



# SHIPPING MEMORANDUM

NUMBER  
**120404**

SHIP TO  
STANFORD LINEAR ACCELERATOR CENTER  
2575 SAND HILL ROAD  
MENLO PARK, CALIFORNIA 94025

DATE  
6/29/05

VIA  
U.S. MAIL

ATTN: DAVID TARKINGTON

SHIP FROM  
XXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXX  
5452 BETSY ROSS DRIVE  
SANTA CLARA, CA 95054  
408/764-5500

CUSTOMER ORDER NO: SLAC0000056030    JOB NUMBER: 49995.52057    PARTIAL  COMPLETE     OUR P.O. NO:

ITEM NO	QUANTITY	DESCRIPTION
1	1 SET	<p>ORIGINAL TEST DATA ON AS FOLLOWS:</p> <p>2 EACH TEM &amp; TPS (SEE INITIAL VISUAL)</p> <p>POST RANDOM AND SINE VIBRATION TESTING PER CUSTOMER INSTRUCTION</p>

### CERTIFICATE OF CONFORMANCE

This is to certify that test data and/or certifications proving conformance to purchase order number N/A are on file and available for examination at WYLE LABORATORIES, under Job number N/A.

Quality Assurance Signature

SHIPMENT AUTHORIZED BY:

RECEIVED BY Mail

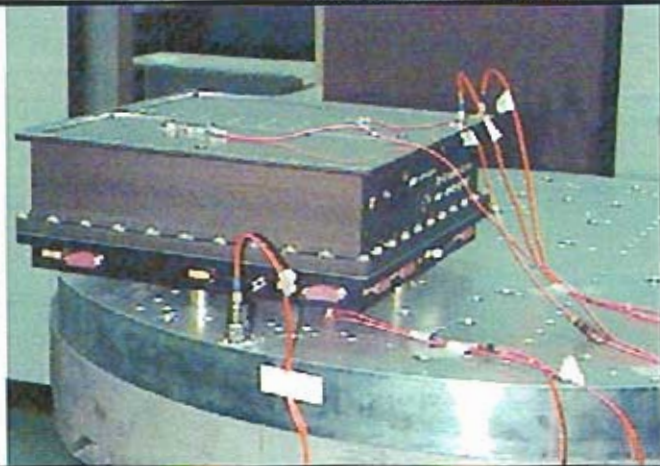
DATE 6/29/05

NAME T. KLAWITTER



## TEST DATA

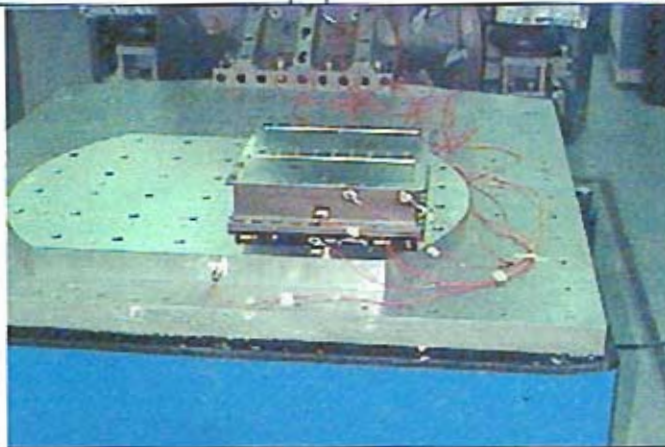
DATE STARTED 06-20-05	CUSTOMER Stanford Linear Accelerator	TECHNICIAN (SIGNATURE) <i>D. Wiltshire</i> WSC 1-2
DATE COMPLETED 06-20-05	SPECIMEN DESCRIPTION TEM & TPS { See Initial Visual }	ENGINEER (SIGNATURE) <i>Yme Chesney</i> WSC 6-82
TEMPERATURE 73°F	TYPE OF TEST SET-UP - Detail	ENGINEER <i>Yme Chesney</i>
HUMIDITY 38% R.H.	MANUFACTURER Stanford Linear Accelerator	JOB NUMBER 49995.52057
SPECIMEN NUMBER 1 - 2	TEST SPECIFICATION See Vibration Data	



Z - Axis



X - Axis



Y - Axis



## TEST DATA

DATE STARTED 06-20-05		CUSTOMER Stanford Linear Accelerator			TECHNICIAN (SIGNATURE) <i>D. Wiltshire</i> <span style="float: right; border: 1px solid black; padding: 2px;">WSP 1-2</span>	
DATE COMPLETED 06-20-05		SPECIMEN DESCRIPTION TEM / TPS { See Initial Visual }			ENGINEER (SIGNATURE) <i>Sime Chesney</i> <span style="float: right; border: 1px solid black; padding: 2px;">WSP Q-02</span>	
TEMPERATURE 73°F		TYPE OF TEST <b>VIBRATION - Sine and Random - Non-Op.</b>			ENGINEER <i>Sime Chesney</i>	
HUMIDITY 38% R.H.		MANUFACTURER Stanford Linear Accelerator			JOB NUMBER 49995.52057	
SPECIMEN NUMBER 1 & 2		TEST SPECIFICATION SLAC LAT-TD-05649 & Customer Instruction				
SPECIMEN NUMBER	DATE	AXIS	TIME START	TIME STOP	VIBRATION FREQUENCIES AND LEVELS	REMARKS
-	06-20-05	X	0921	+0:04:18	Sine - Search	Sine Search; Fixture Only
1		X	0948	+0:04:18	20 - 2000Hz @ 0.15g 2 octaves / minute 1 sweep up / axis	Sine Search
		X	1004	+0:01:00		Random Accept.
		X	1015	+0:04:18	Random - Accept.	Sine Search
		Y	1038	+0:04:18	20Hz @ 0.01 G <sup>2</sup> /Hz 80 - 500Hz @ 0.04 G <sup>2</sup> /Hz 2000Hz @ 0.01 G <sup>2</sup> /Hz	Sine Search
		Y	1054	+0:01:00	6.79 Grms overall 1 minute / axis	Random Accept.
1		Y	1100	+0:04:18		Sine Search
2		X	1141	+0:04:18		Sine Search
		X	1157	+0:01:00		Random Accept.
		X	1205	+0:04:18		Sine Search
		Y	1226	+0:04:18		Sine Search
		Y	1237	+0:01:00		Random Accept.
		Y	1244	+0:04:18		Sine Search
2	06-20-05	Z	1435	+0:04:18		Sine Search

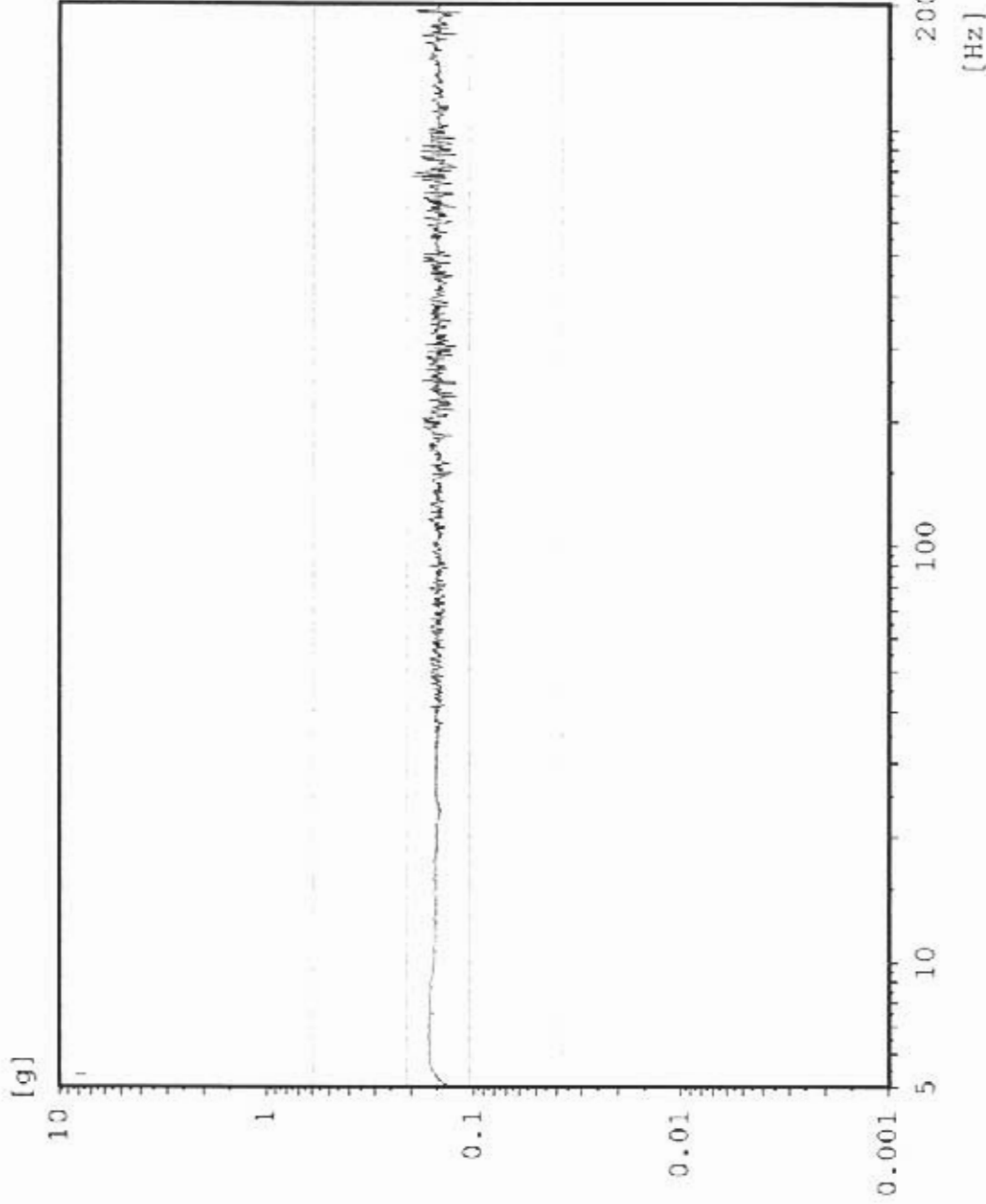


# Sine CX1 X-Axis Control

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

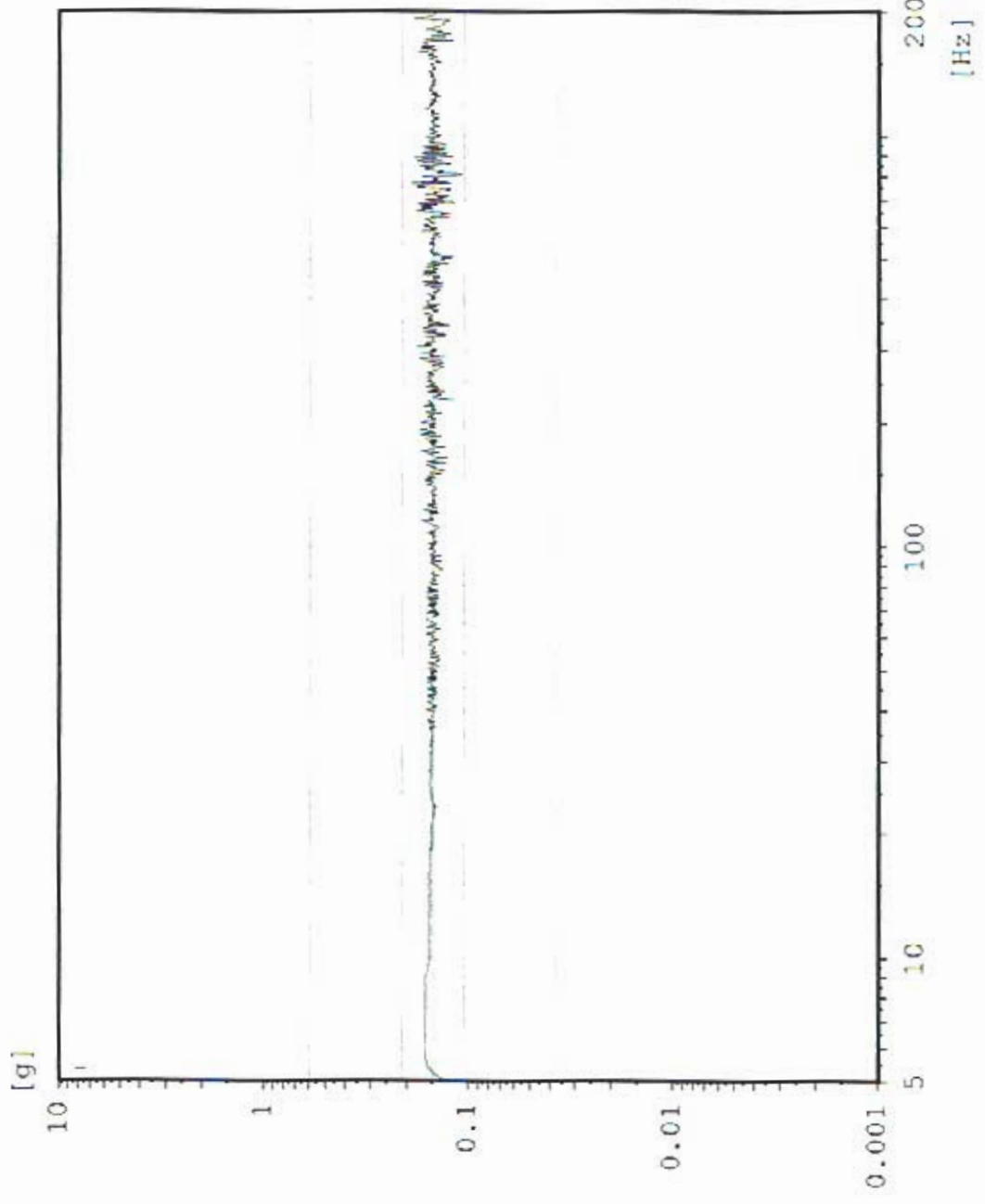
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 09:25:34

X - axis Pre Random  
Acceptance Unit  
Fixture Only

# Sine CX1 X-Axis Control

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 09:52:26

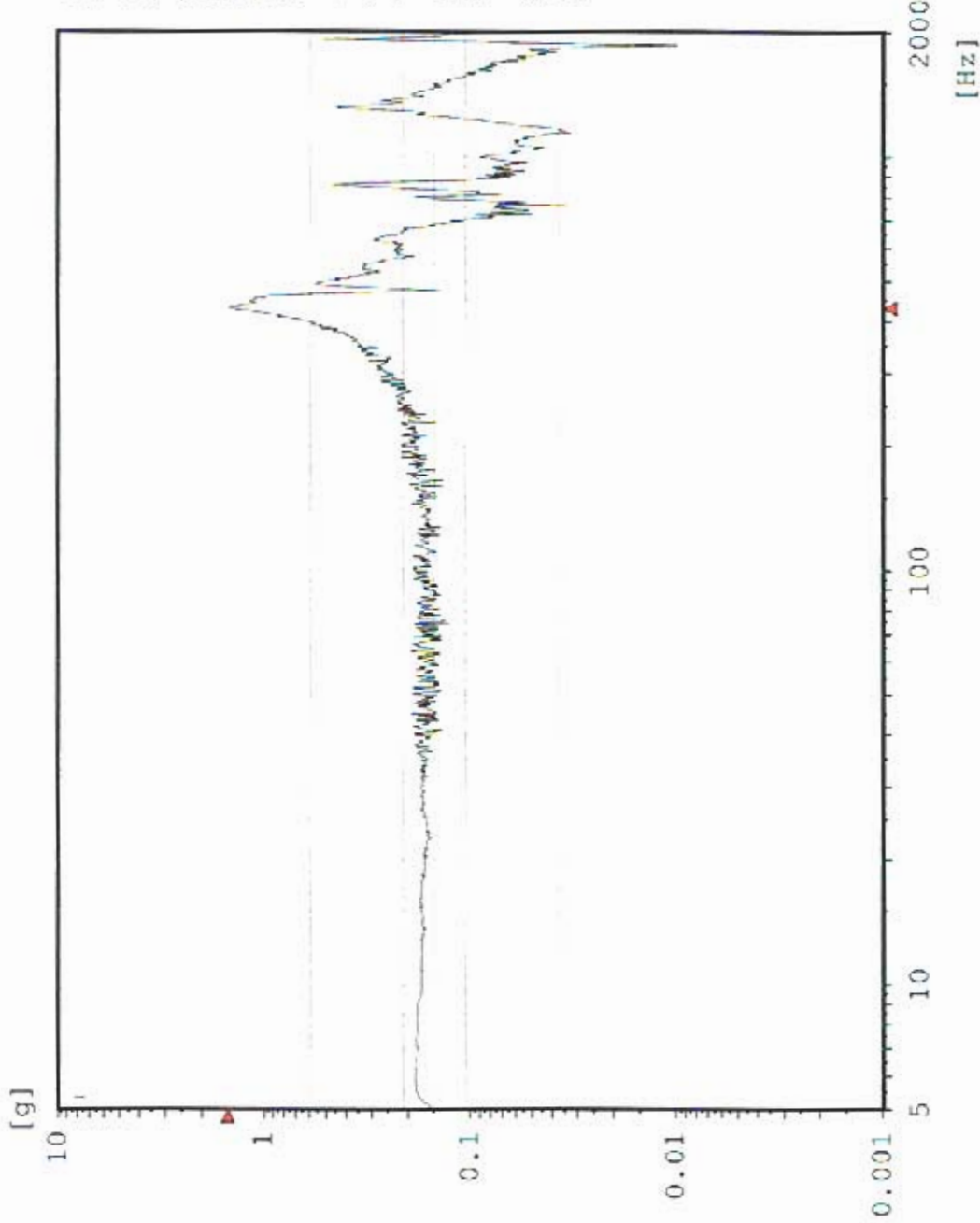
X - axis Pre Random  
Acceptance Unit:  
GLAT 1841

### Sine AX3 TPS top center

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 2  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 09:52:26

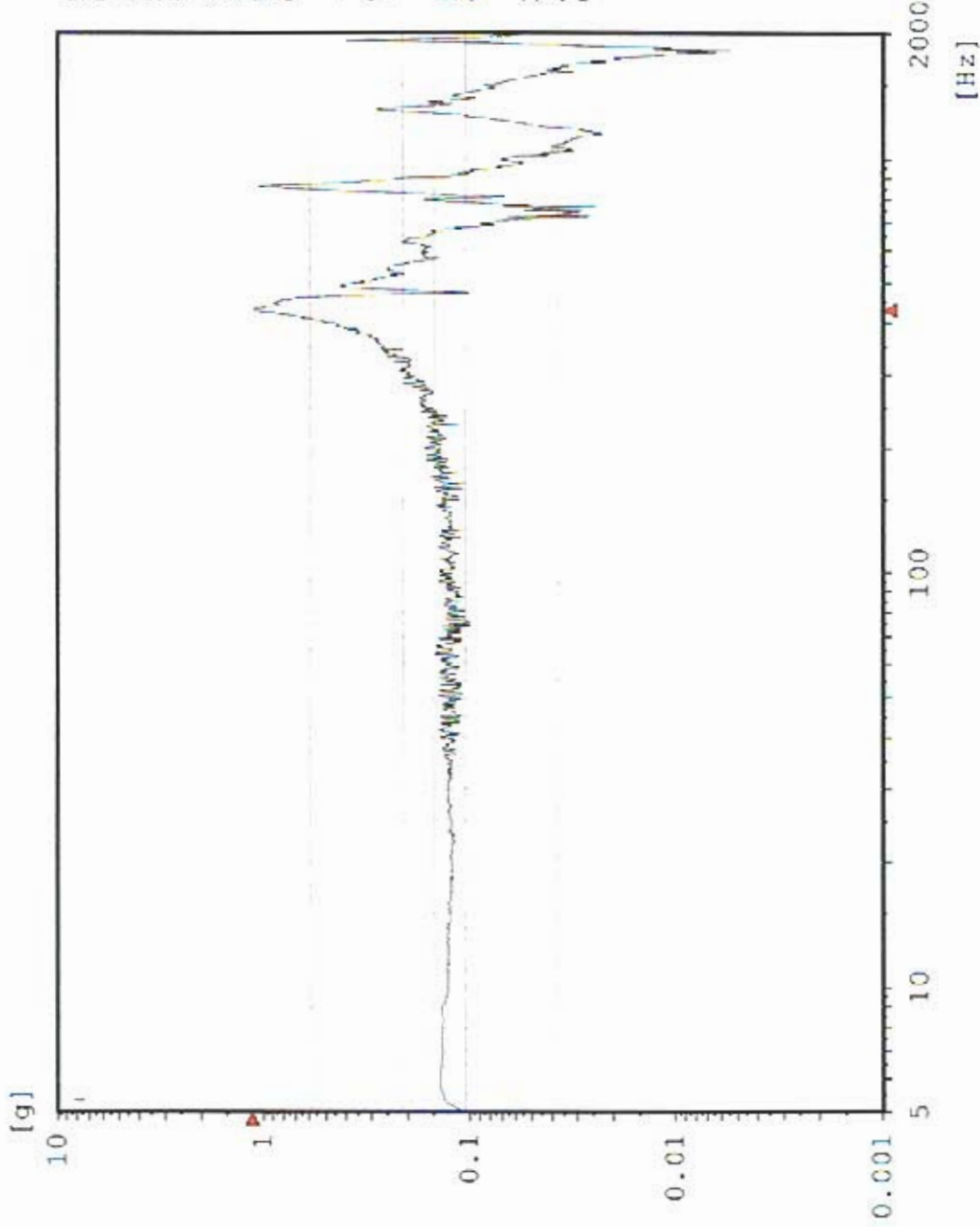
X - axis Pre Random  
 Acceptance Unit  
 GLAT 1841



# AX4 TPS top edge

Sine

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 3  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 09:52:26

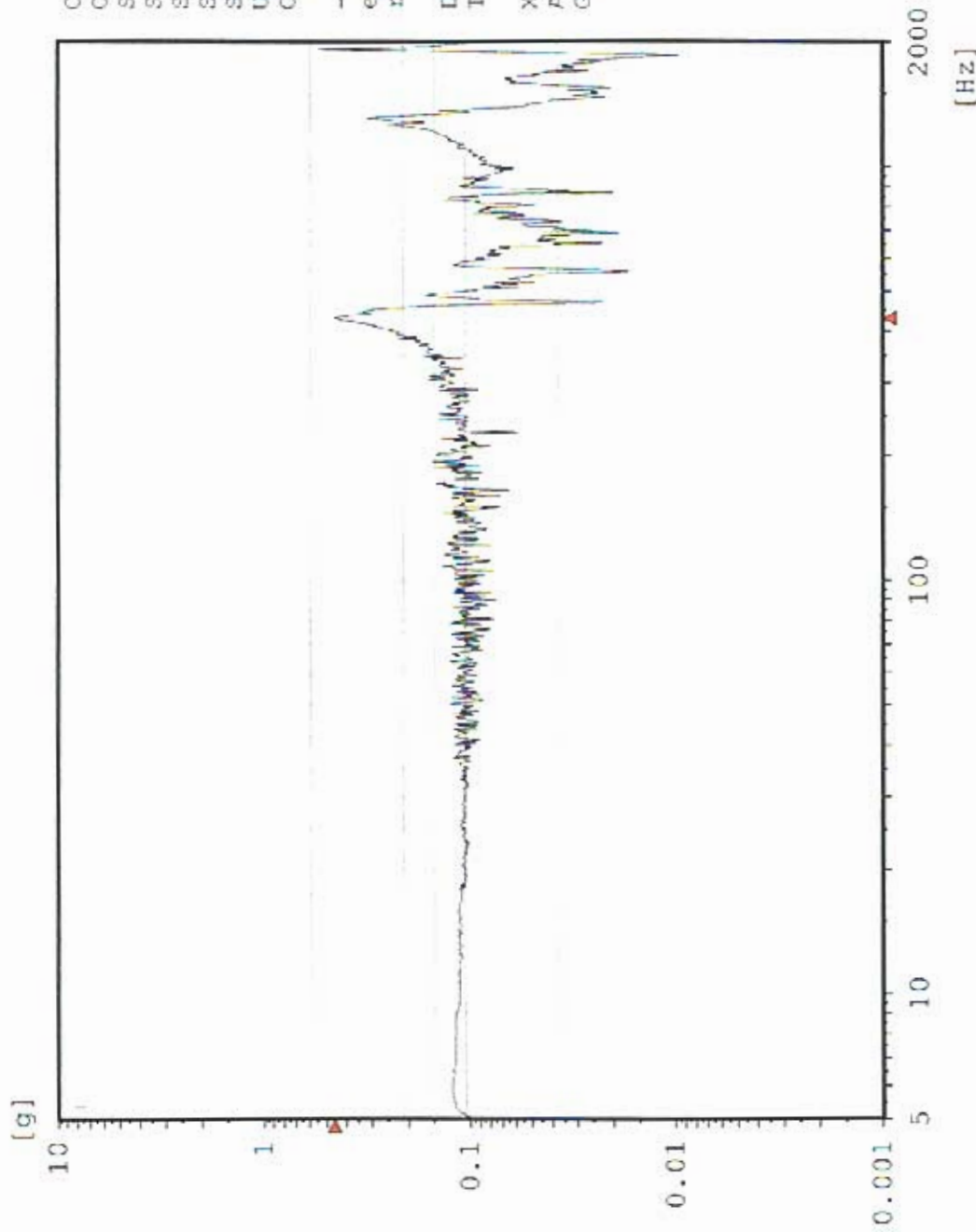
X - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

### Sine AX1 TEM center edge

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 5  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 09:52:26

X - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

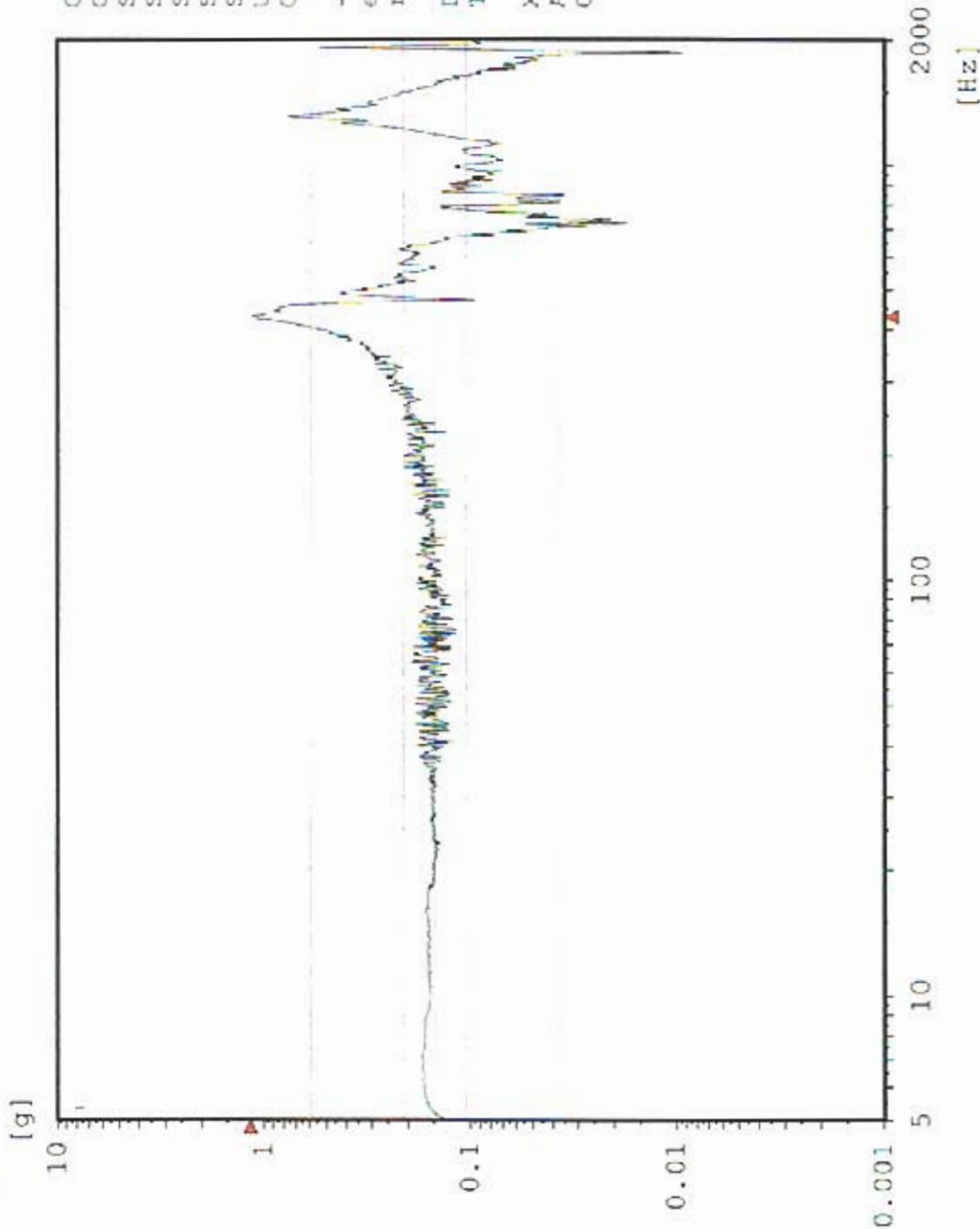
### AX2 TPS CG

Sine

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 10 X Filtered  
 Chan.type: logarithmic  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 09:52:26

X - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

# CX1 X-Axis Control

Random  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



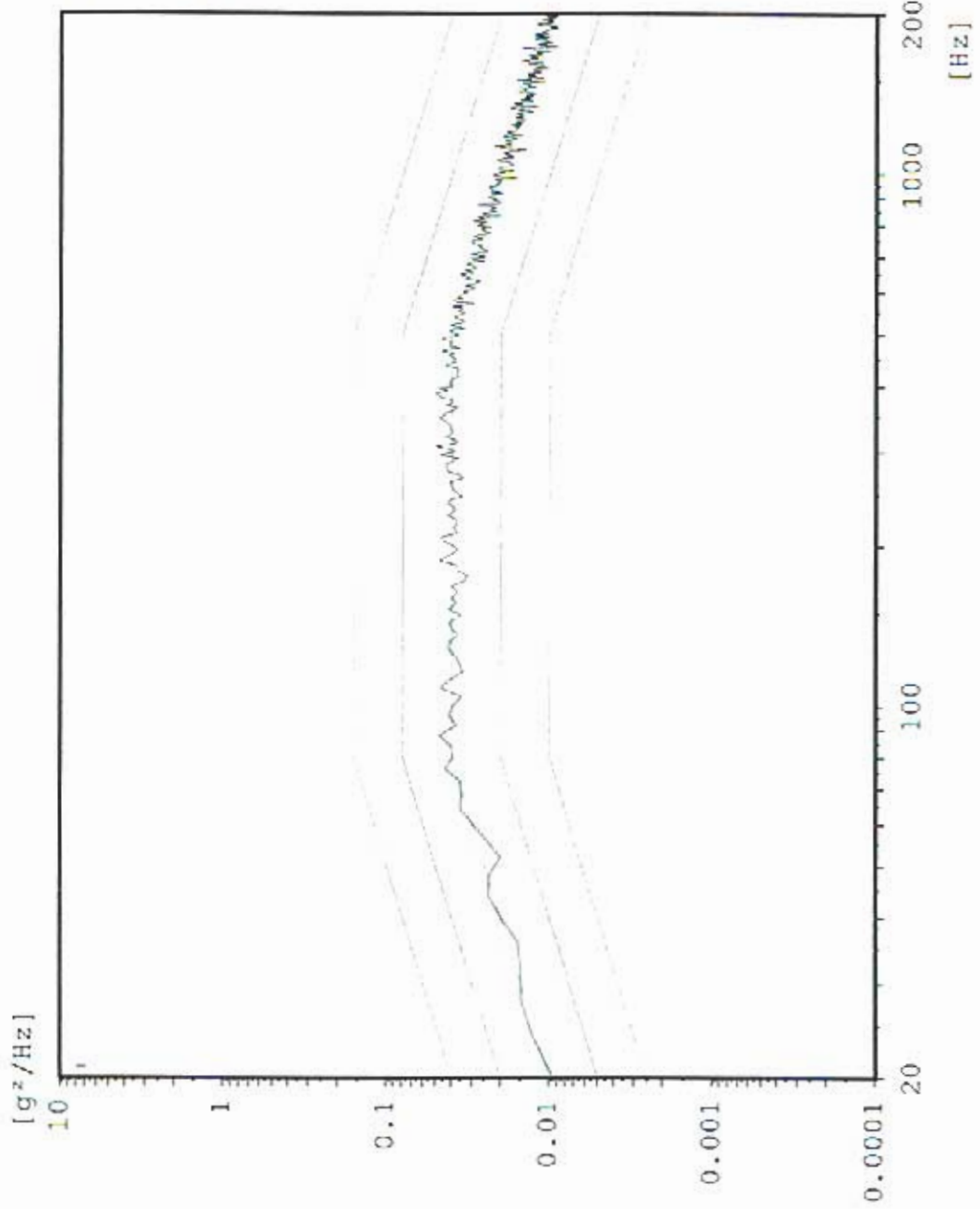
Chan.no: 1  
Chan.type: C  
DOF: 126  
Level: 0.C dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 6.79 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:53  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:05:32

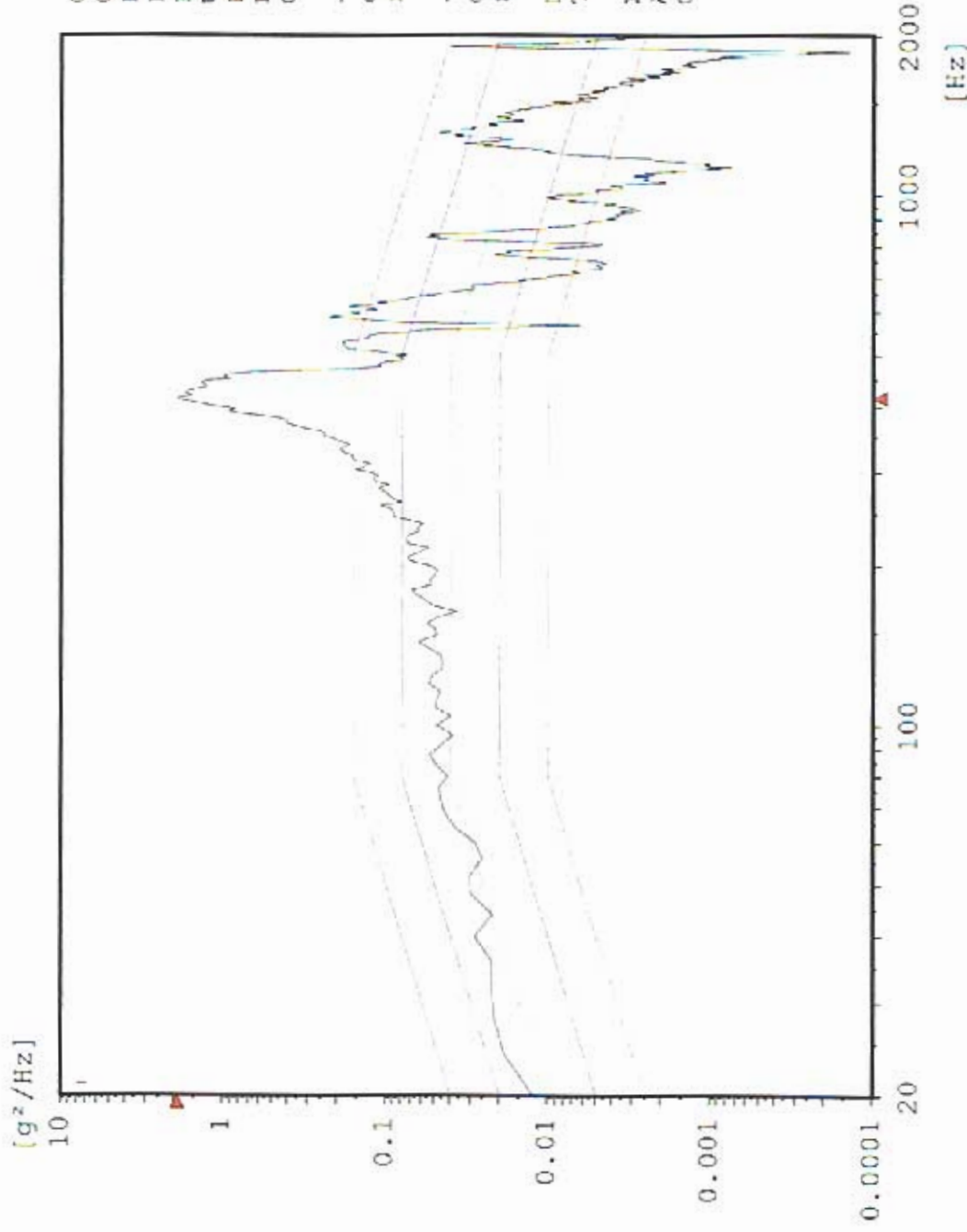
X - Axis  
Acceptance Unit  
GLAT 184i



Max: 416 Hz 1.904 g<sup>2</sup>/Hz

### Random AX4 TPS Top Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 2  
Chan.type: M  
DOP: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 13.23 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:53  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:05:32

X - Axis  
Acceptance Unit  
GLAT 1841

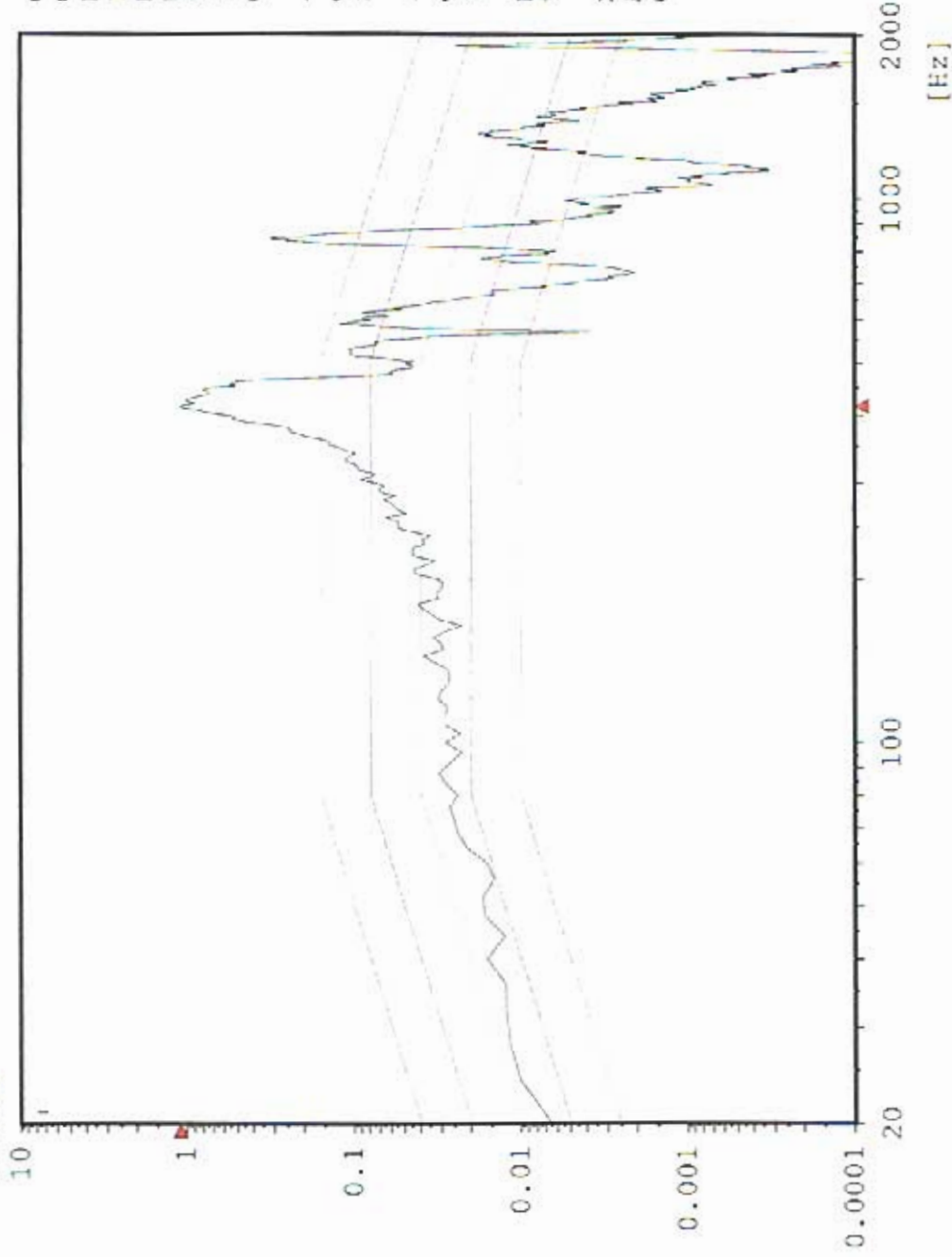
Max: 41.6 Hz 1.108 g<sup>2</sup>/Hz

### AX3 TPS Top Edge

Random  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



[g<sup>2</sup>/Hz]



Chan.no: 3  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 10.44 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:53  
remaining: 000:00:00

Date: 06-26-05  
Time: 10:05:32

X - Axis  
Acceptance Unit  
GLAT 1841

Cursor: 416 Hz 0.1882 g<sup>2</sup>/Hz

### CH# 5 TEM center edge

Random

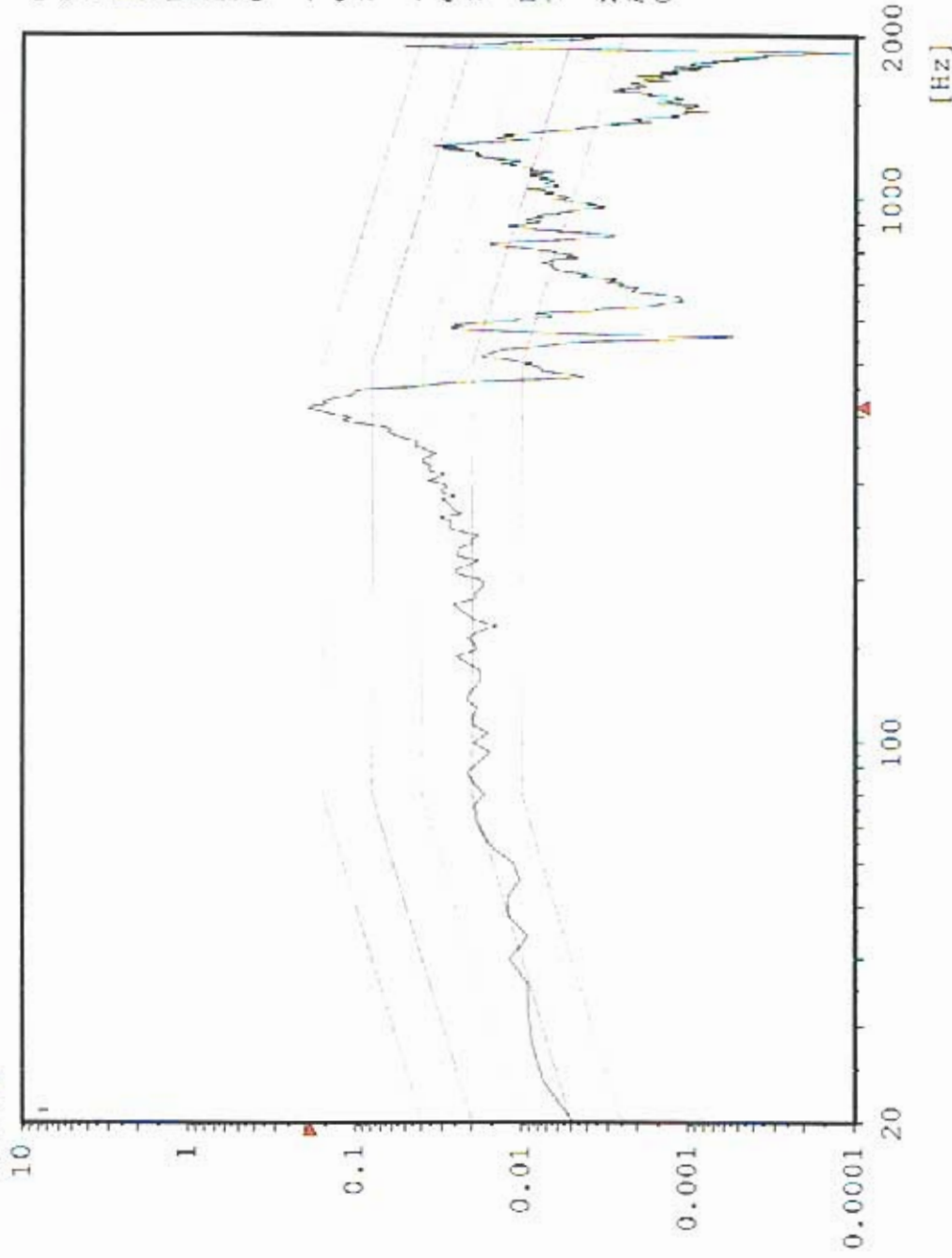
Stanford Linear Accelerator

J/N 49995.52057

TEM & TPS



[g<sup>2</sup>/Hz]



Chan.no: 5  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 5.373 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:53  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:05:32

X - Axis  
Acceptance Unit  
GLAT 1841

Max: 416 Hz 1.201 g<sup>2</sup>/Hz

### Random AX2 TPS Bottom center

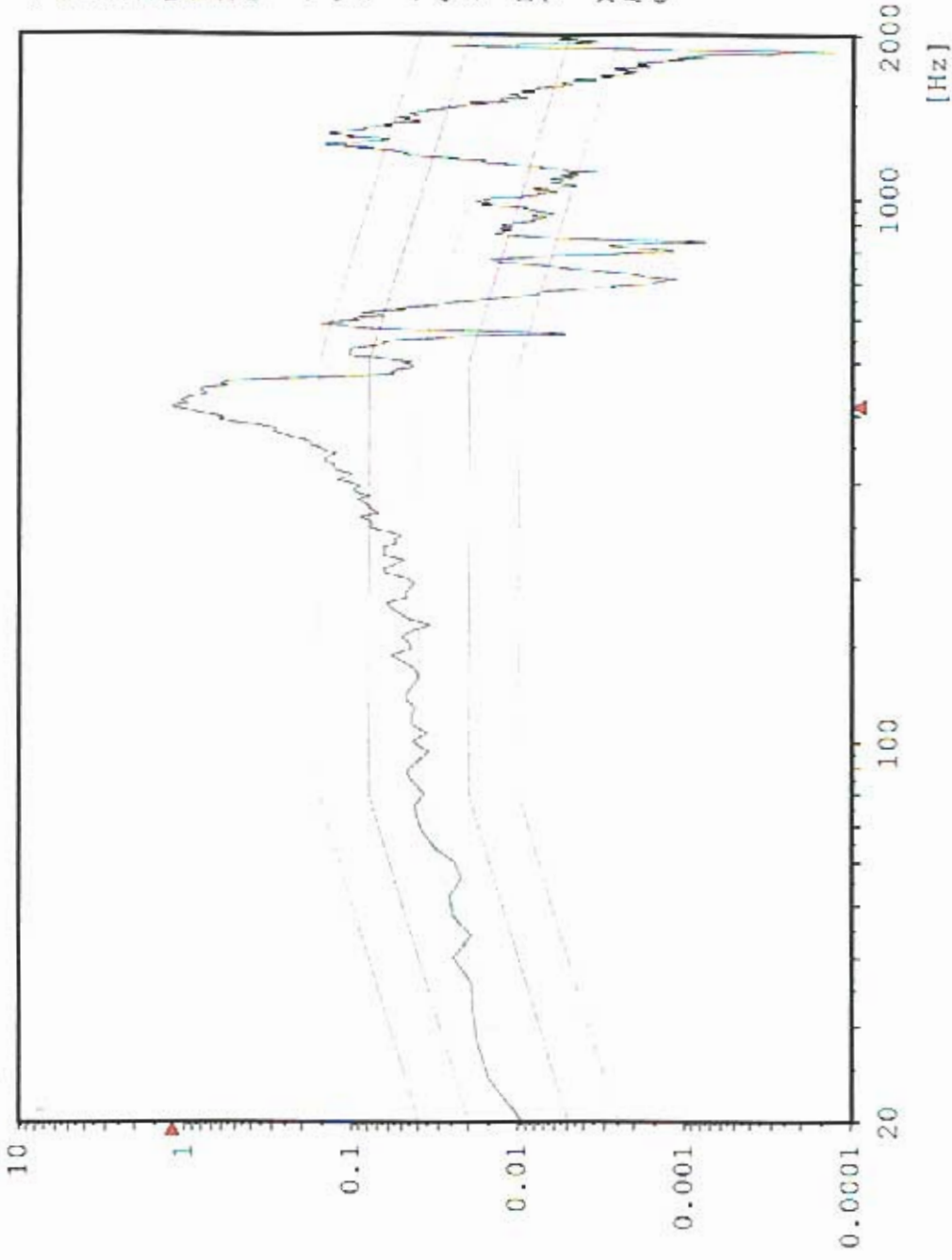
Stanford Linear Accelerator

J/N 49995.52057

TEM & TPS



[g<sup>2</sup>/Hz]



Chan.no: 10  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 11.54 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:53  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:05:32

X - Axis  
Acceptance Unit  
GLAT 1841

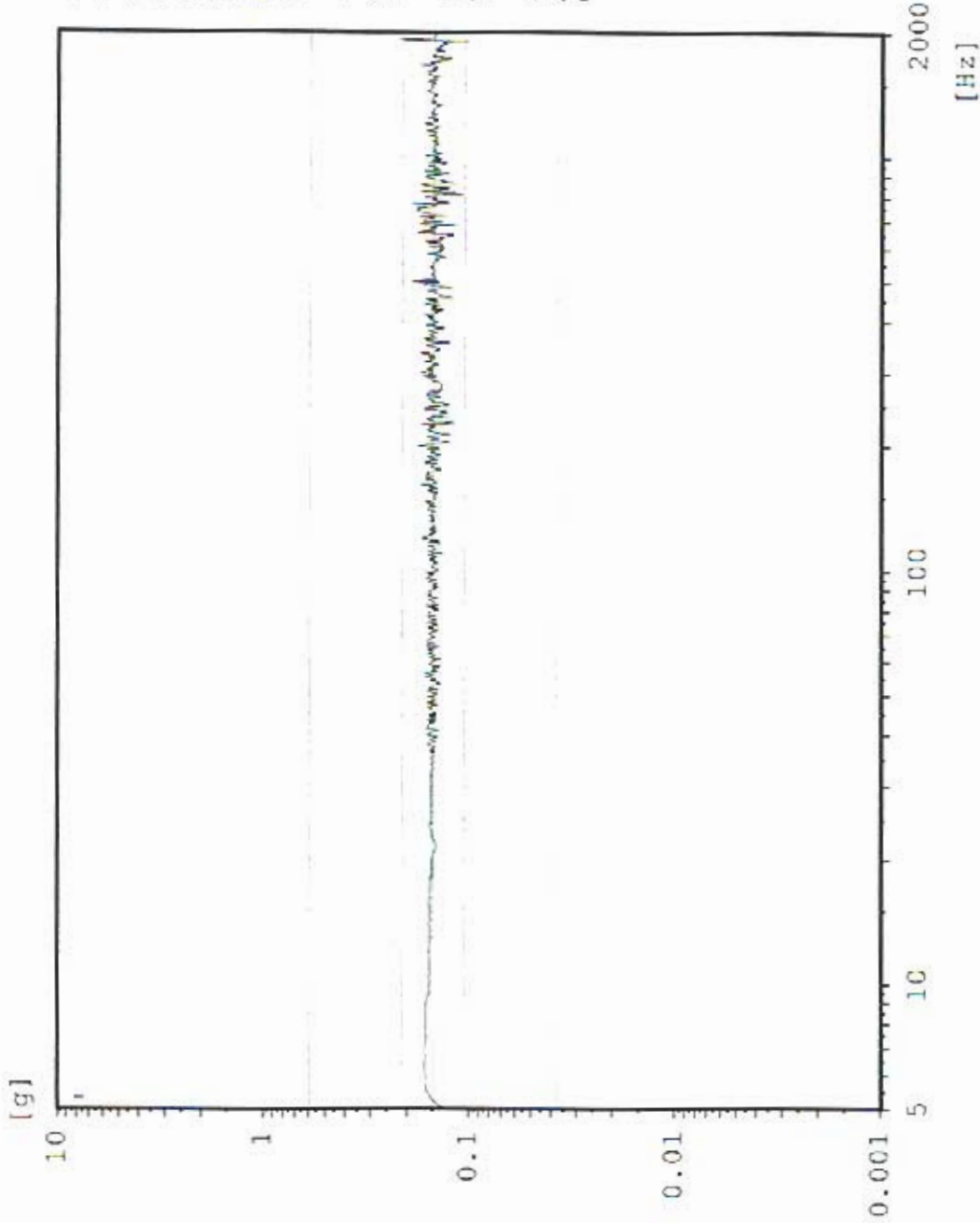


# Sine CX1 X-Axis Control

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

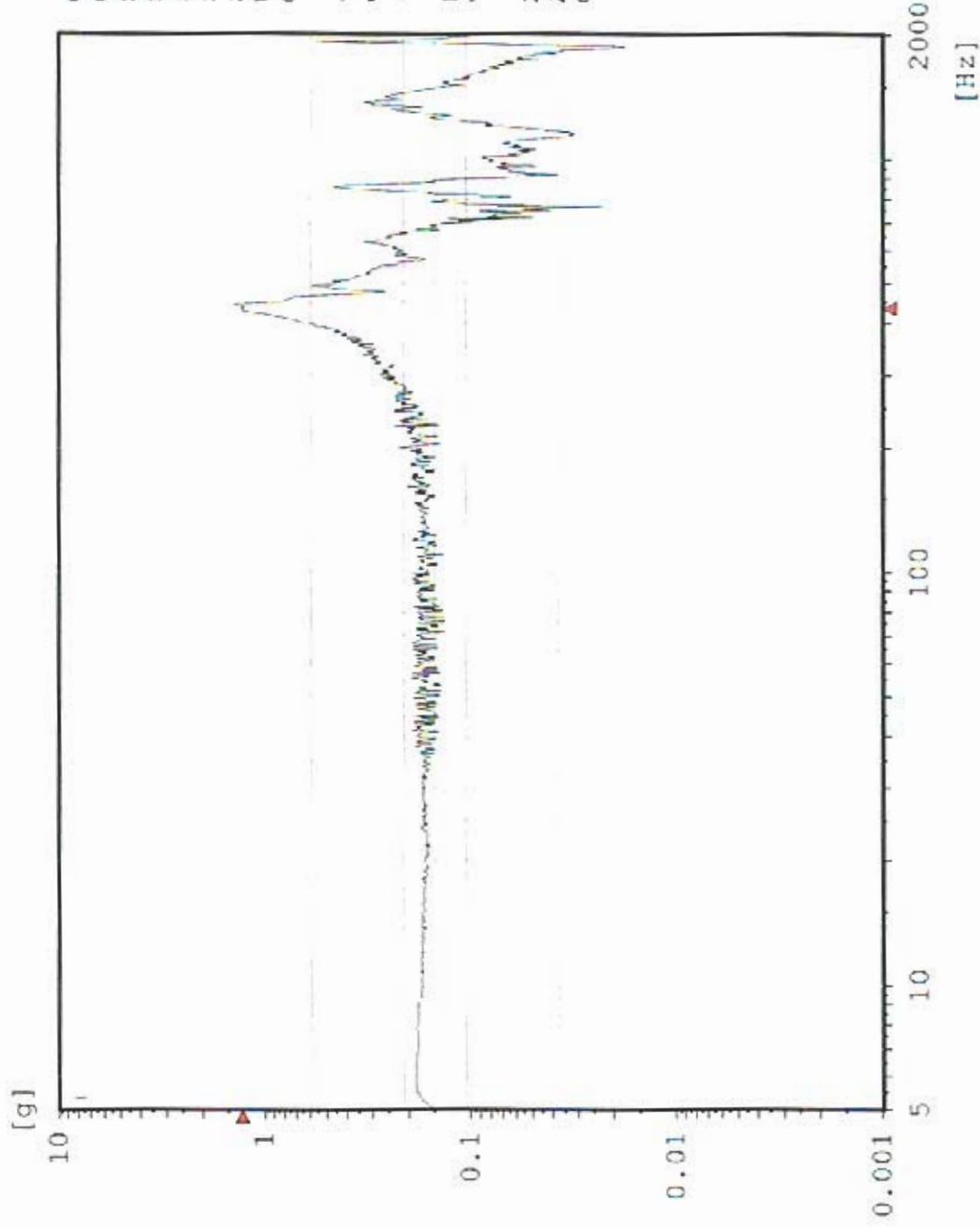
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:19:23

X - axis Post Random  
Acceptance Unit  
GLAT 1841

# Sine AX3 TPS top center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 2  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

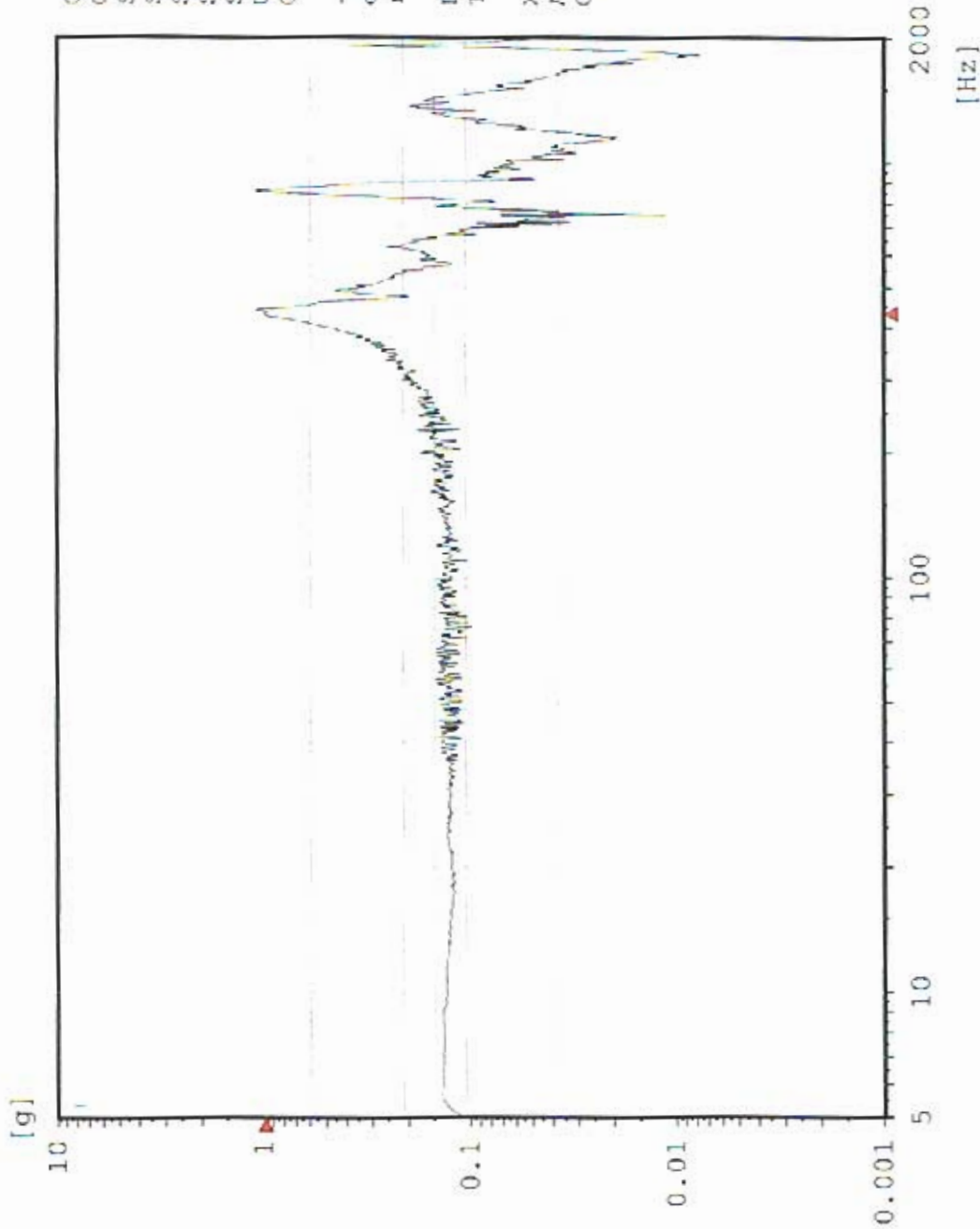
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:19:23

X - axis Post Random  
Acceptance Unit  
GLAT 1841

### AX4 TPS top edge

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 3  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

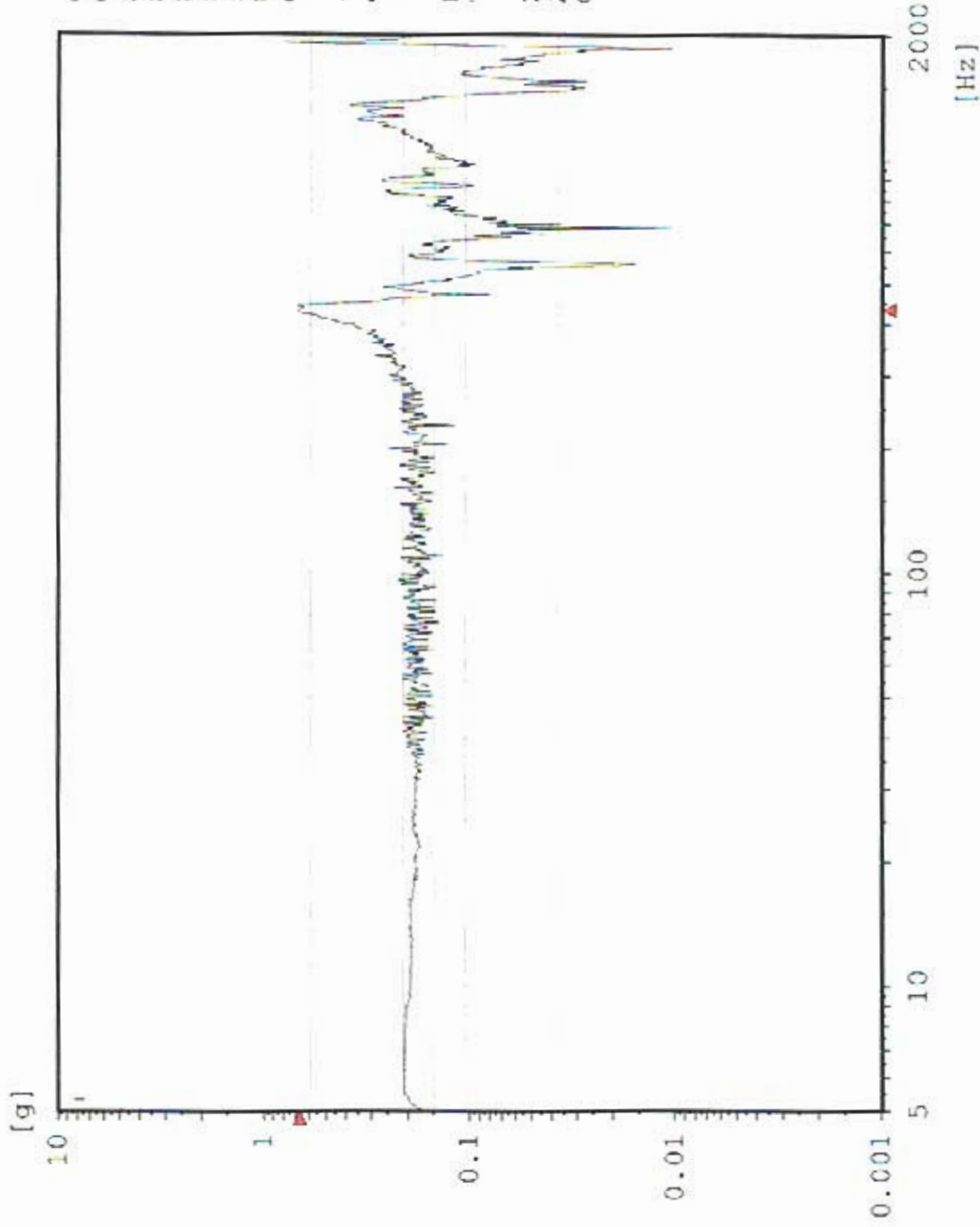
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:19:23

X - axis Post Random  
Acceptance Unit  
GLAT 1841

# Sine AXI TEM center edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 5  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

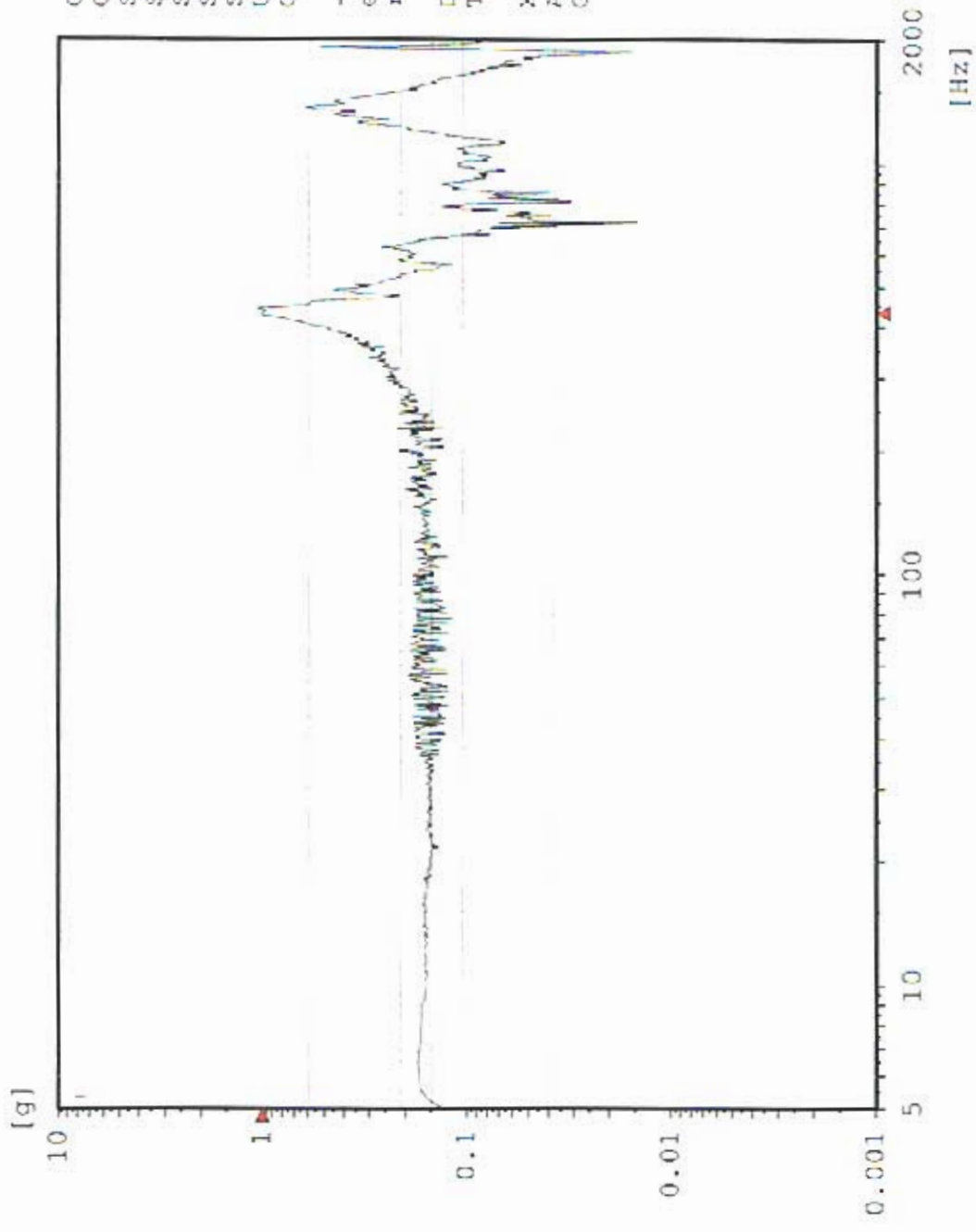
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:19:23

X - axis Post Random  
Acceptance Unit  
GLAT 1841

### AX2 TPS CG

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEX / TPS



Chan.no: 10  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 10:19:23

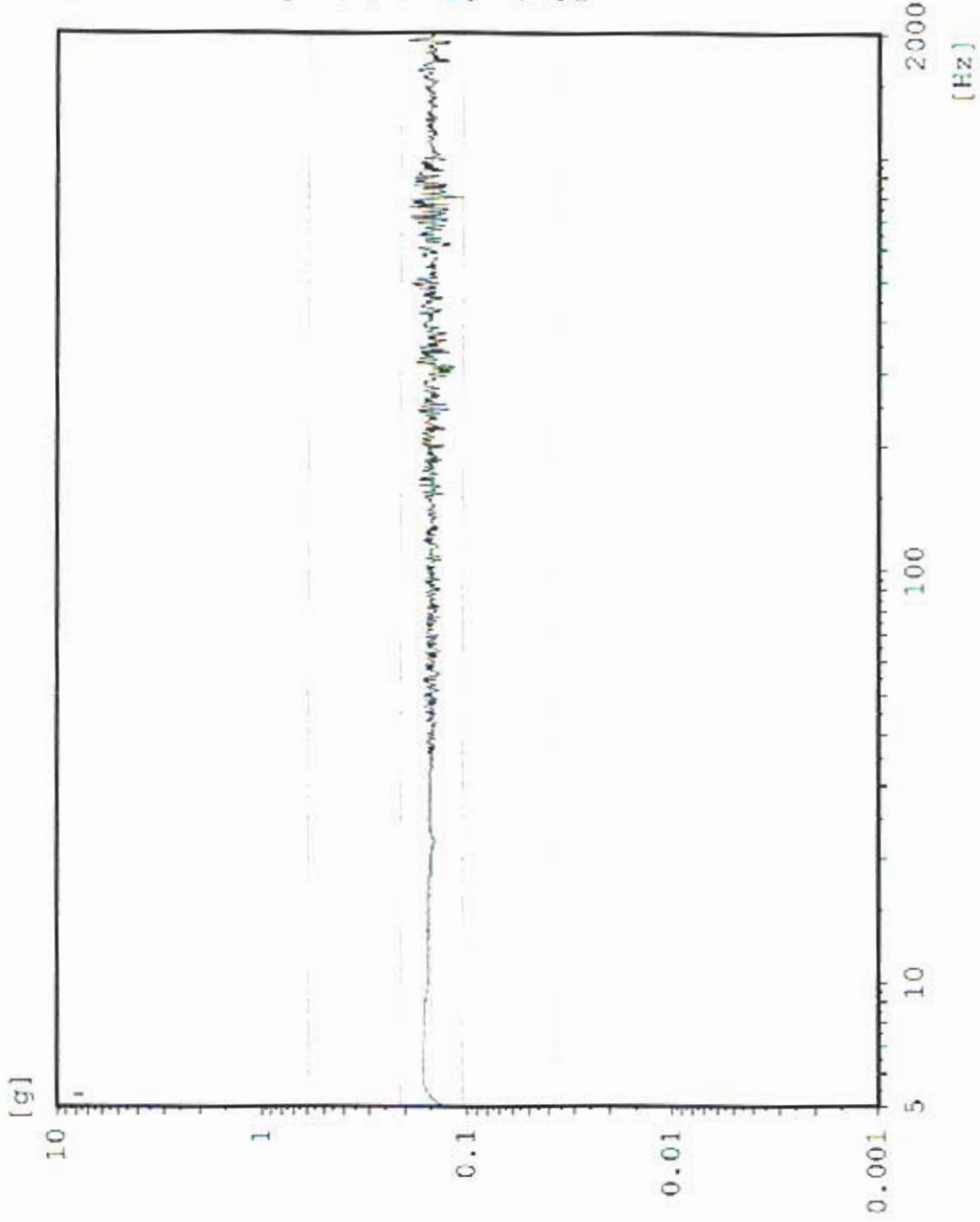
X - axis Post Random  
 Acceptance Unit  
 GLAT 1841

# Sine CY1 Y-Axis Control

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

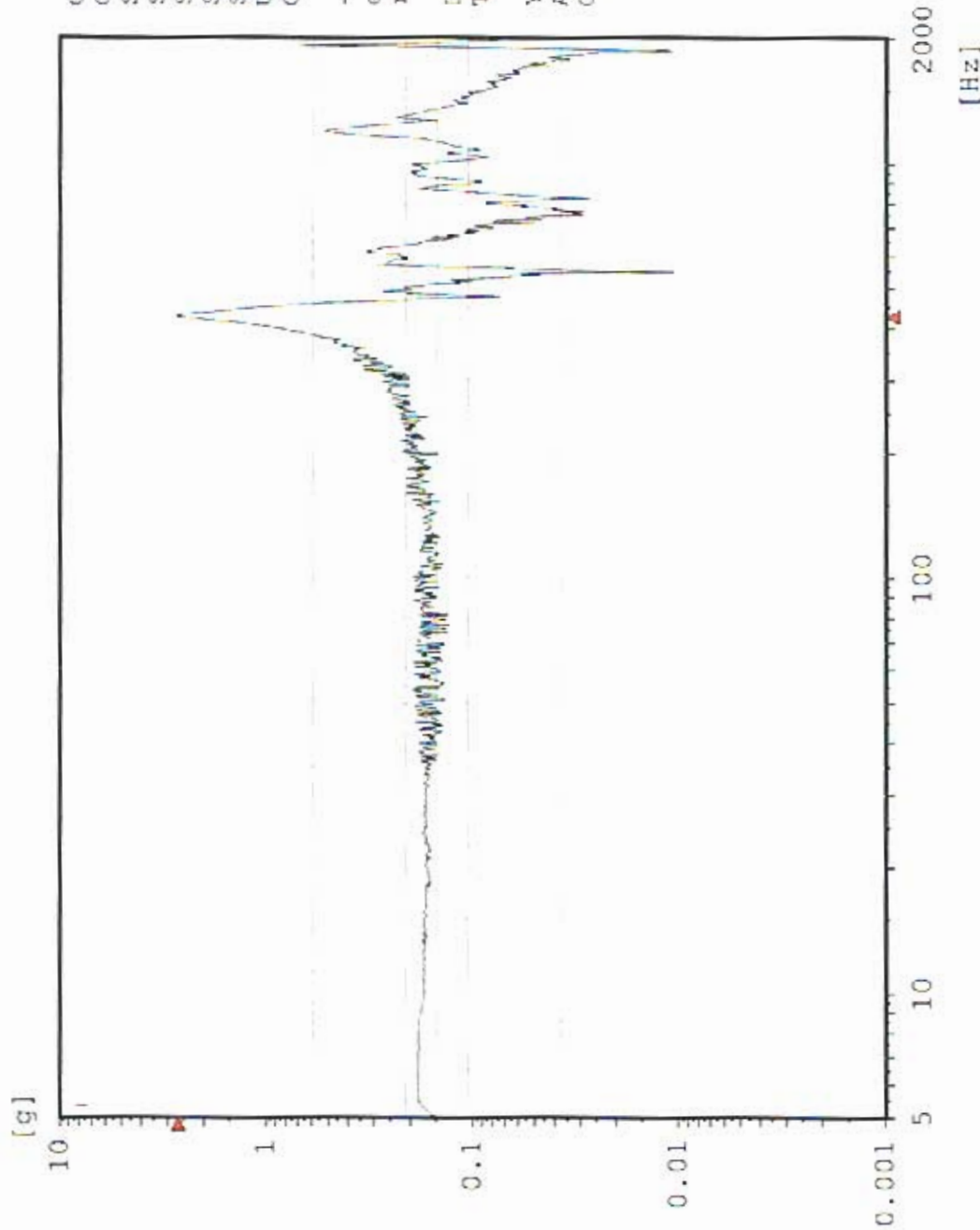
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:42:53

Y - axis Pre Random  
Acceptance Unit  
GLAT 1841

# Sine AY3 TPS Top Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



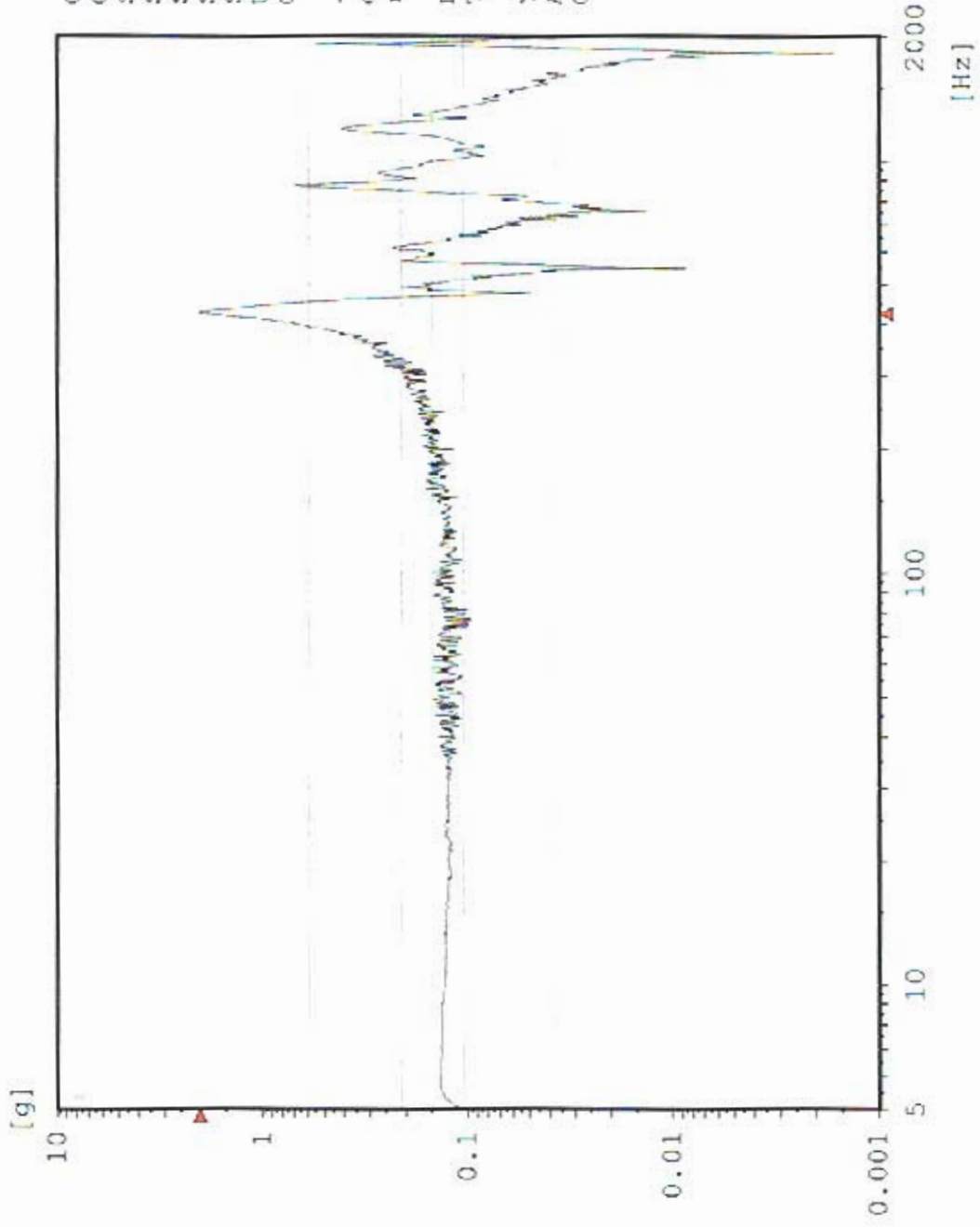
Chan.no: 2  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00  
 Date: 06-20-05  
 Time: 10:42:53

Y - axis Pre Rancom  
 Acceptance Unit  
 GLAT 1841

# Sine AY4 TPS Top Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 3  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 10:42:53

Y - axis: Pre Random  
 Acceptance Unit:  
 GLAT 1841

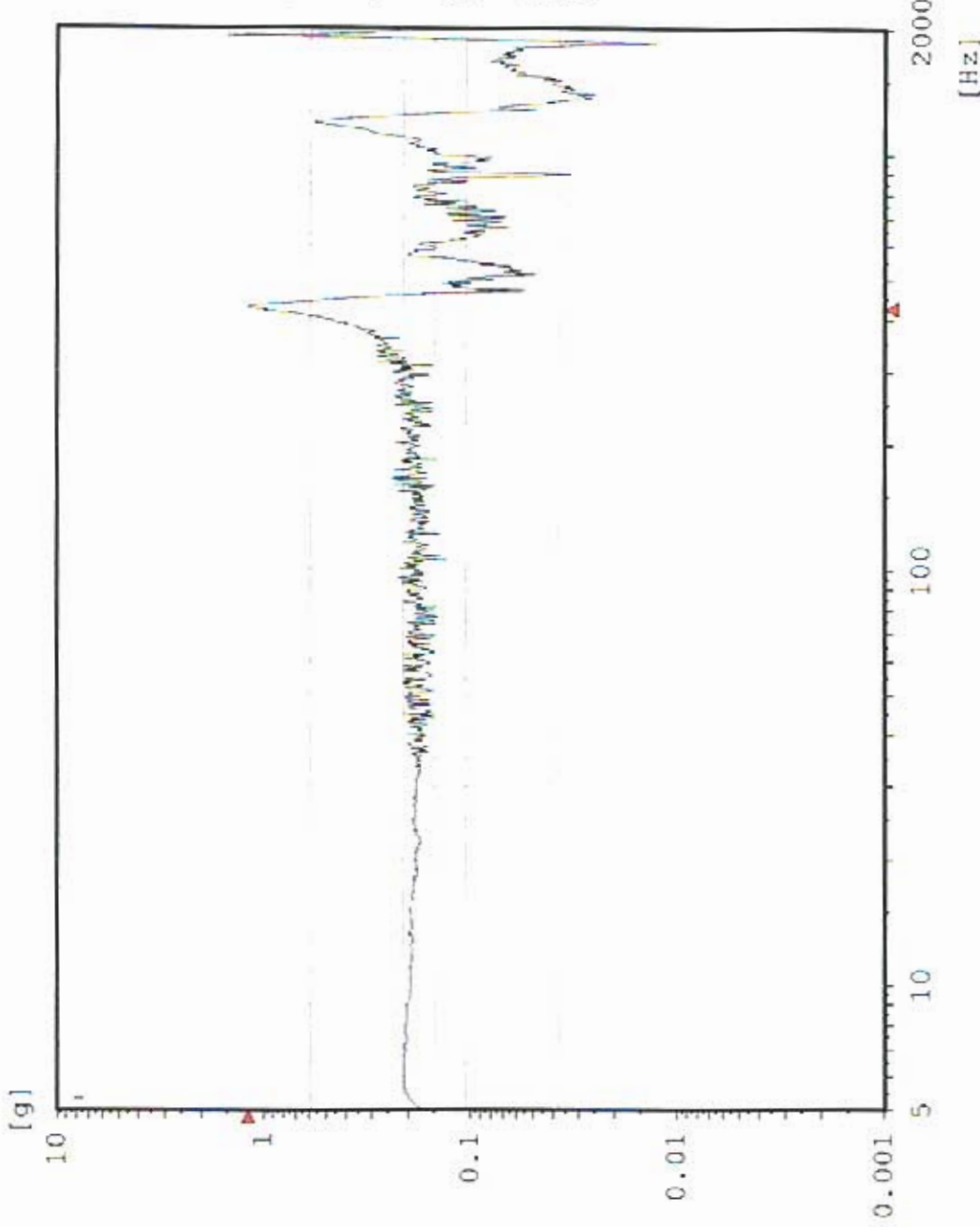


# Sine AY1 TEM Center Edge

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 5  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

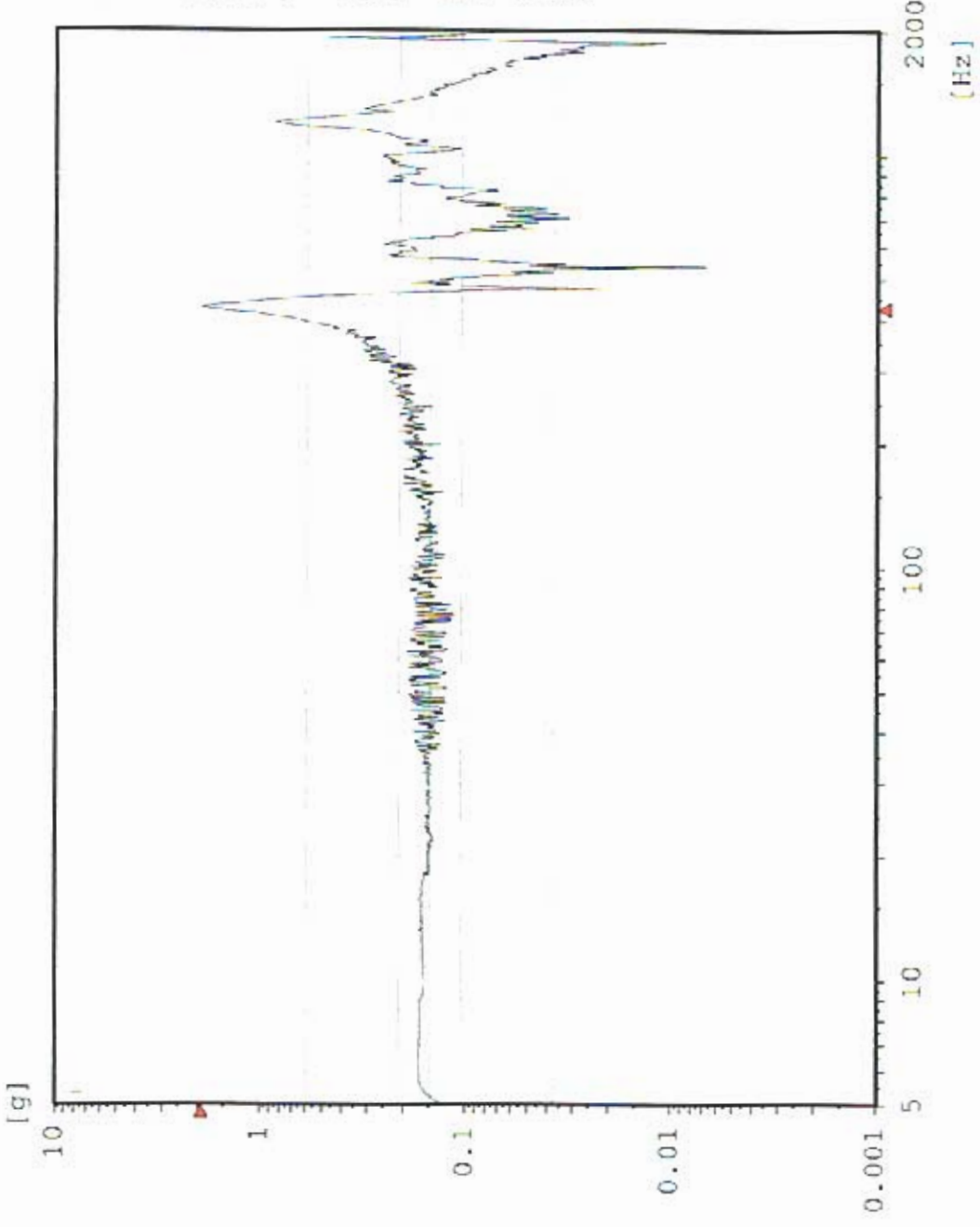
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:42:53

Y - axis Pre Random  
Acceptance Unit  
GLAT 1841

# Sine AY2 TPS CG

Stanford Linear Accelerator  
J/N 49995.52057  
TEX / TPS



Chan.no: 10  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

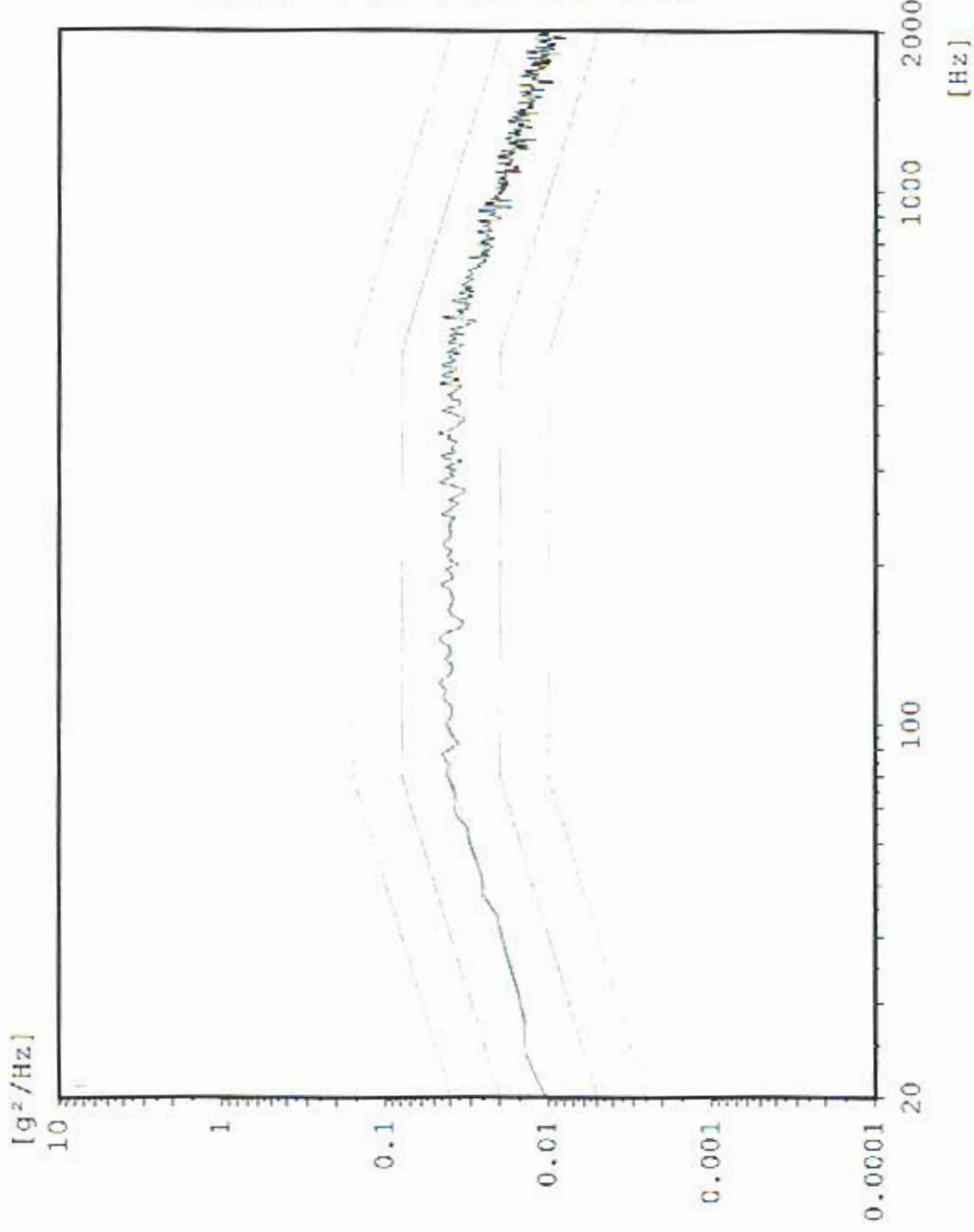
-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 10:42:53

Y - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

# CYL Y-Axis Control

Random  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 1  
Chan.type: C  
DOF: 126  
Level: 0.6 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 6.801 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:55  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:55:02

Y - Axis  
Acceptance Unit  
GLAT 1841

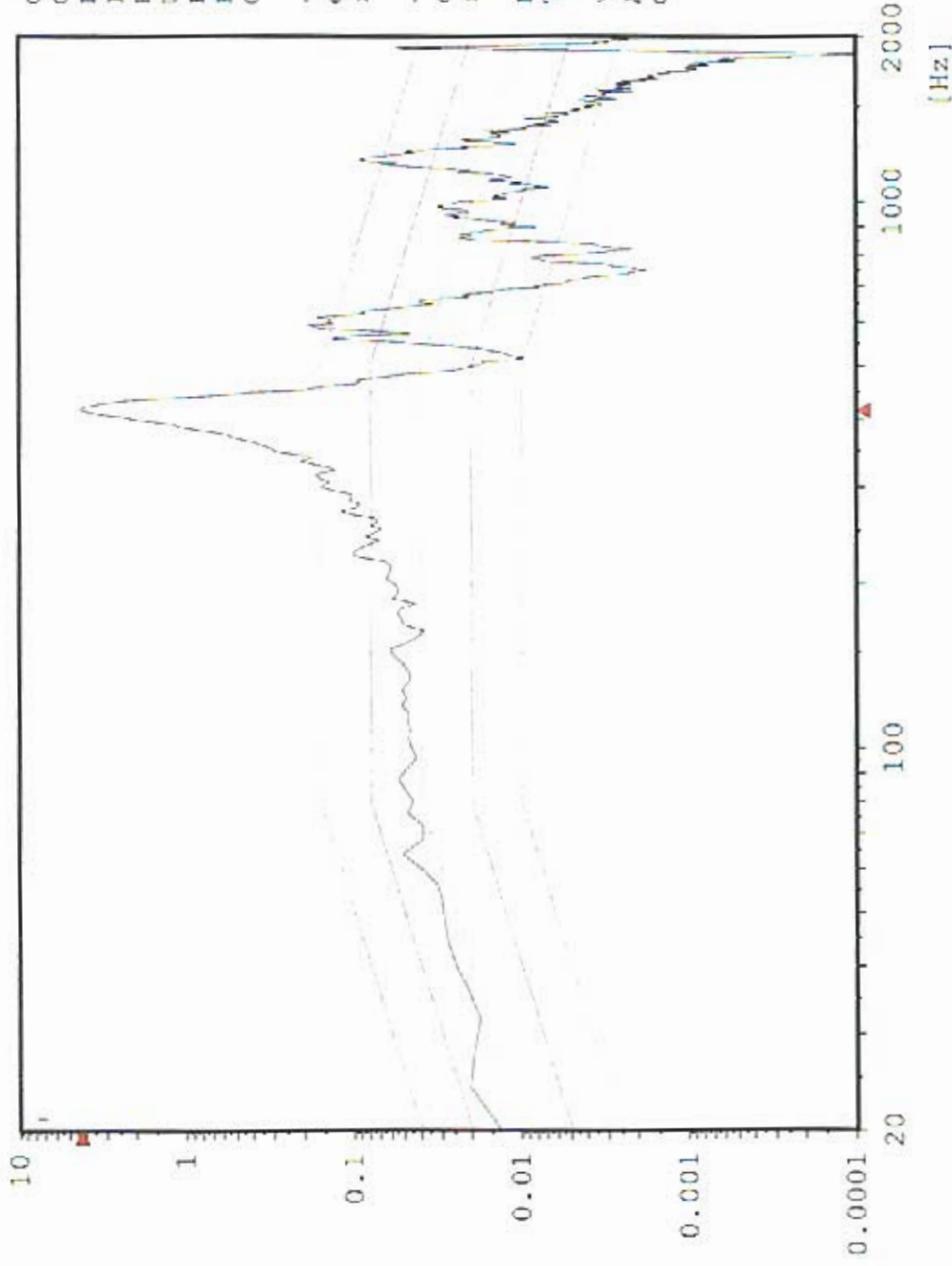
Max: 416 Hz 4.29 g<sup>2</sup>/Hz

### Random AY3 TPS Top Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



[g<sup>2</sup>/Hz]



Chan.no: 2  
 Chan.type: M  
 DOF: 100  
 Level: 0.0 dB  
 Resolution: 4 Hz  
 Unit: g<sup>2</sup>/Hz  
 RMS (act.): 14.85 g  
 RMS (req.): 6.787 g  
 Contr.strat.: Closed loop

-- Time on act. level --  
 elapsed: 000:01:00  
 remaining: 000:00:00

-- Time total --  
 elapsed: 000:02:55  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 10:55:02

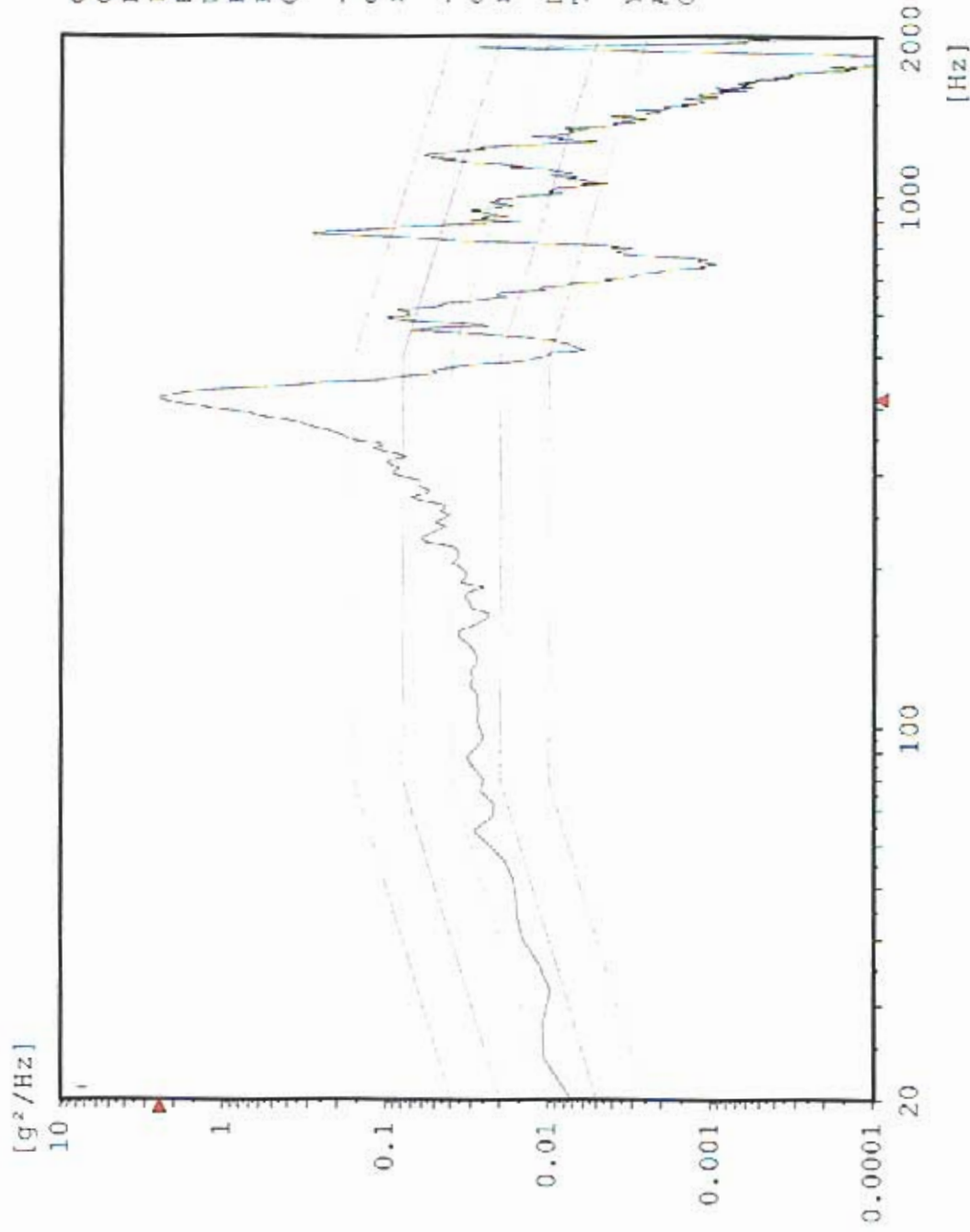
Y - Axis  
 Acceptance Unit  
 GLAT 1841

Max: 416 Hz 2.473 g<sup>2</sup>/Hz

### Random

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS

### AY4 TPS Top Edge



Chan.no: 3  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 11.64 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:55  
remaining: 000:00:00

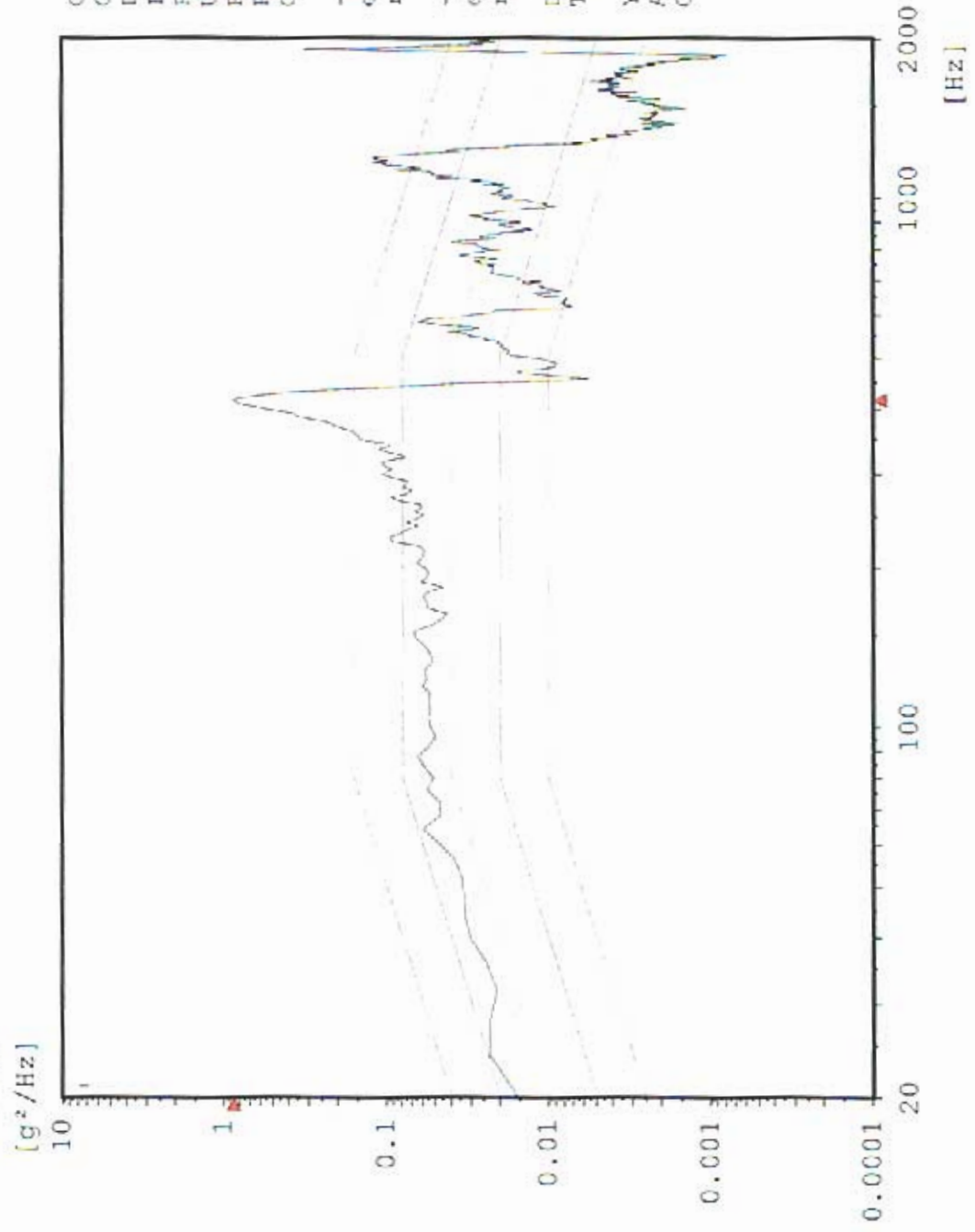
Date: 06-20-05  
Time: 10:55:02

Y - Axis  
Acceptance Unit  
GLAT 1841

Max: 416 Hz 0.8804 g<sup>2</sup>/Hz

### Random AY1 TEM Center Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 5  
 Chan.type: M  
 DOF: 100  
 Level: 0.0 dB  
 Resolution: 4 Hz  
 Unit: g<sup>2</sup>/Hz  
 RMS (act.): 9.688 g  
 RMS (req.): 6.787 g  
 Contr.strat.: Closed loop

-- Time on act. level --  
 elapsed: 000:01:00  
 remaining: 000:00:00

-- Time total --  
 elapsed: 000:02:55  
 remaining: 000:00:00

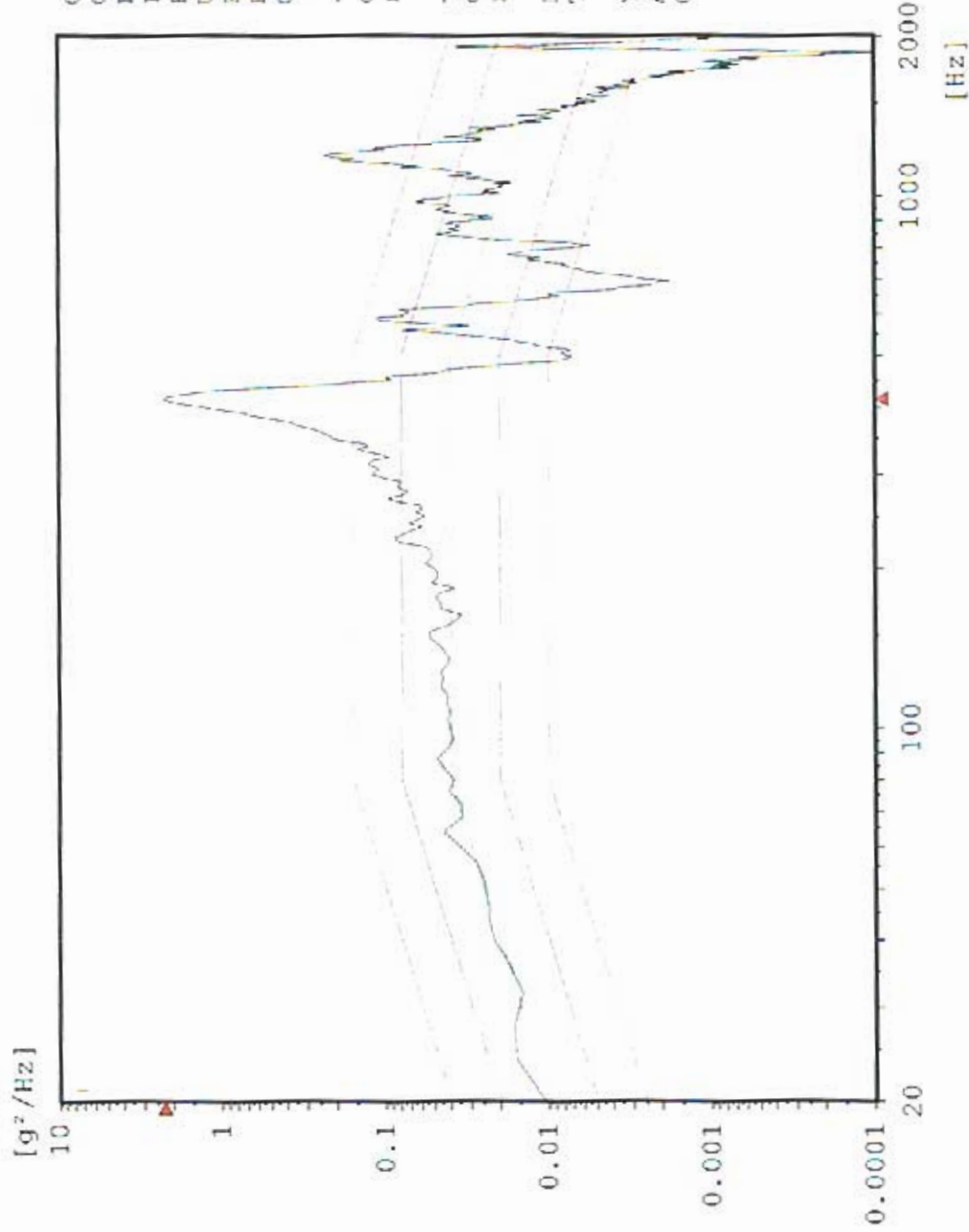
Date: 06-20-05  
 Time: 10:55:02

Y - Axis  
 Acceptance Unit  
 GLAT 1841

Max: 416 Hz 2.268 g<sup>2</sup>/Hz

### Random AY2 TPS CG

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 10 M  
Chan.type: 100  
DOF: 100  
Level: 0.9 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 12.31 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:55  
remaining: 000:00:00

Date: 06-20-05  
Time: 10:55:02

Y - Axis  
Acceptance Unit  
GLAT 1841

# CY1 Y-Axis Control

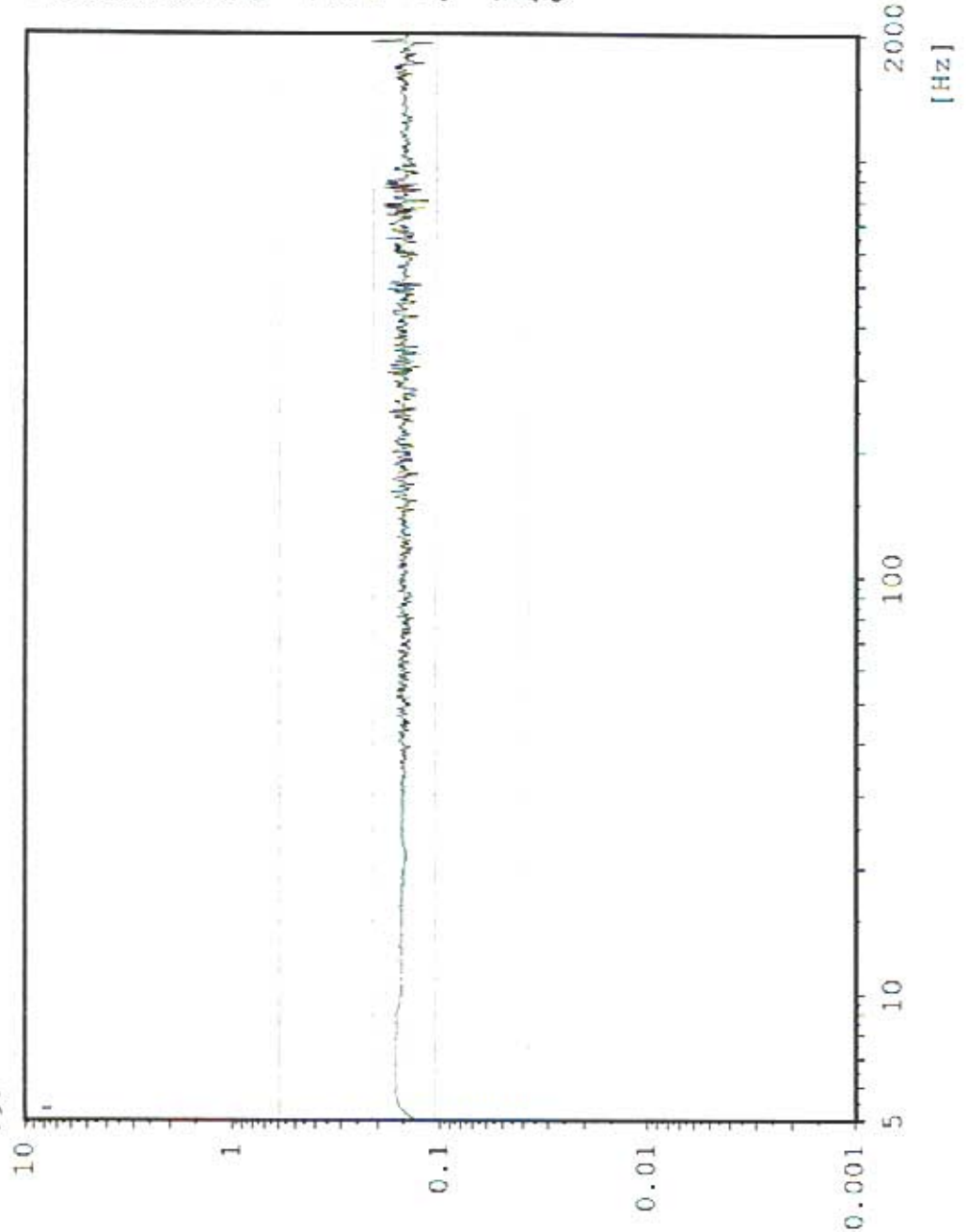
Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00  
Date: 06-20-05  
Time: 11:04:52

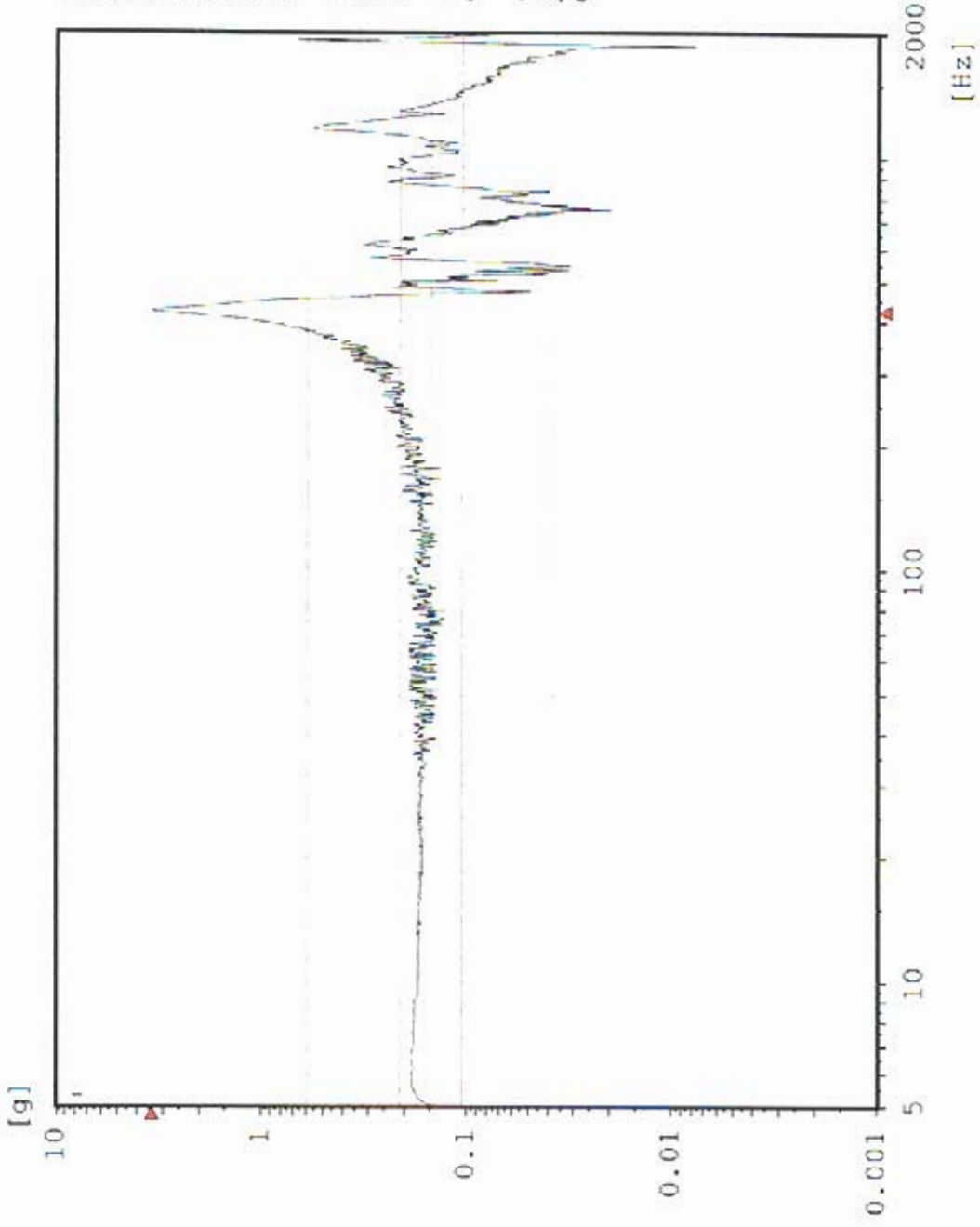
Y - axis Post Random  
Acceptance Unit  
GLAT 1841





# AY3 TPS Top Center

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 2  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

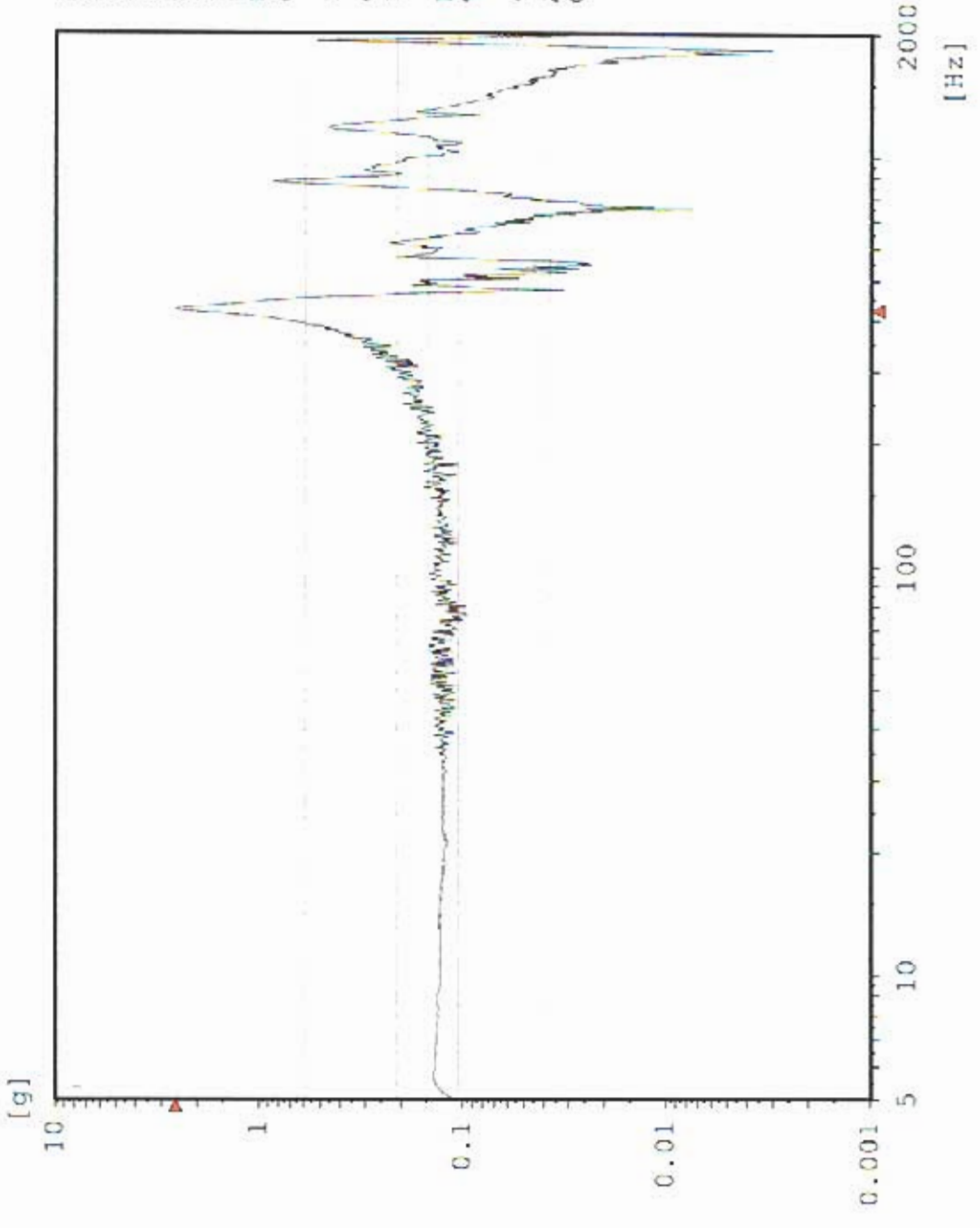
-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 11:04:52

Y - axis Post Random  
 Acceptance Unit  
 GLAT 1841

# Sine AY4 TPS Top Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 3  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 11:04:52

Y - axis Post Random  
 Acceptance Unit  
 GLAT 1841

# Sine AY1 TEM Center Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

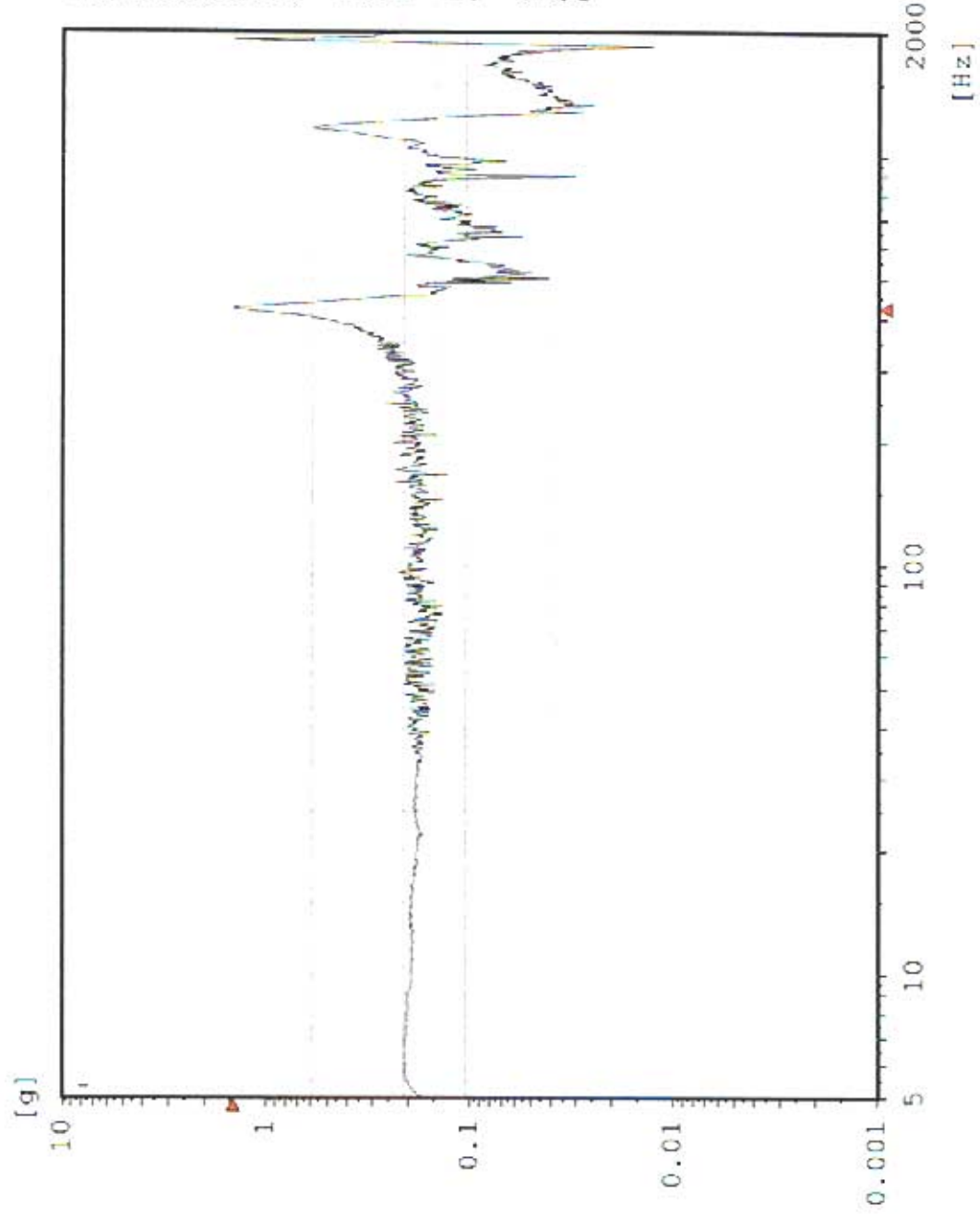


Chan.no: 5  
Chan.type: % Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:09:00

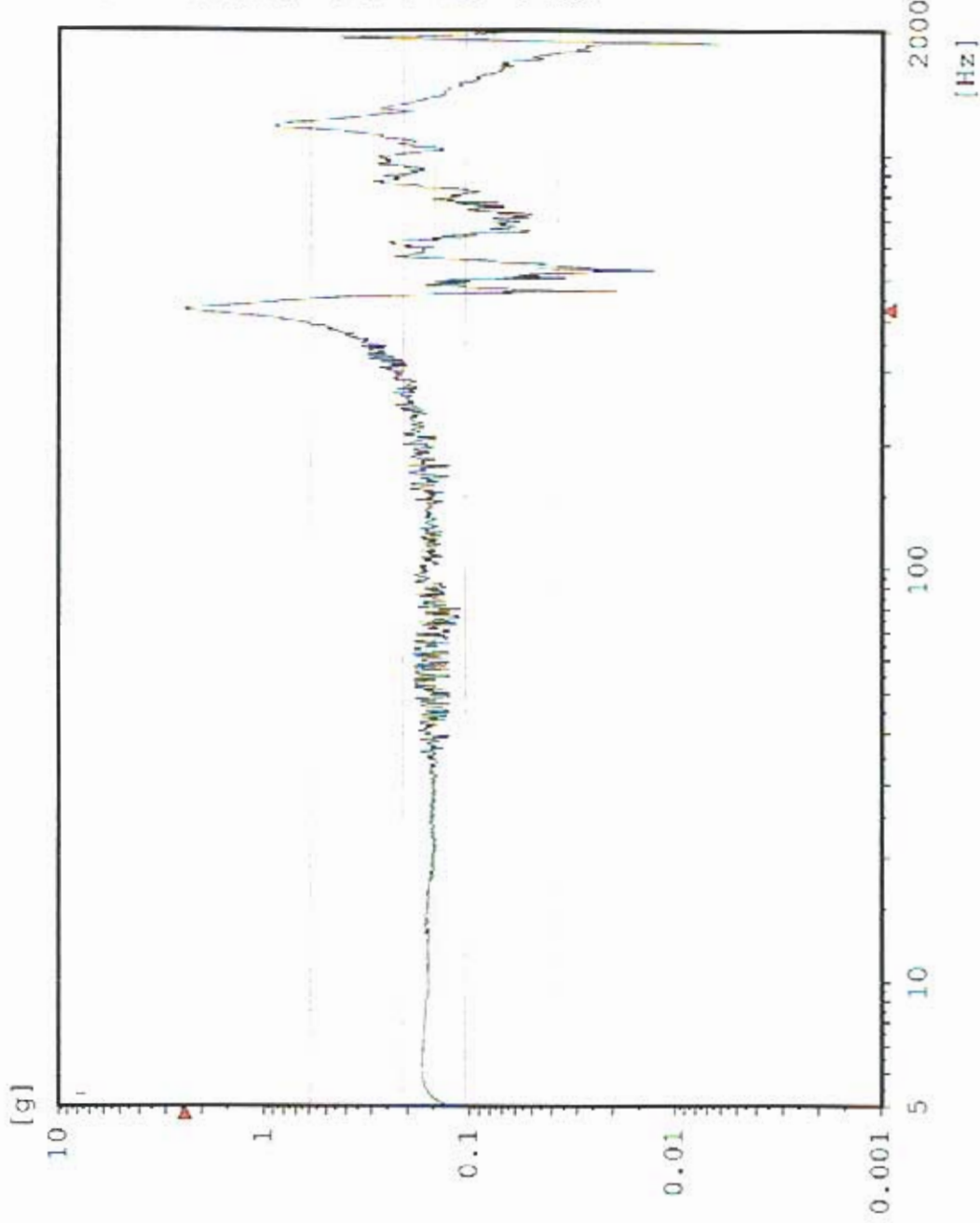
Date: 06-20-05  
Time: 11:04:52

Y - axis Post Random  
Acceptance Unit  
GLAT 1841



# Sine AY2 TPS CG

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 10  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:06:00

Date: 06-20-05  
 Time: 11:04:52

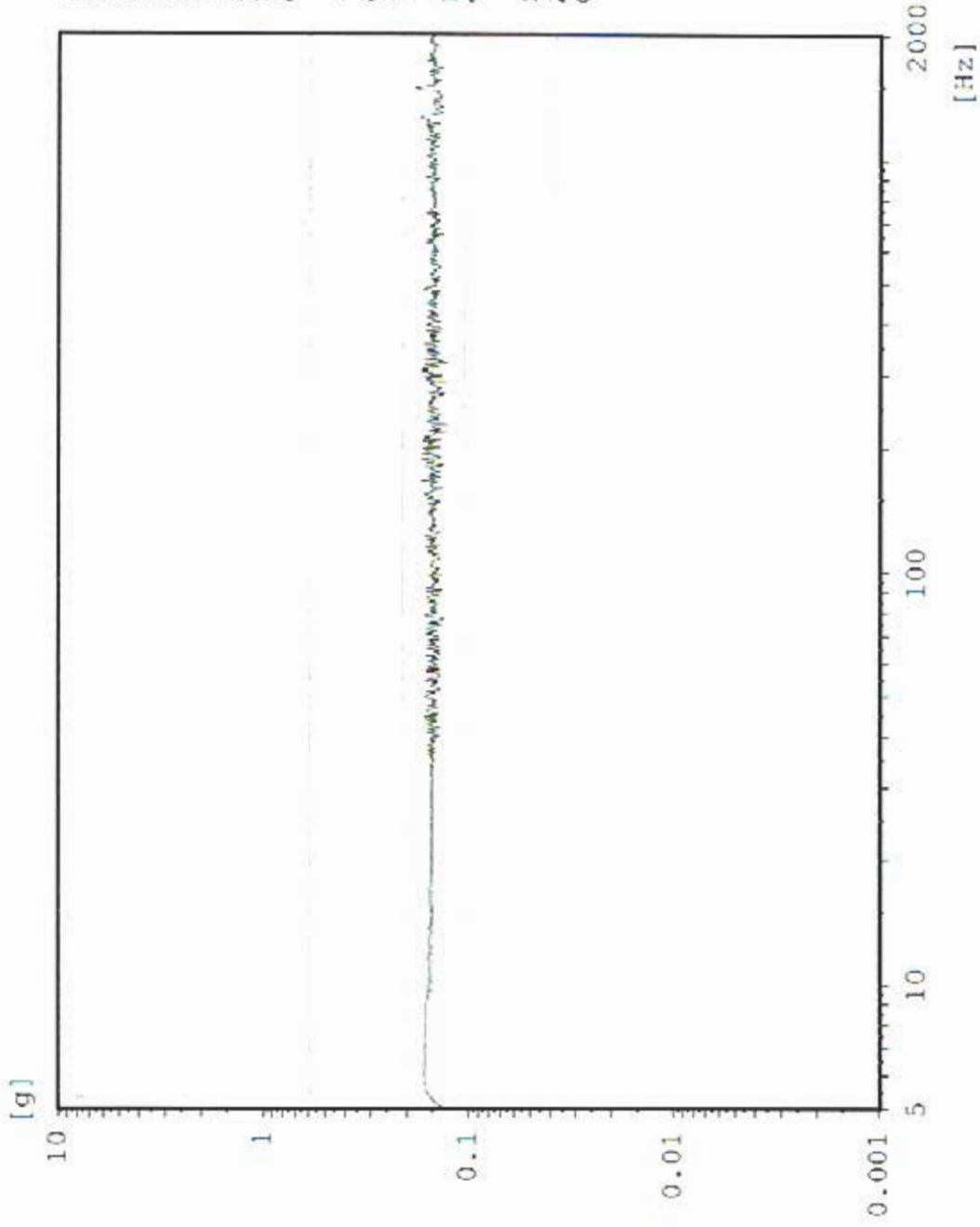
Y - axis Post Random  
 Acceptance Unit  
 GLAT 1841

# Sine CZ1 Z-Axis Control

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

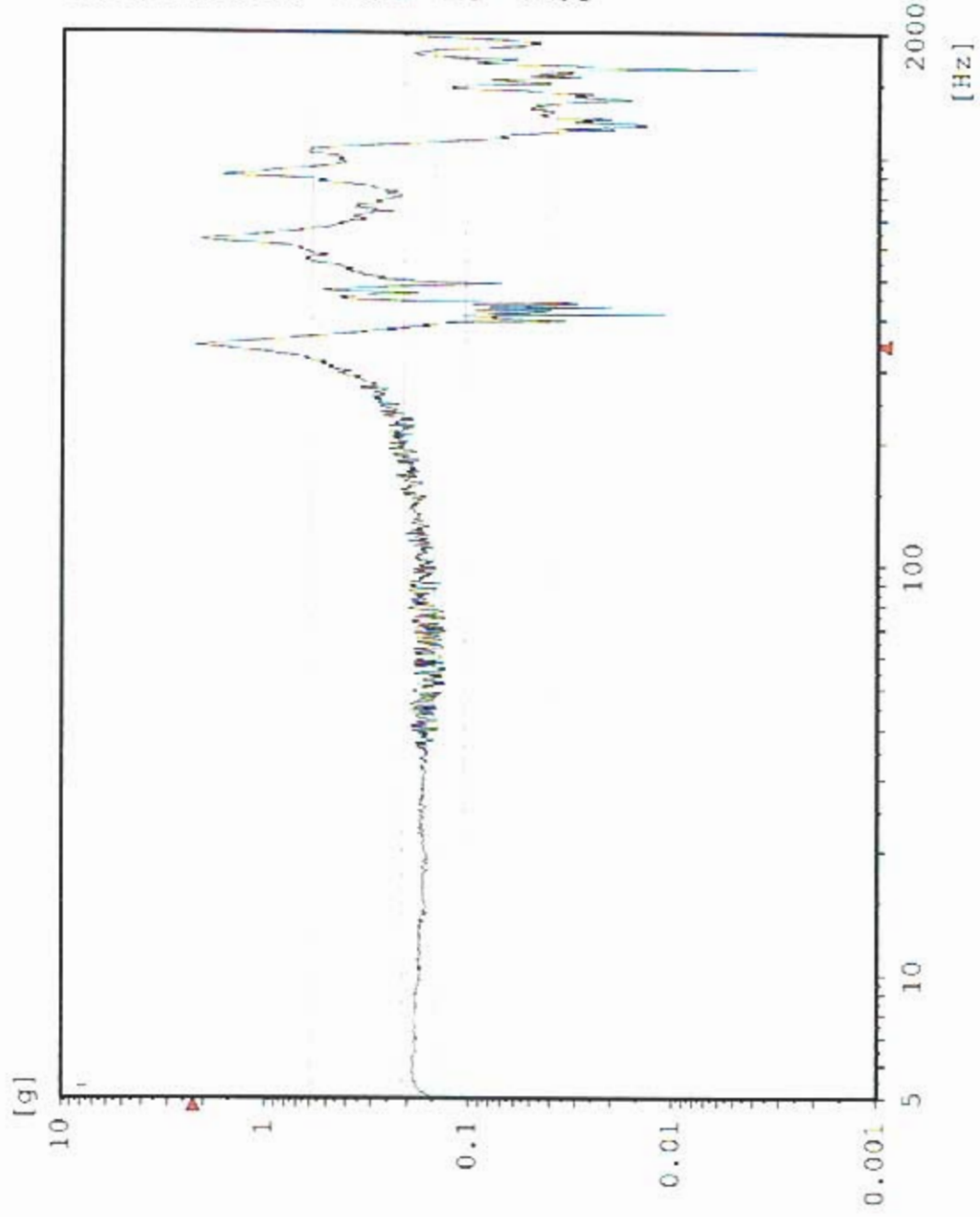
-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 15:35:41

Z - axis Pre Random  
Acceptance Unit  
GLAT 1841

# AZ4 TPS BOSS 2

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 2  
 Char.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:35:41

Z - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

# Sine AZ3 TPS Boss 1

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

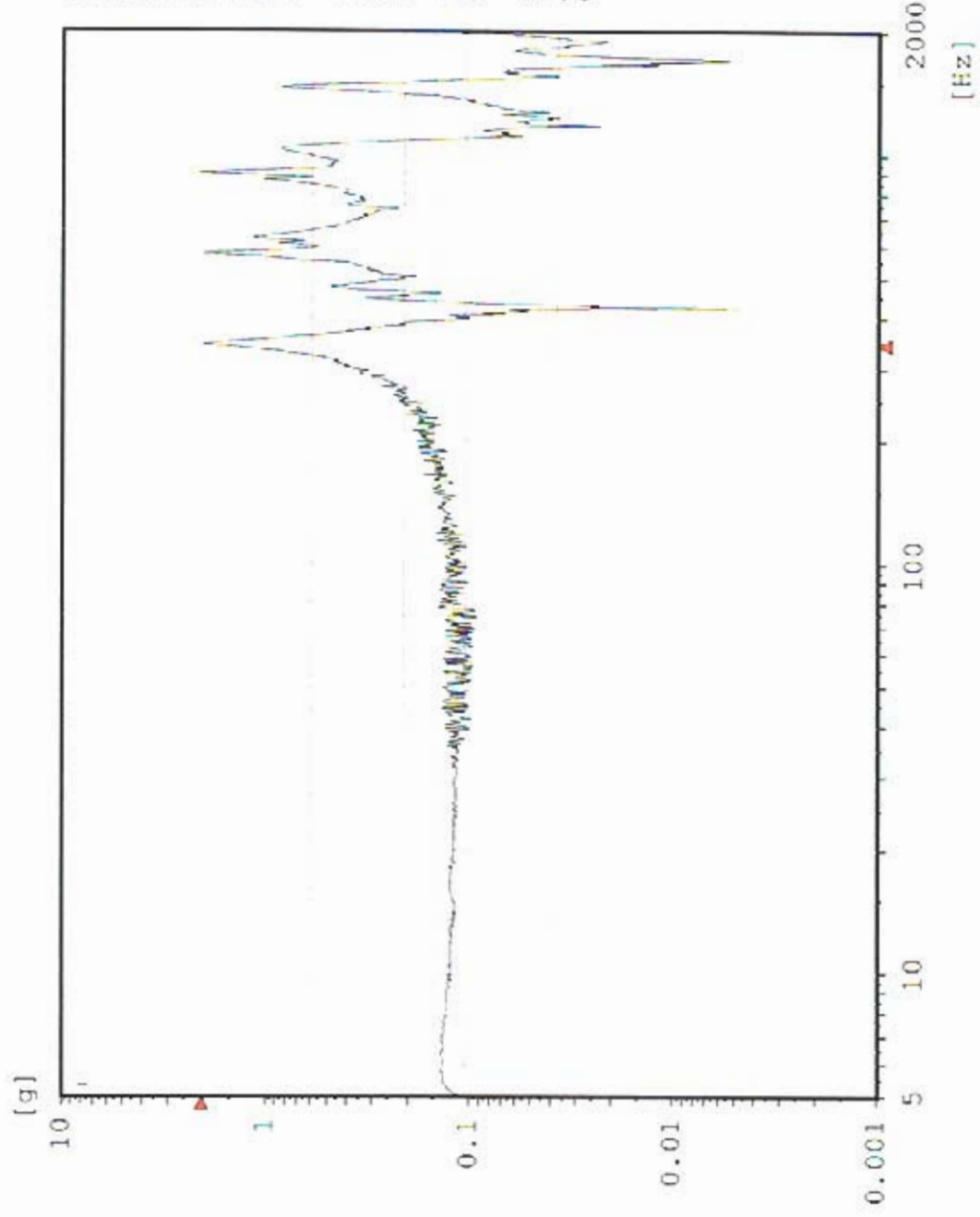


Chan.no: 3  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

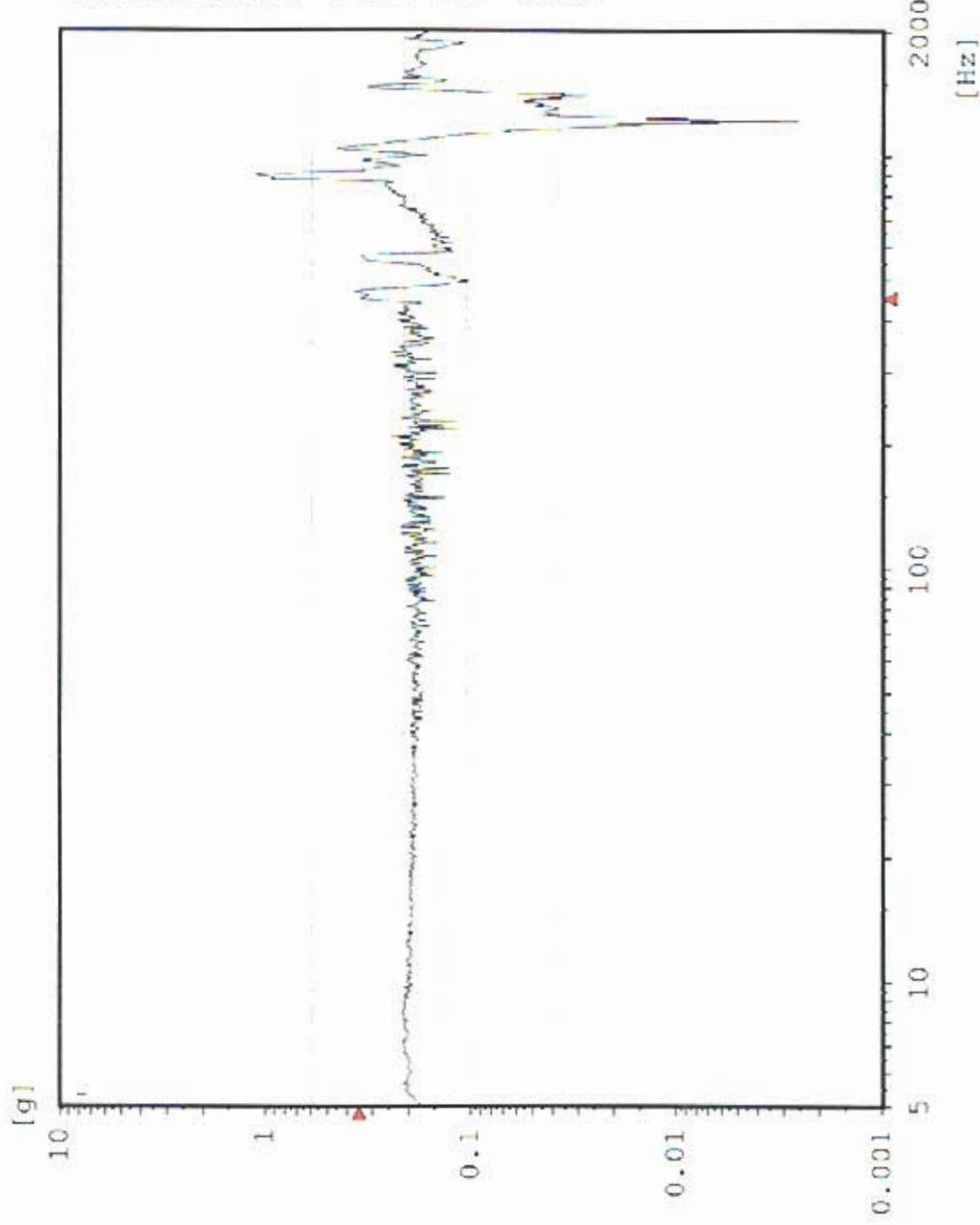
Date: 06-20-05  
Time: 15:35:41

Z - axis Pre Random  
Acceptance Unit  
GLAT 1841



# Sine AZ5 TEM Bottom Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 5  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct./min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

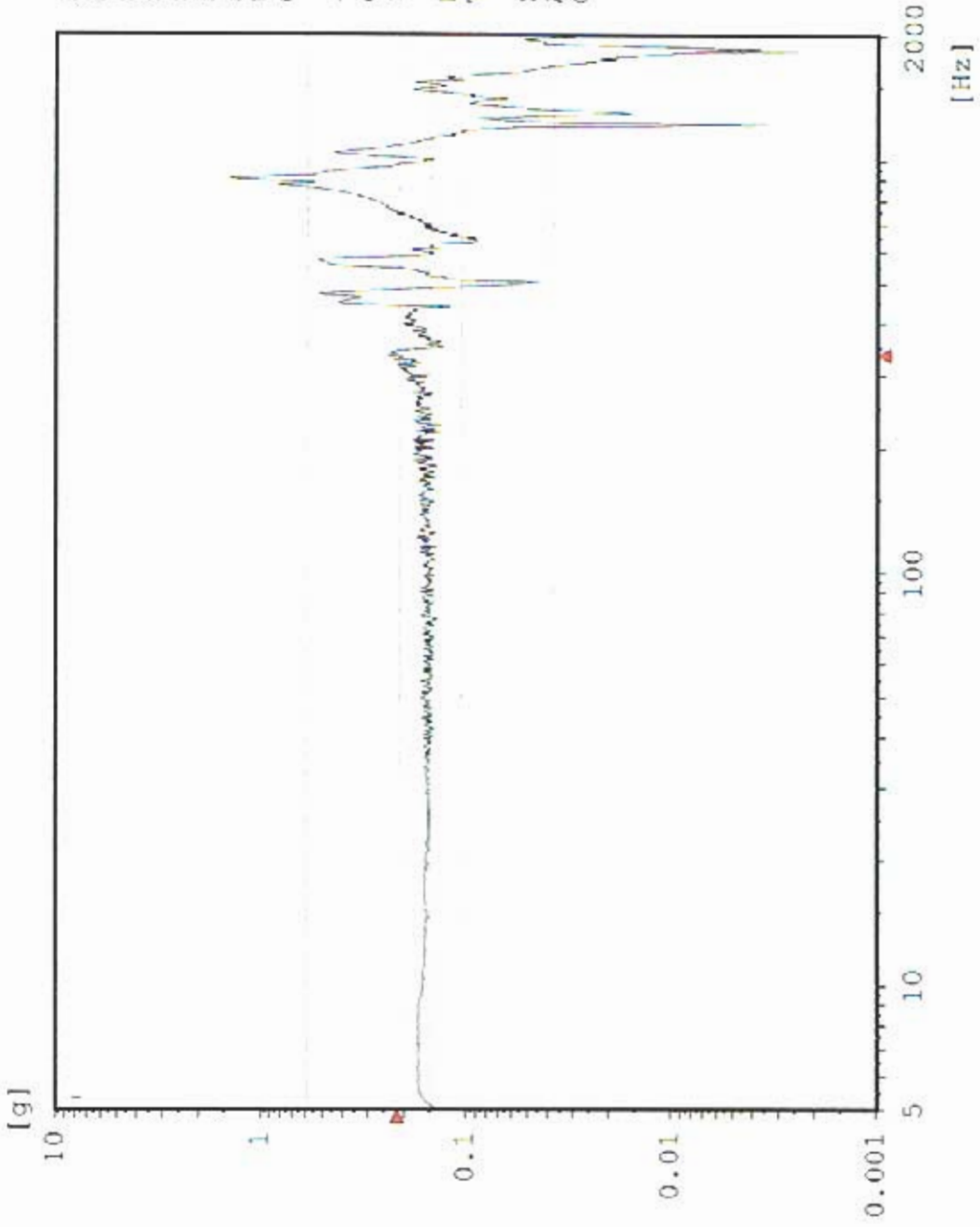
Date: 06-20-05  
 Time: 15:35:41

Z - axis Pre Random  
 Acceptance Unit  
 GLAT 1641



# Sine AZ1 TPS Edge Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 6  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:35:41

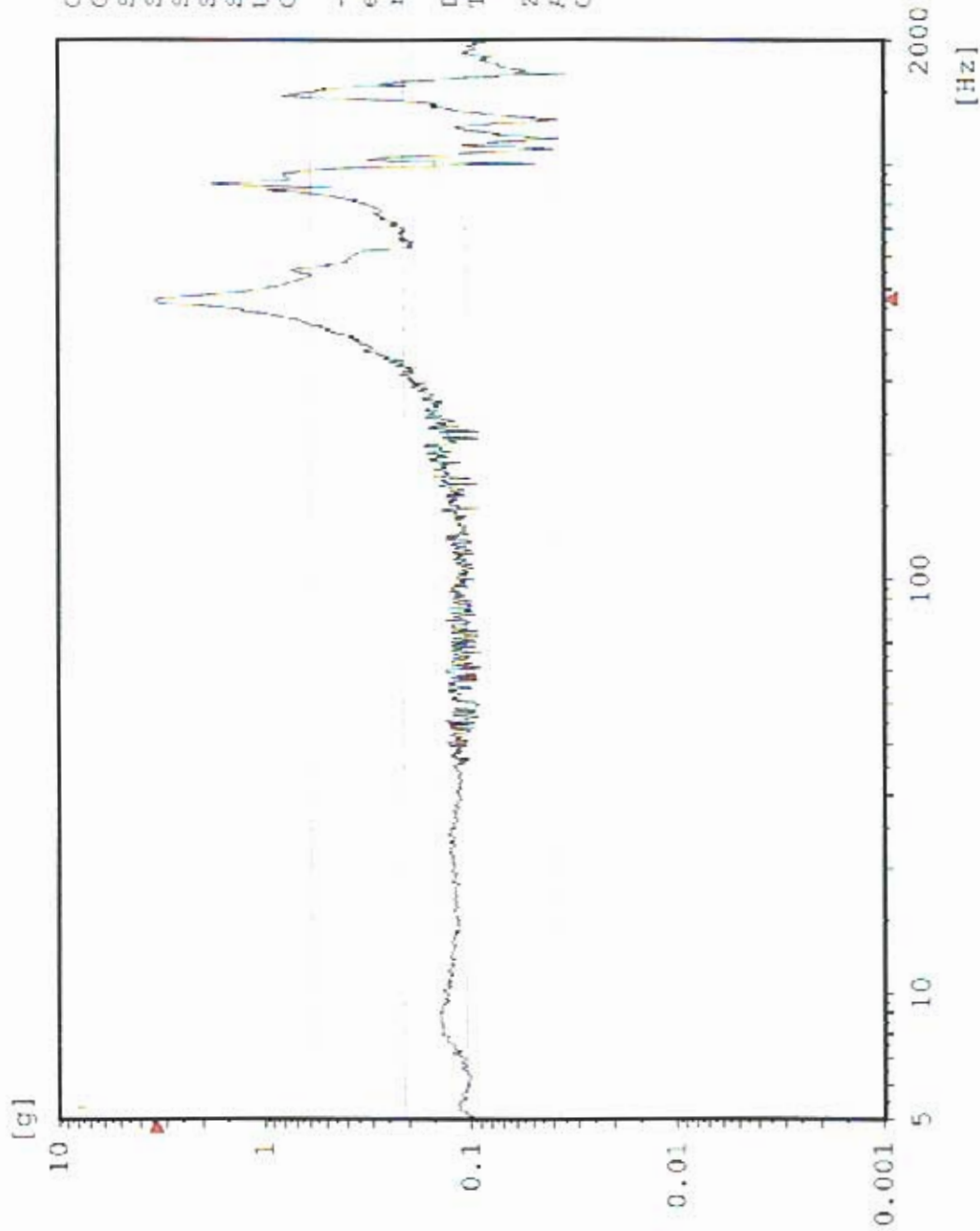
Z - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

# Sine AZ6 TEM Bottom Center

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 8  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:35:41

Z - axis Pre Random  
 Acceptance Unit  
 GLAT 1841

### AZ2 TPS Corner

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

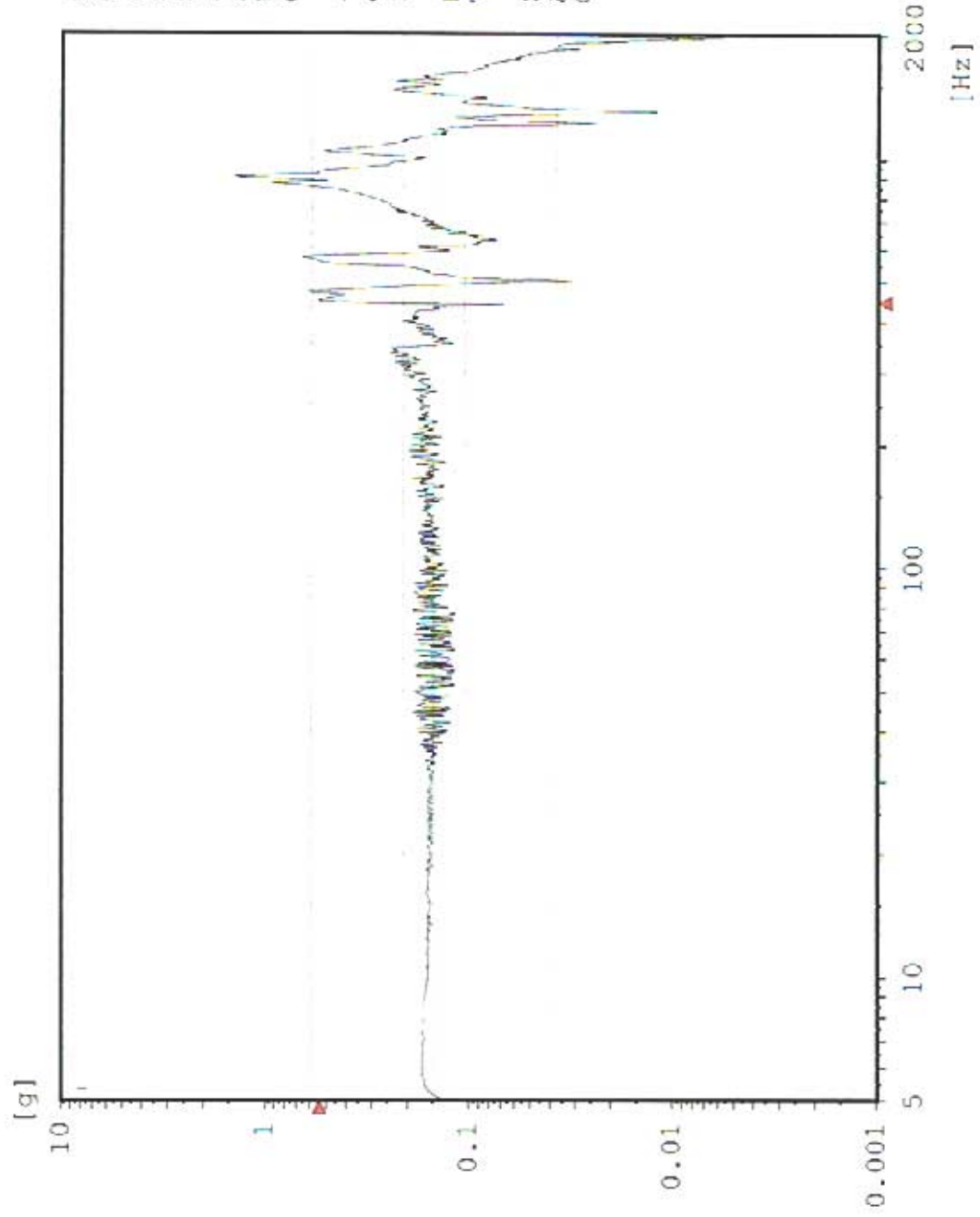


Chan.no: 10  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 15:35:41

Z - axis Pre Random  
Acceptance Unit  
GLAT 1841



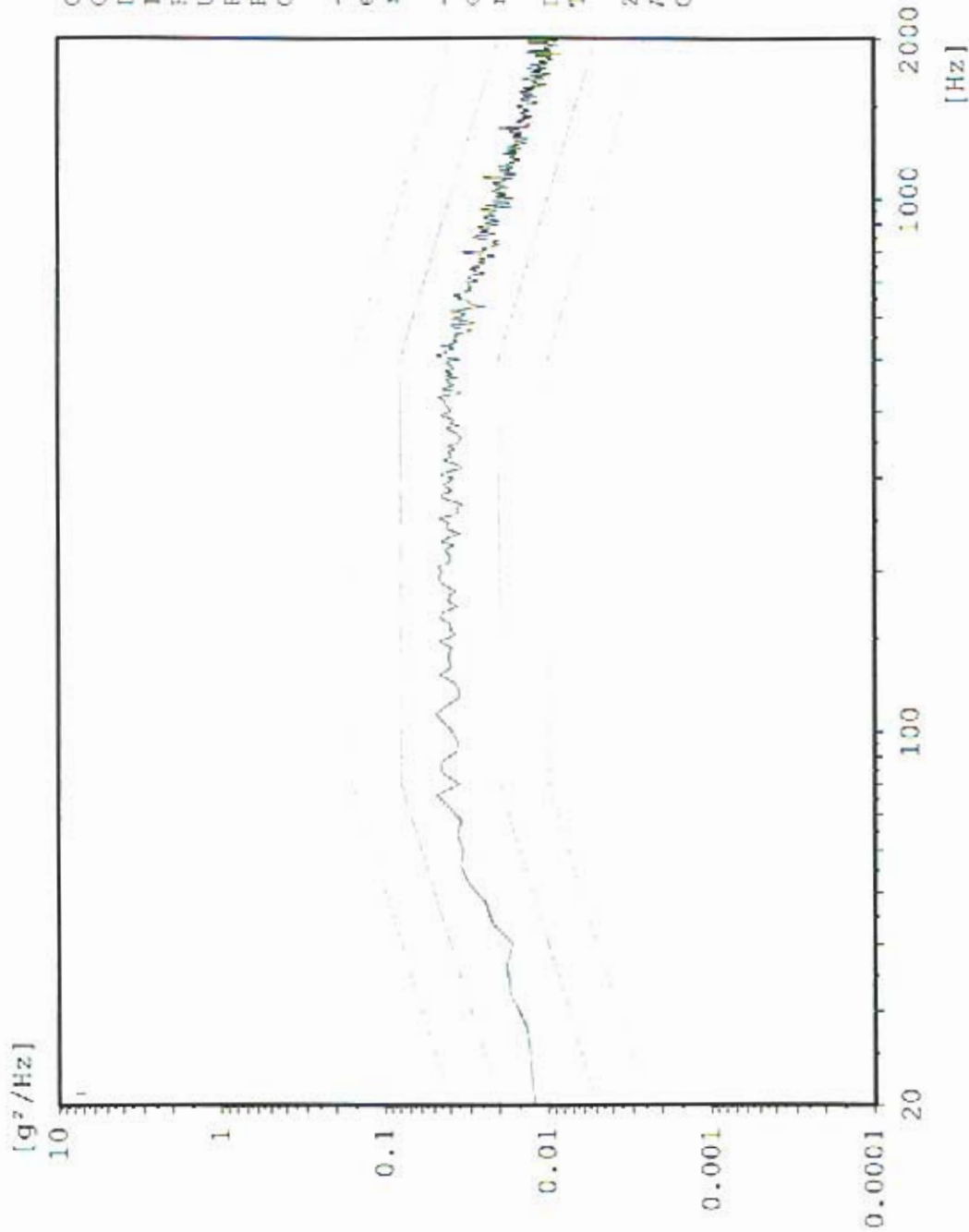
# CZ1 Z-Axis Control

Random

Stanford Linear Accelerator

J/N 49995.52057

TEM & TPS



Chan.no: 1  
Chan.type: C  
DOF: 126  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit:  $g^2/Hz$   
RMS (act.): 6.817 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:54  
remaining: 000:00:00

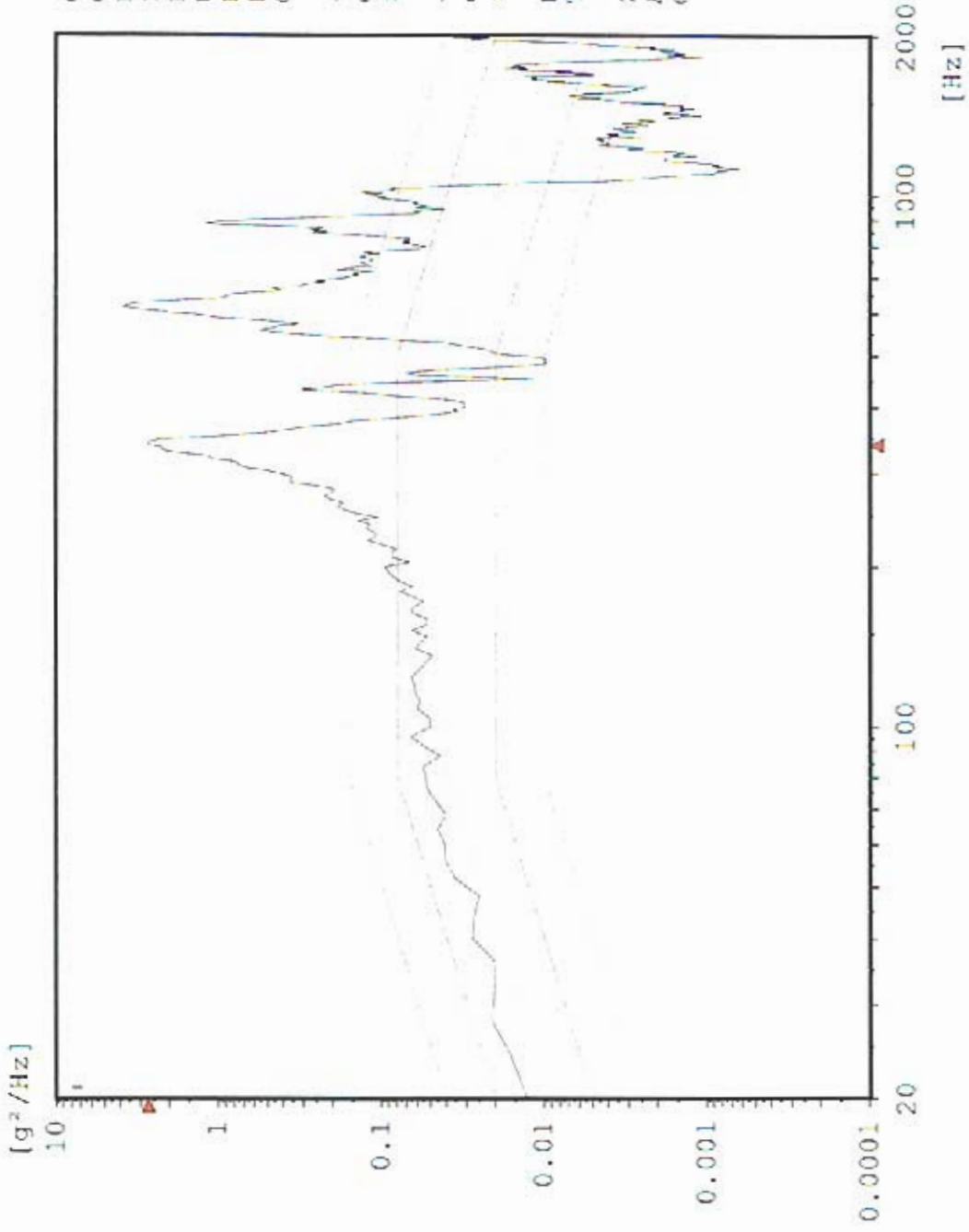
Date: 05-20-05  
Time: 15:50:59

Z - Axis  
Acceptance Unit  
GLAT 1841

Cursor: 340 Hz 2.706 g<sup>2</sup>/Hz

### AZ4 TPS Boss 2

Random  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 2  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 19.17 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:54  
remaining: 000:00:00

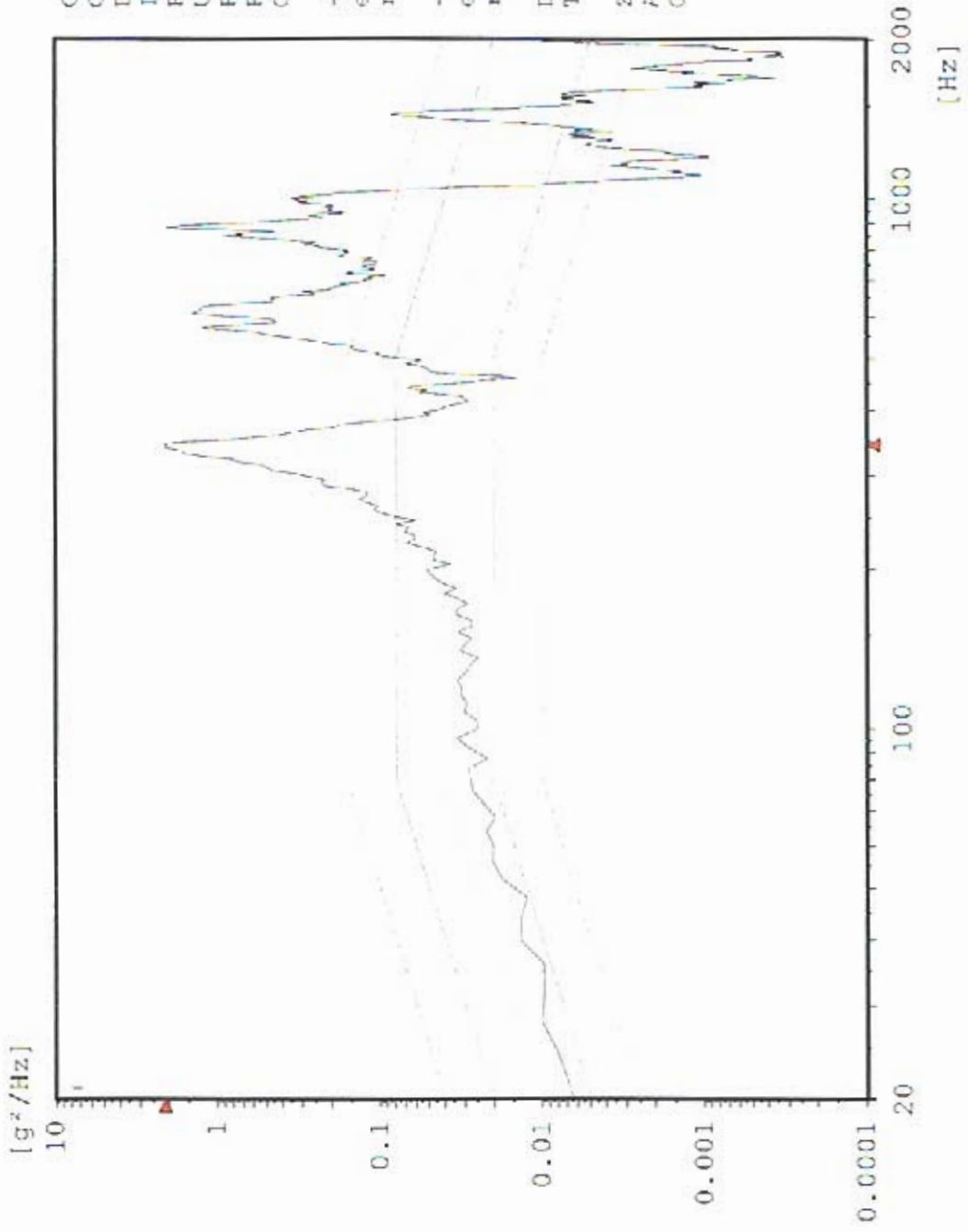
Date: 06-20-05  
Time: 15:50:59

Z - Axis  
Acceptance Unit  
GLAT 1841

Max: 344 Hz 2.123 g<sup>2</sup>/Hz

### Random AZ3 TPS Boss 1

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 3  
Chan.type: M  
DOF: 100  
Level: 0.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 17.97 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00  
-- Time total --  
elapsed: 000:02:54  
remaining: 000:00:00

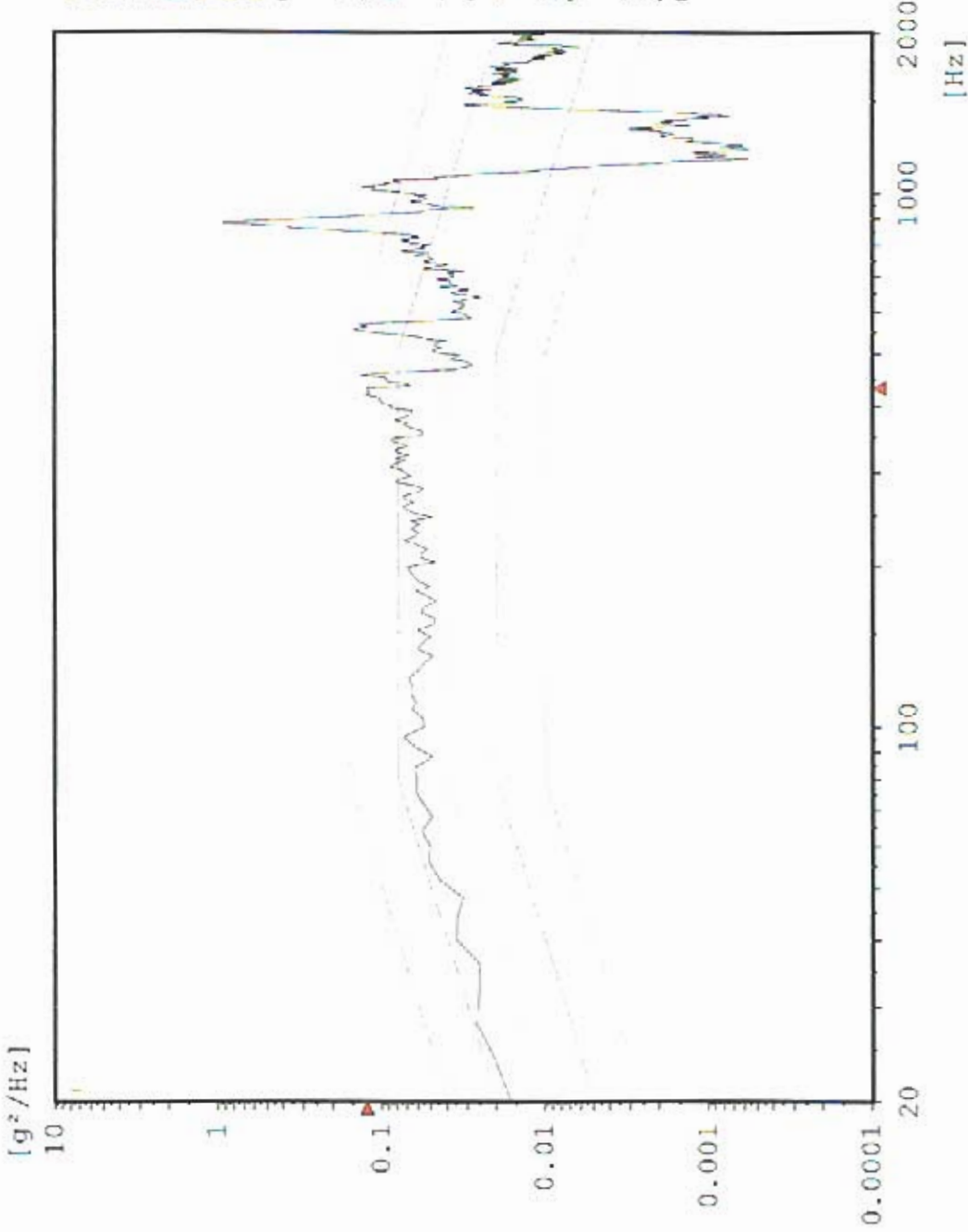
Date: 06-20-05  
Time: 15:50:59

Z - Axis  
Acceptance Unit  
GLAT 1841

Cursor: 432 Hz 0.1241 g<sup>2</sup>/Hz

### Random AZ5 TEM Bottom Edge

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



Chan.no: 5  
 Chan.type: M  
 DOF: 100  
 Level: 0.0 dB  
 Resolution: 4 Hz  
 Unit: g<sup>2</sup>/Hz  
 RMS (act.): 9.953 g  
 RMS (req.): 6.787 g  
 Contr.strat.: Closed loop

-- Time on act. level --  
 elapsed: 000:01:00  
 remaining: 000:00:00

-- Time total --  
 elapsed: 000:02:54  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:50:59

Z - Axis  
 Acceptance Unit  
 GLAT 1841

Cursor: 432 Hz 0.1738 g<sup>2</sup>/Hz

### Random AZ1 TPS Edge Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



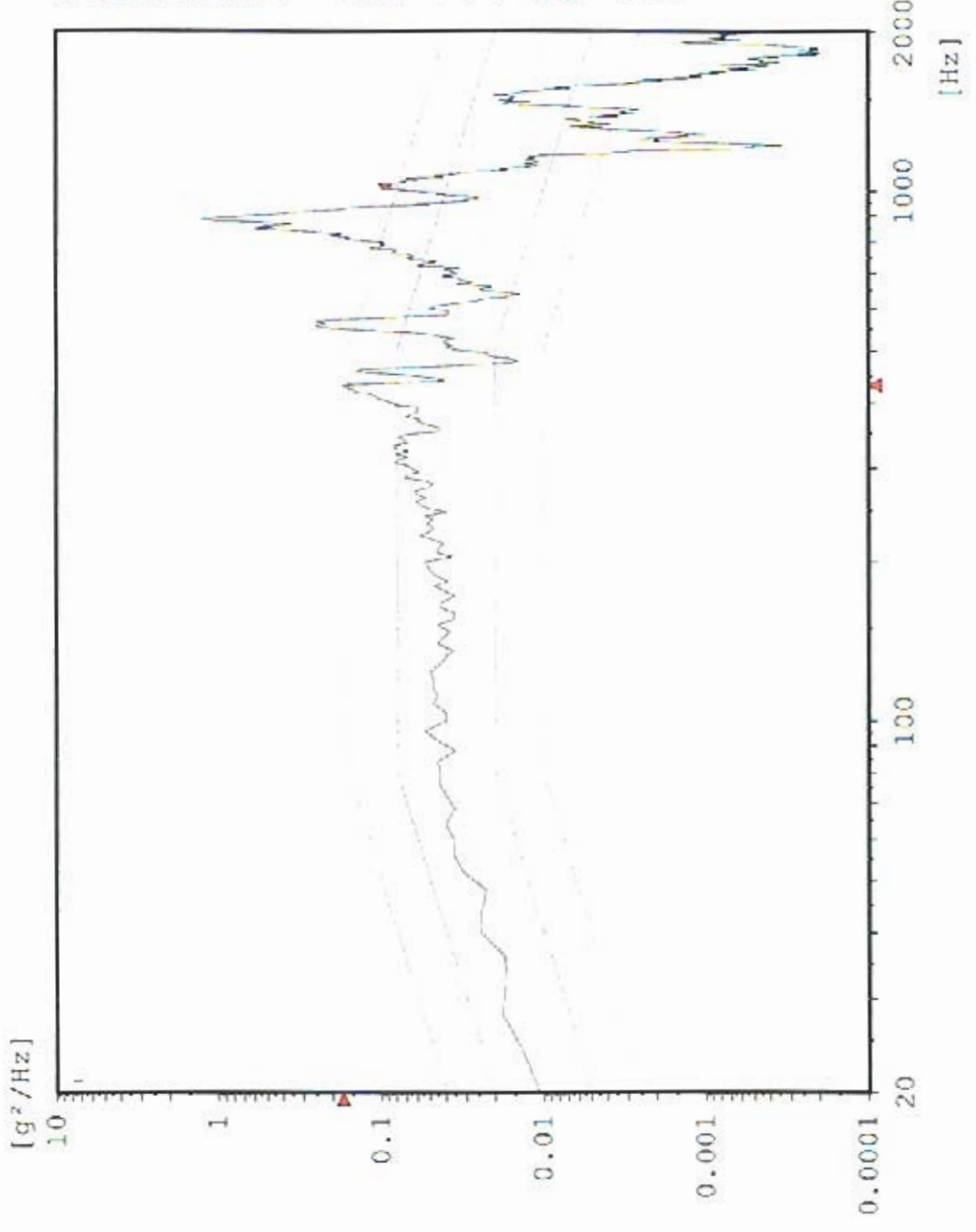
Chan.no: 6  
 Chan.type: M  
 DOF: 100  
 Level: 0.0 dB  
 Resolution: 4 Hz  
 Unit: g<sup>2</sup>/Hz  
 RMS (act.): 10.81 g  
 RMS (req.): 6.787 g  
 Contr.strat.: Closed loop

-- Time on act. level --  
 elapsed: 000:01:00  
 remaining: 000:00:00

-- Time total --  
 elapsed: 000:02:54  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:50:59

Z - Axis  
 Acceptance Unit  
 GLAT 1841





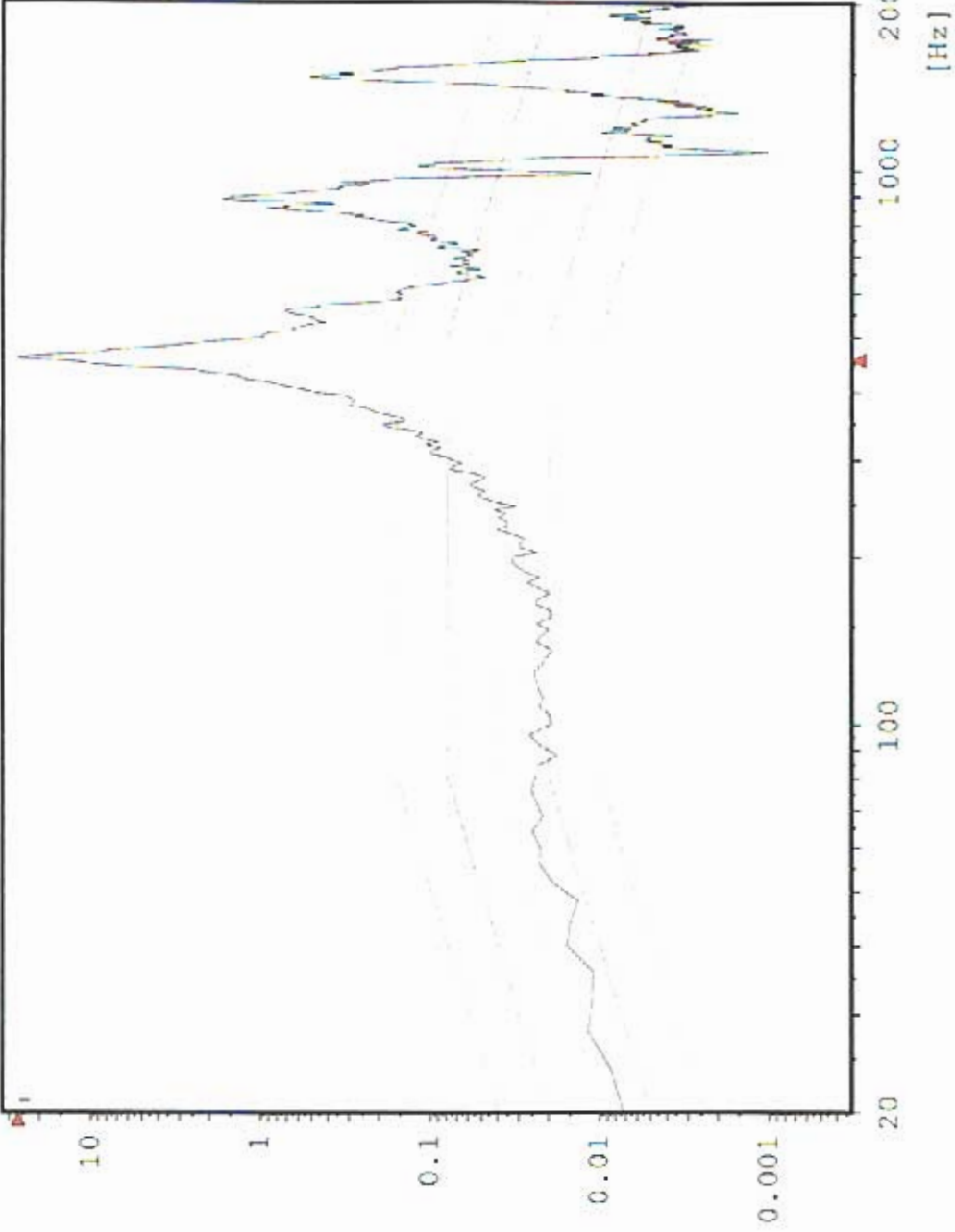
Max: 456 Hz 27.08 g<sup>2</sup>/Hz

### Random AZ6 TEM Bottom Center

Stanford Linear Accelerator

J/N 49995.52057

TEM & TPS



Chan.no: 8  
Chan.type: M  
DOF: 100  
Level: 6.0 dB  
Resolution: 4 Hz  
Unit: g<sup>2</sup>/Hz  
RMS (act.): 28.75 g  
RMS (req.): 6.787 g  
Contr.strat.: Closed loop

-- Time on act. level --  
elapsed: 000:01:00  
remaining: 000:00:00

-- Time total --  
elapsed: 000:02:54  
remaining: 000:00:00

Date: 06-20-05  
Time: 15:50:59

Z - Axis  
Acceptance Unit  
GLAT 1841

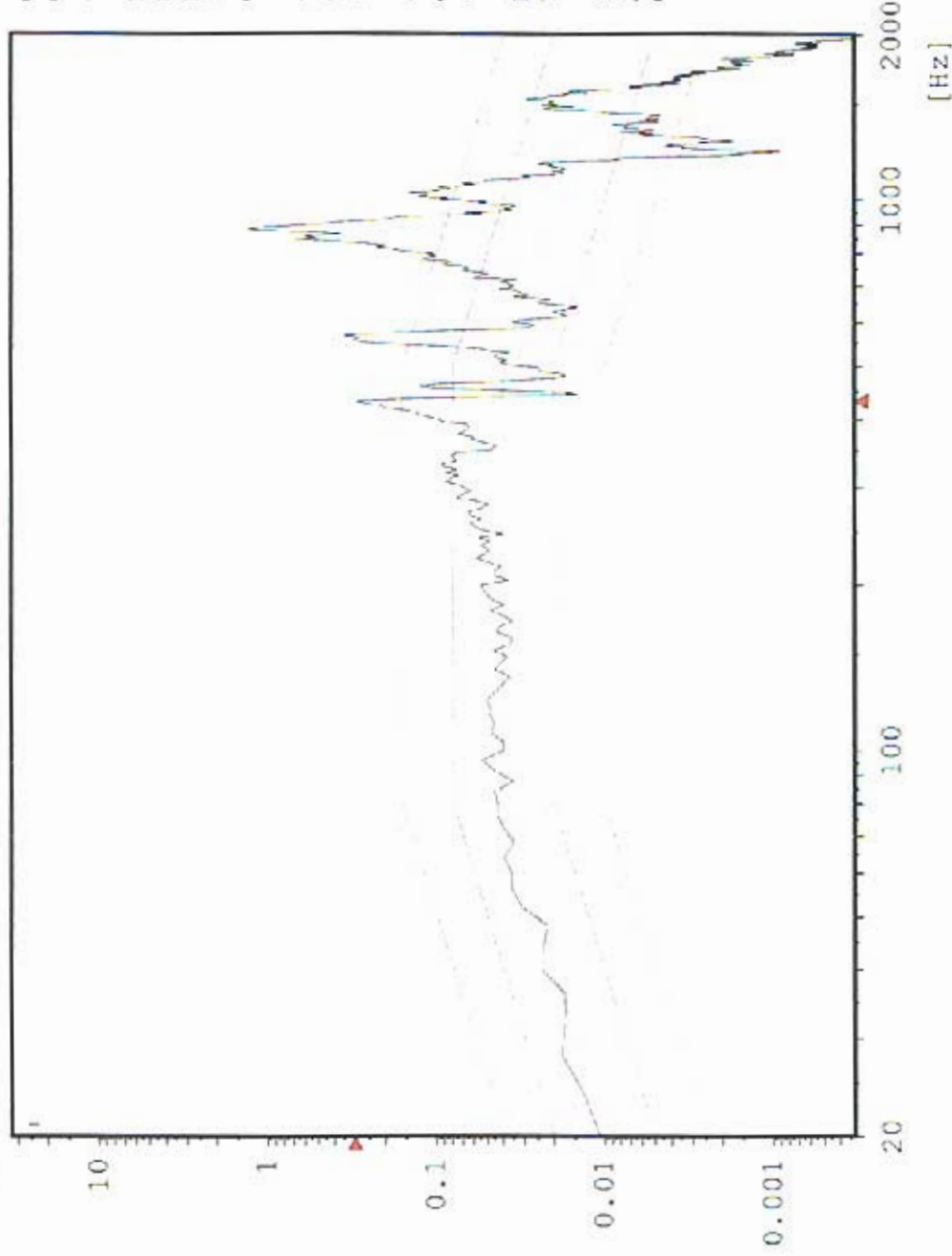
Cursor: 432 Hz 0.3068 g<sup>2</sup>/Hz

### Random AZ2 TPS Corner

Stanford Linear Accelerator  
J/N 49995.52057  
TEM & TPS



[g<sup>2</sup>/Hz]



Chan.no: 10  
 Chan.type: M  
 DOF: 100  
 Level: 0.0 dB  
 Resolution: 4 Hz  
 Unit: g<sup>2</sup>/Hz  
 RMS (act.): 11.43 g  
 RMS (req.): 6.787 g  
 Contr.strat.: Closed loop

-- Time on act. level --  
 elapsed: 000:01:00  
 remaining: 000:00:00

-- Time total --  
 elapsed: 000:02:54  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 15:50:59

Z - Axis  
 Acceptance Unit  
 GLAT 1841

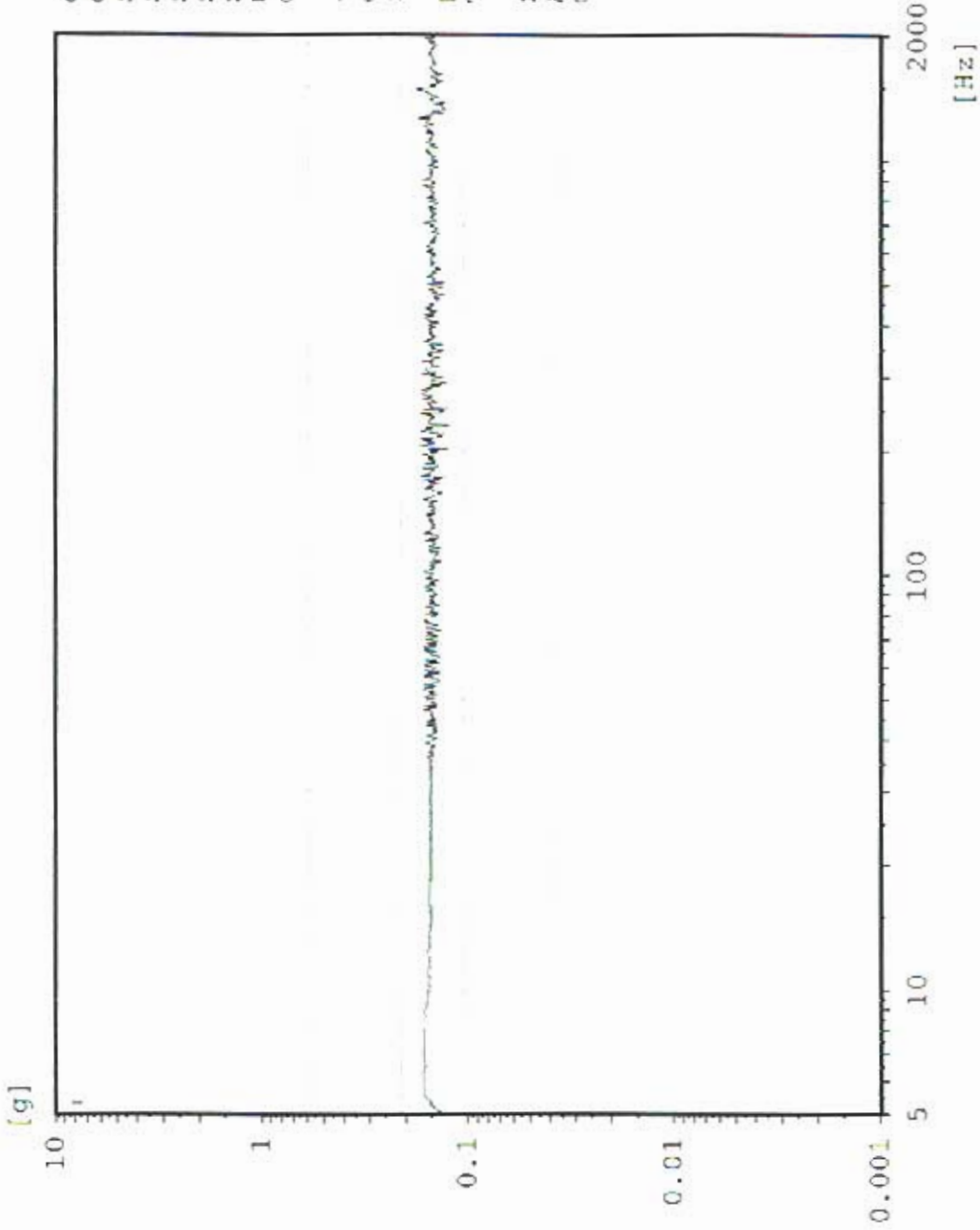
# CZ1 Z-Axis Control

Sine

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 1  
Chan.type: CW Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 00:04:18  
remaining: 00:00:00

Date: 06-20-05  
Time: 16:03:16

Z - axis Post Random  
Acceptance Unit  
GLAT 1841

# AZ4 TPS Boss 2

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

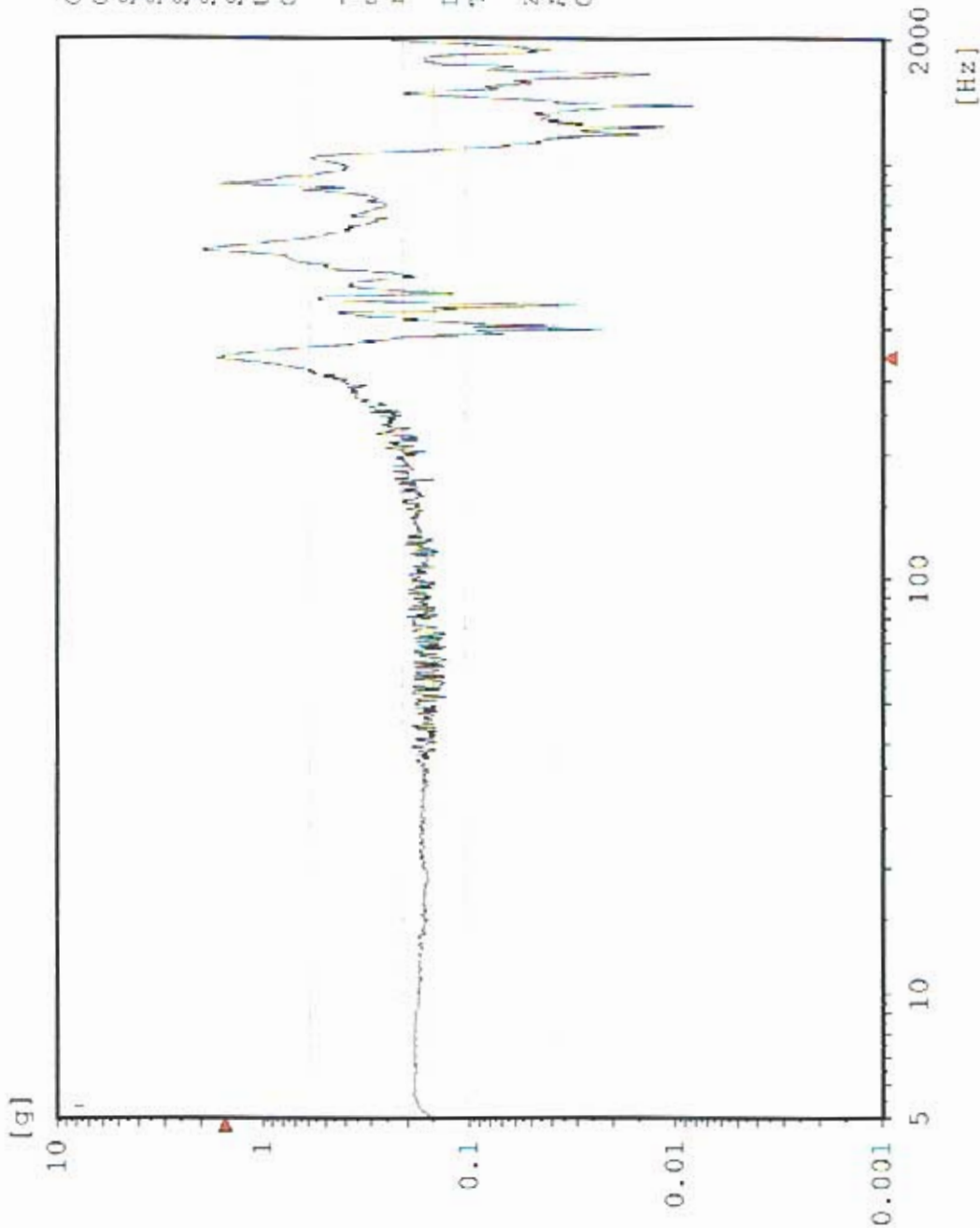


Chan.no: 2  
Char.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct./min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 16:03:16

Z - axis Post Random  
Acceptance Unit  
GLAT 1841



# AZ3 TPS Boss 1

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

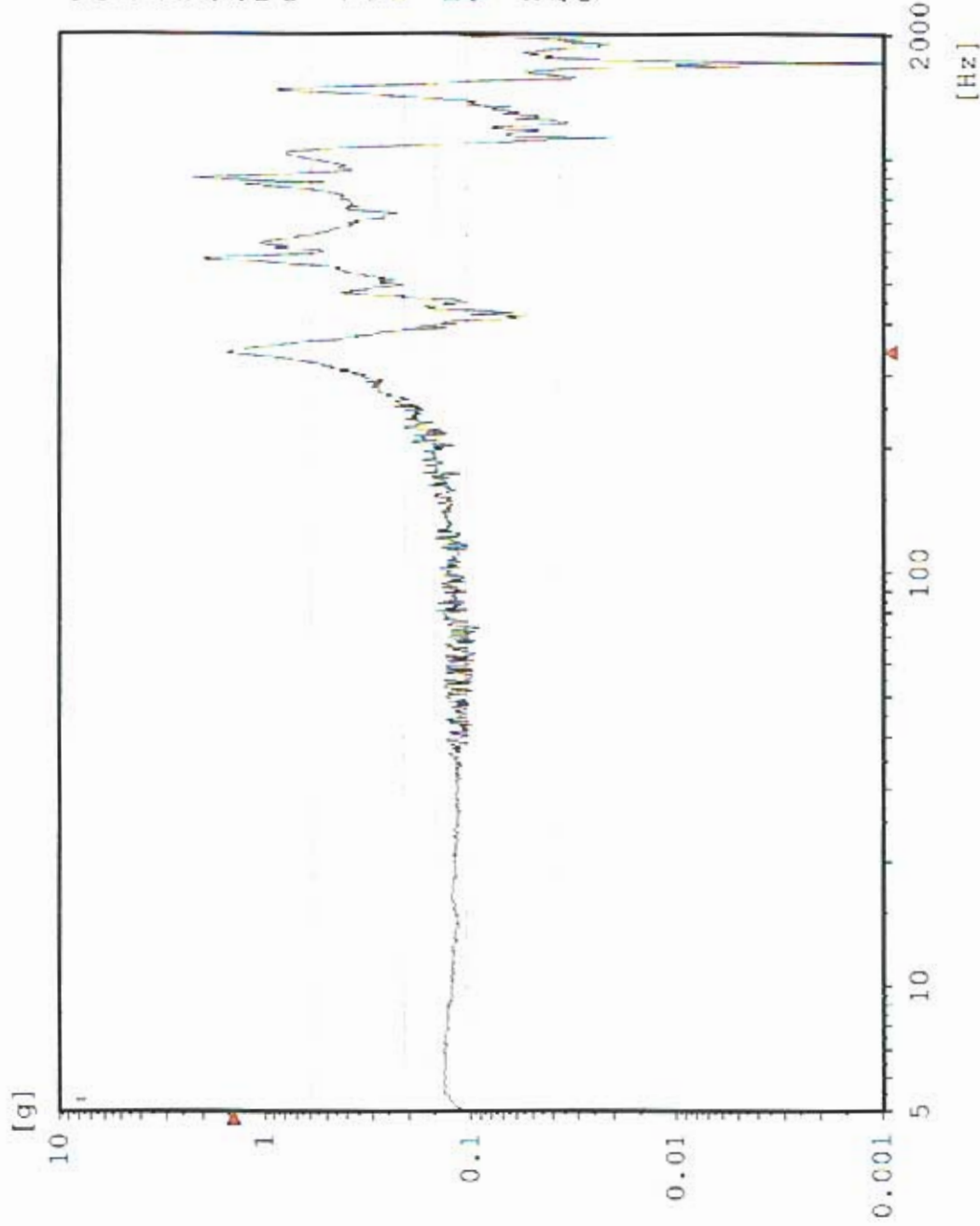


Chan.no: 3  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 00:04:18  
remaining: 00:00:00

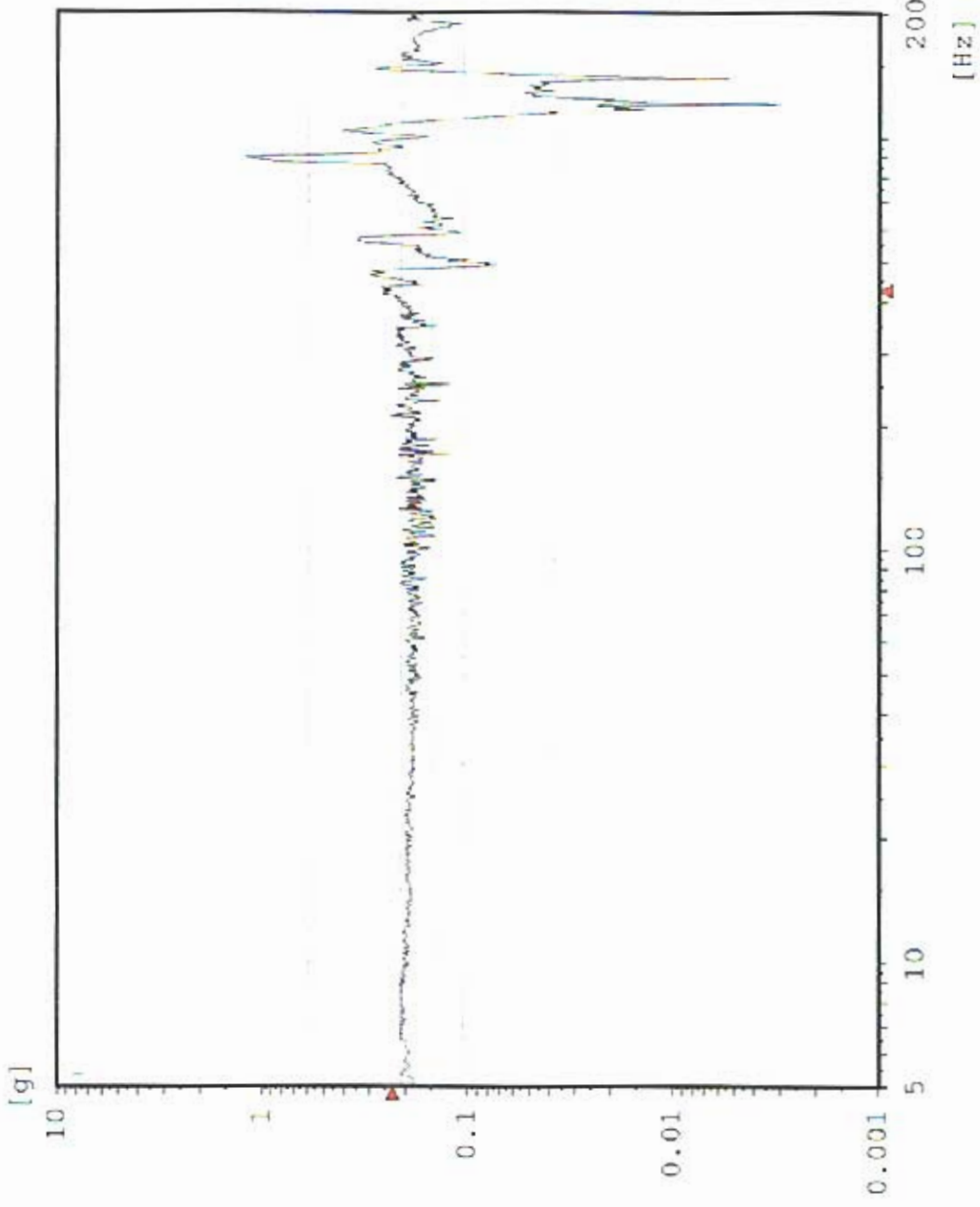
Date: 06-20-05  
Time: 16:03:16

Z - axis Post Random  
Acceptance Unit  
GLAT 1841



# AZ5 TEM Bottom Edge

Sine  
Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 5  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

Date: 06-20-05  
 Time: 16:03:16

Z - axis Post Random  
 Acceptance Unit  
 GLAT 1841

# Sine AZ1 TPS Edge Center

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS

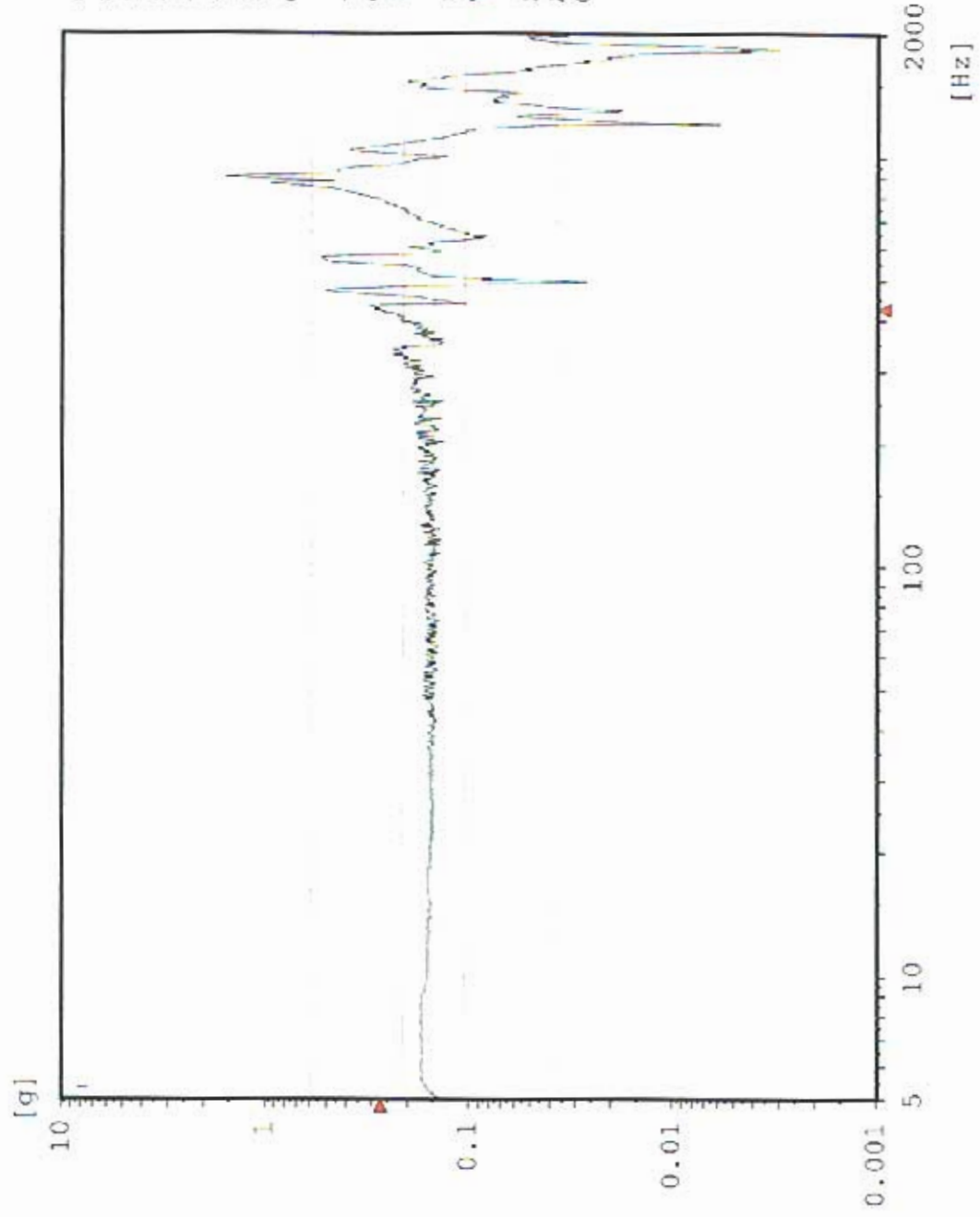


Chan.no: 6  
Chan.type: M Filtered  
Sweep type: logarithmic  
Sweeps done: 1  
Sweeps req.: 1  
Sweep direct.: up  
Sweep rate: 2.00 Oct/min  
Unit: g  
Contr.strat.: Closed loop

-- Testing time --  
elapsed: 000:04:18  
remaining: 000:00:00

Date: 06-20-05  
Time: 16:03:16

Z - axis Post Random  
Acceptance Unit  
GLAT 1841

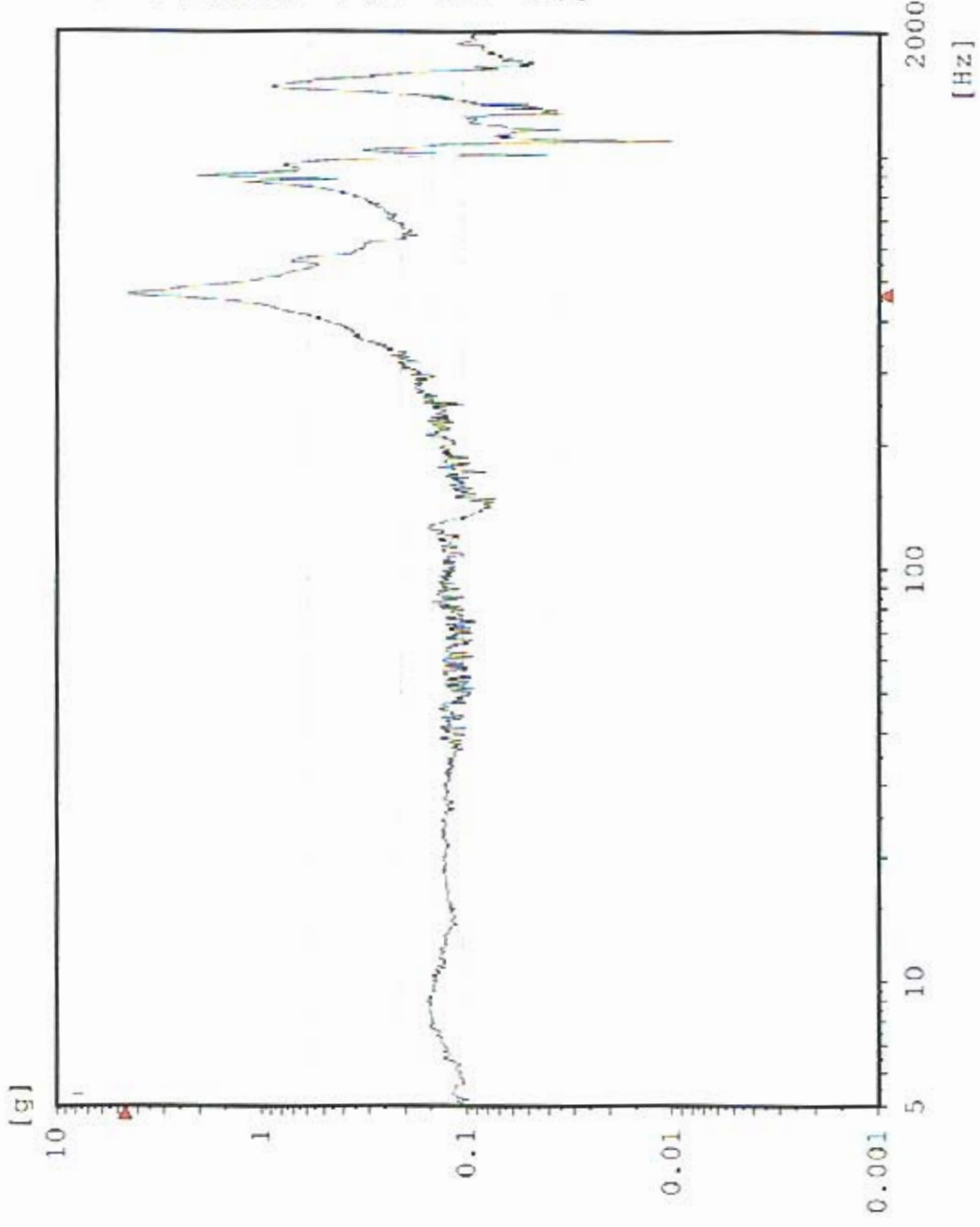


# Sine AZ6 TEM Bottom Center

Stanford Linear Accelerator

J/N 49995.52057

TEM / TPS



Chan.no: 8  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00

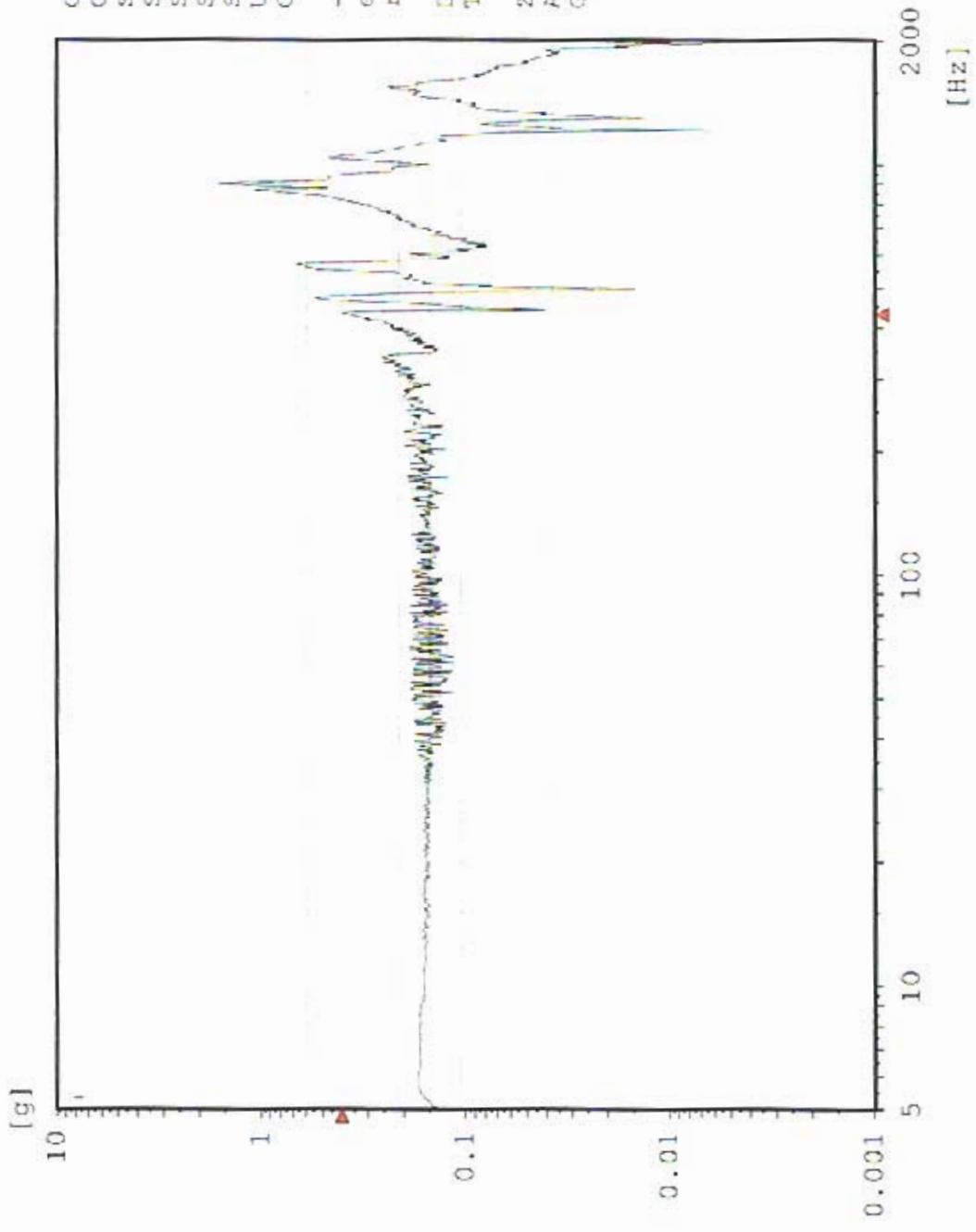
Date: 06-20-05  
 Time: 16:03:16

Z - axis Post Random  
 Acceptance Unit  
 GLAT 1841



# Sine AZ2 TPS Corner

Stanford Linear Accelerator  
J/N 49995.52057  
TEM / TPS



Chan.no: 10  
 Chan.type: M Filtered  
 Sweep type: logarithmic  
 Sweeps done: 1  
 Sweeps req.: 1  
 Sweep direct.: up  
 Sweep rate: 2.00 Oct/min  
 Unit: g  
 Contr.strat.: Closed loop

-- Testing time --  
 elapsed: 000:04:18  
 remaining: 000:00:00  
 Date: 06-20-05  
 Time: 16:03:16

Z - axis Post Random  
 Acceptance Unit  
 GLAT 1841



**EQUIPMENT LIST**

JOB NUMBER 49995.52057

TEST DESCRIPTION Random & Sine Vibration

EQUIPMENT DESCRIPTION	MANUFACTURER	MODEL NUMBER	ASSET NUMBER	RANGE	ACCURACY	CALIBRATION DATE	CALIBRATION PERIOD
Vibration System	Unholtz-Dickie	T1000	4-6242	17,500 Force Lbs. 2Hz -3KHz	± 10%	06-20-05	T.O.T
Accelerometer	Endevco Corp.	2271A	4-42129	1,000 g's Max: 2Hz - 5.5KHz	± 5%	11-01-04	1 Yr.
	Endevco Corp.	2226C	4-42130	1,000 g's Max: 3Hz - 6KHz	± 5%	05-25-04	1 Yr.
	Endevco Corp.	2226C	4-64096	1,000 g's Max: 3Hz - 6KHz	± 5%	04-14-05	1 Yr.
	Endevco Corp.	2222C	4-42138	1,000 g's Max: 5Hz - 8KHz	± 5%	* 06-18-04 *	1 Yr.
	Endevco Corp.	2226C	4-64082	1,000 g's Max: 3Hz - 6KHz	± 5%	04-14-05	1 Yr.
	Endevco Corp.	2220D	4-6442	1,000 g's Max: 2Hz - 10KHz	± 5%	08-26-04	1 Yr.
	Endevco Corp.	2222C	4-42143	1,000 g's Max: 5Hz - 8KHz	± 5%	11-01-04	1 Yr.
						*OK per customer *	
Charge Amp.	Unholtz-Dickie	D22-8	4-64032	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6539	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6540	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6458	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6559	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6548	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
	Unholtz-Dickie	D22-8	4-6457	Freq. Response: 5Hz - 5KHz	± 2%	03-04-05	6 Mo.
Digital Vibration Control System	M + P International / Agilent	VXI E8408A	4-62092	Freq. Range: 23KHz Sample Rate: 51.2Ksa/sec. Dynamic Range: 90dB Voltage: 10v Pk. Resolution: 20 Bit / 3200 lines Channels: 16; COLA; 1v Pk.	± 1%	03-14-05	2 Yr.