

# Cryogenic Passive Products

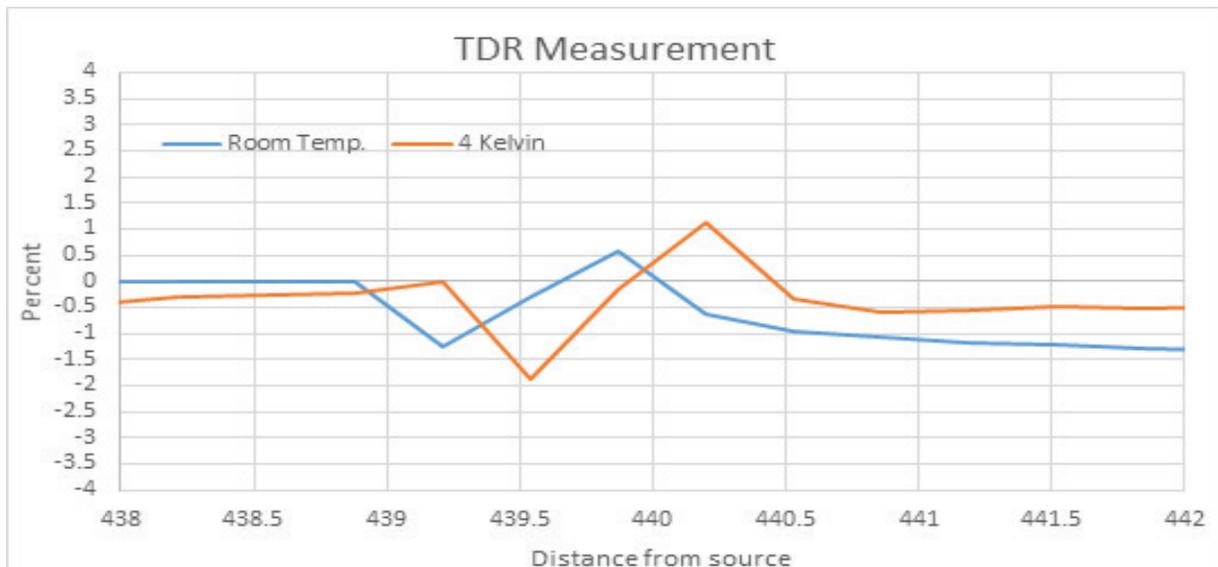
## Attenuators and Terminations

XMA is committed to manufacturing and developing high quality products and high-tech solutions. XMA offers Attenuators and Terminations capable of performing at extremely low temperatures. These products have the ability to operate at 4° Kelvin or -269.15° Celsius, with great stability. The proprietary, thin film resistor deviates less than 2% from 50 Ohms. The components do not superconduct under extremely cold conditions.



## Features and Benefits

- Perform successfully at extremely low temperatures
- Proven successful performance at Harvard, MIT, and Yale for research
- Little to no drift in attenuation, extremely stable throughout temperature changes
- Minimal change in resistance values at cryogenic temperatures
- Nichrome film does not superconduct at 4° Kelvin
- XMA offers DC-50 GHz attenuators and terminations in cryogenic version
- Interconnects provide outstanding electrical contact without creating noise
- Temperature Coefficient of Resistance (TCR's) of < 15 ppm/°C



Typical performance of a 40GHz Cryogenic Attenuator  
Testing done by a 3rd party lab

To read more about cryogenic components go to: <http://xmacorp.com/pages/cryo>