



APPLICATION ALERT:

3rd party testing confirms that Surge Suppressors based on GDT's (Gas Discharge Tubes), such as the Mimosa Networks NID, will NOT protect PMP 450i and PMP 450b Subscriber Module or Access Point radios from lightning or other surges.

1. Protecting radios from lightning and other electromagnetic surges is a key aspect in deploying reliable and profitable wireless communication systems. System downtime, tower climbs and the cost to replace damaged equipment can have a significant impact on customer satisfaction and the ROI on network deployments.
2. Cambium offers a set of field-proven and lab-tested surge suppressors based on best-practice design methodologies that include fast-firing TVS diodes. TVS diodes respond to surges more than 100x faster than gas discharge tubes with response times on the order of 10 to 100 nS. GDT's also have the downside that they become less effective over time as they absorb periodic surges.
3. There are several surge suppressors on the market, such as the Mimosa Network Interface Device, that exclusively use GDT's (Gas Discharge Tubes) as the active component. This style of surge suppressor should NOT be used to protect PMP 450i or PMP 450b radios.
4. Cambium Networks' testing at an external test lab has demonstrated that surge suppressors based on GDT's alone are insufficient to protect PMP 450i and PMP 450b radios. A summary of the results are below. The detailed test report can be made available on request.
 - a. Testing was done per the IEC Standard EN61000-4-5:2014 (1.2 μ s x 50 μ s surge waveform) with 2kV pulses.
 - b. Using a Mimosa NID (Gas Discharge Tube) device, system damage occurred on the PMP 450b and the PMP 450i.
 - c. Using a Cambium Networks Gigabit Surge Suppressor, no damage occurred to the radios or the Cambium Networks surge suppressor when tested against the IEC Standards.
5. More information on proper lightning protection is on the Cambium Networks Community [HERE](#).

RECOMMENDATION:

Cambium Networks does NOT recommend deploying Gas Discharge Tube-based surge protection (such as the Mimosa NID) on PMP 450i or PMP 450b platforms. Instead, the Cambium Networks Gigabit Surge Suppressors should be used (for 56V devices use C000000L033A; for 30V devices use C000000L065A).