



CAUTION
This product requires a PXI/cPCI Chassis with replaceable card guides per the Eurocard mechanical specification

PX466S Signal Distribution Module

The PX466S provides distribution of clock signals to other devices. The module accepts three analog input signals and provides TTL and ECL distribution. The input signals are passed through high speed comparators that convert the analog level to a digital signal. The digital signals are individually buffered to provide the TTL and ECL outputs. Internal connectors and the use of backplane triggers facilitate integration with other modules.

Overview:

Maximum Frequency: 100MHz

Inputs

- INA (front panel, M-I/F, or internal)
- INB (front panel, M-I/F, or internal)
- TRIGIN (front panel or internal)

Outputs:

- Two ECL *
- Eight TTL (two groups of four) *
- Two Trigger Outputs (internal)

Input Level Adjust:

Front panel INA and INB use a window comparator to provide a large input hysteresis. TRIGIN uses a single input comparator. Levels are software programmable or they can be set to factory default levels to allow operation without programming. Non-volatile potentiometers retain programmed settings when power is off.

* Each ECL output can be sourced from Input A or B. Each group of four TTL outputs can be sourced from Input A or B.

M-module Triggers:

The source of INA and INB can be from the front panel connector, internal connector, or either M-module backplane trigger. The trigger outputs can be directed to either or both M-module triggers.

Front Panel I/O Connectors:

- INA: MMCX Jack
- INB: MMCX Jack
- TRG IN: MMCX Jack
- TTLOUT1-8: MMCX Jack
- ECLOUT1-2: DSUB 9-pin

Internal Connectors:

Internal MMCX connectors for INA, INB, TRIGIN, TRGOUT1, and TRGOUT2 ease integration with other M-modules.

CPCI/PXI Compliance

Complies with PCI spec. 2.0 R3.0 and PCI spec 2.2

5V and 3.3V signaling voltage (VIO) supported

5V only power supply

33MHz PCI data bus

Five trigger lines compliant with PXI Specification 2.1
Form Factor: Size 3U

Applications

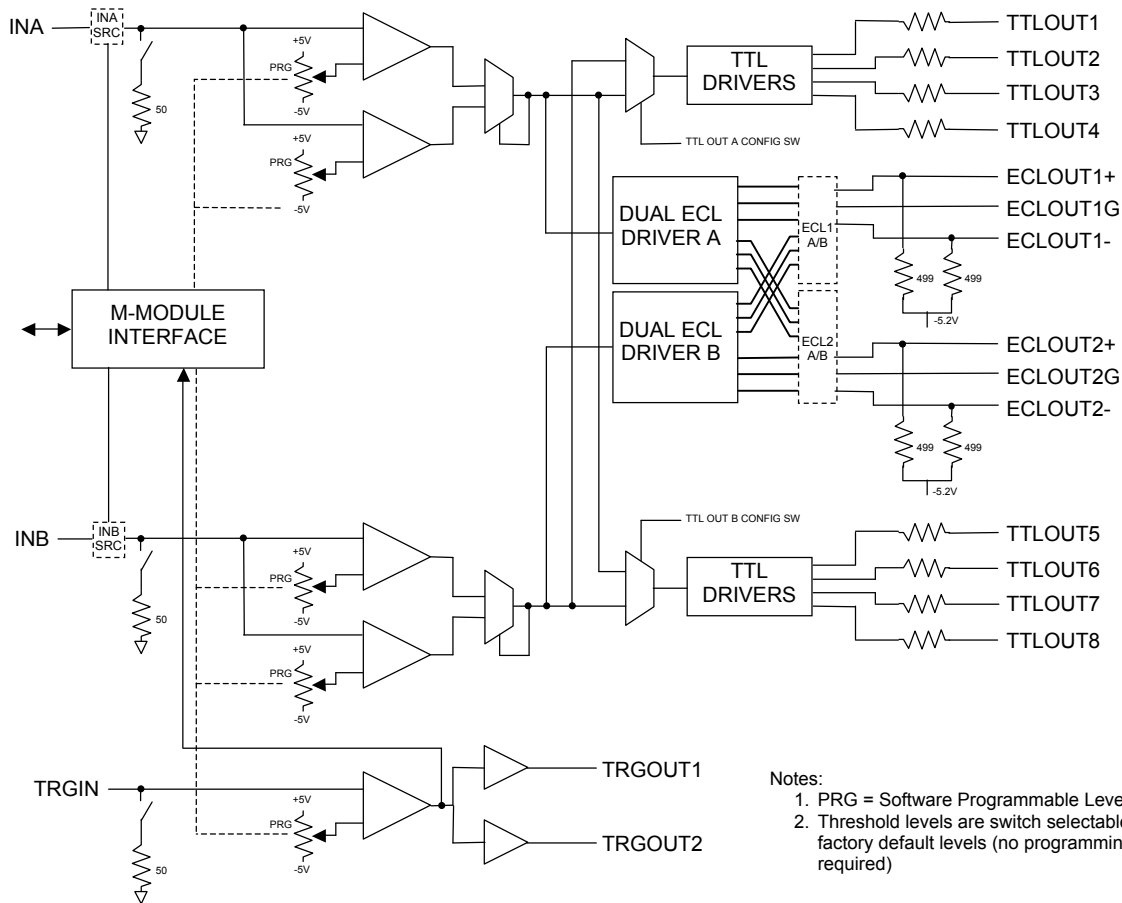
- Functional testing
- Design verification
- Signal and clock distribution
- Analog Input to ECL translation
- M-module trigger output

Ordering Information

Part Number 11030250-0001

Additional Information

User Manuals for C&H carriers and this module can be found on our website at www.chtech.com.



- Notes:
1. PRG = Software Programmable Level
 2. Threshold levels are switch selectable to factory default levels (no programming required)

Specifications:

Common Input Characteristics:

Voltage Range	-5.0V to +5.0V
Input Impedance	50Ω or Hi-Z ¹
Level Adjust Resolution	39mV (8 bit)
Level Adjust Accuracy	
50Ω In Imp.	±7% + 150mV
Hi-Z In Imp.	±10% + 150mV

INA/INB Input Characteristics:

High Threshold Level Range ²	-5.0 to +5.0V
Low Threshold Level Range ²	-5.0 to +5.0V
Fixed Factory Default Levels	
High Level	+2.15V
Low Level	+1.85V

Trigger Input Characteristics:

Threshold Level Range	-5.0 to +5.0V
Fixed Factory Default Level	+2.0V

TTL Output Characteristics:

Impedance ³	12.5Ω
Output Levels (Load = 50Ω)	$V_{OL} \leq 0.5V$ $V_{OH} \geq 3.0V$
Propagation Delay	
from INA/INB to TTL Output	≤ 21ns
from MTRIG to TTL Output	≤ 30ns

ECL Output Characteristics:

Type	10K Series ECL
Termination	499Ω pull downs (-5.2V) on both lines
Propagation Delay	
from INA/INB to ECLOUT	≤ 7ns
from MTRIG to ECLOUT	≤ 21ns

Trigger Output Characteristics:

Impedance	50Ω
Output Levels (Load = 50Ω)	$V_{OL} \leq 0.4V$ $V_{OH} \geq 2.5V$
Width	≥ 3ns
Propagation Delay (TRIGIN to TRIGOUT)	≤ 21ns
Skew (between TRGOUT1 & TRGOUT2)	≤ 1.0ns

Power:

+5V	1.6 A
+12V	0.050 A
-12V	0.4 A

Temperature:

Operating	0°C to 50°C
Storage	-40°C to 70°C

Notes:

1. Input impedance is switch selectable. Hi-Z is around 10KΩ.
2. For proper operation, the high level must be greater than the low level.
3. Four 50Ω output drivers are used in parallel.