

Continuous wave Rx/Tx Assemblies



Model: VRS-TR1510-2-CM

Parameter	Test Conditions	Limit value		Unit	
		Min	Max		
Tx					
Frequency Range	Voltage: +12V Temperature:25°C	14.6	15	GHz	
Transmit power		33	—	dBm	
Local oscillator spurious		—	-70	dBc	
Transmit pulse leading edge		—	100	nS	
Transmit pulse trailing edge		—	100	nS	
Emission pulse drop		—	0.7	dB	
Pulse leading jitter		-2	2	nS	
Output local oscillation phase noise		—	-85@100Hz	dBc	
		—	-105@1kHz	dBc	
Rx					
IF output signal power		15	—	dBm	
Receive gain		66	70	dB	
IF out-of-band suppression		60	—	dB	
Received noise figure		—	5	dB	
In-band flatness		-0.25	0.25	dB	
Receive dynamic range		66	—	dB	
Local oscillator phase noise	—	-58@10Hz	dBc		
	—	-85@100Hz	dBc		
	—	-100@1kHz	dBc		
Output IF floor noise	—	50	mV		
Comb spectrum	50	—	dB		
Comb line amplitude fluctuation	—	0.5	dB		
Power Supply					
Current	—	2.3	A		
Function					
Operating mode parameters	Medium mode: pulse width 1.6μS, cycle 250μS (4kHz) Medium mode: pulse width 20μS, cycle 250μS (4kHz) Proximity mode: pulse width 1.6μS, period 125μS (8kHz) Proximity mode: pulse width 20μS, period 125μS (8kHz) The default value for PRF is 4 kHz, 0 is the default value, and 1 is 8 kHz.				

Modulation bandwidth	40MHz (Positive slope linear frequency modulation)
Signal source short-term stability	1×10^{-8}
160M Reference output	3 output: SMA differential interface all the way, two single-ended output; Amplitude: $4 \pm 1\text{dBm}$; Isolation: $\geq 40\text{dBc}$
Transmit pulse sync signal	TTL differential 422 level, the counting cycle error is less than 6.25nS
Length/short frame setting signal (signal processing provided)	1-bit TTL difference 422 level
Frequency setting(signal processing provided)	2-bit TTL difference 422 level
Repeat frequency setting(signal processing provided)	1 bit TTL difference 422 level, PRF default value is 4kHz; The control signal "0" is the default value of 4kHz and "1" is 8kHz
Output amplifier control switch	TTL level, advance pulse sync rising edge 2 μ S turn on the amplifier, pulse sync falling edge off power amplifier
Mode control(signal processing provided)	1-bit TTL difference 422 level
Transmitter switch control(signal processing provided)	1-bit TTL difference 422 level
Self-test request(signal processing provided)	1-bit TTL difference 422 level
Outputs a bit mode respond pulse	1-bit TTL difference 422 level
STC condition range	RF: 0 ~ 30dB continuous controllable, attenuation curve can be set; From the start of the pulse, the subsequent edge is decayed by the R4 curve as the starting time
EMC	There is no interference to the signal processor, not because of the signal processor to interfere with their own normal work without affecting the technical indicators
Dimensions	250mm \times 142mm \times 26mm
Operating temperature	-40 $^{\circ}$ C ~ +60 $^{\circ}$ C
Storage temperature	-50 $^{\circ}$ C ~ +65 $^{\circ}$ C