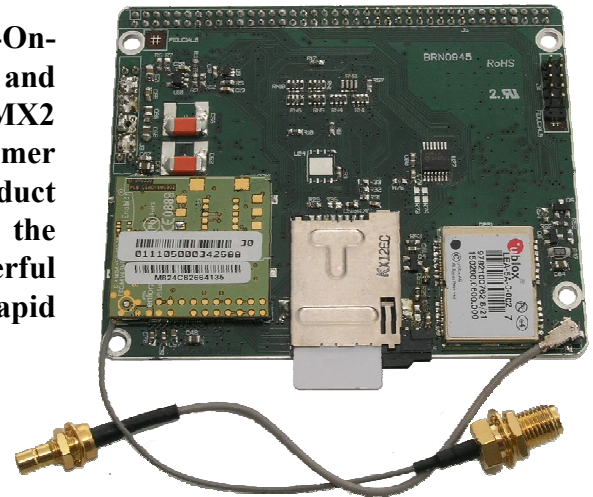


# RTCU-MX2 SOM

## *Remote Telemetry and Control System-On-Module*

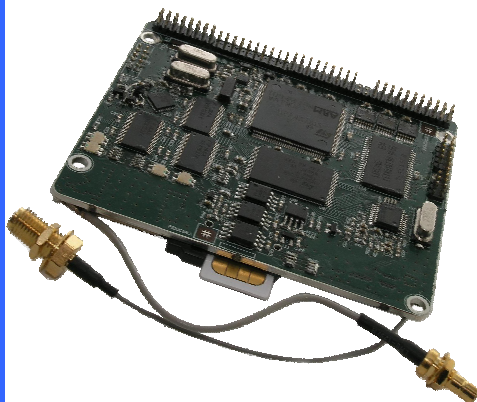
The RTCU MX2 SOM is a complete System-On-Module with the core taken from the popular and powerful RTCU MX2i pro product. The MX2 SOM module can be designed into a customer application in the cases where a standard product is not suitable. All signals are available on the SOM module for easy integration, and a powerful development board is offered for rapid development and integration...



### *MX2 System-On-Module integrated features*

- Powerful industry leading 32-bit core module based on the MX2i series hardware and software
- Large Memory Capacity for application, datalogging and voice messages
- Internal flash drive with FAT compatible file-system and FRAM for fast access memory
- Quad Band GSM based on industry leading Texas Instruments Chipset solution
- SIM Card reader and support for factory mounted M2M chip solution
- Digitized voice and DTMF decoding
- On-board high-sensitivity 50 channel GPS-receiver with extremely fast acquisition
- Advanced power management and supervision
- System and user LED indicators
- 3 serial ports
- GSM antenna cable with SMA female connector
- GPS antenna cable with SMB male connector
- Compact form-factor for easy integration.

### *External interfaces for easy design-in*



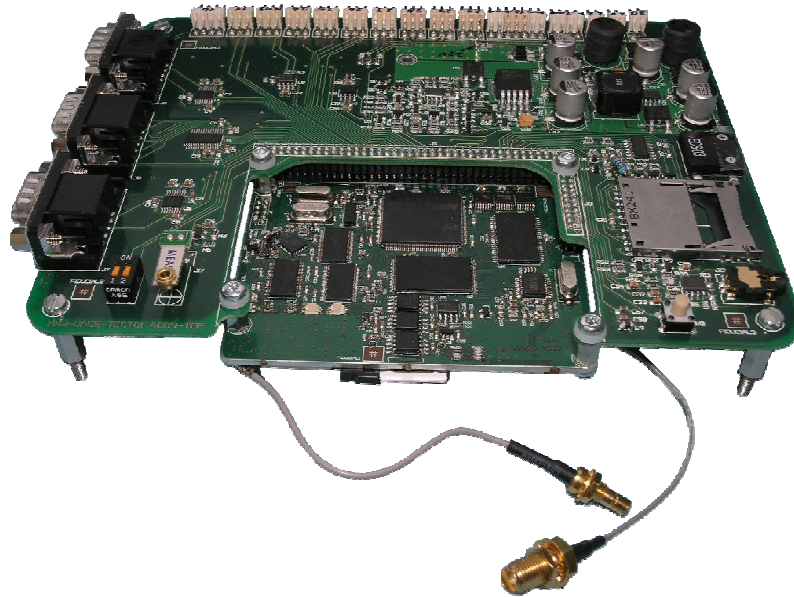
- All signals are available on standard 2.0mm pin-headers for easy connection
- 5 Digital inputs, 4 Digital outputs and 2 Analog inputs
- 3 serial interfaces
  - One for either service-port or general purpose RS232/RS485
  - Two general purpose serial ports, one with all control signals
- Full CAN 2.0B Controller with hardware filtering and multi speed support
- Basic support for J1939 and FMS Automotive CAN bus protocols
- 1Wire support for connecting a range of accessories, such as ID-Button reader, Temperature sensors, etc.
- Differential audio output and single ended audio input to/from GSM module for headset connection or audio amplifier
- Piezo Buzzer output
- External voice output
- Two DIP-switch inputs and one reset/system recovery switch input
- Vibration sensor input with user definable sensitivity
- Temperature sensor input
- Standard SD-CARD interface with FAT file-system support for standard PC-compatibility. Upto 8 GByte capacity.
- SIM card interface with detect and lock indication for alternative SIM reader
- Li-Ion battery charger control signals
- Board supervision input/output signals
- 3.3V and 4.2V Power supply input

# RTCU-MX2 SOM

## *Remote Telemetry and Control System-On-Module*

### *MX2 SOM Development Board*

- Development board for the MX2 SOM includes everything necessary for development start
  - 3 Standard RS232 DSUB serial interfaces
  - Micro SD-CARD Reader
  - Buzzer
  - Two DIP switches
  - Vibration sensor
  - CAN Transceiver
  - 3.3V and 4.2V Power supply
  - Integrated MX2 Li-Ion battery charger
  - Standard Nokia headset connector
  - Digital I/O



### *Highly Customizable*

- Design MX2 Motherboard PCB to fulfil the exact needs for the application
- Choose interface connectors after choice
- Interface to various external modules directly on a motherboard
- Small form factor MX2 Core for custom designs.
- All interfaces available on 2.0mm standard pin headers.
- Mounting holes for a secure fastening

### *Proven Technology from Logic IO*

- In the GSM/GPRS/GPS business since 1999
- Network of Partners around the globe
- More than 75.000 units in operation worldwide
- Logic IO has D&B highest credit rating **AAA** (2007 and 2009)
- Rewarded the Gazelle Award 2007 / 2008 for strong growth



# RTCU-MX2 SOM

## Remote Telemetry and Control System-On-Module

### Technical Data

	Min	Typ	Max		
Core Supply	3.3	3.3	3.6	VDC	
Unit Active		80		mA	
Unit Active with GPS On		120		mA	GPS Tracking
Unit Active with GSM On		80		mA	GSM idle @ -65 dBm
Unit Active with GSM/GPS On		120		mA	GSM idle @ -65 dBm / GPS Tracking
Unit in Power-down		0.9		mA	Restart on: DI5 and RTC
Unit in "Wait for Event"		0.9		mA	Resume on: DI, Vibration and RTC
Unit in "Wait for Event"		10		mA	Resume on: CAN
Unit in "Wait for Event"		10		mA	Resume on: RS232
Unit in "Wait for Event"		10		mA	Resume on: GSM
<i>Only MX2-SOM power consumption</i>					
GSM Supply	3.3	4.2	4.5	VDC	
Unit Active, GSM On		65		mA	GSM idle @ -63 dBm
Unit Active, GPRS Session		165		mA	Average when transferring 150kB file over GPRS. GSM Signal @ -65dBm.
Unit in "Wait for Event"		20		mA	Resume on: GSM Activity
<i>Measured on MX2-SOM evaluation board</i>					
All Digital Inputs	VIH	2.3	-	3.3	VDC
	VIL	0	-	0.8	VDC
All Digital outputs	VOH	2.5	-	3.3	VDC
	VOL	0	-	0.4	VDC
All Analog inputs	0	-	2.5	VDC	10-bit resolution
Storage temperature:	-30	-	+65	°C	<b>Signals available on 2.0mm pin headers:</b> <ul style="list-style-type: none"> <li>• Serial Port 1, 2 and 3 signals</li> <li>• SD-CARD signals</li> <li>• CAN signals</li> <li>• 1-Wire signals</li> <li>• RS485 signals</li> <li>• Analog inputs</li> <li>• Battery charger signals</li> <li>• DIP / system switch input</li> <li>• Board supervisor signals</li> <li>• Temperature sensor input</li> <li>• Digital inputs and outputs</li> <li>• GSM Audio interface</li> <li>• External digitized audio output</li> <li>• 1.8V/3.3V SIM Card signals</li> <li>• 3.3V/4.2V Power Supply input</li> </ul>
Operating temperature <small>(According to GSM 11.10 specification)</small>	-25	-	+55	°C	
Restricted operation <small>(deviations from the GSM specification may occur)</small>	-30	-	+65	°C	
Charging Temperature	-10	-	+45	°C	
Humidity (non condensing)	5	-	90	%	
Weight	75			g	
External dimensions	W 85 x H 10 x D 70 mm			Four mounting holes for secure fastening	

Technical data subject to change

**For more information:**

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