



etherstack

DMR / dPMR Mobile Station Protocol Stack

Etherstack's DMR and dPMR air interface protocol stacks are built on our field-proven APCO 25, TETRA and MPT1327 technology.

We are a full service company providing feature-rich software designed for reuse.

- Modular ANSI C / C++ Source Code
- ETSI DMR Tiers 1-3
- ETSI dPMR Modes 1-3
- Full Software: Application, Database and Layers 1-3
- Full Support: Specification, Integration and Warranty
- Advanced Test and Configuration Tools
- Migration from Legacy Analogue and MPT1327 / 1343
- ANN and Chinese Numbering Scheme

DMR Features

- Tier 1, Tier 2 and Tier 3
- Advanced Turbo Coding and Adaptive FEC
- Voice Call Pre-emption
- Tier 3 Powersave
- Tier 3 Message/Transmission Trunking
- Reverse Channel Operation
- Control Channel Hunting
- IEC61162-1 Compliant Location Data
- RC4 Authentication
- Packet Data Protocol and IP over PDP
- Short Data Service

dPMR Features

- 6.25kHz FDMA ETSI Standard TS102 490
- Mode 1, 2 and 3
- Individual and Group Voice Calls
- T1, T2 and T3 (Packet) Data Calls
- Supplementary Voice Services
- Calls to Line Connected Terminals (PABX/PSTN/IP)
- Beacon Channel Hunting
- Traffic and Beacon Channel Powersave

The Protocol Stack Product

Etherstack offers a highly competitive price for full source code. This includes complete specification, design, interface and test documentation; PC-based radio configuration tools; our pioneering automated test system and hundreds of test scripts. We also emphasise pre-delivery and post-delivery support to ensure the delivered solution meets your requirements as you go to market.

We consider ourselves an extension of your engineering team. You have full visibility of our engineering products and processes.

While you concentrate on platform and package differentiation in an ever more complex market, we take care of the standards-based software.

The Importance of Software Reuse

Protocol software represents a key investment. It is important you can reuse it on future platforms and in derivative products to save money, reduce risk, speed time-to-market and respond quickly to changing market requirements.

Code reuse is our priority. We specialise in highly modular operating-system agnostic software that can be ported to a wide range of embedded platforms.

In conjunction with this we have developed a pioneering test system to ensure our code can be maintained. This allows automated testing of the

stack (or a single stack module or group of modules) in the development environment, after integration, during field trials and as new features are introduced over time.

Finally the details count in code maintenance: it is our job to pay close attention to documentation, test script generation, source control and code updates as standards and features evolve.

Wide Area All-IP Core Network

Etherstack's DMR and dPMR air interface protocol stacks can be used with Etherstack's All-IP Core Network, a next-generation SIP/RTP soft-switch purpose built for PTT communications.

This boasts advanced features such as PSTN, packet data and end-to-end encryption. It also supports legacy analogue, MPT1327 and the P25 ISSI and CSSI – so all P25 gateways, consoles, digital voice recorders and other network equipment can be used as-is with it.

Migration from MPT1327 and Analogue

Graceful migration is a stand-out feature of Etherstack's DMR/dPMR solutions.

Our All-IP Core Network can be introduced seamlessly over existing infrastructure using a unique Etherstack product, the DMR/dPMR Channel Controller. With this the existing infrastructure can be used side-by-side with the new DMR and dPMR network for as long as required.

Working With Etherstack

Etherstack engineers specialise in radio communications software.

With fourteen years experience and an international client base, Etherstack combines wireless protocol software design with all-IP soft switching expertise derived across professional mobile radio, military and cellular communications.

We work closely with our customers to achieve technical excellence, successful delivery at fixed price, ongoing support and software that can be reused.

Other Products

- DMR / dPMR All-IP Core Network
- APCO 25 All-IP Core Network
- APCO 25 (I / II) Protocol Stacks (Handheld / Base Station)
- TETRA / TEDS Protocol Stacks (Handheld / Base Station)
- DMR / dPMR / APCO 25 Off-Air-Monitor



London Headquarters
Phone: +44 (0) 207 734 0200
Email: info.eu@etherstack.com

North American Inquiries
Phone: 917 661 4110
Email: info.na@etherstack.com

Asia Pacific Inquiries
Phone: +61 (0) 283 997 500
Email: info.au@etherstack.com