

TECHNICAL NOTE # 301

RE: Enclosure Housing NEMA 4 Rating
Versions: All
Date: July 26, 2007

The issue concerning the presence of moisture and condensation on the inside of the SCUs at your facility is actually very common. Each of these enclosures has been engineered with function, security and operation in mind.

As the NEMA 4 rating implies; the enclosure is constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment. The enclosure also provides a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and will be undamaged by the external formation of ice on the enclosure.

While following these requirements, incidental moisture present in the air will collect inside the box over time. This is the reasoning for the addition of the weep holes in the bottom of the enclosure. Again, this does not violate any of the NEMA 4 requirements. The occurrence of condensation is the result of significant temperature differences on opposite sides of the housing material. Such condensation will not occur on the boards because the same temperature is maintained all around the board itself. All Southwest Microwave printed circuit boards are manufactured with environmental conditions in mind and are hardened to ensure trouble free operation (note the protective coating on all printed circuit boards and their components).

If you should have additional questions concerning this or other equipment matters, please feel to contact the Technical Services staff at Southwest Microwave Inc.