



2152 DBS DIGITAL BIT SYNC

FEATURES

- Single slot module
- Serial data and clock output
- 120Ω input impedance
- 1 Kbps through 20 Mbps operation—NRZ codes
- 1 Kbps through 10 Mbps operation—BiØ codes



PURPOSE OF MODULE

The DBS plug-in module accepts serial digital data, recovers the clock for the data and transmits both data and clock.

OVERVIEW

The DBS provides a cost effective means of reconstructing a clock from data-only signal lines and recovering the data. Bit code conversion is provided at both the input and output interfaces. The input to the DBS is an RS-422 signal on triax type connectors and the outputs are also RS-422 signals on triax type connectors. Remote control is provided by either a serial (AL4301) or Ethernet (AL4302) link.

SPECIFICATIONS

INPUT

- Signal:
 - ◇ RS-422; Differential
 - ◇ Minimum differential threshold voltage: 250mV
 - ◇ Hysteresis: 25mV
 - ◇ Common mode range: 0V to +5V
 - ◇ Overvoltage range (without damage): -7V to +12V
- Termination: 120Ω line to line
- Connector: Triax
- Rates:
 - ◇ 1 Kbps to 20 Mbps—NRZ codes
 - ◇ 1 Kbps to 10 Mbps—BiØ codes
- Codes: NRZ-L, M, S; BiØ-L, M, S; RNRZ-15

CLOCK RECOVERY

- Tracking: 6.2%, 3.1%, 1.6%, 0.7%
- Capture: equal to tracking range
- Acquisition: < 250 bits
- Retention: Retains synchronization in input signals with transition gaps up to 100 bits occurring once every 500 bit times

OUTPUT

- Signal:
 - ◇ RS-422; Differential
 - ◇ Minimum differential output with 50Ω load: 2.0V
 - ◇ Nominal common mode output voltage: 2.5V
- Signal Format:
 - ◇ 0° clock & data
 - ◇ 51/75 Ω driver
- Connector: Triax
- Codes: NRZ-L, M, S; RNRZ-15

COMPATIBILITY

- AL4300 / AL6300 Chassis
- Limited to 1ms SI timing

ENVIRONMENTAL

- Operating temperature: 0° to 50° C
- Relative humidity: 15% to 95%; non-condensing
- Altitude: Sea level to 10,000 feet