

**PHOTONIC-ELECTRONIC INTEGRATED CIRCUIT CHIP AND
MANUFACTURING METHOD THEREOF**

ABSTRACT

The invention relates to a photonic-electronic integrated circuit chip
5 formed on a semiconductor-on-insulator substrate, which silicon-on-insulator substrate
comprises an embedded dielectric layer (11) and an active layer (12) of semiconductor
material, said chip comprising an electronic circuit portion (CE1, CE2) and a photonic
interconnection interface (IPI) of the electronic circuit portion co-integrated in the active
layer and being characterized in that the electronic circuit portion (CE1, CE2) is formed in
10 an active layer region (RE1, RE2), the thickness of which is greater than the thickness of
an active layer region (RP) in which said photonic interface (IPI) is formed.

Fig. 1