<< Kaltman Creations WiFi Spectrum Analyzers

Kaltman Creations HF 60100 (105) 1MHz - 9.4 GHz RF Analyzer System

- 1MHz 9.4GHz RF Analyzer System
- Peak Power Detector 10GHz (Opt)
- Level Min -130dbm (-170dbm Opt)
- Level Max +10dbm (+30dbm Opt)
- Attenuation "Auto", 0, 10, 20, 30dB
- Filter Bandwidth Min 1KHz
- Filter Bandwidth Max 50MHz
- 0.5PPM Stability
- Accuracy +/- 1dB
- Real-time PC Analysis
- Unlimited Marker Points
- Peak, RMS and Hold Functions
- Internal & PC Logging





The Kaltman Creation's HF 60100, Version 4, is used to find radiation sources in your surroundings; their respective frequencies and signal strengths, including direct display of exposure limits. The highly complex calculations in spectrum analysis incl. exposure limit calculation is being performed, unnoticed in the background, by a high-performance DSP (digital signal processor). This ultra-fast processor even allows REAL-TIME display in all EMF (LF) versions of the SPECTRAN® series.

Professional RF measurement devices use a frequency dependant measurement approach, the so-called spectrum analysis. In a certain frequency range, the individuals signals and their respective strengths are being broken down, for example into a "bargraph" display (see SPECTRAN® screenshots on the right). The height of the individual bars represents the corresponding signal strength. For the 3 strongest signal sources, SPECTRAN® automatically displays the exact frequency and signal level, thanks to its "Auto Marker" feature. Of course, you can also setup the filter width and the frequency range to be analyzed as you like.

In the RF spectrum shown, a frequency range of approx. 100MHz to 7GHz from left to right is being analysed (full sweep). During analysis, the Auto Marker feature has determined - fully automatic - three main signal sources:

Signal#1=942MHz (GSM communications) at -63dBm

Signal#2=2024MHz (UMTS) at -23dBm

Signal#3=5832MHz (802.11a WLan) at -42dBm

Thanks to its DIRECT frequency display of the individual signal sources, a doubtless mapping of measurement results to the corresponding radiation sources is possible.

SPECTRAN® measurement devices with data logger allow long-term recordings of measurement results over a freely adjustable period of time. This is particularly indispensable for SERIOUS evaluation of exposure by appliances and machinery which have a changing power consumption or radiation strength over time. Examples for these include railroads, power lines and plants, but also home appliances and their respective power cables, and various high-frequency transmission facilities like mobile phone transmission towers, mobile phones, radar etc. Depending on the time of day, CONSIDERABLE variation of exposure can occur (see attached graphics). WITHOUT long-term recordings, MASSIVE misinterpretation of total exposure can occur. With long-term data logging

using SPECTRAN®, the daily variation of exposure can be recorded and analyzed. Thus, the ACTUAL total exposure can be evaluated precisely.

With this functionality, you can even discover sporadic EMC problems which would otherwise be very hard to detect. Even though SPECTRAN® units "only" last 4 or 7 (depending on model) hours with one battery charge, the intelligent "Power down mode" enables much longer data logging and measurement time spans. Finally, if this is not enough, the external power supply can be used to extend the recording time span infinitely.

The HF2025E can calculate even several authoritative exposure limits, precautionary limits and recommendations (simply selectable via a button) and display these as a practical bargraph display (including convergence display in percent), while the measurement is running.

At the push of a button, the ICNIRP exposure limit has been chosen among the various available exposure limits. SPECTRAN® now automatically calculates convergence of this limit. For achieving this, often thousands of complex calculations have to be performed per second, and a steady scan of the entire frequency range needs to be performed.

The huge, high resolution digital LC display more than 80x60 mm in size. It has been developed especially for SPECTRAN® and uses FSTN quality for crystal clear display. It covers a vast amount of display capabilities:

- Big graphics display (pixel display) with 51x25 pixels (can be used for complex spectrum and exposure limit display, convenient menu navigation, etc.)
- HUGE numeric display (4 digits, max. 9999)
- Large, high-resolution bargraph (50 segments) for very responsive trend display
- Various function and mode indication display blocks (AUDIO, MODE, MEMORY etc.)
- Large multi-function text display (6 text fields / e.g. for displaying units, service information, etc.)
- Three further big numeric displays (4 digits each, each max. 9999 / e.g. for simultaneous display of MIN, MAX, AVG values, 3 marker values, etc.)
- Triple multi-function text displays (Next to each of the previously described numeric displays / 3x3 text fields each / used e.g. for unit display for markers, etc.)
- Three more multi-function text displays (directly beneith the previously described displays / 3x6 text fields each / e.g. ADDITIONAL values AND unit display for markers, etc.)
- Battery status and charging display (incl. "CHARGING" and "LOW")
- 6 numerical displays for flexible bargraph scaling (incl. multiplication factor and percentage display)

Thanks to the vast amount of flexible display options, this device can display various readings, such as a bargraph and a spectral display simultaneously, without the bothersome need to switch back and forth.

| | Ordering Information | | |
|------------|---|------------|------------|
| Model | Description | Buy Online | Price |
| HF60100 | Kaltman HF 60100 (105) 1MHz - 9.4 GHz RF Analyzer System | Buy Now | \$4,975.00 |
| | Included Accessories | | |
| | 1 - Detachable miniature rod antenna 1 - HyperLOG 7060 or 6080 EMC/directional antenna 1 - 1300mAh power battery with charger 1 - User Manual 1 - Detachable handle with miniature tripod mode 1 - SMA toolset 1 - SMA adapter 1 - 1m SMA cable Sturdy aluminum-design carry case | Included | |
| | Optional Accessories | | |
| Model | Description | Buy Online | Price |
| | Bundles | | |
| PROBUNDLE3 | Kaltman Pro-Bundle-3 V4 EMC/RF Bundle: Contains HF 60100 and NF-5030 | Buy Now | \$5,600.00 |

Kaltman Creations AirHorn Pro 2.4 GHz Channel Signal Generator / Transmitter (11 chan. Wi-Fi 802.11) -... Page 3 of 3

| Accessories | | | |
|-------------|---|---------|----------|
| INTPREAMP | Kaltman Int Pre-Amp Internal Pre-Amp (V4 models only) | Buy Now | \$295.00 |
| 10GHZDETECT | Kaltman 10GHz Detect Peak Detect (V4 Only) | Buy Now | \$737.00 |

Kaltman Creations Catalog | Kaltman Creations Price List

\$20.00 Minimum on Total Order

Can't find the product you're looking for? fill out our form

<u>Home Page | Test Equipment Catalog | Specials | Repair</u>
<u>We Buy Surplus | Ordering/Contact Info</u>

99 Washington Street, Melrose, MA 02176 781.665.1400 | 800.517.8431 | Fax: 781.665.0780 | Email: <u>Sales Department</u>

Copyright $\ensuremath{\mathbb{G}}$ 1996-2009 Fotronic Corporation $\it All\ Rights\ Reserved$