz / Pmin
Test Site / Operator: ETS / Mr. Handrik
Temperature/ Voltage: 23°C / Unom: 3.0 V DC (battery)
Test Specification: Fully anechoic chamber / mode: Tx
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:403.580MHz Pmax:-37.09dBm RBW: 10 MHz



Radiated power under normal conditions

ULPAMI in accordance to the EN 301 839

Approval Holder: BIOTRONIK GmbH & Co. KG
EUT: Implantable Cardioverter Defibrillator with HomeMonitoring
Model: LUMAX / 403.65MHz / Pmin
Test Site / Operator: ETS / Mr. Handrik
Temperature/ Voltage: 23°C / Unom: 3.0 V DC (battery)
Test Specification: Fully anechoic chamber / mode: Tx
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:403.577MHz Pmax:-42.53dBm RBW: 10 MHz



Annex

Measurement diagrams “Conducted Power under normal conditions and extrem conditions”

Registration number: GOM20602-0197-T-47

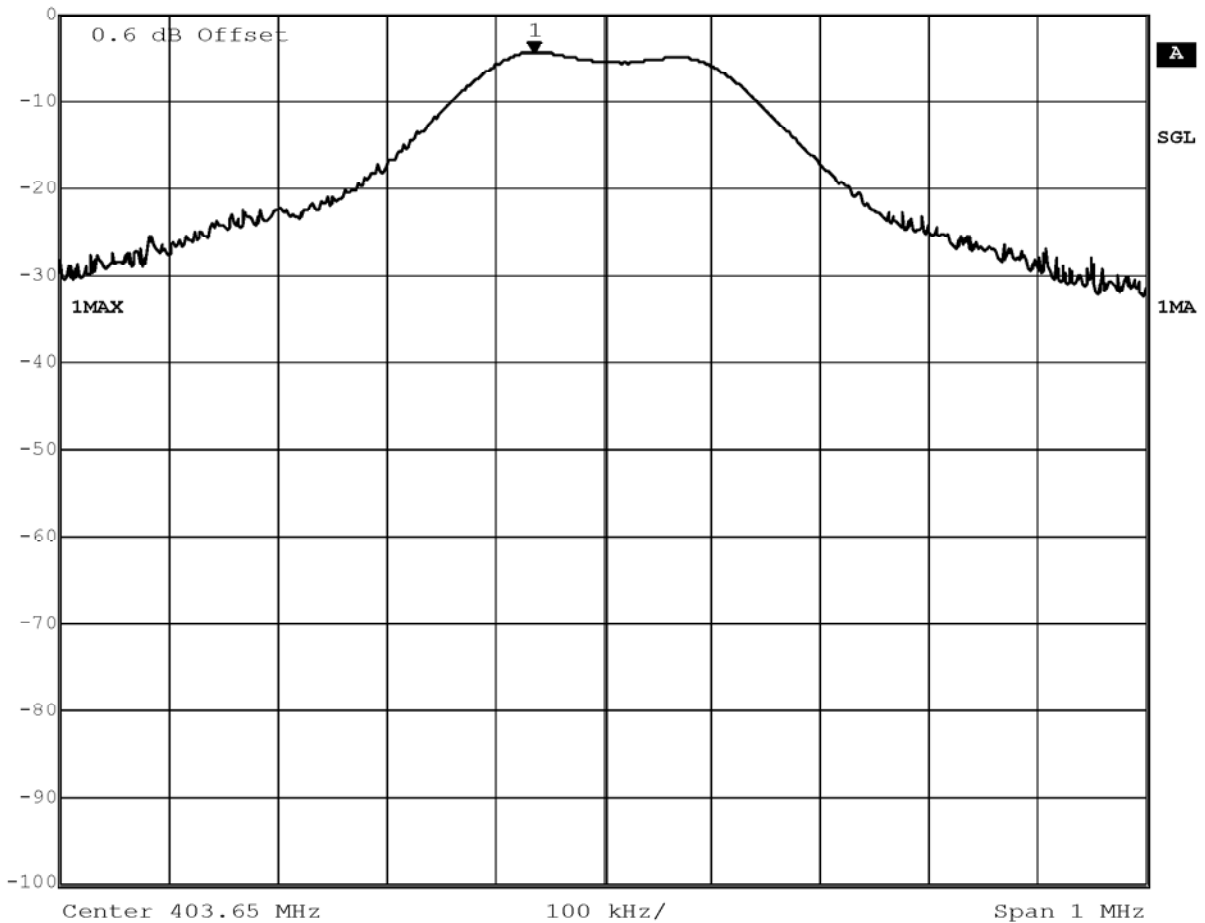
ELECTRONIC TECHNOLOGY SYSTEMS DR. GENZ GMBH
STORKOWER STRASSE 38c, D-15526 REICHENWALDE B. BERLIN

FCC Part 95.635 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Carrier power conducted (dBm)

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	37°C / Unom: 3 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.635 / EN 301 839
Test Case	-
Comment 1	-
Comment 2	-



Ref Lvl	0 dBm	Marker 1 [T1]	403.58687375 MHz	RBW	100 kHz	RF Att	20 dB
				VBW	1 MHz		
				SWT	5 ms	Unit	dBm



Date: 3.FEB.2006 09:27:09

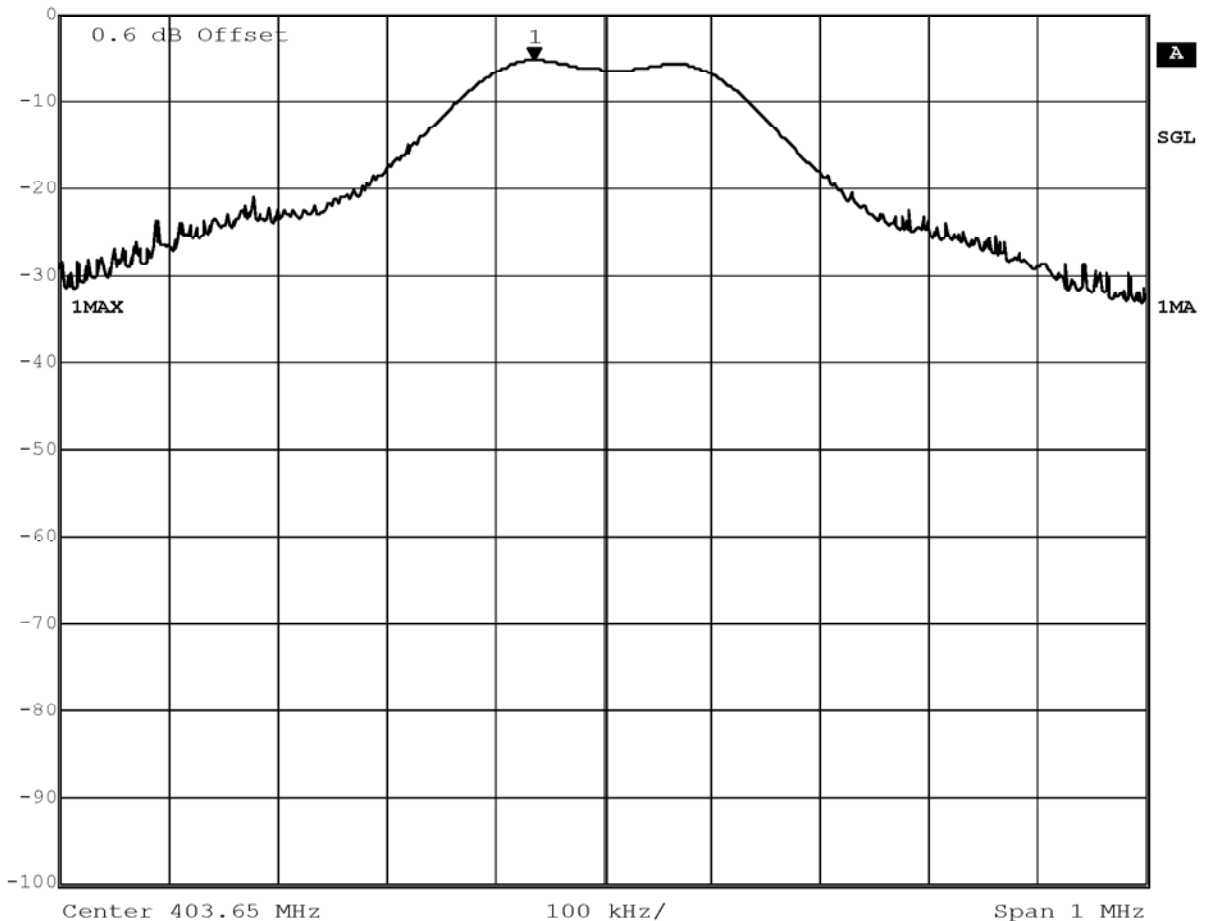
Measurement diagram



FCC Part 95.635 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Carrier power conducted (dBm)

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.635 / EN 301 839
Test Case	-
Comment 1	-
Comment 2	-

	Marker 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-5.40 dBm	VBW	1 MHz	
	0 dBm	403.58687375 MHz	SWT	5 ms	Unit dBm




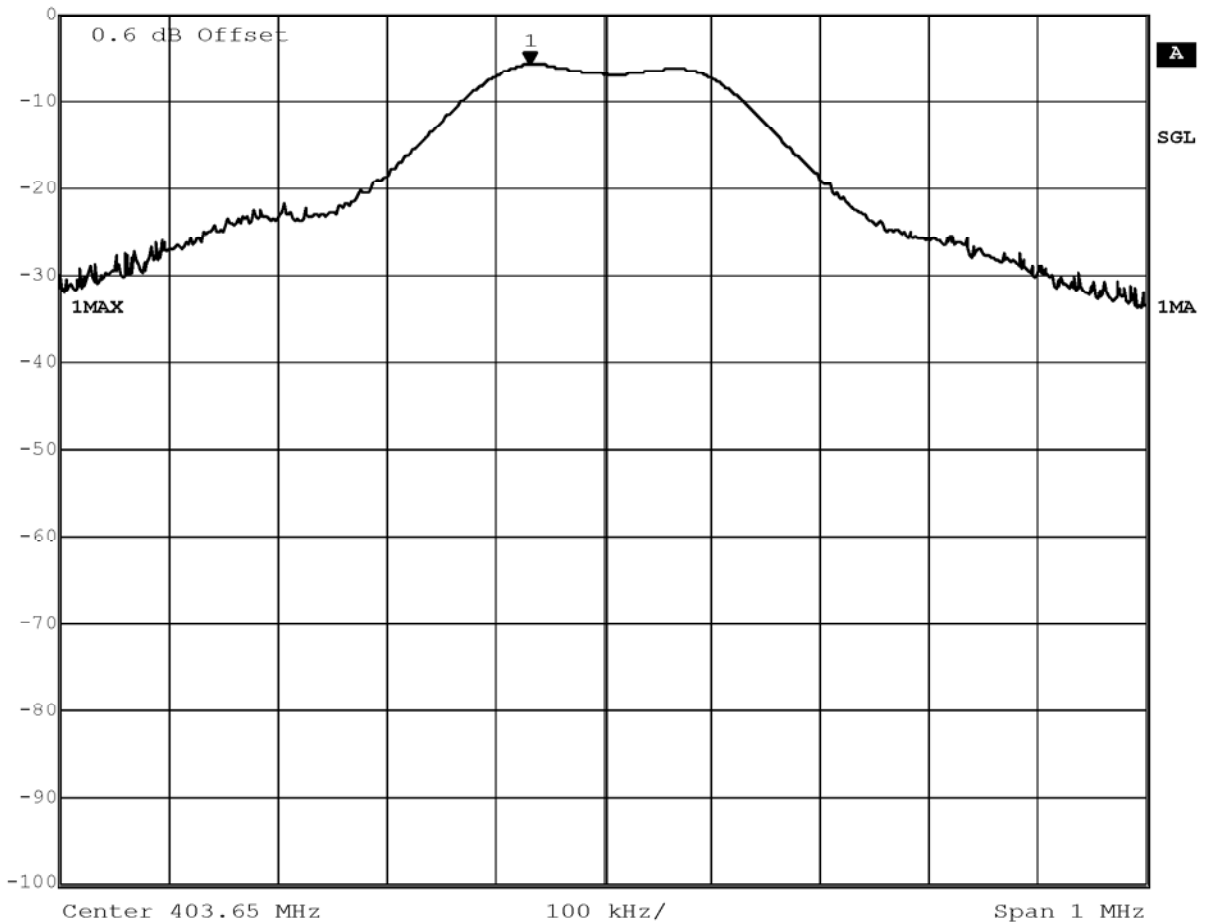
Date: 3.FEB.2006 10:29:37

Measurement diagram

FCC Part 95.635 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
 Carrier power conducted (dBm)

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	45°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.635 / EN 301 839
Test Case	-
Comment 1	-
Comment 2	-

	Marker 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-5.90 dBm	VBW	1 MHz	
	0 dBm	403.58286573 MHz	SWT	5 ms	Unit dBm




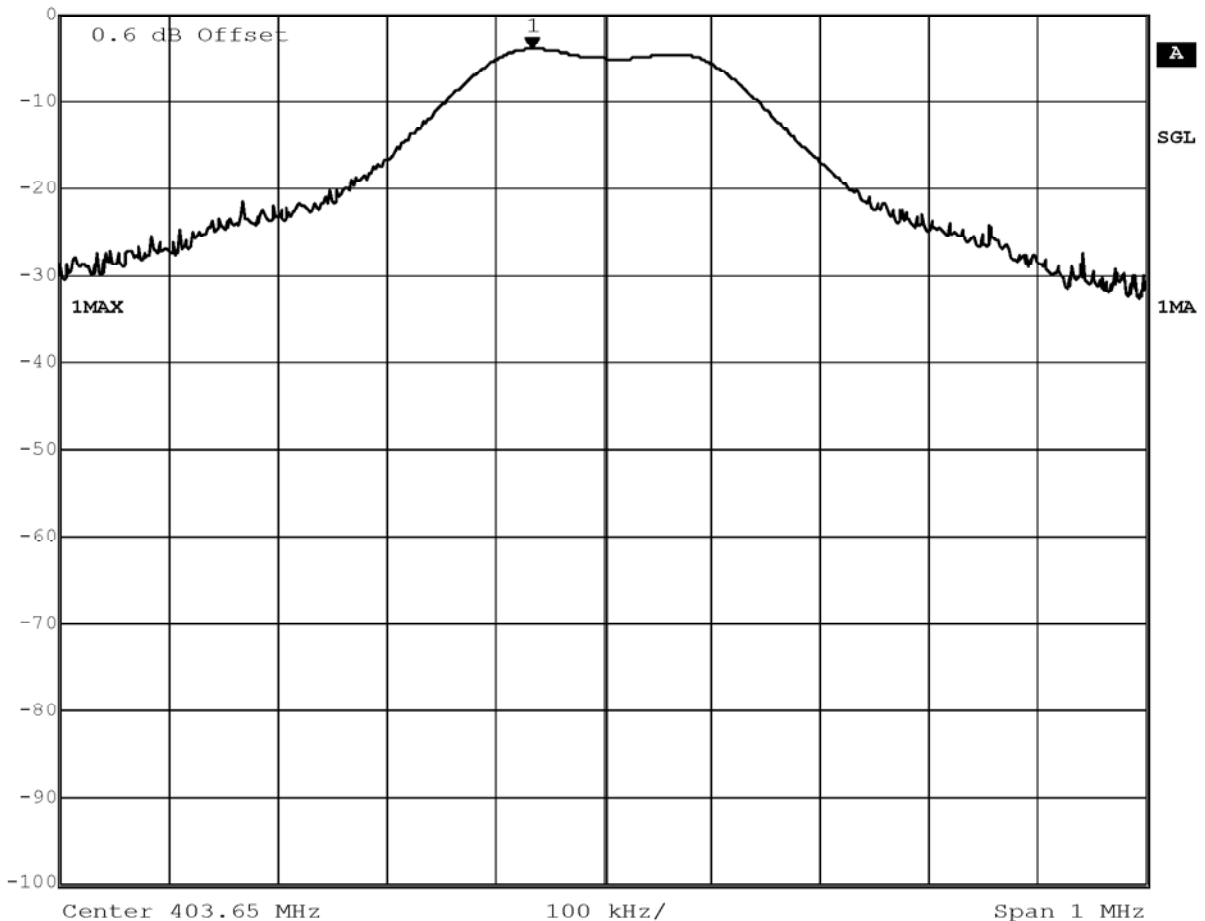
Date: 3.FEB.2006 10:27:32

Measurement diagram

FCC Part 95.635 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Carrier power conducted (dBm)

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umax: 3.2 VDC
Test Site / Operator	ETS
Test Specification	FCC Part 95.635 / EN 301 839
Test Case	-
Comment 1	-
Comment 2	-

	Marker 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-4.13 dBm	VBW	1 MHz	
	0 dBm	403.58486974 MHz	SWT	5 ms	Unit dBm




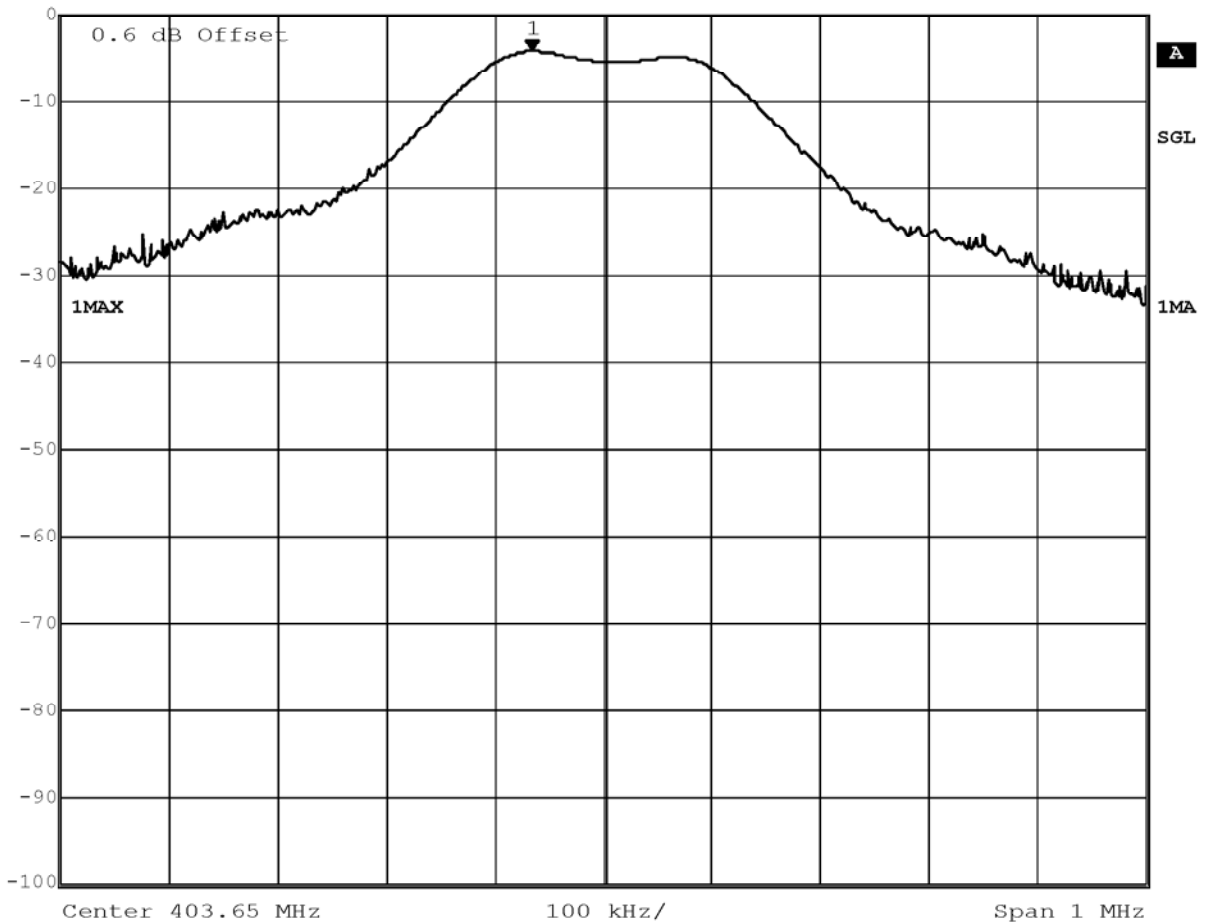
Date: 3.FEB.2006 11:29:48

Measurement diagram

FCC Part 95.635 (09.12.2005) / EN 301 839 v1.1.1 (2002-06)
Carrier power conducted (dBm)

EUT	Implantable Cardioverter Defibrillator
Model	LUMAX
Approval Holder	Biotronik GmbH
Temperature / Voltage	25°C / Umin: 2.5 V DC
Test Site / Operator	ETS
Test Specification	FCC Part 95.635 / EN 301 839
Test Case	-
Comment 1	-
Comment 2	-

	Marker 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-4.46 dBm	VBW	1 MHz	
	0 dBm	403.58486974 MHz	SWT	5 ms	Unit dBm



Date: 3.FEB.2006 11:34:39

Measurement diagram

Annex

Measurement diagrams "Spurious Radiation mode: TX

Registration number: GOM20602-0197-T-47

ELECTRONIC TECHNOLOGY SYSTEMS DR. GENZ GMBH
STORKOWER STRASSE 38c, D-15526 REICHENWALDE B. BERLIN

Spurious radiation

ULPAMI in accordance to the EN 301 839

Approval Holder: BIOTRONIK GmbH & Co. KG
EUT: Implantable Cardioverter Defibrillator with HomeMonitoring
Model: LUMAX / 403.65MHz / Pmin
Test Site / Operator: ETS / Mr. Handrik
Temperature/ Voltage: 23°C / Unom: 3.0 V DC (battery)
Test Specification: Fully anechoic chamber / mode: Tx
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:190.556MHz Pmax:-70.37dBm RBW: 10/100 kHz

