

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

# DATASHEET

## TWO-ELEMENT GNSS ANTENNA ARRAY

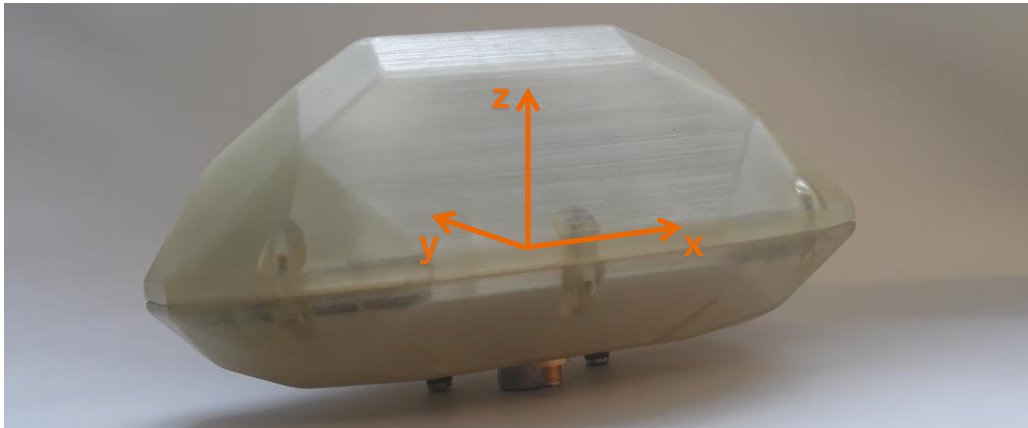


Figure 1.  
Prototype

### Active Two-Element Antenna Array for Robust GNSS Applications

The antenna array is composed of two active antenna elements and can be used for digital beamforming and null-steering in the entire GNSS frequency range. An integrated calibration network enables to compensate any magnitude and phase drift between the channels. The design is customizable and can be tailored to meet specific user requirements.

Fraunhofer Institute for Integrated Circuits IIS  
Am Wolfsmantel 33  
91058 Erlangen, Germany

Contact  
Dr. Alexander Popugaev  
Chief Scientist  
alexander.popugaev@iis.fraunhofer.de

[www.iis.fraunhofer.de](http://www.iis.fraunhofer.de)

## Technical Data

Parameter	Value
Passband	1160–1300 MHz and 1525–1610 MHz
Polarization	RHCP
Element spacing	90 mm
Passive zenith gain (single element)	+3 to +5 dBic
Axial ratio (zenith)	<3 dB
LNA gain	34±2 dB
Power supply	5V, 140 mA per antenna element
Connector type RF outputs	TNC
Impedance	50 Ohms
VSWR output connector	<1.5:1
Connector type calibration signal input	SMA
Dimensions (LxBxH)	260x170x130 mm
Weight	0.7 kg

Table 1.  
Specifications

