
```

z=0.12+j*0.6;
y=j*4*10^-6;
Z_0=sqrt(z/y);
gama=sqrt(z*y);
len= 300;
f=50;

```

```

%%%%%% MEDIUM LINE %%%%%%

```

```

A= 1+z*y/2
D= A
B= z
C= y*(1+z*y/4)

akim= (80*10^6-j* 60*10^6)/(400*10^3*sqrt(3))
volt=400*10^3/sqrt(3)
receiving=[volt ; akim]

```

```

ABCD=[A B ; C D]
sending = ABCD * receiving
abs(sending)
abs(sending)*sqrt(3)

```

```

%%%%%% LONG LINE %%%%%%

```

```

A= cosh(gama*len);
B= Z_0*sinh(gama*len);
C= sinh(gama*len)/Z_0;
D= cosh(gama*len);

akim= (80*10^6-j* 60*10^6)/(400*10^3*sqrt(3));
volt=400*10^3/sqrt(3);
receiving=[volt ; akim];

ABCD=[A B ; C D];
sending = ABCD * receiving;
abs(sending)
abs(sending)*sqrt(3)

```

```

A =

    1.0000 + 0.0000i

```

```

D =

    1.0000 + 0.0000i

```

```

B =

```

$$0.1200 + 0.6000i$$

$C =$

$$-4.8000e-13 + 4.0000e-06i$$

$akim =$

$$1.1547e+02 - 8.6603e+01i$$

$volt =$

$$2.3094e+05$$

$receiving =$

$$1.0e+05 *$$

$$2.3094 + 0.0000i$$

$$0.0012 - 0.0009i$$

$ABCD =$

$$\begin{array}{cc} 1.0000 + 0.0000i & 0.1200 + 0.6000i \\ -0.0000 + 0.0000i & 1.0000 + 0.0000i \end{array}$$

$sending =$

$$1.0e+05 *$$

$$2.3101 + 0.0006i$$

$$0.0012 - 0.0009i$$

$ans =$

$$1.0e+05 *$$

$$2.3101$$

$$0.0014$$

$ans =$

$$1.0e+05 *$$

$$4.0011$$

$$0.0025$$

ans =

1.0×10^5 *

2.2641

0.0022

ans =

1.0×10^5 *

3.9216

0.0038

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