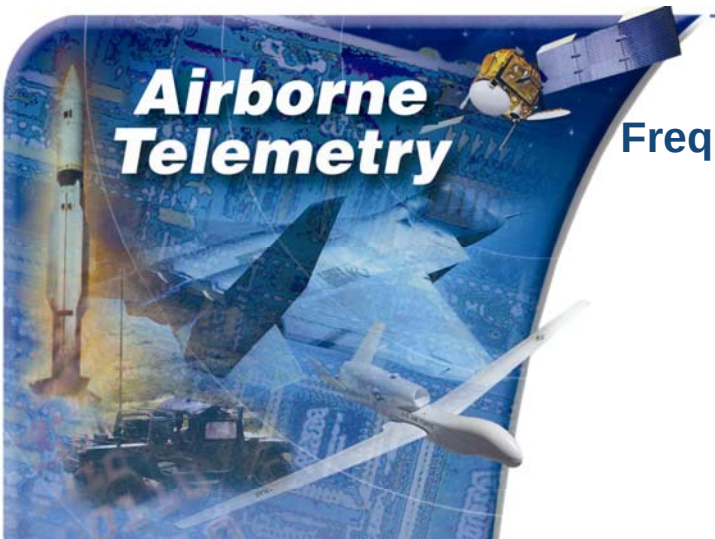

MSC1000-008
Frequency to Digital Conversion Module (2 Channel)

Airborne Data Acquisition Products

FEATURES

- **Each channel is independently programmable via DASM software**
- **Two modes of operation: Raw counts mode and Engineering Unit mode**
- **In the raw counts mode, the module will provide 2 words (up to 32 bits) of a counter which represents the number of 100 nSec pulses in one period of the input signal. The conversion is:**

$$\text{Frequency} = \frac{10^7}{\text{Counts}}$$

- **In the engineering Unit mode, the module puts out a percentage such that the full scale is 100% of the top frequency entered. The conversion is:**

$$\text{Freq.} = \frac{\text{Counts}}{\text{FullScaleCounts}} \times \text{FullScaleFreq}$$

L3 communications
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Excellence You Can Measure

DESCRIPTION

The MSC1000-008 is a Frequency to Digital Conversion module designed to measure the frequency or period of an input signal. The module provides the ability to multiply results by a factor so that the results are in 12-bit binary output.

ELECTRICAL SPECIFICATIONS

Differential Input Characteristics (Per Channel)

- Input impedance: 1 Megohm minimum
- Input waveform can consist of distorted sinusoidal signals (third harmonic distortion) and pulses.
- Input signal amplitude: 20 mV to 75 V peak-to-peak
- Input frequency rates: 20 Hz to 20 Khz in accumulate mode; 30 Hz to 15 Khz in frequency measurement mode

Cal Types

- NCAL: responds with 80% of full scale output.
- ZCAL: responds with 10% of full scale output.

Output (Per Channel)

- Samples at 10 samples per second maximum.

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