

CLASSIFICATION										PAGE																																									
RECEIVER EQUIPMENT CHARACTERISTICS																																																			
1. NOMENCLATURE, MANUFACTURER’S MODEL NO. SC3822						2. MANUFACTURER’S NAME Silvus Technologies, Inc.																																													
3. RECEIVER INSTALLATION UGV						4. RECEIVER TYPE Heterodyne																																													
5. TUNING RANGE (See Remark 1) LB: 400 – 450 MHz ; 902MHz – 928MHz; 1350 MHz – 1390 MHz; 1980MHz – 2200 MHz; 2200MHz – 2500MHz; HB: 4400MHz – 4700MHz; 4700MHz – 5000 MHz; 5150MHz – 5450MHz; 5725MHz – 5875MHz						6. METHOD OF TUNING PLL Synthesizer																																													
7. RF CHANNELING CAPABILITY Center frequency almost continuous with step size of 29 Hz						8. EMISSION DESIGNATOR																																													
9. FREQUENCY TOLERANCE ~5ppm						20MHz Bandwidth		10MHz Bandwidth		5MHz Bandwidth																																									
						20M0D7W		10M0D7W		5M00D7W																																									
10. IF SELECTIVITY (see Remark 2)						11. RF SELECTIVITY																																													
	1st	2nd	3rd	☒ CALCULATED ☐ MEASURED																																															
a. -3 dB	400 MHz	N/A	N/A	a. -3 dB See Remark 3																																															
b. -20 dB	1.2 GHz	N/A	N/A	b. -20 dB See Remark 3																																															
c. -60 dB	2.2 GHz	N/A	N/A	c. -60 dB See Remark 3																																															
12. IF FREQUENCY						d. PRESELECTION TYPE																																													
						LTCC or SAW Band Pass Filter																																													
a. 1st (see Remark 2) 3300 MHz – 3700 MHz						13. MAXIMUM POST DETECTION FREQUENCY 20 MHz																																													
b. 2nd N/A						14. MINIMUM POST DETECTION FREQUENCY 0 Hz																																													
c. 3rd N/A						16. MAXIMUM BIT RATE (See Remark 4) 85 Mbps																																													
15. OSCILLATOR TUNED (see Remark 2)				1st	2nd	3rd	17. SENSITIVITY																																												
a. ABOVE TUNED FREQUENCY							a. SENSITIVITY -100 dBm																																												
b. BELOW TUNED FREQUENCY							b. CRITERIA 1 Mbps																																												
c. EITHER ABOVE OR BELOW THE FREQUENCY							c. NOISE FIG 5 dB																																												
18. DE-EMPHASIS						d. NOISE TEMP 293 Kelvin																																													
☐ a. YES ☒ b. NO																																																			
19. IMAGE REJECTION Approx 60 dB						20. SPURIOUS REJECTION 60 dB																																													
21. REMARKS																																																			
1. SC3822 can be configured as a dual band radio. The frequency range for both the lower band (LB) and the higher band (HB) is hardware configurable. Item 5 describes the currently supported standard frequency configurations for LB and HB. 2. First stage LO is chosen such that it mixes the received signal to IF in the range of 3300 MHz – 3700 MHz. Then the IF is converted to baseband via direct conversion. 3. RF selectivity is a function of the supported frequency range for LB and HB, respectively. It is described in the following table. <table><tr><td></td><td>400MHz-450MHz</td><td>902MHz-928MHz</td><td>1350MHz-1390MHz</td><td>1980MHz-2200MHz</td><td>2200MHz-2500MHz</td><td>4400MHz-4700MHz</td><td>4700MHz-5000MHz</td><td>5150MHz-5450MHz</td><td>5725MHz-5875MHz</td></tr><tr><td>-3 dB</td><td>70MHz</td><td>32MHz</td><td>60MHz</td><td>270MHz</td><td>320MHz</td><td>450MHz</td><td>450MHz</td><td>400MHz</td><td>250MHz</td></tr><tr><td>-20 dB</td><td>145MHz</td><td>40MHz</td><td>72MHz</td><td>350MHz</td><td>400MHz</td><td>650MHz</td><td>650MHz</td><td>600MHz</td><td>800MHz</td></tr><tr><td>-60 dB</td><td>500MHz</td><td>50MHz</td><td>84MHz</td><td>450MHz</td><td>500MHz</td><td>900MHz</td><td>900MHz</td><td>1300MHz</td><td>1440MHz</td></tr></table> 4. This rate is only achievable when the bandwidth is set to 20MHz and is subject to other parameter settings and channel conditions.													400MHz-450MHz	902MHz-928MHz	1350MHz-1390MHz	1980MHz-2200MHz	2200MHz-2500MHz	4400MHz-4700MHz	4700MHz-5000MHz	5150MHz-5450MHz	5725MHz-5875MHz	-3 dB	70MHz	32MHz	60MHz	270MHz	320MHz	450MHz	450MHz	400MHz	250MHz	-20 dB	145MHz	40MHz	72MHz	350MHz	400MHz	650MHz	650MHz	600MHz	800MHz	-60 dB	500MHz	50MHz	84MHz	450MHz	500MHz	900MHz	900MHz	1300MHz	1440MHz
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