# E-LynX<sup>™</sup> MP Vehicular

Dual Channel Vehicular Radio

### Dual Channel, multi-band, multi-waveform vehicular SDR

- Powerful Dual Channel 50W+50W SDR platform enabling multiple concurrent waveforms while covering the NATO mobile frequency bands from 30MHz to 1.8GHz
- Extended networking coverage using robust and unique multi-hop concurrent flooding techniques
- Robust design for harsh combat conditions
- Simultaneous multiple voice sessions along with data, BFT and video services
- Supports a multitude of interfaces required in a modern combat system solution
- Simple and intuitive user interface using icon-based color display
- Embedded IP router supporting standard IP routing protocols
- VOIP and analog voice interface support
- Embedded GPS supporting continuous high resolution Blue Force Tracking capabilities



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• GPS-independent synchronization

## E-LynX MP Vehicular Dual Channel Vehicular Radio

### Dual Channel, multi-band, multi-waveform vehicular SDR

Elbit Systems' E-LynX MP Dual Channel Vehicular Radio is a multi-band, multi-waveform and multi-role tactical dual fit vehicular SDR, designed specifically to support combat land/maritime forces over any terrain type. The radio operates in VHF and UHF bands continuously while also covering L Band and featuring GPS-independent synchronization for all operating modes. This future-proof vehicular SDR offers seamless communications and situational awareness, while utilizing unprecedented immunity (ECCM) and communications security (COMSEC) for a multitude of missions and applications. Combat-proven mobile ad-hoc networking (MANET) provides continuous IP connectivity, while automatic self-forming, self-healing, routing and relay capabilities dramatically extends the E-LynX's reach over harsh field conditions, ensuring no single point of failure. E-LynX MP Dual Channel Vehicular Radio supports simultaneous operation of narrow band tactical waveforms as well as high data rate wide band waveforms, providing a dynamic solution adapted to any terrain or mission. As a modular expansion of the E-LynX MP Which extended the communication range while maintaining dismounted operational capabilities, the E-LynX MP Dual Channel Vehicular Radio is a true force multiplier, providing a decisive advantage on the battlefield.

### **Technical Specifications**

| General                  |  |  |
|--------------------------|--|--|
| Frequency Range          | 30-512MHz<br>1.0-1.8 GHz   |  |
| Architecture             | SCA 2.2.2  |  |
| Networking               | Multi-hop Mobile Ad-Hoc IP Networking<br>(MANET) implementation via hybrid<br>technology: concurrent flooding and<br>store & forward   |  |
| Preset Channels          | 100 per waveform   |  |
| Operation                | <ul> <li>2.8" graphic color display</li> <li>Cellular-like icon-based operation</li> </ul>   |  |
| Features                 |  |  |
| Dual Channel             | Enables the SDR to be active in two radio networks simultaneously  |  |
| Voice                    | <ul> <li>Analog: F3E, STANAG 4204<br/>Digital: 2.4 &amp; 4.8 kbps Vocoders</li> <li>VoIP support</li> <li>Multiple concurrent voice-sessions in all<br/>waveforms</li> </ul> |  |
| Data                     | IP Layer 3   |  |
| GPS                      | <ul> <li>Internal receiver</li> <li>Auto/manual location report</li> </ul>   |  |
| Embedded Applications    | <ul> <li>Blue Force Tracking (BFT)</li> <li>Visual network-topology</li> <li>Network monitoring</li> </ul>   |  |
| Interface and Management |  |  |
| Interfaces               | Ethernet, Analog Voice,<br>(RS-232, USB optional)<br>Multiple software-controlled antenna ports  |  |
| Network Management       | NMS interfaces support using SNMP-v3   |  |
| Waveforms                |  |  |
| Bandwidth                | 25KHz, 50KHz, 1MHz, 4MHz<br>(500KHz, 2MHz optional)  |  |
| Modulation               | FM, BPSK, GMSK, PSK, QAM   |  |

| Immunity and Robustness |  |
|-------------------------|--|
| Synchronization         | <ul> <li>Autonomous, no master station, no single<br/>point of failure</li> <li>No reliance on GPS or any external signal</li> </ul> |
| COMSEC and TRANSEC      | AES256   |
| ECCM                    | <ul><li> Robust frequency hopping</li><li> Jamming resistant</li></ul>   |
| Transmitter             |  |
| Power Output            | Two RF heads with up to 50W Nominal  |
| Frequency Stability     | 40 PPB   |
| Spurious Emission       | -80 dBc  |
| Harmonic Emission       | Better than -60 dBc  |
| Output Protection       | Open and short-circuit   |
| Receiver                |  |
| Typical Sensitivity     | FM: -116 dBm for 12 dB SINAD   |
| Squelch                 | Off, tone, noise, digital  |
| Environmental           |  |
| Environmental           | MIL-STD-810G   |
| EMC                     | MIL-STD-461F   |
| Physical                |  |
| Dimensions (HxWxD)      | 160 x 285 x 364 mm   |
| Weight                  | <17 Kg   |
| Power                   |  |
| Power Source            | Nominal 24V  |
| Standard                | MIL-STD-1275A/AT   |
|                         |  |



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