

ZY5RF18 Ultra Wide Band RF Front-end Combination

Product Features

- Apply to some radar systems
- Including 4 frequency bands: X, Ku, K, Ka
- Integrate 4 receiving channels and 4 Transmitting channels
- Integrate crystal oscillator with high stability and local oscillator with low phase noise and fast hopping
- Working temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$



Performance Parameters (+12V、+5V)

Parameters		Symbol	Parameter value	Unit
Receiving channel	RF input frequency	F_{in}	F_x, F_{ku}, F_k, F_{ka}	MHz
	Input level	P_{in}	$-70 \sim 2$	dBm
	Output frequency	F_{out}	500 ± 100	MHz
	Output level	P_{-1}	≥ 10	dBm
	Phase noise	$\mathcal{L}_{fm}$	$\leq -95@1\text{kHz}$	dBc/Hz
	Noise figure	NF	≤ 5	dB
	Gain	G_p	≥ 65	dB
	Clutter suppression	R_{fi}	≤ -50	dBc
	Image rejection	R_{im}	≥ 20	dB
Transmitting channel	Input IF	F_{in}	500 ± 100	MHz
	Input level	P_{in}	-3 ± 1	dBm
	RF output frequency	F_0	F_x, F_{ku}, F_k, F_{ka}	MHz
	RF output electric level	P_0	≥ 30	dBm
	Phase noise	$\mathcal{L}_{fm}$	$\leq -95@1\text{kHz}$	dBc/Hz
	Clutter suppression	R_{fi}	≤ -50	dBc
Clock local oscillator	DDS clock output	F_0	2.4	GHz
	DDS clock phase noise	$\mathcal{L}_{fm}$	$\leq -115@1\text{kHz}$	dBc/Hz
	Frequency hopping time of local oscillator	τ	≤ 300	ns
External dimensions		160mm×150mm×60mm		