

SRT-700 FAMILY

ELECTRONICS DIVISION

V/UHF AIRBORNE TRANSCEIVERS



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 applications.

Designed to meet the most severe requirements, the transceiver provides EPM capability: HQI&I 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

› Freq. 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
› SINCGARS	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

For more information:
infomarketing@leonardocompany.com

Electronics Division
Via dell'Industria, 4
00040 Pomezia (RM) - Italy
T +39 06 918531

This publication is issued to provide outline information only and is supplied without liability for errors or omissions. No part of it may be reproduced or used unless authorised in writing. We reserve the right to modify or revise all or part of this document without notice.

2020 © Leonardo S.p.a

MM08241 02-20