5310
Programmable Synchro/Resolver Simulator

- **Variable Programmable**
- **Tracking Rate**
- **3.0 VA Output**
- **18-bit/0.01° Resolution**
- **36 arc-second Accuracy**
- **Wideband: 47-440 Hz or 360 Hz-5 kHz**
- **Manual/Remote Operation**
- **Optional IEEE-488**
- **Switchable BCD or Binary Programming**

GENERAL

The Model 5310 can be used as a bench-top synchro/resolver Simulator or as a completely programmable device for ATE systems. Designed to drive control-type synchros and resolvers, typical applications include production testing, simulation systems and general purpose automatic synchro/resolver testing. The 5310 replaces the previous series 538 Digital to Synchro/Resolver converters.

Variable Programmable Tracking Rate, a unique feature of the Model 5310, allows the user to change the tracking rate during the cycle to more accurately simulate "real world" operation of the system under test. Tracking rates can be changed at 25ms intervals via the bus simulating most systems which do not normally operate at fixed rates.

Contained within the same compact package size as our popular 8810 Angle Position Indicator, the 5310 features fully isolated inputs and outputs and is protected against accidental short circuits and overloads on the output and over-voltage and transients on the power line input.

Standard features include full remote programmability for line-to-line level, reference levels, synchro or resolver mode and output angle. The IEEE-488 GPIB interface is available as an option. The 5310 also has full front-panel controls for manual operation.

The 5310 has been designed using state-of-the-art technology with reliability and maintainability as major considerations. Serviceability is enhanced by the wide use of IC sockets.

Low cost and small size, together with performance and features never before available in a programmable simulator, make the 5310 ideally suited for many commercial and military applications.

SPECIFICATIONS

Input

Local Controls: 5 decade lever wheel switches for angle select. Push-buttons for SYN/ RSVR mode, line-to-line level, power on-off, local/remote
Remote Controls: Format

18-bit binary or BCD, switch selectable TTL/DTL/LSTTL compatible:
0V = logic 0, +5V = logic 1

Data Strobe: Positive-going transition of the strobe latches all remote inputs. Load one LSTTL
Ref. Excitation:

26V or 115V ±10%
47-440 Hz isolated or
26V or 115V ±10%
360 Hz-5 kHz isolated
Input Z @ 400 Hz 50 kohm

Output
Analog Data: Synchro or Resolver
Voltage: 11.8V_{L-L}, 26V_{L-L} or 90 V_{L-L}
Resolution: 0.0014° binary, 0.01° BCD
Accuracy:

0.01° (36 sec) @ 60 Hz or 400 Hz (No Load)
0.03° (1.8 min) @ 60 Hz or 400 Hz (1.5VA Load)
0.06° (3.6 min) @ 60 Hz or 400 Hz (3 VA Load)

Scale Factor
Variation: ±0.1% max.
Power Output: 3.0 VA (consult factory for specifications at other frequencies and loads.)
Power: 115V/230 VAC, 47-440 Hz (0.5A at 115 VAC) 6 ft line cord
Temperature: 0 to 50° operating
Dimensions: 9.50" x 3.47" (panel) x 14.5" (standard half-rack mountable)
Weight: 13.5 lbs.
Mating connector P/N 783718 supplied with unit

How to Order

5310 - F _ _

- Frequency
  - 1 = 360 Hz - 5000 Hz
  - 2 = 47 Hz - 440 Hz
- Interface
  - 1 = Parallel Interface
  - 2 = Native IEEE Interface

For Example:
5310-F22 has a frequency range of 47-440 Hz and includes the IEEE Interface.