Copy Protection Solution

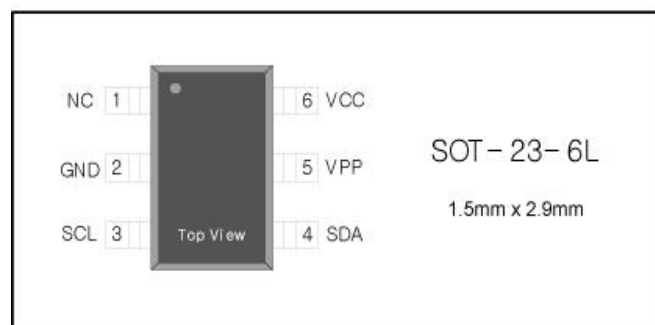| Product	Package Type	Feature	Interface	Operation Voltage	Application
ALPU-A/B/C	6L-SOT23	High performance illegal copy protection IC Double authentication : forward & reverse authentication 128bits encryption and decryption applied with AES-128 Built-in Power on Reset/16MHz OSC IIC Serial Interface, Supporting up to 400 Kbps	I²C	3.3V / 1.8V	Black box , Navigation, MP3 DVR(PVR), DVDP, CCTV STBs(Set-Top Boxes) Etc.(Most of electronic system using u-Processor)

Features

- High performance illegal copy protection IC
- 128bits encryption and decryption applied with AES-128
- 128bits OTP cells for user serial codeIIC Serial Interface,
  Supporting up to 400 Kbps
- 3.3V/1.8V Operation Voltage
- Built- in Power on Reset / 16MHz OSC
- Two Power Mode (Active, Sleep)

Applications

- DMB, Navigation
- Mobile Phone, PMP, MP3
- DVR(PVR), DVDP
- Set-Top Boxes (STBs)
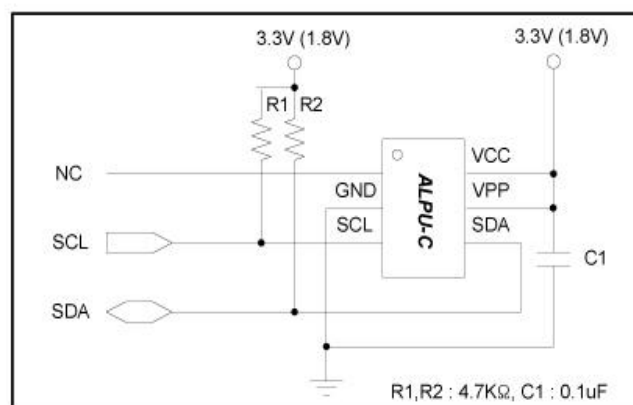- Etc.(Most of electronic system using u-Processor)

Pin Configuration

SOT – 23– 6L

1.5mm x 2.9mm

Ordering Information

Part	Operation Voltage	Package Type
ALPU-A/B/C	3.3V	SOT-23-6L
ALPUAL/BL/CL	1.8V	SOT-23-6L

General Description

The ALPU-A/B/C is the high-end IC among the ALPU series.
Its encryption core is based on Rijndeal AES-128 with 192-bits programmable parameters. It is a slave device that always operates with MCU through the serial bus.

Typical Operation Circuit

R1,R2 : 4.7KΩ, C1 : 0.1uF

〈 SOT-23-6L Package Type 〉

Encryption Flow