

1. Approving Civil Aviation Authority/Country:
FAA/United States

2. **AUTHORIZED RELEASE CERTIFICATE**
FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

3. Form Tracking Number:
1159181

4. Organization Name and Address:
Aviation Communication & Surveillance Systems
19810 N. 7th Ave.
Phoenix, AZ 85027 PAH # PT1571NM

5. Work Order/Contract Invoice Number:
CO-04-1121

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work Order
1	TCAS DIRECTIONAL ANTENNA/ADAPTER ASSY	7514081-915	1	ANE56379	NEW

12. Remarks:
Airworthiness Approval
Drawing: 7514081, Rev W
TSO AUTHORIZATION: C119A

13a. Certifies the items identified above were manufactured in conformity to:

- Approved design data and are in a condition for safe operation
- Non-approved design data specified in Block 12.

14 CFR 43.9 Return to Service

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:
Elizabeth Boyle
13c. Approval/Authorization No.:
PT1571NM

14b. Authorized Signature:
Elizabeth Boyle
14c. Approval/Certificate No.:

13d. Name (Typed or Printed):
Elizabeth Boyle
13e. Date (dd/mm/yyyy):
22 Oct 2019

14d. Name (Typed or Printed):
Elizabeth Boyle
14e. Date (dd/mm/yyyy):
22 Oct 2019

User/Installer Responsibilities
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. 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.
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.



Aviation Communications & Surveillance Systems
 Completed Traveler
 Work Order ID: WO-277320\1



Work Order ID	Part ID	Description	Trace ID	Rls Date	Qty	Drawing ID/Build	Rev
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WO-277320\1/0/0	7514081-915	TCAS DIRECTIONAL ANTENNA/ADAPTER ASSY	ANE56379	5/30/2019	1	7514081/W	
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HDW MOD. -



7514081-915



ANE56379

WORK ORDER STATUS

Seq#	Shop Reso	Instructions	Operation Status	Completed By	Date
10	ANT-FINALASSY 30	ASSEMBLE PER METHOD SHEET 7514060-715	TCAS DIRECTIONAL 1	500248: Greene Jeremiah ANE56379	5/30/2019 100.00

NCM STATUS

Part ID	Part Desc	Serial No.	NCM ID	Disposition Type	NCM Status
7514081-915	TCAS DIRECTIONAL A	ANE56379	NONE		
7514060-715	TCAS DIRECTIONAL A	ANE56379	NONE		



FINAL INSPECTION COMPLETED BY: _____

Thursday, May 30, 2019



Work Order ID	Part ID	Description	Trace ID	Rls Date	Qty	Drawing ID/Build Rev
WO-272980\1	7514060-715	TCAS DIRECTIONAL ANTENNA	ANE56379	4/3/2019	1	7514060/AP



WORK ORDER STATUS

Seq#	Shop Resources	Instructions	Operation Status	Completed By	Date
Piece No	Part ID	Part Desc	Req. Qty.	Trace ID	% Complete
10	ANT-ASSY1 80	ASSEMBLY 7514074-911 CCA - BEAM FORMIN 1	C	500248: Greene Jeremiah 0FR76-00186461	4/4/2019 100.00
15	ANT-ASSY1 IPI	PERFORM IN PROCESS INSPECTION	C	10059323: GONZALES FIDELIA	4/8/2019
30	ANT-PRETEST	PRE TEST	C	379211: EDCITY BROOKS	4/11/2019
31	ANT-DISASSEMBLE	DISASSEMBLE RADOME / BACKING PLATE ASSY	C	10059323: GONZALES FIDELIA	4/11/2019
32	ANT-PSPREP1	CLEAN SURFACES OF RADOME AND BACKING PLATE	C	10059323: GONZALES FIDELIA	4/11/2019
33	ANT-PROSEAL1	PRO-SEAL RADOME	C	500248: Greene Jeremiah	4/12/2019
34	ANT-PSMATE1	MATE RADOME TO BACKING PLATE	C	10059323: GONZALES FIDELIA	4/12/2019
36	ANT-RMVTEMPHW	REMOVE TEMPORARY HARDWARE AFTER PRO-SEAL 1 55 HOUR CUR	C	476241: ASHLEY TRANG	4/15/2019
37	ANT-ASSY2	RESOLDER CONTACTS FROM BOARD TO RADOME POSTS	C	476241: ASHLEY TRANG	4/15/2019
38	ANT-ASSY2 IPI	IN PROCESS INSPECTION - ANT ASSEMBLY	C	10059323: GONZALES FIDELIA	4/15/2019
40	ANT-CONATHANE	CONATHANE	C	476241: ASHLEY TRANG	4/17/2019
45	ANT-IPI CON	IPI CONATHANE SOLDER CONNECTIONS	C	500248: Greene Jeremiah	4/18/2019
48	ANT-PROSEALPREP	PREPARE ANTENNA FOR PRO-SEAL 2	C	476241: ASHLEY TRANG	4/23/2019
51	ANT-PROSEAL2	APPLY PROSEAL BETWEEN RADOME ASSEMBLY AND ADAPTOR PLATE	C	500248: Greene Jeremiah	4/23/2019
61	ANT-PROSEALMAT	MATE RADOME ASSEMBLY TO ADAPTOR PLATE	C	10059323: GONZALES FIDELIA	4/23/2019
65	ANT-PROSEALCLN	REMOVE WET EXCESS PROSEAL	C	476241: ASHLEY TRANG	4/23/2019
70	ANT-PROSEALCLND	VERIFY PROSEAL IS CURED. CLEAN EXCESS. SEND TO PAINT.	C	476241: ASHLEY TRANG	4/29/2019
80	ANT-VCNPAIN	RECEIVE FROM PAINT. PERFORM TQC INSPECTION.	C	10059323: GONZALEZ FIDELIA	5/16/2019
85	ANT-COLORBAND	COLORBAND ANTENNA CONNECTORS	C	10059323: GONZALES FIDELIA	5/16/2019



FINAL INSPECTION COMPLETED BY: _____

Monday, May 20, 2019



Aviation Communications & Surveillance Systems
 Completed Traveler
 Work Order ID: WO-272980\1



90 ANT-FIL ALTEST FINAL TEST C 480510: ONG WILLIAM 5/20/2019

NCM STATUS

<u>Part ID</u>	<u>Part Desc.</u>	<u>Serial No.</u>	<u>NCM ID</u>	<u>Disposition Type</u>	<u>NCM Status</u>
7514060-715	TCAS DIRECTIONAL A	ANE56379	NONE		
7514074-911	CCA - BEAM FORMING	OFR76-00186461	NONE		

BUNWOOD Aviation Corp



FINAL INSPECTION COMPLETED BY: _____

Monday, May 20, 2019

ENGINEERING SPECIFICATION	SECURITY NOTATION	DOC NO. IT7514060	Revision U
		CAGE CODE 1WYD3	

SEE THE TITLE PAGE FOR PROPRIETARY AND DATA RIGHTS NOTATIONS.

REV LTR **QUALITY CONTROL FUNCTIONAL TEST REPORT**

PART NO. 7514060-715	SERIAL/SHOP NO. ANE56379
TESTED TO IT 7514060 REV. U	

TEST FIXTURES AND SUPPORT EQUIPMENT

TEST FIXTURE OR TYPE	SERIAL	MODEL	SPC/ID	CAL DUE DATE
PC				
DMM		8842A	L-3 16	01/04/2020
NETWORK ANALYZER		8753E	L-3 5284	07/12/2019
POSITIONER CONTROLLER		AL4806-3A O.1	L-3 5276	NCR
MONOPOLE ANTENNA		9001096-001	N/A	NCR
			REVISION	
ACSS Antenna Test Software		9000710-003	Rev B	Revision -
ACSS Configuration Files		9000708-001	Rev A	Revision -
1.0 IMPEDANCE DC RESISTANCE			5.0 90 DEG RECEIVE BEARING TEST	
1.1 J1 '0990 to 1010	1000.00	OHMS	5.2 90 DEG PCO OK	PASS CHECK
1.2 J2 '7980 to 8140	8047.00	OHMS	5.3.1 BEAM 1 SCO	PASS
1.3 J3 '3980 to 4060	4014.00	OHMS	5.3.2 BEAM 2 SCO	PASS
1.4 J4 '1980 to 2020	1733.00	OHMS	5.3.3 BEAM 3 SCO	PASS
			5.3.4 BEAM 4 SCO	PASS
2.0 ANTENNA TRANSMIT GAIN TEST			5.4 90 DEG MARGINS OK PASS CHECK	
2.3 70 DEG GAIN OK	PASS	CHECK		
2.4 80 DEG GAIN OK	PASS	CHECK	6.0 100 DEG RECEIVE BEARING TEST	
2.5 90 DEG GAIN OK	PASS	CHECK	SECTION DELETED	
2.6 100 DEG GAIN OK	PASS	CHECK		
2.7 105 DEG GAIN OK	PASS	CHECK		
3.0 70 DEG RECEIVE BEARING TEST				
SECTION DELETED				
4.0 80 DEG RECEIVE BEARING TEST				
SECTION DELETED				

TESTER 10000519	DATE 03/20/2014	FTR SHEET 1 OF 1
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AW/CRITICAL NOTATION	SUPPLEMENTS	A-1 PAGE
SECURITY NOTATION		

COPY



Parameters

Reference Decoder:

Symbol Contrast:

Fixed Pattern Damage:

Axial Non-Uniformity:

Grid Non-Uniformity:

Modulation:

Unused ECC:

Final Grade:

Results	Grade	130N
PASS	4 (A)	PASS
71%	4 (A)	PASS
----	4 (A)	PASS
0.01	4 (A)	PASS
0.01	4 (A)	PASS
----	4 (A)	PASS
100%	4 (A)	PASS
4 (A)		PASS

4/05/660/45

Non-Graded Parameters:

Print Growth:

0.11

Symbol Size:

24x24

Symbol Type:

ECC200

Element Size:

9.4 Pixels 0.012"

Symbol Data:

[>R₀₆S_{17V1WYD3}S_{1P7514081-915}S_{5ANE56379}R_SO_T

UII:

D1WYD37514081-915ANE56379

Format:

DI

P/N (1P):

7514081-915

S/N (S):

ANE56379

IAC:

D

EID (17V):

1WYD3

Aperture:

0.005"

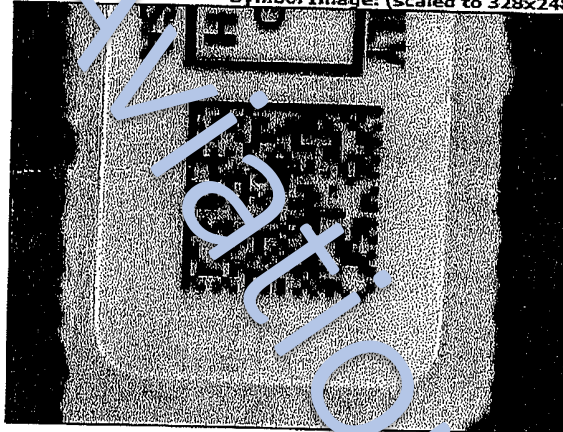
Wavelength:

660 nm

Angle:

45 degrees

Symbol Image: (scaled to 328x248)



Firmware Version 95-676201-15
Verifier Serial Number 0975398
Thursday, May 30, 2019 at 06:17:55
Microscan ESP Version 6.3.0.11
Company: ACSS
Operator:
Datamatrix Verification Documents

This report created using Microscan ESP software

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