

Sheet1

\*\*\*\*\* THIEL-SMALL PARAMETER MEASUREMENT \*\*\*\*\*

TYPE:

SAMPLE NUMBER:

MANUFACTURER:

\*\*\*\*\*

PISTON DIA INCHES:

RESISTANCE OF VC:

TEST BOX VOLUME:

RESONANCE in BOX:

Fsb:

Fsa:

Z MAG @ Fsa:

\*\*\*\*\*

CALCULATED RESULTS:

Qt = #DIV/0!

Vas = #DIV/0!

Vas = #DIV/0!

HALF SPACE SPL = #DIV/0!

Qm = #DIV/0!

Qe = #DIV/0!

n0 = #DIV/0!

\*\*\*\*\*

Z Magnitude & Phase: @ 5KHz: \_\_\_\_\_ @ 15KHz: \_\_\_\_\_

From LEAP: Krm = \_\_\_\_\_ mOHMS

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Kxm = \_\_\_\_\_ mOHMS

Erm = \_\_\_\_\_

Exm = \_\_\_\_\_

\*\*\*\*\*

Qt =  
Fsb =  
Vas =  
=  
Min Z =  
SPL =

#DIV/0!  
0 Hz  
#DIV/0! Liters  
#DIV/0! Cubic Ft  
0.0 Ohms  
#DIV/0! dB @ 1W-1M

Date:

DATE:

QUOTE:

EACH

BY: M.T.

QTY:

FOR QUOTE

FIND FREQUENCIES WHERE Z=

#DIV/0!

LOWER FREQUENCY:

Liters

UPPER FREQUENCY:

0.00 gms added for Fsb

Sd =

0 METER ^2

Liters

Cms =

#DIV/0! uM/N

Cubic Ft

Mms =

#DIV/0! gm

dB 1W-1M

Mmd =

#DIV/0! gm

Fs/Qe =

#DIV/0! Fig of Merit

Rms =

#DIV/0! Kg/s

%

B\*L =

#DIV/0! N/A

\0

\T

\P

Sheet1

MENU

CLEAR

SAVE

QUIT

INITIAL

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Version 1.1

{MENUBRANCH MENU}

```
{WINDOWSOFF}{PANELOFF}
{GOTO}home~{down 2}{right 2}
{WINDOWSON}{PANELON}
{getlabel "Enter Transducer ID here: ",WW}/c~SPECTAG~
{goto}XX~
{getlabel "Enter sample number here: ",XX}
{goto}YY~
{getlabel "Enter Manufacturer here: ",YY}
{WINDOWSOFF}{PANELOFF}
{goto}DATE~
@NOW~/RFD4~
{goto}TAGDATE~@NOW~/RFD4~{goto}DATE~
{HOME}~{GOTO}DIA~
{WINDOWSON}{PANELON}
{getnumber "Enter cone piston *DIA in decimal inches here: ",DIA}
{goto}RDC~
{getnumber "Enter DC resistance of VC here: ",RDC}
{goto}VB~
{getnumber "Enter test box volume in liters here: ",VB}
{goto}FB~
{getnumber "Measure resonance in test box & enter here: ",FB}
{WINDOWSOFF}{PANELOFF}
{down 8}{up 6}
{WINDOWSON}{PANELON}
{getnumber "Attach mass shown & enter Fsb here: ",FSB}
{goto}FSA~
{getnumber "Remove mass & enter free air resonance here: ",FSA}
{goto}ZMAG~
{getnumber "Measure impedance at resonance & enter here: ",ZMAG}
{up 10}{right 5}
{getnumber "Find low freq -3dB point on Z curve & enter here: ",FL}
{goto}FH~
{getnumber "Find high freq -3dB point on Z curve & enter here: ",FH}
{goto}HOME~
{goto}RESULT~
{CALC}
{BRANCH \0}
```

```
/PPRA1..H74~AGQ~
{BRANCH \0}
```

Sheet1

BEGIN  
Fill out the worksheet  
{BRANCH \T}

WIPE\_SHEET  
Clear the worksheet and start over  
{BRANCH CLEAR}

{WINDOWSOFF}{PANELOFF}  
/REC3..C7~  
/REE5~  
/REC11..C23~  
/REH13..H15~  
/REA64~  
/REB73~  
{HOME}{D 2}{R 2}  
{WINDOWSON}{PANELON}  
{BRANCH \0}

/FS  
{ESC}{ESC}{ESC}  
{?}  
~R  
{BRANCH \0}

/QY~

{HOME}{GOTO}INIT~  
{GETLABEL "Enter your initials here: ",INIT}  
{HOME}{D 2}{R 2}  
{BRANCH \0}

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SAVE\_SHEET

Save - name should be 8 characters or less and no extension.

{BRANCH SAVE}

PRINT

Print the worksheet and "driver tag"

{BRANCH \P}



Sheet1

INITIALS

Enter your initials on the worksheet

{BRANCH INITIAL}

QUIT

Quit - did you save or print your work?

{BRANCH QUIT}