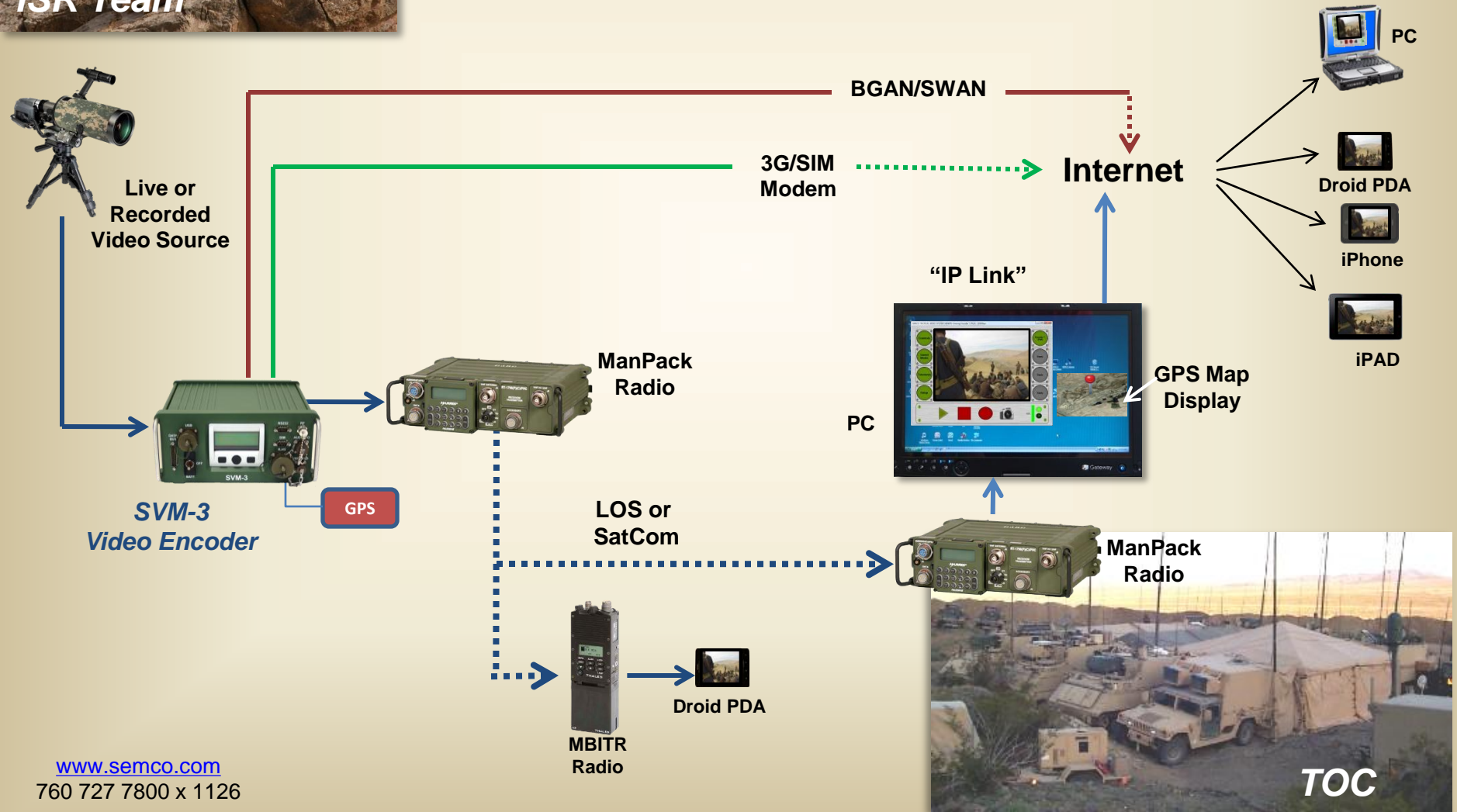




# SVM-3 *ISR Video Over Tactical Radios*



SVM-3 Video Encoder “Delivers” 5-6 Frames/Second at a Radio Data Rate of 16 Kbaud. 25-30 Frames/Second at Higher Data Rates (3G Cellular or Sat Phone).

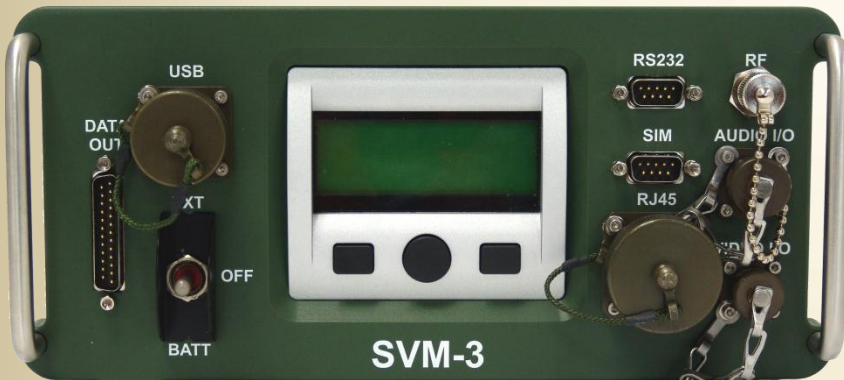




# SVM-3 *ISR Video Over Tactical Radios*

The desired capability is to transmit Intelligence, Surveillance, and Reconnaissance (ISR) video (live or recorded) using spectrum that does not interfere with existing military frequencies. One practical solution is to use the data stream of existing field radios to transmit the video. Up to now, the bottleneck of that approach has been the relatively low data rates of these radios (typically 9600 Baud or 16 Kbaud). Uncompressed, the video frame rate at 9600 baud is approximately 1 frame per 10 minutes. The technical work-around therefore has to be to highly compress the video first. However, the existing commercial technologies (MJPEG, MPEG2, MPEG4) were not designed to function efficiently at these low data rates. Even H.264 (MPEG4, Part 10), while specifically created to operate at 50% lower data rates than earlier encoders/decoders, is not effective below about 100 Kbaud.

The SEMCO solution is to employ a video compression technology that was purposefully designed to operate at very low data rates (and higher) - the SEMCO SVM-3 Codec. The SVM-3 can generate 3 video frames per second (fps) at 9600 baud; 6 fps at 16 Kbaud. If the mission requires higher frame rates than standard, the SVM-3 can be operator-programmed to provide it (at the expense of resolution). Similarly, if the mission needs high resolution, that can be programmed (at the expense of frame rate). The SVM-3 operates in both the line-of-sight and non-line-of-sight (SatCom), encrypted radio modes.



With Battery & Case

## **Physical Characteristics**

**5" H x 11" W x 10" D**

**7 lbs.**

**IP67/MIL-STD 810G**

**Solid State, No Moving Parts**

## **Inputs/Outputs**

**Video In**

**Audio In**

**USB In (2)**

**RJ45 Out**

**Video/Data Out**

**SIM Card In**

**RS232 In/Out (2)**

**LCD Display/Controls**

**External DC In**

**XX90 Battery In**