


1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 513432	
4. Organization Name and Address: PK4R443M  Avionics Specialist, Inc. 3833 PREMIER AVENUE MEMPHIS, TN 38118 U.S.A. Phone (901) 362-9700 Fax (901) 375-8310 WWW.AVIONICS-SPECIALIST.COM				5. Work Order/Contract/Invoice Number: 432		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
A	HONEYWELL TCAS ANTENNA ANT-67A	071-01548-0200	1 each	587-121149	REPAIRED	
12. Remarks: Approval For Return To Service Reference Work Order: 513432 TESTED AND INSPECTED ANTENNA. UNIT PASSES PERFORMANCE TESTS. CLEANED, REPAIRED, AND REFURBISHED OUTER ANTENNA SURFACE. ANTENNA MEETS ALL MFG. SPECS. ANTENNA HAS BEEN REPAIRED USING CMM# 1181C REV 4 MAY 11, 2020. DATA TAG INDICATES MOD #1. Technician: Chad Greer Date: 22 JUL 2024						
<p>All personnel associated with the repair of this part/component met the requirements of FAR 121.377. This document has been issued according to an FAA accepted electronic signature process 09/2017. Avionics Specialist, Inc. certifies that the work specified in block 11/12 was carried out in accordance with EASA Part-145/UK Part-145 and in respect to that work the component is considered ready for release to service under EASA Part-145/UK Part-145 Approval Certificate Numbers EASA.145.4220 and UK.145.50093.</p>						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input checked="" type="checkbox"/> Other regulation specified in Block 12 Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations; part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature <i>Mark G. Dahler</i>		14c. Approval/Certificate No.: PK4R443M
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed): MARK G. DAHLER		14e. Date (dd/mm/yyyy): 22 JUL 2024
User/Installer Responsibilities						
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.</p> <p>Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.</p> <p>Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p>						
FAA Form 8130-3 02-14				NSN: 0052-00-012-9005		

ANT-67A

Directional Antenna Array

TESTER C. GREER V: 071-01548-0200S/N: 587-121149

		<u>Resistance</u>	<u>Limit in Ohms</u>		<u>Resistance</u>	<u>Limit in Ohms</u>
ANTENNA CONNECTOR	J1 - Yellow	<u>1821</u>	<u>1710 - 1890</u>	J2 - Black	<u>3930</u>	<u>3705 - 4095</u>
RESISTANCE CHECKS	J3 - Blue	<u>6820</u>	<u>6460 - 7140</u>	J4 - Red	<u>10010</u>	<u>9700 - 10,300</u>

8753ES-to-ANTENNA**S-PARAMETER MEASUREMENTS @ 1030 MHz**

<u>CABLE CONNECTIONS</u>		<u>Magnitude in dB</u>		<u>Magnitude in dB</u>		<u>Phase in Degrees</u>
<u>Port 1</u>	<u>Port 2</u>					
J1	J2	MS11	<u>-18.8</u>	PS11	N/A	MS21 <u>-10.5</u> PS21 <u>170.9</u>
		MS12	<u>-10.5</u>	PS12	<u>170.8</u>	MS22 <u>-21.6</u> PS22 <u>N/A</u>
J1	J3	MS11	<u>N/A</u>	PS11	<u>N/A</u>	MS31 <u>-17.9</u> PS31 <u>100</u>
		MS13	<u>-18.1</u>	PS13	<u>99.9</u>	MS33 <u>-18.8</u> PS33 <u>N/A</u>
J1	J4	MS11	<u>N/A</u>	PS11	<u>N/A</u>	MS41 <u>-10.4</u> PS41 <u>171.7</u>
		MS14	<u>-10.3</u>	PS14	<u>171.7</u>	MS44 <u>-21.4</u> PS44 <u>N/A</u>
J2	J3	MS22	<u>N/A</u>	PS22	<u>N/A</u>	MS32 <u>-10.8</u> PS32 <u>168.9</u>
		MS23	<u>-10.7</u>	PS23	<u>169</u>	MS33 <u>N/A</u> PS33 <u>N/A</u>
J2	J4	MS22	<u>N/A</u>	PS22	<u>N/A</u>	MS42 <u>-19</u> PS42 <u>98.3</u>
		MS24	<u>-18.9</u>	PS24	<u>98.3</u>	MS44 <u>N/A</u> PS44 <u>N/A</u>
J3	J4	MS33	<u>N/A</u>	PS33	<u>N/A</u>	MS43 <u>-10.5</u> PS43 <u>169.4</u>
		MS34	<u>-10.5</u>	PS34	<u>169.4</u>	MS44 <u>N/A</u> PS44 <u>N/A</u>

Phase difference	Computed	Limit in Degrees	Pass/Fail
PS12 - PS14	1°	6°	Pass
PS21 - PS41	1°	6°	Pass
PS31 - PS24	2°	6°	Pass
PS13 - PS42	2°	6°	Pass
PS32 - PS34	1°	6°	Pass
PS23 - PS43	0°	6°	Pass
PS23 - PS13	69°	90° ± 30°	Pass
PS43 - PS13	70°	90° ± 30°	Pass

Magnitude difference	Computed	Limit in dB	Pass/Fail
MS12 - MS14	-0.2	< 0.5 dB	Pass
MS21 - MS41	-0.1	< 0.5 dB	Pass
MS31 - MS24	1	< 2.0 dB	Pass
MS13 - MS42	0.9	< 2.0 dB	Pass
MS32 - MS34	-0.3	< 0.5 dB	Pass
MS23 - MS43	-0.2	< 0.5 dB	Pass

Magnitude	Entered	Limit in dB	Pass/Fail
MS11	-18.8 dB	-13.5 dB	Pass
MS22	-21.6 dB	-13.5 dB	Pass
MS33	-18.8 dB	-13.5 dB	Pass
MS44	-21.4 dB	-13.5 dB	Pass
MS12	-10.5 dB	-9.8 to -11.8 dB	Pass
MS14	-10.3 dB	-9.8 to -11.8 dB	Pass
MS21	-10.5 dB	-9.8 to -11.8 dB	Pass
MS41	-10.4 dB	-9.8 to -11.8 dB	Pass
MS31	-17.9 dB	-16.0 to -23.0 dB	Pass
MS24	-18.9 dB	-16.0 to -23.0 dB	Pass
MS13	-18.1 dB	-16.0 to -23.0 dB	Pass
MS42	-19.0 dB	-16.0 to -23.0 dB	Pass
MS32	-10.8 dB	-9.8 to -11.8 dB	Pass
MS34	-10.5 dB	-9.8 to -11.8 dB	Pass
MS23	-10.7 dB	-9.8 to -11.8 dB	Pass
MS43	-10.5 dB	-9.8 to -11.8 dB	Pass

TEST ACCEPTED BY: C. GREER

DATE TESTED: 7/15/2024

PHONE (901) 962-8700
AVIONICS SPECIALIST, INC.
FAA APPROVED REPAIR STATION PROGRAM
3025 PREMIER AVE. MEMPHIS, TENNESSEE 38118

TCAS ANTENNA
ANT-67A
PNR: 071-01548-0200
SER: **587-121149**
WT. 1.7 LBS 0.8 KG
Honeywell International, Inc.
Olathe, KS USA
SENSOR SYSTEMS INC.
CHATTSWORTH, CA USA MFR 13691
872-1735-3
TSO-C118 C118d
DO-160B DO-185B

J3

J1

J4