Bitcoin cryptocurrency is a decentralized next generation digital currency created and available only online. Bitcoin is not pegged neither to any of the World banks nor to any countries’ economics. It’s value is formed by demand and it is the most progressively stable leading cryptocurrency due to the high interest of investors from all over the world. Bitcoin currency emission occurs through millions of working machines worldwide which use a program for mathematical algorithms solving.

Bitcoin has a value, it can be easily bought or sold on stock exchange and digital currency exchanges.

The rate of any assets including cryptocurrency rarely remains stable. It is affected by many aspects such as demand and supply of investors, traders’ activity, economic and political environment, the emergence of new cryptocurrencies, forks and other aspects that are inherent in the cryptosphere and the economy as a whole.

The volatility - the fluctuation degree in the cryptocurrency rate - of cryptocurrencies is much higher than the volatility of traditional assets. Fluctuation up to 20% is considered to be normal if we speak about the cryptocurrency market. Sometimes it reaches even 50% and annual fluctuation of many cryptocurrencies exceeds 100%.

Anyway, despite such significant price changes Bitcoin rate never drops lower than its previous minimum value. It means that in the long term the Bitcoin cost will inevitably grow. That’s why the long-term ownership strategy successfully eliminates the increased volatility.

THE AIM
OF THE PROJECT

Gaining of profit from investing into high-performance special-purpose computers based on BiXBiT immersion cooling module miners for Bitcoin cryptocurrency mining.
TECHNOLOGY

Mining process is based on solving a computationally difficult puzzles using special-purpose computers, such as ASIC Antminer S9. Application-specific integrated circuits (ASICs), are chips that are built into specifically-designed motherboards and power supplies, constructed into a single unit. The purpose of ASICs is to maintain the process of running complicated calculations in order to solve specific mathematical puzzles. The first one who solves a puzzle gets a reward. The reward is paid on a specialized digital wallet installed on a PC. The more miners a user has the more Bitcoin reward can be gained. Bitcoin can be kept on a digital wallet or exchanged to other cryptocurrency or fiat currency.
ECONOMICS

Reward depends on “Bitcoin mining difficulty” (tab. #2). The more users there are in the network the less reward per one miner you can gain. The difficulty has been constantly increasing.

**Bitcoin mining difficulty chart**
**during the period from July 2017 to July 2018**

Table №2.

![Bitcoin mining difficulty chart](fig.png)

Source: [blockchain.com](https://blockchain.com)

RETURN ON INVESTMENT

Pay-off period can be calculated using such options as price and characteristics (mining algorithms, productivity of the equipment, current consumption) of the computers, electricity tariff and Bitcoin rate. Cooling system cost also should be considered, which is over 35% of the total equipment cost.

- Antminer S9 price is about 950$
- Machine capacity: 13 TH/s
- Mining algorithm: SHA-256
- Current consumption: 1.1-1.3 kWh
Profitability can be calculated using a specialized calculator of equipment efficiency, NiceHash. For current calculations we put Moscow electricity tariff which is 0.085$ per 1kWh. On the date 05.07.2018 Bitcoin cost is 6 607$. Now we can count up that today 1 ASIC S9 gains 1,09$ per day or 38,92$ per month. According to the calculations the pay-off period of 1 ASIC S9 is 24,4 months.

BiXBiT mining system based on immersive cooling increases the equipment efficiency from 13 TH\$ up to 18 TH\$, **which reduces the pay-off period to 13 months.**

Calculations are made on averaged capacity values and does not consider the cost of the cooling system.

BiXBiT module miner also makes possible using the undue equipment generated heat efficiently. The module can be integrated with the heat supply system and warm any space of both small and large industrial scales. Such approach, for example, can be used for drying wood in woodworking, heating water in laundries or large business centers, organizing a «warm floor» and etc. Thereby BiXBiT hardware-technical complex allows to obtain additional economic benefit from projects based on computing equipment.

**RESUME**

Every digital currency market implies high volatility. Despite the fluctuation Bitcoin rate keeps growing. Which gives us a reason to expect even more investments into the cryptocurrency in the long term.
ABOUT US

BiXBiT offers ISO containers based modular infrastructure for any scale mining farms with innovative immersive cooling system 10, 20 and 40 feet in size. BiXBiT hardware-technical complex is designed to increase the equipment efficiency and eliminate main mining problems.

BiXBiT mining system implies hardware and software systems which are purposed to maintain blockchain-projects of any complexity, as well as creating new computing cluster. Each container is equipped with firefighting system, access control and CCTV. It requires minimum of human attendance: most of the operations are available remotely.
Each separate product in the basic configuration is a self-sufficient unit for the operation of equipment, and is also a component of the modular infrastructure, the final product of which is a mobile container filled with equipment racks. The product line is designed for both home miners and support for large block projects.

Thanks to the experience of our specialists, it was possible to develop the most accurate approach to efficient heat removal. Thus, we offer the world of mining the most compact solution, guaranteeing comfort in service and stability of operation at high capacities.

Bixbit mining system is applicable not only to blockchain projects but to any projects based on powerful computing machinery: data processing center, rendering of visual data and etc.