



# ICAMU2430-A

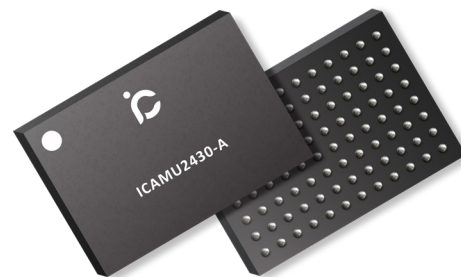
## PRODUCT SUMMARY



## 24 – 30 GHz

### Up/Down-Converter IC

**ICAMU2430-A** is a half-duplexity frequency up/down converter IC for 5G NR FR2 band n257, n258, and n261 wireless infrastructure. The converter IC uses Low side LO-injection to perform single-sideband up-conversion and image-rejecting down-conversion. The package of the converter product family is a compact  $4.5 \times 6.5 \text{ mm}^2$  BGA based package and each product of this family is pin-to-pin compatible.



4.5 × 6.5 mm<sup>2</sup> BGA Package

### Key Features

- Frequency range: 24 – 30 GHz
- Half duplexity for up/down conversion
- Wideband frequency ranges
  - RF: 24 – 30 GHz
  - IF: 3.2 – 7.2 GHz
- High up/down conversion gain and linearity

#### Up-conversion Mode:

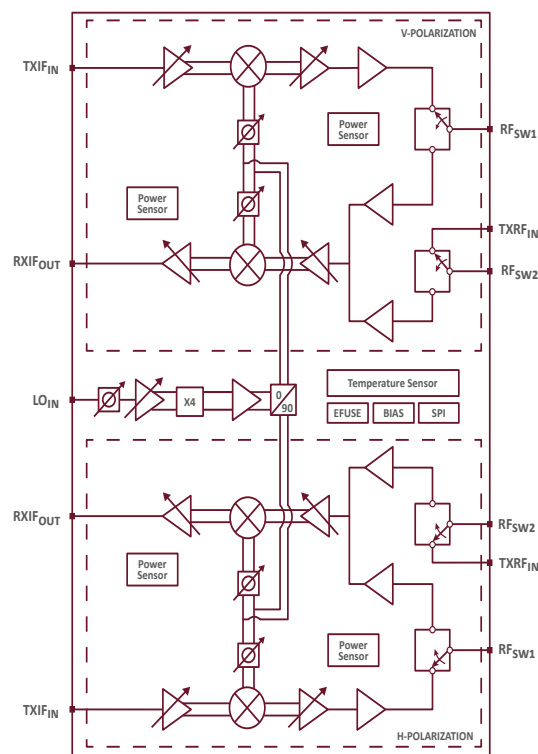
- Tunable sideband rejection
- LO feedthrough calibration

#### Down-conversion Mode:

- Tunable image rejection
- I/Q imbalance optimization

#### LO Path:

- On-chip X4 LO frequency multiplier
- Tunable gain to accommodate the various LO driving power
- 360° phase-shifting for synchronizing LO across multiple converters
- Tunable LO harmonic rejection filter



Functional Block Diagram

### Typical Applications

- 3GPP 5G NR FR2 band n257, n258 and n261
- Small cells for wireless communications infrastructure
- Customer Premises Equipment (CPE)
- Repeaters
- Fixed Wireless Access (FWA)
- Instrumentation and test equipment

### 5G NR FR2 BFIC Product Line

Product Name	Frequency Range (GHz)	5G Bands
ICAMU2430-A	24 – 30	n257, n258 n261
ICAMU3743-A	37 – 43.5	n259, n260

REV 1.2

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