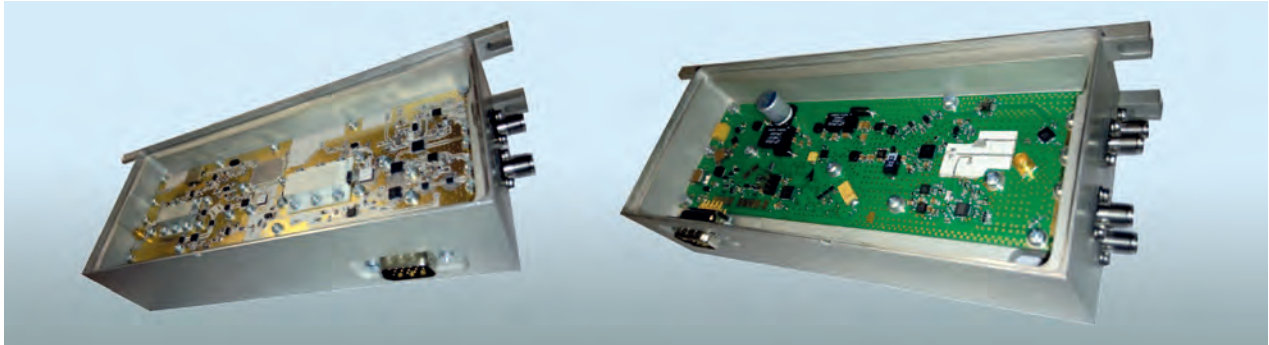


## FREQUENCY CONVERTERS OF MICROWAVE AND MILLIMETER WAVELENGTH FREQUENCY RANGES



Ku-band downconverter

### Areas of Application

The multifunctional highly integrated RF modules are to be used in radars and communications operating within the 1...40 GHz frequency range

### Specification

(by example for Ku-band)

#### *Frequency Downconverter*

Input frequency range, GHz	16.5–17
Noise factor, dB	<4
Gain, dB	20±1
Input compression point, dBm	>-5
Image rejection, dB	>50
Local oscillator power, dBm	10 ± 3
Absolute acceptable input power, dBm	
CW	<30
peak	<45
Supply voltage, V	+6

#### *Frequency Upconverter*

Output frequency range, GHz	16.5–17
Output peak power, dBm	>25
Input IF power, dBm	3 ± 3
Local oscillator	Built-in, synthesized
phase noise at 10 kHz offset, dBc/Hz	<-87
frequency step, MHz	20
switching speed at 500MHz step, µsec	<200
Supply voltage, V	+18...32



Ku-band upconverter

### Advantages

A high integration and excellent electrical performance enable simplifying and speeding up the design of radar and communication systems and reducing their size and weight

### Stage of Development. Suggestions for Commercialization

IRL8, TRL7  
Manufacture, delivery, warranty service,  
and staff training, upon request

### IPR Protection

IPR1

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