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ANTENNA EQUIPMENT CHARACTERISTICS		
1. ☐ a. TRANSMITTING ☐ b. RECEIVING ☒ c. TRANSMITTING AND RECEIVING		
2. NOMENCLATURE, MANUFACTURER'S MODEL NO. MM5E900BNC	3. MANUFACTURER'S NAME Radiall - Larson	
4. FREQUENCY RANGE 890 - 960 MHz	5. TYPE 5/8 over 5/8 over 1/4 wave	
6. POLARIZATION Vertical	7. SCAN CHARACTERISTICS	
8. GAIN	a. TYPE N/A	
a. MAIN BEAM 7.2 dBi	b. VERTICAL SCAN	
b. 1ST MAJOR SIDE LOBE N/A	(1) MAX ELEV	
9. BEAMWIDTH	(2) MIN ELEV	
a. HORIZONTAL 360 degrees	(3) SCAN RATE	
b. VERTICAL 60 degrees	c. HORIZONTAL SCAN	
10. REMARKS Ground station side of ground-to-air datalink		(1) SECTOR SCANNED
		(2) SCAN RATE
		d. SECTOR BLANKING (X one)
		☐ (1) YES ☐ (2) NO
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ANTENNA EQUIPMENT CHARACTERISTICS		
1. ☐ a. TRANSMITTING ☐ b. RECEIVING ☒ c. TRANSMITTING AND RECEIVING		
2. NOMENCLATURE, MANUFACTURER'S MODEL NO. 900 MHz Yagi Antenna, Model Number PC906N	3. MANUFACTURER'S NAME Cushcraft Corporation	
4. FREQUENCY RANGE 895-940 MHz	5. TYPE 6-Element Yagi	
6. POLARIZATION Vert./Horiz	7. SCAN CHARACTERISTICS	
8. GAIN a. MAIN BEAM 8.5 dBd	a. TYPE b. VERTICAL SCAN (1) MAX ELEV (2) MIN ELEV (3) SCAN RATE	
b. 1ST MAJOR SIDE LOBE	c. HORIZONTAL SCAN (1) SECTOR SCANNED (2) SCAN RATE	
9. BEAMWIDTH a. HORIZONTAL -3dB, 65 degrees	d. SECTOR BLANKING (<i>X one</i>) ☐ (1) YES ☐ (2) NO	
b. VERTICAL -3dB 55 degrees		
10. REMARKS REFERENCE PART NUMBER 109-1068(CAGE 0A9N8) FILE REFERENCE: DD1494 - GCS 912 DIR, (109-1068) MSH, 0A9N8, 20DEC07 L3 BAI AEROSYSTEMS USES THIS DIRECTIONAL ANTENNA IN UAS GCS EQUIPMENT		
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ANTENNA EQUIPMENT CHARACTERISTICS		
1. ☐ a. TRANSMITTING ☐ b. RECEIVING ☒ c. TRANSMITTING AND RECEIVING		
2. NOMENCLATURE, MANUFACTURER'S MODEL NO. KD14FREQ(914)	3. MANUFACTURER'S NAME Radiall - Larson	
4. FREQUENCY RANGE 890 - 960 MHz	5. TYPE 1/4 wave stub cut to 914 MHz	
6. POLARIZATION Vertical	7. SCAN CHARACTERISTICS	
8. GAIN	a. TYPE N/A	
a. MAIN BEAM 2.15 dBi	b. VERTICAL SCAN	
b. 1ST MAJOR SIDE LOBE N/A	(1) MAX ELEV	
9. BEAMWIDTH	(2) MIN ELEV	
a. HORIZONTAL 360 degrees	(3) SCAN RATE	
b. VERTICAL 80 degrees	c. HORIZONTAL SCAN	
		(1) SECTOR SCANNED
		(2) SCAN RATE
		d. SECTOR BLANKING (X one)
		☐ (1) YES ☐ (2) NO
10. REMARKS Airborne side of ground-to-air datalink		
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TRANSMITTER EQUIPMENT CHARACTERISTICS		
1. NOMENCLATURE, MANUFACTURER'S MODEL NO. P-Series Radio Transceivers	2. MANUFACTURER'S NAME FreeWave Technologies, Inc	
3. TRANSMITTER INSTALLATION UAS - GCS AND UAV INSTALLATION	4. TRANSMITTER TYPE GFSK Communication	
5. TUNING RANGE 1350-1390 MHz	6. METHOD OF TUNING Digital Synthesizer	
7. RF CHANNELING CAPABILITY 230.4 kHz increments starting from 1350.144 MHz	8. EMISSION DESIGNATOR(S) 230KF1D	
9. FREQUENCY TOLERANCE 1.5 ppm	F 2 D	
10. FILTER EMPLOYED (<i>X one</i>) ☒ a. YES ☐ b. NO		
11. SPREAD SPECTRUM (<i>X one</i>) ☒ a. YES ☐ b. NO		
13. MAXIMUM BIT RATE 115.2 kbps	12. EMISSION BANDWIDTH (<i>X and complete as applicable</i>) ☐ CALCULATED ☒ MEASURED	
14. MODULATION TECHNIQUES AND CODING 2 levels GFSK, frequency hopping	a. -3 dB 180 kHz	
	b. -20 dB 230 kHz	
	c. -40 dB 315 kHz	
	d. -60 dB 400 kHz	
	e. OC-BW 230 kHz	
16. PRE-EMPHASIS (<i>X one</i>) ☐ a. YES ☒ b. NO	15. MAXIMUM MODULATION FREQUENCY 57.6 kHz	
19. POWER a. MEAN Programmed up to 1 Watt b. PEP N/A	17. DEVIATION RATIO 1	
	18. PULSE CHARACTERISTICS	
	a. RATE N/A	
	b. WIDTH N/A	
	c. RISE TIME N/A	
20. OUTPUT DEVICE MOSFET	d. FALL TIME N/A	
	e. COMP RATIO N/A	
22. SPURIOUS LEVEL -70 dBc	21. HARMONIC LEVEL	
	a. 2ND -50 dBc	
	b. 3RD -70 dBc	
23. FCC TYPE ACCEPTANCE NO. N/A	c. OTHER -70 dBc	
24. REMARKS Item 10: Gaussian Low-pass filter Item 11: Frequency hopping is employed using up to 112 discrete channels in an orthogonal hop sequence. The total number of frequency channels available for the radio is 173. Minimum hop band required is not limited The hopping rate is software defined Any channel or group of channels can be locked out		
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ANTENNA EQUIPMENT CHARACTERISTICS		
1. ☐ a. TRANSMITTING ☐ b. RECEIVING ☒ c. TRANSMITTING AND RECEIVING		
2. NOMENCLATURE, MANUFACTURER'S MODEL NO. AO13501390		3. MANUFACTURER'S NAME U B Corporation
4. FREQUENCY RANGE 1350 to 1390 MHz		5. TYPE 1/4 Wave monopole, Blade radome
6. POLARIZATION Linear, Vertical		7. SCAN CHARACTERISTICS
8. GAIN		a. TYPE N/A
a. MAIN BEAM 5.5 dBi max		b. VERTICAL SCAN
b. 1ST MAJOR SIDE LOBE N/A		(1) MAX ELEV N/A
		(2) MIN ELEV N/A
		(3) SCAN RATE N/A
9. BEAMWIDTH		c. HORIZONTAL SCAN
a. HORIZONTAL Omni - 360 degrees		(1) SECTOR SCANNED N/A
b. VERTICAL 180 degrees		(2) SCAN RATE N/A
		d. SECTOR BLANKING (X one)
		☐ (1) YES ☐ (2) NO
10. REMARKS Radiation pattern is a major function of antenna mounting surface (ground plane)		
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ANTENNA EQUIPMENT CHARACTERISTICS		
1. ☐ a. TRANSMITTING ☐ b. RECEIVING ☒ c. TRANSMITTING AND RECEIVING		
2. NOMENCLATURE, MANUFACTURER'S MODEL NO. Straight Dipole Antenna, MD06-010	3. MANUFACTURER'S NAME Radiall	
4. FREQUENCY RANGE 1350-1390 MHz	5. TYPE Straight Dipole Antenna	
6. POLARIZATION Vertical	7. SCAN CHARACTERISTICS	
8. GAIN	a. TYPE	
a. MAIN BEAM 6.5 dBi Max	b. VERTICAL SCAN	
b. 1ST MAJOR SIDE LOBE N/A	(1) MAX ELEV	
9. BEAMWIDTH	(2) MIN ELEV	
a. HORIZONTAL N/A	(3) SCAN RATE	
b. VERTICAL -3dB , >90 Degrees	c. HORIZONTAL SCAN	
10. REMARKS	(1) SECTOR SCANNED	
	(2) SCAN RATE	
	d. SECTOR BLANKING (X one)	
	☐ (1) YES	☐ (2) NO
REFERENCE PART NUMBER 109-1103(0A9N8) FILE REFERENCE: DD1494 - GCS 1350 Omni, (109-1103) MSH, 0A9N8, 20DEC07 L3 BAI AEROSYSTEMS USES THIS ANTENNA WITH UAS GCS EQUIPMENT.		
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TRANSMITTER EQUIPMENT CHARACTERISTICS		
1. NOMENCLATURE, MANUFACTURER'S MODEL NO. ST L-Band	2. MANUFACTURER'S NAME Global Microwave Systems, Inc	
3. TRANSMITTER INSTALLATION UAV	4. TRANSMITTER TYPE FM Analog Video / Audio	
5. TUNING RANGE 1700 - 1859 MHz	6. METHOD OF TUNING PLL Synthesized	
7. RF CHANNELING CAPABILITY 250 kHz tuning steps	8. EMISSION DESIGNATOR(S) 18M8F8W	
9. FREQUENCY TOLERANCE 5 ppm	10. FILTER EMPLOYED (<i>X one</i>) ☒ a. YES ☐ b. NO	
11. SPREAD SPECTRUM (<i>X one</i>) ☐ a. YES ☒ b. NO	12. EMISSION BANDWIDTH (<i>X and complete as applicable</i>) ☐ CALCULATED ☒ MEASURED	
13. MAXIMUM BIT RATE N/A	F 9 W a. -3 dB 7 MHz b. -20 dB 15 MHz c. -40 dB 22 MHz d. -60 dB 32 MHz e. OC-BW 18 MHz	
14. MODULATION TECHNIQUES AND CODING FM Video, FM-FM Audio	15. MAXIMUM MODULATION FREQUENCY 4.4 MHz	
16. PRE-EMPHASIS (<i>X one</i>) ☒ a. YES ☐ b. NO	17. DEVIATION RATIO (see remarks)	
19. POWER a. MEAN 10W (+40 dBm) b. PEP N/A	18. PULSE CHARACTERISTICS a. RATE N/A b. WIDTH N/A c. RISE TIME N/A d. FALL TIME N/A e. COMP RATIO N/A	
20. OUTPUT DEVICE Solid State Linear Amplifier	21. HARMONIC LEVEL	
22. SPURIOUS LEVEL -60 dBc	a. 2ND -68 dBc	
23. FCC TYPE ACCEPTANCE NO. N/A NTIA Band	b. 3RD -66 dBc	
	c. OTHER -62 dBc	
24. REMARKS Item 8: The emission designator is the maximum designation that includes the highest audio sub-channel frequency which is at 8.59 MHz. Typically this carrier is at 6.2 MHz Item 10: 4-Pole filter Item 14: The possible audio sub-carriers are located at 4.83, 5.6, 5.8, 6.0, 6.2, 6.5, 7.02, 7.5, 8.3, 8.5, and 8.59 MHz. The radios are configured with up to two of these sub-carriers available. Item 16: Emphasis is set for NTSC video per EIA/TIA RS-170 Rec. 405-1, 3 dB Item 17: The video signal is summed with the two audio subchannels and the composite signal is the input to the VCO operating at the transmitter center frequency. The Video channel (Max frequency of 4.4 MHz) is subjected to a deviation ratio of 1.2. The audio subcarriers are subjected to a deviation of about 0.2 at the final VCO stage which is the same VCO for the video signal.		
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