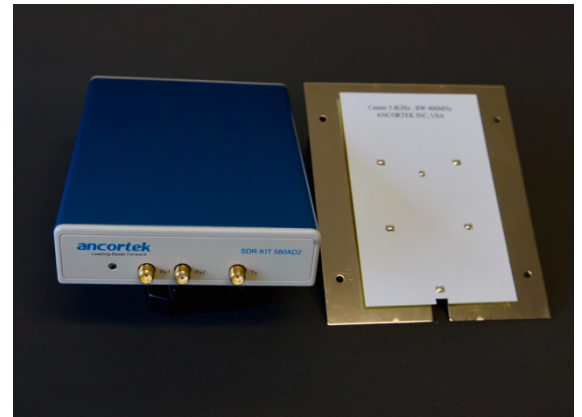


## SDR-KIT 580AD2 Module

SDR-KIT 580AD2 is an advanced low power and high-performance RF transmitter-receiver implemented with Fractional-N Phase-Locked Loop (PLL) to improve linearity of frequency modulations. It is intended to interface with the processor module SDR-PM 404, which functions as a micro controller, processor and power management with a 24-pin flat flex cable (FFC) to form a standalone system.

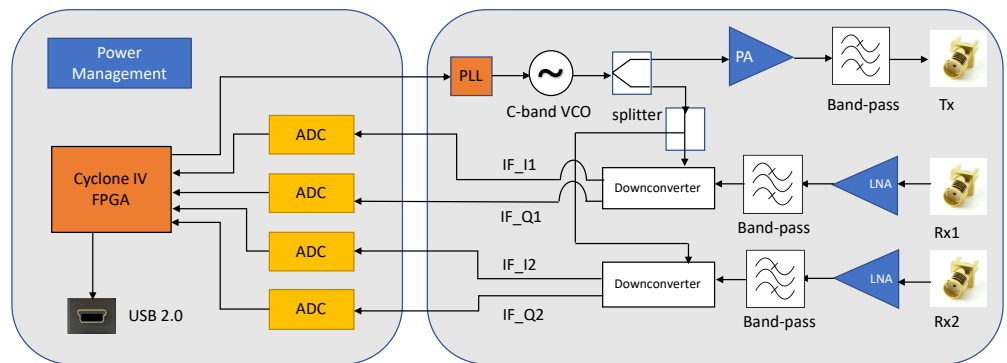
Typical output power of the transmitter channel is 19 dBm. Single-ended SMA female connectors are installed for easy connection to antennas. The receiver has an overall 3.4dB low noise figure with two stages of low-noise amplifier and exceptionally linear response with a flat gain of 28dB.



The ability of wide-range frequency-tuning makes the RF module ideal for applications from unlicensed ISM band (5.725-5.875 GHz) to high-resolution wide-band.

### FEATURES

- C-band at 5.8 GHz
- FMCW/FSK/CW waveforms
- Wide bandwidth up to 400 MHz
- Low overall noise figure
- Moderate output power
- Low phase noise
- Single +5V DC supply voltage
- Low power consumption
- SMA connectors for antennas
- 24-pin FFC cable for connecting to our processor module
- Fractional-N phase-locked loop of VCO linearity



## SPECIFICATION

Parameter	Min.	Typ.	Max.	Unit
Frequency Range	5.6		6.0	GHz
Tune Voltage	0		5	V
Tuning Sensitivity @RF Port		0.13		GHz/V
Power Output	18	19	20	dBm
SSB Phase Noise @10KHz offset		-86		dBc
SSB Phase Noise @1MHz offset		-130		dBc
Conversion Gain Over Rx Channel	26	28	30	dB
Noise Figure over Rx channel	3.2	3.4	3.6	dB
Maximum input power		10		dBm
OIP3		35		dBm
IIP3		-5		dBm
IIP <sub>1dB</sub>		-11		dBm
Supply voltage	4.75	5	5.25	V
Supply current	650	670	700	mA
Operating temperature	-40		85	C°
Storage temperature	-65		150	C°
RF Dimensions	L=79mm W=56mm H=13mm Weight=53g			
PM Dimensions	L=79mm W=76mm H=13mm Weight=184g			

### To Purchase:

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**We offer customization!**  
 Please contact us regarding  
 your custom development  
 needs.

## SDR-RF 580AD2 Module Specifications

Parameter	Unit	Value
Waveform		CW/FMCW/FSK
Center Frequency	GHz	5.8
FM Swept Bandwidth	MHz	100, 150, 300, 400
FSK Frequency Step	MHz	6
Sweep Time	ms	1, 2, 4, 10
Number of Samples per Sweep		128, 256, 512, 1024
Power Output	dBm	19
Antenna Gain	dBi	12