



Sierra Monolithics, Inc., a wholly owned subsidiary of Semtech Corporation

SMP1000

X-Band Radar Beacon

July 8, 2010 (Revision B)

Description:

The SMP1000 is the smallest and lightest radar transponder beacon available on the market today. Its minimal power consumption and standard off-the-shelf battery ensure continuous operation for more than 24 hours in receive mode. The SMP1000 provides a very cost-effective solution for any customer in need of a small, rugged, and long-lasting beacon that permits greater mobility and increases the effectiveness of their operations. Its simple and passive operation significantly enhances security and survivability of the unit under adverse operational conditions.



Applications:

- Air to ground friendly force identification (Blue on Green Incidents)
- Offset bombing
- Pathfinder applications
- Ground force tracking
- Can be modified for use in hard mount conditions such as vehicles or aircraft

Features:

- Small size, fits in pant pocket
- Lightweight (<1lb), easy to carry
- Rugged design ensures it can be used over wide temperature range and under varying conditions

- Its omni-directional antenna means there is no need to worry about the direction from which the aircraft will approach
- Produces strong signal (7 W) with corresponding line-of-sight range
- 10 mile range
- Runs for 24 hours on a 9 V battery

SMI MICROPONDER™ ELECTRICAL SPECIFICATIONS

Power Supply

Power Source	9 Volt alkaline battery
Battery Life	24 hours continuous operation w/ new battery (receive only; nominal conditions)

Receiver Characteristics

Frequency	8.8 to 9.8 GHz
Sensitivity	-55 dBm
Maximum input signal	+20 dBm
Pulse width	0.3 µsec minimum

Transmitter Characteristics

Frequency	9.310 GHz
Peak output power	7 Watts nominal
Reply pulse codes	AN/PPN-codes A through G, SST-181X codes 1 through 5 strobe (test mode)

Antenna

Mechanical	Stowed and deployable
Polarization	Horizontal
Beam pattern	Omni-directional beam toward the horizon with 2 dB nominal gain

Indicator Lights

Green LED	Flashing when transmitting
Red LED	Flashing when battery low (<7 volts)

Transponder Delay

1.0 µsec nominal

Operating Temperature

-40 to +65 °C; -40 to 149 °F

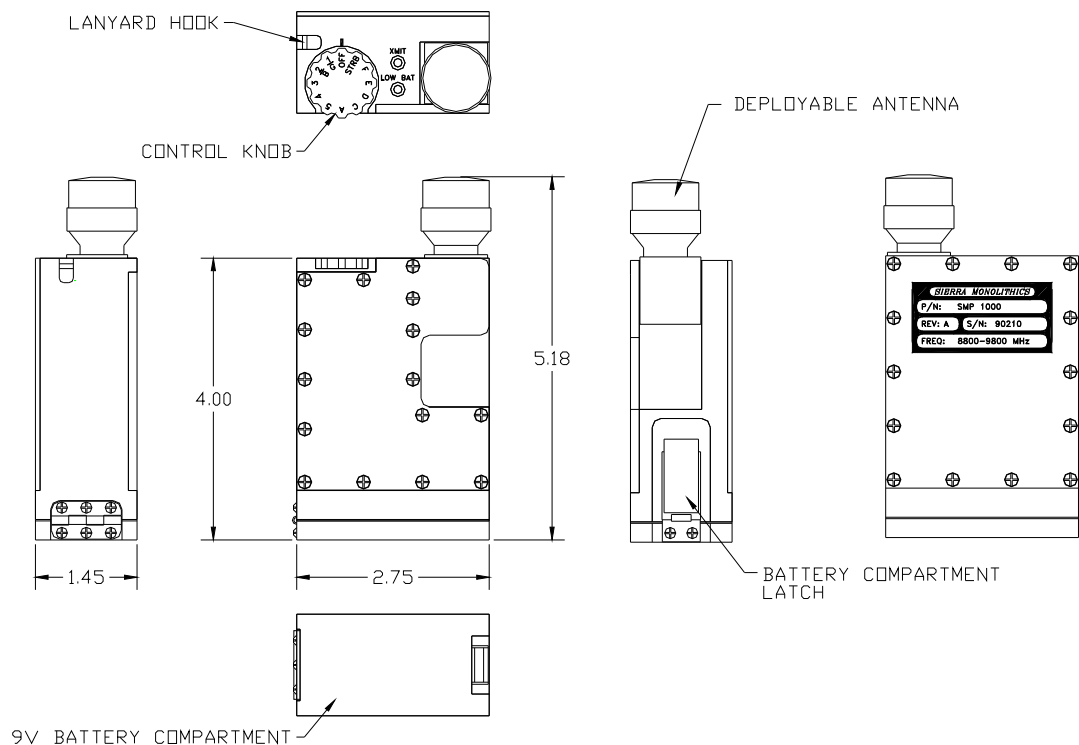
Weight

< 460 g; < 1lb (w/ battery)

Size (L x W x H)

102 x 70 x 37 mm; 4.00 x 2.75 x 1.45 in
132 x 70 x 37 mm; 5.18 x 2.75 x 1.45 in
(antenna deployed)

Mechanical:



Ordering Information

Semtech Corp.
200 Flynn Road,
Camarillo, CA 93012
Contact: Semtech Sales Representative

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