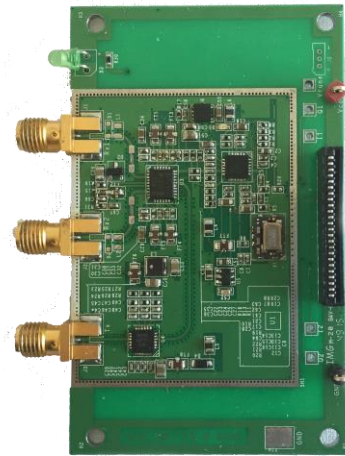


SDR-RF 2400AD2 MODULE

SDR-RF 2400AD2 module is an advanced dual receiving-channel, low power and high performance RF transmitter-receiver implemented with Fractional-N Phase-Locked Loop (PLL) to improve linearity of frequency modulations. It operates at 24 – 26 GHz frequency and 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.

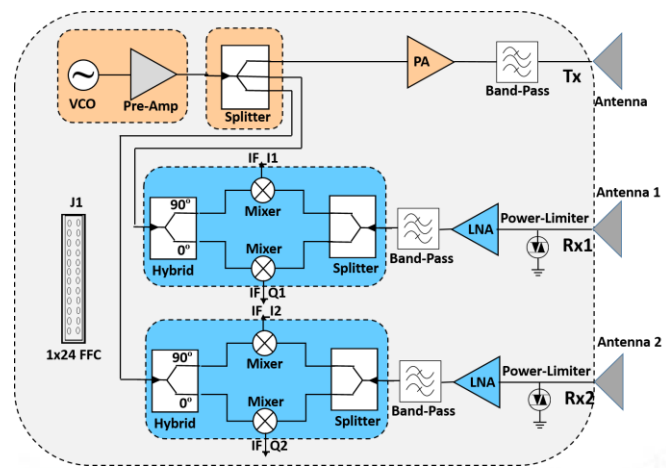
Typical output power of the transmitter channel is 16dBm. Single-ended SMA female connectors are installed for easy connection to antennas.

Its receiver has an overall 6.4dB noise figure with one stage of low-noise amplifier and exceptionally linear response with a flat gain of 28dB.



FEATURES

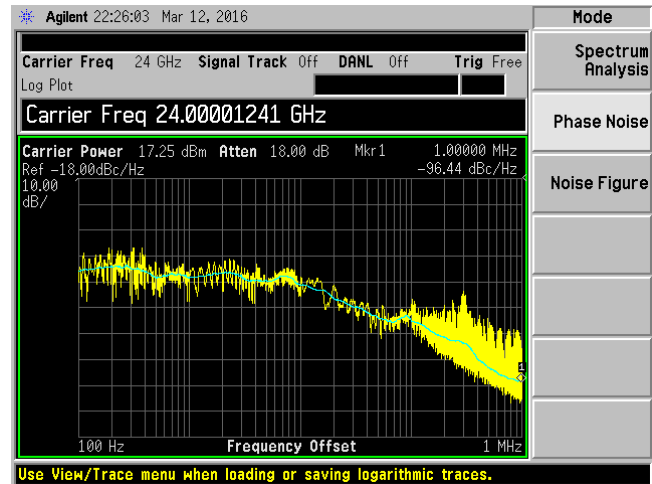
- K-band 24–26 GHz
- Dual receiving-channel
- FMCW/FSK/CW waveforms
- Wide bandwidth up to 2 GHz and expandable to 3 GHz.
- Moderate output power
- Low phase noise
- Single +5V DC supply voltage
- Low power consumption
- SMA connectors for antennas
- 24-pin FFC cable for connecting to our processor module
- Fractional-N phase-locked loop of VCO linearity



SPECIFICATION

Parameter	Min.	Typ.	Max.	Units
Frequency Range	24		26	GHz
Expandable Frequency Range	23		26	GHz
Tune Voltage	0		5	V
Tuning Sensitivity @RF Port		1.5		GHz/V
Power Output	14	16	18	dBm
SSB Phase Noise @1MHz offset		-96		dBc
Conversion Gain Over Rx Channel	18	26	31	dB
Noise Figure		6.4		dB
Maximum input power		0		dBm
OIP3		32		dBm
IIP3		-4		dBm
IIP _{1dB}		-12		dBm
Supply voltage	4.75	5	5.25	V
Supply current	750	800	850	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	IF_I2	out	IF in phase
6	GND	comm	Ground	18	IF_Q2	out	IF quadratic
7	I/001	in/out	Spare	19	Vtune	in	Vtune for VCO
8	I/002	in/out	12C_SCL	20	IF_I1	out	IF in phase
9	I/003	in/out	Spare	21	IF_Q1	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

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