

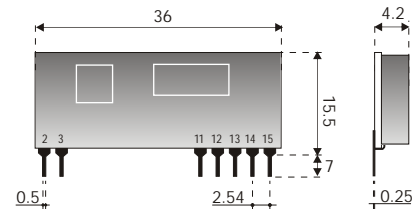
High Selectivity UHF ASK Receiver

AU-434-S

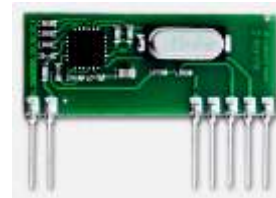
Features

- Fully integrated PLL with low phase noise VCO, PLL, and loop filter
- High sensitivity
- Supply current: 8mA in Active Mode (5V, 25°C, ASK Mode)
- Data rate: 1Kbit/s to 10Kbits/s Manchester ASK, 1Kbit/s to 20Kbits/s Manchester FSK with four programmable bit rate ranges
- The receiver uses a low-IF architecture with high selectivity, blocking, and low intermodulation (typical 3-dB blocking 68.0dBc at $\pm 3\text{MHz}/74.0\text{dBc}$ at $\pm 20.0\text{MHz}$, system I1dBcP = -31dBm/system IIP3 = -24dBm)
- Telegram pause up to 52ms supported in ASK Mode
- Wide bandwidth AGC to handle large out-of-band blockers above the system I1dBcP
- 440 kHz IF frequency with 30 dB image rejection and 420 kHz IF bandwidth to support PLL transmitters with standard crystals or SAW-based transmitters
- ESD protection at all pins ($\pm 4\text{kV}$ HBM, $\pm 200\text{V}$ MM, $\pm 500\text{V}$ FCDM)

Dimensions



Component Side



Pin-Out

- 2) Ground
- 3) Antenna
- 10) Ground
- 11) N.C.
- 13) RSSI Out - Test point
- 14) Data Out
- 15) +V

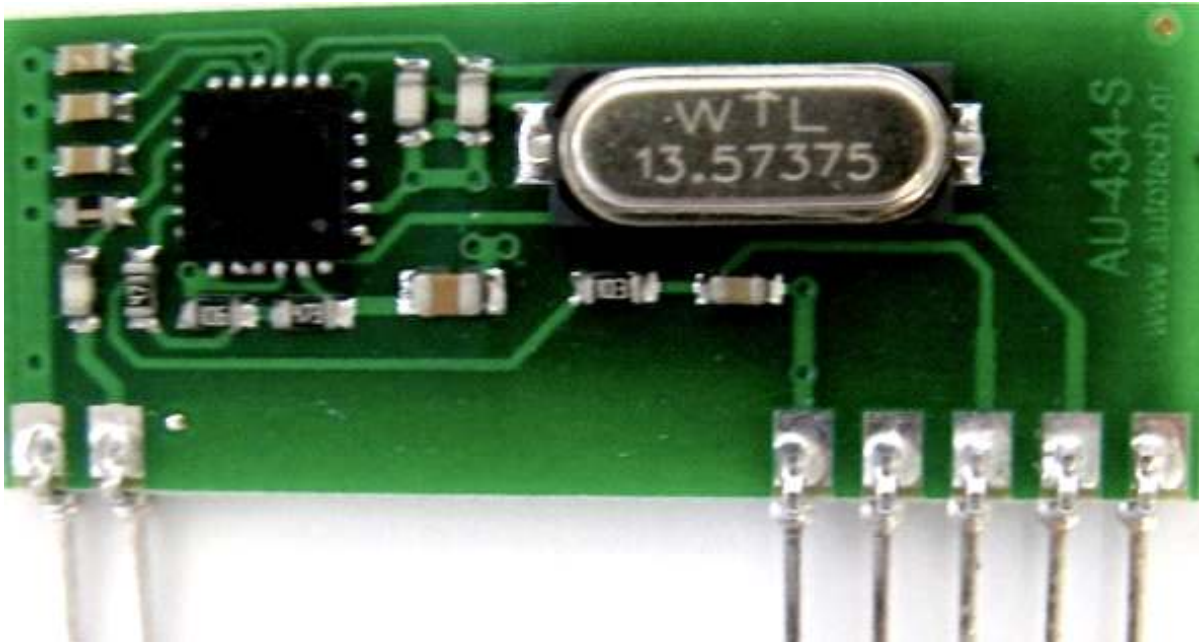
TECHNICAL SPECIFICATION

Ta = 25 °C

| Characteristics | Min | Typ | Max | Unit |
|--|----------|--------|------|------|
| Supply Voltage | 4.5 | 5 | 5.5 | Vdc |
| Supply Current | | 7.5 | 8.6 | mA |
| Reception frequency | | 433.92 | | MHz |
| RF sensitivity BER=10 ⁻³ | -112 | -116 | -118 | dBm |
| IF Bandwidth - 3dB | | 420 | | KHz |
| Interference rejection at ± 10 Mhz | 60 | | | dB |
| Output high voltage @ 10K load | VCC-0.2V | | | V |
| Output low voltage @ 10K load | | | 0.2 | V |
| Switch-on time | | | 0.3 | ms |
| Operating temperature range | -20 | | +85 | °C |

Information subject to change without notice

MODULE AU434-S



1 2

3 4 5 6 7

- 1. GROUND**
- 2. ANTENNA**
- 3. GROUND**
- 4. NO CONNECT**
- 5. TEST POINT**
- 6. DATA OUT**
- 7. +5 Volt DC**

DECLARATION OF CONFORMITY

AUTOTECH - G .KAPSALIS
8, Archimidous str. 12134 Peristeri Athens,
Greece, Tel: +302105780019, Fax: +302105785112
In accordance with the following directives:

- Radio & Telecommunications Terminal Equipment
directive 1999/5/EC
- EN300220-3 sub-clause 8.4.1
- EN300220-3 sub-clause 8.6.1.a.1

CE

hereby declare that:
Product : Receiver Module AU-434-S (Incorporated in JK-4921S)
Model : AU434S
*is in conformity with the applicable
requirements of the following documents.*

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all the applicable essential requirements of the directives mentioned.

Name: Apergis Antonios
Position: Technical Director
Peristeri, 28 November 2013