GPS Re-radiating Information & Calculations	
Site Information	
1) Facility Name and Address	Greensboro Citation Service Center, Cessna Aircraft Company, 615 Service Center Drive, Greensboro, NC 27410
2) Point Of Contact Name & Phone	Kevin Auel, Avionics Supervisor; Work: 336-605-7000; Mobile: 336-312-4133
3) Location of switch & shutoff instructions	Avioincs Lab; Unplug AC adapter from outlet.
4) Coordinates, NAD 83, ddd-mm-ss.s	36-05-31.2N; 79-56-19.8W
5) Coordinate Description	Northwest corner of building.
6) Ground Elevation (ft)	891
Antenna - Receiving (RX)	
7) Make and Model	GPS Source L1ACE
8) Gain (dBi)	38
Antenna - Re-radiating (TX)	
9) Make and Model	GPS Source L1P2
10) Gain (dBi)	3
11) Distance to nearest outer wall (ft)	25
12) Location Description	Hangar Bay
13) Antenna Height AGL (ft)	25
Free Space Loss	67.99
Amplifier	
14) Make and Model	GPS Source A11 Amplifier
15) Gain (max rating in dB)	30
Coax - RX Antenna to Amp	
16) Type or Description	ECS 311201
17) Attenuation @ L1 (dB/100 ft)	6.5
18) Length (ft)	50
Coax Loss - RX Antenna to Amp	3.25
Coax - Amp to TX Antenna	
19) Type or Description	ECS 311201
20) Attenuation @ L1 (dB/100 ft)	6.5
21) Length (ft)	80
Coax Loss - Amp to TX Antenna	5.2
Attenuator	
22) Make & Model	GPS Networking ATTENPDC-B (5)
23) Attenuation @ L1 (dB)	5
Calculated Signal Strength 100 ft Outside Building (dBm)*	**-140.44**
Radiated Power from Antenna (dBm ERP)	-74.60
Radiated Power from Antenna pW ERP	**34.69**
Power at Transmitter Output / Antenna Input (dBm EIRP)	-75.45
Power at Transmitter Output / Antenna Input (pW EIRP)	**28.51**

*** This value MUST be less than negative 140 dBm**

GPS Re-radiating Information & Calculations Ant#1 L1	
Site Information	
1) Facility Name and Address	Orlando Citation Service Center
2) Point Of Contact Name & Phone	Robert Decker, Avionics Lead Work Ph 407-859-1245
3) Location of switch & shutoff instructions	Breaker box in 3rd floor electrical room, panel 2AR2, breaker #2.
4) Coordinates, NAD 83, ddd-mm-ss.s	28-26-51.4 N 81-19-53.4 W
5) Coordinate Description	Center of Hangar facility, between North hangar and South Hangar
6) Ground Elevation (ft)	147'
Antenna - Receiving (RX)	
7) Make and Model	GPS Source L1L23G
8) Gain (dBi)	36
Antenna - Re-radiating (TX)	
9) Make and Model	GPS Source L1L22GP
10) Gain (dBi)	3.5
11) Distance to nearest outer wall (ft)	2
12) Location Description	South Hangar, North Wall
13) Antenna Height AGL (ft)	40
Free Space Loss	66.23
Amplifier	
14) Make and Model	GPS Source S14
15) Gain (max rating in dB)	20
Coax - RX Antenna to Amp	
16) Type or Description	ECS 311201
17) Attenuation @ L1 (dB/100 ft)	6.5
18) Length (ft)	80
Coax Loss - RX Antenna to Amp	5.2
Coax - Amp to TX Antenna	
19) Type or Description	ECS 311201
20) Attenuation @ L1 (dB/100 ft)	6.5
21) Length (ft)	50
Coax Loss - Amp to TX Antenna	3.25
Attenuator	
22) Make & Model	
23) Attenuation @ L1 (dB)	0
Calculated Signal Strength 100 ft Outside Building (dBm)*	**-145.18**
Radiated Power from Antenna (dBm ERP)	-81.10
Radiated Power from Antenna pW ERP	**7.77**
Power at Transmitter Output / Antenna Input (dBm EIRP)	-82.45
Power at Transmitter Output / Antenna Input (pW EIRP)	**5.69**

*** This value MUST be less than negative 140 dBm**

GPS Re-radiating Information & Calculations Ant#1 L2	
Site Information	
1) Facility Name and Address	Orlando Citation Service Center
2) Point Of Contact Name & Phone	Robert Decker, Avionics Lead Work Ph 407-859-1245
3) Location of switch & shutoff instructions	Breaker box in 3rd floor electrical room, panel 2AR2, breaker #2.
4) Coordinates, NAD 83, ddd-mm-ss.s	28-26-51.4 N 81-19-53.4 W
5) Coordinate Description	Center of Hangar facility, between North hangar and South Hangar
6) Ground Elevation (ft)	147'
Antenna - Receiving (RX)	
7) Make and Model	GPS Source L1L23G
8) Gain (dBi)	36
Antenna - Re-radiating (TX)	
9) Make and Model	GPS Source L1L22GP
10) Gain (dBi)	3.5
11) Distance to nearest outer wall (ft)	2
12) Location Description	South Hangar, North Wall
13) Antenna Height AGL (ft)	40
Free Space Loss	64.06
Amplifier	
14) Make and Model	GPS Source S14
15) Gain (max rating in dB)	20
Coax - RX Antenna to Amp	
16) Type or Description	ECS 311201
17) Attenuation @ L2 (dB/100 ft)	5.8
18) Length (ft)	80
Coax Loss - RX Antenna to Amp	4.64
Coax - Amp to TX Antenna	
19) Type or Description	ECS 311201
20) Attenuation @ L2 (dB/100 ft)	5.8
21) Length (ft)	50
Coax Loss - Amp to TX Antenna	2.9
Attenuator	
22) Make & Model	
23) Attenuation @ L2 MHz (dB)	0
Calculated Signal Strength 100 ft Outside Building (dBm)*	**-148.10**
Radiated Power from Antenna (dBm ERP)	-86.19
Radiated Power from Antenna pW ERP	**2.41**
Power at Transmitter Output / Antenna Input (dBm EIRP)	-87.54
Power at Transmitter Output / Antenna Input (pW EIRP)	**1.76**

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GPS Re-radiating Information & Calculations Ant#2 L1	
Site Information	
1) Facility Name and Address	Orlando Citation Service Center
2) Point Of Contact Name & Phone	Robert Decker, Avionics Lead Work Ph 407-859-1245
3) Location of switch & shutoff instructions	Breaker box in 3rd floor electrical room, panel 2AR2, breaker #2.
4) Coordinates, NAD 83, ddd-mm-ss.s	28-26-51.4 N 81-19-53.4 W
5) Coordinate Description	Center of Hangar facility, between North hangar and South Hangar
6) Ground Elevation (ft)	147'
Antenna - Receiving (RX)	
7) Make and Model	GPS Source L1L23G
8) Gain (dBi)	36
Antenna - Re-radiating (TX)	
9) Make and Model	GPS Source L1L22GP
10) Gain (dBi)	3.5
11) Distance to nearest outer wall (ft)	5
12) Location Description	North Hangar,south wall;
13) Antenna Height AGL (ft)	40
Free Space Loss	66.48
Amplifier	
14) Make and Model	GPS Source S14
15) Gain (max rating in dB)	20
Coax - RX Antenna to Amp	
16) Type or Description	ECS 311201
17) Attenuation @ L1 (dB/100 ft)	6.5
18) Length (ft)	80
Coax Loss - RX Antenna to Amp	5.2
Coax - Amp to TX Antenna	
19) Type or Description	ECS 311201
20) Attenuation @ L1 (dB/100 ft)	6.5
21) Length (ft)	7
Coax Loss - Amp to TX Antenna	0.455
Attenuator	
22) Make & Model	
23) Attenuation @ L1 (dB)	0
Calculated Signal Strength 100 ft Outside Building (dBm)*	**-142.63**
Radiated Power from Antenna (dBm ERP)	-78.30
Radiated Power from Antenna pW ERP	**14.78**
Power at Transmitter Output / Antenna Input (dBm EIRP)	-79.66
Power at Transmitter Output / Antenna Input (pW EIRP)	**10.83**

*** This value MUST be less than negative 140 dBm**

GPS Re-radiating Information & Calculations Ant#2 L2	
Site Information	
1) Facility Name and Address	Orlando Citation Service Center
2) Point Of Contact Name & Phone	Robert Decker, Avionics Lead Work Ph 407-859-1245
3) Location of switch & shutoff instructions	Breaker box in 3rd floor electrical room, panel 2AR2, breaker #2.
4) Coordinates, NAD 83, ddd-mm-ss.s	28-26-51.4 N 81-19-53.4 W
5) Coordinate Description	Center of Hangar facility, between North hangar and South Hangar
6) Ground Elevation (ft)	147'
Antenna - Receiving (RX)	
7) Make and Model	GPS Source L1L23G
8) Gain (dBi)	36
Antenna - Re-radiating (TX)	
9) Make and Model	GPS Source L1L22GP
10) Gain (dBi)	3.5
11) Distance to nearest outer wall (ft)	5
12) Location Description	North Hangar,south wall;
13) Antenna Height AGL (ft)	40
Free Space Loss	64.31
Amplifier	
14) Make and Model	GPS Source S14
15) Gain (max rating in dB)	20
Coax - RX Antenna to Amp	
16) Type or Description	ECS 311201
17) Attenuation @ L2 (dB/100 ft)	5.8
18) Length (ft)	80
Coax Loss - RX Antenna to Amp	4.64
Coax - Amp to TX Antenna	
19) Type or Description	ECS 311201
20) Attenuation @ L2 (dB/100 ft)	5.8
21) Length (ft)	7
Coax Loss - Amp to TX Antenna	0.406
Attenuator	
22) Make & Model	
23) Attenuation @ L2 (dB)	0
Calculated Signal Strength 100 ft Outside Building (dBm)*	**-145.86**
Radiated Power from Antenna (dBm ERP)	-83.69
Radiated Power from Antenna pW ERP	**4.27**
Power at Transmitter Output / Antenna Input (dBm EIRP)	-85.05
Power at Transmitter Output / Antenna Input (pW EIRP)	**3.13**

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