

JSC "ATC-Semiconductor Devices"

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Management: V.P.Chaly - Chairman of Board,
A.L.Ter-Martirosyan - General director,
D.M.Demidov - Head of Manufacturing department,
Yu.V.Pogorelsky - Head of Development department,
D.V.Kroupski - Head of Sales and marketing department,
E.T.Klyavina - Chief accountant

Employees: permanent - 34 persons, engaged - 25 persons

Previous financing: USD 300 000

Current financing: USD 100 000

Requested investment: USD 500 000

Use of the requested investment: Extension of manufacturing the high power laser diodes and LD-based devices, including: procurement of high-vacuum and assembling equipment; recruitment and training of personnel; equipping the additional clean rooms (hermetic zones).

Company Description:

Joint Stock Company ATC-Semiconductor Devices (ATC-SD) has developed technology and organized manufacturing of high power laser diodes, using Russian technological equipment modernized by ATC-SD. The company entered to the Russian market in 1994, and to foreign markets in 1995. Goals of ATC-SD's activity are:

- To achieve the leading position on Russian market, and stable position on the world market, as manufacturer of high power laser diodes and LD-based devices.
- To establish and maintain within the company the full cycle of high-tech production - applied research, development and mass production of the optoelectronic devices.

Field and Directions of Activity:

Field of activity - optoelectronic. Directions of activity are:

- industrial manufacturing of high power laser diodes of near-IR spectral region, based on InAlGaAs;
- industrial manufacturing of LD-based devices for medicine and technological applications;
- development and implementation of technology for manufacturing new types of laser diodes;
- development, manufacturing and sale of high-vacuum technological equipment.

Products/Services/Technologies:

The main products are: CW laser diodes with output optical power of 0.2 ÷ 5 W, QCW laser bars of 25 ÷ 100 W, medical laser devices "Atcus-15" and "Atcus-3", diode pumped solid state lasers, power supply drivers for laser diodes and bars.

Technology for manufacturing the laser diodes, includes growth of heterostructures by means of molecular-beam epitaxy, and post-growth processing. ATC-SD possesses full set of own technological equipment (market value ~ \$1 500 000), as well as 7 patents and utility models of the Russian Federation for design and manufacturing technology for laser diodes and devices.

Management Team:

Owners: Private individuals, 2 persons (81%), JSC "STRIM Corp." (19%).

Key personnel:

Chaly Victor Petrovich, 46 years old, higher technical education, PhD, 24 years of experience, in 1991 ÷ 1997 - General director of ATC-SD, since 1997 - Chairman of Board.

Ter-Martirosyan Alexander Leonovich, 36 years old, higher technical education, PhD, 14 years of experience, since 1997 - General director of ATC-SD.

Demidov Dmitry Michailovich, 54 years old, higher technical education, PhD, 32 years of experience, Head of Manufacturing department.

Pogorelsky Yuri Vasilievich, 54 years old, higher technical education, PhD, State prize laureate, 32 years of experience, since 1991- Head of Development department.

Klyavina Elena Timofeevna, 44 years old, higher technical education, certified accountant since 1991, 10 years of accountant experience, since 1991 - Chief accountant of ATC-SD. Kroupski

Dmitry Vsevolodovich, 38 years old, higher technical and economical education, MBA, 16 years of experience, since 1997 - head of Sales and marketing department

Markets/Competition:

The following market segments chosen as basic for ATC-SD are: medicine, pumping of solid state lasers, material processing, sensors, scientific engineering. Total volume of these worldwide market segments is about \$400 000 000, with annual growth of 20-25%. Multi volume of the potential market and constant growth of sales were the criteria for choosing these segments.

The major competitors are: Spectra Diode Lab Inc., Opto-Power Corp., High Power Devices Inc., Semiconductor Laser International, Boston Laser Inc. (all - USA). Competition level in the world market is high. Major competitors in the Russian market are, mostly, the foreign companies.

Sales are performed by Sales and Marketing department (3 persons). Export sales are effected through distributors (in USA, France, India) and by direct sales. Delivery by courier services (UPS, EMS).

Achievements:

The main achievements of the last two years are the following: 12 models of laser diodes and several medical devices have been set for production; life-time of the laser diodes has been increased up to 10000 hours; technical design decisions have been protected with patents of Russian Federation; several long-term contracts for distributorship and supply of products have been concluded. Russian certification authorities has approved medical laser device "Atcus-15". A special technological equipment for implementation of manufacturing the high-frequency transistors, light-emitting diodes (LEDs) and laser diodes of the blue-green spectrum range on base of gallium nitride (GaN) has been created.

Outlook: In a year and a half after the beginning of the investment the sales volume will have achieved \$1 000 000, and the company will have gained the leading position on the Russian market. In 5 years the annual turnover will have achieved \$12 000 000 (about 1% of the world market volume). Besides, the company plans the further development of technology by using its own assets, and enter to the market with micro- (transistors) and optoelectronic devices (light emitting diodes, laser diodes) on base of GaN.