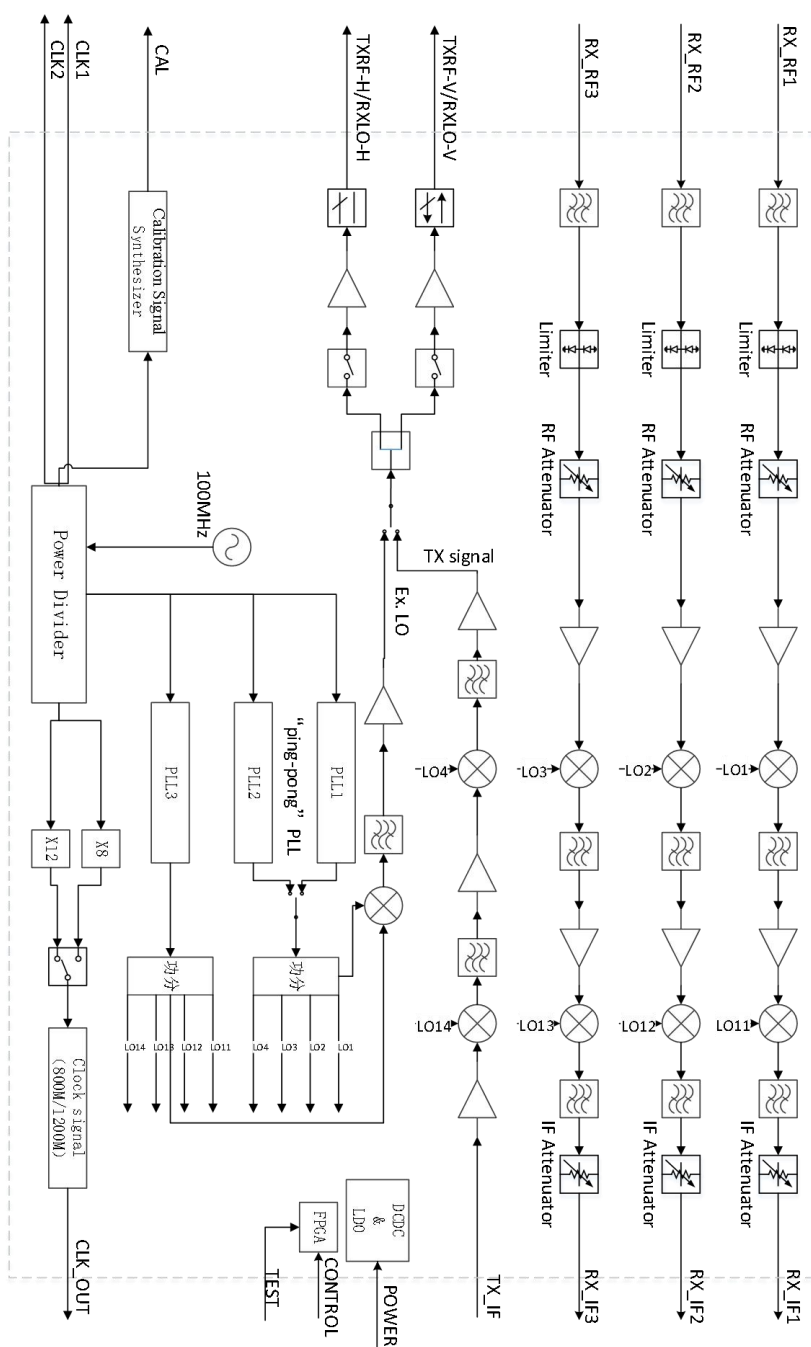


Features

This module features 1 transmit channel, 3 receive channels, 1 calibration channel, and 3 clock outputs.

The built-in frequency synthesizer adopts a ping-pong loop architecture to enable fast frequency hopping. It is equipped with status monitoring functions such as synthesizer lock indication, transmit power amplifier detection indication, and module temperature.

Function Block Diagram



Specifications

	Test Item	Symbol	Unit	Value
Transmit Branch	Output Power	P_o	dBm	22 ± 2
	Spurious (BW ≤ 1 GHz)	R_{iso}	dBc	≥ 60
	Phase Noise@1kHz	$\mathcal{L}(f)$	dBc/Hz	≤ -95
	Frequency Hopping Time	t_n	us	≤ 100

External Receive LO Output	Output Power	P_{o1}	dBm	22 ± 2
	Spurious (1G 带宽内)	R_{fs1}	dBc	≥ 60
	Phase Noise@1kHz	$\mathcal{L}(f)1$	dBc/Hz	≤ -95
	Switching Time Between Transmit Branch and External	t_r	ns	< 100
Calibrati on Signal	Output Power	P_{o1}	dBm	≥ 12
	Spurious (BW $\leq$ 1GHz)	R_{fs1}	dBc	≥ 60
	Harmonic Suppression	R_{fn}	dBc	≥ 50
	Phase Noise@1kHz	$\mathcal{L}(f)1$	dBc/Hz	≤ -95
Receive Channel	Phase Noise@1kHz	$\mathcal{L}(f)2$	dBc/Hz	≤ -95
	Instantaneous Bandwidth (1 dB bandwidth)	$BW0$	MHz	≥ 20
	Instantaneous Bandwidth (1.5 dB bandwidth)	$BW1$	MHz	≥ 40
	Gain	A_{max}	dB	≥ 60
	Channel Gain Consistency	ΔA	dB	$\leq \pm 1.5$
	Controllable Attenuation	A_{max}	dB	≥ 60
	Spurious Suppression	R_{fs2}	dBc	≥ 60
	Image Rejection	R_{IM}	dBc	≥ 50
	Noise Figure	NF	dB	≤ 3.5
	Output P-1	$P_{o(1dB)}$	dBm	$\geq +10$
Clock Signals	Maximum Input Power	P_{in}	dB	-20
	Frequency	f_{o1}	MHz	100
	Output Power 1	P_{o3}	dBm	5 ± 1.5
	Phase Noise @ 1kHz	$\mathcal{L}(f)_2$	dBc/Hz	≤ -150
	Harmonic Suppression	R_{fn1}	dBc	≤ -40
	Spurious Suppression	R_{fs6}	dBc	≤ -70
	Frequency2	f_{o1}	MHz	800
	Output Power 2	P_{o3}	dBm	5 ± 1.5
	Phase Noise @ 1kHz	$\mathcal{L}(f)_3$	dBc/Hz	≤ -115
	Harmonic Suppression	R_{fn1}	dBc	≤ -40
Others	Spurious Suppression	R_{fs6}	dBc	≤ -70
	Power Consumption	P_1	W	≤ 38
	Power Amplifier Detection	/	/	Normal
	Temperature Telemetry Function	/	/	Normal
	PLL Lock Indication	/	/	Normal

Product Render

The dimensions are 200mm × 134mm × 37mm.

