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- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG,

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(54) Title: ELECTRO-ABSORPTION MODULATED DISTRIBUTED FEEDBACK LASER CHIP AND LASER CHIP ENCAPSULATION STRUCTURE

(54) 发明名称: 电吸收调制激光器芯片及激光器芯片封装结构

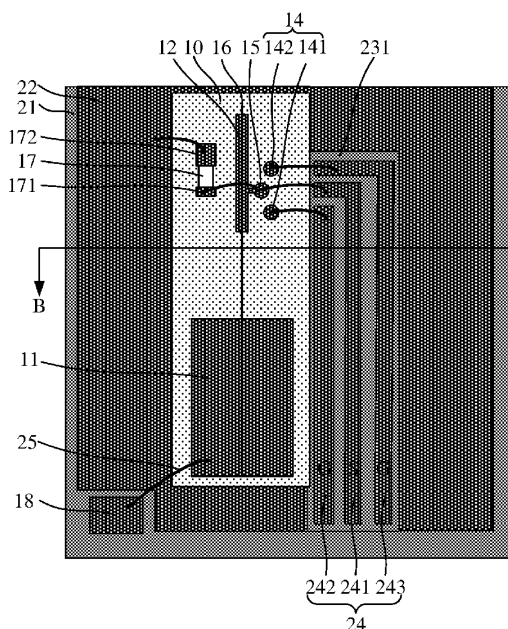


图 2

(57) Abstract: Disclosed are an electro-absorption modulated distributed feedback laser chip and a laser chip encapsulation structure. The electro-absorption modulated distributed feedback laser chip comprises: a substrate, the substrate having an upper surface and a lower surface which are opposite one another; a laser-emitting portion, which is located on the upper surface of the substrate and is used to emit a laser; a modulating portion, which is located on the upper surface of the substrate and is used to modulate the laser emitted by the laser-emitting portion; a back metal electrode layer, which is located on the lower surface of the substrate; a ground electrode, which is located on the upper surface of the substrate, is disposed near the modulating portion, and is electrically connected to the back metal electrode layer; a signal electrode, which is located on the upper surface of the substrate, is disposed near the ground electrode and the modulating portion, and is electrically connected to the modulating portion; and a waveguide structure, which is coupled to the laser-emitting portion and the modulating portion. After the laser chip is encapsulated, the transmission path of a signal circuit and a ground loop is shortened, so that parasitic inductance generated by a lead is reduced, the encapsulation bandwidth of the laser chip is

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根据细则4.17的声明：

- 关于发明人身份(细则4.17(i))
- 关于申请人有权申请并被授予专利(细则4.17(ii))
- 发明人资格(细则4.17(iv))

本国际公布：

- 包括国际检索报告(条约第21条(3))。

improved, and the laser chip is compatible with direct current and alternating current.

(57) 摘要：本发明公开了一种电吸收调制激光器芯片及激光器芯片封装结构，电吸收调制激光器芯片包括：衬底，衬底具有相对的上表面和下表面；激光发射部分，位于衬底的上表面，用于发射激光；调制部分，位于衬底的上表面，用于对激光发射部分发出的激光进行调制；背金属电极层，位于衬底的下表面；接地电极，位于衬底的上表面，并临近调制部分设置，且与背金属电极层相电性连接；信号电极，位于衬底的上表面，临近接地电极和调制部分设置，且与调制部分相电性连接；波导结构，耦合连接激光发射部分与调制部分。便于将激光器芯片封装之后，缩短信号回路和接地回路的传输路径，从而降低引线产生的寄生电感，提高激光器芯片的封装带宽，同时兼容直流和交流匹配。