ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.006**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *3/13/2024* To: *3/20/2024*

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]	[redacted]			

MU SOFTWARE PART NUMBERS

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.007**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *3/13/2024* To: *3/20/2024*

Tested Configuration:

Manufacturer	Spec	Model	Part #
[redacted]			

MU SOFTWARE PART NUMBERS

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.008**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *3/13/2024* To: *3/20/2024*

Tested Configuration:

Manufacturer	Spec	Model	Part #
[redacted]			

MU SOFTWARE PART NUMBERS

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

Collins Aerospace

TEST ID:
24.006,24.007,24.008

PHASE 3 AQP TEST RESULTS

- ☐ VHF TESTED?
- ☐ VHF CAPABLE?
- ☐ VDLMA TESTED?
- ☐ VDLMA CAPABLE?
- ☐ SB-S TESTED?
- ☐ SB-S CAPABLE?
- ☐ HF TESTED?
- ☐ HF CAPABLE?
- ☐ AOA TESTED?
- ☐ AOA CAPABLE?
- ☐ AoIP TESTED?
- ☐ AoIP CAPABLE?
- ☐ SATCOM TESTED?
- ☐ SATCOM CAPABLE?
- ☐ ATN TESTED?
- ☐ ATN CAPABLE?
- ☐ SB-S 2.0 TESTED?
- ☐ SB-S 2.0 CAPABLE?
- ☐ IRIDIUM TESTED?
- ☐ IRIDIUM CAPABLE?
- ☐ VDLMF TESTED?
- ☐ VDLMF CAPABLE?

Airline/Customer: [redacted]

Initial/Retest: ☐

Test Engineer: [redacted]

Test Dates: From: 3/13/24 To: 03/20/24

TESTED CONFIGURATION

Unit	Manufacturer + Model	Hardware Part #	Serial #	Software Part #
[redacted]	[redacted]	[redacted]		
[redacted]				

[redacted]	[redacted]		

Applicable Aircraft: _____

Notes: ____

Appendix A Iridium CERTUS AQP Data Sheet

Section	Description	Requirement	Result
Multi-media			
4.1.1	Preferred Media	CMU/MU uses VHF as preferred media and only Iridium/Inmarsat/HFDL when responding to an Iridium/Inmarsat/HFDL uplink.	
4.1.3	Simultaneous Media	CMU/MU always attempts to complete on the medium where the message was originated.	
4.1.5	VHF to Iridium/Inmarsat/HF	The avionics restarted failed VHF transmissions on Iridium/Inmarsat/HF media and alerts the crew of the VHF NOCOMM conditions.	
4.1.7	Iridium/Inmarsat/HF to VHF	The avionics monitors the available VHF frequencies and attempts to reestablish the VHF medium. (Label Q0, SA, etc.).	
4.1.9	VHF Voice to Iridium	Avionics sends downlinks via Iridium when in VHF voice mode.	
4.1.11	Automatic Link Establishment	MU automatically sends a Q0 downlink followed by an SA via Iridium whenever the Iridium unit logs on. This may be an SA ES if the MU thinks it is connected to SATCOM. Same as VHF and HF.	P
4.1.13	UBI/DBI Handling	The MU correctly maintains separate and independent UBI/DBI's for the VHF, HF, and Iridium links.	
SDU Configuration and Installation			
4.2.1	ORT Contents	All required ORT contents are available, and settings SDU settings/features are identified.	
4.2.3	Dual SATCOM ORT Settings	Dual SATCOM ORT settings are available and Dual SATCOM configuration is identified.	
4.2.5	ORT Data Loading	The ORT is able to be loaded to the SDU via data loader or other means.	
Dual SATCOM			
4.3.1	Dual Power-up Sequence	SDUs determine their settings correctly upon power-up and handle mode settings and parity conflicts appropriately.	

4.3.3	Dual Independent	General dual SATCOM operating principles are being followed, and there is minimal or no interaction between the two SDU systems.	
4.3.5	Dual Cold Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in cold standby mode.	
4.3.7	Dual Warm Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in warm standby mode.	
4.3.9	Dual Hot Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in hot standby mode.	
4.3.11	Dual Cooperative	General dual SATCOM operating principles are being followed, and the SDU operates correctly in dual cooperative mode.	
429 Data Bus			
4.4.1	Subsystem Identifier Word	The SDU properly identifies itself to the CMU/MU as an Iridium CERTUS unit.	P
4.4.3	SATCOM Available	The SDU does not announce SATCOM availability when there is no signal.	P
4.4.5	SACTOM Voice Available	The SDU does not announce SATCOM Voice availability when there is no signal or connectivity.	
4.4.7	SATCOM Standby Mode	The SDU properly indicates the communication status while in standby mode.	
4.4.9	Selective Calling	The SDU indicates that a new cockpit voice circuit has been established.	
4.4.11	SATCOM Voice Alert	The SDU properly indicates that a high priority calls are being detected.	
4.4.13	SATCOM Select "Auto" Mode	The SDU performs the proper handover request on the crosstalk bus in a dual SATCOM configuration.	
4.4.15	Crosstalk Protocol	The SDU performs the proper communication over the crosstalk bus in a dual SATCOM configuration.	
4.4.17	High/Low Data Bus Speed	SDU uses proper 429 protocol for both high and low speeds.	

End to End			
4.5.1	Uplink Messages	All uplink messages transfer to the CMU/MU in the proper format.	P
4.5.3	Multi-block Uplink Messages	All multi-block messages transfer through the CMU/MU and to/from the ground end system in the proper format.	P
4.5.5	Iridium Burst Size	Uplink messages are not delayed, regardless of time interval or message size.	P
4.5.7	ATS Messages	The SDU processes ATS messages over iridium CERTUS.	P
4.5.9	Downlink Messages	All downlink messages transfer to the ground end system in the proper format.	P
4.5.11	Downlink Message Queue	Downlink message queue is sent correctly after an extended satellite disconnect.	P
4.5.13	Downlink Retransmissions	Downlink messages are retransmitted properly if an acknowledgement is not received from the ground.	
4.5.15	Downlink Retransmissions Counter	Downlink messages are retransmitted the correct number of times at the correct interval when acknowledgements are not received from the ground.	
4.5.17	Simultaneous Uplink/Downlink Transmissions	The avionics receives uplinks and transmits downlink simultaneously without delaying or losing messages.	P
4.5.19	CERTUS Voice Mode	The SDU supports simultaneous use of voice and ACARS operation.	
4.5.21	CERTUS Data Mode	The SDU supports simultaneous use of ACARS and non-ACARS data operation.	
4.5.23	Simultaneous CERTUS Voice & Data Mode	The SDU supports simultaneous use of ACARS, Voice, and non-ACARS data operation.	
4.5.25	Mismatched Tail	The avionics do not process messages addressed to another aircraft tail number.	
4.5.27	Message Source	All ACARS messages are routed through the CMU/MU. The SDU should not generate ACARS messages.	P
4.5.29	GES Queue Timer	The avionics do not acknowledge any ACARS messages (over Iridium) older than 300 seconds.	

Stress/Hardness			
4.6.1	Integrated Stress	The CMU/MU and the SDU remained stable and did not show any strange behavior during stress testing.	P
4.6.5	Integrated Hardness	The CMU/MU and the SDU remained stable and did not show any strange behavior during hardness testing.	P
4.6.9	Uplink/Downlink Performance	The scored uplink success was at least 98%.	P

TEST NOTES	
Section	**Observations and Problem Description**

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.009**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☑ Classic Aero Satcom Tested
- ☑ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☐ Iridium CERTUS Tested
- ☐ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference: 14.073 11.055

Test Dates: From: 3/25/2024 To: 4/1/2024

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				
[redacted]				
[redacted]				
[redacted]				
[redacted]	[redacted]			
[redacted]	[redacted]			

Applicable Aircraft: [redacted]

VHF Status: HF NEXT Status: SATCOM Status: Waived IRIDIUM Cert Status:

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

SATCOM HARDWARE

SATCOM AQP Status: Waived

[redacted]

[redacted]

Unit Model	Hardware Part #	Software Part #
[redacted]		
[redacted]		
[redacted]		

Comments:

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.020**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☑ SB-S (Swift Broadband Safety) Tested
- ☑ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☐ Iridium CERTUS Tested
- ☐ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference: 22.034

Test Dates: From: 5/30/2024 To: 5/30/2024

Tested Configuration:

Manufacturer	Spec	Model	Part #
[redacted]			
[redacted]			
[redacted]			

Applicable Aircraft: [redacted]

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status:

Letter Sent: HFDL Status: SBS Status: Waived IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

SWIFT BROADBAND HARDWARE

SBS AQP Status: Waived

SB-S UNIT

SBS Product Class:

Antenna:

[redacted]

SBU Serial Number:

[redacted]

Other SW Type	SW Part Number	RF Unit Type	Model Number	HW Part Number

COMMENTS:

[redacted]

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.021**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *5/13/2024* To: *5/20/2024*

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				

[redacted]

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.022**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *5/13/2024* To: *5/20/2024*

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				
[redacted]				

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.023**

Airline: [redacted] Code:

AQP Phase: 0

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☑ Iridium CERTUS Tested
- ☑ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: 5/13/2024 To: 5/20/2024

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				
[redacted]				

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status: Pass

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status:

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

Collins Aerospace

TEST ID:
24.021,24.022,24.023

PHASE 3 AQP TEST RESULTS

- ☐ VHF TESTED?
- ☐ VHF CAPABLE?
- ☐ VDLMA TESTED?
- ☐ VDLMA CAPABLE?
- ☐ SB-S TESTED?
- ☐ SB-S CAPABLE?
- ☐ HF TESTED?
- ☐ HF CAPABLE?
- ☐ AOA TESTED?
- ☐ AOA CAPABLE?
- ☐ AoIP TESTED?
- ☐ AoIP CAPABLE?
- ☐ SATCOM TESTED?
- ☐ SATCOM CAPABLE?
- ☐ ATN TESTED?
- ☐ ATN CAPABLE?
- ☐ SB-S 2.0 TESTED?
- ☐ SB-S 2.0 CAPABLE?
- ☐ IRIDIUM TESTED?
- ☐ IRIDIUM CAPABLE?
- ☐ VDLMF TESTED?
- ☐ VDLMF CAPABLE?

Airline/Customer: [redacted]

Initial/Retest: ☐

Test Engineer: [redacted]

Test Dates: From: 5/17/24 To: 5/23/24

TESTED CONFIGURATION

Unit	Manufacturer + Model	Hardware Part #	Serial #	Software Part #
[redacted]	[redacted]			

Additional CMU SOFTWARE PART NUMBERS:

[redacted]			
	[redacted]		
[redacted]			
	[redacted]		
[redacted]			
	[redacted]		

Applicable Aircraft: _____

Notes: ____

Appendix A Iridium CERTUS AQP Data Sheet

Section	Description	Requirement	Result
Multi-media			
4.1.1	Preferred Media	CMU/MU uses VHF as preferred media and only Iridium/Inmarsat/HFDL when responding to an Iridium/Inmarsat/HFDL uplink.	
4.1.3	Simultaneous Media	CMU/MU always attempts to complete on the medium where the message was originated.	
4.1.5	VHF to Iridium/Inmarsat/HF	The avionics restarted failed VHF transmissions on Iridium/Inmarsat/HF media and alerts the crew of the VHF NOCOMM conditions.	
4.1.7	Iridium/Inmarsat/HF to VHF	The avionics monitors the available VHF frequencies and attempts to reestablish the VHF medium. (Label Q0, SA, etc.).	
4.1.9	VHF Voice to Iridium	Avionics sends downlinks via Iridium when in VHF voice mode.	
4.1.11	Automatic Link Establishment	MU automatically sends a Q0 downlink followed by an SA via Iridium whenever the Iridium unit logs on. This may be an SA ES if the MU thinks it is connected to SATCOM. Same as VHF and HF.	P
4.1.13	UBI/DBI Handling	The MU correctly maintains separate and independent UBI/DBI's for the VHF, HF, and Iridium links.	
SDU Configuration and Installation			
4.2.1	ORT Contents	All required ORT contents are available, and settings SDU settings/features are identified.	
4.2.3	Dual SATCOM ORT Settings	Dual SATCOM ORT settings are available and Dual SATCOM configuration is identified.	
4.2.5	ORT Data Loading	The ORT is able to be loaded to the SDU via data loader or other means.	
Dual SATCOM			
4.3.1	Dual Power-up Sequence	SDUs determine their settings correctly upon power-up and handle mode settings and parity conflicts appropriately.	

4.3.3	Dual Independent	General dual SATCOM operating principles are being followed, and there is minimal or no interaction between the two SDU systems.	
4.3.5	Dual Cold Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in cold standby mode.	
4.3.7	Dual Warm Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in warm standby mode.	
4.3.9	Dual Hot Standby	General dual SATCOM operating principles are being followed, and the SDU operates correctly in hot standby mode.	
4.3.11	Dual Cooperative	General dual SATCOM operating principles are being followed, and the SDU operates correctly in dual cooperative mode.	
429 Data Bus			
4.4.1	Subsystem Identifier Word	The SDU properly identifies itself to the CMU/MU as an Iridium CERTUS unit.	P
4.4.3	SATCOM Available	The SDU does not announce SATCOM availability when there is no signal.	P
4.4.5	SACTOM Voice Available	The SDU does not announce SATCOM Voice availability when there is no signal or connectivity.	
4.4.7	SATCOM Standby Mode	The SDU properly indicates the communication status while in standby mode.	
4.4.9	Selective Calling	The SDU indicates that a new cockpit voice circuit has been established.	
4.4.11	SATCOM Voice Alert	The SDU properly indicates that a high priority calls are being detected.	
4.4.13	SATCOM Select "Auto" Mode	The SDU performs the proper handover request on the crosstalk bus in a dual SATCOM configuration.	
4.4.15	Crosstalk Protocol	The SDU performs the proper communication over the crosstalk bus in a dual SATCOM configuration.	
4.4.17	High/Low Data Bus Speed	SDU uses proper 429 protocol for both high and low speeds.	

End to End			
4.5.1	Uplink Messages	All uplink messages transfer to the CMU/MU in the proper format.	P
4.5.3	Multi-block Uplink Messages	All multi-block messages transfer through the CMU/MU and to/from the ground end system in the proper format.	P
4.5.5	Iridium Burst Size	Uplink messages are not delayed, regardless of time interval or message size.	P
4.5.7	ATS Messages	The SDU processes ATS messages over iridium CERTUS.	P
4.5.9	Downlink Messages	All downlink messages transfer to the ground end system in the proper format.	P
4.5.11	Downlink Message Queue	Downlink message queue is sent correctly after an extended satellite disconnect.	P
4.5.13	Downlink Retransmissions	Downlink messages are retransmitted properly if an acknowledgement is not received from the ground.	
4.5.15	Downlink Retransmissions Counter	Downlink messages are retransmitted the correct number of times at the correct interval when acknowledgements are not received from the ground.	
4.5.17	Simultaneous Uplink/Downlink Transmissions	The avionics receives uplinks and transmits downlink simultaneously without delaying or losing messages.	P
4.5.19	CERTUS Voice Mode	The SDU supports simultaneous use of voice and ACARS operation.	
4.5.21	CERTUS Data Mode	The SDU supports simultaneous use of ACARS and non-ACARS data operation.	
4.5.23	Simultaneous CERTUS Voice & Data Mode	The SDU supports simultaneous use of ACARS, Voice, and non-ACARS data operation.	
4.5.25	Mismatched Tail	The avionics do not process messages addressed to another aircraft tail number.	
4.5.27	Message Source	All ACARS messages are routed through the CMU/MU. The SDU should not generate ACARS messages.	P
4.5.29	GES Queue Timer	The avionics do not acknowledge any ACARS messages (over Iridium) older than 300 seconds.	

Stress/Hardness			
4.6.1	Integrated Stress	The CMU/MU and the SDU remained stable and did not show any strange behavior during stress testing.	P
4.6.5	Integrated Hardness	The CMU/MU and the SDU remained stable and did not show any strange behavior during hardness testing.	P
4.6.9	Uplink/Downlink Performance	The scored uplink success was at least 98%.	P

TEST NOTES	
Section	**Observations and Problem Description**

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.034**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☐ Iridium CERTUS Tested
- ☐ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☑ HFDL Tested
- ☑ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: *10/14/2024* To: *10/16/2024*

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				
[redacted]				
[redacted]				

Applicable Aircraft: [redacted]

VHF Status:		HF NEXT Status:		SATCOM Status:		IRIDIUM Cert Status:	
Letter Sent:		HFDL Status:	Waived	SBS Status:		IRIDIUM Status:	
		OTHER Media Status:		SBS2 Status:		ACARS Over IP Status:	

HFDL HARDWARE

HFDL AQP Status: Waived

Vendor:	AEEC:	Unit Model:	Hardware Part Number:	Software Part Number:
[redacted]				

Comments:

[redacted]

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID **24.035**

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☐ Iridium (Block 1) Tested
- ☐ Iridium (Block 1) Capable
- ☐ Iridium CERTUS Tested
- ☐ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☑ HFDL Tested
- ☑ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference: 24.034

Test Dates: From: *11/5/2024* To: *11/6/2024*

Tested Configuration:

	Manufacturer	Spec	Model	Part #
[redacted]				
[redacted]				
[redacted]				
[redacted]				

Applicable Aircraft: [redacted]

VHF Status:		HF NEXT Status:		SATCOM Status:		IRIDIUM Cert Status:	
Letter Sent:		HFDL Status:	Waived	SBS Status:		IRIDIUM Status:	
		OTHER Media Status:		SBS2 Status:		ACARS Over IP Status:	

HFDL HARDWARE

HFDL AQP Status: Waived

Vendor:	AEEC:	Unit Model:	Hardware Part Number:	Software Part Number:
[redacted]				[redacted]
[redacted]				

Comments:
[redacted]

ARINC AQP SCORECARD
TEST RESULTS/DATA

TEST_ID 24.039

Airline: [redacted] Code:

AQP Phase: 3

- ☐ VDLM0 (POA) Tested
- ☐ VDLM0 (POA) Capable
- ☐ VDLMA (POA) Tested
- ☐ VDLMA (POA) Capable
- ☐ VDLM2 (AOA) Tested
- ☐ VDLM2 (AOA) Capable
- ☐ VDLM2 (ATN) Tested
- ☐ VDLM2 (ATN) Capable
- ☐ VDLMF Tested
- ☐ VDLMF Capable
- ☐ Classic Aero Satcom Tested
- ☐ Classic Aero Satcom Capable
- ☐ SB-S (Swift Broadband Safety) Tested
- ☐ SB-S (Swift Broadband Safety) Capable
- ☐ SB-S 2 (Enhanced SB-S) Tested
- ☐ SB-S 2 (Enhanced SB-S) Capable
- ☑ Iridium (Block 1) Tested
- ☑ Iridium (Block 1) Capable
- ☐ Iridium CERTUS Tested
- ☐ Iridium CERTUS Capable
- ☐ AOIP (ACARS Over IP) Tested
- ☐ AOIP (ACARS Over IP) Capable
- ☐ HFDL Tested
- ☐ HFDL Capable
- ☐ HF NEXT Tested
- ☐ HF NEXT Capable
- ☐ OTHER Tested
- ☐ OTHER Capable

Test Engineers' Initials: [redacted] AQP Type: Test (Test/Evaluation) Reference:

Test Dates: From: 12/11/2024 To: 12/11/2024

Tested Configuration:

Manufacturer	Spec	Model	Part #
[redacted]		[redacted]	
[redacted]			
[redacted]			
[redacted]			

Applicable Aircraft:

VHF Status: HF NEXT Status: SATCOM Status: IRIDIUM Cert Status:

Letter Sent: HFDL Status: SBS Status: IRIDIUM Status: Pass

OTHER Media Status: SBS2 Status: ACARS Over IP Status:

IRIDIUM HARDWARE

IRIDIUM AQP Status: Pass

IRIDIUM SATELLITE DATA UNIT

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

COMMENTS: