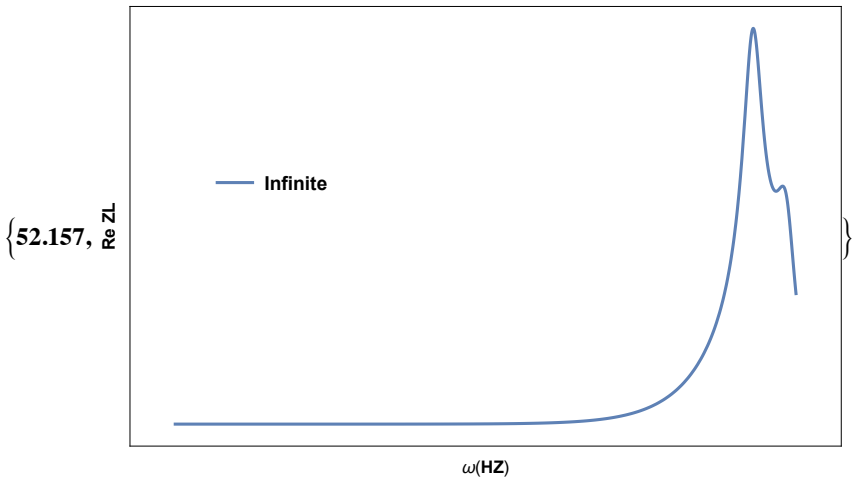
```
A = 0.028 * 1.01;
B = 0.028;
l = √(A^2 - B^2) ; u = ArcCosh[A/l];(*τ=8.0055*10^-15;
σ=4.2281*10^7/(1-i*k*c*τ);*); σ = 5.8 * 10^7;
z0 = 377;
c = 2.99792458 × 10^8; ϵ0 = 8.8 * 10^-12; ϵ = ϵ0;
k = ω/c;
W = i * k * l^2;
u1 = v1 = 0;
λ = √(i * k * z0 * σ) ;
Ru0 = i * l * λ * Cosh[u];

d0 = -W/4 * Sinh[2 u] - (i * k/λ^2 + i/k) * Ru0;
z[0] = W/8 * Sinh[2 u];
t0 = -1/(2 π * ϵ * c);
s[0] = W/4 * Cosh[2 u];
s[n_] := +W/(8 (2 n + 1)) * (Sinh[2 n u]/Sinh[(2 n + 2) u] + Cosh[2 n u]/Cosh[(2 n + 2) u]);
d[n_] := -W * (Sinh[(2 n + 2) * u]/(16 n + 8) * Sinh[2 n u] + Cosh[(2 n + 2) * u]/(16 n + 8) * Cosh[2 n u] +
    Sinh[(2 n - 2) u]/(16 n - 8) * Sinh[2 n u] + Cosh[(2 n - 2) u]/(16 n - 8) * Cosh[2 n u]) + 4 n * i/k -
  i/k * Ru0 * Coth[2 n * u] - i * k/λ^2 * (Ru0 * (Tanh[2 n u] + Coth[2 n * u]) - 4 n);
z[n_] := +W/(8 (2 n + 1)) * (Sinh[(2 n + 2) u]/Sinh[2 n u] + Cosh[(2 n + 2) u]/Cosh[2 n u]);
t[n_] := 1/(π * ϵ * c) * Cosh[2 * n u1] * Cos[2 * n v1] * (Tanh[2 * n u] - Coth[2 * n u]);

CC[0] = d0;
CC[i_] := d[i] - s[i - 1] * z[i - 1]/CC[i - 1];(*i≥1*)

DD[1] = s[0]/CC[0];
DD[i_] := s[i - 1]/CC[i - 1];(*i≥1*)

T[0] = t0;
T[i_] := t[i] - T[i - 1] * DD[i];(*i≥1*)

X[20] = T[6]/CC[6];
X[i_] := (T[i] - z[i] * X[i + 1])/CC[i];(*i≥1*)
```

```
AEI = Sum[(-1)^i X[i], {i, 0, 6}]; // Timing
```

{**1.13319, Null**}

```
LogLinearPlot[{Abs[AEI]}, {ω, 10^0, 10^14},
  PlotLegends → Placed[{"Infinite"}, {0.2, 0.6}], PlotRange → All, Frame → True,
  FrameLabel → {"ω(HZ)", "Re ZL"}, GridLines → Automatic] // Timing
```



{**52.157,** }