

BYOTx

RF ILLUMINATION FOR PASSIVE RADAR OPERATIONS

BYOTx is a tactical RF transmitter that delivers RF illumination for passive multi-static radar operations. Passive radar depends on ambient RF to detect and track targets — but in austere or contested environments, those signals cannot always be assured. Paired with the SURGE sensor, BYOTx provides a high-power, software-defined illumination source that enables passive radar operations regardless of local signal conditions, giving operators a clear, real-time picture of the airspace while sensors remain fully passive.

[CAPABILITIES]

Reliable Passive Radar Performance

Ensures SURGE can detect and track RF-silent aerial threats in environments lacking reliable transmitters of opportunity.

Local or Remote Control

Set frequency and waveform in advance or on the fly, adapting to the mission as conditions change.

Extended Detection and Tracking Range

High output power improves passive radar performance and extends airspace coverage when paired with SURGE.

Adaptive Waveform Control

Set waveform to match local RF surroundings, maximizing illumination while remaining stealth and non-disruptive in any environment.

Low-Signature Deployment

Compact form factor and placement independent from sensor improves survivability and supports flexible deployment geometries.

Software-Defined

Evolves through remote software updates instead of hardware changes or site visits, staying future-ready against emerging threats.

[BYOTx]



Technical Specifications

PERFORMANCE

FREQUENCY COVERAGE

1.0-3.0 GHz

2.0-6.0 GHz

FIELD OF VIEW

Antenna-defined;
compatible with a
range of antenna
types

DETECTION RANGE

Up to 6 km when
paired with SURGE

SIZE · WEIGHT · POWER

SIZE

25 W × 12 H × 13 D in

WEIGHT

45 lb

POWER

7 Amps

POWER INPUT

AV: 90-264 VAC

DC: Optional 28V

INTEGRATION & DATA

PRIMARY I/O

100 Mbps / 1 Gbps RJ45 Ethernet

INTERFACE

Browser-based remote
configuration and monitoring

NETWORK

Open API supports
integration into command-
and-control systems for
centralized transmitter
management

[DESIGNED TO MEET INDUSTRY STANDARDS]

TRL-7

TECHNOLOGY
READINESS LEVEL

IP66

INGRESS PROTECTION

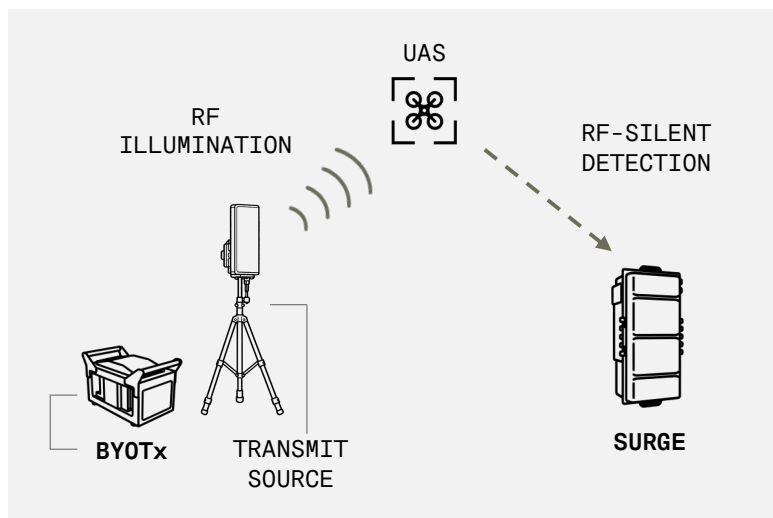
MIL-STD-810H

SHOCK · VIBRATION ·
TEMPERATURE

MIL-STD-416G

EMI / EMC

[CONCEPT OF OPERATIONS]



[DEPLOYMENT OPTIONS]

Independent Emplacement

Separate transmitter placement
preserves RF-silent sensor
operation.

Fixed-Site

Mount safely to poles, rooftops,
towers or fixed infrastructure.

**Hidden
Level**

HIDDENLEVEL.COM

Hidden Level is the world's leading RF intelligent platform, delivering mission-defined hardware and software solutions that combine passive sensing, persistent data, and applied intelligence to help customers and partners address complex safety and security challenges across air, ground, sea, and space.

All specifications are subject to change at any time. This product has not yet received an FCC equipment authorization. Accordingly, it may not be marketed, offered for sale, sold, or distributed to any non-federal government entity in the United States.
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