

SDR-KIT 2400AD2 Module

SDR-KIT 2400AD2 is an advanced low power and high performance dual receiving-channel RF transmitter-receiver implemented with Fractional-N Phase-Locked Loop (PLL) to achieve linearity of frequency modulation. Dual receiving channel is for dual receive antenna (DRA) radar mode, displaced phase center antenna (DPCA), and radar interferometry.

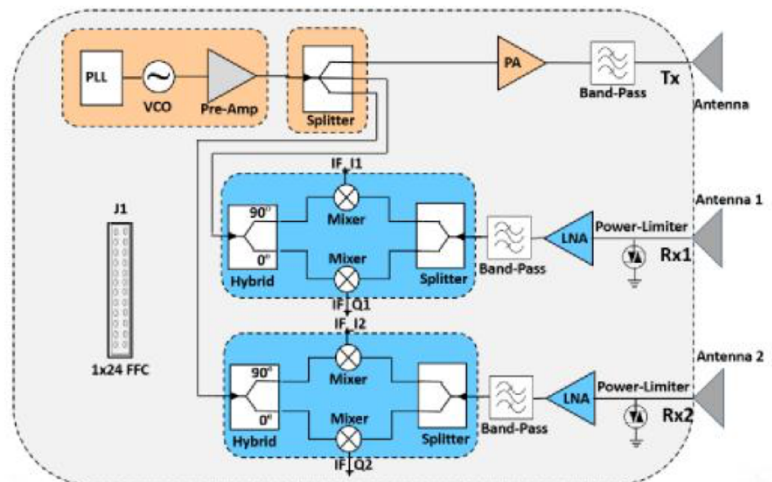


It is intended to interface with the processor module SDR-PM 404, which functions as a micro controller, processor and power management with a 24-pin flat flex cable (FFC) to form a standalone system.

Typical output power of the transmitter channel is 16 dBm. Single-ended SMA female connectors are installed for easy connection to antennas. The receiver has an overall 6.4dB low noise figure with two stages of low-noise amplifier and exceptionally linear response with a flat gain of 28dB.

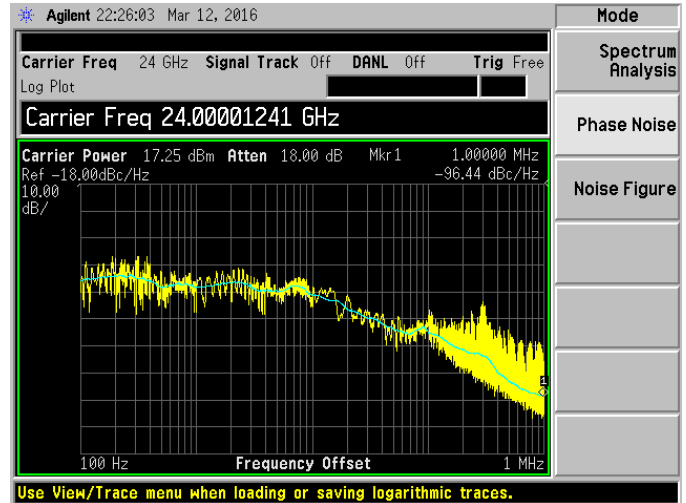
FEATURES

- K-band 24-26 GHz
- Dual receiving-channel
- FMCW/FSK/CW waveforms
- Wide bandwidth up to 2 GHz
- 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	24		26	GHz
Tune Voltage	0		5	V
Tuning Sensitivity @RF Port		0.6		GHz/V
Power Output	7	12	14	dBm
SSB Phase Noise @1MHz offset		-96		dBc
Conversion Gain Over Rx Channel	18	26	31	dB
Noise Figure over Rx channel		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	850	900	950	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			



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We offer customization!
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 your custom development
 needs.

SDR-RF 2400AD2 Module Specifications

Parameter	Unit	Value
Waveform		CW/FMCW/FSK
Center Frequency	GHz	24
FM Swept Bandwidth	GHz	0.5, 0.75, 1.5, 2.0
FSK Frequency Step	MHz	6
Sweep Time	ms	1, 2, 4, 10
Number of Samples per Sweep		128, 256, 512, 1024
Power Output	dBm	12
Antenna Gain	dBi	14