

SDR-RF 580AD MODULE

SDR-RF 580AD module 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 402, which functions as a micro controller, processor and power management with a 24-pin flat flex cable (FFC) to form a standalone system.

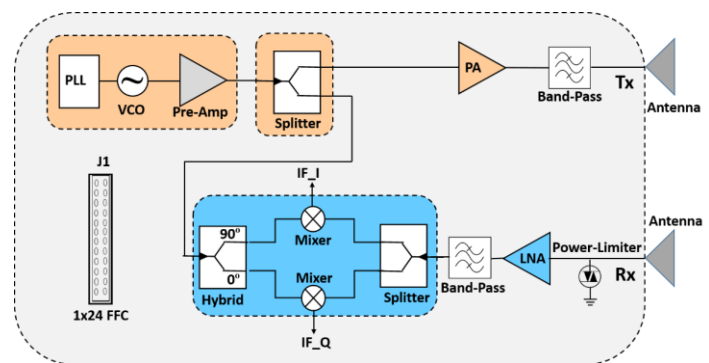
Typical output power of the transmitter channel is 19 dBm. Single-ended SMA female connectors are installed for easy connection to antennas. The receiver has an overall 3.4dB low noise figure with two stages of low-noise amplifier and exceptionally linear response with a flat gain of 28dB.

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
- Expandable bandwidth up to 800 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

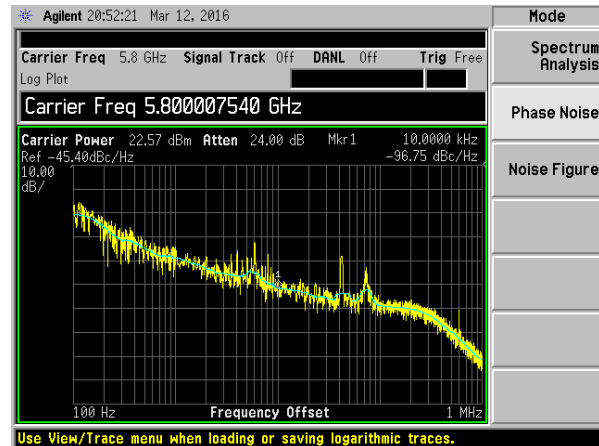


ANCORTEK

SPECIFICATION

Parameter	Min.	Typ.	Max.	Units
Frequency Range	5.6		6.0	GHz
Expandable Frequency Range	5.2		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		-95		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 _{1dB}		-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
Dimensions	L=79 W=56 H=13			mm

SSB PHASE NOISE



Description of FFC Connector Pins

Pin	Name	Direction	Description	Pin	Name	Direction	Description
1	GND	comm	Ground	13	I/007	in/out	Spare
2	3.3V	in	3.3V	14	I/008	in/out	Spare
3	1.8V	in	1.8V	15	I/009	in/out	Spare
4	GND	comm	Ground	16	I/010	in/out	Spare
5	Vcc	in	+5V	17	I/011	in/out	Spare
6	GND	comm	Ground	18	I/012	in/out	Spare
7	I/001	in/out	Spare	19	Vtune	in	Vtune for VCO
8	I/002	in/out	12C_SCL	20	IF_I	out	IF in phase
9	I/003	in/out	Spare	21	IF_Q	out	IF quadratic
10	I/004	in/out	12C_SDA	22	GND	comm	Ground
11	I/005	in/out	Spare	23	Vcc	in	+5V
12	I/006	in/out	Spare	24	Vcc	in	+5V

Ancortek Inc.
 11092 B Lee Highway
 Suite 104
 Fairfax, VA 22030

+1-703-531-8997
info@ancortek.com
www.ancortek.com

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