Claims:

1. An optoelectronic module comprising:

an optoelectronic device;

sidewalls laterally surrounding the optoelectronic device and in direct contact with sides of the optoelectronic device, wherein the sidewalls are composed of a material that is non-transparent to light emitted by or detectable by the optoelectronic device;

a passive optical element disposed directly on an upper surface of the optoelectronic device, wherein the passive optical element is in direct contact with the upper surface of the optoelectronic device, and wherein the passive optical element is a lens; and

electrically conductive contacts on an underside of the optoelectronic device and arranged to mount the module directly on a printed circuit board of a host device.

2. The optoelectronic module of claim 1, wherein at least a portion of the sidewalls serves as an outer wall of the module.

3. The optoelectronic module of claim 1, wherein the sidewalls are composed of a vacuum injected material.

4. The optoelectronic module of claim 1, wherein the sidewalls are composed of a UV or thermally-cured polymer material containing a non-transparent filler material.

5. The optoelectronic module of claim 1, further including a baffle laterally surrounding the passive optical element, wherein the baffle is composed of the same non-transparent material as the sidewalls.