This key North American digital radio standard is enjoying a large and growing market. Designed for public safety but adapted by industry to suit the needs of critical infrastructure, P25 is a highly flexible two-way radio technology suitable for a range of applications and geographies.

**Integrate in Weeks**

Etherstack’s TIA P25 Mobile Station Protocol Stack is constructed as a set of highly portable, well documented and operating system independent ANSI C components that can be split across multiple processors.

It is available in isolation or deployed on our baseband digital board, Etherstack’s P25 Mobile Signaling Module (MSM). The MSM upgrades your existing analogue radio equipment to P25 – so you can avoid complex digital design and make the most of your existing analogue assets.

### Advanced Features

Our P25 Mobile Station Protocol Stack is widely used in industry, purpose built for interoperability and supports all major features currently standardized for P25, including Phase 2, Dynamic Regrouping and Location Services (Tier 2 GPS).

If you are building a P25 handheld, portable, in-vehicle or airborne radio, we have the technology to get you to market with the features you need – including a family of FIPS 140-2 certified cryptographic products for enhanced security.

### Phase 2 Narrowbanding

Narrowband voice is a highly desirable product differentiator and will be mandatory in some bands in the coming years. Etherstack’s Phase 2 implementation is available now as a stand-alone solution for integration with your existing radio equipment, or in conjunction with our Phase 1 protocol stack.

**Technology Package**

- P25 Conventional
- P25 Trunking
- AES/DES Encryption and OTAR
- FIPS 140-2 Crypto Module
- Packet Data (SNDCP and SCEP)
- Dynamic Regrouping
- Tier 2 GPS Location Services
- Link Layer Authentication
- Analog CTCSS and DCS Dual Mode
- LSM and WCQPSK Simulcast
- Phase 2 Traffic Channel
- Phase 2 Trunking Messages
- VTCH / SACCH / FACCH / ISCH
- Phase 2 Mode Management with Phase 1
- Phase 2 Call Continuation
- Phase 2 Audio and Call Preemption
Full Package, Fixed Price
Etherstack offers a highly competitive fixed price for a full technology package that includes technical documentation, our pioneering automated protocol stack test system (ELITE), Etherstack TraceViewer and a comprehensive test script library that provides traceability to the requirements.

Software Reuse
Protocol software represents a key investment. It is important you can update it and reuse it on future platforms to save money, reduce risk, hasten time-to-market and respond quickly to changing requirements. Code portability, reuse and maintenance are our priorities.

Risk-Free 12 Month Warranty
After delivery, Etherstack provides a 12-month warranty against any defects. If an issue is found we fix it immediately at no extra cost.

Potential customers are welcome to appraise our P25 technology in our labs in Yokohama, London, Sydney or New York.

P25 Mobile Signaling Module
Key Specifications
- Dimensions: 35 x 24 x 6mm
- High performance 32-bit processor
- Audio and Baseband Codecs
- 32 MB RAM (8M x 16b x 4 banks)
- 128 MB Flash (8M x 16b x 4 banks)
- 3.3V operation
- Analog or digital I&Q interface to RF

About Etherstack
Etherstack engineers specialise in radio communications software.

With two decades 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.

Related Products
- P25 Mobile Signaling Module (MSM)
- FIPS 140-2 Crypto Module
- P25 Phase 1/2 Base Station Protocol Stack
- P25 All-IP Network and Test Systems

Want to learn more about our P25 mobile station protocol stack?
Email us at info.eu@etherstack.com.