

# OTP reading library

This module contains functions for reading board information (e.g. serial number, MAC address) from the OTP memory of an XCore. This information can be written to the device using the XBURN develop tool provider by XMOS.

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## Software version and dependencies

This document pertains to version 2.0.1 of this library. It is known to work on version 14.1.1 of the xTIMEcomposer tools suite, it may work on other versions.

The library does not have any dependencies (i.e. it does not rely on any other libraries).

## 1 API

The ports used by OTP memory are the same on every tile. They need to be declared with the following type:

<b>Type</b>	<b>otp_ports_t</b>
<b>Description</b>	Functions for reading board information (serial number, MAC address) from the OTP memory of an XCore. This information can be written to the device using XBURN. otp_ports_t structure - contains ports used to access the OTP memory.
<b>Fields</b>	port data  out port addr  out port ctrl

For convenience the define OTP\_PORTS\_INITIALIZER is provided that can be used to initialize a structure of this type to the correct ports for accessing OTP e.g.:

```
on stdcore[0]: otp_ports_t otp_ports = OTP_PORTS_INITIALIZER;
```

The following functions can then be used to obtain information from the OTP that has be set via XBURN:

<b>Function</b>	<b>otp_board_info_get_mac</b>
<b>Description</b>	Read a MAC address from the board information written at the end of the OTP memory.
<b>Type</b>	int otp_board_info_get_mac(otp_ports_t &ports, unsigned index, char mac[6])
<b>Parameters</b>	ports        Ports used to access the OTP memory.  index        Index of the MAC address to retrieve.  mac          Array to write the MAC address to.
<b>Returns</b>	Returns 1 on success, 0 on failure.

<b>Function</b>	<b>otp_board_info_get_serial</b>
<b>Description</b>	Read a serial number from the board information written at the end of the OTP memory.
<b>Type</b>	int otp_board_info_get_serial(otp_ports_t &ports, unsigned &value)
<b>Parameters</b>	ports        Ports used to access the OTP memory.  value        Variable to store the serial number to.
<b>Returns</b>	Returns 1 on success, 0 on failure.

## APPENDIX A - Known Issues

No known issues.

## APPENDIX B - OTP reading library change log

### B.1 2.0.1

- Update to source code license and copyright

### B.2 2.0.0

- Restructured version