



FDM Analyser and Demultiplexer

FDMAD

System Overview

The system accepts FDM multiplexed signals in 150 Hz to 20 MHz range and carries out spectral Analysis, Scanning, Demultiplexing, SSB Demodulation and Analysis of demodulated signal. The system is capable of Demultiplexing input FDM Baseband signal into 24 distinct voice grade channels which may contain either voice or digitally modulated data. Any two audio outputs are available locally to the stereo headphones. The system offers a remote controller interface by which the system can be operated from another terminal connected on the Local Area Network.

Salient Features

The system is used to analyze and demultiplex the FDM multiplexed signal containing either standard CCITT hierarchies or Non-standard formats. The functionalities include:

- Display of spectrum with selected frequency span and zoom with any selected Super Master group (SMG), Master Group (MG), Super group (SG) and Group for Standard FDM signal.
- Measurement of Tone frequency, Bandwidth, Level and Level difference.
- Conversion of input base band signal to a final IF centered at 8 KHz.
- Carrying out spectrum scan and SSB demodulation.
- Providing fine-tuning in 1 Hz step and Automatic Gain control (AGC) of the digitized data.
- Reconstruction of 24 voice grade channels (VGC) into audio.
- Reconstruction of any two selected voice grade channels (VGC) into audio for front panel headphone jack left and right channels.
- Provision of necessary function selections on the front panel for scanning and demodulation operations.
- Provision of remote control facility to send/receive commands/results/GUIs to any remote controller through Remote Interface (LAN).
- Automatic signal analysis and classification up to 12 selected channels simultaneously.
- Characterization of Signal as Voice / Data / Signaling Tones /Fax/ No activity.
- Classification of Data signals into FSK / PSK / VFT-FSK / QAM & extraction of digital data.

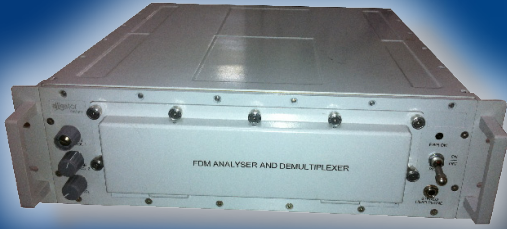


INNOVATION COMMUNICATIONS SYSTEMS LTD

(an ISO 9001-2008 Company)

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Technical Specifications

- No of base band inputs One
- Input Frequency Range 50 Hz to 20 MHz
- Input impedance 75 ohms unbalanced
- Input level range - 30 to 0 dBm (composite base band)
- No of tunable channels 24
- Tuning Resolution 1 Hz
- Tuning range of channels Independently tunable over the frequency range of 150 Hz- 20 MHz
- Signal Detection Mode SSB upright and inverted spectrum
- Types of tuning modes
 - A) direct frequency tuning
 - B) channel tuning
 - C) CCITT 960 frequency plan
 - D) CCITT 2700 frequency plan
- Types of Scan Modes Programmable (start, stop, step) or formatted(SMG,BMG, BSG,BG) based on CCITT 960 & 2700 frequency plan)
- Audio Outputs
 - a) No. of Audio outputs 24 (any of the 24 demodulators output can be routed to any of the 24 audio outputs)
 - b) Output level 1 Vrms on 600 ohms
 - c) Output frequency range 300 to 3400 Hz
 - A) Provides Automatic Signal Classification for up To 12 Selected Channels Simultaneously.
 - B) Characterizes Signals As Voice, Data, Signaling Tone, Fax Or No Activity.
 - C) Classification Of Data Signals As FSK / PSK/ QAM/ VFT-FSK and Extraction Of Digital Data.
 - D) GUI to display the signal classification information through the remote interface.
- Local Control Monitor, Keypad, Cursor and Edit Control Knobs and Head phone Volume Controls
- Remote Interface LAN
- Mechanical 19" Rack Mountable
- Power supply 230 v AC, Single Phase,50 Hz
- EMI/EMC Mil-STD 461E
- Environmental MIL-STD 810 D/E -10° to +55° C
- Dimensions 19" Rack Mountable, 2U(Height) x 540mm (Depth)

Note : The Specifications can be changed without prior notice due to technological advances



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