

## **Text alternative for electromagnetic field simulation videos**

There are four short video sequences on the page, whose visual information is briefly described as follows:

### **Sectional view of a model of an on-wafer scattering parameter measurement.**

The measuring tips can be seen on the left and right. The measuring tip on the right is used for excitation, the one on the left for absorption of the electromagnetic wave. The magnitude of the magnetic field is color-coded and shown in a logarithmic representation. Red corresponds to a high field strength, blue to a low field strength. Significant field energy is present both above the arrangement and in the substrate. The animation shows an oscillation at 190 GHz.

### **Sectional view of a model of an on-wafer scattering parameter measurement.**

A line within a line array is excited using a measuring tip (not shown). The magnitude of the electric field is color-coded and shown in a linear representation. Red corresponds to a high field strength, blue to a low field strength. It can be seen that field energy is not only localized on the excited line, but also on neighbouring lines. Such couplings to neighboring lines are often undesirable. The animation shows an oscillation at 290 GHz.

### **Sectional view of a model of an on-wafer scattering parameter measurement from above.**

A short wire is excited using a measuring tip (not shown). The magnitude of the electric field is color-coded and shown in a linear representation. Red corresponds to a high field strength, blue to a low field strength. It can be seen that field energy is not only localized on the excited short line, but also on neighbouring lines. Such couplings to neighboring lines are often undesirable. The animation shows an oscillation at 300 GHz.

### **Sectional view of wave propagation in a flip-chip setup at an unwanted resonance at 276 GHz**

The magnitude of the electric field is color-coded and shown in a linear representation. Red corresponds to a high field strength, blue to a low field strength. It can be seen that field energy is not only localized at the junction, but also in the wider surroundings of the junction. Such resonances are undesirable in transitions. The animation shows an oscillation at 276 GHz

### **Sectional view of the field image of the radiation of a differential line in a middle layer of a large printed circuit board (PCB).**

The magnitude of the electric field is color-coded and shown in a linear representation. Red corresponds to a high field strength, blue to a low field strength. It can be seen that field

energy is not only localized in the vicinity of the differential line, but also in the wider surroundings. The radiation of energy is undesirable in differential lines. The animation shows an oscillation at 25 GHz.