

Time and Frequency Frequency Distribution Unit Model: 8451



Application - Defense (Military) ■ SatCom ■ Wireless

- Range Timing
- Communications Networks
- Satellite Ground Stations
- Station/BITS Clock Distribution
- Test and Measurement Systems

Features

- Frequency and Digital Distribution
- 12 Outputs, Single Input
- 3 Vrms Output Drive Into 50Ω
- Low Spurious and Phase Noise
- 80 dB Port to Port Isolation



Description:

The Model 8451 may be used in a wide variety of signal distribution applications including sine wave, time code, and digital signals, through the range of DC - 10 MHz. Power supply voltages are post regulated and output buffers are all individually regulated, insuring very low output spurious noise levels. Fault sensing is provided on each output channel and all channels are summed together providing one common fault output.

Specifications:

Input Characteristics

Frequency: DC - 10 MHz
 Impedance: 50Ω nominal
 Level: 1.0 Vrms nominal
 Protection: Protected to 24 V peak to peak

Fault Status: Fault interface is 74HC type, logic level is "low" for fault
 Dimensions: 1.72 High (1U), 19 inches wide, and 14 inches deep (exclusive of connectors and handles)

Output Characteristics

Channels: Twelve
 Impedance: 50Ω nominal
 Level: 0.0 to 3.0 Vrms, each output individually adjustable

Harmonic
 Distortion: $\leq -40\text{dBc}$ at 3.0 Vrms Output

Non-Harmonic
 Distortion: $\geq -80\text{dBc}$ at 3.0 Vrms Output

Isolation Output
 to Output: $-80\text{ dBc @ } 10\text{ MHz}$

Phase Noise: $-150\text{ dBc noise floor}$

Protection: Outputs may be shorted to ground with no damage. Output buffers are thermally protected

Weight: 9.5 pounds with optional slides
 Finish: Anodized clear, brushed aluminum

Operating
 Temperature: $0^{\circ}\text{C to } +50^{\circ}\text{C}$
 Humidity: 95% relative, non-condensing, with modules

Power: Single power supply standard or redundant power supplies optional. 100 - 240 VAC, 48 - 440 Hz. 35 watts maximum power consumption. IEC-320 power input connector

Signal/Fault
 Connectors: BNC

Specifications subject to change without notice.

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