

NUMBER	SB2007
TO	T-Series Dealer and Customer Network
SUBJECT	ETSI Compliance Filter Installation
REVISION	Rev A
DATE	5/28/20

AFFECTED ASTRONICS AEROSAT PRODUCT

DESCRIPTION	Block Down Converter
PART NUMBER	005-2025-3001
PART NUMBER REVISION	Rev All

REFERENCE DOCUMENTATION

000-2129-2004-WD	T-311 System Wiring Diagram
000-2129-2004-IM	Installation Manual T-311
ETSI EN 302 186 V2.1.1	Satellite Earth Stations and Systems (SES); Harmonised Standard for satellite mobile Aircraft Earth Stations (AESs) operating in the 11/12/14 GHz frequency bands covering the essential requirements of article 3.2 of the Directive 2014/53/EU

1.0 COMPLIANCE – RECOMMENDED

Compliance with this Service Bulletin is recommended to be accomplished at next maintenance cycle. Compliance with the Service Bulletin is mandatory prior to operation of the T-Series SATCOM system in Europe.

2.0 BACKGROUND

European compliance testing identified the need for additional filtering on the Antenna’s X-POL RX channel in order to comply with ESTI 302 186 (V2.1.1) requirements.

3.0 PURPOSE

The purpose of this document is to provide guidance to install a bandpass filter for ETSI compliance.

4.0 SCOPE

This Service Bulletin applies to all T-311 SATCOM systems that will operate in Europe.

5.0 APPROVAL

This document is approved by Astronics AeroSat Field Service Engineering.

6.0 PROCEDURE

Install the RF Bandpass Filter in-line on the RX X-POL coaxial cable. This will require one male and one female SMA connection terminated to accommodate the filter in line.

6.1 PERSONNEL REQUIREMENTS

This SB requires one trained avionics or electrical technician to accomplish this installation activity.

6.2 TOOLING REQUIREMENTS

General avionics shop tools are required to perform this operation, and RF Cable termination tools as defined by connector OEM.

6.3 PARTS REQUIREMENTS

- 1 Ea. 600-170502 Bandpass Filter or approved Equivalent
- 1 Ea. Female SMA Coax connector (Rated to 13Ghz / 50 Ohms / Less than 0.5dB Loss)
- 1 Ea. Male SMA Coax connector (Rated to 13Ghz / 50 Ohms / Less than 0.5dB Loss)

6.4 WEIGHT AND BALANCE

There is no effect to weight and balance.

6.5 ELECTRICAL LOAD

There is no effect to electrical load.

7.0 INSTRUCTIONS

1. Power down the T-Series SATCOM System.
2. Remove the RX X-POL (Cross Polarization) connection from the BDC (Block Down Converter).
3. At installer determined length (Suggested between 1 – 3 Feet) from TNC termination at BDC cut the RX X-POL cable (Ref Figure 7.1)

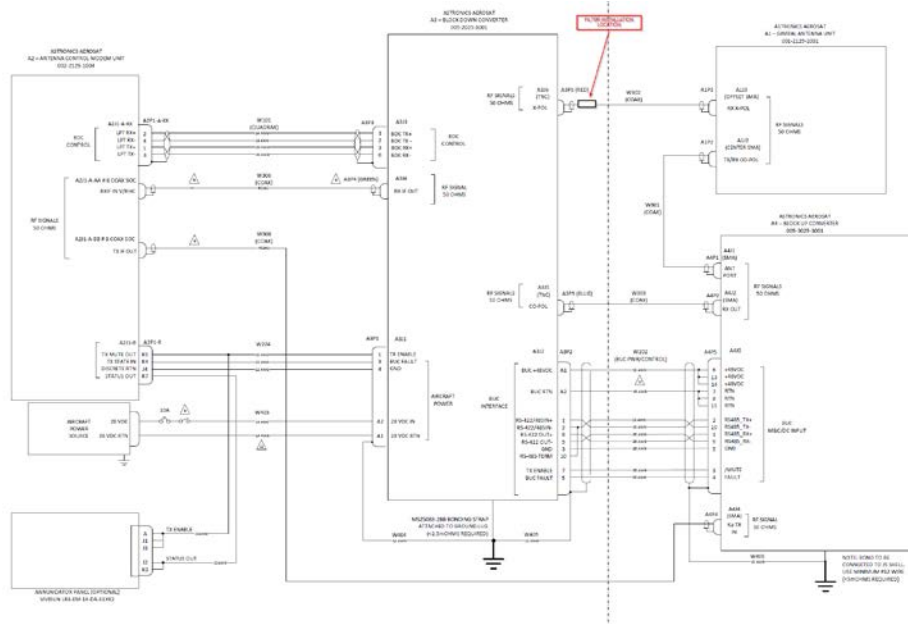


Figure 7.1 Filter Installation Location

4. Terminate the two cable ends of the cut coax; the male SMA is installed onto shorter section of cable that terminates to the TNC connecting to the BDC, and the female SMA connection is installed onto the longer section routed to the GAU.
5. Install Band pass Filter and torque SMA connections to manufacturer’s specification. (Ref Figure 7.2)



Figure 7.2 Example Filter Installation

6. Reconnect RX X-POL TNC connection at BDC and torque.
7. Apply Power to T-Series SATCOM System.
8. Perform ground functional checkout. (000-2129-2004-IM)

END OF TASK

8.0 ACCEPTANCE/REJECTION CRITERIA

Upon completion of successful ground checkout and appropriate maintenance record entries this task is accepted as complete.

9.0 RECORD OF COMPLIANCE

Upon completion of the maintenance action, ensure an entry is made in the appropriate aircraft log or operator's maintenance documentation system.

CONTACT INFORMATION

For questions regarding this Service Bulletin, please contact Astronics AeroSat Product Support.

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