

FEATURES:

- ◆ Coverage from 70M ~ 3GHz RF
- ◆ Flexible rate 12 bit ADC/DAC
- ◆ Fully-coherent 4x4 MIMO capability, TDD/FDD
- ◆ RF ports: 50Ω Matched
- ◆ support both internal reference and external reference input
- ◆ 56 MHz for 4x4 of real-time bandwidth
- ◆ Includes DC power supply
- ◆ Dimensions: Standard FMC daughter Board

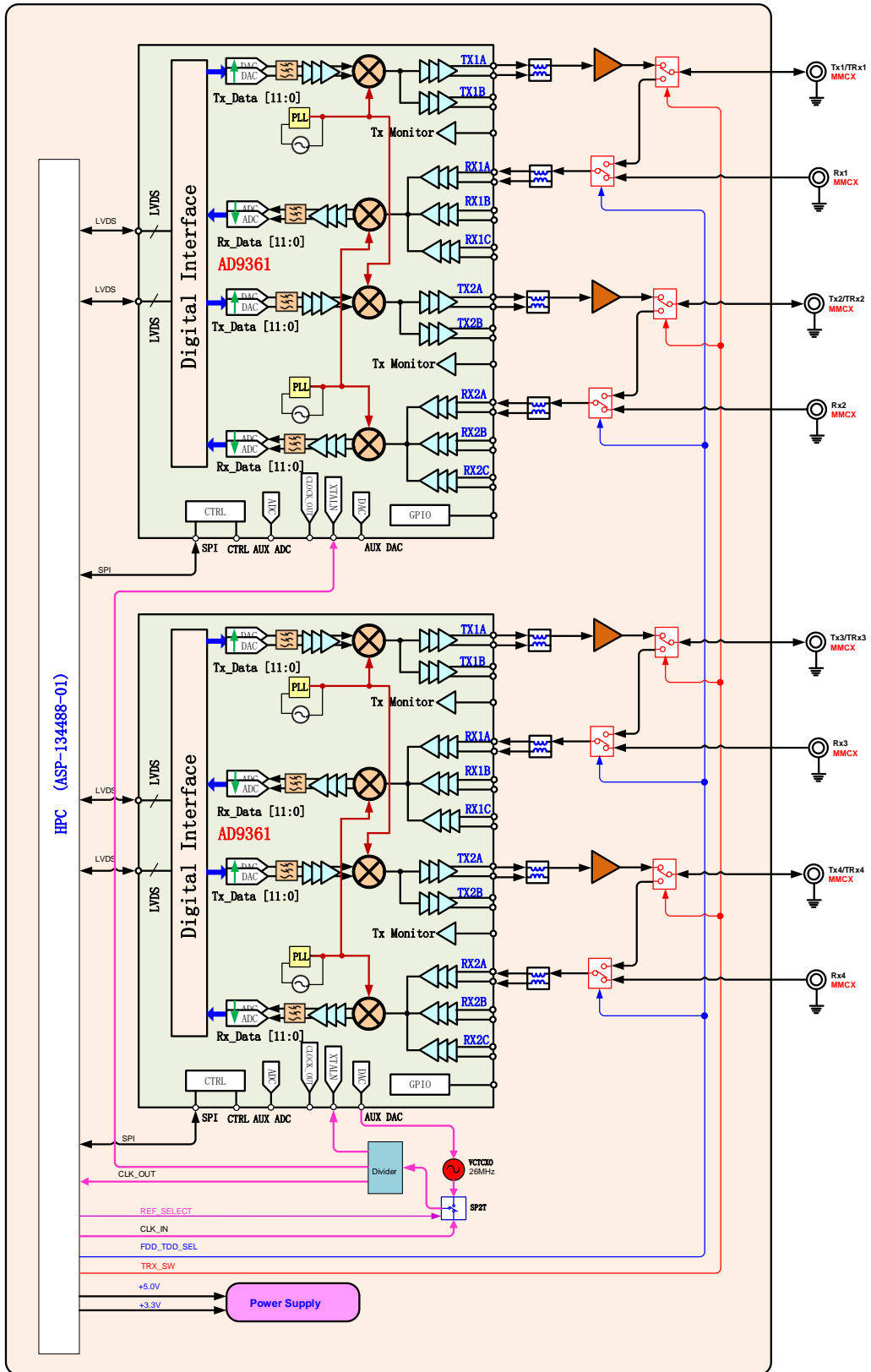
APPLICATIONS:

- ◆ SDR
- ◆ Cellular, e.g.: Femto-cells, Pico-cells, Small-cells, Micro-cell & etc.
- ◆ WiFi
- ◆ WiMAX
- ◆ ISM
- ◆ Proprietary & General Purpose Radios

GENERAL DESCRIPTIONS:

The HT7604 is an easy-to-use RF module covering 70MHz ~ 3GHz with integrated RFIC technology and FMC interface. The RF module features four receive and four transmit channels by using two Analog Devices RFIC, AD9361 to deliver a cost-effective experimentation platform with up to 32MHz (for 4x4) or up to 56 MHz (for 2x2) of instantaneous bandwidth, higher sensitivity, dynamic range, and IP3 performance, which is suitable for wide range of applications including SDR, cellular, WiFi, ISM, proprietary or general purpose radios and so on. With the HT7604, designers can prototype with the AD9361 quickly and easily.

BLOCK DIAGRAM:



CHARACTERISTICS:

	No.	Items	Specifications	Remark
Tx	1	Frequency	70~3000MHz	
	2	Bandwidth	32MHz 2x2 or 56MHz 4x4	real-time bandwidth, tunable
	3	Transmission	>10dBm	CW
	4	EVM	<1.5%	Typical:5dBm @20MHz bandwidth
	5	Gain Control Range	>80dB	
	6	Gain Step	0.25 dB	
	7	ACLR	< -45dBc	@ 0dBm LTE output
	8	Spurious	TBD	
	9	SSB Suppression	35dBc	
	10	LO Suppression	50dBc	
	11	DAC Sample Rate (max)	245.76 MS/s	
	12	DAC Resolution	12bits	
Rx	1	Frequency	70~3000MHz	
	2	Bandwidth	32MHz 4x4 or 56MHz 2x2	real-time bandwidth, tunable
	3	Sensitivity:	-100dBm@5MHz	Noise Figure < 5dB
	5	Gain Control Range	>60dB	
	6	Gain Step	1dB	
	7	Noise Figure	<5dB	Maximum RX gain
	8	ADC Sample Rate (max)	122.88MS/s	
	9	ADC Resolution	12bits	
	10	ADC Wideband SFDR	78dBc	
		1	Voltage	3.3V & 5V
2		ON/OFF TIME	<6uS	For TDD model
3		Duplexing Model	TDD/FDD	

FMC INTERFACE DEFINITION:

TBD

Truth Table:

- ◆ Reference Selection switch

Reference Source	REF_SELECT
External Reference	1
Internal Reference	0

- ◆ Tx-Rx switch

Function	TRX_SW
Transmitting	1
Receiving	0

- ◆ FDD&TDD Mode switch

Duplexing Mode	FDD_TDD_SEL
FDD	1
TDD	0

OUTLINE DIMENSIONS:

