

Amplitude Modulated Communications and Emergency Signalling

Trelleborg Marine System wanted to update their world leading SeaTechnik™ Emergency Shutdown Link technology for the LNG industry, by reducing the cost, reducing the size and increasing the system functionality.

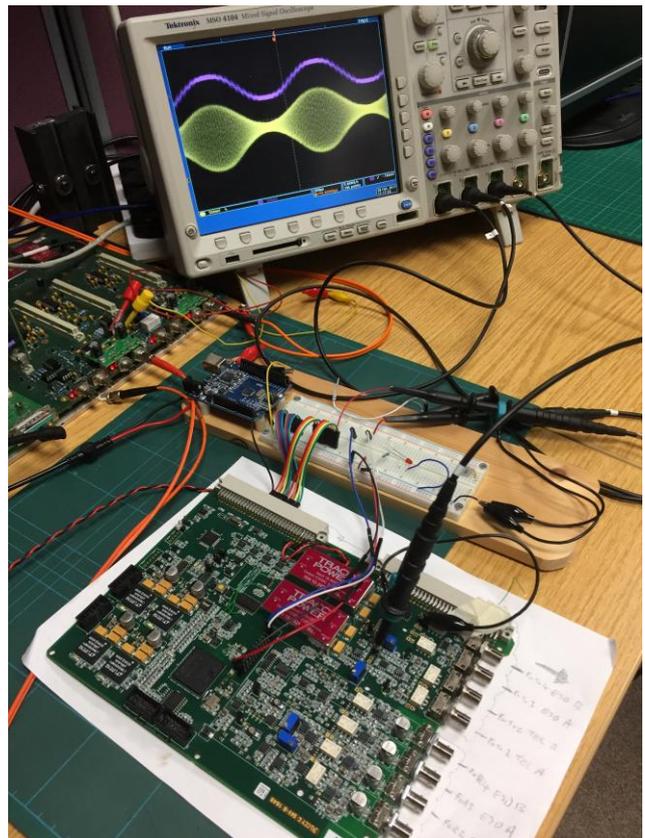
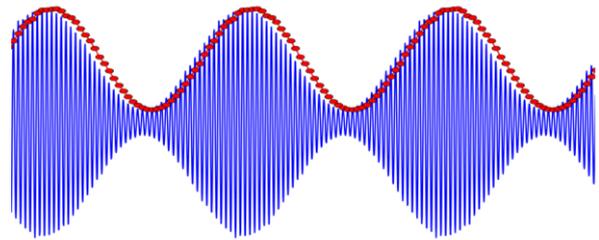
KEIKY achieved the requirements of reduced size, reduced cost and increased functionality by using a low cost FPGA to replace the digital and analog electronics used to perform the filtering and modulation for the voice channels provided in the original design. The emergency signalling functionality which was originally implemented by separate components was also all performed in the FPGA.

The new system provided twice as many voice channels as well as improved control for mapping voice and emergency signals.

Examples of new functionality were: the ability to act as a router between two vessels by mapping any channel to any other channel for retransmission, as well as the ability to loop-back a received audio channel while also transmitting it.

In addition to providing analog audio input and output, the system also provides functionality to monitor all input and output audio channels digitally.

MODEL



IMPLEMENTATION