

Automates Tropo Performance Monitoring

General Information

TropoData, a new software package for monitoring Troposcatter communications, brings new precision and reliability to system performance measurements. Using your IBM PC or any 100% PC compatible computer, you can simultaneously collect carrier intensity and noise power ratio or bit error rate (BER) data. Under TropoData control, the computer will automatically scale the data and write it to disk memory for later retrieval and analysis.

TropoData eliminates the slow, old fashioned collection of data on strip chart recorders, the manual data scaling and analysis, which yields uncertain results at best. Both accuracy and cost effectiveness show marked improvement when the task is computerized with TropoData.

A Correlation Bonus

An outstanding feature of the TropoData program is its ability to determine baseband performance by measuring carrier intensity alone. Using the software, the computer constructs a scatter plot from short-term values of carrier intensity and noise power ratio or BER. A quadratic curve can then be fitted to the data, with carrier intensity as an independent variable. The resulting plot represents baseband performance as a function of carrier intensity. Performance of a path can be measured by monitoring carrier intensity alone.

Report Options

TropoData displays results on the VDU for initial evaluation. Multiple combinations of this data can then be forwarded to a plotter (the program set is compatible with most popular models) for presentation in graphic form. Up to four distributions of carrier intensity can be plotted on a single page, allowing evaluation of four receivers on a single path or carrier intensity determinations on the same receiver during four different time periods.



```
**File : A:08-09-00.DAT          Date : 08-09-00
**Receiving:  Site A

For the 5-minute period ending at: 10:45:00
The 5-minute median Carrier Intensity in dBm is:

^Channel 1: Rec. # 1H  -39
^Channel 2: Rec. # 1V  -33
^Channel 3: Rec. # 2H  -45
^Channel 4: Rec. # 2V  -45
^Channel 5: Mean BER   0e-07

-----

For the Present 5-minute Period: 10:45:27_

Channel 1 Channel 2 Channel 3 Channel 4
  -49      -40      -40      -55

** Distant PA #1 Power Output Reduced 4 dB **
** Distant PA #2 Power Output Reduced 0 dB **

^Key F2 End   ^Key F4 Note  ^Key F6 Calibrate  ^Key F10 Reset
```

Performance monitor display

For additional information, contact our marketing department:

Comtech Systems, Inc.

2900 Titan Row, Suite 142 Orlando, Florida 32809

Telephone: (407) 854-1950 Fax: (407) 851-6960

E-Mail: csisales@comtechsystems.com

www.comtechsystems.com



Automates Tropo Performance Monitoring

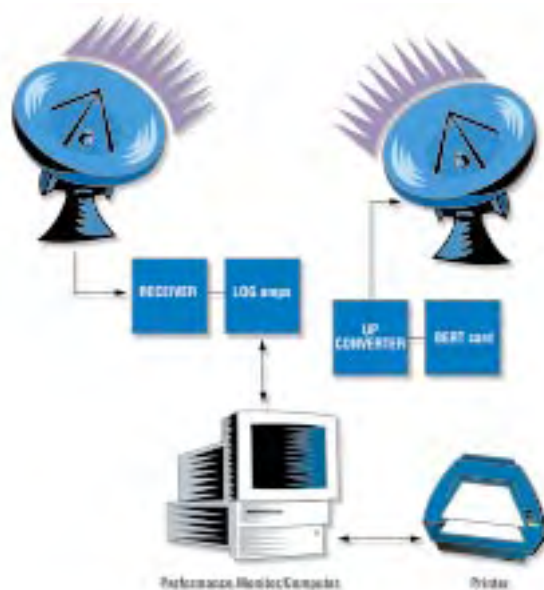
Comtech Systems, Inc.,
is certified to the quality standard:
ISO 9001: 1994



Rack containing performance monitor and power control with ancillary equipment.

- Measures the performance of two separate paths at relay stations.
- Measures up to four channels of carrier intensity and one channel of over-the-air noise power ratio simultaneously on analog paths.
- Measures up to four channels of carrier intensity at a time and one channel of bit error rate (BER) simultaneously on digital paths.
- Measures carrier intensity or noise power ratio across a 60 dB dynamic range (-105 to -45 dBm for carrier intensity, 0 to 60 dB for noise power ratio).
- Performs G.821 link quality assessment.
- Median carrier intensity and noise power ratio or BER are transferred to disk after each five minute period.
- TropoData calibration method is essentially identical to that used for strip chart recorders.
- All calibration values, date and time of calibration, transmit power levels and system notes are recorded to disk for future reference during data analysis.
- Carrier intensity and noise power ratio medians are resolved to 0.3 dB, rounded to the nearest dB and stored to disk as integers.
- One floppy disk stores more than three weeks of carrier intensity and noise power ratio or BER data.
- Editing, correction and/or deletion can be performed on single data items or on data blocks. Original data files remain untouched; edits appear on backups only.
- Distributions can be plotted for any combination of time periods.
- Station performance can be verified by plotting the relationship between carrier intensity and baseband performance.
- A TropoData training program is available to shorten learning curves.

Specifications subject to change without notice.



For additional information, contact our marketing department:

Comtech Systems, Inc.

2900 Titan Row, Suite 142 Orlando, Florida 32809

Telephone: (407) 854-1950 Fax: (407) 851-6960

E-Mail: csisales@comtechsystems.com

www.comtechsystems.com

