

DTX5563-20 S BAND FM/SOQPSK

DIGITAL ON-BOARD TRANSMITTER



Release .6

Ref: DMR_DTX5563-20-S-Band_20W_TX_R6

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.

- Variable Power Option Available.**

5 steps(30,33,36,39,43 dBm) and RF power off. Accuracy ± 1 dB.

- 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)

Current: about 3A @ 28 V for 20 W RF output power.

Reverse polarity protection

Thermal protection option available.

ENVIRONMENTAL CONDITIONS

Operating temperature range: - 30 to +85°C.
(baseplate).

Operating Humidity: 0 to 95 % non condensing.

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

Shock: $\frac{1}{2}$ sinus 5 ms, 60 g 3 axes.

Acceleration: 40 g 3 axes.

Altitude: 100 000 ft maximum.

RF SPECIFICATIONS

Carrier frequency range: 2200- 2400 (extended range 2185 to 2475 MHz).

RF output power: up to 20 W (43 dBm ± 1 dB) all conditions.

VSWR : < 1.8:1

Load mismatch (RF = open or short): no degradation.

Carrier frequency tuning step: 250 kHz.

Carrier frequency stability: below 10 ppm over temperature range.

DIGITAL PCM/FM and SOQPSK-TG MODULATION SPECIFICATIONS

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

Data rate PCM/FM: 1 to 30 Mbits/s automatic adaptation of deviation according to Tier0 IRIG mask.

Data rate SOQPSK-TG: 1 to 30 Mbits/s 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 serial control.

MECHANICAL

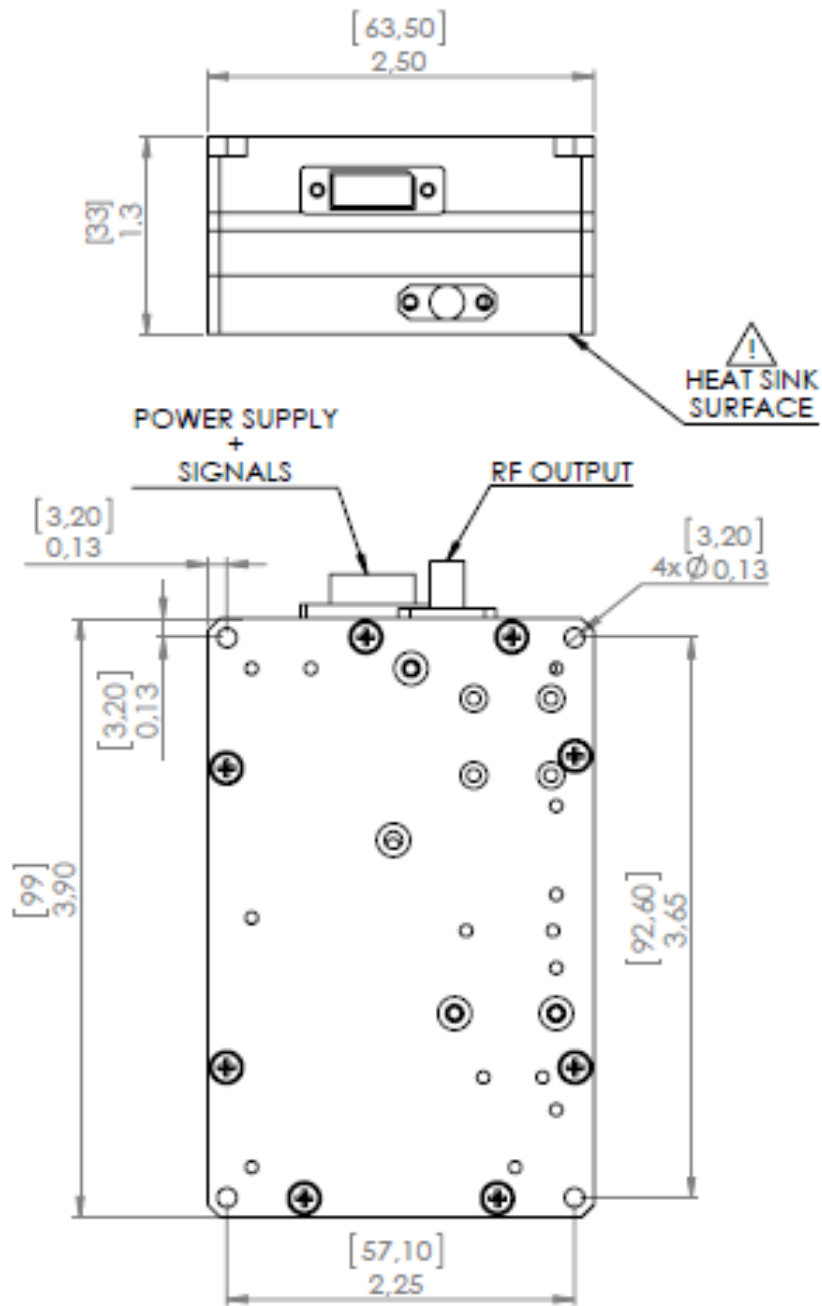
Dimensions (L x h x l): 99 x 63.5 x 33 mm without heatsink excluding connectors It needs a thermal resistance below 0.35K/W for reliable operating without permanent damage and for keeping baseplate below 85°C.

Weight: about 0.4 kg without heatsink.

RF output connector: SMA(F)

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

**Specifications subject to change without notice.*



All dimensions are in [mm] inches

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