bergoz

Instrumentation

Certificate of Calibration

Instrument type :	**Fast Current Transformer**
Serial number :	**# 2388**
Options installed :	**10:1 turns ratio**
Calibration date :	**October 20, 2010**

At the time of manufacture, this certifies that the above instrument was calibrated in accordance with applicable Bergoz Instrumentation procedures.

At periodic intervals, Bergoz Instrumentation measurement standards are calibrated by comparison to or measurement against transfer standards traceable to national standards, natural physical constants, consensus standards, or by-ratio type measurements using self-calibrating techniques.

National standards are administered by IRMM, the European Institute for Reference Materials and Measurements, NIST, the U.S National Institute of Standards and Technology or other national standards laboratories.

At the time of shipment, the referenced instrument met its published operating specifications within the operating specifications of the instrument and the standards.

Supportive documentation relative to traceability is on file and is available for examination upon request.

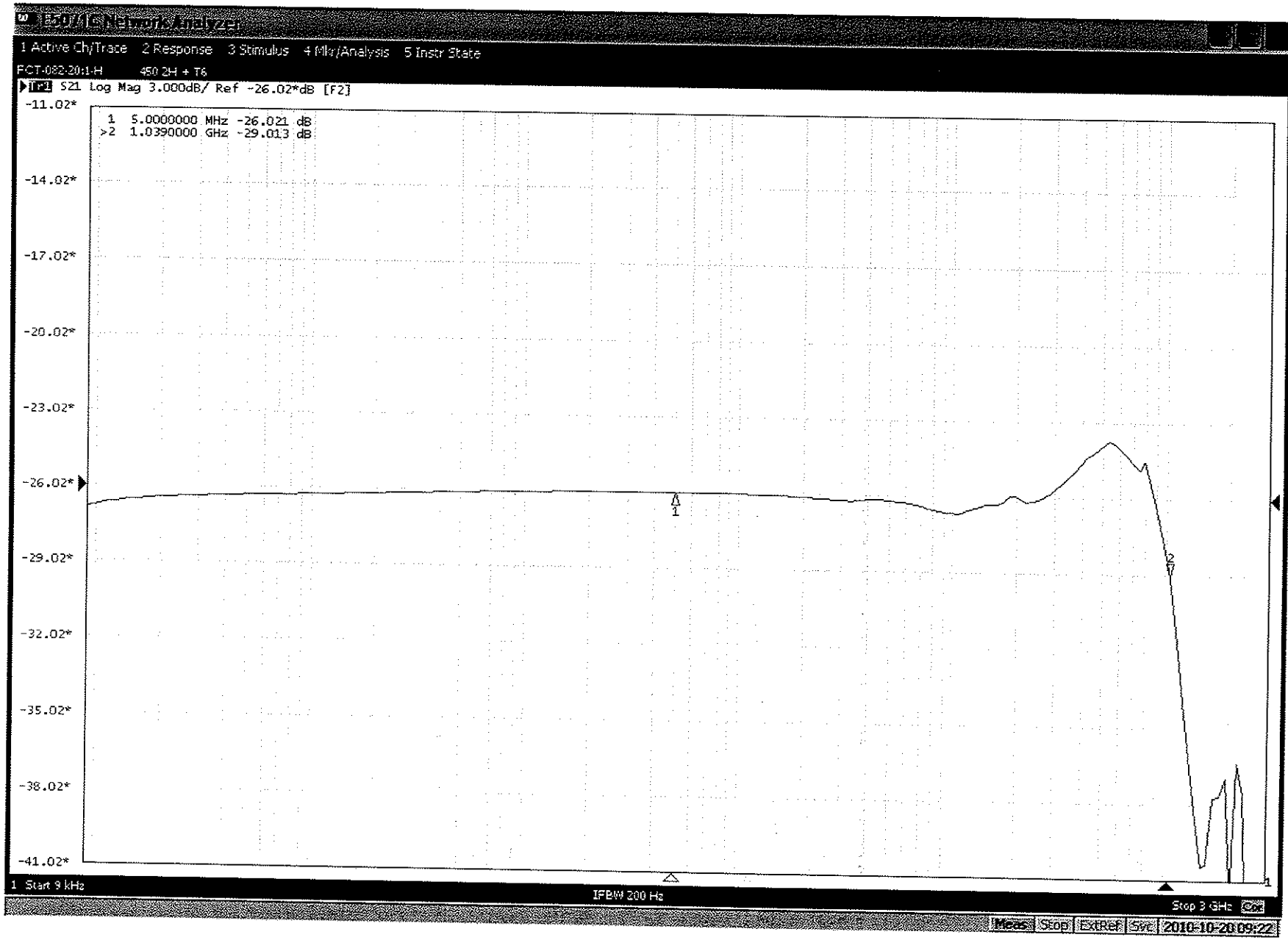
Hervé Bayle

Supervisor in charge

Attached documents:

High frequency response plot
Low frequency response plot
Pulse response plot
Differentiation plot
Residual gas analysis
Vacuum certificate

FCT 2



M
FCT-CF6"3/4
Sensor
2
I
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High fre
01630 St G
France
Tel: +33-4
Fax: +33-4
Instru

Risetime
0.35 / fhi

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0.35 / 1.0

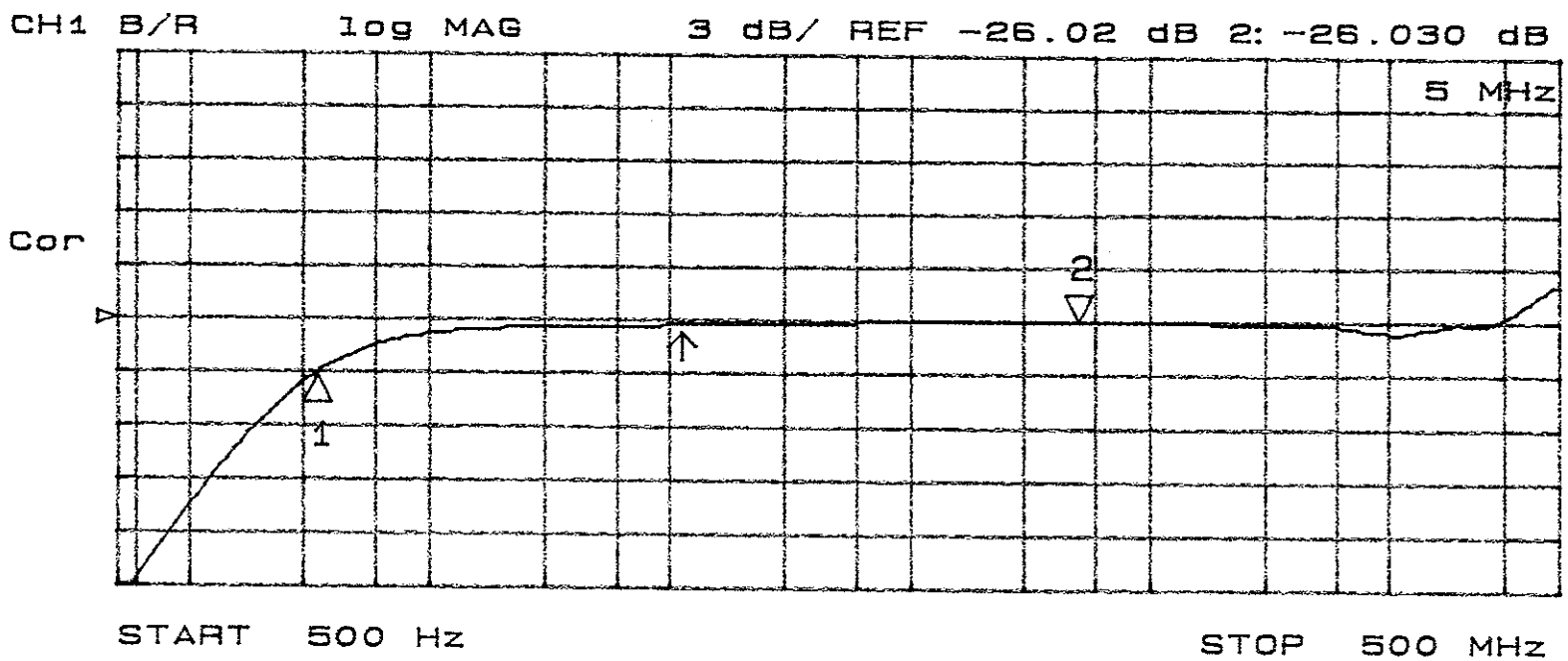
Risetime

Instrumen

HP E5071

9kHz-8GH

Network a



N	STIMULUS	val
1	3.353 281 kHz	-29.018 dB
2	5 MHz	-26.030 dB

Model:	FCT-CF6"3/4-60.4-
Sensor serial Nr.:	
Plot:	Low frequenc
Date:	Octobe

01630 St Genis-Pouilly,
France
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Fax: +33-450.426.643

Droop = $2\pi \times f$low (-3dB

Droop = $2\pi \times 3.35$ kHz

Droop = 2.1 %/µs

Instrument used:

HP8751A Network an

Model:	FCT-CF6"3/4-60.4-UHV-10 :1
Sensor serial Nr.:	2388
Plot:	Pulse response
Date:	October 20, 2010

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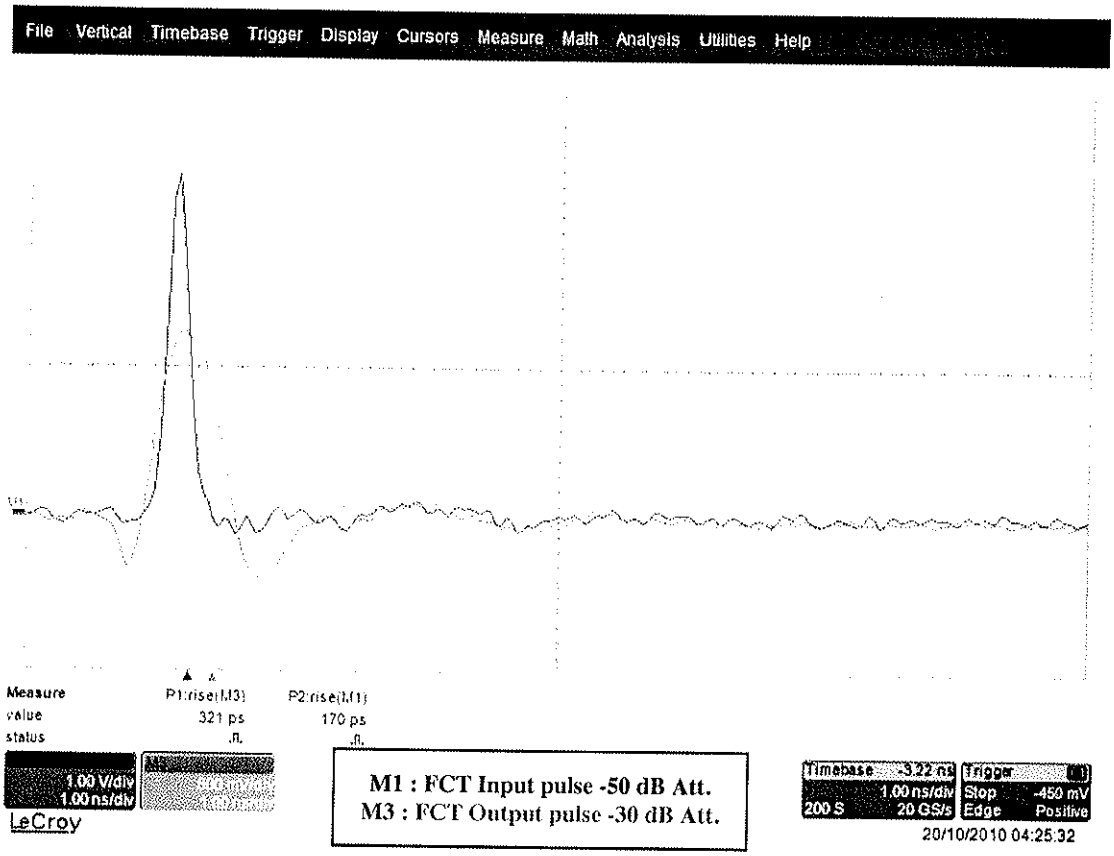

M1 : FCT Input pulse -50 dB Att.
M3 : FCT Output pulse -30 dB Att.

Instruments used :
- SDA11000 11GHz Oscilloscope
- Kentech CPS1/S Pulse Generator

FCT
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Model:	FCT-CF6"3/4-60.4-UHV-10 :1
Sensor serial Nr.:	2388
Plot:	Differenciation
Date:	October 20, 2010

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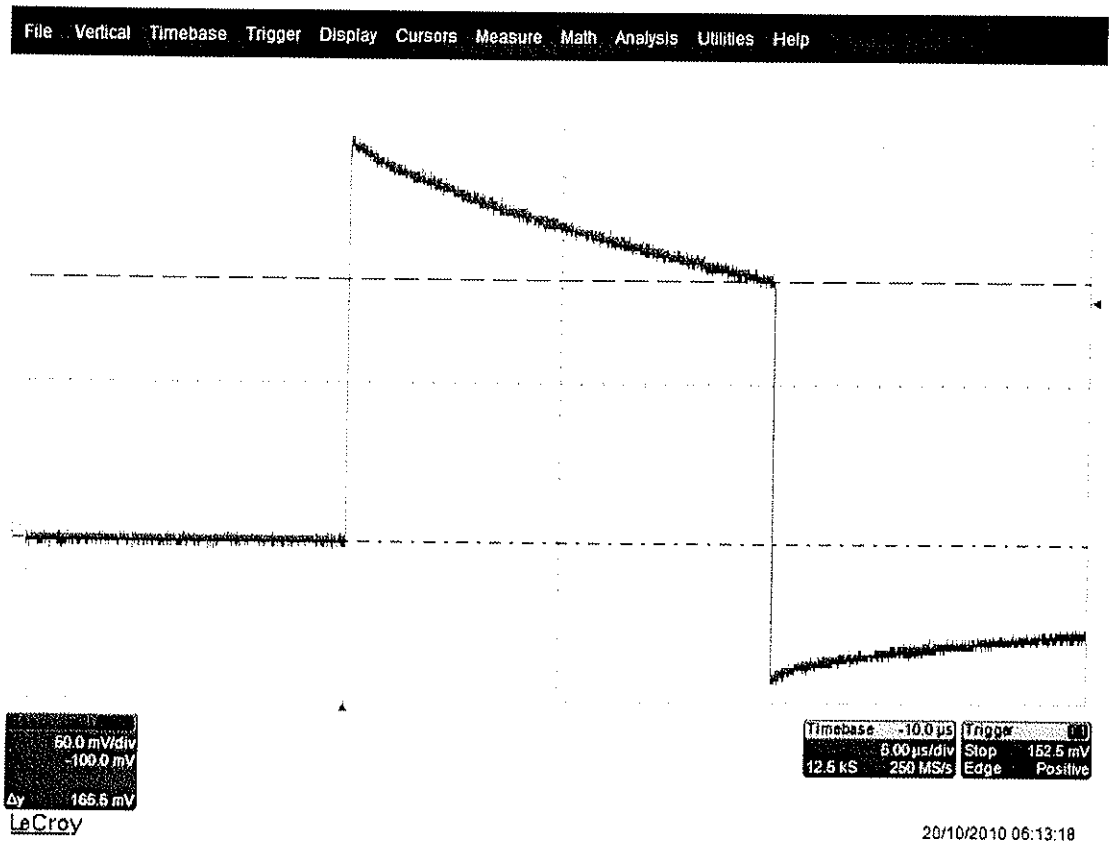
Instrumentation

Instruments used :
- SDA11000 11GHz Oscilloscope
- HP8112A Pulse Generator



Calcul du Droop

Amplitude de l'impulsion avant droop	250	[mV]
Amplitude de l'impulsion après droop	165,5	[mV]
Perte de signal	33,80	[%]
Durée de l'impulsion	20	[µs]
Droop	2,06	[%/µs]

Model:	FCT-CF6"3/4-60.4-UHV-10:1
Sensor serial Nr.:	2388
Plot:	Residual Gas Analysis
Date:	October 20, 2010

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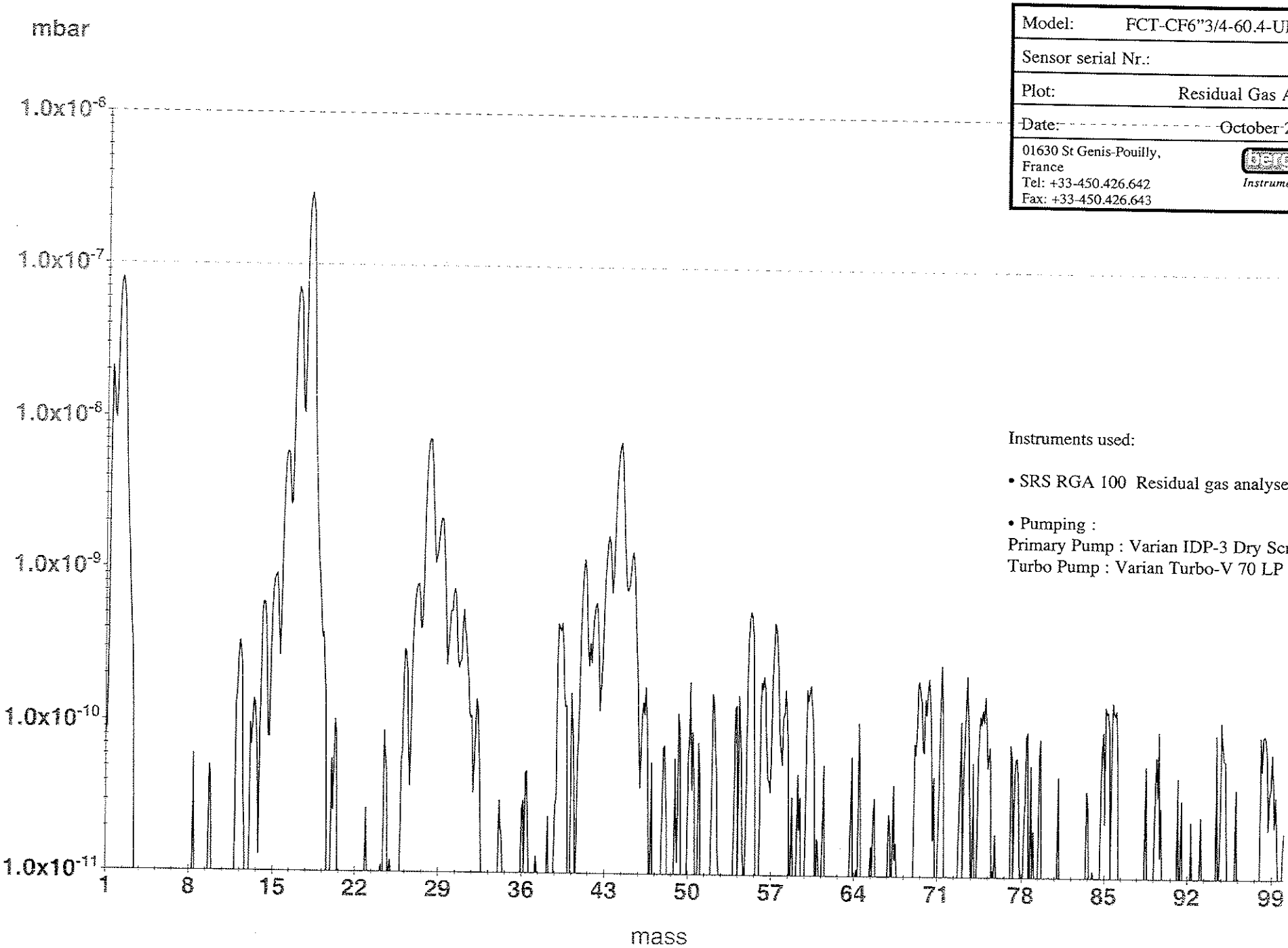
Instrumentation



Instruments used:

- SRS RGA 100 Residual gas analyser
- Pumping :

Primary Pump : Varian IDP-3 Dry Scroll Pump
Turbo Pump : Varian Turbo-V 70 LP - 70 l/s

FCT
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Instrumentation

Vacuum Certificate

Instrument model :	**FCT-CF6"3/4-60.4-UHV-10:1**
Serial number :	**#2388**
Leak test date :	**October 20, 2010**

The instrument was leak-tested with helium.
Any potential leak would be detected by the residual gas anaylzer set on 4He detection.
The result of this test allows us to guarantee:

Leak rate < 1.0 E-8 mbar.l/s

Instruments used:

- SRS RGA 100 Residual gas analyser
- Primary Pump : Varian IDP-3 Dry Scroll Pump
- Turbo Pump : Varian Turbo-V 70 LP - 70 l/s

Hervé Bayle

Supervisor in charge