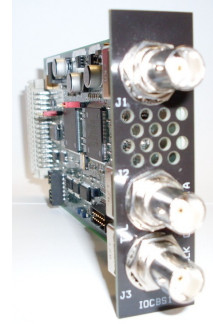




IOCRM4 CLOCK RECOVERY MODULE



FEATURES

- Clock recovery from data only
- RS-422 Input
 - ◊ Accommodates baseline shifts and variations
- Bit rate from 1 Kbps to 20 Mbps NRZ codes
 - ◊ 1 Kbps to 10 Mbps BiØ codes
- RS-422 level outputs
- Loop bandwidth from 0.7% to 6%
- Selectable input and output codes
 - ◊ BiØ-L/M/S, NRZ-L/M/S, and RNRZ
- 250 bit nominal acquisition
- Programmable features
 - ◊ Nominal bit rate
 - ◊ Tracking limit
 - ◊ Data detector type
 - ◊ Input code and polarity
 - ◊ Output code and polarity

OVERVIEW

The Model IOCRM4 provides a flexible, cost effective means of reconstructing a clock from data-only signal lines and recovering the data. It can handle signal corruptions commonly found in cable runs and RF links such as noise, baseline shifts, and amplitude variations. Bit code conversion is provided at both the input and output interfaces.

Up to fourteen IOCRM4 cards can be housed in the Model 2873 chassis. Optionally, by installing standard AL2073 interfacers modules, a wide variety of output signal formats may be produced.

SPECIFICATIONS

INPUT

- Signal:
 - ◊ Data only
 - ◊ RS-422 Levels
- Termination: 75/120Ω
- 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 levels
 - ◊ 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

ENVIRONMENTAL

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