

# Boomer-III Mobitex OEM Modem

- BM3-900M – Mobitex 900MHz
- BM3-800M – Mobitex 800MHz
- BM3-400ME – Mobitex 400MHz
- BM3-400MU – Mobitex 400MHz

The Wavenet family of Boomer-III Mobitex modems are high-performance wireless transceivers developed specifically for integration by original equipment manufacturers (OEM).

This wireless module can be incorporated into various vertical solutions ranging from handheld terminals (HHT) for public safety, transport and logistics, to machine-to-machine (M2M) applications for meter reading, vending machines and point-of-sale.

The Boomer-III family offer integrators superior performance in critical areas of reliability, receiver sensitivity, noise immunity, power efficiency and simplicity of integration.

The On-Board Application (OBA) capability allows you to run your wireless application directly on the modem's internal processor eliminating an external processor, memory and support circuitry resulting in a much simpler system solution, at lower cost and with improved reliability.



## Business Benefits

### High Reliability Small Compact Design

- Capable of operating 24-hours a day, 7-days a week (24/7).
- Rugged small form factor suitable for handheld devices or machines.
- Unique LED indicator window (TX, RX PWR) for visual diagnostic feedback.

### Connectivity Plus

- High sensitivity receiver for connectivity in-building and fringe areas.
- High efficiency transmitter.

### Efficient Power Management

- Advanced power management for long operating life.
- Compatibility with 3.6V lithium battery technology.

### Flexible Architecture

- On-board Application Software capable to allow product customisation.
- Eliminate external componentry to reduce complexity and system cost.
- Comprehensive Developer Support including SDK and test hardware.

### Future-Proof Your Design

- Network flexibility through family range of interchangeable modules.
- The BM3 family includes multi-band DataTAC, GPRS, CDMA and 3G networks. *Check with Wavenet for availability.*



Mobitex



DataTAC



GSM/GPRS



CDMA/1XRTT (future)



3G/UMTS (future)

**Flexible Wireless Connectivity Options**

## Specifications:

		BM3-400ME	BM3-400MU	BM3-800M	BM3-900M
<b>Radio Protocol:</b>	Mobitex	GMSK Modulation			
<b>Radio Parameters:</b>	Transmit Frequency	405~434 MHz	425~463 MHz	806-825 MHz	896-902 MHz
	Receive Frequency	415~430 MHz	440~454 MHz	851-870 MHz	935-941 MHz
	Channel spacing	12.5 kHz			
	Input Sensitivity	< -115 dBm (10% BLER)			
	Output power	2 W nominal (0.5W to 2W variable control)			
<b>Power Requirements:</b>	Supply Voltage	3.8 V <sub>DC</sub> nominal, 3.4 to 4.8 V <sub>DC</sub> operating range			
	Current consumption				
	Power down:	20 µA typical			
	Sleep mode:	5 mA typical			
	Receive mode:	50 mA typical			
Transmit mode:	1.6 A typical				
<b>Environmental:</b>	Operating Range	-30 to +60°C			
	Storage Range	-40 to +70°C			
<b>Packaging:</b>	Size	68 x 42 x 8 mm (+/- 0.5mm)			
	Weight	< 80 grams			
<b>Interfaces:</b>	Host Connection	30 pin (0.5 mm pitch) FPC			
	Antenna Connection	External - typically half wave 50 Ohms MMCX (Female on modem) Return Loss ≥ 10dB Straight or Right angle mating connection			
	Mounting	4 x M2.5 screws			
<b>Host Protocol:</b>	Mobitex	Mobile Asynchronous Communications (MASC)			
		Serial asynchronous, 3.3V logic level			

**Note:** Wavenet continually seeks to improve product performance. Specifications are subject to change.

