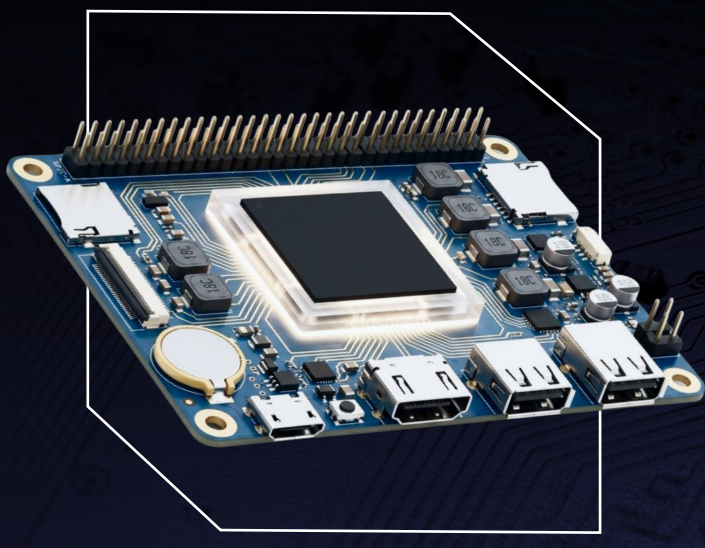


nanoGUARD

Unparalleled PCBA Protection

Advanced nanoGUARD™ coatings provide critical electronics applications with 3D protection from harsh electrical and environmental conditions. actnano's proven nanoGUARD technology delivers unsurpassed performance, reliability and manufacturing efficiencies without compromise.



1 100% 3D coverage with nanoGUARD viscoelastic, gel-state material

- Horizontal and vertical surfaces
- Undercoat large components (BGAs, etc)
- Use on rigid or flexible substrates
- No cracking or bubbling

2 Waterproof exceeding IPX7/8+

Protection from liquids, condensation, humidity, salt and more

3 Proven connect through coating capability

- No/minimal masking required
- Coat connectors and contacts
- Maintain high speed signal integrity connections

4 Coat heat sinks and antennas

- No RF influence
- Negligible thermal impact

5 Lowest total solution cost

- In-line processing, no cure time deposition
- No ovens or other curing required
- Use existing or standard equipment
- Typically, ready within 30-60 seconds
- Easy board rework and repair

6 Meets a broad list of environmental certifications and industry requirements

- UL94 V-0 and UL94 5VA flammability rating
- 100% safe materials
- Lower manufacturing carbon footprint



nanoGUARD is electronics' best defense against harsh electrical and environmental conditions

PROVEN PERFORMANCE

Water protection:

IPX7/IPX8+

Humidity:

85C @ 95% RH @ 1,000 hours

Thermal Shock:

125 C/-40 C 1,000 cycles

Salt fog:

24-hr 72-hr, 96-hr, 200-hr
under 48V

Submersion:

- Water – 1 meter, 30 minutes
- Saltwater (3.5% NaCL) – 15 hours
- Soap water (1% soap solution) – 15 hours

RF:

No signal attenuation up to 60 GHz

Electrical Contact:

No change within measurable tolerance

PROCESS ADVANTAGE

- Use existing equipment
- No ovens or curing required
- No masking or demasking
- Withstands touching
- Coat directly over connectors and contacts
- Fast ambient cure
- Undercoat raised components
- Easy and fast rework