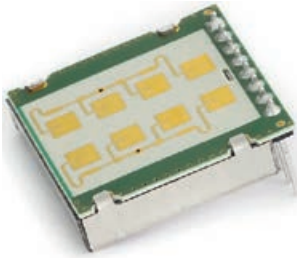




K-LD2 RADAR TRANSCEIVER



The K-LD2 is an easy to use 2×4 patch Doppler module with an asymmetrical beam for lowcost short distance applications. This transceiver includes a RFbeam RSP1 Signal processor and all necessary circuitry.

It outputs a detection signal and also the direction of the movement. Important parameters can be adjusted with external potentiometers. Object speed can be measured using the integrated serial connection.

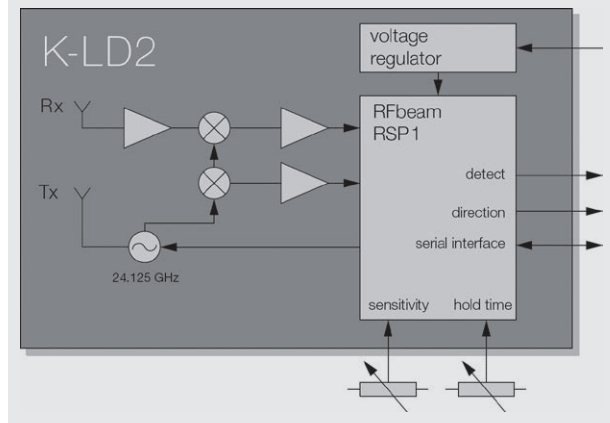
There is no need to write own signal processing algorithms or handle small and noisy signals. This module contains everything what is necessary to build a simple but reliable movement detector. An extremely slim construction with only 6 mm depth gives you maximum flexibility in your equipment design.

A powerful starterkit with signal visualization on a PC is available.

FEATURES

- 24 GHz miniature I / Q transceiver
- Integrated FFT Signal Processing with digital output
- Lowcost design
- Digital outputs for detection and direction
- Sensitivity and holdtime can be set using analog inputs
- Additional configuration possible with serial input
- 2×4 patch antenna with $80^\circ / 34^\circ$ beam aperture
- $25 \times 25 \text{ mm}^2$ surface, thickness $< 6.5 \text{ mm}$

BLOCKDIAGRAM



APPLICATIONS

- General movement detection applications
- Door opener
- Indoor and outdoor lighting control applications
- Object speed measurement systems
- Industrial sensors

PARAMETER	CONDITIONS / NOTES	SYMBOL	MIN	TYP	MAX	UNIT
OPERATING CONDITIONS						
Supply voltage		V_{CC}	3.15		6.0	V
Supply current		I_{CC}		55		mA
Operating temperature		T_{op}	-20		+85	$^\circ\text{C}$
Storage temperature		T_{st}	-20		+105	$^\circ\text{C}$
SIGNAL PROCESSING						
Velocity processing				256 point FFT		
Sample rate		f_{sample}	1.28		22.5	kHz
Speed range	Depending on sampling frequency	r_{speed}	0		255	km/h
Response time	Depending on sampling frequency	t_{detect}		100		ms