Data Sheet

VIAVI Seeker X Digital Leakage Detector



Overview

The VIAVI Seeker X[™] leakage detector provides the agility to monitor leakage anywhere in a channel lineup, with the sensitivity and speed to accurately detect leaks that other systems miss.

With support for up to 4 concurrent monitoring frequencies from 130-1220 MHz including OFDM and OUDP support, Seeker X affords operators complete flexibility in defining channel lineups, while providing true full-spectrum leakage detection.

Seeker X will detect tagged leaks and ignore untagged leaks, saving time from false alarms from signals not originating in your system, including overbuild situations. In addition to legacy Seeker D tag signals, Seeker X detects the revolutionary new digital chirp tag to provide unmatched leakage sensitivity and positive leak detection. OUDP burst detection enables continuity of leakage detection for high-split networks. This allows more thorough and accurate coverage of your plant in driveout testing and much more efficient find and fix processes for techs in the field.

Transition to distributed access architectures is simplified by virtualized tagging capabilities supported by most major R-PHY, R-MACPHY, and R-CCAP vendors. With this approach, no specialized hardware is required in the hub, and technicians use the same Seeker leakage detectors and work processes regardless of node type.

Key Features

- Full-spectrum agility from 130–1220 MHz
- Up to 4 concurrent detection frequencies, including DOCSIS3.1/OFDM carrier support
- D3.1/OFDM, high-split/OUDP, and DAA/R-PHY ready
- Supports new Seeker X digitally tagged carriers for increased leakage sensitivity and improved positive leak detection
- Mobile Tech app connected, StrataSync enabled, XPERTrak integrated
- Cost-effective solution backward compatible with existing VIAVI systems



Seeker X detectors and mobile mounts can be dropped into systems currently using Seeker D's with no change to existing monitoring and find/fix processes. These new Seeker X units can benefit from the increased speed, sensitivity, and OFDM detection on their own, and can monitor two extra tagged frequencies if CT-4 taggers are swapped out for Seeker-D compatible CT-X units.

Regardless of the system architecture or channel lineup, Seeker X provides all the capabilities to find and fix leaks quickly, accurately, and effectively.

| Package Name/Description | Package Part Number |
|--|--------------------------|
| Seeker-X Find and Fix kit w handheld antennas case and car charger | TRI-SKR-X-FIND-FIX-PKG |
| Seeker-X Mobile Find and Fix kit w/mobile mount vehicle/handheld antennas | TRI-SKR-X-DRIVE-PKG |
| Seeker-X Mobile Mapping kit w/MCAIII/GPS/MM vehicle antennas | TRI-SKR-X-DRIVE-ONLY-PKG |
| Seeker-X Mobile Mapping kit w/MCAIII/GPS/MM vehicle/handheld antennas | TRI-SKR-X-DRIVE-GPS-PKG |
| Seeker-X Mobile Find and Fix kit w/mini mobile charger handheld antennas | TRI-SKR-X-WALK-MMC1-PKG |
| Seeker-X Mobile Mapping kit w/mini mobile charger with arm, vehicle/ handheld antennas | TRI-SKR-X-DRIVE-MMC1-PKG |
| Seeker-X Mobile Mapping Kit w/mini mobile charger with arm, X-Link option, vehicle/handheld antennas | TRI-SKR-X-DRIVE-MMCXLPKG |

| Description | Part # | Find/ Fix | Drive Only | Drive/ Fix | Drive GPS | Mini Find/ Fix | Mini Drive/ Fix | Mini GPS Drive/ Fix |
|--|-----------------------------------|--------------|---------------|---------------|--------------|----------------------|-----------------------|------------------------------|
| Seeker X Mobile Mount | TRI-LKG-SKR-X- VEH-MOUNT | _ | | | | _ | _ | _ |
| Mini Mobile Charger and Mount | TRI-LKG-MMC-1 | _ | _ | _ | _ | | | |
| Seeker X Mobile Mount Wiring Kit | TRI-LKG-SKR-X- MM-WIRE-KIT | _ | • | • | - | | _ | _ |
| AC Travel Charger and USB Cable | | | | | | | | |
| Wideband VHF/UHF Antennas | | | | | | | | |
| WFS-1 Low-band adjustable dipole 130 MHz – 450 MHz | TRI-LKG-ANT- WFS-1 | • | _ | - | • | • | - | - |
| WFS-2 High-frequency wideband directional antenna 450 MHz – 1220 MHz | | • | _ | - | • | • | - | - |
| WVM-2 magnetic base, wideband vehicle antenna (250–1220 MHz) | TRI-LKG-ANT- WVM-2 | _ | • | - | • | _ | - | • |
| UHF Band Antennas | | | | | | | | |
| AFS-7 Handheld YAGI antenna 580-640 MHz | TRI-LKG-ANT- AFS-7-YAGI | _ | _ | _ | _ | _ | _ | |
| Rubber duck antenna, high band 580-690 MHz | nigh band TRI-LKG-ANT- DUCK-HI | | _ | | | | | — |
| AVM-4 magnetic base, colinear array antenna (612 MHz) | | | | _ | | | | |

| Description Part # | | Find/ Fix | Drive Only | Drive/ Fix | Drive GPS | Mini Find/ Fix | Mini Drive/ Fix | Mini GPS Drive/ Fix | |
|--|----------------------------------|--------------|---------------|---------------|--------------|----------------------|-----------------------|------------------------------|--|
| VHF Band Antennas | | | | | | | | | |
| AVM-3 magnetic base, vertical quarter wave whip antenna (trimmed to 130-150 MHz) | TRI-LKG AVM-3 | _ | • | - | - | _ | - | - | |
| Rubber duck antenna, low band 127-136 MHz | TRI-LKG-ANT- DUCK-LOW | _ | _ | _ | _ | _ | _ | _ | |
| Near Field Probe | | | | 1 | | | | | |
| Near Field Probe | TRI-LKG-NFP-1 | | _ | | | | | | |
| Optional Seeker MCA III | | | | | | | | | |
| MCA III | TRI-LKG-SEEKER- MCA-WIFI | _ | | _ | • | _ | _ | _ | |
| Seeker MCA III to Mobile Mount Power and Data Cable | TRI-LKG-SKR-MCA- PWR-CBL | _ | | _ | | _ | _ | _ | |
| 2.4 and 5 GHz WiFi antenna | TRI-LKG-MCAIII- WIFI-ANT | _ | | _ | | _ | _ | _ | |
| Shielded ethernet cable (10 ft) | TRI-ACCY-CAT5- 10FT-QUAD | _ | | _ | | _ | _ | _ | |
| X-Link Virtual GPS/Logging | | | | | | | | | |
| X-Link Factory SW Option | TRI-SKR-X-SWOPT- X-LINK | _ | _ | _ | _ | _ | _ | | |
| X-Link Field Upgrade License | TRI-SKR-X-UPG-X- LINK | | | _ | _ | _ | _ | _ | |
| Optional Accessories | | | | | | | | | |
| GPS receiver for Seeker MCA II and Seeker MCA III | TRI-LKG-GPS-MCA | _ | | _ | • | _ | _ | _ | |
| CL-9 vehicle power adapter | TRI-ACCY- USBPWR-VEH- WCBL | - | _ | _ | _ | _ | _ | _ | |
| Carrying bag with strap for meter and accessories | AC-BAG-METER- MEDIUM | • | _ | • | • | • | | • | |
| Printed Quick Start Installation Checklist and Guide | | | _ | • | • | • | | • | |
| Digital Channel Tagger | | | | | | | | | |
| CT-X Channel Tagger | TRI-LKG-CT-X | | | | | | | | |
| CT-X Channel Tagger, -48VDC | TRI-LKG-CT-X-48VDC | | | | | | | | |
| Available Software | 1 | | | | | | | | |
| Seeker Setup Configuration Software TRI-LKG-SW-SEEKER-PC | | | | | | | | | |

Specifications

| Seeker X | | | | | | |
|---|---|--|--|--|--|--|
| Frequency Range | 130–1220 MHz, adjustable via Seeker Setup Software and Mobile Tech App | | | | | |
| Frequency Settings | 10 user-adjustable operating frequencies, selectable on front panel Set using the configuration methods listed below | | | | | |
| Receiver Sensitivity | -158 dBm | | | | | |
| Calibrated Level Range | 1–2000 μV/m | | | | | |
| Level Accuracy | ±2.0 dB | | | | | |
| Display | Dual numerical readout of up to 2 detected leakage frequencies and carrier types within sensitivity range | | | | | |
| Audible Tone | Tone is present if leakage amplitude exceeds squelch setting and digital tag is detected | | | | | |
| | Pitch is proportional to strength of leak | | | | | |
| Automatic Noise and Overbuild Discrimination | Internal circuitry discriminates between leaks and noise | | | | | |
| | Overbuild discrimination provided by CT-X channel tagger installed in hub or head-end | | | | | |
| Power | Internal battery with 3 hours of operation per charge OR Vehicle power of 12 VDC while in Mobile Mount | | | | | |
| Configuration Methods | StrataSync using Mobile Tech App via Bluetooth | | | | | |
| | USB connection from Leakage Detector to local PC running Seeker Setup Software | | | | | |
| | • Ethernet or WiFi connection from Seeker MCA III to the LAW Server while the Leakage Detector is located in the Mobile Mount | | | | | |

| Seeker MCA III (Optional) | | | | | |
|---------------------------------------|--|--|--|--|--|
| Standard Communications Interfaces | 10/100 RJ45 connection to fleet management systems WiFi (802.11 a/b/g/n) to operator-controlled and configured hot-spot | | | | |
| Early Detection Notification (EDN) | Email notification of threshold exceeding leaks | | | | |

VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

- Maximize your time with on-demand training, priority technical application support and rapid service.
- Maintain your equipment for peak performance at a low, predictable cost.

Plan availability depends on product and region. Not all plans are available for each product or in every region. To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: <u>viavisolutions.com/viavicareplan</u>

Features

| | | | | | | | | | 5-year plans only |
|---------------------|--|-------------------------|-------------------|---------------------|------------------------|---------------------------------------|------------------------|-----------------------|-------------------|
| Plan | Objective | Technical Assistance | Factory Repair | Priority Service | Self-paced Training | 5 Year Battery and Bag Coverage | Factory Calibration | Accessory Coverage | Express Loaner |
| BronzeCare | Technician Efficiency | Premium | \checkmark | \checkmark | \checkmark | | | | |
| SilverCare | Maintenance & Measurement Accuracy | Premium | \checkmark | \checkmark | \checkmark | √* | \checkmark | | |
| O MaxCare | High Availability | Premium | \checkmark | \checkmark | \checkmark | \checkmark^{\star} | \checkmark | \checkmark | \checkmark |



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*5-year plans only