

High power Rx/Tx Assemblies



Model:VRS-TR1510-2-20W

Parameter	Test Conditions	Limit value		Unit
		Min	Min	
Tx	Frequency: 15GHz Voltage : +12V Temperature: 25°C			
Frequency Range		15		GHz
Transmit power		44	45	dBm
Local oscillator spuriou		—	-70	dBc
Pulse Width		1.6		uS
Transmit pulse leading edge		—	100	nS
Transmit pulse trailing edge		—	100	nS
Transmit pulse drop		—	0.7	dB
Pulse leading jitter		-2	2	nS
Output local oscillation phase noise		—	-85dBc@100H z	dBc
		—	-105dBc@1kH z	dBc
Rx				
IF output signal power		15		dBm
Receive gain		66	70	dB
IF out-of-band suppression		60dBc@120±40 MHz	—	dBc
Received noise figure		—	4	dB
In-band flatness		-0.25	0.25	dB
Receive dynamic range		66	—	dB
Output IF the floor noise		—	50	mV
Comb line amplitude fluctuation		—	0.5	dB
Power Supply				
Current	—	2.5	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 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	265mm \times 150mm \times 26mm
Operating temperature	-40 $^{\circ}$ C ~ +60 $^{\circ}$ C
Storage temperature	-50 $^{\circ}$ C ~ +65 $^{\circ}$ C