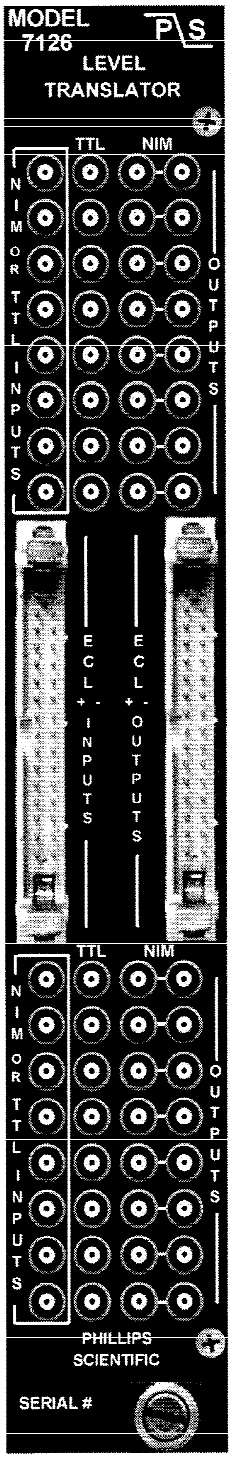
Phillips Scientific

16 Channel Logic Level Translator

CAMAC MODEL 7126

FEATURES

* Converts TTL, NIM and ECL Logic Families
* High Density - 16 Independent Channels
* DC - 150 MHz for NIM and ECL Translation
* DC - 100 MHz for TTL Translation
* Low Power - Meets Requirements for Single CAMAC Slot
* Available in NIM Packaging Model 726



DESCRIPTION

The model 7126 is a 16-channel level translator packaged in a double width CAMAC module. It simultaneously converts in any direction between NIM, TTL and ECL logic families. In addition, a logical "OR" is possible for the ECL input and the NIM/TTL input. The input to output is direct coupled with the output duration equal to the input duration. Each channel has a single input connector which accepts a fast negative NIM level with 50 ohm input impedance and a positive TTL level with 1000 ohm impedance. This produces a positive TTL output capable of driving a 50 ohm load and a bridged NIM output that drives two 50 ohm loads. The NIM output stage is current-switching which allows pulse clipping and is protected from damage due to shorted cables.

INPUT CHARACTERISTICS

NIM/TTL : 16 inputs, one per channel, LEMO style connector; accepts both negative NIM or positive TTL pulses or levels.

NIM: 50 ohms impedance ±10%; –500mV threshold; input protected to ±8 VDC.

TTL: 1000 ohm impedance ±10%; +1.2Volt threshold; input protected to ±8 VDC.

ECL Input : 16 inputs one per channel; 2 x 17 pin header with lock and eject feature; accepts complementary ECL inputs; removable 110 ohm input termination; 200mVolt differential threshold.

OUTPUT CHARACTERISTICS

NIM Outputs : Two NIM outputs per channel; bridged; -32mA current switching, LEMO style connectors; delivers one double amplitude NIM level or two normal NIM levels into a 50 ohm load; 1.5nSec rise and fall times.

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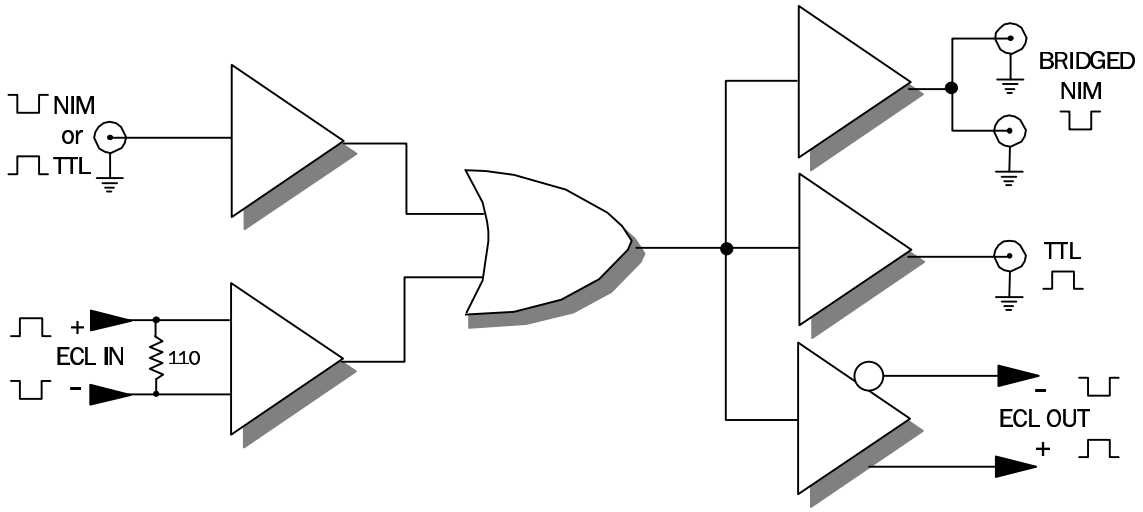
OUTPUT CHARACTERISTICS (continued)

TTL Output	:	*One TTL output per channel, LEMO style connector; sources 45mA to drive 50 ohm load or 1000 standard TTL loads, sink current of 100mA; able to drive 100 standard TTL loads. 3.5nSec rise and fall times.*
ECL Output	:	*Complementary ECL, one per channel; 2 x 17 pin header with lock and eject feature; drives two 110 ohm ECL loads or up to 30 daisy-chained loads. Normal ECL levels of –800mVolt and –1.7Volts, 2nSec rise and fall times.*

GENERAL CHARACTERISTICS

Rate	:	*DC to 150 MHz for NIM and ECL translation.* *DC to 100 MHz for TTL translation.*
Minimum Pulse Widths	:	*4nSec for NIM and ECL translation,* *7nSec for TTL translation.*
Delay	:	*NIM, TTL or ECL input to NIM or ECL output = 5nSec.* *NIM, TTL or ECL input to TTL output = 10nSec.*
Power Requirements	:	*+ 6 V @ 450 mA – 6 V @ 1290 mA* *+24 V @ 110 mA –24 V @ 110 mA*
Packaging	:	*Double width CAMAC module in accordance with ESONE Report EUR 4100.*

BLOCK DIAGRAM OF ONE CHANNEL



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