

3.0 Features

- Compliant with the Bluetooth 2.0 Core Specification
- Better than -80 dBm input sensitivity
- Class 2 operation
- Low power consumption
- High integration:
 - Implemented in 0.18 μm CMOS technology
 - Includes antenna, Crystal, EEPROM, LDO

3.1 DIGITAL HARDWARE

- Baseband and Link Management processors
- CompactRISC Core
- Embedded ROM and Patch RAM memory
- UART Command/Data Port:
 - Support for up to 921.6k baud rate
- Auxiliary Host Interface Ports:
 - Link Status
 - Transceiver Status (Tx or Rx)
- Advanced Power Management (APM) features
- Advanced Audio Interface for external PCM codec

3.2 FIRMWARE

- Complete Bluetooth Stack including:
 - Baseband and Link Manager
 - L2CAP, RFCOMM, SDP
 - Profiles:
 - GAP
 - SDAP
 - SPP
- Additional Profile support on Host. e.g:
 - Dial Up Networking (DUN)
 - Facsimile Profile (FAX)
 - File Transfer Protocol (FTP)
 - Object Push Profile (OPP)
 - Synchronization Profile (SYNC)
 - Headset (HSP)
 - Handsfree Profile (HFP)
 - Basic Imaging Profile (BIP)
 - Basic Printing Profile (BPP)
- On-chip application including:
 - Default connections
 - Command Interface:
 - Link setup and configuration (also Multipoint)
 - Configuration of the module
 - Service database modifications
 - UART Transparent mode
 - Optimized cable replacement:
 - Automatic transparent mode
 - Event filter

3.3 DIGITAL SMART RADIO

- Supports low-power mode with:
 - Optional 32.768 kHz oscillator

- Synthesizer:
 - Integrated crystal oscillator (VCO)
 - Provides all clocking for radio and baseband functions
- Embedded antenna
- Integrated transmit/receive switch (full duplex operation via antenna port)
- Better than -80 dBm input sensitivity
- 0 dBm typical output power

3.4 PHYSICAL

- Compact size - 10 mm x 17 mm x 1.85 mm
- Complete system interface provided in Lead Grid Array on underside for surface mount assembly

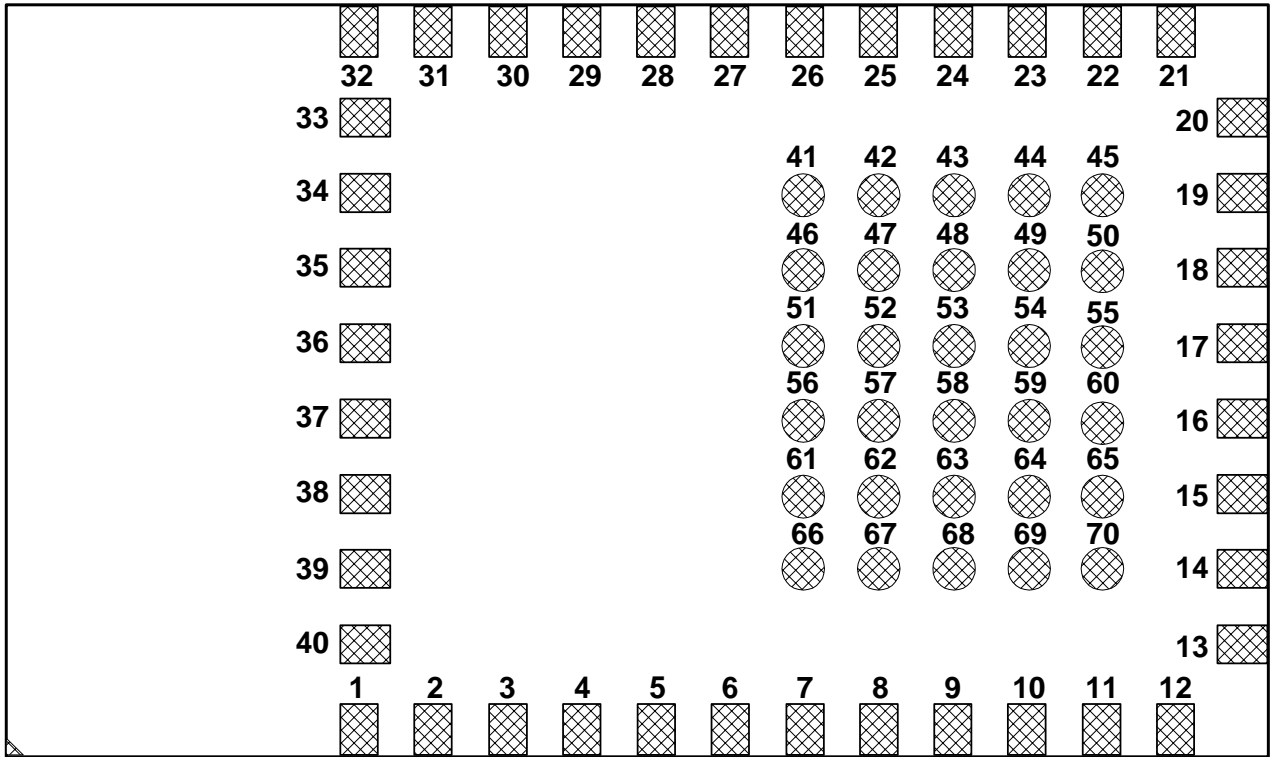
4.0 Order Information

Table 1. Order Information

Order Number	Spec	Shipment Method
LMX9838SB	NOPB ^a	388 pcs Tray
LMX9838SBX	NOPB ^a	2500 pcs Tape & Reel

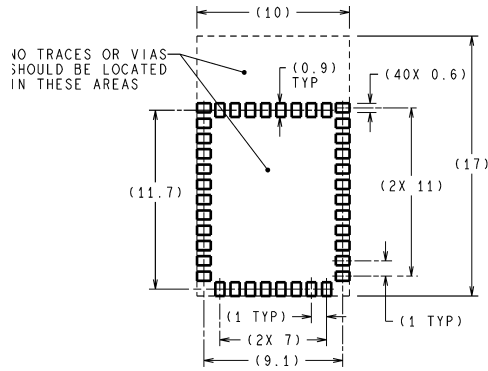
a. NOPB = No Pb (No Lead)

5.0 Connection Diagram

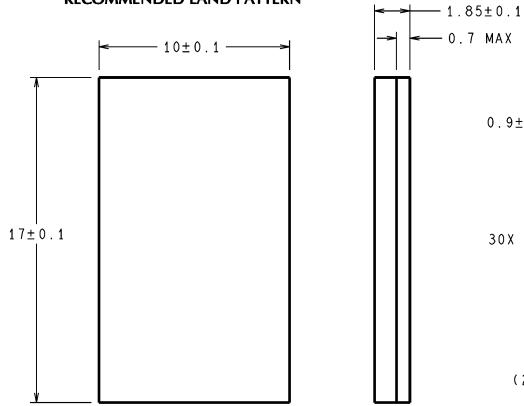


X-ray - Top View

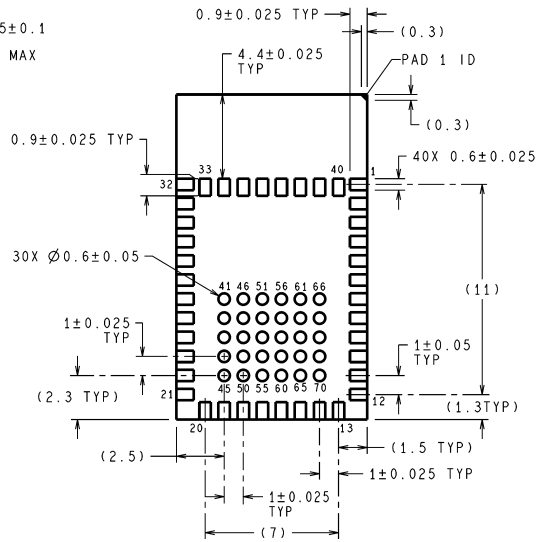
6.0 Physical Dimensions



RECOMMENDED LAND PATTERN



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SB70A (Rev A)

Figure 1. Physical dimensions

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Leadfree products are RoHS compliant.



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