



Magneto-Inductive Systems Limited

MI Technology Overview

2003 Mines, Demolitions and Non-Lethal
Conference and Exhibit

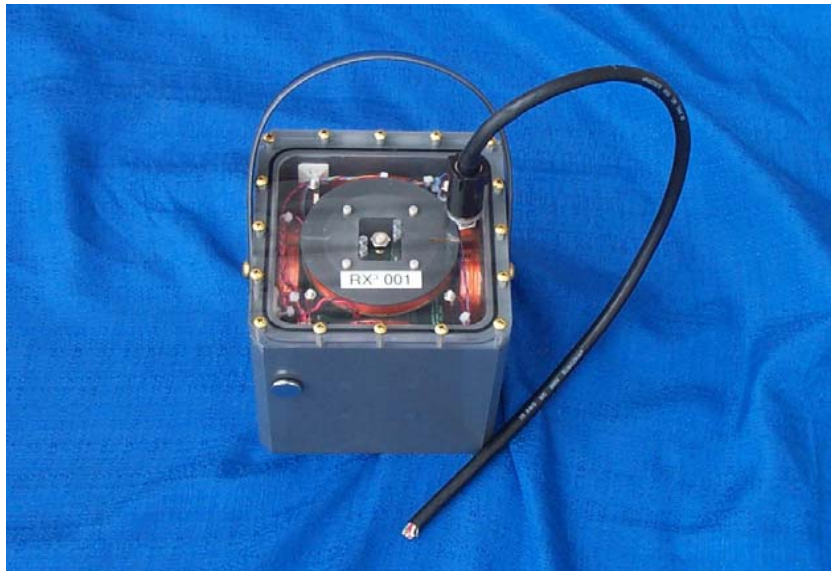
September 10, 2003





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Magneto-Inductive Firing Device



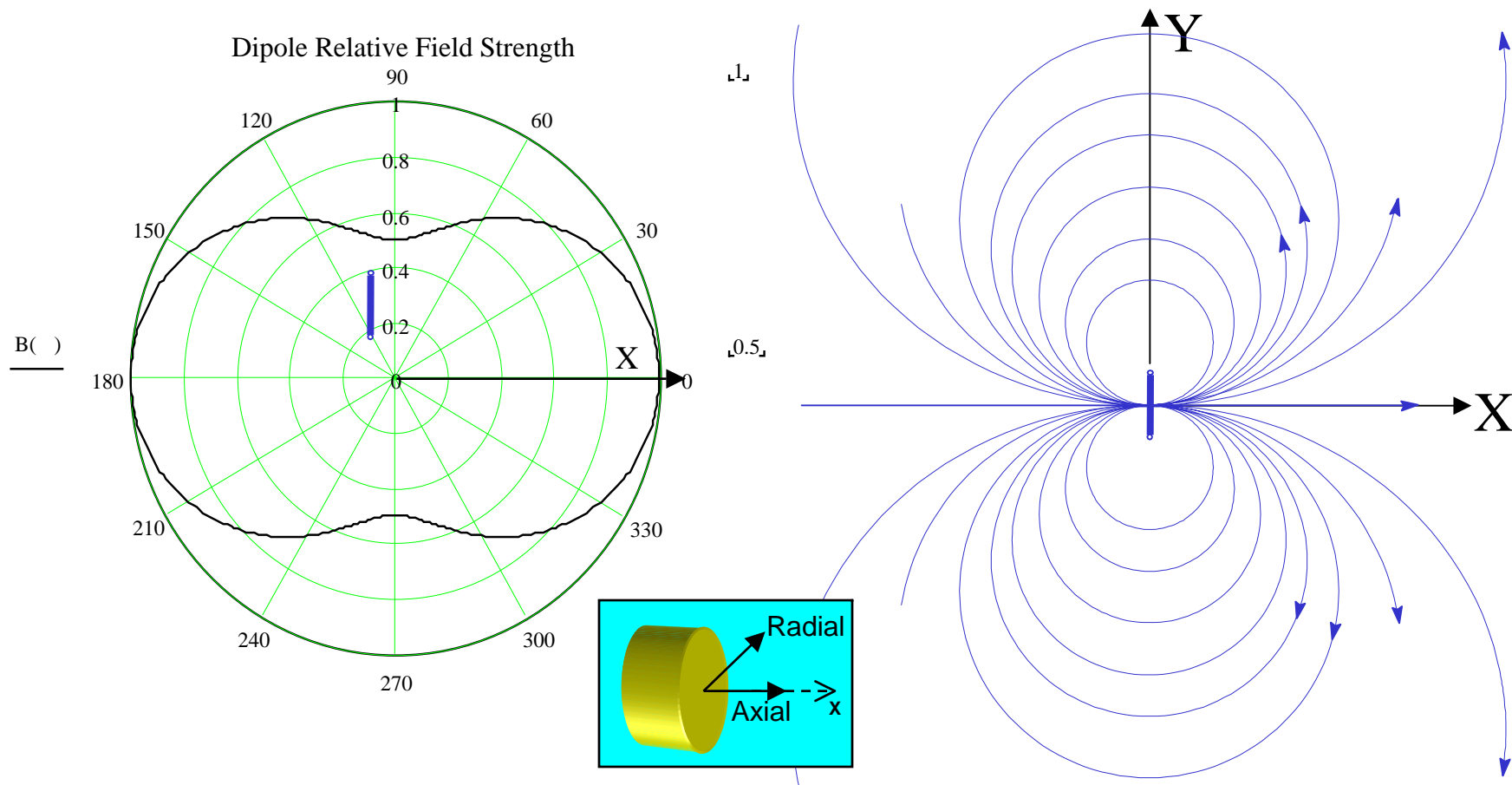


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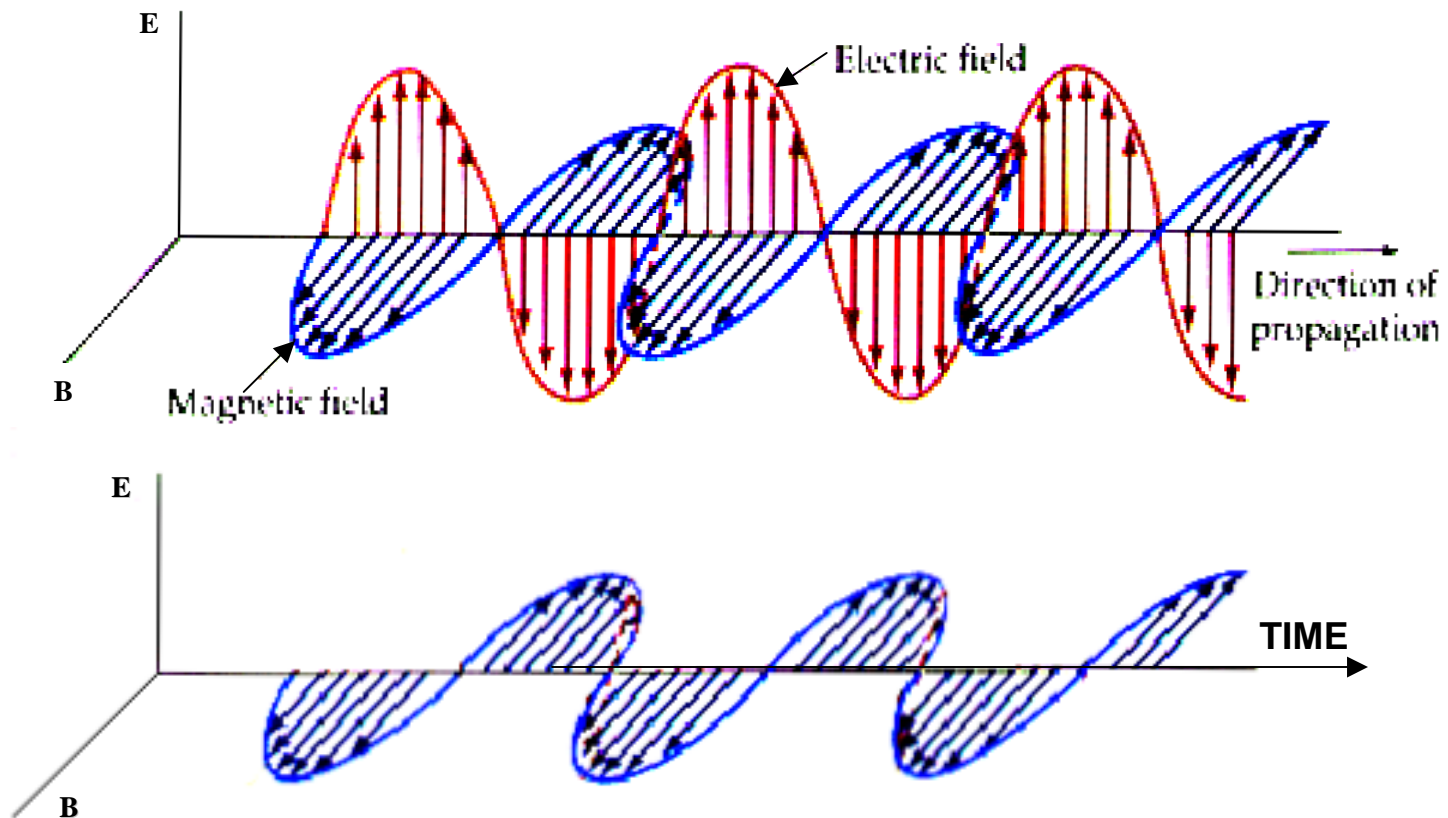
Magneto-Inductive UBV Transceivers



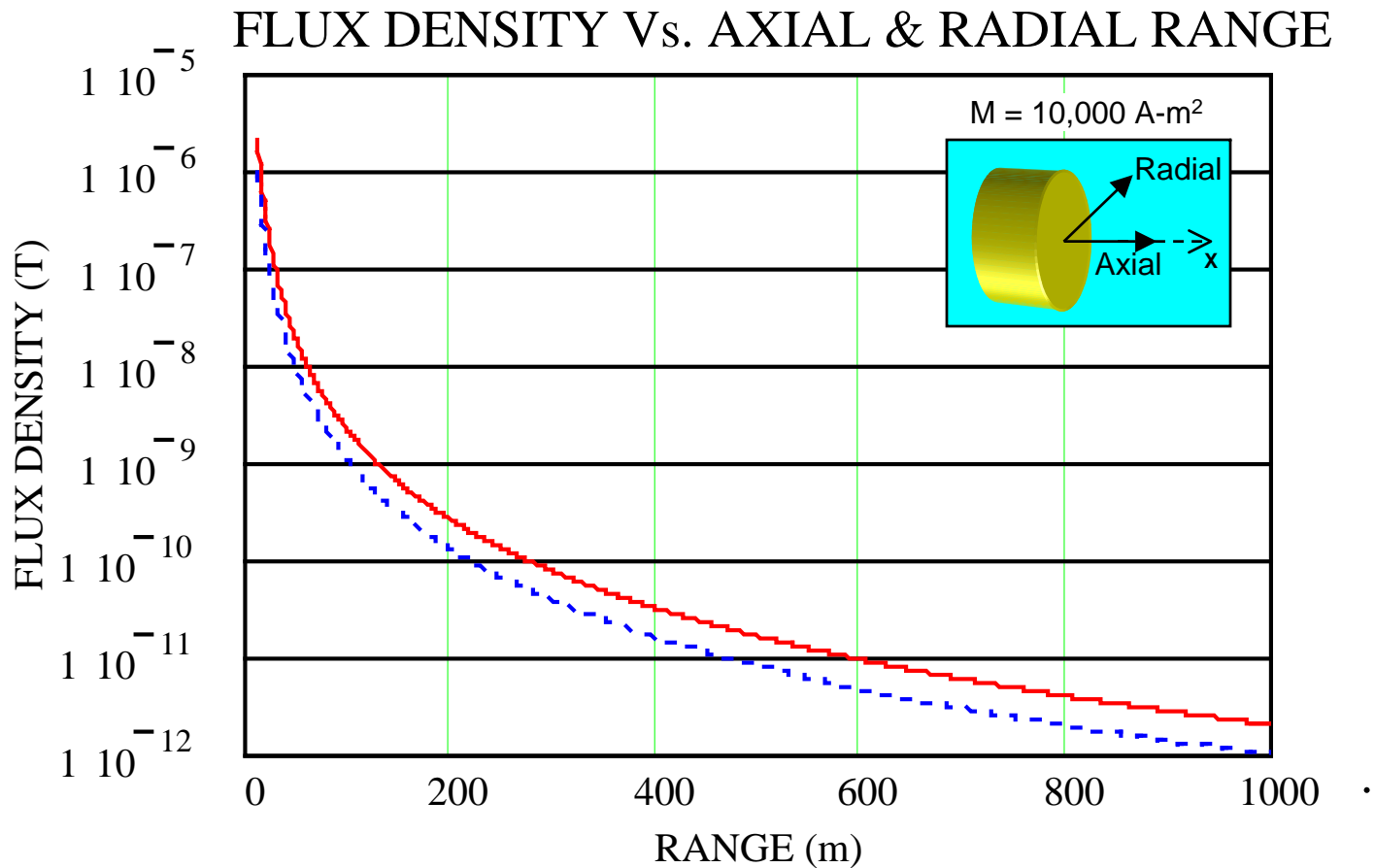
Dipole Field Distribution



Electric and Magnetic Fields



Field Strength vs. Range in Air

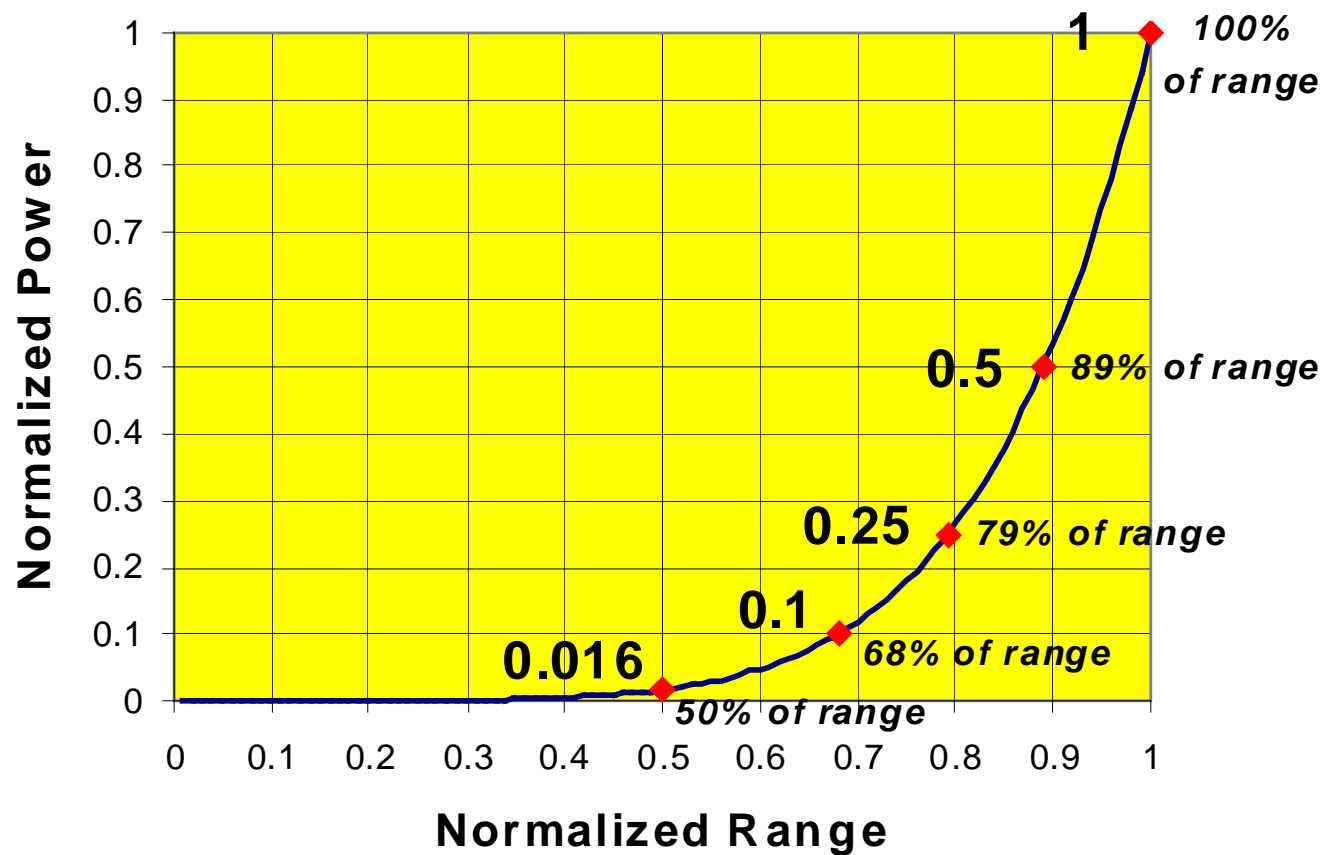




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Power vs. Range for an MI System

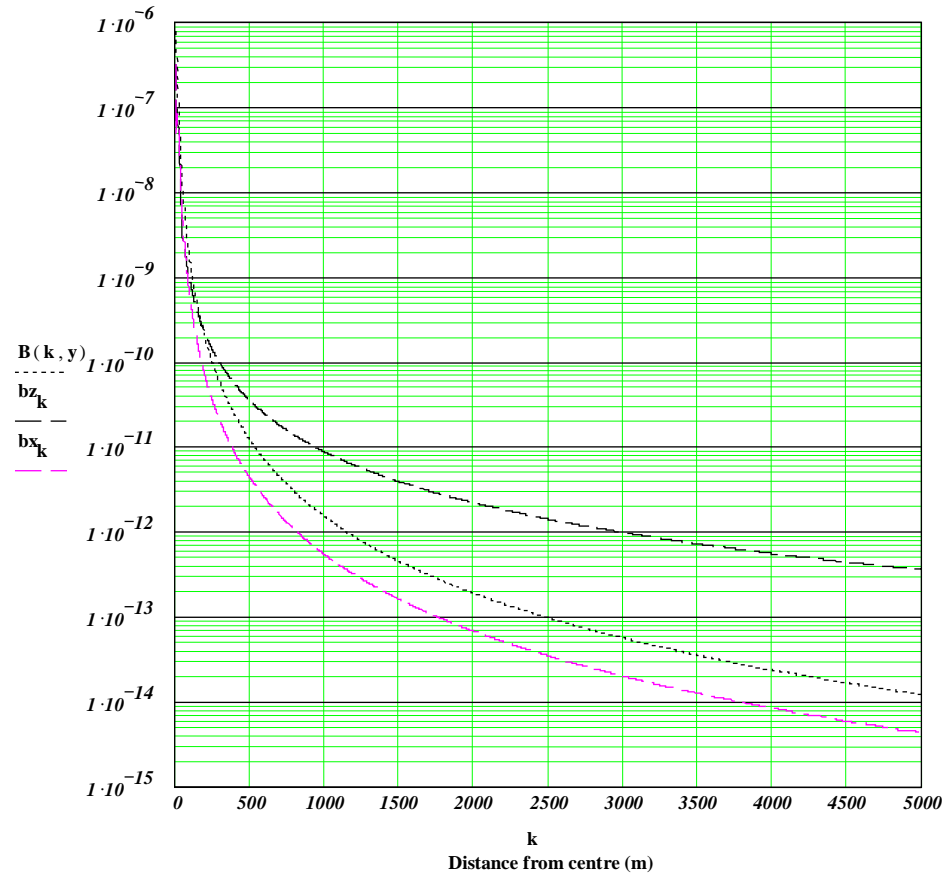
Power vs. Range for Constant Data Rate





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$f = 1.2 \cdot 10^3$ $z = -12.5$ $y = 0$ $h = 0$ $\sigma = 4$ $\text{depth} = 12.5$ $M = 7.5 \cdot 10^3$



Sensitivity vs. Range: 7500 A-m²



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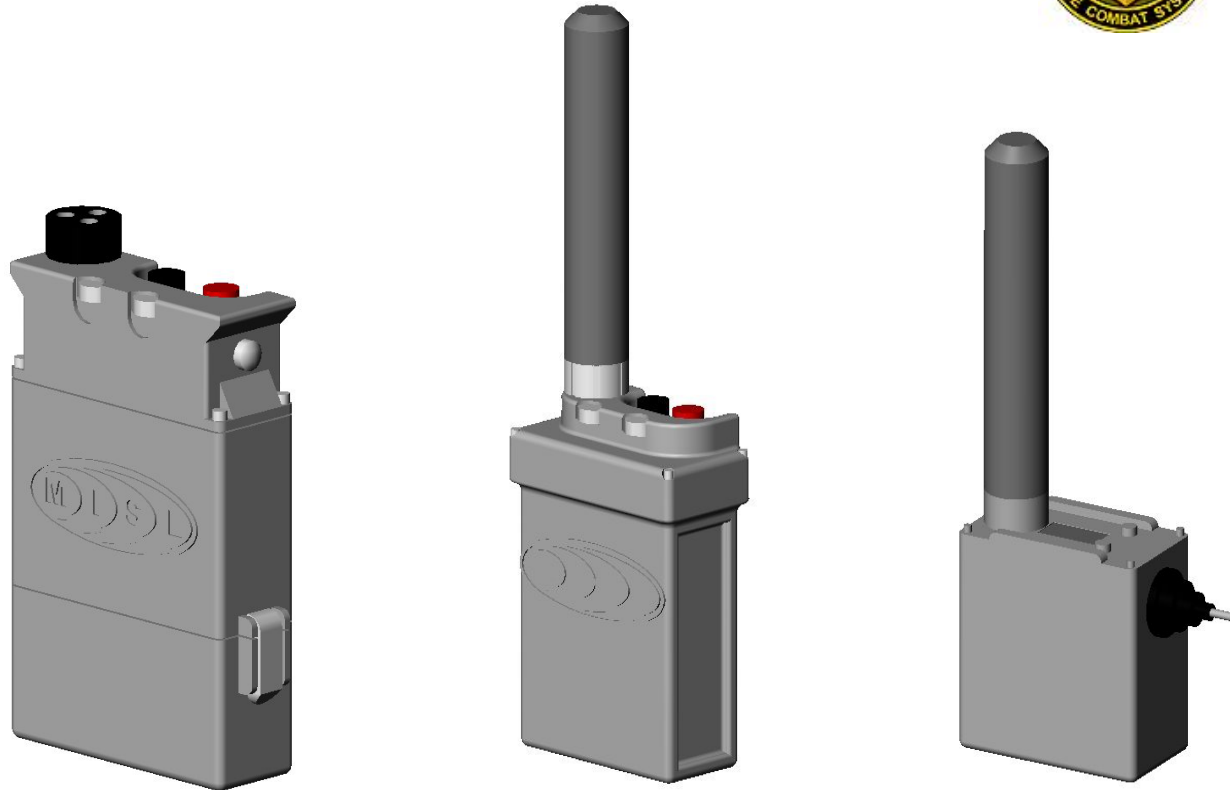
MI Sensors

Magnetic Sensor Technology	Detectable Field Range (Tesla)							
	10^{-12}	10^{-10}	10^{-8}	10^{-6}	10^{-4}	10^{-2}	1	10^2
SQUID	[Range from 10^{-12} to 1]							
Fibre-Optic	[Range from 10^{-10} to 10^{-4}]							
Optically Pumped	[Range from 10^{-11} to 10^{-5}]							
Nuclear Precession	[Range from 10^{-11} to 10^{-3}]							
Induction-Coil	[Range from 10^{-12} to 10^2]							
Earth's Field (for comparison)	[Range from 10^{-7} to 10^{-5}]							
Anisotropic Magneto-Resistive	[Range from 10^{-10} to 10^{-4}]							
Flux Gate	[Range from 10^{-9} to 10^{-2}]							
Magneto Transistor	[Range from 10^{-5} to 10^{-1}]							
Magneto Diode	[Range from 10^{-4} to 10^0]							
Magneto-Optical	[Range from 10^{-4} to 10^1]							
Giant Magneto-Resistive	[Range from 10^{-6} to 10^1]							
Hall-Effect	[Range from 10^{-2} to 10^1]							



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Magneto-Inductive Remote Activation Muniton System (MI-RAMS)





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Magneto-Inductive SPHINX 2 Launcher





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Lacroix Galix Family of Ammunition

DAB.T31-99-M:0431

GALIX
A COMPLETE RANGE OF AMMUNITION





- GALIX 4 : SELF PROTECTION AMMUNITION
- GALIX 6 : IR DECOY
- GALIX 7 : ILLUMINATION ROCKET
- GALIX 13: MULTI-BAND SMOKE SCREENING AMMUNITION
- GALIX 15: CS GAS AMMUNITION
- GALIX 17: SMOKE SCREENING TRAINING AMMUNITION
- GALIX 18: SELF PROTECTION PRACTICE AMMUNITION
- GALIX 19: STUN AMMUNITION

GALIX system is developed in cooperation with GIAT Industries



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