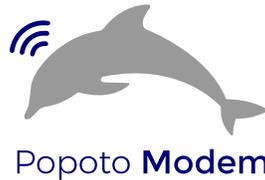Popoto **Modem**

128 RT 6A
Sandwich, MA 02563
www.popotomodem.com

General Purpose OEM Modems

Popoto general purpose modems have been designed for ease of use and maximum interface flexibility. They host a Linux operating systems and the onboard ARM processor is kept lightly loaded to facilitate customer use. Two basic model numbers of general purpose modems are available and can be purchased from the website at a standard published price.

Popoto supports APIs in Python, C++ and Matlab™. These APIs enable customers to quickly create sophisticated, automated use cases involving multiple sensors utilizing Popoto's powerful acoustic communication modulations.

PMM5021

The PMM5021 has the following high level features:

    100 Watt Transmitter
    1.5 Watt continuous receive power
    Data and voice transceiver
    13 mW sleep mode with acoustic wakeup
    Passband or Baseband wave recording/playout
    SATA storage capability
    Two way ranging
    Data streaming mode

    Price: $2950

PMM3511

The PMM3511 is a cost optimized modem and has the following high level features:

    20 Watt Transmitter
    1.3 Watt continuous receive power
    Data transceiver
    13 mW sleep mode with acoustic wakeup
    Passband or Baseband wave recording/playout
    Two way ranging
    Data streaming mode
    Fits in a 40mm ID tube

    Price: $1750

1/1/2022

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Fixed Function Modems

Popoto fixed function modems are for applications where cost is paramount because large quantities of modems are required. Such applications are swarm AUV applications, disposable modems etc. In these cases, it does not make sense to incorporate the functionality of the standard general purpose Popoto modems because the wide flexibility and varied interfaces are not required yet have a cost. Rather the design priority is these cases shifts to cost optimized fixed functionality.

The fixed function modem leverage all of Popotos software and hardware designs to create the lowest cost solution.

In the fixed function OEM case, Popoto Modem will work with the customer to determine the precise requirements of the solution and tailor the software to meet those requirements. Because fixed function modems require a volume purchase, a specific build is run for the customer and various cost optimizations become feasible. Sometimes unused aspects of the circuit can be de-populated and a resulting in further savings for the customer. For example, a customer may only require receive only and expensive transformers and inductors need not be populated. The result is an application specific solution at the minimum cost.

All functionality for the fixed function modems can be first implemented and tested using the Popoto Modem general purpose modems as a prototype platform.

Price: Quoting a price for the fixed function modems is a function of the exact functionality needed along with the volume. Popoto will work with the customer to achieve the best possible price for the fixed function solution they require. As a pricing example, Popoto Modem worked with a customer to develop a fixed function two way ranging application. These boardsets were delivered to the customer for approximately $800 each.

Nano Wake

Popoto Modem has developed a single chip frequency hopped wake up solution. This chip waits for a parameterized 32 chip wake up sequence of tones and asserts a GPIO when the detection occurs. Nano Wake consumes less than 15mW as it continuously waits for a wakeup signal. This chip can be used for equipment wake up, acoustic releases or any application that requires a simple, robust reliable detection.

Price: $450 Quantities of 100+

1/1/2022