Lampiran 1

Listing program audiometer nada murni

```
procedure TForm3.Button1Click(Sender: TObject);
var y : integer;
begin
i:=1;
 if RadioButton1.Checked then   //right ear
  begin
  MMMixerBlockSlider1.Position:=32;
  {------------------frekuensi 250-------------------------}
  if i=1 then
  begin
    ToneGen1.Frequency:=250;
    ToneGen1.RightVolume:=0;  //0 dB (30)
    ToneGen1.LeftVolume:=0;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('0 dB');
    Series1.Clear;
    Series1.AddXY(ToneGen1.Frequency,0);
    Application.ProcessMessages;
    Sleep(5000);
    ToneGen1.Frequency:=250;
```

```
    ToneGen1.RightVolume:=1;  //30,7 dB (30)
    ToneGen1.LeftVolume:=0;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('30 dB');
    Series1.Clear;
    Series1.AddXY(ToneGen1.Frequency,30);
    Application.ProcessMessages;
    Sleep(5000);
  end
else if RadioButton2.Checked then    //left ear
  begin
  MMMixerBlockSlider1.Position:=0;
{-----------------frekuensi 250-------------------------}
    ToneGen1.Frequency:=250;
    ToneGen1.RightVolume:=0;  //30,7 dB (30)
    ToneGen1.LeftVolume:=0;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('0 dB');
    Series2.Clear;
    Series2.AddXY(ToneGen1.Frequency,0);
    Application.ProcessMessages;
    Sleep(5000);
```

```
    ToneGen1.Frequency:=250;
    ToneGen1.RightVolume:=0;  //31,0 dB (30)
    ToneGen1.LeftVolume:=1;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('30 dB');
    Series2.Clear;
    Series2.AddXY(ToneGen1.Frequency,30);
    Application.ProcessMessages;
    Sleep(5000);
  end;
  Application.ProcessMessages;
end;
procedure TForm3.Button3Click(Sender: TObject);
begin
  PrintDialog1.Execute;
end;
procedure TForm3.Button4Click(Sender: TObject);
begin
if (ToneGen1.RightVolume>=0) and (ToneGen1.RightVolume<=25)
   then label5.Caption:='Normal'
  else if (ToneGen1.RightVolume>=26) and (ToneGen1.RightVolume<=40)
   then label5.Caption:='Tuli Ringan'
  else if (ToneGen1.RightVolume>=41) and (ToneGen1.RightVolume<=60)
```

```
  then label5.Caption:='Tuli Sedang'
 else if (ToneGen1.RightVolume>=61) and (ToneGen1.RightVolume<=90)
  then label5.Caption:='Tuli Berat'
 else if (ToneGen1.RightVolume>=91)
  then label5.Caption:='Tuli Sangat Berat'
 else if (ToneGen1.LeftVolume>=0) and (ToneGen1.LeftVolume<=40)
  then label5.Caption:='Tuli Ringan'
 else if (ToneGen1.LeftVolume>=26) and (ToneGen1.LeftVolume<=40)
  then label5.Caption:='Tuli Ringan'
 else if (ToneGen1.LeftVolume>=41) and (ToneGen1.LeftVolume<=60)
  then label5.Caption:='Tuli Sedang'
 else if (ToneGen1.LeftVolume>=61) and (ToneGen1.LeftVolume<=90)
  then label5.Caption:='Tuli Berat'
 else if (ToneGen1.LeftVolume>=91)
  then label5.Caption:='Tuli Sangat Berat'
end;
procedure TForm3.BitBtn1Click(Sender: TObject);
begin
 tonegen1.Stop;
 inc (i);
 {------------------frekuensi 250-------------------------}
 if i=1 then
 begin
   ToneGen1.Frequency:=250;
```

```
    ToneGen1.RightVolume:=0;  //0 dB (30)
    ToneGen1.LeftVolume:=0;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('0 dB');
    Series1.Clear;
    Series1.AddXY(ToneGen1.Frequency,0);
    Application.ProcessMessages;
    end
else if RadioButton2.Checked then    //left ear
  begin
  MMMixerBlockSlider1.Position:=0;
{-----------------frekuensi 250-------------------------}
    ToneGen1.Frequency:=250;
    ToneGen1.RightVolume:=0;  //30,7 dB (30)
    ToneGen1.LeftVolume:=0;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('0 dB');
    Series2.Clear;
    Series2.AddXY(ToneGen1.Frequency,0);
    Application.ProcessMessages;
    Sleep(5000);
    ToneGen1.Frequency:=250;
```

```
    ToneGen1.RightVolume:=0;  //31,0 dB (30)
    ToneGen1.LeftVolume:=1;
    ToneGen1.Play;
    memo1.Lines.Add(IntToStr(tonegen1.Frequency)+' Hz');
    memo2.Lines.Add('30 dB');
    Series2.Clear;
    Series2.AddXY(ToneGen1.Frequency,30);
    Application.ProcessMessages;
    Sleep(5000);
end;
procedure TForm3.Button2Click(Sender: TObject);
begin
Form3.Hide;
Form2.Show;
form2.Edit1.Text:=Form3.Label5.Caption;
form2.Edit2.Text:=Form4.Label4.Caption;
end;


end.
```

Lampiran 2

Listing program audiometer tutur

```
procedure TForm4.Button3Click(Sender: TObject);
begin
  Form4.Hide;
  Form2.Show;
end;
procedure TForm4.CheckBox1Click(Sender: TObject);
begin
   if CheckBox1.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
end;
procedure TForm4.CheckBox2Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox2.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
```

```
end;
procedure TForm4.CheckBox3Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox3.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
end;
procedure TForm4.CheckBox4Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox4.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
end;

procedure TForm4.CheckBox5Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox5.Checked then
```

```
  begin
  y:=y+10;
  Series1.AddXY(ComboBox1.ItemIndex+1,y);
  end;
end;
procedure TForm4.CheckBox6Click(Sender: TObject);
begin
 // x:=1;
  if CheckBox6.Checked then
  begin
  y:=y+10;
  Series1.AddXY(ComboBox1.ItemIndex+1,y);
  end;
end;
procedure TForm4.CheckBox7Click(Sender: TObject);
begin
 // x:=1;
  if CheckBox7.Checked then
  begin
  y:=y+10;
  Series1.AddXY(ComboBox1.ItemIndex+1,y);
  end;
end;
procedure TForm4.CheckBox8Click(Sender: TObject);
```

```
begin
  // x:=1;
   if CheckBox8.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
end;
procedure TForm4.CheckBox9Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox9.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
   end;
end;
procedure TForm4.CheckBox10Click(Sender: TObject);
begin
  // x:=1;
   if CheckBox10.Checked then
   begin
   y:=y+10;
   Series1.AddXY(ComboBox1.ItemIndex+1,y);
```

```
  end;
end;
procedure TForm4.Button2Click(Sender: TObject);
begin
 if (y>=90) and (y<=100) then Label4.Caption:='Normal atau Tuli Konduktif'
  else if (y>=50) and (y<=80) then Label4.Caption:='Tuli Campuran atau
Presbiakusis'
 else if (y>=22) and (y<=40) then Label4.Caption:='Kelainan Koklea'
 else if (y<22) then Label4.Caption:='Kelainan Retrokoklea'
 Label4.Caption:='Normal';
end;
procedure TForm4.BitBtn3Click(Sender: TObject);
begin
if ComboBox1.ItemIndex=0 then
 begin
  Memo1.Lines.Clear;
  Memo1.Lines.Add('Sabun'+#13#10+'Kuda'+#13#10+
  'Dingin'+#13#10+'Banyak'+#13#10+'Gula'+#13#10+'Pipi'
  +#13#10+'Besar'+#13#10+'Enak'+#13#10+'Nasi'+#13#10+
  'Ibu');
 end
 else if ComboBox1.ItemIndex=1 then
 begin
 y:=0;
```

```
  CheckBox1.Checked:=false;
  CheckBox2.Checked:=false;
  CheckBox3.Checked:=false;
  CheckBox4.Checked:=false;
  CheckBox5.Checked:=false;
  CheckBox6.Checked:=false;
  CheckBox7.Checked:=false;
  CheckBox8.Checked:=false;
  CheckBox9.Checked:=false;
  CheckBox10.Checked:=false;
  Memo1.Lines.Clear;
  Memo1.Lines.Add('Guru'+#13#10+'Baru'+#13#10+
  'Mata'+#13#10+'Air'+#13#10+'Pagi'+#13#10+'Beli'
  +#13#10+'Kecil'+#13#10+'Obat'+#13#10+'Naik'+#13#10+
  'Adik');
end
else if ComboBox1.ItemIndex=2 then
begin
y:=0;
  CheckBox1.Checked:=false;
  CheckBox2.Checked:=false;
  CheckBox3.Checked:=false;
  CheckBox4.Checked:=false;
  CheckBox5.Checked:=false;
```

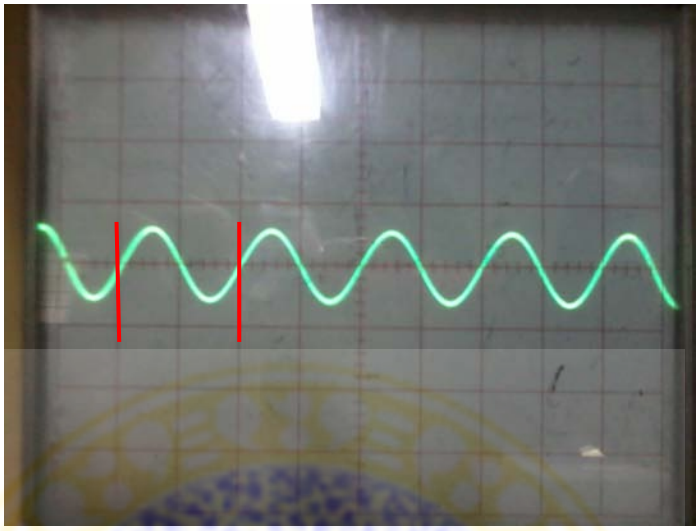
```
  CheckBox6.Checked:=false;
  CheckBox7.Checked:=false;
  CheckBox8.Checked:=false;
  CheckBox9.Checked:=false;
  CheckBox10.Checked:=false;
  Memo1.Lines.Clear;
  Memo1.Lines.Add('Tuli'+#13#10+'Padi'+#13#10+
  'Kelas'+#13#10+'Nyamuk'+#13#10+'Garam'
  +#13#10+'Mulut'+#13#10+'Bumi'+#13#10+'Keras'+#13#10+
  'Buku'+#13#10+'Ikan');
end
else if ComboBox1.ItemIndex=3 then
begin
y:=0;
  CheckBox1.Checked:=false;
  CheckBox2.Checked:=false;
  CheckBox3.Checked:=false;
  CheckBox4.Checked:=false;
  CheckBox5.Checked:=false;
  CheckBox6.Checked:=false;
  CheckBox7.Checked:=false;
  CheckBox8.Checked:=false;
  CheckBox9.Checked:=false;
  CheckBox10.Checked:=false;
```

```
  Memo1.Lines.Clear;
  Memo1.Lines.Add('Sayang'+#13#10+'Kanan'+#13#10+
  'Hari'+#13#10+'Kiri'+#13#10+'Kenal'+#13#10+'Desa'
  +#13#10+'Duduk'+#13#10+'Ganti'+#13#10+'Sapi'+#13#10+
  'Jeruk');
end
else if ComboBox1.ItemIndex=4 then
begin
y:=0;
  CheckBox1.Checked:=false;
  CheckBox2.Checked:=false;
  CheckBox3.Checked:=false;
  CheckBox4.Checked:=false;
  CheckBox5.Checked:=false;
  CheckBox6.Checked:=false;
  CheckBox7.Checked:=false;
  CheckBox8.Checked:=false;
  CheckBox9.Checked:=false;
  CheckBox10.Checked:=false;
  Memo1.Lines.Clear;
  Memo1.Lines.Add('Anak'+#13#10+'Darah'+#13#10+
  'Tidur'+#13#10+'Mobil'+#13#10+'Minum'+#13#10+'Api'
  +#13#10+'Bulan'+#13#10+'Bersih'+#13#10+'Kunci'+#13#10+
  'Ayah');
```

```
  end;
end;
procedure TForm4.Button4Click(Sender: TObject);
begin
  PrintDialog1.Execute;
end;
procedure TForm4.SpinEdit1Change(Sender: TObject);
begin
   i := SpinEdit1.Value;
   MMMixerSlider1.Position := round(i/100*192);
end;
procedure TForm4.BitBtn4Click(Sender: TObject);
begin
  MMWavePlayer1.SelectFile;
  MMWavePlayer1.Play;
end;
procedure TForm4.BitBtn2Click(Sender: TObject);
begin
  MMWavePlayer1.Stop;
end;
procedure TForm4.BitBtn1Click(Sender: TObject);
begin
   Application.Terminate;
end.
```

Lampiran 3

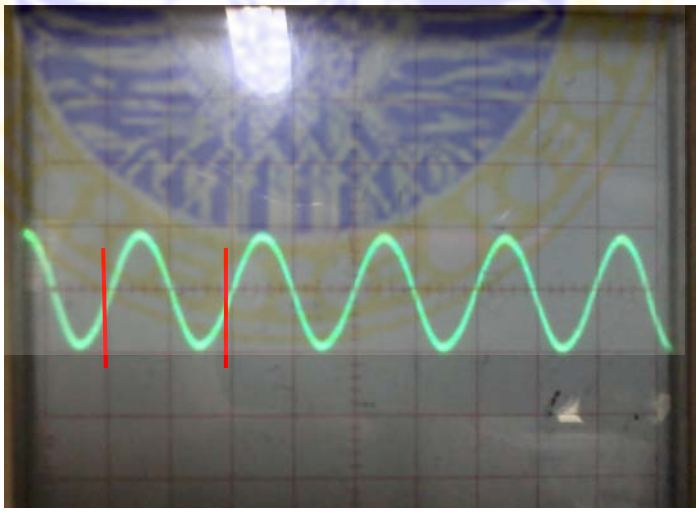
Gambar gelombang sinus dari berbagai frekuensi



Gambar Gelombang sinus frekuensi 250 Hz

$$T = div \times \frac{time}{div} = 2div \times 2ms/div = 4ms$$

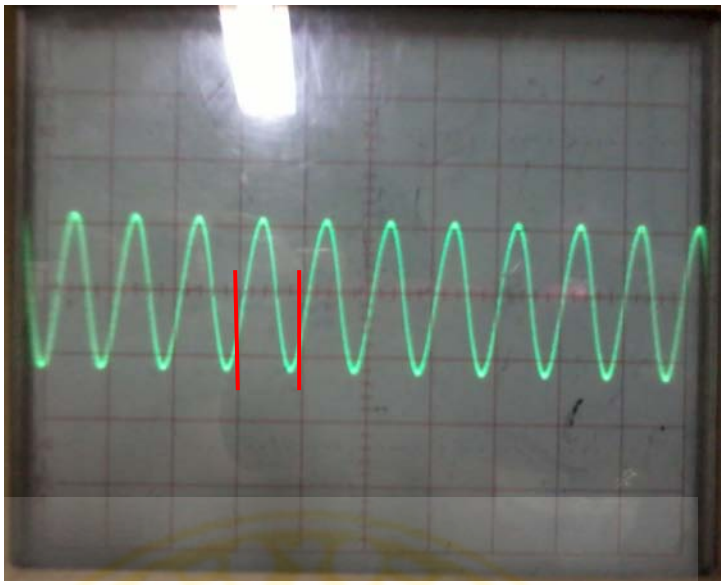
$$f = \frac{1}{T} = \frac{1}{4} \times 10^3 = 250Hz$$



Gambar Gelombang sinus frekuensi 500 Hz

$$T = div \times \frac{time}{div} = 2div \times 1ms/div = 2ms$$

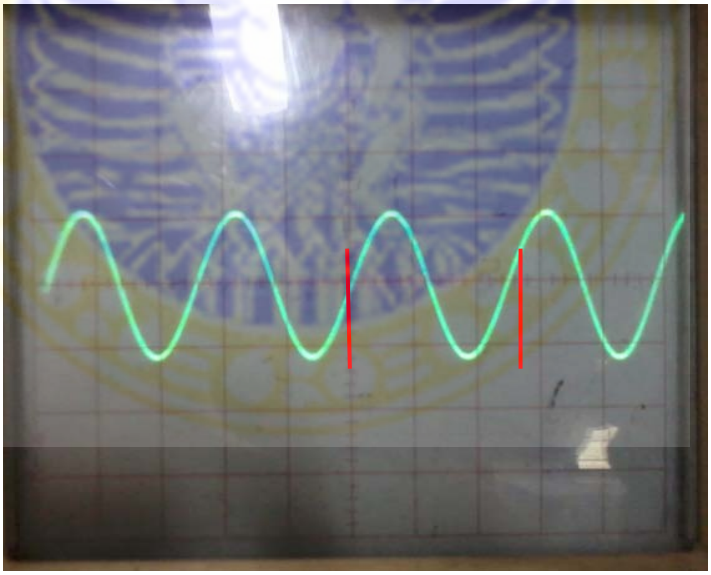
$$f = \frac{1}{T} = \frac{1}{2} \times 10^3 = 500Hz$$



Gambar Gelombang sinus frekuensi 1 kHz

$$T = div \times \frac{time}{div} = 1div \times 1ms/div = 1ms$$

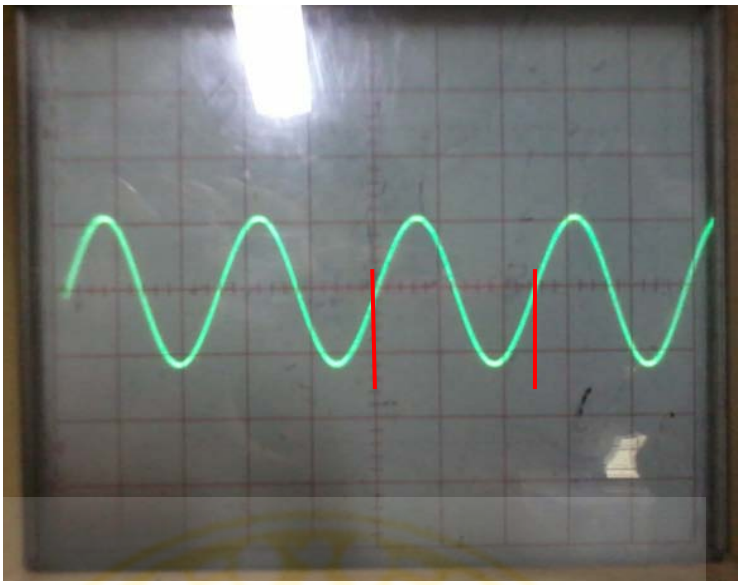
$$f = \frac{1}{T} = \frac{1}{1} \times 10^3 = 1000Hz = 1kHz$$



Gambar Gelombang sinus frekuensi 2 kHz

$$T = div \times \frac{time}{div} = 2{,}5div \times 0{,}2ms/div = 0{,}5ms$$

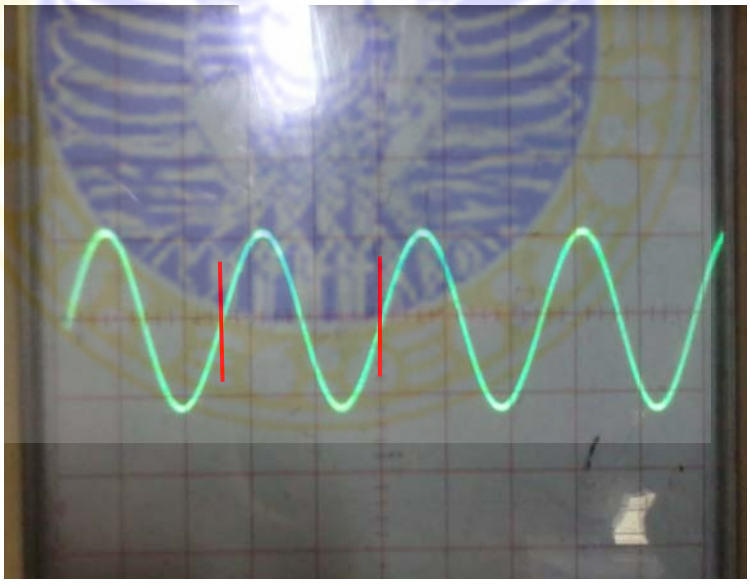
$$f = \frac{1}{T} = \frac{1}{0{,}5} \times 10^3 = 2000Hz = 2kHz$$



Gambar Gelombang sinus frekuensi 4 kHz

$$T = div \times \frac{time}{div} = 2{,}5div \times 0{,}1ms/div = 0{,}25ms$$

$$f = \frac{1}{T} = \frac{1}{0{,}25} \times 10^3 = 4000Hz = 4kHz$$



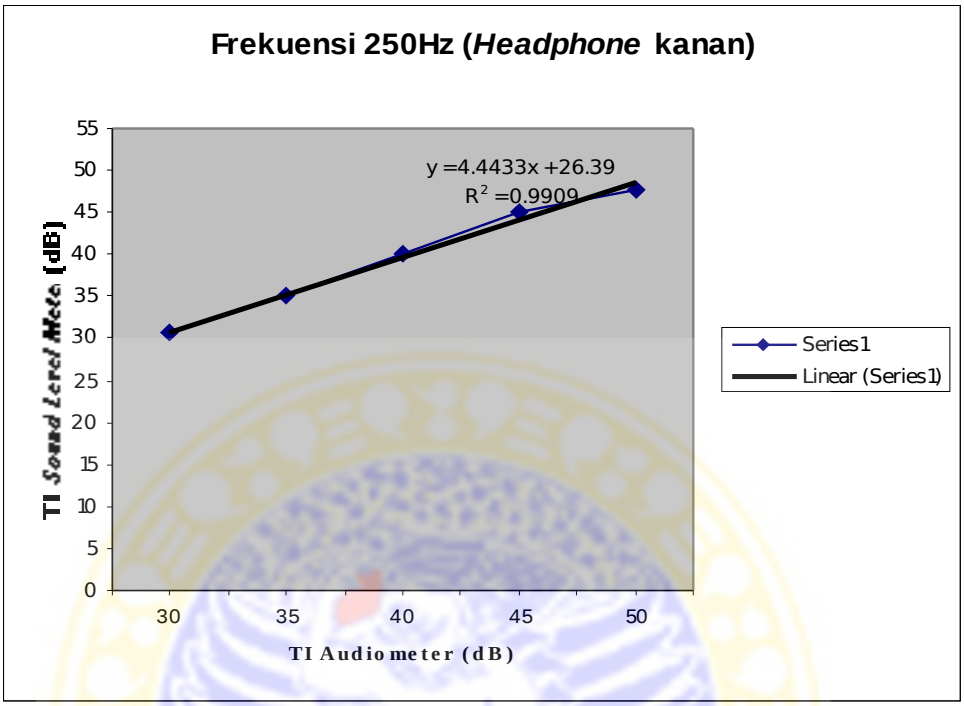
Gambar Gelombang sinus frekuensi 8 kHz

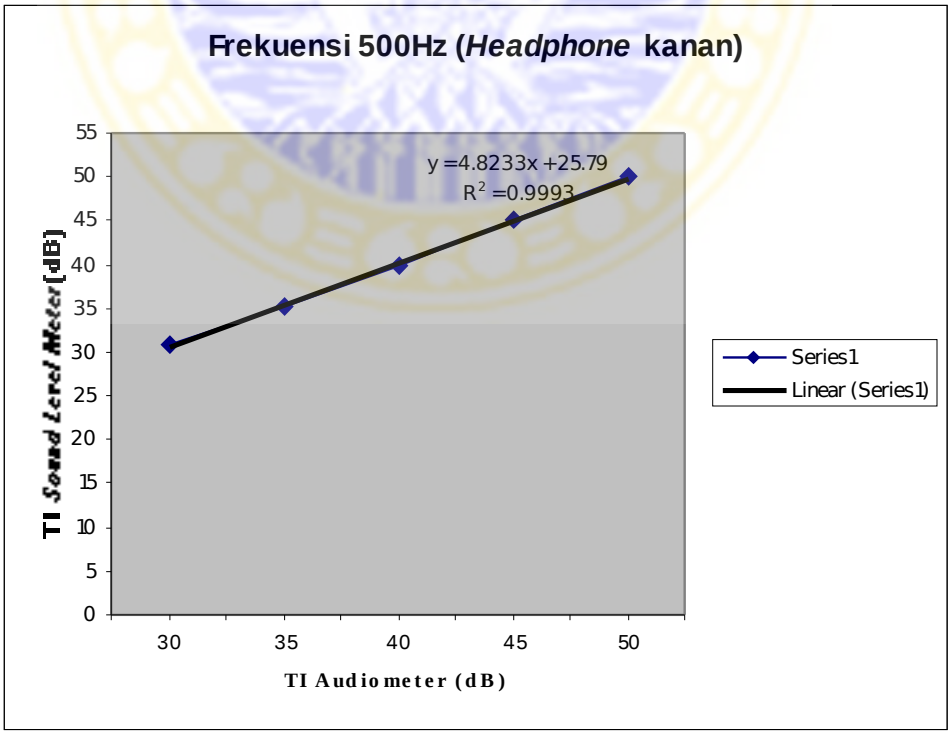
$$T = div \times \frac{time}{div} = 2{,}5div \times 50\mu s/div = 0{,}125ms$$

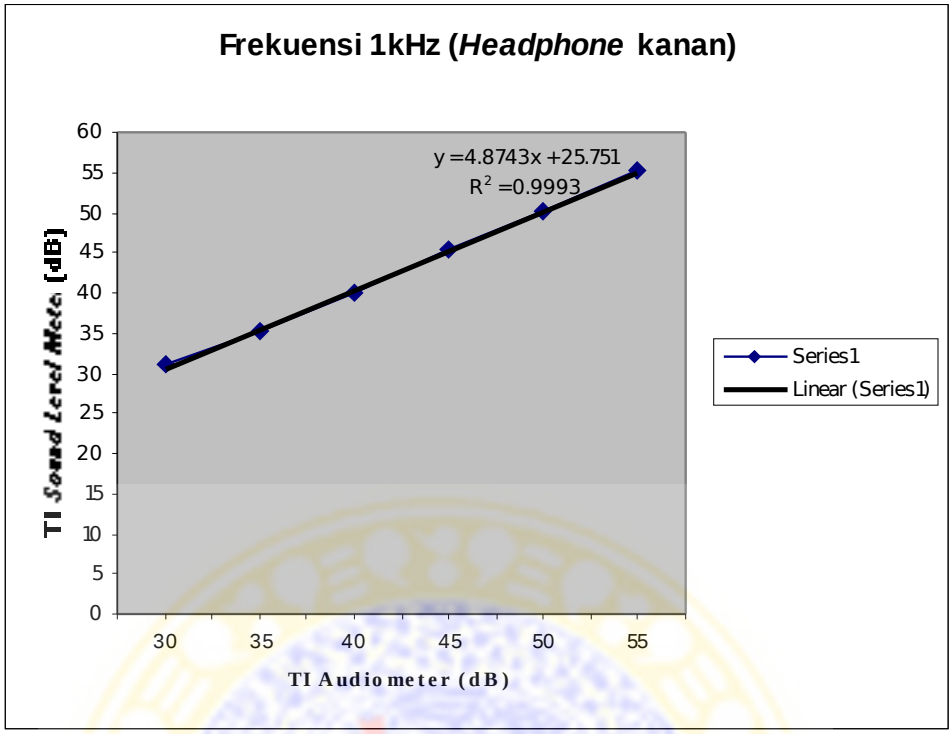
$$f = \frac{1}{T} = \frac{1}{0{,}125} \times 10^3 = 8000Hz = 8kHz$$

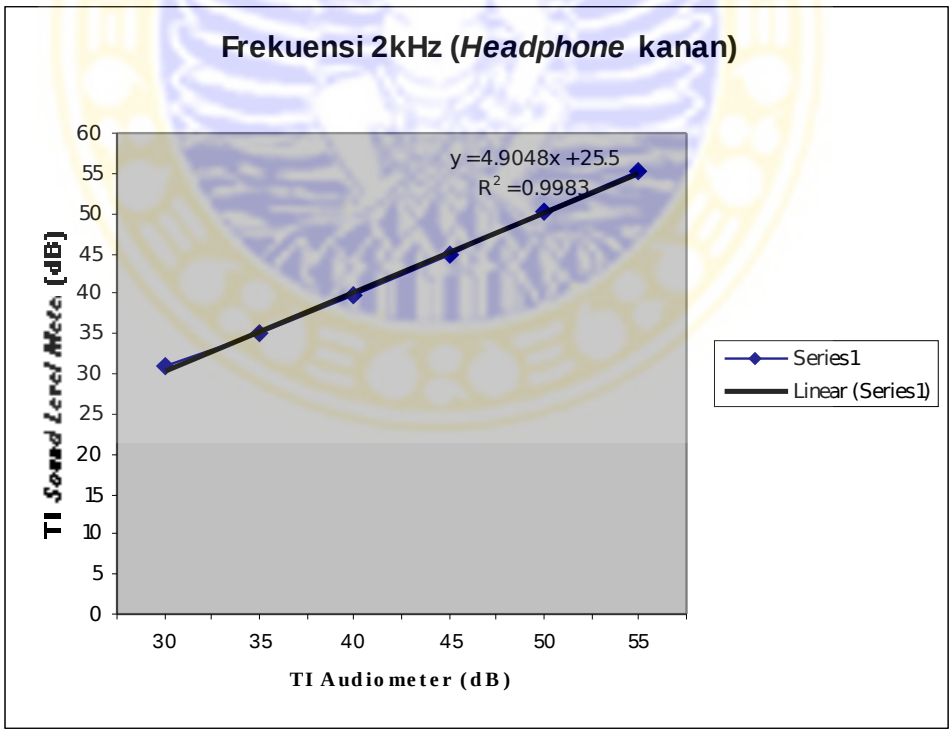
Lampiran 4

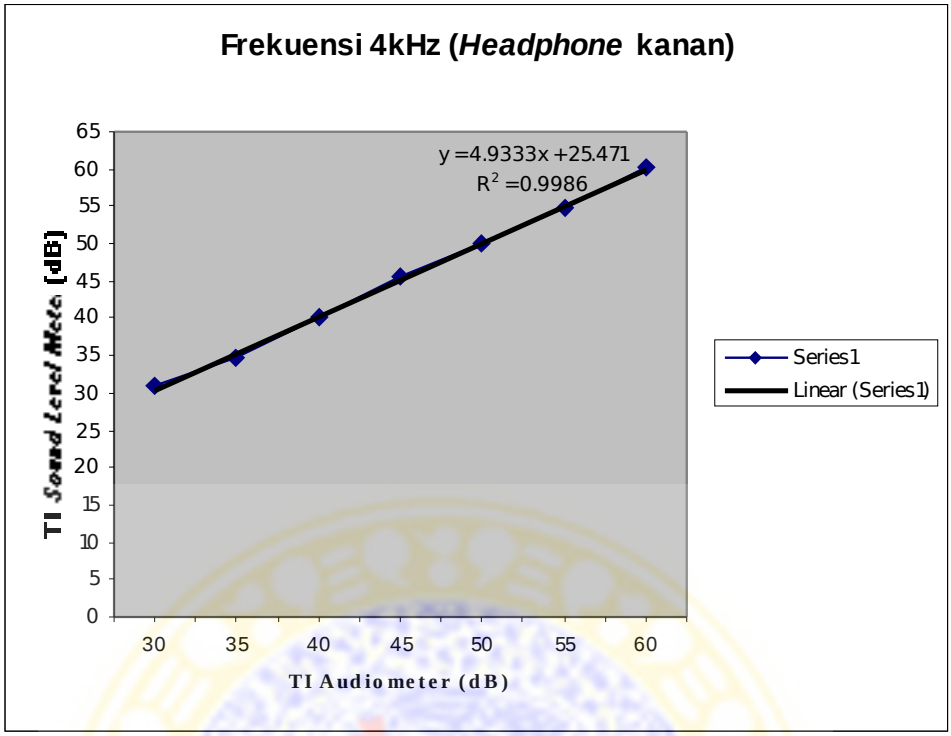
Gambar grafik linieritas taraf intensitas

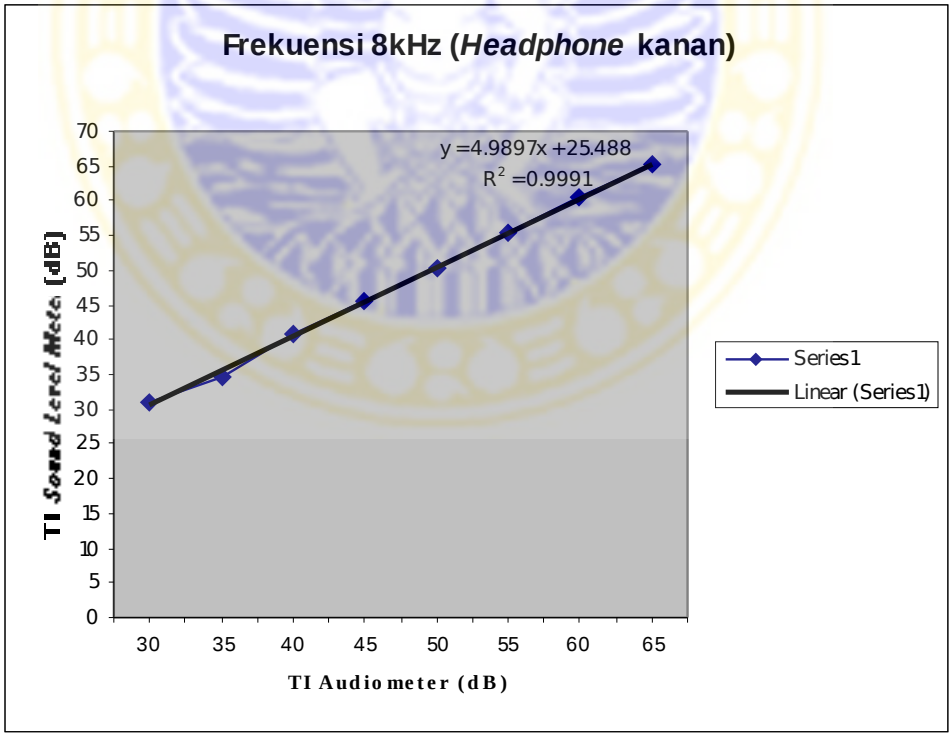


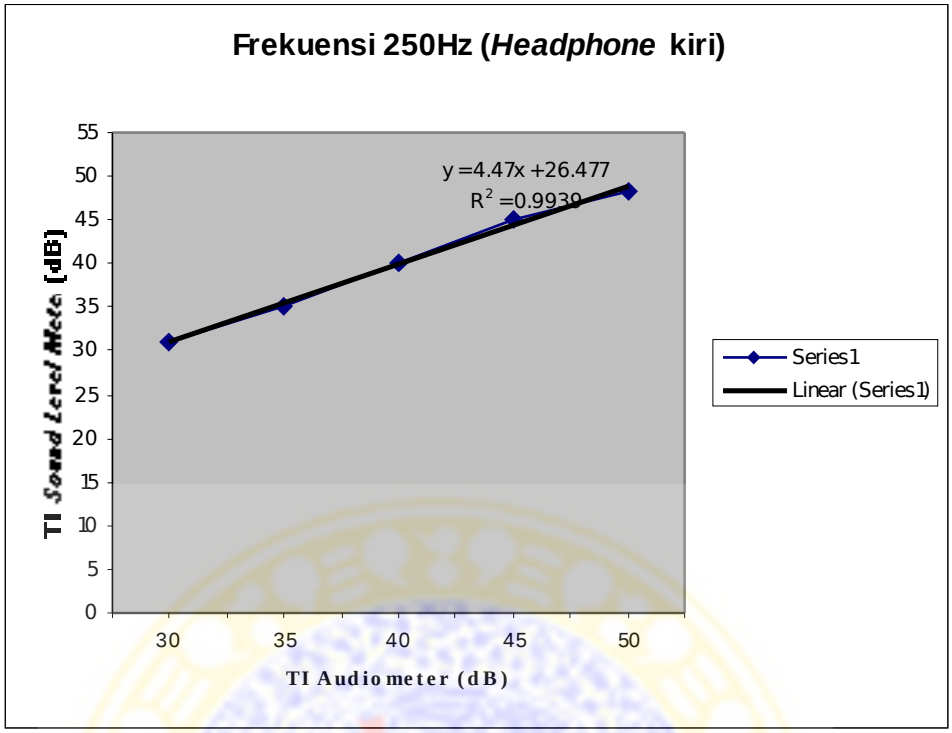


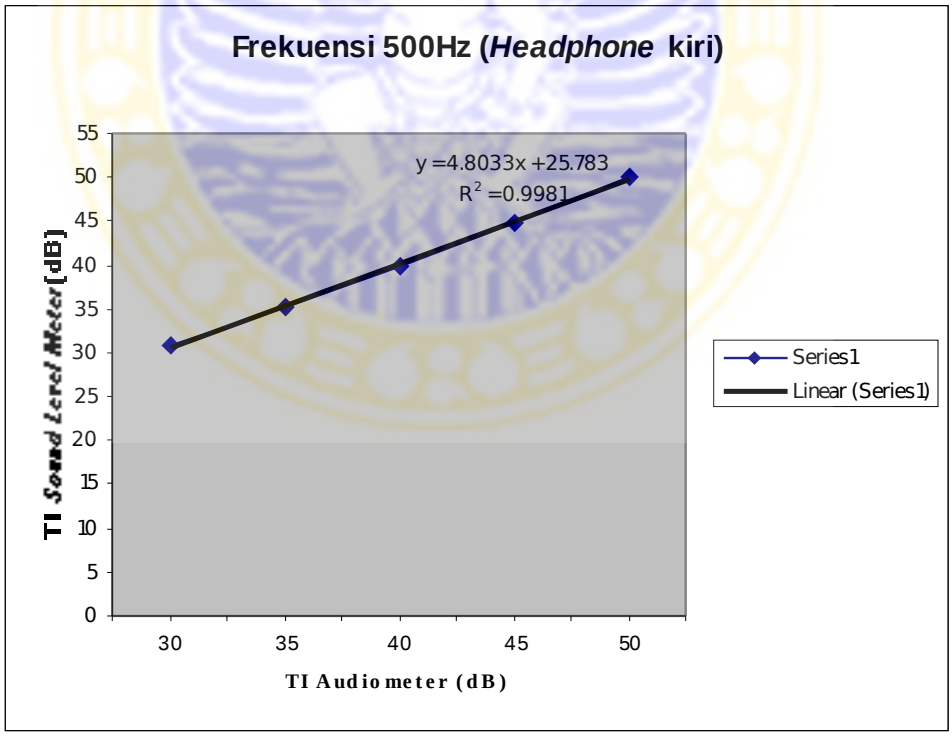

Frekuensi 1kHz (*Headphone* kanan)
y =4.8743x +25.751
R² =0.9993
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)

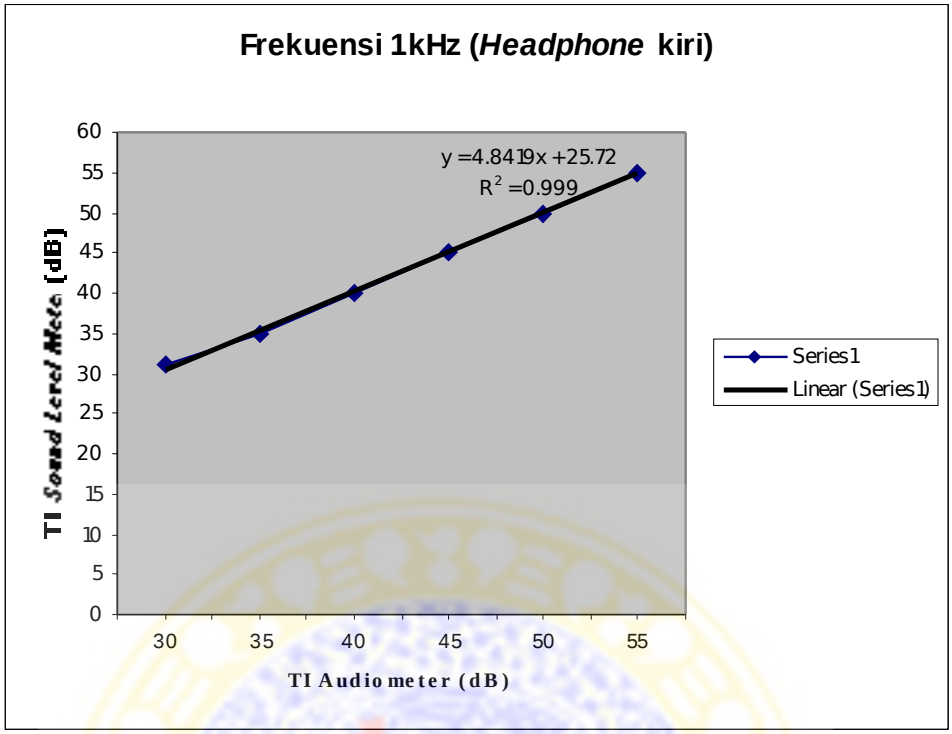

Frekuensi 2kHz (*Headphone* kanan)
y =4.9048x +25.5
R² =0.9983
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)

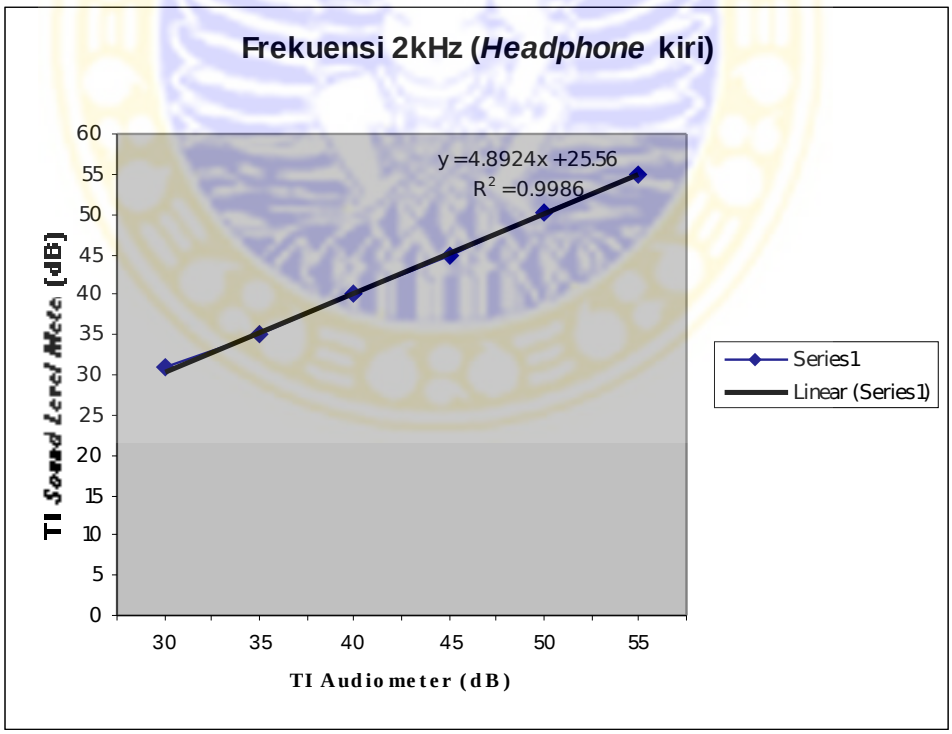

Frekuensi 4kHz (*Headphone* kanan)
y =4.9333x +25.471
R² =0.9986
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)

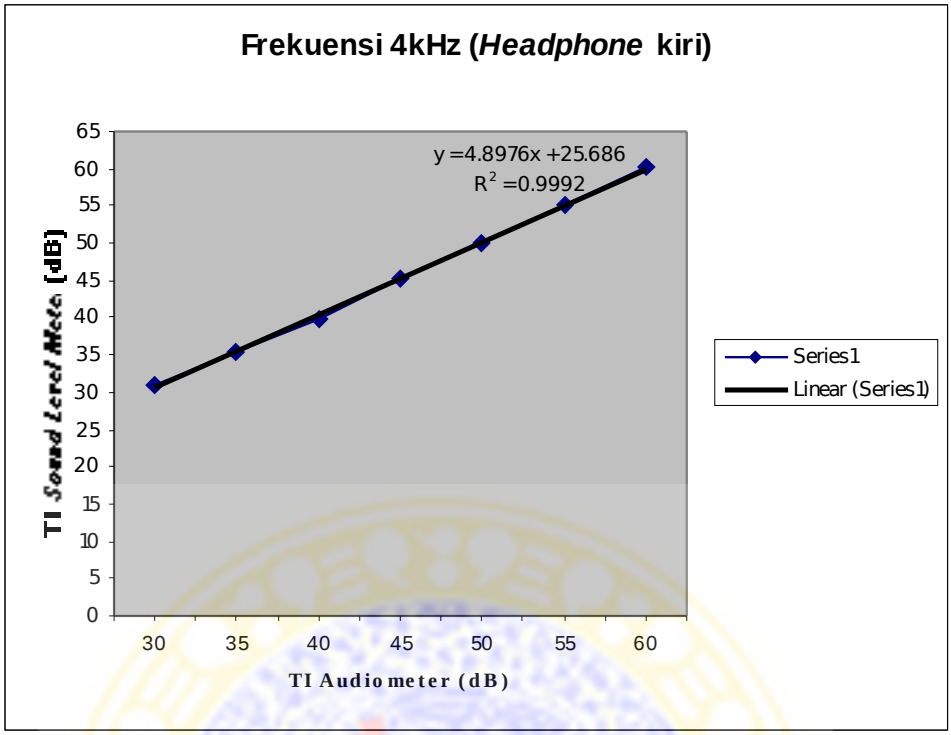

Frekuensi 8kHz (*Headphone* kanan)
y =4.9897x +25.488
R² =0.9991
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)

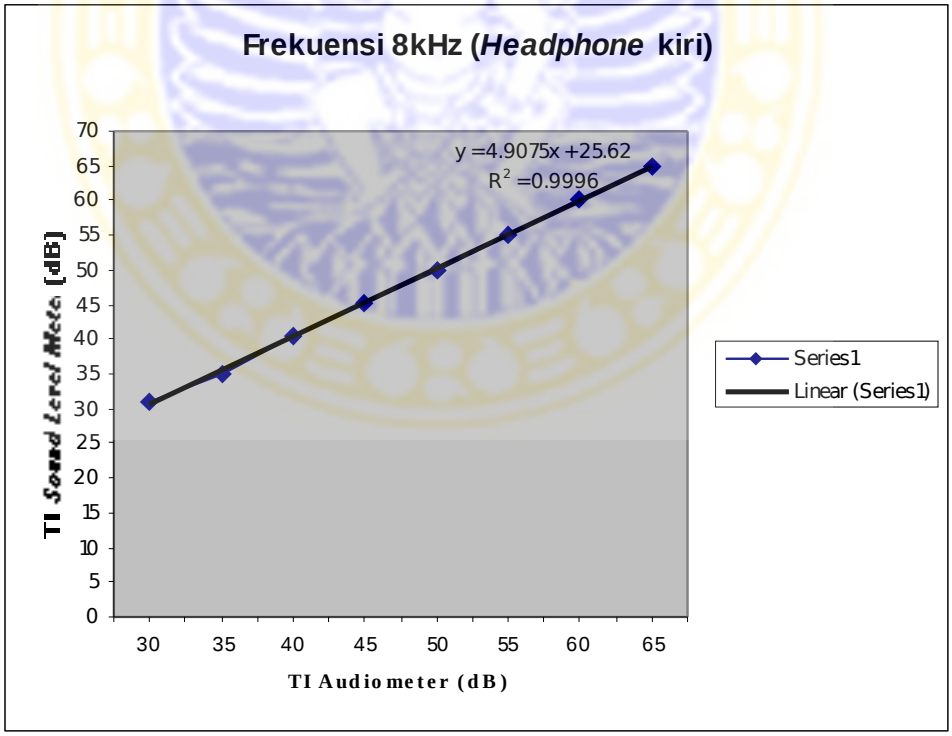

Frekuensi 250Hz (Headphone kiri)
y =4.47x +26.477
R2 =0.9939
TI Sound Level Meter [dB]
TI Audiometer (dB)
Series1
Linear (Series1)


Frekuensi 500Hz (Headphone kiri)
y =4.8033x +25.783
R2 =0.9981
TI Sound Level Meter [dB]
TI Audiometer (dB)
Series1
Linear (Series1)


Frekuensi 1kHz (*Headphone* kiri)
y =4.8419x +25.72
R² =0.999
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)


Frekuensi 2kHz (*Headphone* kiri)
y =4.8924x +25.56
R² =0.9986
TI Sound Level Meter (dB)
TI Audiometer (dB)
Series1
Linear (Series1)


Frekuensi 4kHz (*Headphone* kiri)
y =4.8976x +25.686
R² =0.9992
TI Sound Level Meter [dB]
TI Audiometer (dB)
Series1
Linear (Series1)


Frekuensi 8kHz (*Headphone* kiri)
y =4.9075x +25.62
R² =0.9996
TI Sound Level Meter [dB]
TI Audiometer (dB)
Series1
Linear (Series1)

Lampiran 5

Perhitungan Presisi Variabel Taraf Intensitas

Perhitungan standar deviasi (SD) ditentukan dari persamaan :

$$SD = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}}$$

sedangkan perhitungan nilai koefisien variasi (KV) ditentukan dari persamaan :

$$KV = \frac{SD}{x} \times 100\%$$

Tabel pengujian taraf intensitas pada frekuensi 250 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	30.7	30.7	30.6	0.057735	0.188266
2	40	40.1	40	40	0.057735	0.144217
3	50	47.6	48	47.8	0.2	0.41841

Perhitungan rata-rata koevisien variasi pada frekuensi 250 Hz :

$$KV = \frac{0.188266\% + 0.144217\% + 0.41841\%}{3} = 0.250298\%$$

Perhitungan nilai presisi pada frekuensi 250 Hz :

$$Nilai.presisi_{250Hz} = 100\% - 0.2502\% = 99.7497\%$$

Tabel pengujian taraf intensitas pada frekuensi 500 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	30.9	30.8	30.8	0.057735	0.187249
2	40	40	40	40	0	0
3	50	50	50	50.1	0.057735	0.115393

Perhitungan rata-rata koevisien variasi pada frekuensi 500 Hz :

$$KV = \frac{0.187249\% + 0\% + 0.115393\%}{3} = 0.100881\%$$

Perhitungan nilai presisi pada frekuensi 500 Hz :

$$Nilai.presisi_{500\,Hz} = 100\% - 0.100881\% = 99.89912\%$$

Tabel pengujian taraf intensitas pada frekuensi 1000 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	30.9	31	0.057735	0.186442
2	40	40.1	40	40	0.057735	0.144217
3	50	50.2	50.2	50.2	0	0

Perhitungan rata-rata koevisien variasi pada frekuensi 1000 Hz :

$$KV = \frac{0.186442\% + 0.144217\% + 0\%}{3} = 0.11022\%$$

Perhitungan nilai presisi pada frekuensi 1000 Hz :

$$Nilai.presisi_{1000\,Hz} = 100\% - 0.100881\% = 99.88978\%$$

Tabel pengujian taraf intensitas pada frekuensi 2000 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	30.9	31	31	0.057735	0.186442
2	40	39.7	39.8	39.8	0.057735	0.145184
3	50	50.2	50.2	50.1	0.057735	0.115086

Perhitungan rata-rata koevisien variasi pada frekuensi 2000 Hz :

$$KV = \frac{0.186442\% + 0.145184\% + 0.115086\%}{3} = 0.148904\%$$

Perhitungan nilai presisi pada frekuensi 2000 Hz :

$$Nilai.presisi_{2000Hz} = 100\% - 0.148904\% = 99.851096\%$$

Tabel pengujian taraf intensitas pada frekuensi 4000 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	31	30.9	0.057735	0.186442
2	40	40.3	40.2	40.2	0.057735	0.1435
3	50	49.9	50	49.9	0.057735	0.115624
4	60	60.3	60.3	60.2	0.057735	0.095799

Perhitungan rata-rata koevisien variasi pada frekuensi 4000 Hz :

$$KV = \frac{0.186442\% + 0.1435\% + 0.115624\% + 0.095799\%}{4} = 0.135628\%$$

Perhitungan nilai presisi pada frekuensi 4000 Hz :

$$Nilai.presisi_{4000Hz} = 100\% - 0.135628\% = 99.864372\%$$

Tabel pengujian taraf intensitas pada frekuensi 8000 Hz *Headphone* kanan

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	30.8	31	30.8	0.11547	0.186442
2	40	40.8	40.8	40.7	0.057735	0.141623
3	50	49.9	50	49.9	0.057735	0.115624
4	60	60.4	60.4	60.3	0.057735	0.095641

Perhitungan rata-rata koevisien variasi pada frekuensi 8000 Hz :

$$KV = \frac{0.186442\% + 0.141623\% + 0.115624\% + 0.095641\%}{4} = 0.134833\%$$

Perhitungan nilai presisi pada frekuensi 8000 Hz :

$$Nilai.presisi_{8000\,Hz} = 100\% - 0.134833\% = 99.865168\%$$

Jadi, rata-rata nilai presisi variabel taraf intensitas untuk *Headphone* kanan :

$$\Pr esisi.headphone.kanan = \frac{99.7497\% + 99.89912\% + 99.88978\% + 99.851096\%}{4}$$

$$\underline{+\,99.864372\% + 99.865168\%}$$

$$= 99.85321\%$$

Tabel pengujian taraf intensitas pada frekuensi 250 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	30.8	30.9	0.1	0.323625
2	40	40.2	40.2	40.1	0.057735	0.143739
3	50	48.1	48.3	48.2	0.1	0.207469

Perhitungan rata-rata koevisien variasi pada frekuensi 250 Hz :

$$KV = \frac{0.323625\% + 0.143739\% + 0.207469\%}{3} = 0.224944\%$$

Perhitungan nilai presisi pada frekuensi 250 Hz :

$$Nilai.presisi_{250\,Hz} = 100\% - 0.224944\% = 99.775056\%$$

Tabel pengujian taraf intensitas pada frekuensi 500 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	31	30.9	0.057735	0.186442
2	40	39.8	39.9	40	0.1	0.250627
3	50	50.2	50	50.2	0.11547	0.230326

Perhitungan rata-rata koevisien variasi pada frekuensi 500 Hz :

$$KV = \frac{0.186442\% + 0.250627\% + 0.230326\%}{3} = 0.222465\%$$

Perhitungan nilai presisi pada frekuensi 500 Hz :

$$Nilai.presisi_{500\,Hz} = 100\% - 0.222465\% = 99.777535\%$$

Tabel pengujian taraf intensitas pada frekuensi 1000 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	31	31	0	0
2	40	40	40	40	0	0
3	50	49.9	50	50.1	0.1	0.2

Perhitungan rata-rata koevisien variasi pada frekuensi 1000 Hz :

$$KV = \frac{0\% + 0\% + 0.2\%}{3} = 0.066667\,\%$$

Perhitungan nilai presisi pada frekuensi 1000 Hz :

$$Nilai.presisi_{1000\,Hz} = 100\% - 0.066667\% = 99.933333\%$$

Tabel pengujian taraf intensitas pada frekuensi 2000 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	31	30.9	0.057735	0.186442
2	40	39.9	40	40	0.057735	0.144458
3	50	50.2	50.2	50.1	0.057735	0.115086

Perhitungan rata-rata koevisien variasi pada frekuensi 2000 Hz :

$$KV = \frac{0.186442\% + 0.144458\% + 0.115086\%}{3} = 0.148662\%$$

Perhitungan nilai presisi pada frekuensi 2000 Hz :

$$Nilai.presisi_{2000\,Hz} = 100\% - 0.148662\% = 99.851338\%$$

Tabel pengujian taraf intensitas pada frekuensi 4000 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	30.9	31	31	0.057735	0.186442
2	40	39.9	39.9	40	0.057735	0.144579
3	50	49.8	50	49.8	0.11547	0.231558
4	60	60.2	60.2	60.1	0.057735	0.095958

Perhitungan rata-rata koevisien variasi pada frekuensi 4000 Hz :

$$KV = \frac{0.186442\% + 0.144579\% + 0.11547\% + 0.095958\%}{4} = 0.164634\%$$

Perhitungan nilai presisi pada frekuensi 4000 Hz :

$$Nilai.presisi_{4000Hz} = 100\% - 0.164634\% = 99.835366\%$$

Tabel pengujian taraf intensitas pada frekuensi 8000 Hz *Headphone* kiri

No.	Taraf Intensitas Audiometer (dB)	Taraf Intensitas *Sound level meter* (dB)			SD	KV (%)
1	30	31	30.9	30.9	0.11547	0.186643
2	40	40.6	40.4	40.4	0.11547	0.285346
3	50	50.1	50.1	50	0.057735	0.115316
4	60	60	60	60	0	0

Perhitungan rata-rata koevisien variasi pada frekuensi 8000 Hz :

$$KV = \frac{0.186643\% + 0.285346\% + 0.115316\% + 0\%}{4} = 0.146826\%$$

Perhitungan nilai presisi pada frekuensi 8000 Hz :

$$Nilai.presisi_{8000Hz} = 100\% - 0.146826\% = 99.853174\%$$

Jadi, rata-rata nilai presisi variabel taraf intensitas untuk *Headphone* kiri :

$$\text{Presisi.headphone.kiri} = \frac{99.775056\% + 99.777535\% + 99.933333\% + 99.851338\%}{4}$$

$$\underline{+ 99.835366\% + 99.853174\%}$$

$$= 99.83763\ \%$$

Lampiran 6

Gambar Saat Pemeriksaan