COVERT
WIRELESS
COMMUNICATIONS

... your key to

Smart Anything Everywhere

wireless infrastructure ...

The company offers unique wireless communication devices for construction and developing of smart industries and smart infrastructure such as:

- Smart home/ Smart city
- Smart agriculture
- Smart autonomous robotic complexes / Drones
- Smart factory
- Smart transport infrastructure

Our devices have such advantages over best industry solutions:

- Mass independent communications
- License-free, regulations-free
- PHY Layer encryption (data cannot be received by unauthorized devices, covert communications)
- Coexistence with devices of other standards
- Easy deployment of advanced MESH, Ad-Hoc networks
- Simultaneous communications with dozens of devices in one network (pocket cellular base station feature)

Considering the general areas of use, the proposed devices can be specifically applied for:

- Remote reliable control of net of electronic devices/drones
- Transmission and broadcasting of packet data (IPv4/v6), voice streams (Speex CELP 2400 codec applied)
- High data rate simultaneous communication with multiple devices
- Providing communication with the network (LPWAN) of sensors, devices of “Internet of Things” (IoT)
- Deployment of your own “pocket” cellular network
- Covert encrypted communication for military or security

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TECHNOLOGIES

- Asynchronous DSSS Transceiver
- PHY Layer Encryption
- Asynchronous CDMA Multiuser Interaction
- PHY Layer Direct Routing

DEVICE

Sub-1GHz

WorldWide ISM:
389-510 (434) MHz
779-1020 (868) MHz

Main purpose:
Low data rate
multi-channel/user
communications
(50m – 1,5km, 2,15dBi)

2.4GHz

WorldWide ISM:
2400-2483,5 MHz

Main purpose:
High data rate
communications;
relay data link
(up to 30km, 15dBi)

FEATURES

Data rates	IEEE Std. 802.15.4g: • FSK2 – 50…400 kbps • OQPSK – 250…1000 kbps • OFDM – 50…2400 kbps CWC Proprietary DSSS • 1,9…112,88 kbps (spreading factor 4096…16)
Bandwidth	125/250/500/1000 kHz
TX power	Up to +14dBm (25mW)
Network capabilities	• Up to 6 independent asynchronous links at one frequency • Up to 16 dependent (led by the master) synchronous links at one frequency • Up to 256 devices for one PHY layer key
Power	35/150/220/270mA at 5V (idle/RX.1/RX.6/TX)