

# Make Your Application Wireless - Overview

Low-Power RF ICs for Sub 1 GHz



2017



# Optimized Product Variants

Best cost/feature ratio for different market requirements

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## Infineon Product Family

**SmartLEWIS™**

Smart Low Energy Wireless Systems

**TDA 5-Series**

**TDA 7-Series**

## Characteristics and Target Applications

- › Feature-rich applications
- › Automotive / OEMs
- › High quality requirements
- › High temperature range
- › Consumer & Industrial grade
- › Mass market
- › Discrete or IR to RF conversion
- › Reduced feature set
- › Lower temperature requirements

# Wireless Control Product Portfolio

## ASK/FSK Receiver



Receiver	automotive qualified	Package					
<ul style="list-style-type: none"> <li>› ASK only</li> <li>› -40°C - 85°C</li> </ul>	✓	TSSOP-28	TDA 5201	TDA 5200			
<ul style="list-style-type: none"> <li>› Integrated switch ASK/FSK</li> <li>› -40°C - 105°C</li> </ul>	✓		TDA 5211	TDA 5210			
<ul style="list-style-type: none"> <li>› Switchable peak Detector</li> <li>› -40°C - 105°C</li> </ul>	✓		TDA 5221	TDA 5220			
<ul style="list-style-type: none"> <li>› Integrated switch ASK/FSK</li> <li>› -40°C - 85°C</li> </ul>				TDA 7210			
<ul style="list-style-type: none"> <li>› Switchable peak Detector</li> <li>› -20°C - 70°C</li> </ul>				TDA 7200			
<b>SmartLEWIS™ RX+</b>							
<ul style="list-style-type: none"> <li>› <b>High Sensitivity Receiver</b></li> <li>› Multi-band</li> <li>› autonomous RX functionality</li> <li>› -40°C - 105°C</li> </ul>	✓	TSSOP-28	TDA 5240 * Multi-channel + digital baseband				
	✓		TDA 5235 * Single Channel + digital baseband				
	✓		TDA 5225 * Multi-channel				
			315 MHz	345 MHz	434 MHz	868 MHz	915 MHz

\* These multi-band devices do not include the 345MHz band.

# Wireless Control Product Portfolio

## ASK/FSK Transmitter



Transmitter	automotive qualified	Package				
› +5dBm › -40°C - 125°C	✓		TDK 5101F		TDK 5100F	
› +10dBm › -40°C - 125°C	✓	TSSOP-10	TDK 5111F		TDK 5110F	TDK 5116F
› +10dBm › -40°C - 85°C					TDA 7110F	TDA 7116F
› +5dBm › -20°C - 70°C					TDA 7100	
› +5dBm › -25°C - 85°C	✓		TDA 5103A			
<b>SmartLEWIS™ TX</b>		TSSOP-10				
› Multi-channel ( $\Sigma\Delta$ fractional-N PLL) › +5/8/10dBm › -40°C - 85°C	✓		TDA 5150 *			
			Depending on variant an integrated LF receiver and ADC is offered			
			315 MHz	345 MHz	434 MHz	868 MHz
						915 MHz

\* These multi-band devices do not include the 345MHz band.

# Wireless Control Product Portfolio

## ASK/FSK Receiver and Transceiver for the Car Unit



### Receiver

Receiver	Package	315 MHz	434 MHz	868 MHz	915 MHz
<ul style="list-style-type: none"> <li>› ASK only</li> <li>› -40°C - 85°C</li> </ul>	TSSOP-28	TDA 5201		TDA 5200	
<ul style="list-style-type: none"> <li>› Integrated switch</li> <li>› -40°C - 105°C</li> </ul>		TDA 5211		TDA 5210	
<ul style="list-style-type: none"> <li>› Switchable peak Detector</li> <li>› -40°C - 105°C</li> </ul>		TDA 5221		TDA 5220	

### SmartLEWIS™ RX+

<ul style="list-style-type: none"> <li>› <b>High Sensitivity Receiver</b></li> <li>› Multi-band</li> <li>› autonomous RX functionality</li> <li>› -40°C - 105°C</li> </ul>	TSSOP-28	TDA 5240	Multi-channel + digital baseband		
		TDA 5235	Single Channel + digital baseband		
		TDA 5225	Multi-channel		

315 MHz

434 MHz

868 MHz

915 MHz

# Wireless Control Product Portfolio

## ASK/FSK Transmitter for the Keyfob



RKE Transmitter

- › **TDK51xxF family:**  
Standard RKE transmitter family in small TSSOP-10 package
- › **SmartLEWIS TX, TDA5150:**  
Multi-channel, multi-band transmitter

Transmitter	Package	315 MHz	434 MHz	868 MHz	915 MHz
<ul style="list-style-type: none"> <li>› +5dBm</li> <li>› -40°C - 125°C</li> </ul>	TSSOP-10	TDK 5101F	TDK 5100F		
<ul style="list-style-type: none"> <li>› +10dBm</li> <li>› -40°C - 125°C</li> </ul>		TDK 5111F	TDK 5110F	TDK 5116F	
<b>SmartLEWIS™ TX</b> <ul style="list-style-type: none"> <li>› Multi-channel (<math>\Sigma\Delta</math> fractional-N PLL)</li> <li>› +5/8/10dBm</li> <li>› -40°C - 85°C</li> </ul>	TSSOP-10	TDA 5150			
		315 MHz	434 MHz	868 MHz	915 MHz





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