

- Generates Proprietary Dual CW Carriers for use with the Seeker D and Seeker D Lite Digital Leakage Detectors
- Operates in both the Aeronautical (135–139 MHz) & LTE (610.5–615 MHz) Frequency Bands
- Adjustable Output from 10 to 30 dBmV
- Carriers Injected at ~30 dB Below Adjacent Digital Carriers, Eliminating the Risk of Affecting Digital Services
- 8 Available Tag Settings for Digital Leakage



Overview

The new CT-4™ is a 1U rack-mounted unit that is located in the headend that provides an uncompromising tagging solution for active analog or digital systems.

When several CATV systems operate in the same area, it is often difficult to determine which system is the source of a detected leak. The CT-4 is designed to deal with the problem of leakage identification in up to 8 overbuilt situations.

Used as a system with Trilithic's leakage receivers, the CT-4 eliminates all "false alarm" triggers and increase leak detection sensitivity by four times over un-tagged systems.

Next-Gen Digital Tagging

The CT-4™ works in conjunction with the new Seeker D™ and Seeker D Lite Digital Leakage Detectors to accurately detect and measure signal leakage within the LTE and aeronautical frequency bands.

The Seeker D detects the proprietary signal from the CT-4 with an unsurpassed sensitivity of 2 to 2000 uV/m (20 to 2000 uV/m for the Seeker D Lite) with measurements that are scaled to an analog or QAM carrier of your choice.

Consequently, readings taken from the existing Seeker meter and the new Seeker D and Seeker D Lite meters produce similar results in the aeronautical band, if the low band correlation of the Seeker D and Seeker D Lite is set to analog.

Whether testing for leaks in both digital and analog systems, or monitoring aeronautical bands or LTE, the CT-4 used in conjunction with the Seeker D and Seeker D Lite provides all of the capability to find and fix leaks quickly, accurately, and effectively.

Traditional Channel Tagging

The new CT-4 can also act as a traditional CT-2 or CT-3 analog tagger. When used with legacy Trilithic leakage detectors, this feature provides the ability to detect tagged leaks and ignore untagged leaks, saving time from false alarms from signals not originating in your system.

The CT-4™ solves this problem by tagging the system video carrier (CT-2 operation mode) or an integrated carrier (CT-3 operation mode) with a low-frequency modulation.

With the tag function switched on, the Searcher Plus GT, Super Plus, Seeker Lite², Seeker, and Seeker SE leakage detectors are immune to false alarming.

These leakage detectors all contain special circuitry that is sensitive only to the tagged signal from the CT-4, and rejects any signals that do not contain it.

Warbling Identifier Tone

Searcher Plus, Searcher Plus GT, or Super Plus analog leakage detectors generate an audible tone that varies in pitch with leak strength. A leak that has been tagged using the CT-2 or CT-3 operation mode of the CT-4 causes the audible tone to "warble," rising and falling in pitch at the rate of three oscillations per second. If the distinctive warbling sound is not detected, the operator can be sure that the leak did not originate in his system.

Easy to Install

The CT-4 is very simple to install where RF signals reside. When being used in either the CT-4 or CT-3 operation modes, the CT-4 is simply installed in a rack location near a combiner. Otherwise, the CT-4 can be used with any type modulator in the CT-2 operation mode by simply feeding the analog carrier through the CT-2 and then out to the combiner.

innovative technology to keep you a *step ahead*

GENERAL SPECIFICATIONS

Input / Output Impedance	75 Ω (nominal)
Controls	Front Panel Select & Enter Buttons
Display	Two-Line LCD, 16 Characters per Line
Communication	10/100 Base-T Ethernet (for factory use only)
Power	AC Power: 90 to 370 VAC, 47-440 Hz, 0.75 A or DC Power: -36.8 to -74.9 VDC, 3 A
Size	1U (1.75") Rack Enclosure
Operating Temperature	50 to 104 °F (10 to 40 °C)

CT-2 OPERATION MODE SPECIFICATIONS

Compatibility	Searcher Plus, Searcher Plus GT, Super Plus, Seeker Lite ² , Seeker & Seeker SE Leakage Detectors
Modulation Type	Sine Wave
Tag Modulation Frequency	3 Hz Warble Tone, 10 to 23 Hz (excluding 16 Hz)
3 Hz Tag Depth of Modulation	0.0 to 3.0 dB
Input Return Loss	> 15 dB from 100 to 160 MHz
Output Return Loss	> 13 dB from 100 to 160 MHz

CT-3 OPERATION MODE SPECIFICATIONS

Compatibility	Searcher Plus GT, Super Plus, Seeker Lite ² , Seeker & Seeker SE Leakage Detectors
Carrier Type	Sine Wave
Tag Modulation Frequency	3 Hz Warble Tone, ±0.1 Hz 10 to 23 Hz (excluding 16 Hz), ±0.1 Hz
3 Hz Tag Depth of Modulation	0.0 to 3.0 dB, ±0.2 dB
Carrier Frequency	107.0000 to 157.5000 MHz, ±2.5 ppm Adjustable in 3.125 kHz Steps
Carrier Output Level	40.00 to 60.00 dBmV, ±2 dB
Spurious Outputs	-60 dBc Minimum
Output Return Loss	> 13 dB from 100 to 160 MHz

CT-4 OPERATION MODE SPECIFICATIONS

Compatibility	Seeker D and Seeker D Lite Leakage Detectors
Carrier Type	Proprietary Dual CW for Low & High Bands
Tag Signatures	8 available carrier spacings
Carrier Frequency	Low Band: 135–139 MHz High Band: 610.5–615 MHz Adjustable in 12.5 kHz Steps
Carrier Output Level	10.00 to 30.00 dBmV, ±2 dB
Low Band Offset	-15.00 to 10.00 dB from High Band, ±1 dB
Spurious Outputs	-40 dBc Minimum
Output Return Loss	> 12 dB from 50 to 1000 MHz 18 dB typical @ 138 MHz 14 dB typical @ 612 MHz

INCLUDES THE FOLLOWING:

CT-4 with 120 to 240 VAC Power Supply and AC Power Cable
P/N 2011632000

CT-4 with -48 VDC Power Input
P/N 2011632001

RELATED PRODUCTS:

Seeker D Digital Leakage Detector
P/N 2011655001

Seeker D Lite In-Home Leakage Detector
P/N 2011726000

Seeker MCA III
P/N 2011690000

LAW Integrated Server Package
P/N 2011190200