Radar Synchronizer / Antenna Controller 595986 (9602-20)



LabVolt Series

Datasheet



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General Description

The Radar Synchronizer / Antenna Controller is used for Pulse Repetition Frequency (PRF) generation and synchronization of the radar system. It also controls the operating parameters of the radar antenna.

The synchronizer includes a PRF generator equipped with push buttons to select the PRF and either single or staggered mode. Two sets of outputs are used for synchronization, one at the selected PRF and one at 1024 times the selected PRF.

The antenna controller provides three control modes for the radar antenna: manual mode, where speed (clockwise or counterclockwise) is manually controlled; PRF locked mode, which synchronizes the rotation of the antenna to the system PRF; and SCAN/TRACK mode for 120-degree scanning. A three-digit display that can be switched to show antenna position or speed is provided. The controller accepts feedback signals from the encoder on the rotating antenna pedestal and generates a command signal for output to the antenna motor driver. The controller also generates azimuth information required by other system modules.

Unregulated dc power is automatically supplied to the Radar Synchronizer / Antenna Controller through self-aligning connectors when it is installed on the Power Supply / Antenna Motor Driver.

Specifications

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Parameter	Value
Radar Synchronizer	
PRF	12, 18, 144, 216, 288 Hz
Mode	Single, Staggered
Outputs	A & B TTL
Antenna Controller	
Antenna Rotation Speed Range	0 to 15 r/min.
Azimuth Output	10-bit TTL
Output Voltage Range	-15 to +15 V max.

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