

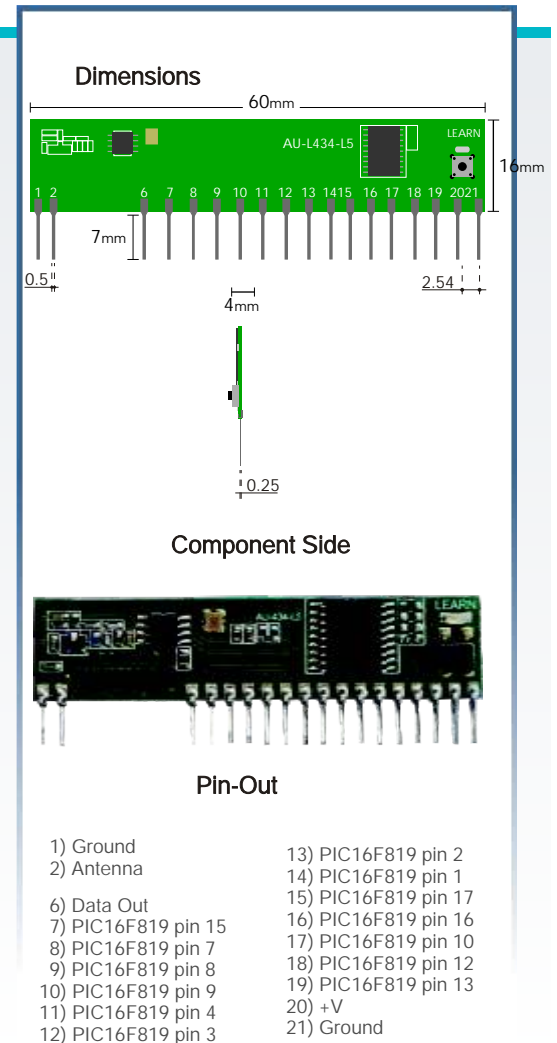
High Selectivity UHF ASK Receiver

AU-434-L5



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)



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	-109	-110	-112	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

