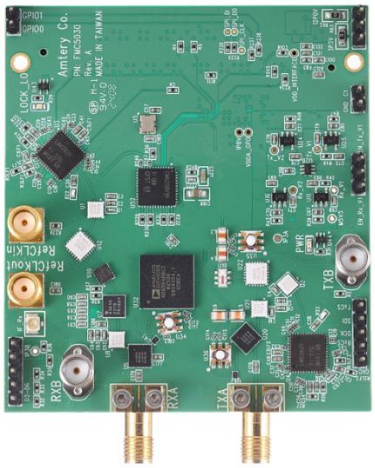


Frequency range : 70 MHz to 18 GHz

1 Tx 1 Rx for 70 MHz to 18 GHz

1 Tx 1 Rx for 70 MHz to 6 GHz

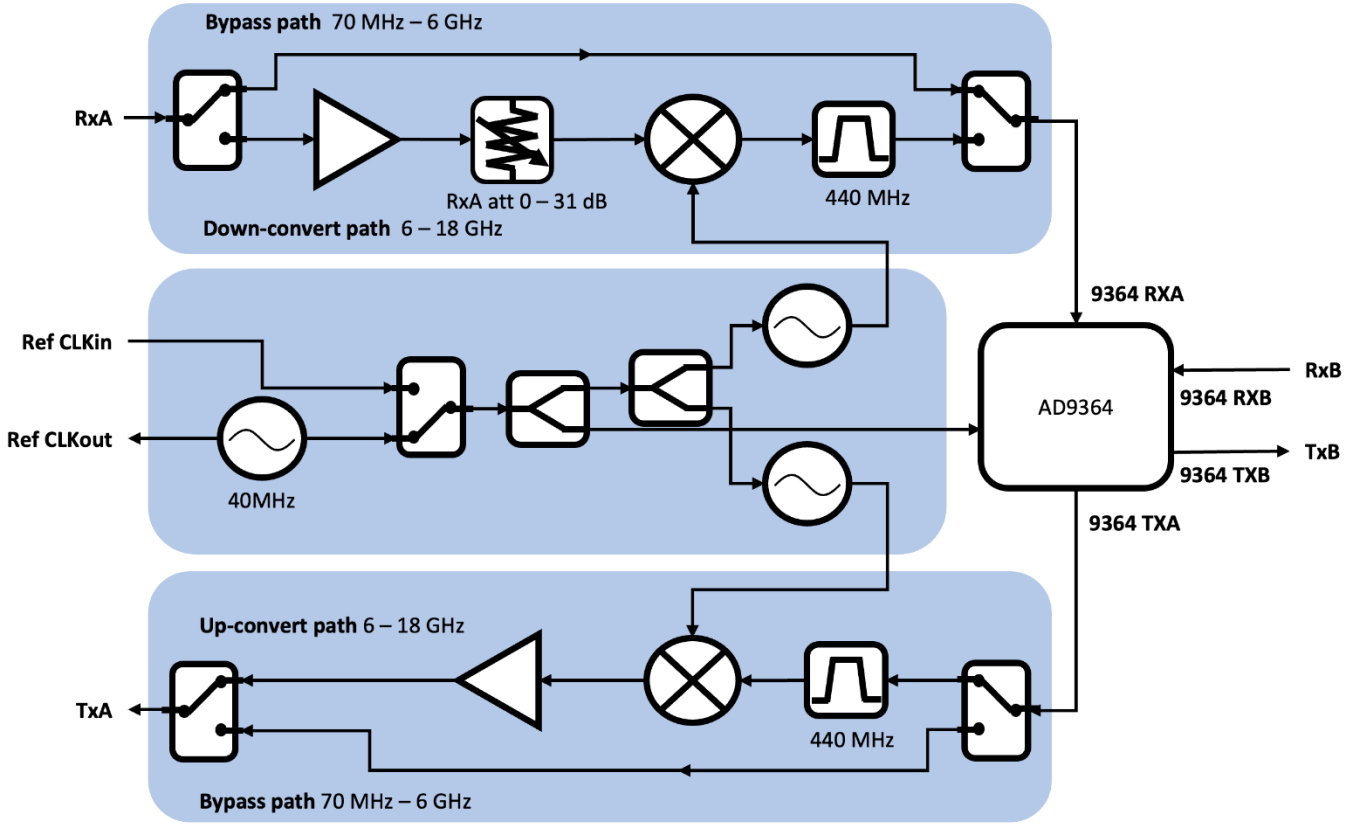
Bandwidth : 200 kHz to 56 MHz

AD9364 and up/down-converter

Internal or external reference clock

Terminal, Python, LabVIEW control

Block Diagram



Electrical Specifications

All measurements are typical values.

RF transmitter

Frequency range : 70 MHz to 18 GHz

Tunable channel bandwidth : < 200 kHz to 56 MHz

DAC resolution : 12-bit

Output power range : 90 dB

Output power resolution : 0.25 dB (AD9364)

TXA

Bypass path

Frequency range : 70 MHz to 6 GHz

Freq.	800 MHz	2.4 GHz	5.5 GHz
OIP3	15 dBm	16 dBm	15 dBm
Noise floor	-157 dBm/Hz	-156 dBm/Hz	-151.5 dBm/Hz
Max output power	5 dBm	3 dBm	2 dBm

Up-convert path

Frequency range : 6 GHz to 18 GHz

Phase noise : < -90 dBc/Hz@10 GHz, 100 kHz offset

IF rejection : < -55 dBc

Freq.	6 GHz	10 GHz	18 GHz
OIP3	14 dBm	14 dBm	10 dBm
Noise floor	-156 dBm/Hz	-160 dBm/Hz	-161 dBm/Hz
Max output power	3 dBm	2 dBm	-2 dBm

TXB

Frequency range : 70 MHz to 6 GHz

Freq.	800 MHz	2.4 GHz	5.5 GHz
OIP3	8 dBm	18 dBm	12 dBm
Noise floor	-157 dBm/Hz	-156 dBm/Hz	-151.5 dBm/Hz
Max output power	6 dBm	4 dBm	2 dBm

RF Receiver

Frequency range : 70 MHz to 18 GHz

Tunable channel bandwidth : < 200 kHz to 56 MHz

ADC resolution : 12-bit

Gain and attenuation step : 1 dB

RXA

Bypass path

Gain control range : 0 to 65 dB (AD9364)

Frequency range : 70 MHz to 6 GHz

Freq.	800 MHz	2.4 GHz	5.5 GHz
IIP3	-5 dBm	-6 dBm	-13 dBm
Noise figure	2 dB	3 dB	3.8 dB
Input power	-19 dBFS (-12 dBm in)	-21 dBFS (-14 dBm in)	-24 dBFS (-16 dBm in)

Down-convert path

Frequency range : 6 GHz to 18 GHz

Gain range : 0 to 65 dB (AD9364)

RxA attenuation range: 0 to 31 dB

Image rejection : 25 dB@10 GHz

Freq.	6 GHz	10 GHz	18 GHz
IIP3	-5 dBm	-3.5 dBm	-2 dBm
Noise figure	5 dB	6 dB	9 dB
Input power	-17 dBFS (-15 dBm in)	-19 dBFS (-16 dBm in)	-26 dBFS (-21 dBm in)

RXB

Frequency range : 70 MHz to 6 GHz

Gain range : 0 to 65 dB (AD9364)

Freq.	800 MHz	2.4 GHz	5.5 GHz
IIP3	-4 dBm	-8 dBm	-13 dBm
Noise figure	2 dB	3 dB	3.8 dB
Input power	-17 dBFS (-12 dBm in)	-22 dBFS (-14 dBm in)	-25 dBFS (-16 dBm in)

Reference clock

Internal

External

Sinusoidal wave or square wave : 10 MHz to 100 MHz

Typical performance file: https://www.amtery.com/en/goods-93

Note : Specifications are subject to change without notice.