

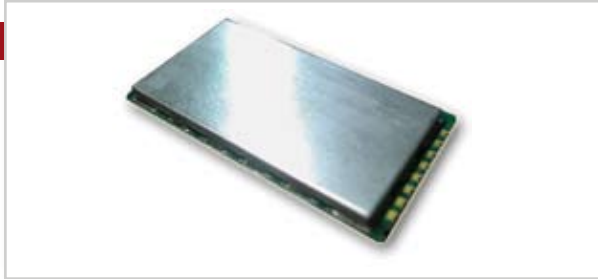
THE SPX TECHNOLOGY

SPX wireless radio-communication to ULTRA low power consumption.

Extremely low cost SPT1 nanopower class transmitter and SPR1 nanopower class receiver operating in the worldwide license – free ISM bands 433, 868 and 900 MHz to enable easy product development and fast time-to-market.



Version SPR17 - SPR18
Frequency 434 - 868 Mhz
Supply voltage 3V - 4 mA
Sensitivity - 98 dBm



SPX IS A PATENTED TECHNOLOGY BY STE ENGINEERING

SPR1

THE SPX CONCEPT

The new SP generation of Rx and Tx is an innovative stand-alone one-chip solution offering a powerful Rf and ICs integrated architecture: this new concept is based over an innovative Rf architecture interfaced to a nanotech SPX microcontroller;

The new class of breaking through RF devices SPT1 and SPR1 are based over the innovative and patented SPX concept which guarantees extremely reduced "duty-cycle" to offer an extremely low power consumption high range communication networks and full reliability against multipath reflection in harsh environments.

THE SPR1 technology

The SPR1 is an high data speed receiver interfaced with an SPX generation microcontroller to decode the pulses received from the new class nanopower datatransmitter SPT1: the module is provided of a serial port to program and interface the user's application. The architecture includes also 4 optional auxiliary ON/OFF output.

THE SPX TYPICAL APPLICATION

SP generation of ICs/RF modules are ready-to-use full customizable wireless solution to ultra low power consumption designed for sensor management and wireless solution specifically dedicated to extremely low power application including but not limited to:

- Industrial monitoring**
- Remote control**
- Domotica**
- Building automation**
- Security**
- Wireless alarm system**
- AMR (Automatic Meter Reading)**
- Social alarm sensor**

THE SP GENERATION A BREAKING THROUGH WIRELESS INNOVATION

Temperature, Pressure, Accelerometer, Strain and other sensors, can be installed on the field wire free: combined with an innovative RF-Transmitter architecture, provided of a cyclical emission with continuous mean current consumption of less than 1µA and supplied by a very small battery, the sensors can easily be installed in a wireless network with an autonomy of several years.

The Tyre Pressure Measurement System (TPMS) is a typical example:
Three Sensors: Temperature, Pressure, Voltage control;
Battery: 12 mm D, 48 mAh;
Life: 7 years of continuous operation;
Weight: less than 5 gr;
Temperature operating Range: $-40 < T < +120$ °C

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