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Find the *Philips 4400-TF* at our website: ***Click HERE***

4400 - TF



4400 – TF
PCM Bit Synchronizer

Features

- Supports Input PCM Data rates up to 10 Mbps
- K^2 Filter & Filter Sample detection modes
- All PCM Codes Including DM, Miller^2, & RNRZ
- Selectable Loop Bandwidths From (0.0% to 1.5%)
- Stand-alone or Daughter-card Operation
- Outputs NRZ-L data & coherent clock (0° &90°)
- Options Bi-polar tape driver output

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Summary

4400-TF is a tunable, high performance PCM bit synchronizer module. The bit synchronizer supports input data rates up to 10 Mbps. Phillips Designed the 4400-TF to operate in a stand-alone mode or as a daughter card for 4422 Series Decommutators. In spite of its small size, the Mode 4400-TF's performance can rival most stand-alone bit synchronizer.

With Phillips' exclusive K^2 Filter-Sample detection modes, users can optimize bit synchronizer performance. The 4400-TF features an implementation loss that is typically less than 1 bB from the theoretical Bit Error Performance Curve.

The 4400-TF offers selectable features such as loop bandwidth, PCM input/output code, and derandomizer (on/off). An optional bi-polar tape driver output is also available on the 4400-TF.

You program the 4400-TF via the host module's (PC or VME) bus interface. Bit synchronizer status readback is available over the same interface.

Specifications

Performance:

Input Data Rate:	250 bps to 10.0 Mbps (NRZ Codes) 250 bps to 5.0 Mbps (all other Codes)
Input PCM Code:	NRZ-L/M/S BIØ-L/M/S DM-M/S M2 RZ RNRZ-L (211-1 & 215-1)
Inputs:	Input signal amplitude 0.4 V to 10 V (peak-to-peak)
Input signal offset:	Two times the peak-to-peak value (within 20 V window)
Input signal impedance:	75 ohms (or 50 ohms) or 10 kohms (selected)
Loop bandwidth:	0.1% to 1.5% of bit rate (selectable)
Bit Error Probability:	Within 1 dB from theoretical BER Curve (NRZ-L & BIØ-L typically 0.5 dB

Outputs- (buffered TTL & RS-422):

Data:	NRZ-L & BIØ-L
Clock:	0° to 90°

Programming:

Via host module's interface including: Input source, bit rate, PCM code, loop bandwidth, detection method & derandomizer

Soft Readback:

Via host module's interface including: Signal present, loop stress, bit sync lock, bit rate, PCM Code & loop bandwidth

Mechanical:

Dimensions:	3.7"H x 7.7"W
Form Factor:	3.7" x 7.7" (Custom)
Connectors:	6-pin (2 x 13) & 34-pin (2 x 17)
Manufacturing:	Hybrid of standard components & Surface Mount Technology (SMT)

Environmental:

Operating:	Temperature: 0° to 50° C
Humidity:	Must prevent contact with moister & contaminants
Special handling:	Standard ESD handling methods recommended

Ordering Information

Part Number: 4400 –TF

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