Antenna Models:

These antenna model files appeared as appendices to ARRL's technical filings with the FCC on ET-03-104, the FCC Notice of Inquiry on Broadband Over Power Lines.

Methods of Feeding Overhead Electrical Power-Line Distribution Lines With BPL Signals and the Relationship of These Methods to the Radiated Emissions of the Conductors

Author: Ed Hare, ARRL Laboratory Manager

Date: July 7, 2003

Appendix A: Sample NEC files for the models used for this analysis

DIFF14.NEC

```
CM Differential, 2 phase, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,7,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

GND14.NEC

```
CM 1 phase to ground, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,9,1,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

DIP14.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
```

DIFF3R5.NEC

```
CM Differential, 2 phase, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,7,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

GND3R5.NEC

```
CM 1 phase to ground, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,9,1,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

DIP3R5.NEC

```
CM Differential 1 phase, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

Electric and Magnetic Fields Near Physically Large Radiators

Author: Ed Hare, ARRL Laboratory ManagerDate: July 7, 2003

Appendix A: Sample NEC files for the models used in this analysis.

DIP3R5.NEC

```
CM Differential 1 phase, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
```

DIP14.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
```

COMP20M.NEC

```
CM Complex power distribution
CE
GW 1,95,-100.,0.,10.,0.,0.,10.,.00635
GW 2,95,0.,0.,10.,101.,0.,10.,.00635
GW 3,95,-101.,1.,10.,0.,1.,10.,.00635
GW 4,95,0.,1.,10.,100.,1.,10.,.00635
GW 5,95,-100.,0.,10.,-100.,-100.,11.,.00635
GW 6,95,-101.,1.,10.,-101.,-100.,11.,.00635
GW 7,3,-100.,-100.,11.,-101.,-100.,11.,.00635
GW 8,95,101.,0.,10.,101.,100.,11.,.00635
GW 9,95,100.,1.,10.,100.,100.,11.,.00635
GW 10,3,101.,100.,11.,100.,100.,11.,.00635
GW 11,31,0.,0.,10.,0.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,10.,.05,.00635
GW 13,11,0.,0.,.05,-10.,0.,.05,.00635
GW 14,11,0.,0.,.05,0.,-10.,.05,.00635
GW 15,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
LD 5,14,0,0,5.7471E+7,1.
LD 5,15,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,4,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-30.,10.,1.,0.,0.
EN
```

Power Lines as Antennas From 100 kHz to 50 MHz

Author: Ed Hare, ARRL Laboratory Manager

Date: July 7, 2003

Appendix A: Example NEC files used for calculations in this paper/

DIP5.NEC

```
CM Differential, 1 phase, 5 MHz
CE
GW 1,15,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,15,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,8,8,50.,0.
LD 4,2,8,8,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,5.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

PL2MHZ.NEC

```
CM Differential, 1 phase, 2 MHz
CE
GW 1,1,-100.,0.,10.,-100.,1.,10.,.0127
GW 2,34,-100.,0.,10.,0.,0.,10.,.0127
GW 3,34,0.,0.,10.,100.,0.,10.,.0127
GW 4,4,0.,0.,10.,0.,0.,.01,.0127
GW 5,2,0.,0.,.1,0.,5.,.1,.0127
GW 6,2,0.,0.,.1,-5.,0.,.1,.0127
GW 7,2,0.,0.,.1,0.,-5.,.1,.0127
GW 8,2,0.,0.,.1,5.,0.,.1,.0127
GW 9,67,-100.,1.,10.,100.,1.,10.,.0127
GW 10,1,100.,0.,10.,100.,1.,10.,.0127
GE 1
LD 4,1,1,1,50.,0.
LD 4,10,1,1,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
FR 0,1,0,0,2.
GN 2,0,0,0,13.,.005
EX 0,9,17,0,.9999999,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,1,32,1,-58.,6.,10.,1.,3.,0.
EN
```

PWRLINE10.EZ

```
CM NEC-4 input file <Dipole11.IN>
CE
GW 1,1,-100.,0.,10.,-100.,1.,10.,.0127
GW 2,31,-100.,0.,10.,0.,0.,10.,.0127
GW 3,31,0.,0.,10.,100.,0.,10.,.0127
GW 4,1,0.,0.,10.,0.,0.,.01,.0127
GW 5,1,0.,0.,.1,0.,5.,.1,.0127
GW 6,1,0.,0.,.1,-5.,-4.371E-7,.1,.0127
GW 7,1,0.,0.,.1,5.9624E-8,-5.,.1,.0127
GW 8,1,0.,0.,.1,5.,8.7423E-7,.1,.0127
GW 9,31,-100.,1.,10.,100.,1.,10.,.0127
GW 10,1,100.,0.,10.,100.,1.,10.,.0127
GE 1
LD  4 ,1,1,1,50.,0.
LD  4 ,10,1,1,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
FR 0,1,0,0,1.
GN 2,0,0,0,13.,.005
EX 0,9,8,0,.9999999,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,1,32,1,-58.,6.,10.,1.,3.,0.
EN
```

DIPR1.EZ

```
CM Differential, 1 phase, 0.1 MHz
CE
GW 1,2,-100.,0.,10.,0.,0.,10.,.00635
GW 2,2,0.,0.,10.,100.,0.,10.,.00635
GW 3,2,-100.,1.,10.,0.,1.,10.,.00635
GW 4,2,0.,1.,10.,100.,1.,10.,.00635
GW 5,1,100.,0.,10.,100.,1.,10.,.00635
GW 6,1,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,1,0.,0.,10.,0.,0.,.05,.00635
GW 8,1,0.,0.,.05,0.,5.,.05,.00635
GW 9,1,0.,0.,.05,-5.,0.,.05,.00635
GW 10,1,0.,0.,.05,0.,-5.,.05,.00635
GW 11,1,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,1,1,50.,0.
LD 4,6,1,1,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,.1
GN 2,0,0,0,13.,.005
EX 0,3,1,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

DIPR2.EZ

```
CM Differential, 1 phase, 0.2 MHz
CE
GW 1,3,-100.,0.,10.,0.,0.,10.,.00635
GW 2,3,0.,0.,10.,100.,0.,10.,.00635
GW 3,3,-100.,1.,10.,0.,1.,10.,.00635
GW 4,3,0.,1.,10.,100.,1.,10.,.00635
GW 5,3,100.,0.,10.,100.,1.,10.,.00635
GW 6,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,3,0.,0.,10.,0.,0.,.05,.00635
GW 8,3,0.,0.,.05,0.,5.,.05,.00635
GW 9,3,0.,0.,.05,-5.,0.,.05,.00635
GW 10,3,0.,0.,.05,0.,-5.,.05,.00635
GW 11,3,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,2,2,50.,0.
LD 4,6,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,.2
GN 2,0,0,0,13.,.005
EX 0,3,1,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

DIPR3.EZ

```
CM Differential, 1 phase, 0.3 MHz
CE
GW 1,4,-100.,0.,10.,0.,0.,10.,.00635
GW 2,4,0.,0.,10.,100.,0.,10.,.00635
GW 3,4,-100.,1.,10.,0.,1.,10.,.00635
GW 4,4,0.,1.,10.,100.,1.,10.,.00635
GW 5,3,100.,0.,10.,100.,1.,10.,.00635
GW 6,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,3,0.,0.,10.,0.,0.,.05,.00635
GW 8,3,0.,0.,.05,0.,5.,.05,.00635
GW 9,3,0.,0.,.05,-5.,0.,.05,.00635
GW 10,3,0.,0.,.05,0.,-5.,.05,.00635
GW 11,3,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,2,2,50.,0.
LD 4,6,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,.3
GN 2,0,0,0,13.,.005
EX 0,3,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

DIPR5.EZ

```
CM Differential, 1 phase, 0.5 MHz
CE
GW 1,4,-100.,0.,10.,0.,0.,10.,.00635
GW 2,4,0.,0.,10.,100.,0.,10.,.00635
GW 3,4,-100.,1.,10.,0.,1.,10.,.00635
GW 4,4,0.,1.,10.,100.,1.,10.,.00635
GW 5,3,100.,0.,10.,100.,1.,10.,.00635
GW 6,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,3,0.,0.,10.,0.,0.,.05,.00635
GW 8,3,0.,0.,.05,0.,5.,.05,.00635
GW 9,3,0.,0.,.05,-5.,0.,.05,.00635
GW 10,3,0.,0.,.05,0.,-5.,.05,.00635
GW 11,3,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,2,2,50.,0.
LD 4,6,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,.5
GN 2,0,0,0,13.,.005
EX 0,3,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

DIPR8.EZ

```
CM Differential, 1 phase, 0.8 MHz
CE
GW 1,6,-100.,0.,10.,0.,0.,10.,.00635
GW 2,6,0.,0.,10.,100.,0.,10.,.00635
GW 3,6,-100.,1.,10.,0.,1.,10.,.00635
GW 4,6,0.,1.,10.,100.,1.,10.,.00635
GW 5,3,100.,0.,10.,100.,1.,10.,.00635
GW 6,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,3,0.,0.,10.,0.,0.,.05,.00635
GW 8,3,0.,0.,.05,0.,5.,.05,.00635
GW 9,3,0.,0.,.05,-5.,0.,.05,.00635
GW 10,3,0.,0.,.05,0.,-5.,.05,.00635
GW 11,3,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,2,2,50.,0.
LD 4,6,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,.8
GN 2,0,0,0,13.,.005
EX 0,3,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

DIP1.EZ

```
CM Differential, 1 phase, 1 MHz
CE
GW 1,7,-100.,0.,10.,0.,0.,10.,.00635
GW 2,7,0.,0.,10.,100.,0.,10.,.00635
GW 3,7,-100.,1.,10.,0.,1.,10.,.00635
GW 4,7,0.,1.,10.,100.,1.,10.,.00635
GW 5,3,100.,0.,10.,100.,1.,10.,.00635
GW 6,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 7,3,0.,0.,10.,0.,0.,.05,.00635
GW 8,3,0.,0.,.05,0.,5.,.05,.00635
GW 9,3,0.,0.,.05,-5.,0.,.05,.00635
GW 10,3,0.,0.,.05,0.,-5.,.05,.00635
GW 11,3,0.,0.,.05,5.,0.,.05,.00635
GE 1
LD 4,5,2,2,50.,0.
LD 4,6,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
FR 0,1,0,0,1.
GN 2,0,0,0,13.,.005
EX 0,3,2,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,41,-200.,0.,0.,2.,0.,1.
EN
```

```
DIP1R8.EZ
CM Differential, 1 phase, 1.8 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,1.8
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
```

DIP2.EZ

```
CM Differential, 1 phase, 2 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,2.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
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```
DIP3R5.EZ
CM Differential 1 phase, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
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DIP5R3.EZ

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CM Differential, 1 phase, 5.3 MHz
CE
GW 1,15,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,15,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,8,8,50.,0.
LD 4,2,8,8,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,5.3
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP7.EZ

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CM Differential, 1 phase, 7 MHz
CE
GW 1,21,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,21,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,11,11,50.,0.
LD 4,2,11,11,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,7.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP10R1.EZ

```
CM Differential 1 phase 10.1 MHz
CE
GW 1,29,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,29,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,15,15,50.,0.
LD 4,2,15,15,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,10.1
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP14.EZ

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
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DIP18R1.EZ

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CM Differential 1 phase, 18.1 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,18.1
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP21.EZ

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CM Differential, 1 phase, 21 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,21.
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP24R9.EZ

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CM Differential 1 phase 24.9 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,24.9
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP28.EZ

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CM Differential, 1 phase, 28 MHz
CE
GW 1,15,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,15,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,145,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,145,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,145,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,145,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,15,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,15,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,15,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,15,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,15,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,8,8,50.,0.
LD 4,2,8,8,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,28.
GN 2,0,0,0,13.,.005
EX 0,6,73,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP50.EZ

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CM Differential 1 phase 50 MHz
CE
GW 1,27,81.2154,23.9779,7.7348,73.4806,23.9779,7.7348,.00491
GW 2,27,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,259,-77.348,0.,7.7348,0.,0.,7.7348,.00491
GW 4,259,0.,0.,7.7348,77.348,0.,7.7348,.00491
GW 5,259,-77.348,.77348,7.7348,0.,.77348,7.7348,.00491
GW 6,259,0.,.77348,7.7348,77.348,.77348,7.7348,.00491
GW 7,3,77.348,0.,7.7348,77.348,.77348,7.7348,.00491
GW 8,3,-77.348,0.,7.7348,-77.348,.77348,7.7348,.00491
GW 9,26,0.,0.,7.7348,0.,0.,.03867,.00491
GW 10,26,0.,0.,.03867,0.,7.7348,.03867,.00491
GW 11,26,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,26,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,26,0.,0.,.03867,7.7348,0.,.03867,.00491
GE 1
LD 4,1,14,14,50.,0.
LD 4,2,14,14,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,50.
GN 2,0,0,0,13.,.005
EX 0,6,130,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP14E30.NEC

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CM Differential, 1 phase, 14 MHz
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-30.,10.,1.,0.,0.
EN
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DIP14H30.NEC

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CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-30.,10.,1.,0.,0.
EN
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DIP14E10.NEC

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CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-10.,10.,1.,0.,0.
EN
```

DIP14H10.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,0.
EN
```

DIP14E3.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-3.,10.,1.,0.,0.
EN
```

DIP14H3.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,33.,10.,95.,33.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-3.,10.,1.,0.,0.
EN
```

DIP3R5E30.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-30.,10.,1.,0.,0.
EN
```

DIP3R5H30.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-30.,10.,1.,0.,0.
EN
```

DIP3R5E10.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-10.,10.,1.,0.,0.
EN
```

DIP3R5H10.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,0.
EN
```

DIP3R5E3.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NE 0,401,1,1,-200.,-3.,10.,1.,0.,0.
EN
```

DIP3R5H3.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,120.5166,32.97718,10.,79.40218,33.,10.,.00635
GW 2,11,120.5166,-22.34,30.,79.40218,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,1.51E-06,.05,.00635
GW 12,11,0.,0.,.05,-4.649E-6,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,-3.02E-06,.05,.00635
GE 1
LD  4 ,1,6,6,50.,0.
LD  4 ,2,6,6,50.,0.
LD  4 ,7,2,2,50.,0.
LD  4 ,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,46,181,1001,0.,0.,2.,2.,0.
NH 0,401,1,1,-200.,-3.,10.,1.,0.,0.
EN
```

Calculated Levels from Broadband Over Power Line Systems and their Impact on Amateur Radio Communications Circuits

Author: Ed Hare, ARRL Laboratory Manager

Date: July 7, 2003

Appendix A: Sample NEC files used for the calculations in this paper

DIP3-1.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,105.,.5,40.,65.,.5,40.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP3-2.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,30.,-30.,10.,70.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP3-3.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,-20.,-30.,10.,20.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP3-4.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,100.,-30.,10.,60.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP3-5.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,-100.,-30.,10.,-60.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP3-6.NEC

```
CM Differential, 1 phase, 3.5 MHz
CE
GW 1,11,-100.,-22.4,30.,-60.,-22.4,30.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
```

DIP14-1.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,-30.,.5,40.,-40.,.5,40.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
```

DIP14-2.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,45.,-30.,10.,55.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
```

DIP14-3.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,-5.,-30.,10.,5.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
```

DIP14-4.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,100.,-30.,10.,90.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
```

DIP14-5.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,-100.,-30.,10.,-90.,-30.,10.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
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DIP14-6.NEC

```
CM Differential, 1 phase, 14 MHz
CE
GW 1,39,-100.,-22.4,30.,-90.,-22.4,30.,.00635
GW 2,95,-100.,0.,10.,0.,0.,10.,.00635
GW 3,95,0.,0.,10.,100.,0.,10.,.00635
GW 4,95,-100.,1.,10.,0.,1.,10.,.00635
GW 5,95,0.,1.,10.,100.,1.,10.,.00635
GW 6,3,100.,0.,10.,100.,1.,10.,.00635
GW 7,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 8,11,0.,0.,10.,0.,0.,.05,.00635
GW 9,11,0.,0.,.05,0.,10.,.05,.00635
GW 10,11,0.,0.,.05,-10.,0.,.05,.00635
GW 11,11,0.,0.,.05,0.,-10.,.05,.00635
GW 12,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,20,20,50.,0.
LD 4,6,2,2,50.,0.
LD 4,7,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,5,48,0,1.414214,0.
RP 0,181,1,1000,90.,0.,-1.,0.,0.
NE 0,401,1,1,-200.,.5,40.,1.,0.,0.
EN
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DIP1R8.NEC

```
CM Differential, 1 phase, 1.8 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,1.8
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
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DIP3R5.NEC

```
CM Differential 1 phase, 3.5 MHz
CE
GW 1,11,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,11,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,3.5
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,401,1,1,-200.,30.,10.,1.,0.,0.
EN
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DIP5R3.NEC

```
CM Differential, 1 phase, 5.3 MHz
CE
GW 1,15,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,15,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,8,8,50.,0.
LD 4,2,8,8,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,5.3
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP7.NEC

```
CM Differential, 1 phase, 7 MHz
CE
GW 1,21,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,21,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,11,11,50.,0.
LD 4,2,11,11,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,7.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP10R1.NEC

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CM Differential 1 phase 10.1 MHz
CE
GW 1,29,120.516,32.9771,10.,79.4021,33.,10.,.00635
GW 2,29,120.516,-22.34,30.,79.4021,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,3.,10.,0.,3.,10.,.00635
GW 6,95,0.,3.,10.,100.,3.,10.,.00635
GW 7,3,100.,0.,10.,100.,3.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,3.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,15,15,50.,0.
LD 4,2,15,15,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,10.1
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NE 0,201,1,1,-100.,30.,10.,1.,0.,.3048
EN
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DIP14.NEC

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CM Differential, 1 phase, 14 MHz
CE
GW 1,11,105.,31.,10.,95.,31.,10.,.00635
GW 2,11,105.,-22.34,30.,95.,-22.34,30.,.00635
GW 3,95,-100.,0.,10.,0.,0.,10.,.00635
GW 4,95,0.,0.,10.,100.,0.,10.,.00635
GW 5,95,-100.,1.,10.,0.,1.,10.,.00635
GW 6,95,0.,1.,10.,100.,1.,10.,.00635
GW 7,3,100.,0.,10.,100.,1.,10.,.00635
GW 8,3,-100.,0.,10.,-100.,1.,10.,.00635
GW 9,11,0.,0.,10.,0.,0.,.05,.00635
GW 10,11,0.,0.,.05,0.,10.,.05,.00635
GW 11,11,0.,0.,.05,-10.,0.,.05,.00635
GW 12,11,0.,0.,.05,0.,-10.,.05,.00635
GW 13,11,0.,0.,.05,10.,0.,.05,.00635
GE 1
LD 4,1,6,6,50.,0.
LD 4,2,6,6,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,14.
GN 2,0,0,0,13.,.005
EX 0,6,48,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,200,1,1,1.,-10.,10.,1.,0.,0.
EN
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DIP18R1.NEC

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CM Differential 1 phase, 18.1 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,18.1
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP21.NEC

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CM Differential, 1 phase, 21 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,21.
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP24R9.NEC

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CM Differential 1 phase 24.9 MHz
CE
GW 1,13,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,13,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,129,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,129,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,129,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,129,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,13,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,13,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,13,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,13,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,13,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,7,7,50.,0.
LD 4,2,7,7,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,24.9
GN 2,0,0,0,13.,.005
EX 0,6,65,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP28.NEC

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CM Differential, 1 phase, 28 MHz
CE
GW 1,15,81.2154,23.9779,7.73481,73.4806,23.9779,7.73481,.00491
GW 2,15,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,145,-77.348,0.,7.73481,0.,0.,7.73481,.00491
GW 4,145,0.,0.,7.73481,77.348,0.,7.73481,.00491
GW 5,145,-77.348,.77348,7.73481,0.,.77348,7.73481,.00491
GW 6,145,0.,.77348,7.73481,77.348,.77348,7.73481,.00491
GW 7,3,77.348,0.,7.73481,77.348,.77348,7.73481,.00491
GW 8,3,-77.348,0.,7.73481,-77.348,.77348,7.73481,.00491
GW 9,15,0.,0.,7.73481,0.,0.,.03867,.00491
GW 10,15,0.,0.,.03867,0.,7.73481,.03867,.00491
GW 11,15,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,15,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,15,0.,0.,.03867,7.73481,0.,.03867,.00491
GE 1
LD 4,1,8,8,50.,0.
LD 4,2,8,8,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,28.
GN 2,0,0,0,13.,.005
EX 0,6,73,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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DIP50.NEC

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CM Differential 1 phase 50 MHz
CE
GW 1,27,81.2154,23.9779,7.7348,73.4806,23.9779,7.7348,.00491
GW 2,27,81.2154,-17.279,23.2044,73.4806,-17.279,23.2044,.00491
GW 3,259,-77.348,0.,7.7348,0.,0.,7.7348,.00491
GW 4,259,0.,0.,7.7348,77.348,0.,7.7348,.00491
GW 5,259,-77.348,.77348,7.7348,0.,.77348,7.7348,.00491
GW 6,259,0.,.77348,7.7348,77.348,.77348,7.7348,.00491
GW 7,3,77.348,0.,7.7348,77.348,.77348,7.7348,.00491
GW 8,3,-77.348,0.,7.7348,-77.348,.77348,7.7348,.00491
GW 9,26,0.,0.,7.7348,0.,0.,.03867,.00491
GW 10,26,0.,0.,.03867,0.,7.7348,.03867,.00491
GW 11,26,0.,0.,.03867,-7.7348,0.,.03867,.00491
GW 12,26,0.,0.,.03867,0.,-7.7348,.03867,.00491
GW 13,26,0.,0.,.03867,7.7348,0.,.03867,.00491
GE 1
LD 4,1,14,14,50.,0.
LD 4,2,14,14,50.,0.
LD 4,7,2,2,50.,0.
LD 4,8,2,2,50.,0.
LD 5,1,0,0,5.7471E+7,1.
LD 5,2,0,0,5.7471E+7,1.
LD 5,3,0,0,5.7471E+7,1.
LD 5,4,0,0,5.7471E+7,1.
LD 5,5,0,0,5.7471E+7,1.
LD 5,6,0,0,5.7471E+7,1.
LD 5,7,0,0,5.7471E+7,1.
LD 5,8,0,0,5.7471E+7,1.
LD 5,9,0,0,5.7471E+7,1.
LD 5,10,0,0,5.7471E+7,1.
LD 5,11,0,0,5.7471E+7,1.
LD 5,12,0,0,5.7471E+7,1.
LD 5,13,0,0,5.7471E+7,1.
FR 0,1,0,0,50.
GN 2,0,0,0,13.,.005
EX 0,6,130,0,1.414214,0.
RP 0,91,90,1000,90.,0.,-2.,2.,0.
NH 0,401,1,1,-200.,-10.,10.,1.,0.,.3048
EN
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