



TDA522x Series

ASK/FSK Receiver Family

Wireless Control – The TDA522x series is a family of very low power single chip ASK/FSK receivers the frequency bands 300–340 MHz, 400–440 MHz and 810–870 MHz. The IC offers a high level of integration and needs only a few external components. The device contains a low noise amplifier (LNA), a double balanced mixer, a fully integrated VCO, a PLL synthesiser, a crystal oscillator, a limiter with RSSI generator, a PLL FSK demodulator, a data filter, a data comparator (slicer) and a peak detector. Additionally, there is a power down feature to save battery life.

Applications

- Remote Keyless Entry (RKE) systems
- Tire Pressure Monitoring (TPM) systems
- Remote control systems
- Alarm systems
- Low bit rate communication Systems

Ordering Information

Type	Ordering Code	Package
TDA5220	Q67100-H2049	P-TSSOP-28
TDA5221	Q67100-H2051	P-TSSOP-28

Evaluation Kits

Type	Modulation	Frequency	Sales Code
TDA5110-TDA5220	FSK	434 MHz	Q67100-H2064
TDA5110-TDA5220	FSK	868 MHz	Q67100-H2065
TDA5111-TDA5221	FSK	315 MHz	Q67100-H2066

Features

- Frequency ranges
 - 300–340 MHz, 400–440 MHz and 810–870 MHz
- FSK and ASK demodulation
- Fully integrated VCO and PLL Synthesiser
- ASK sensitivity < -107 dBm
- FSK sensitivity < -100 dBm
- Limiter with RSSI generation, operating at 10.7 MHz
- Selectable reference frequency
- 2nd order low pass data filter with external capacitors
- Data slicer with self-adjusting threshold
- Switchable Peak Detector
- Switchable Comparator
- Power down mode with very low supply current (50 nA typ.)
- Supply voltage range 5 V ±10%
- Low supply current (typ. at 868MHz $I_s = 5.9$ mA in FSK mode, $I_s = 5.2$ mA in ASK mode)
- Temperature range -40°C ... +105°C

Additional Features TDA5221

- Dual Modulus PLL (315/317 MHz, 316/318 MHz)

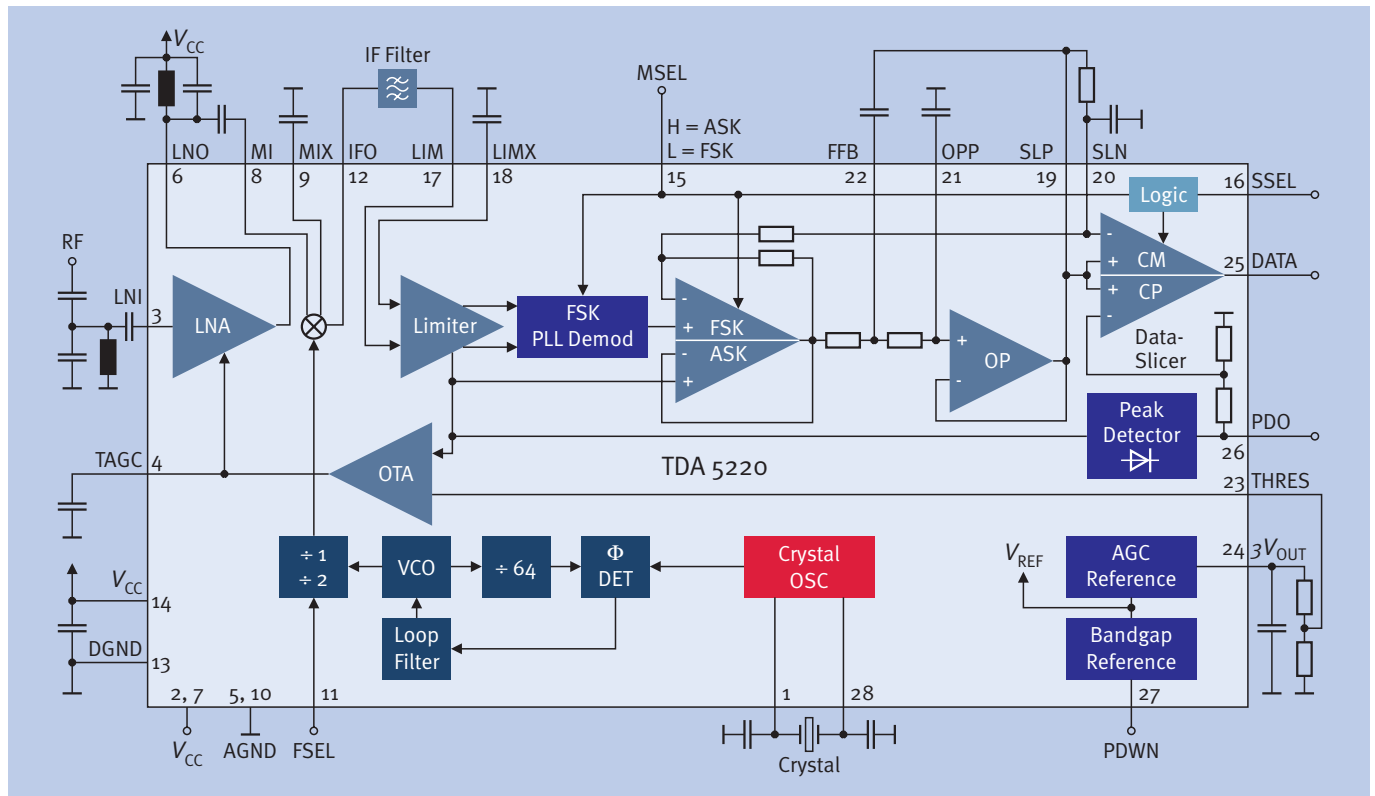
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Wireless Control



Never stop thinking.

Block Diagram TDA5220



Type	TDA5220	TDA5221
Frequency Range	810 – 870 MHz, 400 – 440 MHz	300 – 340 MHz
Sensitivity	-100 dBm (FSK)/-107 dBm (ASK)	-102 dBm (FSK)/-110 dBm (ASK)
Frequency Setting	Integrated PLL/VCO	Integrated PLL/VCO
Loop Filter	Internal	Internal
Data Rate	4 kbit/s Manchester	4 kbit/s Manchester
Supply Voltage	5 V	5 V
Power Down	Yes	Yes
Supply Current typ. (PLL Enable Mode/Transmit Mode $V_s = 3 V$)	5.9 mA (FSK) 5.2 mA (ASK)	6.4 mA (FSK) 5.6 mA (ASK)
Standby Current	50 nA	50 nA
Modulation	ASK/FSK	ASK/FSK
IP ₃	-10 dBm/-14 dBm	-10 dBm
1 dBC Point	-15 dBm	-14 dBm
Package	P-TSSOP-28	P-TSSOP-28
Temperature Range	-40°C ... +105°C	-40°C ... +105°C

URL:

http://www.infineon.com/cgi/ecrm.dll/ecrm/scripts/prod_cat.jsp?oid=-9470

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Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

Warnings

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