The SocketModem® Shield is the fastest way to rapidly prototype embedded cellular solutions for the emerging Internet of Things (IoT) market. This Arduino Shield adapter board brings MultiTech’s industry leading family of embedded cellular modems to a wide variety of development platforms. Not only does this Shield assist with rapid prototyping, MultiTech’s line of SocketModems provides the fastest and most hassle free route from concept to deployment on a carrier network.

**Features**

- Standard Arduino R3 Shield interface
- SocketModem compatible footprint (supports all MultiTech SocketModems)
- mbed library support (www.mbed.org)
- Connection and network management
- USB and Serial interface support
- Highly configurable modem signal routing
- SMA antenna connector and hepta-band antenna
- Dedicated power supply

**Targeted Applications**

- R&D projects
- University programs & labs
- Rapid prototyping
- Hobbyist projects
- School projects
### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>MTSAS-DK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>MTSAS-DK</td>
</tr>
<tr>
<td><strong>Power Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Input Voltage</td>
<td>5 - 9VDC</td>
</tr>
<tr>
<td><strong>Connectors</strong></td>
<td></td>
</tr>
<tr>
<td>RF Antenna</td>
<td>50 ohm SMA (female connector)</td>
</tr>
<tr>
<td>Power</td>
<td>2.5mm miniature</td>
</tr>
<tr>
<td><strong>Physical Description</strong></td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>3.85&quot; x 2.04&quot; x 1.10&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>1.2 oz.</td>
</tr>
</tbody>
</table>

### Software Support

**mbed Library**

To support the rapid prototyping and development process, MultiTech has developed a set of mbed compatible libraries. mbed is an ARM sponsored software development system and community focused on speed and collaboration. These libraries work with most MultiTech SocketModem products and provide support for:

- SMS Messaging
- Radio & Connection Management
- IP Protocol Support

These C++ libraries can also be used as a reference for developing a library in another language. For more information visit our developer page at:


### Command Interface

All MultiTech SocketModems come with a simple text-based command interface (known as AT commands). These simple commands are transferred over the device's serial port and can configure/control all aspects of the cellular modem's operation. This includes special commands to easily use IP protocols like UDP, TCP, HTTP, SMTP, and FTP. Since these are text based commands they are language agnostic and integrate easily into any software development framework. Refer to SocketModem command guides for model specific features and usage:


### Required Accessories

There are several **REQUIRED** accessories that you will need to purchase along with your SocketModem Shield to complete your cellular development system. This includes the following:

**MultiTech SocketModem**

MultiTech's industry leading line of fully certified embedded cellular modems gives you a variety of footprint compatible connectivity options. In selecting your option it is important to consider speed, coverage and preferred carrier.

**Data Plan**

You will need a data plan and SIM Card (GSM radios only) to use your new cellular development system. Contact the appropriate cellular provider based on your region and model of SocketModem to get your device activated. Another option is to use a pre-paid SIM card (GSM radios only).

**Shield Compatible Development Board**

The Arduino Shield interface has become the de-facto standard in the maker and development communities for bringing additional functionality to embedded development platforms. This includes development ecosystems like:

- ARM® mbed™ (MultiTech Library Support)
- Arduino
- Linux
- .NET Micro Framework
**Kit Information**

The SocketModem Shield Developer Kit comes with a number of accessories to quickly get you up and running with your development. These include:

- SocketModem Shield
- Quick Start guide
- Hepta-band antenna
- Universal power supply (US, EU, GB, AU)
- Antenna cable assembly

**Ordering Information**

**Developer Kits**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSAS-DK</td>
<td>SocketModem Adapter Shield Developer Kit</td>
<td>Global</td>
</tr>
</tbody>
</table>

The SocketModem Shield works with the following MultiTech SocketModems. Refer to www.multitech.com or your distributor for additional information about your SocketModem options.

<table>
<thead>
<tr>
<th>SocketModem</th>
<th>Technology</th>
<th>Region/Carrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSMC-H5-xxx</td>
<td>3G / HSPA+</td>
<td>Global</td>
</tr>
<tr>
<td>MTSMC-G3-xxx</td>
<td>2G / GSM/GPRS</td>
<td>Europe</td>
</tr>
<tr>
<td>MTSMC-EV3-N3-xxx</td>
<td>3G / cdma2000 EV-DO</td>
<td>US/Verizon</td>
</tr>
<tr>
<td>MTSMC-C2-N3-xxx</td>
<td>2G / cdma2000 1xRTT</td>
<td>US/Aeris</td>
</tr>
<tr>
<td>MTSMC-EV3-N16-xxx</td>
<td>3G / cdma2000 EV-DO</td>
<td>US/Aeris</td>
</tr>
<tr>
<td>MTSMC-C2-N16-xxx</td>
<td>2G / cdma2000 1xRTT</td>
<td>US/Sprint</td>
</tr>
<tr>
<td>MTSMC-C2-N2-xxx</td>
<td>2G / cdma2000 1xRTT</td>
<td>US/Sprint</td>
</tr>
</tbody>
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