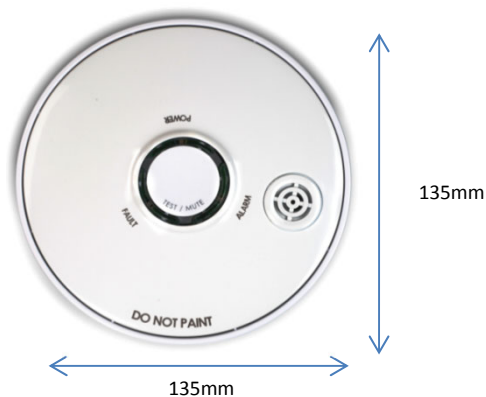**Essence**
SECURITY

Smoke Detector

ES700SK2

Wireless smoke detector

✓ Emits status warnings to the residents in the house

✓ Sends smoke alarm notifications to the monitoring station and other external services

✓ Uses a safe, photo-electric sensor mechanism

✓ Includes a loud and powerful siren

✓ Visual indicators via a Tri-color LED

✓ Requires 2 AA Alkaline batteries

The ES700SK2 Smoke Detector seamlessly integrates with the VeriSure family of control panels and other products from Essence Security

With millions of systems and security peripherals installed internationally, Essence Security is a technological and market leader in the field of advanced security solutions for homes, offices and full-service central monitoring stations

135mm

135mm

ES700SK2 Smoke Detector

DESCRIPTION

- The ES700SK2-GN is a bi-directional RF battery-operated smoke detector designed to be placed on ceilings
- Based on a photoelectric smoke detecting chamber
- Smoke detection is indicated by a loud buzzer of 85dB from 3m , a red LED indicator on the device and via a remote connection to the Control Panel
- The buzzer functions and warns even if the Control Panel is not working or communicating

WIRELESS

- Bi-directional: End-to-End Bi-Directional ESI protocol
- Advanced radio supervision algorithm
- Up to 700 meters RF range (open air)
- Modulation and Frequency: BFSK , 868.3 MHz or 916.5 MHz
- Encoding: 32-bit ID, over 4 billion combinations

OPERATION MODES

- Normal (armed)
- Test

SIGNALS

- Normal operation (red LED flashes once every 27-36 seconds)
- Low battery warning (chirps once every 27-36 seconds with red LED flashing)
- Low sensitivity of chamber/detector (chirps once every 36 seconds without red LED)
- Improper installation (emits loud, continuous tone)
- Test – pass (3 beeps , pause, and then 3 more beeps with red LED flashing continuously and rapidly)
- Test – fail (1 beep with red LED flashing once, and yellow LED flashing 3 times)

SECURITY and SAFETY

- Tamper Mechanism: Triggered when detached from base
- Special Mechanism: Prevents installation without batteries
- Autonomous Alarm: Functions and warns even if the Control Panel is out of service or communication is suppressed
- Unique electronic serial number

POWER CONSUMPTION

- Long operation period: over 36 months
- Uses two AA Alkaline batteries, Manufacturer: GP , model: 15AU , size: LR6, 1.5V*2

SIZE

- Diameter-135mm / H-48mm including wall mount
- Weight: 214 grams (including batteries)

ENVIRONMENTAL

- Operating temperature range:
  -10 °C ~ 55 °C (battery dependent)
- Humidity: Up to 85% non-condensing

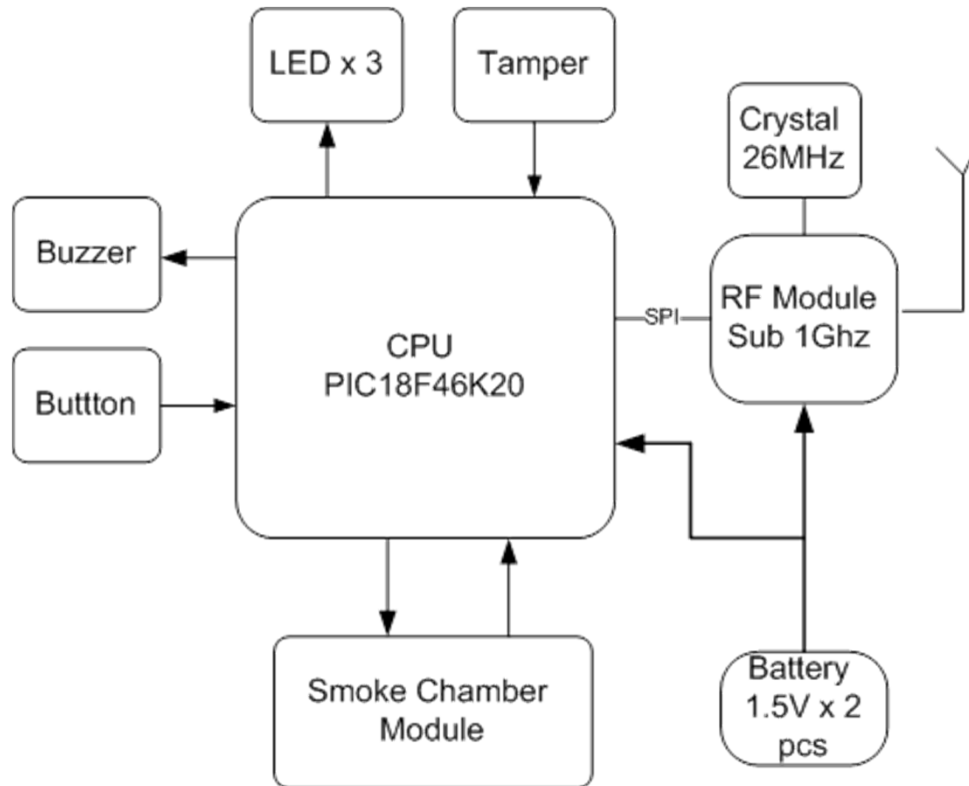### CERTIFICATIONS AND APPROVALS*

- CE: CE mark, EMC/EMI according to
  ETSI EN 301 489-4, ETSI EN 301 489-1, EN 50130-4:1996,
  EU Directive 1999/5/EC for R&TTE
- Radio: ETSI EN 300 220-3, ETSI EN 300 220-1, CEPT/ERC Recommendation 70-03, EN 50131-5-3:2005 + A1:2008
- Safety: EN/IEC60950-1, TUV : UL 60950-1
- Security & Alarm systems: EN 50131-1:2006 + A1:2009 Class-II Grade-2, EN50131-6:2008 Type-C
- Smoke detectors: EN 14604:2005
- Environmental Regulation: RoHS 2002/95/EC
- Reliability (Mechanical & Environmental conditions): EN 50130-5:1999 and IEC 60068
- Manufacturing and Materials Standards: ISO 9001:2008, ISO 14000

Certifications and approvals:

Essence Security International (E.S.I.) Ltd.
www.essence-grp.com +972-73-244-7777   info@essence-grp.com

Block Diagram Description

The 2 AA-size batteries provide the power to the Smoke Detector, which convert it to several voltages needed by the components.

The main micro-controller gets data from a smoke chamber module , temperature sensor, buttons and tamper switch.

It interacts with the buzzer and with and with the RF-transceiver chip.

The product have a red indication LED for smoke alarm indication, green – for power status and yellow for low batteries or chamber degradation.