

TC-120M AIRBORNE MUOS AMPLIFIER



KEY BENEFITS

Weighs 8.9 pounds – reducing aircraft weight by more than 11 pounds when replacing existing amplifiers

Contains an integrated LNA and filtering – replacing two LRUs with a single solution

Designed for interoperability with MUOS-capable PRC-158, ARC-231, and ARC-210 radios

Designed to fit into existing AM-7565 amplifier tray for easy aircraft integration

ADD CAPABILITY. SHED WEIGHT. DOMINATE THE BATTLEFIELD.

Due to its innovative design, the TC-120M offers 120W of transmit power in a very lightweight package. It allows aircraft to add game-changing MUOS capability while simultaneously shedding weight on over-burdened platforms. Complete with a Low Noise Amplifier (pre-amp) and state-of-the-art filtering, the TC-120M performs the functions of other LRUs within a single, fully-integrated power amplifier. High performance combined with an affordable design make the TC-120M the right choice for the military's next-generation tactical network.

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ELECTRICAL

Frequency Range:

243-270MHz DL and 290-320MHz UL (half duplex legacy SATCOM)
 360-380MHz DL and 300-320MHz UL (full duplex MUOS)

Power Output (Legacy SATCOM): 125W

Power Output (MUOS): 100Wavg/500Wpk

TX IN VSWR: 50 Ohms; < 2:1

RX Input VSWR: 50 Ohms; <2:1

DC Input Voltage: 28 VDC nominal

DC Power Consumption:

Idle – Less than 20W
 At Max TX power – less than 425W

Electromagnetic Emissions: MIL-STD-461E to
 CE101, CE102, CE106, RE101, RE102, RE103

ENVIRONMENTAL

Operating Temperature:

-40°C to +70°C measured at sea level

Storage Temperature:

-62°C to +85°C measured at sea level

Temperature/Altitude/Humidity: MIL STD 810G,
 method 520.2, procedure III (Qualification)

Vibration: MIL STD 810G, method 514.5,
 Category 14 (Helicopter)

Shock: MIL STD 810G, method 516.5, procedure I
 (Functional Shock), procedure V (Crash Safety Test),
 and procedure VI (Bench Handling Test)

Low Pressure Testing: MIL STD 810G,
 method 500.4, procedure I and II

Acceleration: MIL STD 810G, method 513.5, procedure I
 (Structural Test) and procedure II (Operational Test)

Sand and Dust: MIL STD 810G, method 510.4, procedure
 I (Blowing Sand) and procedure II (Blowing Dust)

Explosive Atmosphere: MIL STD 810G,
 method 514.5, method 511.4, procedure I (Operation)

Gunfire Vibration: MIL STD 810G, method 519.5

Salt Amtomsphere: MIL STD 810G, method 519.5

Cooling: Convection/Heat Sink Fins + Fans

Internal Thermal Monitoring: Unit will shut down when
 maximum temperature is reached to protect circuitry

Estimated MTBF: 16,000 Hours

INTERFACE CONNECTORS | ON-CHASSIS

R/T RF: N (F) x 2

Antenna RF: N (F) x 2

Multipurpose RF (R/T or antenna): N (F) x 1

PHYSICAL | MOUNT TO EIA-310 STANDARD

Size: 6.02"W x 11.93"L x 4.27"H

Weight: 8.9 lbs.



FRONT



SIDE



BACK