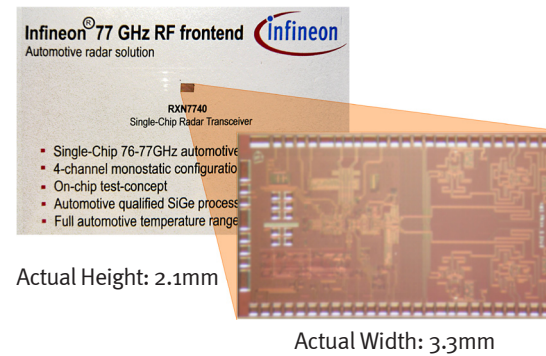


RASIC™ - RXN7740

SiGe Automotive Radar Transceiver for 77GHz



THE RXN7740 is a Silicon Germanium (SiGe) transceiver for automotive long- and mid-range radar (LRR/MRR) applications in the frequency range of 76-77GHz. It also features on-chip pre-scalers as well as sensors for output power and temperature. With this product Infineon Sense&Control (SC) introduces the latest RF technology (B7HF200) with automotive qualification AEC-Q100 to the market.

The RXN7740 delivers outstanding performance in both output power and signal to noise ratio (SNR). The 200GHz f_T SiliconGermanium technology used for the device is part of Infineon's in-house, high-volume 8" production and offers outstanding performance levels.

SPECIAL device variants are available for the best suitable application fit for your automotive radar application. All types are all offered as bare-die delivered on blue-tape.

Features

- High maximum VCO output power at 77GHz with power control
- Four integrated mixers in two isolating and two transferring configurations (ITT)
- On-chip test-logic (Tx dividers, temperature sensor, power sensor)
- Delivery is unpackaged bare-die on blue-tape
- Evaluation Kit (manufactured on demand)

Key Benefits

- Up to 4-channel solution can be built using a single-chip transceiver
- Built in AEC-Q100 qualified SiGe process
- Minimum number of components needed to build complete 77 GHz RF frontend
- Power- and Temperature sensors allow in-operation monitoring

RXN7740 (bare die)	Min	Typ	Max	Comment
Max. chip backside temperature	-40°C		+125°C	
Operating voltage	5.225 V	5.5 V	5.775 V	
Supply current		600 mA		Depending on active divider ratios
Output power	4 dBm			@ each transfer mixer pad RF2/RF3

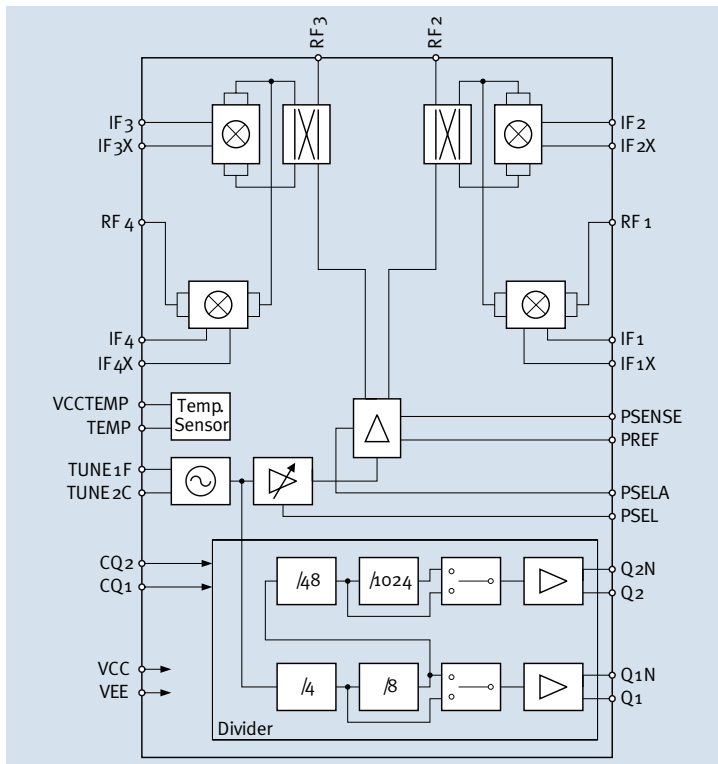
www.infineon.com/radar

Sense & Control

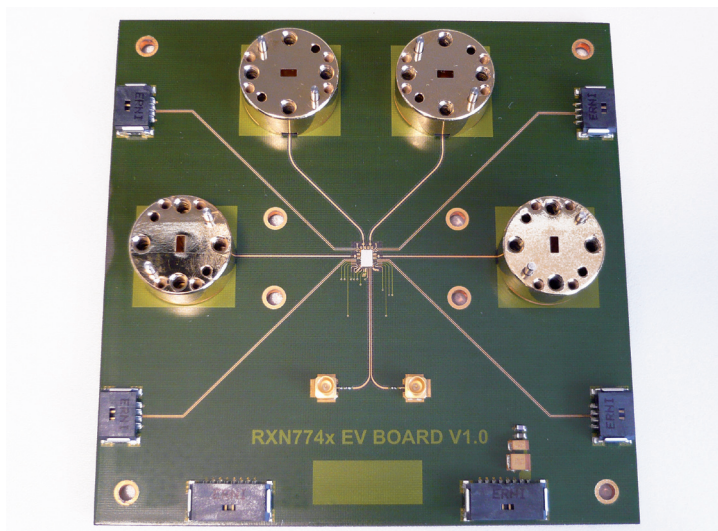


Never stop thinking

RXN774o Block Diagramm



RXN774x Evaluation Board



Related Components

- RON7701 – Dielectric Resonator Oscillator with mixer for use with RXN774x
- RXN7741 – Special mixer configuration
- RXN7742 – Special mixer configuration
- RTN7700 – VCO only configuration (in development)

How to reach us:
<http://www.infineon.com>

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Information

For further information on technology, delivery terms and conditions and prices, please contact the nearest Infineon Technologies Office (www.infineon.com).

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