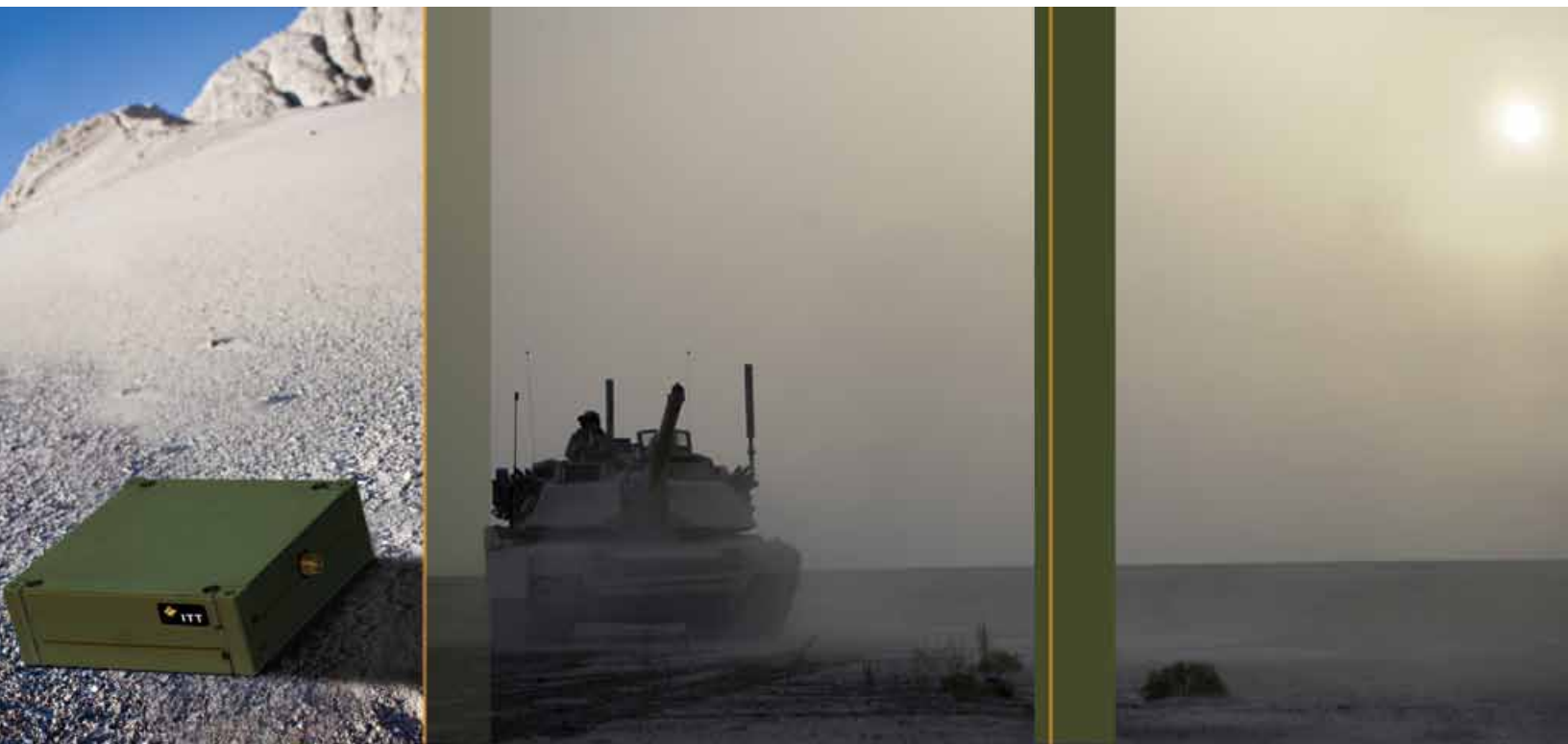




Sensor Radio

A radio that forms an ad hoc self-forming, self-healing network.



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Photos courtesy of the U.S. DoD and ITT Corporation.

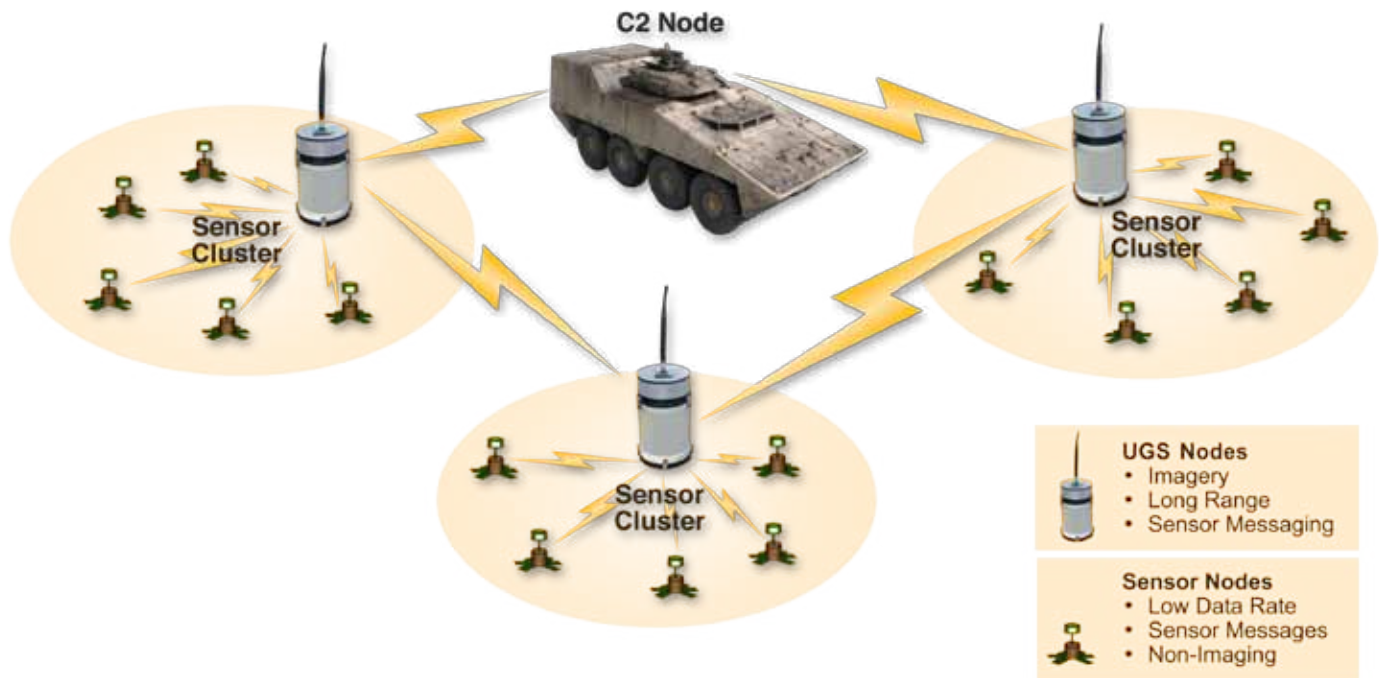
Sensor Radio

The Sensor Radio and associated waveform employ a series of ad hoc, self-healing protocols at the physical, link and network layers. The network automatically forms based on the propagation environment, connectivity, ad hoc routing and robust waveform. The self-forming and self-healing features allow the deployed nodes to dynamically form and maintain the network, manage resources and accomplish mission objectives. The node host communicates with the radio by using packets. The radio has an integrated sleep/wake-up power management feature that allows the sleep/wake cycle of the radio to be controlled by the external host to meet the system's operational needs.

Technical Features

- Operating frequency band: 225 to 450 MHz
- Network: self-forming and self-healing

- Data Rate: 56 & 225 kbps
- Output power: up to 1 W; data packets power adapted
- Typical Range:
 - Long haul (56 kbps): 3 km
 - Short haul (225 kbps): 400 m
- Frequency accuracy: 1 PPM
- Embedded radio: configured and controlled by an external host
- Signal Interface Protocol: PPP/UPD/IP datagrams
- Power conservation mode: sleep/wake-up
- Power: +13, 5.5, and 3.3 VDC
- Dimensions: 1" x 3" x 3.3"
- Weight: 200 grams
- Host-radio interfaces: RS-232
- Antenna connector: SMA



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