



S-BAND RF TELEMETRY TRANSMITTER SYSTEM

High-Performance PCM-FM Transmitter for Flight Test Applications **Part Number: BH-TELM-0042-02A**

Key FEATURES

- Frequency Range: 2200 – 2400 MHz
- Selectable frequency step of 100 kHz
- Supports data rates from 1 to 9 Mbps
- PCM-FM modulation with RS422 data input
- ≥ 10 W output power with >36 dB gain
- Gain flatness ≤ 1 dB
- Operates from 28 V (± 4 V) supply
- Compact, lightweight aluminum housing (≤ 400 g)
- Designed for harsh environmental conditions (-40 to $+60$ °C)
- Complies with MIL-STD-461 EMC/EMI standards

SPECIFICATIONS

Electrical & RF

Parameter	Specification
Frequency Band	2200 – 2400 MHz
Frequency Step	100 kHz
Data Rate	01 – 09 Mbps
Modulation Type	PCM-FM
Data Input	RS422
Control Interface	RS232
Harmonics/LO	≥ 20 dB down from carrier
Output Power	≥ 10 Watt
Gain	> 40 dB
Gain Flatness	≤ 1 dB
Operating Voltage	28 V (± 4 V)
Current	2.0 A (± 0.3 A)

S-band telemetry transmitter is compact, power-efficient, low-weight, design is ideal for missiles, aircraft, unmanned aerial vehicles (UAVs) and munitions. This proven transmitter design, which provides high-shock, vibration and acceleration performance, is ready to support the most challenging requirements.

It can be factory set or user configured over a range of operating parameters, including radio frequency (RF) output power, frequency selection, input data rates, and Advanced Range . Its flight history reduces selection and system design risks and provides opportunities for qualification-by-similarity (QBS) analysis. Its a proven, high-reliability telemetry transmitter that has supported a full range of qualification testing by the most demanding programs.





Mechanical

Parameter	Specification
Size (L x W x H)	≤ 95 x 75 x 35 mm
Input Interface	Micro-D (15 Pins Male)
Output Connector	SMA
Material	Aluminum
Weight	≤ 400 g

Environmental

Parameter	Specification
Operating Temperature	-40C to +75C (-40C to +85C)
Vibration	20–2000 Hz, 11.38g, 3-axes
Shock	Sawtooth 11 ms, 15g, 3-axes
EMC/EMI	MIL-STD-461 compliant

INTERFACES

- Micro-D/D-Type Male connector (15 Pins) for Data/Control
- SMA connector for RF Output

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