TDA 5240, TDA 5235, TDA 5225
ASK/FSK Autonomous Receiver Family

It sounds like a contradictory combination, yet this is what is more and more requested from your receiver design: long range, low energy consumption and flexible adaptation to customer requirements.
You think this requires high development effort and expensive additional components in your design?
Not with our new high sensitivity, low-power receiver family SmartLEWIS RX+. The SmartLEWIS RX+ family consisting of TDA5240, TDA5235 and TDA5225 covers all those requirements with a minimum of external components.

- Flexibility
  - Multi-band, multi-channel receiver
  - Extremely low software development efforts especially with TDA5240/ TDA5235
  - Multi-protocol handling
  - Only one device for multiple applications (RKE+TPMS+Remote start)
  - Complementary product portfolio with Infineon`s transmitters and upcoming transceiver family

- Low Cost
  - Reduced bill of material through highest integration
  - Integrated LNA to achieve high sensitivity
  - Internal IF filter (optional usage of external filter possible)
  - Minimum external component count
  - Optimized product family to offer best cost-feature-ratio

Applications
- Remote keyless entry systems
- Remote start applications
- Tire pressure monitoring
- Remote control units
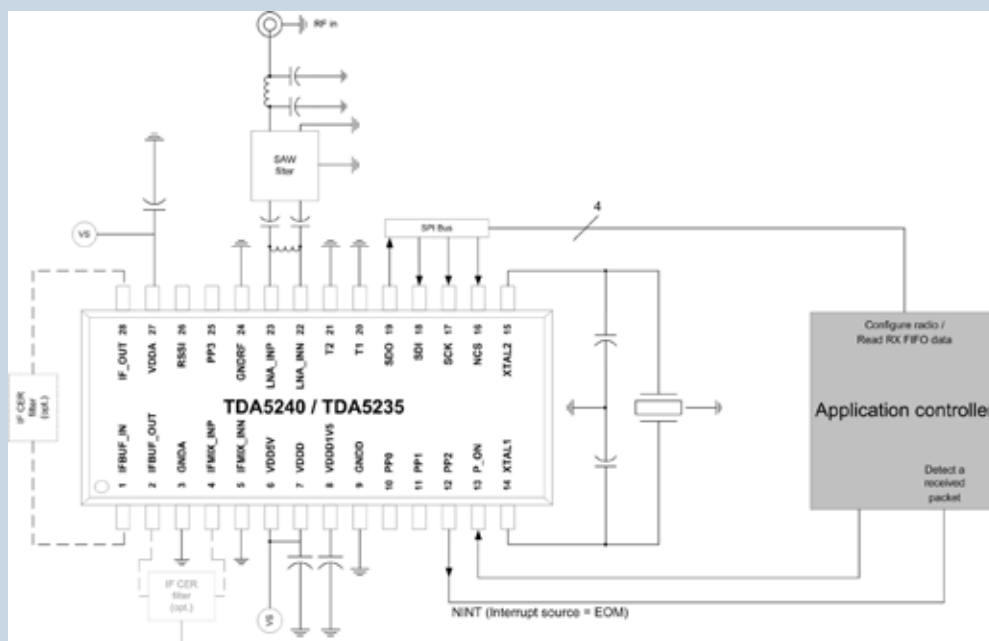- Cordless alarm systems
- Remote metering

Performance TDA5240/35/25

- Multi-band (300-320, 425-450, 863-870, 902-928 MHz) for worldwide operation coverage
- 10.5 Hz high resolution Sigma-Delta Fractional-N PLL
- One crystal frequency for all supported frequency bands
- Integrated IF-filter but also optional external CER filter possible
- Low supply current (0.8 µA in Power down, 12 mA for Run Mode)
- Datarate up to 112 kchip/s
- ESD protection +/-2kV on all pins
- Digital RSSI peak detectors
- On-chip temperature sensor
- Voltage supply range 3.3 / 5.0 V
- Temperature range −40..+105°C
- Automotive Qualified

Additional TDA5240/ TDA5235 features
- Highest sensitivity receiver
  Typ. -118 dBm for FSK
  Typ. -116 dBm for ASK
- Autonomous receive mode leads to reduced noise of host processor, improved sensitivity and reduced power consumption of the system
- Up to 4 (TDA5240)/ 2 (TDA5235) parallel parameter sets and up to 12 different frequency channels(TDA5240 only)
- Several embedded encodings and modulation schemes
- Ultrafast Fallback Wake-up criterion reduces receiver's active time, when no data available

www.infineon.com/wirelesscontrol

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Application example TDA5240/ TDA5235

Ordering Information		
Type	Ordering Code	Package
TDA5240	SP000550860	TSSOP-28
TDA5235	SP000507674	TSSOP-28
TDA5225	SP000507672	TSSOP-28

Evaluation Kits			
Type	Modulation	Frequency	Ordering Code
TDA5240_315_5_BOARD	ASK/FSK	315 MHz	SP000535296
TDA5240_434_5_BOARD	ASK/FSK	434 MHz	SP000535300
TDA5240_868_5_BOARD	ASK/FSK	868 MHz	SP000535304
TDA5240_915_5_BOARD	ASK/FSK	915 MHz	SP000799568
TDA5235_315_5_BOARD	ASK/FSK	315 MHz	SP000640510
TDA5235_434_5_BOARD	ASK/FSK	434 MHz	SP000640514
TDA5235_868_5_BOARD	ASK/FSK	868 MHz	SP000640518
TDA5235_915_5_BOARD	ASK/FSK	915 MHz	SP000799564
TDA5225_315_5_BOARD	ASK/FSK	315 MHz	SP000643648
TDA5225_434_5_BOARD	ASK/FSK	434 MHz	SP000643654
TDA5225_868_5_BOARD	ASK/FSK	868 MHz	SP000643658
TDA5225_915_5_BOARD	ASK/FSK	915 MHz	SP000775162

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