



July 29, 2019

Mr. Tom Gillespie, Quality Director
Shadin Avionics
7555 Market Place Drive
Eden Prairie, MN 55344

Supersedes PMA Letter dated: February 28,
2006.

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

Dear Mr. Gillespie:

This is in response to the Shadin Avionics, (hereinafter referred to as "the Manufacturer"), letter dated April 8, 2019, notifying the Minneapolis MIDO Section office of an address change to 7555 Market Place Drive, Eden Prairie, MN 55344. The FAA has determined that the Manufacturer has established and continues to maintain the quality system required by 14 CFR 21.307 at 7555 Market Place Drive, Eden Prairie, MN 55344. Accordingly, we grant the manufacturer Parts Manufacturer Approval (PMA) to produce the replacement and/or modification articles listed in supplements 1 through 50 issued to the manufacturer at the previous location of 6831 Oxford Street, St. Louis Park, MN 55426. Note that supplements 1 through 50 have your previous address but do represent your current approval. These articles must conform to the approved designs. Report any future minor changes in the article designs to us in an agreed upon manner and timeframe. However, we must approve any changes to critical or life-limited articles or any major design changes before you can implement them.

The following terms and conditions apply to this approval:

1. The Manufacturer's quality system, methods, procedures, and manufacturing facilities, including suppliers, are subject to FAA surveillance and investigations. Accordingly, the Manufacturer must advise its suppliers that their facilities are also subject to FAA surveillance and investigations.
2. The Manufacturer must obtain approval from the Minneapolis MIDO Section, prior to relocating or expanding manufacturing facilities at which articles are produced. This includes the addition of associate facilities. Additionally, this requirement applies to the Manufacturer's suppliers with major inspection authorization, and those suppliers who furnish articles or related services where a determination of safety and conformance to the approved design cannot or will not be made upon receipt at the approved receiving facility.
3. Upon request, the Manufacturer must make available to the FAA any pertinent information concerning their suppliers who furnish parts/services. This includes:
 - a. A description of the part or service;

- b. Where and by whom the part or service will undergo inspection;
 - c. Any delegation of inspection duties;
 - d. Any delegation of materials review authority;
 - e. The name and title of the FAA contact at the supplier facility;
 - f. The inspection procedures required to be implemented;
 - g. Any direct-shipment authority;
 - h. Results of the Manufacturer's evaluation, audit, and/or surveillance of their suppliers;
 - i. The purchase/work order number (or equivalent); and
 - j. Any feedback relative to service difficulties originating at the Manufacturer's suppliers.
4. Parts, appliances, or manufacturing services furnished by any suppliers located in a foreign country may not be used in the production of any article or listed in the enclosed supplement unless:
- a. That part or service can and will be completely inspected for conformity at the Manufacturer's U.S. facility; or
 - b. The FAA has determined that the location of the foreign supplier facility places no undue burden on the FAA in administering applicable airworthiness requirements. The Manufacturer must advise the FAA at least ten working days in advance when the use of such foreign suppliers is contemplated. This will allow the FAA time to make this determination.
5. Articles produced under the terms of this approval must be permanently marked with the identification information as required by 14 CFR part 45, Identification and Registration Marking, § 45.15. Use the letters "FAA-PMA," the name, trademark, or symbol of the company, and the part number. If the FAA finds the article is too small or impractical to mark, the manufacturer must attach the information required by § 45.15 to the article or its container.
6. This approval is not transferable and it may be withdrawn for any reason that precludes its issuance or whenever the FAA finds that the quality system is not being maintained. A withdrawal may occur if unsafe or nonconforming articles are accepted under the quality system.
7. The Minneapolis MIDO Section must approve any changes to the address shown in this approval.
8. The Manufacturer must maintain its quality system in continuous compliance with the

requirements of § 21.307. The Manufacturer also must ensure that each article conforms to the approved design data and is safe for installation on type-certificated products.

9. A PMA holder has the privileges specified within the PMA letter and supplement. In addition, a PMA holder is eligible for the appointment of qualified individuals in its employ to represent the FAA as Designated Manufacturing Inspection Representatives (DMIRs), in accordance with the provisions of part 183. The DMIRs may issue export airworthiness approvals for articles. The PMA holder may also be authorized to apply for and obtain an Organization Designation Authorization (ODA). Orders 8000.95 and 8100.15 contain procedures for the administration of DMIRs and ODAs, respectively.

10. The Manufacturer must report in a timely manner, to the Minneapolis MIDO Section, information concerning service difficulties on any article produced under this approval. The Manufacturer also must report any failures, malfunctions, and defects that are required to be reported in accordance with § 21.3.

11. All technical data required by § 21.303(a)(3), for the articles to be produced in accordance with this approval, must be readily available to the FAA at the facility where the articles are being produced.

12. The Manufacturer must notify the Minneapolis MIDO Section immediately in writing of any changes to the quality system that may affect the inspection, conformity, or airworthiness of the articles approved in this letter.

13. The Manufacturer must produce all articles in accordance with Shadin Avionics, FAA Requirements Management, TLP-013, revision D dated July 1, 2019 that has been presented as evidence of compliance with § 21.307. Accordingly, any revisions to these data must be submitted to the Minneapolis MIDO Section for approval prior to implementation.

Sincerely,



Timothy L. Bonderer
Aviation Safety
Manager, MSP/CHI MIDO Section, AIR-891