

S and C BAND SOQPSK/FM selectable TRANSMITTER Ref DTX 5563-R-SC



Release .5

Special Features.

•Automatic Data Rate Tracking

Premod filtering and deviation automatically track the data rate, with no programming or configuration required.

•Intuitive Control

Straightforward configuration and control and platform-independence with serial terminal programming.

Internal temperature monitoring.

•S/C band programmable.

S band or C bands selectable through RS232

•Variable Power .

4 setting over 16 dB range and RF power off (20 dBm, 33 dBm, 35 dBm, 37 dBm).

•PCM/FM or SOQPSK-TG

PCM/FM (ARTM Tier 0) or SOQPSK-TG (Tier 1) selectable through RS232.

•IRIG106 Randomizer.

15 stages LFSR per IRIG106 selectable for bypass or enable.

POWER REQUIREMENT

28 V DC (18 V min to 36 V max).

1 A @28 V DC for 5 W RF output power at room temperature S and C bands.

Reverse polarity protection.

Thermal protection option available.

ENVIRONMENTAL CONDITIONS

Non Operating temperature range : - 55 to + 100° C.

Operating temperature range : - 40 to +85° C.
(100°C max baseplate).

Operating Humidity: 95 %

Vibration: 20 Hz to 2000 Hz:
20 g random 3 axes.

Shock: 6 ms, half sine ,70 g, 3 axes.

Acceleration: 40 g 3 axes.

Altitude: 100 000 ft maximum.

RF SPECIFICATIONS

Carrier frequency range: 2.2 GHz to 2.4 GHz (S band) or 5.09 to 5.25 GHz (Euro Mid C band or 4.40 to 4.95 GHz (Low C band)

RF output power:

5 W (37 dBm \pm 1 dB) S band all conditions.

4 W (36 dBm \pm 1 dB) C band all conditions.

Load mismatch (VSWR = ∞): no degradation.

Carrier frequency tuning increment : 0.5 MHz.

Carrier frequency accuracy@room temperature :better than 2.5 ppm (S and C bands).

Carrier frequency stability: below 10 ppm over temperature range (S and C bands).

DIGITAL PCM/FM and SOQPSK-TG MODULATION SPECIFICATIONS

Modulation: user selectable digital
PCM/FM(Tier0), SOQPSK-TG (Tier I).

Data rate PCM/FM: 1 to 20 Mbps automatic adaptation of deviation according to Tier0 IRIG mask.

Data rate SOQPSK-TG: 1 to 20 Mbps automatic adaptation of deviation according to Tier I IRIG mask.

Signal interfaces:

Serial data with separate synchronous clock, TTL 5V input impedance: 50 ohms.

Serial data with separate synchronous clock, TIA/EIA RS422.

Control interface: RS-232 .

MECHANICAL

Dimensions (L x h x l): 99 x 63.5 x 33 mm excluding heatsink and connectors.

It needs a thermal resistance below 0.75°K/W for operating properly without permanent damage.

Weight: about 0.4 kg without heatsink.

RF output connector : SMA.

DC Power, Control Signals (RS232) and Modulation signals (TTL or RS422 Data and clock) are plugged on MDM 15 type connector.

EMC EMI Tests :

MIL-STD-461F:

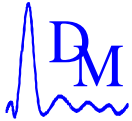
CS: 101, 114, 115 & 116 RS: 101 & 103

CE: 102 CE 106 (conducted emissions, antenna terminal, 10 kHz to 40 GHz for transmitters, amplifiers and receivers)

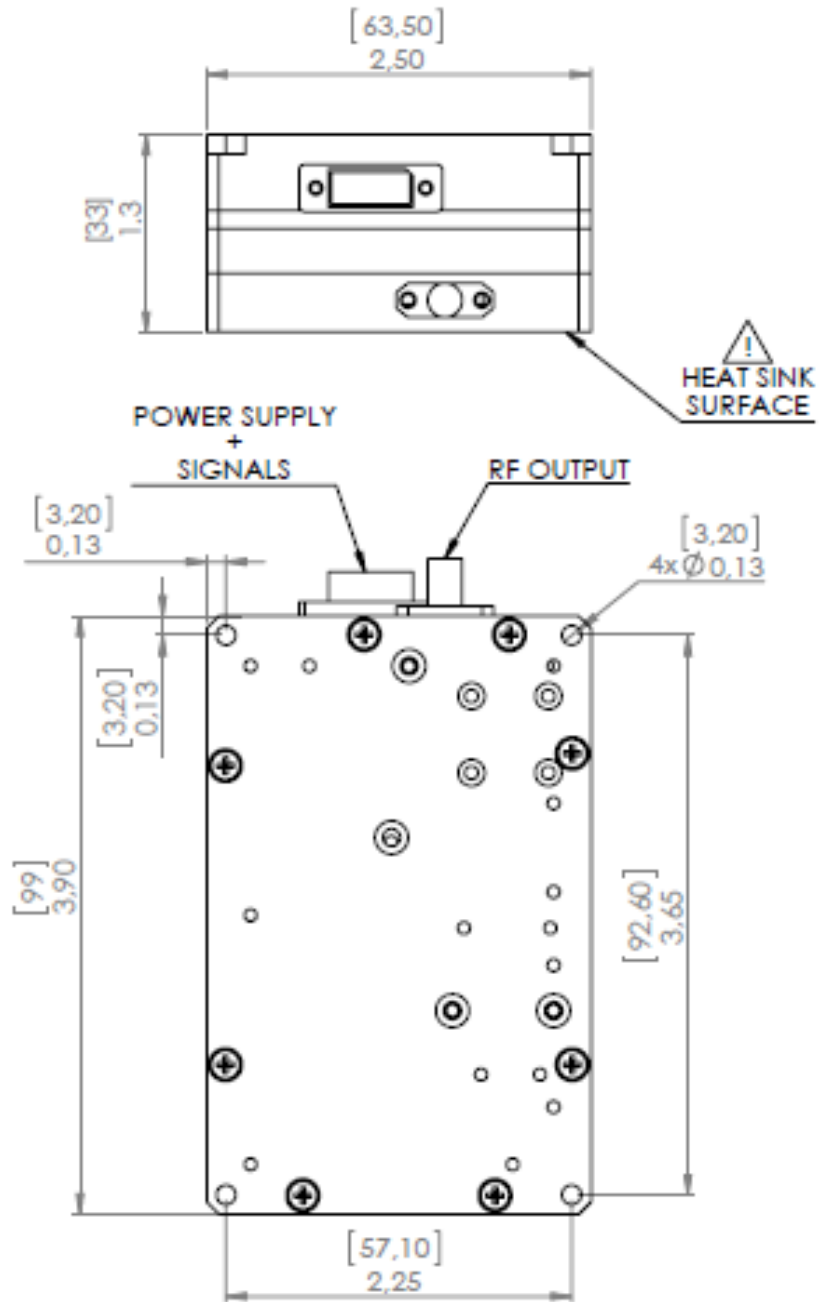
RE: 101 & 102

MIL-STD-704F: Transient Tests Figure 13 & 14

*These specifications are subjected to change without notice.



A rectangular wedge could be added on the heatsink side to increase the height of 5 mm.



All dimensions are in [mm] inches

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