

TT-3000M Aero-M System



Features

- A single channel system providing voice, fax and data/e-mail.
- Very compact system weighing only 5.8 kg.
- Secure and tailored operation via built-in SIM card reader.
- Secure voice option STU-IIB and STU-III.
- HPA/LNA operating interval from -55°C to +55°C.
- Low power consumption.
- Fits ARINC 404 tray.
- Stand-alone operation with built-in Navigational Reference System (NRS).
- RS-423 interface for data transmission.
- RS-232 interface for maintenance via PC/laptop.
- Interfacing to 2-wire & 4-wire phones, headsetbox and 1 fax machine.
- Fully FAA/JAA, C0170 approved.

Description

The TT-3000M Aero-M together with the TT-5006A antenna provides genuine independent and global connection to any point in the world, being high quality phone calls, fax prints, data transfer and e-mail messages.

Upgradable to the TT-5000 Aero-I satcom using the same antenna. (TT-5006A)

The Aero-M is operated from the handset, headset, or from the 2-wire DTMF phone interface.

Integration of the Navigational Reference System makes the Aero-M totally independent of aircraft systems, enabling ground calls and maintenance without cockpit power-up.

Using the latest state-of-the-art technology from the well-proven Thrane & Thrane mini-M program, you are ensured the best competitive single channel SATCOM solution.

The TT-3000M Aero-M is simply the perfect communication tool for business, V.I.P., corporate jets, government and military aircraft.

Specifications

General Specifications:

Inmarsat phone spot-beam operation.
Meets or exceeds current and proposed specifications.

EIRP: 14dBW

G/T: -17 dBK

Coverage volume: > 85 %.

Operating Frequencies:

Receive: 1525.0 to 1559.0 MHz.

Transmit: 1626.5 to 1660.5 MHz.

Channel Spacing: 1.25 kHz.

Rx Modulation: 5.6 kbps O-QPSK SCPC (voice, fax, data), 6 kbps BPSK TDM.

Tx Modulation: 5.6 kbps O-QPSK SCPC (voice, fax, data), 3 kbps BPSK TDMA.

Voice: 4.8 kbps AMBE (3.6 kbps voice, 1.2 kbps FEC).

Async. Data Rate: Max. 2.4 kbps.

Phone 1 Interface: RS-485, 4 wire handset.

Phone 2 Interface: 2-wire 600 ohm CCITT Rec. G. 473, standard DTMF telephone.

Fax Interface: 2-wire 600 ohm CCITT Rec. G. 473, T.30 Group-III Fax, 2.4 kbps, RJ-11 jack.

Data Interface: Serial EIA standard RS-423, Hayes compatible, max. 9.6 kbps. Maintenance Interface: Serial EIA, standard RS-232.

Printer Interface: Serial EIA standard RS-423 max. 9.6 kbps.

SIM Card: GSM-like operation, ISO 7816.

DC Power Supply: 18-32V DC non floating, max. 40 W.

TT-3068A Satellite Data Unit (SDU)

Channels: 1 (voice, fax, data)

Size: 2 MCU ARINC 600.

Weight: 4.9 lbs. (2.2 Kg)

Connector: ARINC 404A.

Antenna Cable: From SDU to Antenna Unit TNC Male, max cable loss 15dB at 1.6 GHz and 1.5 ohm at DC.

Antenna Cable: From SDU to HPA/ LNA unit: TNC Male, max cable loss 10dB at 1.6 GHz and 0.7 ohm at DC.

Temperature: -25°C to +55°C operating, -40°C to + 80°C storage

Relative humidity: 95% non-condensing at +40° C.

Altitude: RTCA DO-160C sect.4 cat. A1 (15.000 feet, 4.6 km MSL)

Vibration: RTCA DO-160C sect. 8 cat. M,N,B.

Shock and Crash safety:

RTCA DO-160C sect.7

Shock Tray Mounting

TT-3010K HPA/LNA

Size: HxWxD 2" x 4.2" x 6.5" (50mm x 106mm x 166mm) excl. mounting flanges and 2" x 5.4" x 6.5" (50mm x 136mm x 166mm) incl. mounting flanges.

Weight: 2.2 lbs. (1.0 kg)

LNA Noise Figure: 1.5 dB max.

LNA Gain: min. 34 dB

HPA output power: 6.1 dBW nominal

DC Power source: 28 VDC from SDU via coaxial cable.

Antenna cable: From HPA/LNA to antenna unit: TNC male, max. cable loss 0.5 dB at 1.6 GHz

Temperature: -55°C to +55°C operating, -55°C to + 80°C storage

Altitude: RTCA DO-160C sect.4 cat. F1 (55.000 feet, 16.8 km MSL)

Vibration: RTCA DO-160C sect.8 cat. C,L,Y.

Shock and Crash safety:

RTCA DO-160C sect.7

TT-5621A Handset & TT-5622A Cradle:

DC Power source: 28V DC

via SDU cable

Keypads: 21 keys

Interface: 4 wire and RS-485

TT-5621B 2-wire Handset & TT-5622B 2-wire cradle:

Interface: 600 ohm ETSI

TBR 21, max 4 in parallel.

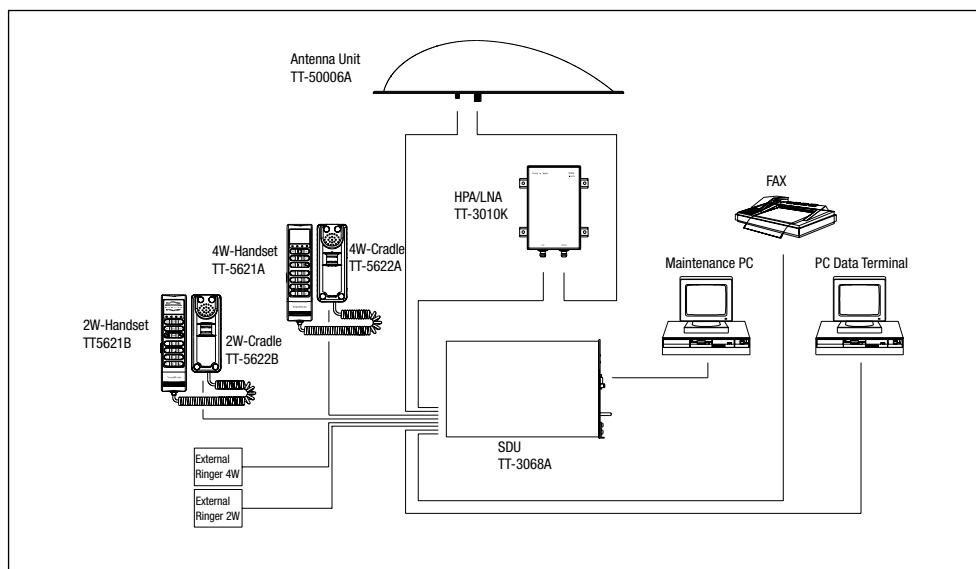
General:

Built-in-ringer (adjustable), 10 memory locations. Stand alone use w/o cradle.

TT-5006A Aeronautical Satcom Antenna:

For further information - see separate data sheet.

■ Our products are under continuous research and development. This information may therefore change without prior notice.



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