PCM-5350
POWER COMMUNICATIONS MONITOR

DATA SHEET

Advanced Frequency Selective Monitoring for Analog Communications

INTRODUCTION

The Power Communications Monitor provides the capability to constantly monitor and store user defined events that may be critical in properly maintaining and evaluating system communication issues and mis-operations for Power Line Carrier and Audio Tone protection systems. It provides the utility a full time monitoring device which can help extend the testing maintenance cycles that are presently being defined by the new NERC PRC-005 standard.

FEATURES & BENEFITS

Multi-Channel
Monitor up to five channels, each programmable for Frequency, Bandwidth and Function Type (2-FSK, 3-FSK, ON-OFF or Noise).

Event Recorder
Record up to 32,000 time stamped events based on changes in frequency, level, reflected power & noise.

Spectral Analysis
Capture event driven or real-time spectral analysis of the communication path. Event driven captures can record up to 400 ms of pre-event spectral data.

Real-Time View
Extend maintenance cycles by remotely accessing real-time measurements and a time stamped status report of all channels.

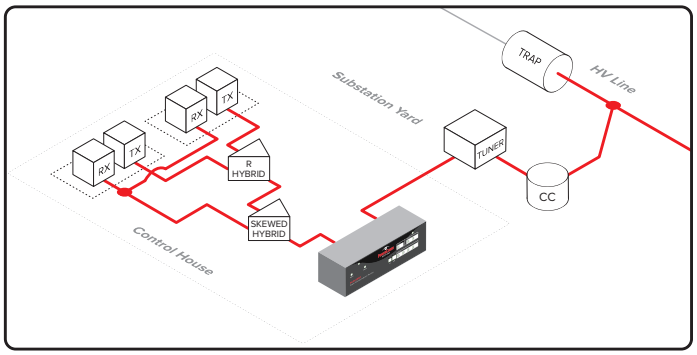
Trending
Trend reflected power, level & noise to monitor for gradual channel degradation.

Accurate Measurement
Install the PCM-5350 between the last hybrid and the line tuner to get “un-skewed” reflected power and level measurements.

Remotely Access with Confidence
The PCM-5350 cannot affect the existing protection system parameters (for example Guard & Trip frequencies). Designed to be your primary remote source for critical communication data.

Alarms
Program Alarm Outputs and Front Panel LED’s for any event type or program an alarm output for multiple event types.

CARRIER SYSTEM INTEGRATION



APPLICATIONS

- Maintenance checks with NO outage required.
- Spectral analysis synchronization with DFR's or relay's.
- Mis-operation evaluation and diagnosis.
- Review captured in-band spectral analysis of trip/fault occurrence for noise intrusion.
- Set alarms and record events for level and reflected power changes.
- Set out-of-band noise detection alarms.
- Initiate remote keying of ON-OFF carrier for capture of signal level and reflected power.
- Monitor audio tone communication circuits used for pilot protection.

SPECIFICATIONS

RF INPUTS	
Frequency Accuracy	±3ppm, ±5ppm max for 10 years
Frequency Temperature Stability	±1.5ppm
Tuning Accuracy	1 Hz
Frequency Display Resolution	7 Digit; 1 Hz
Amplitude accuracy	±0.1 dB
Insertion Loss	0.1 dB
Bridged Z	1Ω to 9999 Ω
Bandwidths	10 kHz 1200 Hz (±500) 600 Hz (±250) 360 Hz (±150) 240 Hz (±100) 180 Hz (±75) Wideband (30 kHz - 600 kHz)

Power Line Carrier Configuration	
Connection Type	BNC and UHF
Frequency Range	30 kHz to 500 kHz
Max Input	206 Vrms / 292 Vp 2.0 Arms max

Audio Tone Configuration	
Connection Type	Terminal Blocks
Frequency Range	300 Hz to 4 kHz
Max Input	10 Vrms

POWER SUPPLY	
Input Voltage	24, 48, 125, or 250 Vdc
Power Requirements	7 Watts
Redundancy	Optional

INPUTS	
2 Inputs - Optically Isolated	
Voltages	Jumper Configurable 5, 24, 48, 125, or 250 Vdc

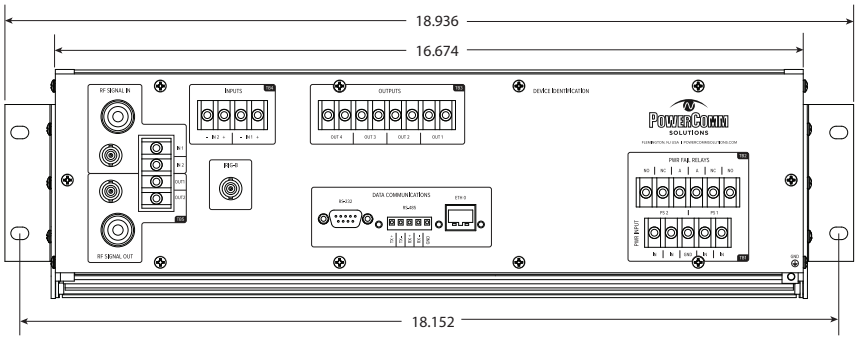
OUTPUTS & ALARMS	
Relays	4 Programmable Solid State 125Vdc @ 1A
Power Fail	2 Form C 125Vdc @ 0.5A
LEDs	8 Event Programmable, Red 4 Relay Status, Red 2 Input Status, Red 1 Power Status, Green

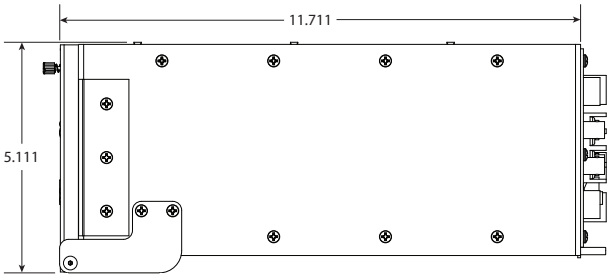
IRIG-B TIMECODE INPUT	
Connector	1 REAR, BNC
Signal Type	Software Programmable for Modulated (10Vpp max) or Unmodulated (5V TTL)

MEASUREMENTS	
Voltage Level	dBm and Vrms
Current	Arms
Power	Watts
SWR	Ratio, dB and Percent
Bridge Z	Ohms
Bandwidth	Hz

COMMUNICATION PORTS	
USB	1 FRONT, Type B 12 Mbps (v2.0)
Ethernet	1 FRONT, 1 REAR, RJ-45 10BASE-T / 100BASE-TX
RS-422/485	1 REAR, Terminal Block 9600 - 115200 baud
RS-232	1 REAR, 9 Pin D-sub 9600 - 115200 baud

ENVIRONMENTAL	
Temperature Range	-20°C to +60°C
Relative Humidity	95% Max, non-condensing @ +40°C (104°F)





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