

Acceptance Test Data

Description	11.26/16.89/28.15/33.78/39.41/45.04/5
Wenzel SCD	500-31450 Rev D
Customer	University of Tokyo
Serial Number	26552A001
Tested by	Patrick
Date	08 November 2018



Wenzel Associates, Inc.
 2215 Kramer Lane
 Austin, TX 78758
 Ph. 512-835-2038 Fax 512-719-4086
<http://www.wenzel.com>

Test Description		Units	+25°C [±5]	P / F	Requirement		
					min.	max.	
11.26 MHz	RF Output Power	dBm	13.5	P	11	15	
	Harmonics	dBc	-72.0	P	-	-60	
		@ MHz	22.52				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(2)+ ≤3 dB	10 Hz	dBc/Hz	-152.3	P	-	-
		100 Hz		-164.6	P	-	-
		1 kHz		-171.3	P	-	-
		10 kHz		-173.8	P	-	-
100 kHz		-174.6		P	-	-	
1 MHz		-180.1		P	-	-	
16.89 MHz	RF Output Power	dBm	12.9	P	11	15	
	Harmonics	dBc	-72.0	P	-	-60	
		@ MHz	33.78				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(3)+ ≤3 dB	10 Hz	dBc/Hz	-160.7	P	-	-
		100 Hz		-169.1	P	-	-
		1 kHz		-175.8	P	-	-
		10 kHz		-176.4	P	-	-
100 kHz		-176.4		P	-	-	
1 MHz		-182.7		P	-	-	

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Test Description		Units	+25°C [±5]	P / F	Requirement		
					min.	max.	
28.15 MHz	RF Output Power	dBm	12.9	P	11	15	
	Harmonics	dBc	-72.0	P	-	-60	
		@ MHz	56.30				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(5)+ ≤3 dB	10 Hz	dBc/Hz	-162.5	P	-	-
		100 Hz		-171.6	P	-	-
		1 kHz		-176.1	P	-	-
		10 kHz		-178.3	P	-	-
100 kHz		-178.7		P	-	-	
1 MHz		-179.1		P	-	-	
33.78 MHz	RF Output Power	dBm	12.6	P	11	15	
	Harmonics	dBc	-73.0	P	-	-60	
		@ MHz	67.56				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(6)+ ≤3 dB	10 Hz	dBc/Hz	-158.0	P	-	-
		100 Hz		-168.9	P	-	-
		1 kHz		-173.9	P	-	-
		10 kHz		-174.0	P	-	-
100 kHz		-174.1		P	-	-	
1 MHz		-181.9		P	-	-	

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Test Description		Units	+25°C [±5]	P / F	Requirement		
					min.	max.	
39.41 MHz	RF Output Power	dBm	12.1	P	11	15	
	Harmonics	dBc	-74.0	P	-	-60	
		@ MHz	-78.82				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(7)+ ≤3 dB	10 Hz	dBc/Hz	-162.8	P	-	-
		100 Hz		-171.3	P	-	-
		1 kHz		-176.4	P	-	-
		10 kHz		-178.9	P	-	-
100 kHz		-179.3		P	-	-	
1 MHz		-181.1		P	-	-	
45.04 MHz	RF Output Power	dBm	13.0	P	11	15	
	Harmonics	dBc	-73.0	P	-	-60	
		@ MHz	90.08				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(8)+ ≤3 dB	10 Hz	dBc/Hz	-164.5	P	-	-
		100 Hz		-174.4	P	-	-
		1 kHz		-177.1	P	-	-
		10 kHz		-177.2	P	-	-
100 kHz		-177.3		P	-	-	
1 MHz		-184.3		P	-	-	

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Test Description		Units	+25°C [±5]	P / F	Requirement		
					min.	max.	
50.67 MHz	RF Output Power	dBm	13.4	P	11	15	
	Harmonics	dBc	-74.0	P	—	-60	
		@ MHz	101.34				
	Sub-Harmonics	dBc	-80	P	—	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	—	-80	
	Input Referred Phase Noise 20log(9)+ ≤3 dB	10 Hz	dBc/Hz	-160.9	P	—	—
		100 Hz		-168.6	P	—	—
		1 kHz		-174.5	P	—	—
		10 kHz		-175.1	P	—	—
100 kHz		-175.5		P	—	—	
1 MHz		-180.2		P	—	—	
56.3 MHz	RF Output Power	dBm	13.2	P	11	15	
	Harmonics	dBc	-72.0	P	—	-60	
		@ MHz	112.60				
	Sub-Harmonics	dBc	-80	P	—	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	—	-80	
	Input Referred Phase Noise 20log(10)+ ≤4 dB	10 Hz	dBc/Hz	-160.9	P	—	—
		100 Hz		-169.3	P	—	—
		1 kHz		-175.0	P	—	—
		10 kHz		-177.1	P	—	—
100 kHz		-178.2		P	—	—	
1 MHz		-182.6		P	—	—	

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Test Description		Units	+25°C [±5]	P / F	Requirement		
					min.	max.	
90.08 MHz	RF Output Power	dBm	12.6	P	11	15	
	Harmonics	dBc	-74.0	P	-	-60	
		@ MHz	180.16				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(16)+ ≤5 dB	10 Hz	dBc/Hz	-164.5	P	-	-
		100 Hz		-174.4	P	-	-
		1 kHz		-177.7	P	-	-
		10 kHz		-178.8	P	-	-
100 kHz		-179.1		P	-	-	
1 MHz		-188.2		P	-	-	
168.9 MHz	RF Output Power	dBm	13.5	P	11	15	
	Harmonics	dBc	-80.0	P	-	-60	
		@ MHz	337.80				
	Sub-Harmonics	dBc	-80	P	-	-60	
		@ MHz	n/a				
	Spurious (non-line related)	dBc	-80	P	-	-80	
	Input Referred Phase Noise 20log(30)+ ≤5 dB	10 Hz	dBc/Hz	-160.1	P	-	-
		100 Hz		-167.3	P	-	-
		1 kHz		-174.1	P	-	-
		10 kHz		-177.1	P	-	-
100 kHz		-178.2		P	-	-	
1 MHz		-182.5		P	-	-	