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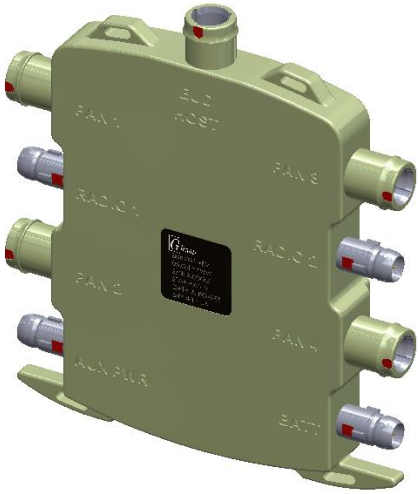
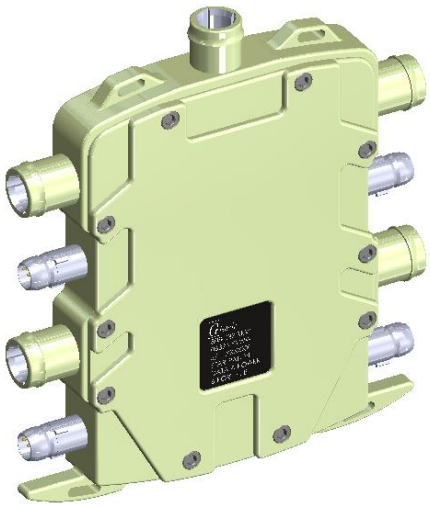
# QUALIFICATION TEST REPORT ABSTRACT
# FOR
# STAR-PAN™ VI DATA AND POWER
# 6 PORT HUB 808-037

## REPORT NO. GT-20-276 ABSTRACT



**Front View**
**6 Port Hub Gen 1.5**



**Rear View**
**6 Port Hub, Gen 1.5**

PREPARED BY: _____ DATE: 12/3/2021
Meghan Taylor

UPDATED BY: _____ DATE: _____

1.0 Product Description/Application

Glenair 808-037 STAR-PAN™ VI 6 Port Hub gen 1.5 is a USB hub with integrated power management functions for supplying power to connected devices. Its rugged construction is intended for tactical applications in hostile environments. The 6 Port Hub, subjected to a series of EMI tests, is designed to meet the requirements of MIL-STD-461G while utilizing lightweight aluminum alloy housing and high conductivity gold plated copper alloy contacts.

1.1 Purpose

Testing was performed on Glenair 808-037 STAR-PAN™ VI 6 Port Hub gen 1.5 to determine its conformance to the performance requirements of MIL-STD-461G.

1.2 Scope

This report summarizes the qualification testing of STAR-PAN™ 6 Port Hub gen 1.5 per Qualification Test Report (QTP) 045316. The information in this report was obtained from tests conducted by DNB Engineering, Inc. and Glenair. The documents listed below are on file at Glenair and are available upon request.

| Applicable Test Reports | | |
|---|---|---|
| Test Report Number | Provider | Date Tested |
| 21200R1LQV2 | DNB Engineering, Inc. | 3/27/2020 |
| GT-21-438 | Glenair Inc. | 7/19/2019 |

1.3 Conclusion

Glenair STAR-PAN™ VI 6 Port Hub gen 1.5 has been shown to be capable of meeting performance requirements of MIL-STD-461G, CS101, RE101 and 102, and RS 101.

1.4 Test Specimen

| Test Sample Description | | |
|---|---|---|
| Description | Part Number | Serial Number |
| 6 Port Hub gen 1.5 | 808-037 | 000305 |

1.5 Inspection Procedure

Work benches and operators grounded per ANSI/ESD S20.20.

## 2.0 Qualification Test Summary

| Qualification Test Summary | | |
|---|---|---|
| Test Description | Abstract Reference | Results |
| Conducted Susceptibility, power leads (CS101) | 2.1.1 | Passed |
| Radiated Emissions, magnetic field (RE101) | 2.1.2 | Passed |
| Radiated Emissions, electric field (RE102) | 2.1.3 | Passed* |
| Radiated Susceptibility, magnetic field (RS 101) | 2.1.4 | Passed |

## 2.1 Qualification Testing Details

### 2.1.1 **Conducted Susceptibility, power leads**

Test Method
MIL-STD-461G, CS101
Performed in the frequency range of 30 Hz – 150 kHz while the EUT was in normal operational condition.
Requirement
When subjected to audio frequency to induce conducted susceptibility, the EUT maintains normal “Xfer Rate(MBPS)” operation according to USB Streamer software.
Results
PASS. PN 808-037, SN 000305 did not exhibit errors or failures throughout the frequency band.
Test Anomalies/Deviations
N/A

### 2.1.2 **Radiated Emissions, magnetic field**

Test Method
MIL-STD-461G, RE101
Performed in the frequency range of 30 Hz – 100 kHz while the EUT was in normal operational condition.
Requirement
When subject to maximum energy radiation emissions generated by the USB Streamer software, the EUT must maintain normal “Xfer Rate(MBPS)” operation and does not exceed emission limit levels specified in RE 101.
Results
PASS. PN 808-037, SN 000305 did not exhibit errors or failures throughout the frequency band and its magnetic field emissions were below the limit level specified in RE101.
Test Anomalies/Deviations
N/A

### 2.1.3 Radiated Emissions, electric field

Test Method
MIL-STD-461G, RE102
Performed in the frequency range of 10 kHz – 18 GHz while the EUT was in normal operational condition.
Requirement
During data transfer initiated by the USB Streamer software, the EUT must maintain normal "Xfer Rate(MBPS)" operation and not exceed the emission limit levels specified in RE102.
Results
PASS.* PN 808-037, SN 000305 did not exhibit errors or failures throughout the frequency band and its electric field emissions measured during the test were below the limit level specified in RE102. See Test Anomalies/Deviations below for more details.
Test Anomalies/Deviations
Radiated emissions exceeding the limit level by approximately 0.5dB – 1.5dB at 1.2MHz – 1.8MHz for the antenna band and exceeding emissions levels in both vertical and horizontal positions during initial testing were determined to be caused by test support equipment noises. Please refer to listed DNB report for further details regarding this equipment. Once the shields on the external cables were improved, the EUT met passing criteria.

### 2.1.4 Radiated Susceptibility, magnetic field

Test Method
MIL-STD-461G, RS101
Performed in the frequency range of 30 Hz – 100 kHz while the EUT was in normal operational condition.
Requirement
When subjected to a magnetic field radiation, the EUT must maintain normal "Xfer Rate(MBPS)" operation.
Results
PASS. PN 808-037, SN 000305 did not exhibit any errors or failures throughout the frequency band.
Test Anomalies/Deviations
N/A