

SRT-700 FAMILY

V/UHF AIRBORNE TRANCEIVERS



Airborne transceivers for fixed wing aircraft, UAV and Helicopters. The Airborne V/UHF Radio Systems Family SRT-700 is the new family of advanced multiband, multi-mode transceivers covering the V/UHF 30MHz to 512MHz frequency band for fixed wing and rotary wing avionic platforms, dedicated to military and dual-use applications.

Designed to meet the most severe requirements, the transceiver provides EPM capability: HQI&II and SATURN (i.a.w. NATO standards), SINCGARS (i.a.w. US DoD) and EASY2 (proprietary algorithm).

The SRT-700 is developed to provide aircraft with plain/secure voice/data communications facilities over an extended frequency range through external encryption unit.

A patented technology reduces transmission power consumption by more than 35% respect previous design, reducing heat dissipation and improving reliability.

MAIN FEATURES

- Extended frequency band, 30MHz to 512MHz, in AM and FM
- Compliant with ICAO annex 10 and ED23-B including FM immunity embedded
- Several options for channel spacing and guard frequencies available
- EPM capability by frequency hopping (Have Quick, SATURN, SINCGARS and EASY II)
- Cockpit control via dedicated control panel or over the MIL-STD-1553B bus, ARINC 429 Bus or RS-485 Serial Line
- Preset channels operation
- Compatibility with crypto devices for operation in the base-band or diphas modes
- Compatibility with Link 11 modem
- Lightning indirect effect protection according to DO-160F level 2
- Compact size and low weight
- Low power consumption
- Improved MTBF.

TECHNICAL SPECIFICATIONS

GENERAL

- **Frequency bands and modulations**
 - VHF VHF-FM 30MHz to 88MHz
 - VHF-AM 108MHz to 116MHz (Rx only)
 - VHF-AM 116MHz to 156MHz
 - UHF-FM 156MHz to 174MHz
 - UHF-FM/AM 225MHz to 400MHz
 - UHF-FM 400MHz to 512MHz
- **Preset channels**
 - 99
- **Channel spacing**
 - 25kHz (12.5/8.33/5kHz selectable)
- **Guard channels**
 - 40.5MHz; 121.5MHz; 156.8MHz and 243.0MHz automatically selected with the operating band
- **Emergency frequency**
 - 243.0MHz (military)
 - 121.5MHz (civil)
- **Frequency stability**
 - 1 part in 10⁻⁷
- **Channel change time**
 - 1ms
- **Duty cycle**
 - 1 min Tx
 - 5 min Rx without forced air cooling
- **8.33kHz operation**
 - Compliant with ICAO Annex 10 and ED23B including FM immunity embedded
- **Power supply requir.**
 - +28VDC (i.a.w. MIL-STD-704F)
- **Power consumption**
 - 120W max (Tx)
 - 56W (Rx)
- **Reliability MTBF**
 - 2500 hr AUF (40°C)

DIMENSIONS AND WEIGHT

- **Dimensions (HxWxL)**
 - 126mm x 126mm x 245.5mm
- **Weight Less than**
 - 4.5kg

EPM WAVEFORMS

- **HQ I&II**
 - STANAG 4246
- **SATURN**
 - STANAG 4372
- **SINGARS**
 - Mil-STD-188-241-1
- **EASY II**
 - Proprietary algorithm

ENVIRONMENTAL CONDITIONS MIL-STD-810 F

- **Temperature**
 - 40°C to +71°C (continuous)
 - 54°C to +95°C (storage)
- **Altitude**
 - Up to 50,000 feet
- **Relative humidity**
 - Up to 95%

EMI SPECIFICATION MIL-STD 461E

- **Lightning i. e. protection A2H2,2 i.a.w. DO-160F sect. 22**

MAIN RECEIVER

- **Sensitivity (S+N)/N = 10dB**
 - 0.6µV (FM)
 - 1.5 µV (AM)
- **AM modulation index**
 - 80% to 100%
- **Audio output distortion**
 - 5%
- **Spurious rejection**
 - Better than 70dB in NB mode for frequency differing 125kHz
- **Squelch**
 - Operating both on base band signal-to-noise ratio and RF carrier level
 - SNR Thresholds adjustable

GUARD RECEIVER

- **Sensitivity (S+N)/N = 10dB**
 - 0.6µV (FM)
 - 1.5µV (AM)
- **Spurious rejection**
 - Better than 70dB in Narrow Band mode for frequency differing 125kHz
- **Squelch**
 - Operating both on base band signal-to-noise ratio and RF carrier level
 - SNR Thresholds adjustable

TRANSMITTER

- **Output power**
 - 10W in AM
 - 15W in FM
- **Spurious emissions**
 - Less than -80dBc from 600kHz
- **Distortion**
 - 5% max
- **Signal/noise ratio**
 - 45dB min for m = 0.9kHz in AM
 - 30dB min at f = 6kHz in FM

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