100C probe magnetic field distribution

## Model Setup



- Simulation frequency: 100 MHz
- The loop is being driven by a 50 ohm, +10 dBm source.


## Model Setup



- Fields are simulation in a volume of $7.5^{\prime \prime} \times 7.5^{\prime \prime}$ x $7.5^{\prime \prime}$.


## Results in XY planes



XY plane shown above, with Z offset of 0"

## Results in XY plane $\mathrm{Z}=0$ "



- XY plane shown above, with Z otfset of $0^{\circ}$
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils ( $0.001^{\prime \prime}$ ).


## Results in XY plane Z=0.5"



- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils (0.001").
- Plane is $0.5^{\prime \prime}$ above the plane of the loop.


## Results in XY plane $Z=1.0^{\prime \prime}$



- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils ( $0.001^{\prime \prime}$ ).
- Plane is $1.0^{\prime \prime}$ above the plane of the loop.


## Results in XY plane Z=1.5"



- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils (0.001").
- Plane is $1.5^{\prime \prime}$ above the plane of the loop.


## Results in XY plane $Z=2.0^{\prime \prime}$



- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils (0.001").
- Plane is $2.0^{\prime \prime}$ above the plane of the loop.


## Results in YZ planes



YZ plane shown above, with X offset of $0^{\prime \prime}$

## Results in YZ plane

 $X=0$ "


- YZ plane shown above, with $X$ offset of 0 "
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils ( $0.001^{\prime \prime}$ ).


## Results in YZ plane $X=0.5^{\prime \prime}$



- YZ plane shown above, with X offset of 0.5"
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils ( $0.001^{\prime \prime}$ ).


## Results in YZ plane $X=1.0^{\prime \prime}$


$0 \quad 2.5 \mathrm{e}+003$
$5 \mathrm{e}+003$ (mil)

- YZ plane shown above, with X offset of 1.0"
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils (0.001").


## Results in YZ plane $X=1.5^{\prime \prime}$



- YZ plane shown above, with X offset of 1.5"
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils (0.001").


## Results in YZ plane $X=2.0^{\prime \prime}$


$02.5 \mathrm{e}+003$ $5 \mathrm{e}+003$ (mil)

- YZ plane shown above, with X offset of 2.0"
- Color code is logarithmic scale; units of amperes per meter
- Distance scale at bottom of plot is in units of mils ( $0.001^{\prime \prime}$ ).

