





# MORE POWER, LESS SPACE

This integrated package has it all: huge processing power, Open AT®, the world's most powerful cellular embedded application environment and Wavecom Operating System 6.60 supporting Internet connections. The first in a bold new family of solutions from Wavecom, the OS 6.60/Q2686 is the most compact customizable quadband GSM/GPRS package available on the market. Powered by a new ARM9 processor, it provides up to six times more MIPS than previous solutions along with digital audio capability and extended connectivity features.

With low power consumption, the Q2686 module has the performance, flexibility and adaptability you need for your next wireless application. One-third smaller than the previous generation, it offers the extended temperature range needed for hostile industrial environments and meets RoHS environmental standards. Equipped with up to 44 GPIOs, the Q2686 is especially suited to telemetry and metering applications.

#### **WIRELESS COMPUTING POWER**

### **Embed your application**

Get the power you need with the new 32 bit, 104MHz ARM9 processor. Save time and space by using fourth generation Open AT® tools to speed up development.

Use new Download-Over-the-Air capability for Open AT® and operating system upgrades & enhancements.

#### Low power

Extend battery life with low consumption and multiple low power states.

#### **Extended connectivity**

Benefit from use of 2 UARTs, USB, digital audio, ADC, SPI, I<sup>2</sup>C and up to 44 GPIOs.





OPEN AT

# WISMO Quik SPECIFICATIONS GSM/GPRS OS 6.60/Q2686

# WIRELESS PROCESSING POWER

- ARM 946E-S, 32bit, 104MHz, 30MIPS
- On Board Memory:

Q2686H: 32Mbit Flash/8Mbit RAM

#### **OPERATING SYSTEM**

- OS Version 6.60
- Open AT<sup>®</sup> 4.0
- Low Power Modes:
  - 32kHz Mode
  - Disconnected Mode
  - Alarm Mode
- Real Time OS (99% MIPS in disconnected mode)
- More than 350 AT commands & APIs
- RTC with Calendar
- Lilon Battery Charger
- Internet Package\*:
  - Email (POP3 & SMTP)
  - File Transfer (FTP)
  - TCP/IP/UDP/DNS
  - \*via API or AT#

#### **DOWNLOAD OVER THE AIR**

- DOTA Type 1 (Open AT® Application)
- DOTA Type 2 (Wavecom OS)

#### **CELLULAR FEATURES**

- Quad Band (850/900/1800/1900MHz)
- Quad Audio Codec (FR/HR/EFR/AMR)
- GSM CSD 14.4kbps
- GPRS Multislot Class 10, Class B
- Enhanced AEC & Noise Reduction
- VDA2B audio compliance

#### INTERFACE

- RF Connection:U.FL, 50 Ω
  - Solder pad for RG178 cable
- I/F Connector: 100pin NAIS AXK600345J
  - USB 1.1 Slave
  - 2 x UART
  - PCM (Digital Audio Interface)
  - 2 x Analogue Audio (2 mic, 2 spkr)
  - 2 x ADC (10bit, 0-2V)
  - Up to 44 GPIOs
  - Buzzer output
  - 2 x Interrupt
  - LED driver
  - 5 x 5 Keyboard
  - SPI
  - I<sup>2</sup>C
  - 3V/1.8V SIM
- Power Supply: 3.6VDC nominal 1.7A peak

### **APPROVAL & QUALITY**

- Regulatory: R&TTE directive, GCF-CC, CE marking, FCC, PTCRB, China RTE
- Manufacturing: ISO TS 16949
- Quality: ISO 9001

### OPEN AT DEVELOPMENT ENVIRONMENT

- Installer
- Open AT® Project Wizard
- Visual C++ Development
- Environment
- Open AT® Settings Application
- Remote Task Monitor
- HTML Help
- Sample Applications
- Documentation



# ENVIRONMENT AND MECHANICS

- Green Policy: RoHS Compliant Directive 2002/95/EC
- Temperature:

Class A  $-20^{\circ}$ C to  $+55^{\circ}$ C Class B  $-40^{\circ}$ C to  $+85^{\circ}$ C Storage  $-40^{\circ}$ C to  $+85^{\circ}$ C

- Fully RF shielded
- Size: 40 x 32.2 x 4mm
- Weight: <9g</p>

### **DEVELOPMENT KIT**

- Open AT® SDK
- 2 x Q2686H
- Development board
- Handset & cable
- Quad band antenna
- Serial cable
- Power cable & supply
- Documents on CD

# PRE-PACKAGED SOLUTIONS

- M2M410: Open AT® + Internet Package\*
- M2M412: Open AT® + IBM MQ Telemetry Transport\*
- M2M413: Open AT® + Orange M2M Connect\*
- M2M415: Open AT® + Internet + Bluetooth
   \*both library and binary versions supplied

#### **SUPPORT & SERVICES**

www.wavecom.com (click on "Support")
Design Validation, Certification Assistance,
IMEI Download, OS and Open AT® Preload
Open AT® code review, Wavecom University

#### **IPR COVERAGE**

From the day we embarked on our business model, we set out to offer our customers protection against claims from holders of essential GSM intellectual property rights (IPR). Our negotiations with patent holders has resulted in substantial license coverage for all of the technologies offered in our products.

WAVECOM S.A. may, at any time and without notice, make changes or improvements to the products and services offered and/or cease producing or commercialising them.



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