

VHF Casemate

Product Offering

Researchers from Dublin Institute of Technology's School of Engineering have developed a novel design for a waterproof and shockproof smartphone casing that enables VHF (Very high frequency) radio functions through a mobile phone.

The device is intended to improve the speed of rescue in the case of emergency on open water, as VHF is an extremely reliable signal which can be easily tracked.



Advantages

- **Reliable and Consistent Communications:** VHF Case Mate solves the issue of phone unreliability and signal inconsistency at sea, resulting in more reliable communications.
- **Emergency Locating:** The device allows water rescue teams and the Coast Guard to track the phone signal in the case of emergency.
- **Open Distress Calling:** The Case Mate facilitates an open distress call that can be picked up by surrounding vessels in case of emergency. A phone only permits one-to-one contact.
- **Scope for App Development:** As VHF CaseMate operates using an App it is possible to develop weather mapping and additional features which are currently not available on any handheld VHF radio on the market.
- **Combined Functionality:** The VHF CaseMate combines the functionality of a VHF Radio with a Waterproof Casing.

Industrial Applications

The VHF Casemate is an ideal solution for the growing number of leisure mariners depending on mobile phones as their primary means of communication on open water.

The technology has cross-industry applications within both the Handheld VHF Radio and Waterproof Casing sectors.

Commercial Opportunity

DIT Hothouse is currently seeking commercial partners to take this technology to market. VHF Handheld radios currently retail in between €50 and €200 per unit, demonstrating the value that consumers place on this functionality. The VHF casemate offers the consumer a low cost alternative using existing smartphone technology. Hothouse offers flexible commercial terms to licensees on technologies developed through DIT research.

VHF CaseMate

Stage of Development

An early stage prototype of the VHF CaseMate has been developed and successfully trialled by the inventor. Full drawings and specifications are available. The technology is patent-pending.

Technology Description

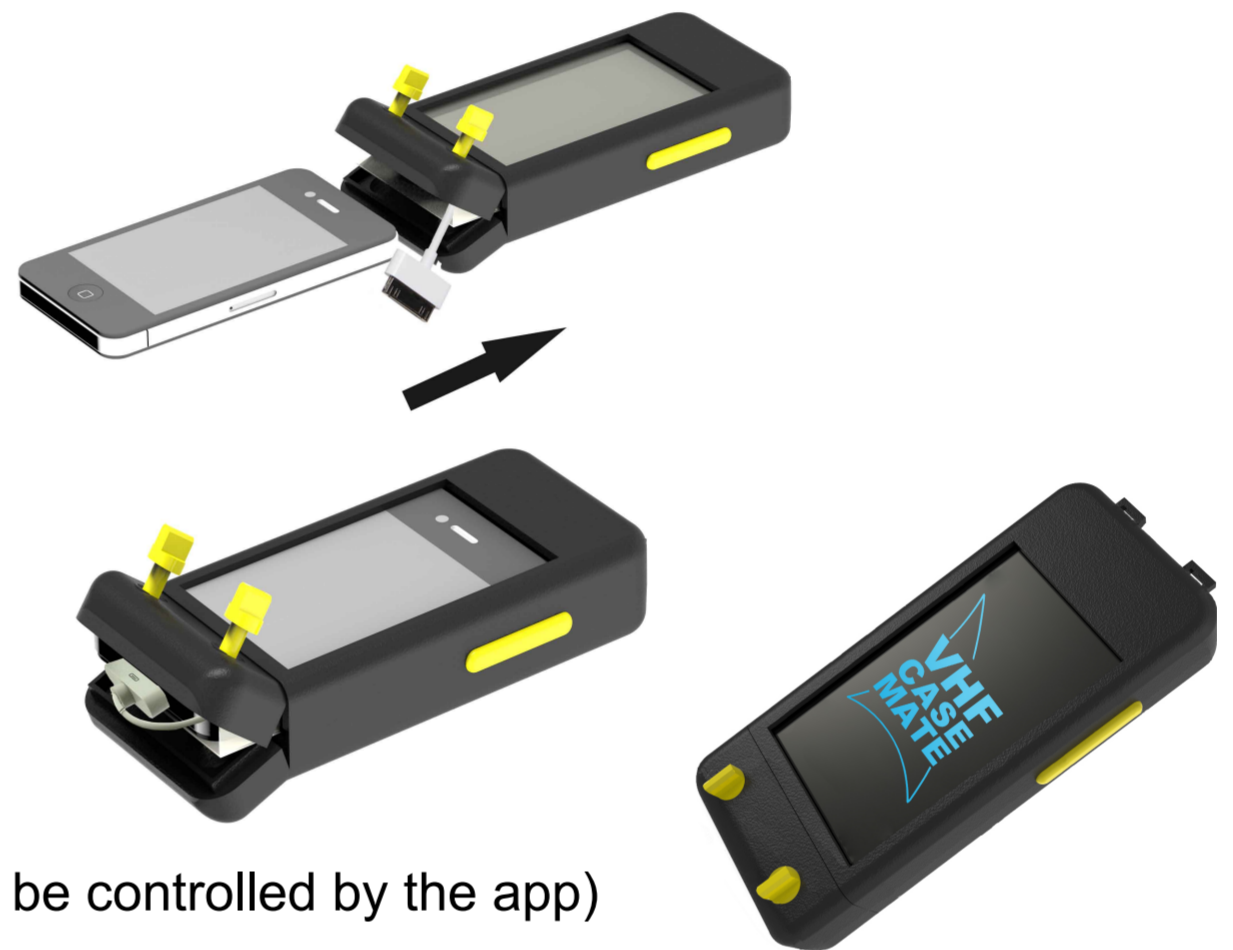
This product requires the VHF Case Mate casing, a smartphone and an accompanying app. It works by passing audio inputs from the phone's microphone through a VHF antenna, which is embedded in the casing. An App which links with the casing allows the user to select channels, volume and other content.

Connecting the Device:

1. Slide the phone into the case.
(this connects the 3.5mm jack into the phone)

2. Connect the 30 pin connector.
(this enables the app to change the VHF channel and charge the phone)

3. Seal the device and launch the app.
(The phone is now water tight and the device can be controlled by the app)



Inventor Profile

Sean Toomey is a graduate of the BSc in Product Design from Dublin Institute of Technology with a first class honours. Sean has experience in Product R&D, Solidworks, MatLab, Marketing and Strategy. He has interned at a prestigious Dublin based design studio and since graduating has attended an EU accredited entrepreneurial programme in England.

Intellectual Property

An initial patent application has been filed in the UK patent office.

Next Steps

If you would like to learn more about this technology or discuss commercial opportunities, please contact:

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